



Wednesday, February 03, 2010

REQUEST NUMBER: 10-1568

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
EPA:353.2	SW-846:6010B	1	RE15-10-8328	W	2/1/2010	
		1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
SW-846:6020		1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8328	W	2/1/2010	
SW-846:6850		1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8328	W	2/1/2010	

Wednesday, February 03, 2010

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6850	1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8328	W	2/1/2010	
	SW-846:7470A	1	RE15-10-8328	W	2/1/2010	
		1	RE15-10-8300	R	2/1/2010	
	SW-846:7471A	1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
	SW-846:9012A	1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8328	W	2/1/2010	
	SW-846:9045C	1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	

Wednesday, February 03, 2010

Page 4 of 4  
REQUEST NUMBER: 10-1568

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
SW-846:9045C						
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	

Final Page of REQUEST NUMBER 10-1568



Wednesday, February 03, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1568

**LOS ALAMOS**

REQUEST NUMBER: 10-1568

**NATIONAL LABORATORY**

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/5/2010

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
RE15-10-8328	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8328	1	POLY	NO3NO2	Sulfuric Acid (Hydrogen Sulfate)	W
RE15-10-8328	1	POLY	SW-846:6850	Ice	W
RE15-10-8328	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8304	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8304	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8305	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8305	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8306	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8306	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8307	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8307	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8309	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8309	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8308	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8308	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8301	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8301	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8300	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8300	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8324	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8324	1	POLY	Perchlorate+CN+N03+pH	Ice	R

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: 2506

EVENT NAME: 4th Qtr. FY09 - SWMU 15-009(b) - Threemile Canyon

SAMPLE ID: RE15-10-8300

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/01/2010		MEDIA:		QBT3	
TIME COLLECTED (HH:MM)		1309		SUB-MEDIA:		TUFF 1	
PRS ID:	15-009(b)	OK		SAMPLE TECH CODE:		HA	
LOCATION ID:	15-610829	↓		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	SED		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+8270+NME D-EXP	500 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	
1	✓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: <sup>RS 02-01-10</sup> dark brown moist sand numerous rocks and few roots  
brown

SAMPLE COMMENTS:

NA

LOCATION DESC: 9b-6 drainage

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 5 dpm  
Beta/Gamma ≤ 1900 dpm

HE NEG

PID Ambient 0.0  
Reading 0.0 ppm

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT)

TL McFarlane

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Nickolas Gallegos	2-1-10	(Printed Name) Sheri Sherwood	2-1-10
(Signature)	4:14	(Signature)	1614
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2506

EVENT NAME: 4th Qtr. FY09 - SWMU 15-009(b) - Threemile Canyon

SAMPLE ID: RE15-10-8301

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/01/2010		MEDIA:	QBT3		OK
TIME COLLECTED (HH:MM)		1317		SUB-MEDIA:	TUFF 1		↓
PRS ID:	15-009(b)	OK		SAMPLE TECH CODE:	HA		OK
LOCATION ID:	15-610829	↓		FIELD QC TYPE:	NA		↓
LOCATION TYPE:	GENERIC	↓		FIELD PREP:	NA		↓
TOP DEPTH:	0	1.0		SAMPLE USAGE:	INV		↓
BOTTOM DEPTH:	0	2.0		SCREEN/PORT DESC:	NA		
FIELD MATRIX:	R	OK		EXCAVATED: YES/NO/NA	NO		
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
BOREHOLE: YES/NO/NA	NO			BOREHOLE DECLINATION:	NA		
				BOREHOLE DIRECTION:	NA		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+8270+NME D-EXP	500 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	
1	✓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: pinkish gray tuff, roots

FR: RE15-10 - 8328

SAMPLE COMMENTS:

NA

LOCATION DESC: 9b-6 drainage

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 33 dpm  
Beta/Gamma ≤ 2280 dpm

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

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT)

TLMcFarlane

RELINQUISHED BY (Printed Name) Nickolas Gallegos	Date/Time 2-1-10 4:14	RECEIVED BY (Printed Name) Sherry Sherwood	Date/Time 2/1/10 1614
(Signature) [Signature]		(Signature) [Signature]	
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2506

EVENT NAME: 4th Qtr. FY09 - SWMU 15-009(b) - Threemile Canyon

SAMPLE ID: RE15-10-8304

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/01/2010		MEDIA:		OBT3	
TIME COLLECTED (HH:MM)		1110		SUB-MEDIA:		TUFF 1	
PRS ID: 15-009(b)		OK		SAMPLE TECH CODE:		HA	
LOCATION ID: 15-610831		↓		FIELD QC TYPE:		NA	
LOCATION TYPE: GENERIC		↓		FIELD PREP:		NA	
TOP DEPTH: 0		1.0		SAMPLE USAGE:		INV	
BOTTOM DEPTH: 0		2.0		SCREEN/PORT DESC:		NA	
FIELD MATRIX: R		SED		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	normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+ N03+pH	500 ML POLY	Ice	Y	
1	✓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: moist grey, black and brown silty sand, some roots, organic matter, rocks

SAMPLE COMMENTS:

NA

LOCATION DESC: 9b-9 drainage

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 11 dpm  
Beta/Gamma ≤ 2250 dpm

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

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY (Printed Name) Nikola Gallegos (Signature) <i>[Signature]</i>	Date/Time 2-1-10 415	RECEIVED BY (Printed Name) Sherrill Sherwood (Signature) <i>[Signature]</i>	Date/Time 2/1/10 1615
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2506

EVENT NAME: 4th Qtr. FY09 - SWMU 15-009(b) - Threemile Canyon

SAMPLE ID: RE15-10-8305

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		2010 02/01/10	MEDIA:	OBT3	RS 02-01-10 ATTN SED		
TIME COLLECTED(HH:MM)		1056	SUB-MEDIA:	TUFF 1	NA OK		
PRS ID:	15-009(b)	OK	SAMPLE TECH CODE:	HA	OK		
LOCATION ID:	15-610831	↓	FIELD QC TYPE:	NA	↓		
LOCATION TYPE:	GENERIC	✓	FIELD PREP:	NA	↓		
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓		
BOTTOM DEPTH:	0	1.0	SCREEN/PORT DESC:	NA	↓		
FIELD MATRIX:	R	SED	EXCAVATED: YES/NO	NA			
COMPOSITE TYPE:	NA		COMPOSITE TIME INTERVAL:	NA			
BOREHOLE: YES/NO	NA		BOREHOLE DECLINATION:	NA			
			BOREHOLE DIRECTION:	NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	
1	✓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: black + brown organic rich clayey silt, with roots and bark, pin needles, moist,

SAMPLE COMMENTS:

NA

LOCATION DESC: 9b-9 drainage

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 22 dpm  
Beta/Gamma ≤ 9130 dpm

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

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT) TL McFarland

RELINQUISHED BY (Printed Name) Nicholas Gallegos	Date/Time 2-1-10	RECEIVED BY (Printed Name) Sherri Sherwood	Date/Time 2/1/10
(Signature) <i>[Signature]</i>	4114	(Signature) <i>[Signature]</i>	1614
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2506

EVENT NAME: 4th Qtr. FY09 - SWMU 15-009(b) - Threemile Canyon

SAMPLE ID: RE15-10-8306

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/01/2010		MEDIA: OBT3		SED	
TIME COLLECTED (HH:MM)		1130		SUB-MEDIA: TUFF 1		OK	
PRS ID: 15-009(b)		OK		SAMPLE TECH CODE: HA		OK	
LOCATION ID: 15-610832		↓		FIELD QC TYPE: NA		↓	
LOCATION TYPE: GENERIC		✓		FIELD PREP: NA		↓	
TOP DEPTH: 0		0.0		SAMPLE USAGE: INV		↓	
BOTTOM DEPTH: 0		1.0		SCREEN/PORT DESC: NA			
FIELD MATRIX: R		SED		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	8260B	125 ML SEPTUM AMBER GLASS	Ice	y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	y	
1		H3	500 ML POLY	Ice	y	
1		METALS+U-GEL	125 ML POLY	Ice	y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	y	
1	✓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	y	

SAMPLE DESC: brown silty clay, organic matter, roots, wood, rocks  
moist

FD: RE15-10-8324

SAMPLE COMMENTS:

NA

LOCATION DESC: 9b-8 drainage

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 11 dpm  
Beta/Gamma ≤ 2050 dpmHE NEG  
PID  $\frac{\text{Ambient Reading}}{0.0} \frac{0.0}{0.0} \text{ppm}$ 

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT) TLMcFarlane

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Nicholas Gallegos	2-1-10	(Printed Name) Sherri Sherwood	2/1/10
(Signature) [Signature]	4:14	(Signature) [Signature]	1614
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2506

EVENT NAME: 4th Qtr. FY09 - SWMU 15-009(b) - Threemile Canyon

SAMPLE ID: RE15-10-8307

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/01/2010		MEDIA:		QBT3	
TIME COLLECTED (HH:MM)		1141		SUB-MEDIA:		TUFF 1	
PRS ID:	15-009(b)	OK		SAMPLE TECH CODE:		HA	
LOCATION ID:	15-610832	↓		FIELD QC TYPE:		NA	
LOCATION TYPE:	GENERIC	↓		FIELD PREP:		NA	
TOP DEPTH:	0	1.0		SAMPLE USAGE:		INV	
BOTTOM DEPTH:	0	1.5		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	normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: brown moist clay silt, some wood, gray tuff fragments, roots

SAMPLE COMMENTS:

NA

LOCATION DESC: 9b-8 drainage

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  11 dpm  
 Beta/Gamma  $\leq$  1824 dpm

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

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY (Printed Name) Nicholas Gallegos (Signature)	Date/Time 2-1-10 4:14	RECEIVED BY (Printed Name) Sheri P. Newwood (Signature)	Date/Time 2/1/10 1614
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2506

EVENT NAME: 4th Qtr. FY09 - SWMU 15-009(b) - Threemile Canyon

SAMPLE ID: RE15-10-8308

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/01/2010		MEDIA:	QBT3		SED
TIME COLLECTED (HH:MM)		1200		SUB-MEDIA:	TUFF 1		OK
PRS ID:	15-009(b)	OK		SAMPLE TECH CODE:	HA		OK
LOCATION ID:	15-610833	↓		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	SED		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	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: greyish brown rocky sand

SAMPLE COMMENTS:

NA

LOCATION DESC: 9b-7 drainage

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  11 dpm  
Beta/Gamma  $\leq$  1245 dpm

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

COLLECTED BY (PRINT)

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY

(Printed Name) Nicholas Gallegos  
(Signature) [Signature]

Date/Time  
2-1-10  
4:15

RECEIVED BY

(Printed Name) Sherrif Newwood  
(Signature) [Signature]

Date/Time  
2/1/10  
1615

RELINQUISHED BY

Date/Time

RECEIVED BY

Date/Time



## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2506

EVENT NAME: 4th Qtr. FY09 - SWMU 15-009(b) - Threemile Canyon

SAMPLE ID: RE15-10-8309

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/01/2010		MEDIA:	OBT3		OK
TIME COLLECTED (HH:MM)		1253		SUB-MEDIA:	TUFF 1		↓
PRS ID:	15-009(b)	OK		SAMPLE TECH CODE:	HA		OK
LOCATION ID:	15-610833	↓		FIELD QC TYPE:	NA		↓
LOCATION TYPE:	GENERIC	↓		FIELD PREP:	NA		↓
TOP DEPTH:	0	1.0		SAMPLE USAGE:	INV		↓
BOTTOM DEPTH:	0	2.0		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	NA			BOREHOLE DECLINATION:	NA		
				BOREHOLE DIRECTION:	NA		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U-GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+N03+pH	500 ML POLY	Ice	Y	
1	✓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Light brown tuff, few roots

SAMPLE COMMENTS:

NA

LOCATION DESC: 9b-7 drainage

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 27 dpm  
Beta/Gamma = 2650 dpm

PID Ambient Reading 0.0 ppm

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT) T L McFarlane

RELINQUISHED BY (Printed Name) Nickolas Gallegos (Signature) [Signature]	Date/Time 2-1-10 4:18	RECEIVED BY (Printed Name) Sherrish Newwood (Signature) [Signature]	Date/Time 2/1/10 1615
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2506

EVENT NAME: 4th Qtr. FY09 - SWMU 15-009(b) - Threemile Canyon

SAMPLE ID: RE15-10-8324

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/01/2010		MEDIA:		OBT3	
TIME COLLECTED (HH:MM)		1130		SUB-MEDIA:		TUFF 1	
PRS ID: 15-009(b)		OK		SAMPLE TECH CODE:		HA	
LOCATION ID: UNK		15-610832		FIELD QC TYPE:		ED	
LOCATION TYPE: GENERIC		OK		FIELD PREP:		NA	
TOP DEPTH: 0		0.0		SAMPLE USAGE:		QC	
BOTTOM DEPTH: 0		1.0		SCREEN/PORT DESC:		NA	
FIELD MATRIX: R		SED		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	normal	8302-01-10 8082+8270+NME D-EXP	500 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U- GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+ N03+pH	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE15-10-8306

brown silty clay, organic matter, roots, wood, rocks  
mast

SAMPLE COMMENTS:

NA

LOCATION DESC: 9b-8 drainage

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  11 dpm  
Beta/Gamma  $\leq$  2050 dpmHE NEG  
PID Ambient 0.0  
Reading 0.0 ppm

COLLECTED BY (PRINT)

R Saunders

REVIEWED BY (PRINT)

TLMcFarlane

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Nicholas Gallagos	2-1-10	(Printed Name) Sherrif Sherwood	2/1/10
(Signature) [Signature]	4:15	(Signature) [Signature]	165
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2506

EVENT NAME: 4th Qtr. FY09 - SWMU 15-009(b) - Threemile Canyon

SAMPLE ID: RE15-10-8328

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/01/2010		MEDIA:	NA		OK
TIME COLLECTED (HH:MM)		1330		SUB-MEDIA:	OTHER		
PRS ID:	15-009(b)	OK		SAMPLE TECH CODE:	DC		
LOCATION ID:	UNK	15-610829		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 / <input checked="" type="radio"/> NO / NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
BOREHOLE: YES / <input checked="" type="radio"/> 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		NO3NO2	250 ML POLY	Sulfuric Acid (Hydrogen Sulfate)	NO	
1		SW-846:6850	250 ML POLY	Ice	Y	
1	✓	TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE15-10-8301

## SAMPLE COMMENTS:

as of 02-01-10, Rinstate

LOCATION DESC: 9b-6 drainage

## FIELD SCREENING/MEASUREMENT RESULTS:

NA

## COLLECTED BY (PRINT)

R Saunders

## REVIEWED BY (PRINT) TLMcFarlane

RELINQUISHED BY (Printed Name) <u>Nickolas Gallegos</u> (Signature) <u>[Signature]</u>	Date/Time <u>2-1-10</u> <u>04:15</u>	RECEIVED BY (Printed Name) <u>Sherris Newwood</u> (Signature) <u>[Signature]</u>	Date/Time <u>2/1/10</u> <u>1615</u>
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

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

EVENT ID: 2506

EVENT NAME: 4th Qtr. FY09 - SWMU 15-009(b) - Threemile Canyon

SAMPLE ID: RE15-10-8332

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/01/2010		MEDIA:	NA		OK
TIME COLLECTED (HH:MM)		1050		SUB-MEDIA:	OTHER		
PRS ID:	15-009(b)	RS 02-01-10 15-10-832		SAMPLE TECH CODE:	DC		
LOCATION ID:	UNK	15-610831		FIELD QC TYPE:	FTB		
LOCATION TYPE:	GENERIC			FIELD PREP:	NA		
TOP DEPTH:	0	OK		SAMPLE USAGE:	QC		
BOTTOM DEPTH:	0			SCREEN/PORT DESC:			NA
FIELD MATRIX:	S			EXCAVATED: YES/NO/NA	NO		
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
BOREHOLE: YES/NO/NA	NO			WATER FLOWING: YES/NO/NA	NO		
BOREHOLE DECLINATION:	NA			BOREHOLE DIRECTION:	NA		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
12/21/10						
1	Normal	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE15-10-8305

## SAMPLE COMMENTS:

FTB

## LOCATION DESC:

NA

## FIELD SCREENING/MEASUREMENT RESULTS:

NA

## COLLECTED BY (PRINT)

R Saunders

## REVIEWED BY (PRINT)

TLMcfarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Nicholas Gallegos	2-1-10	(Printed Name) Sheri Sherwood	2/1/10
(Signature) [Signature]	4:15	(Signature) [Signature]	1615
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):

RE 15-10-7332	8307
7333	8306
7334	8305
7335	8304
7336	7342
7337	7339
7338	7338
7339	7337
7340	7336
7341	7335
7342	7334
7343	7333
7344	7332
7345	7331
7346	7330
7347	7329
7348	7328
7349	7327
7350	7326
7351	7325
7352	7324
7353	7323
7354	7322
7355	7321
7356	7320
7357	7319
7358	7318
7359	7317
7360	7316
7361	7315
7362	7314
7363	7313
7364	7312
7365	7311
7366	7310
7367	7309
7368	7308
7369	7307
7370	7306
7371	7305
7372	7304
7373	7303
7374	7302
7375	7301
7376	7300
7377	7299
7378	7298
7379	7297
7380	7296
7381	7295
7382	7294
7383	7293
7384	7292
7385	7291
7386	7290
7387	7289
7388	7288
7389	7287
7390	7286
7391	7285
7392	7284
7393	7283
7394	7282
7395	7281
7396	7280
7397	7279
7398	7278
7399	7277
7400	7276
7401	7275
7402	7274
7403	7273
7404	7272
7405	7271
7406	7270
7407	7269
7408	7268
7409	7267
7410	7266
7411	7265
7412	7264
7413	7263
7414	7262
7415	7261
7416	7260
7417	7259
7418	7258
7419	7257
7420	7256
7421	7255
7422	7254
7423	7253
7424	7252
7425	7251
7426	7250
7427	7249
7428	7248
7429	7247
7430	7246
7431	7245
7432	7244
7433	7243
7434	7242
7435	7241
7436	7240
7437	7239
7438	7238
7439	7237
7440	7236
7441	7235
7442	7234
7443	7233
7444	7232
7445	7231
7446	7230
7447	7229
7448	7228
7449	7227
7450	7226
7451	7225
7452	7224
7453	7223
7454	7222
7455	7221
7456	7220
7457	7219
7458	7218
7459	7217
7460	7216
7461	7215
7462	7214
7463	7213
7464	7212
7465	7211
7466	7210
7467	7209
7468	7208
7469	7207
7470	7206
7471	7205
7472	7204
7473	7203
7474	7202
7475	7201
7476	7200
7477	7199
7478	7198
7479	7197
7480	7196
7481	7195
7482	7194
7483	7193
7484	7192
7485	7191
7486	7190
7487	7189
7488	7188
7489	7187
7490	7186
7491	7185
7492	7184
7493	7183
7494	7182
7495	7181
7496	7180
7497	7179
7498	7178
7499	7177
7500	7176
7501	7175
7502	7174
7503	7173
7504	7172
7505	7171
7506	7170
7507	7169
7508	7168
7509	7167
7510	7166
7511	7165
7512	7164
7513	7163
7514	7162
7515	7161
7516	7160
7517	7159
7518	7158
7519	7157
7520	7156
7521	7155
7522	7154
7523	7153
7524	7152
7525	7151
7526	7150
7527	7149
7528	7148
7529	7147
7530	7146
7531	7145
7532	7144
7533	7143
7534	7142
7535	7141
7536	7140
7537	7139
7538	7138
7539	7137
7540	7136
7541	7135
7542	7134
7543	7133
7544	7132
7545	7131
7546	7130
7547	7129
7548	7128
7549	7127
7550	7126
7551	7125
7552	7124
7553	7123
7554	7122
7555	7121
7556	7120
7557	7119
7558	7118
7559	7117
7560	7116
7561	7115
7562	7114
7563	7113
7564	7112
7565	7111
7566	7110
7567	7109
7568	7108
7569	7107
7570	7106
7571	7105
7572	7104
7573	7103
7574	7102
7575	7101
7576	7100
7577	7099
7578	7098
7579	7097
7580	7096
7581	7095
7582	7094
7583	7093
7584	7092
7585	7091
7586	7090
7587	7089
7588	7088
7589	7087
7590	7086
7591	7085
7592	7084
7593	7083
7594	7082
7595	7081
7596	7080
7597	7079
7598	7078
7599	7077
7600	7076
7601	7075
7602	7074
7603	7073
7604	7072
7605	7071
7606	7070
7607	7069
7608	7068
7609	7067
7610	7066
7611	7065
7612	7064
7613	7063
7614	7062
7615	7061
7616	7060
7617	7059
7618	7058
7619	7057
7620	7056
7621	7055
7622	7054
7623	7053
7624	7052
7625	7051
7626	7050
7627	7049
7628	7048
7629	7047
7630	7046
7631	7045
7632	7044
7633	7043
7634	7042
7635	7041
7636	7040
7637	7039
7638	7038
7639	7037
7640	7036
7641	7035
7642	7034
7643	7033
7644	7032
7645	7031
7646	7030
7647	7029
7648	7028
7649	7027
7650	7026
7651	7025
7652	7024
7653	7023
7654	7022
7655	7021
7656	7020
7657	7019
7658	7018
7659	7017
7660	7016
7661	7015
7662	7014
7663	7013
7664	7012
7665	7011
7666	7010
7667	7009
7668	7008
7669	7007
7670	7006
7671	7005
7672	7004
7673	7003
7674	7002
7675	7001
7676	7000
7677	6999
7678	6998
7679	6997
7680	6996
7681	6995
7682	6994
7683	6993
7684	6992
7685	6991
7686	6990
7687	6989
7688	6988
7689	6987
7690	6986
7691	6985
7692	6984
7693	6983
7694	6982
7695	6981
7696	6980
7697	6979
7698	6978
7699	6977
7700	6976
7701	6975
7702	6974
7703	6973
7704	6972
7705	6971
7706	6970
7707	6969
7708	6968
7709	6967
7710	6966
7711	6965
7712	6964
7713	6963
7714	6962
7715	6961
7716	6960
7717	6959
7718	6958
7719	6957
7720	6956
7721	6955
7722	6954
7723	6953
7724	6952
7725	6951
7726	6950
7727	6949
7728	6948
7729	6947
7730	6946
7731	6945
7732	6944
7733	6943
7734	6942
7735	6941
7736	6940
7737	6939
7738	6938
7739	6937
7740	6936
7741	6935
7742	6934
7743	6933
7744	6932
7745	6931
7746	6930
7747	6929
7748	6928
7749	6927
7750	6926
7751	6925
7752	6924
7753	6923
7754	6922
7755	6921
7756	6920
7757	6919
7758	6918
7759	6917
7760	6916
7761	6915
7762	6914
7763	6913
7764	6912
7765	6911
7766	6910
7767	6909
7768	6908
7769	6907
7770	6906
7771	6905
7772	6904
7773	6903
7774	6902
7775	6901
7776	6900
7777	6899
7778	6898
7779	6897
7780	6896
7781	6895
7782	6894
7783	6893
7784	6892
778	

## DATA VALIDATION COVER SHEET

5121-1

## Data Validation Cover Sheet

Records Use only



## Section I.

REQUEST NUMBER: 10-1568 VALIDATION DATE: 03/16/10 LAB CODE: GELCONTRACT LABORATORY NAME: GEL Laboratories LLCVALIDATOR: Susan Ball 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. The MS/MSD %R calculations were performed incorrectly. The parent sample results were < the MDLs and, thus, results of 0 µg/L or 0 µg/kg should have been used to calculate the %Rs. The laboratory subtracted the parent sample concentrations. The %Rs were within the acceptance limits when calculated correctly. In addition, the aqueous parent QC sample was from another LANL RN and raw data for the parent QC sample was not included in the data package. No sample results were qualified.

Reviewed by: Mary DonovanLevel: IDate: 03/17/10


VALIDATOR'S SIGNATURE: \_\_\_\_\_

DATE: 03/16/10


Form 5121-1, Revision 0.0

LOS ALAMOS

Environmental Restoration Project


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"/>	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	
<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"/>	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

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: WATER  
 Extraction Batch ID: 250041  
 Extraction Type: Filter/DAI  
 Client Sample No. RE15-10-8328  
 Date Received: 05-FEB-10  
 GEL Job No (SDG): 10-1568  
 GEL Sample ID: 246334001  
 Date Filtered: 12-FEB-10  
 Injection Volume (uL): 20

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	17-FEB-10 06:30	per0216097a
	Perchlorate Isotope Ratio						1	17-FEB-10 06:30	per0216097a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	17-FEB-10 06:30	per0216097a
	Perchlorate-O(18)			0.498	ug/L		1	17-FEB-10 06:30	per0216097a

<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: 252422  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE15-10-8304  
 Date Received: 05-FEB-10  
 GEL Job No (SDG): 10-1568-1  
 GEL Sample ID: 246336001  
 Date Filtered: 19-FEB-10  
 Injection Volume (uL): 20  
 %Solids: 80

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.628	2.51	0.628	ug/kg	U	1	28-FEB-10 22:52	per0228064a
	Perchlorate Isotope Ratio						1	28-FEB-10 22:52	per0228064a
14797-73-0	Perchlorate-101	.628	2.51	0.628	ug/kg	U	1	28-FEB-10 22:52	per0228064a
	Perchlorate-O(18)			6.36	ug/kg		1	28-FEB-10 22:52	per0228064a

<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: 252422

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8305

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1568-1

GEL Sample ID: 246336002

Date Filtered: 19-FEB-10

Injection Volume (uL): 20

%Solids: 62

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.811	3.25	0.811	ug/kg	U	1	28-FEB-10 23:19	per0228067a
	Perchlorate Isotope Ratio						1	28-FEB-10 23:19	per0228067a
14797-73-0	Perchlorate-101	.811	3.25	0.811	ug/kg	U	1	28-FEB-10 23:19	per0228067a
	Perchlorate-O(18)			8.31	ug/kg		1	28-FEB-10 23:19	per0228067a

<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: 952422  
 Extraction Type: Solid Prep  
 Client Sample No. RE15-10-8306  
 Date Received: 05-FEB-10  
 GEL Job No (SDG): 10-1568-1  
 GEL Sample ID: 246336003  
 Date Filtered: 19-FEB-10  
 Injection Volume (uL): 20  
 Sample Volume/Weight: 2.00 g  
 %Solids: 79  
 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	.635	2.54	0.635	ug/kg	U	1	28-FEB-10 23:28	per0228068a
	Perchlorate Isotope Ratio						1	28-FEB-10 23:28	per0228068a
14797-73-0	Perchlorate-101	.635	2.54	0.635	ug/kg	U	1	28-FEB-10 23:28	per0228068a
	Perchlorate-O(18)			6.29	ug/kg		1	28-FEB-10 23:28	per0228068a

<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: 252422  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE15-10-8307  
 Date Received: 05-FEB-10  
 GEL Job No (SDG): 10-1568-1  
 GEL Sample ID: 246336004  
 Date Filtered: 19-FEB-10  
 Injection Volume (uL): 20  
 %Solids: 86

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.584	2.34	0.584	ug/kg	U	1	28-FEB-10 23:37	per0228069a
	Perchlorate Isotope Ratio						1	28-FEB-10 23:37	per0228069a
14797-73-0	Perchlorate-101	.584	2.34	0.584	ug/kg	U	1	28-FEB-10 23:37	per0228069a
	Perchlorate-O(18)			5.64	ug/kg		1	28-FEB-10 23:37	per0228069a

<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

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: 252422  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE15-10-8309  
 Date Received: 05-FEB-10  
 GEL Job No (SDG): 10-1568-1  
 GEL Sample ID: 246336005  
 Date Filtered: 19-FEB-10  
 Injection Volume (uL): 20  
 %Solids: 89

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.56	2.24	0.560	ug/kg	U	1	28-FEB-10 23:46	per0228070a
	Perchlorate Isotope Ratio						1	28-FEB-10 23:46	per0228070a
14797-73-0	Perchlorate-101	.56	2.24	0.560	ug/kg	U	1	28-FEB-10 23:46	per0228070a
	Perchlorate-O(18)			5.57	ug/kg		1	28-FEB-10 23:46	per0228070a

<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

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: 952422

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8308

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1568-1

GEL Sample ID: 246336006

Date Filtered: 19-FEB-10

Injection Volume (uL): 20

%Solids: 72

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.691	2.76	0.691	ug/kg	U	1	28-FEB-10 23:55	per0228071a
	Perchlorate Isotope Ratio						1	28-FEB-10 23:55	per0228071a
14797-73-0	Perchlorate-101	.691	2.76	0.691	ug/kg	U	1	28-FEB-10 23:55	per0228071a
	Perchlorate-O(18)			6.91	ug/kg		1	28-FEB-10 23:55	per0228071a

<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: 952422

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8301

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1568-1

GEL Sample ID: 246336007

Date Filtered: 19-FEB-10

Injection Volume (uL): 20

%Solids: 94

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.532	2.13	0.892	ug/kg	J	1	01-MAR-10 17:12	per0301032a
	Perchlorate Isotope Ratio			3.2			1	01-MAR-10 17:12	per0301032a
14797-73-0	Perchlorate-101	.532	2.13	0.837	ug/kg	J	1	01-MAR-10 17:12	per0301032a
	Perchlorate-O(18)			5.39	ug/kg		1	01-MAR-10 17:12	per0301032a

<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  $\frac{\% \text{Solids}}{1}$

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: 952422

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8300

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1568-1

GEL Sample ID: 246336008

Date Filtered: 19-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	.721	2.88	0.721	ug/kg	U	1	01-MAR-10 17:21	per0301033a
	Perchlorate Isotope Ratio						1	01-MAR-10 17:21	per0301033a
14797-73-0	Perchlorate-101	.721	2.88	0.721	ug/kg	U	1	01-MAR-10 17:21	per0301033a
	Perchlorate-O(18)			7.49	ug/kg		1	01-MAR-10 17:21	per0301033a

<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: 952422  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE15-10-8324  
 Date Received: 05-FEB-10  
 GEL Job No (SDG): 10-1568-1  
 GEL Sample ID: 246336009  
 Date Filtered: 19-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	.632	2.53	0.717	ug/kg	J	1	01-MAR-10 17:30	per0301034a
	Perchlorate Isotope Ratio			3.13			1	01-MAR-10 17:30	per0301034a
14797-73-0	Perchlorate-101	.632	2.53	0.689	ug/kg	J	1	01-MAR-10 17:30	per0301034a
	Perchlorate-O(18)			6.84	ug/kg		1	01-MAR-10 17:30	per0301034a

<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

**DATA VALIDATION COVER SHEET**

5118-1

**Data Validation Cover Sheet**

Records Use only

**Section I.**REQUEST NUMBER: 10-1568 VALIDATION DATE: 03/16/10 LAB CODE: GELCONTRACT LABORATORY NAME: GEL Laboratories LLCVALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):


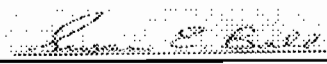
- |  |  |   |   |
|--|--|---|---|
| <input type="checkbox"/> TPH-GRO                 | <input type="checkbox"/> HIGH EXPLOSIVES   | <input type="checkbox"/> DIOXIN FURANS          | <input type="checkbox"/> LCMSMS PERCHLORATES                  |
| <input type="checkbox"/> TPH-DRO                 | <input 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 aqueous MB, Mg and Mn were detected. The Mn result for sample RE15-10-8328 was a detect  $\leq 5X$  the MB concentration and, thus, was qualified U,I4. The associated Mg sample result was an ND and, thus, was not qualified.
2. In the soil ICB and/or CCBs, Sb and Tl were detected. The Sb and Tl results for sample -8300 and the Sb result for sample -8304 were NDs and, thus, were not qualified. The remaining associated sample results were detects  $\leq 5X$  the greatest blank concentrations and, thus, were qualified U,I4b. In the aqueous CCBs, K and Tl were detected. The K result for sample -8328 was a detect  $\leq 5X$  the greatest blank concentration and, thus, was qualified U,I4b. The associated Tl sample result was an ND and, thus, was not qualified.
3. In the FR blank, sample -8328 associated with all the soil samples, Al, Ba, Fe, Na, Se, and U were detected. The Se result for sample -8304 and all associated Na results were detects  $\leq 5X$  the FR blank concentrations and, thus, were qualified U,I4d. The remaining associated sample results were either NDs or detects  $> 5X$  the greatest FR blank concentrations and, thus, were not qualified.
4. The soil MS %R for Sb was  $<$  the laboratory LAL but  $\geq 10\%$ . The associated sample results were NDs or qualified NDs and, thus, were qualified UJ,I6a. The soil MS %R for Mg was  $>$  the laboratory UAL. The associated sample results were detects and, thus, were qualified J+,I6b. The soil MS %Rs for Al, Fe, and U were also  $>$  the laboratory UAL. However, the parent sample concentrations were  $> 4X$  the spike concentrations and, thus, the associated Al, Fe, and U sample results were not qualified, based on professional judgment.
5. The soil duplicate RPDs for Cr and U were  $> 35\%$ , and both the parent and the duplicate sample results were  $\geq 5X$  the PQLs. The associated sample results were detects and, thus, were qualified J,I10a.


DATA VALIDATION COVER SHEET	
5118-1	Records Use only
<b>Data Validation Cover Sheet</b>	
<p>6. It should be noted that the parent QC samples for Hg analyses were from other LANL RNs. In addition, the aqueous parent QC sample for ICP and ICP-MS was the FR blank. No sample results were qualified.</p>	
<p>Reviewed by: <u>Mary Donovan</u> Level: <u>I</u> Date: <u>03/17/10</u></p>	
<p>VALIDATOR'S SIGNATURE: <u></u> DATE: <u>03/16/10</u></p>	
Form 5118-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

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 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	
<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"/>	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 type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input 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 $<$ 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 $>$ the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST	
5118-2	Records Use only
<b>Metals 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"/>	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	
5118-2  <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: 10-1568

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246334001

BASIS: As Received

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-8328

LEVEL: Low

DATE RECEIVED 05-FEB-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	70.6	ug/L	J	68	200	200	1	P	HSC	02/17/10 23:08	021710B-1	950319
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	03/04/10 05:51	100303-5	950326
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/17/10 23:08	021710B-1	950319
7440-39-3	Barium	2.37	ug/L	J	1	5	5	1	P	HSC	02/17/10 23:08	021710B-1	950319
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	03/04/10 13:01	100304-6	950326
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	03/04/10 05:51	100303-5	950326
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	02/17/10 23:08	021710B-1	950319
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	02/20/10 05:01	021910B-2	950319
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/17/10 23:08	021710B-1	950319
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/17/10 23:08	021710B-1	950319
7439-89-6	Iron	71.2	ug/L	J	30	100	100	1	P	HSC	02/17/10 23:08	021710B-1	950319
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	03/04/10 05:51	100303-5	950326
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	02/17/10 23:08	021710B-1	950319
7439-96-5	Manganese U,14	3.36	ug/L	J	1	5	5	1	MS	BAJ	03/04/10 13:01	100304-6	950326
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/17/10 10:55	021710W2-7	951593
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/17/10 23:08	021710B-1	950319
7440-09-7	Potassium U,14b	115	ug/L	J	50	150	150	1	P	HSC	02/17/10 23:08	021710B-1	950319
7782-49-2	Selenium	5.39	ug/L	J	5	30	30	1	P	HSC	02/17/10 23:08	021710B-1	950319
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/17/10 23:08	021710B-1	950319
7440-23-5	Sodium	134	ug/L	J	100	300	300	1	P	HSC	02/17/10 23:08	021710B-1	950319
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	PRB	03/04/10 13:02	100304-3	950326
7440-61-1	Uranium	0.157	ug/L	J	0.05	0.2	0.2	1	MS	PRB	03/04/10 13:49	100304-4	950326
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	02/17/10 23:08	021710B-1	950319
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/17/10 23:08	021710B-1	950319

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
950319	950315	SW846 3005A	50	mL	50	mL	02/15/10	FGA
950326	950323	SW846 3005A	50	mL	50	mL	02/15/10	FGA
951593	951592	SW846 7470A Prep	20	mL	20	mL	02/16/10	TXB3

SEB  
3/16/10

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

SDG No: 10-1568-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246336001

BASIS: Dry Weight

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-8304

LEVEL: Low

DATE RECEIVED 05-FEB-10

MATRIX: SOIL

%SOLIDS: 80

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3700000	ug/Kg		7950	23400	23400	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7440-36-0	Antimony UJ,16a	1170	ug/Kg	UN	386	1170	1170	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7440-38-2	Arsenic	2.38	mg/kg		0.243	1.21	1.21	2	MS	BAJ	02/26/10 14:47	100226-3	950387
7440-39-3	Barium	38700	ug/Kg		117	584	584	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7440-41-7	Beryllium	0.398	mg/kg		0.0243	0.121	0.121	2	MS	BAJ	02/26/10 14:47	100226-3	950387
7440-43-9	Cadmium	584	ug/Kg	U	117	584	584	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7440-70-2	Calcium	1310000	ug/Kg		9350	29200	29200	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7440-47-3	Chromium J,110a	8760	ug/Kg	*N	175	584	584	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7440-48-4	Cobalt	1440	ug/Kg	*	175	584	584	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7440-50-8	Copper	4070	ug/Kg		351	1170	1170	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7439-89-6	Iron	8530000	ug/Kg		9350	29200	29200	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7439-92-1	Lead	12300	ug/Kg	*	292	1170	1170	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7439-95-4	Magnesium J+,16b	579000	ug/Kg	N	9930	35100	35100	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7439-96-5	Manganese	152000	ug/Kg		234	1170	1170	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7439-97-6	Mercury	12.9	ug/kg	J	4.94	14.5	14.5	1	AV	JXL	02/22/10 12:40	022210S1-7	951598
7440-02-0	Nickel	2.14	mg/kg		0.121	0.486	0.486	2	MS	BAJ	02/26/10 14:47	100226-3	950387
7440-09-7	Potassium	489000	ug/Kg		7480	29200	29200	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7782-49-2	Selenium U,14d	0.669	mg/kg	J	0.607	1.21	1.21	2	MS	BAJ	02/26/10 14:47	100226-3	950387
7440-22-4	Silver	584	ug/Kg	U	117	584	584	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7440-23-5	Sodium U,14d	59700	ug/Kg		8180	29200	29200	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7440-28-0	Thallium U,14b	0.107	mg/kg	J	0.0728	0.243	0.243	2	MS	BAJ	02/26/10 04:15	100225-2	950387
7440-61-1	Uranium J,110a	52	mg/kg	*	0.16	0.486	0.486	20	MS	BAJ	02/26/10 17:50	100226-6	950387
7440-62-2	Vanadium	9900	ug/Kg		117	584	584	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7440-66-6	Zinc	38000	ug/Kg		386	1170	1170	1	P	JWJ	02/21/10 04:11	022010C-1	950379

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
950379	950377	SW846 3050B	0.537	g	50	mL	02/17/10	FGA
950387	950380	SW846 3050B	0.517	g	50	mL	02/17/10	FGA
951598	951597	SW846 7471A Prep	0.518	g	30	mL	02/19/10	TXB3

SEB  
3/16/10

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

SDG No: 10-1568-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246336002

BASIS: Dry Weight

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-8305

LEVEL: Low

DATE RECEIVED 05-FEB-10

MATRIX: SOIL

%SOLIDS: 62

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	6000000	ug/Kg		10300	30300	30300	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7440-36-0	Antimony U,14b	1340	ug/Kg	JN	500	1510	1510	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7440-38-2	Arsenic	2.47	mg/kg		0.318	1.59	1.59	2	MS	BAJ	02/26/10 15:00	100226-3	950387
7440-39-3	Barium	134000	ug/Kg		151	757	757	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7440-41-7	Beryllium	0.631	mg/kg		0.0318	0.159	0.159	2	MS	BAJ	02/26/10 15:00	100226-3	950387
7440-43-9	Cadmium	757	ug/Kg	U	151	757	757	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7440-70-2	Calcium	3430000	ug/Kg		12100	37800	37800	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7440-47-3	Chromium J,110a	6010	ug/Kg	*N	227	757	757	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7440-48-4	Cobalt	3430	ug/Kg	*	227	757	757	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7440-50-8	Copper	17800	ug/Kg		454	1510	1510	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7439-89-6	Iron	9710000	ug/Kg		12100	37800	37800	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7439-92-1	Lead	28200	ug/Kg	*	378	1510	1510	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7439-95-4	Magnesium J+,16b	1300000	ug/Kg	N	12900	45400	45400	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7439-96-5	Manganese	447000	ug/Kg		303	1510	1510	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7439-97-6	Mercury	16.5	ug/kg	J	5.85	17.2	17.2	1	AV	JXL1	02/22/10 12:42	022210S1-7	951598
7440-02-0	Nickel	4.46	mg/kg		0.159	0.636	0.636	2	MS	BAJ	02/26/10 15:00	100226-3	950387
7440-09-7	Potassium	1190000	ug/Kg		9690	37800	37800	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7782-49-2	Selenium	1.59	mg/kg	U	0.795	1.59	1.59	2	MS	BAJ	02/26/10 15:00	100226-3	950387
7440-22-4	Silver	757	ug/Kg	U	151	757	757	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7440-23-5	Sodium U,14d	58600	ug/Kg		10600	37800	37800	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7440-28-0	Thallium U,14b	0.115	mg/kg	J	0.0955	0.318	0.318	2	MS	BAJ	02/26/10 04:46	100225-2	950387
7440-61-1	Uranium J,110a	615	mg/kg	*	0.525	1.59	1.59	50	MS	BAJ	02/26/10 17:59	100226-6	950387
7440-62-2	Vanadium	13700	ug/Kg		151	757	757	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7440-66-6	Zinc	51500	ug/Kg		500	1510	1510	1	P	JWJ	02/21/10 04:30	022010C-1	950379

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
950379	950377	SW846 3050B	0.536	g	50	mL	02/17/10	FGA
950387	950380	SW846 3050B	0.51	g	50	mL	02/17/10	FGA
951598	951597	SW846 7471A Prep	0.566	g	30	mL	02/19/10	TXB3

SEB  
3/16/10

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

SDG No: 10-1568-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246336003

BASIS: Dry Weight

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-8306

LEVEL: Low

DATE RECEIVED 05-FEB-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	5590000	ug/Kg		8450	24800	24800	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7440-36-0	Antimony U,14b	1120	ug/Kg	JN	410	1240	1240	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7440-38-2	Arsenic	2.86	mg/kg		0.252	1.26	1.26	2	MS	BAJ	02/26/10 15:02	100226-3	950387
7440-39-3	Barium	91000	ug/Kg		124	621	621	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7440-41-7	Beryllium	0.595	mg/kg		0.0252	0.126	0.126	2	MS	BAJ	02/26/10 15:02	100226-3	950387
7440-43-9	Cadmium	621	ug/Kg	U	124	621	621	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7440-70-2	Calcium	1550000	ug/Kg		9940	31100	31100	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7440-47-3	Chromium J,110a	6870	ug/Kg	*N	186	621	621	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7440-48-4	Cobalt	3360	ug/Kg	*	186	621	621	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7440-50-8	Copper	8650	ug/Kg		373	1240	1240	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7439-89-6	Iron	11000000	ug/Kg		9940	31100	31100	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7439-92-1	Lead	12100	ug/Kg	*	311	1240	1240	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7439-95-4	Magnesium J+,16b	1050000	ug/Kg	N	10600	37300	37300	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7439-96-5	Manganese	280000	ug/Kg		248	1240	1240	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7439-97-6	Mercury	13.9	ug/kg	J	5.18	15.2	15.2	1	AV	JXL1	02/22/10 12:43	022210S1-7	951598
7440-02-0	Nickel	4.22	mg/kg		0.126	0.504	0.504	2	MS	BAJ	02/26/10 15:02	100226-3	950387
7440-09-7	Potassium	856000	ug/Kg		7950	31100	31100	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7782-49-2	Selenium	1.26	mg/kg	U	0.63	1.26	1.26	2	MS	BAJ	02/26/10 15:02	100226-3	950387
7440-22-4	Silver	621	ug/Kg	U	124	621	621	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7440-23-5	Sodium U,14d	47100	ug/Kg		8700	31100	31100	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7440-28-0	Thallium U,14b	0.161	mg/kg	J	0.0756	0.252	0.252	2	MS	BAJ	02/26/10 05:05	100225-2	950387
7440-61-1	Uranium J,110a	13.7	mg/kg	*	0.0166	0.0504	0.0504	2	MS	BAJ	02/26/10 17:29	100226-6	950387
7440-62-2	Vanadium	17800	ug/Kg		124	621	621	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7440-66-6	Zinc	34800	ug/Kg		410	1240	1240	1	P	JWJ	02/21/10 04:33	022010C-1	950379

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
950379	950377	SW846 3050B	0.511	g	50	mL	02/17/10	FGA
950387	950380	SW846 3050B	0.504	g	50	mL	02/17/10	FGA
951598	951597	SW846 7471A Prep	0.5	g	30	mL	02/19/10	TXB3

SEB  
3/16/10

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

SDG No: 10-1568-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246336004

BASIS: Dry Weight

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-8307

LEVEL: Low

DATE RECEIVED 05-FEB-10

MATRIX: SOIL

%SOLIDS: 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5860000	ug/Kg		7550	22200	22200	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7440-36-0	Antimony U,14b	605	ug/Kg	JN	367	1110	1110	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7440-38-2	Arsenic	1.86	mg/kg		0.231	1.15	1.15	2	MS	BAJ	02/26/10 15:10	100226-3	950387
7440-39-3	Barium	79400	ug/Kg		111	556	556	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7440-41-7	Beryllium	0.50	mg/kg		0.0231	0.115	0.115	2	MS	BAJ	02/26/10 15:10	100226-3	950387
7440-43-9	Cadmium	556	ug/Kg	U	111	556	556	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7440-70-2	Calcium	1940000	ug/Kg		8890	27800	27800	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7440-47-3	Chromium J,110a	7810	ug/Kg	*N	167	556	556	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7440-48-4	Cobalt	2620	ug/Kg	*	167	556	556	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7440-50-8	Copper	7320	ug/Kg		333	1110	1110	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7439-89-6	Iron	10300000	ug/Kg		8890	27800	27800	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7439-92-1	Lead	10800	ug/Kg	*	278	1110	1110	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7439-95-4	Magnesium J+,16b	1020000	ug/Kg	N	9440	33300	33300	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7439-96-5	Manganese	233000	ug/Kg		222	1110	1110	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7439-97-6	Mercury	11.8	ug/kg	J	4.63	13.6	13.6	1	AV	JXL	02/22/10 12:45	0221051-7	951598
7440-02-0	Nickel	4.78	mg/kg		0.115	0.462	0.462	2	MS	BAJ	02/26/10 15:10	100226-3	950387
7440-09-7	Potassium	841000	ug/Kg		7110	27800	27800	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7782-49-2	Selenium	1.15	mg/kg	U	0.577	1.15	1.15	2	MS	BAJ	02/26/10 15:10	100226-3	950387
7440-22-4	Silver	556	ug/Kg	U	111	556	556	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7440-23-5	Sodium U,14d	54600	ug/Kg		7780	27800	27800	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7440-28-0	Thallium U,14b	0.110	mg/kg	J	0.0693	0.231	0.231	2	MS	BAJ	02/26/10 05:11	100225-2	950387
7440-61-1	Uranium J,110a	3.62	mg/kg	*	0.0152	0.0462	0.0462	2	MS	BAJ	02/26/10 17:31	100226-6	950387
7440-62-2	Vanadium	15800	ug/Kg		111	556	556	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7440-66-6	Zinc	34800	ug/Kg		367	1110	1110	1	P	JWJ	02/21/10 04:44	022010C-1	950379

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
950379	950377	SW846 3050B	0.526	g	50	mL	02/17/10	FGA
950387	950380	SW846 3050B	0.506	g	50	mL	02/17/10	FGA
951598	951597	SW846 7471A Prep	0.515	g	30	mL	02/19/10	TXB3

SEB  
3/16/10

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

SDG No: 10-1568-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246336005

BASIS: Dry Weight

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-8309

LEVEL: Low

DATE RECEIVED 05-FEB-10

MATRIX: SOIL

%SOLIDS: 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Ruo Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5030000	ug/Kg		7280	21400	21400	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7440-36-0	Antimony U,14b	813	ug/Kg	JN	353	1070	1070	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7440-38-2	Arsenic	2.15	mg/kg		0.224	1.12	1.12	2	MS	BAJ	02/26/10 15:12	100226-3	950387
7440-39-3	Barium	83600	ug/Kg		107	535	535	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7440-41-7	Beryllium	0.607	mg/kg		0.0224	0.112	0.112	2	MS	BAJ	02/26/10 15:12	100226-3	950387
7440-43-9	Cadmium	535	ug/Kg	U	107	535	535	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7440-70-2	Calcium	1320000	ug/Kg		8560	26700	26700	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7440-47-3	Chromium J,110a	19100	ug/Kg	*N	160	535	535	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7440-48-4	Cobalt	2300	ug/Kg	*	160	535	535	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7440-50-8	Copper	5520	ug/Kg		321	1070	1070	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7439-89-6	Iron	9940000	ug/Kg		8560	26700	26700	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7439-92-1	Lead	8890	ug/Kg	*	267	1070	1070	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7439-95-4	Magnesium J+,16b	910000	ug/Kg	N	9090	32100	32100	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7439-96-5	Manganese	210000	ug/Kg		214	1070	1070	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7439-97-6	Mercury	7.21	ug/kg	J	4.34	12.8	12.8	1	AV	JXL1	02/22/10 12:47	022210S1-7	951598
7440-02-0	Nickel	3.97	mg/kg		0.112	0.448	0.448	2	MS	BAJ	02/26/10 15:12	100226-3	950387
7440-09-7	Potassium	798000	ug/Kg		6850	26700	26700	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7782-49-2	Selenium	1.12	mg/kg	U	0.56	1.12	1.12	2	MS	BAJ	02/26/10 15:12	100226-3	950387
7440-22-4	Silver	535	ug/Kg	U	107	535	535	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7440-23-5	Sodium U,14d	62200	ug/Kg		7490	26700	26700	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7440-28-0	Thallium U,14b	0.118	mg/kg	J	0.0671	0.224	0.224	2	MS	BAJ	02/26/10 05:17	100225-2	950387
7440-61-1	Uranium J,110a	3.07	mg/kg	*	0.0148	0.0448	0.0448	2	MS	BAJ	02/26/10 17:33	100226-6	950387
7440-62-2	Vanadium	15100	ug/Kg		107	535	535	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7440-66-6	Zinc	31600	ug/Kg		353	1070	1070	1	P	JWJ	02/21/10 04:48	022010C-1	950379

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
950379	950377	SW846 3050B	0.523	g	50	mL	02/17/10	FGA
950387	950380	SW846 3050B	0.5	g	50	mL	02/17/10	FGA
951598	951597	SW846 7471A Prep	0.526	g	30	mL	02/19/10	TXB3

SEB  
3/16/10

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

SDG No: 10-1568-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246336006

BASIS: Dry Weight

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-8308

LEVEL: Low

DATE RECEIVED 05-FEB-10

MATRIX: SOIL

%SOLIDS: 72

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4950000	ug/Kg		8760	25800	25800	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7440-36-0	Antimony U,14b	571	ug/Kg	JN	425	1290	1290	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7440-38-2	Arsenic	1.46	mg/kg		0.276	1.38	1.38	2	MS	BAJ	02/26/10 15:15	100226-3	950387
7440-39-3	Barium	69500	ug/Kg		129	644	644	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7440-41-7	Beryllium	0.530	mg/kg		0.0276	0.138	0.138	2	MS	BAJ	02/26/10 15:15	100226-3	950387
7440-43-9	Cadmium	644	ug/Kg	U	129	644	644	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7440-70-2	Calcium	1250000	ug/Kg		10300	32200	32200	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7440-47-3	Chromium J,110a	14000	ug/Kg	*N	193	644	644	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7440-48-4	Cobalt	2400	ug/Kg	*	193	644	644	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7440-50-8	Copper	4680	ug/Kg		387	1290	1290	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7439-89-6	Iron	9480000	ug/Kg		10300	32200	32200	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7439-92-1	Lead	7740	ug/Kg	*	322	1290	1290	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7439-95-4	Magnesium J+,16b	979000	ug/Kg	N	11000	38700	38700	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7439-96-5	Manganese	233000	ug/Kg		258	1290	1290	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7439-97-6	Mercury	8.96	ug/kg	J	5.35	15.7	15.7	1	AV	JXL1	02/22/10 12:52	022210S1-7	951598
7440-02-0	Nickel	4.2	mg/kg		0.138	0.552	0.552	2	MS	BAJ	02/26/10 15:15	100226-3	950387
7440-09-7	Potassium	963000	ug/Kg		8250	32200	32200	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7782-49-2	Selenium	1.38	mg/kg	U	0.691	1.38	1.38	2	MS	BAJ	02/26/10 15:15	100226-3	950387
7440-22-4	Silver	644	ug/Kg	U	129	644	644	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7440-23-5	Sodium U,14d	44600	ug/Kg		9020	32200	32200	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7440-28-0	Thallium U,14b	0.0859	mg/kg	J	0.0829	0.276	0.276	2	MS	BAJ	02/26/10 05:23	100225-2	950387
7440-61-1	Uranium J,110a	10.6	mg/kg	*	0.0182	0.0552	0.0552	2	MS	BAJ	02/26/10 17:34	100226-6	950387
7440-62-2	Vanadium	11500	ug/Kg		129	644	644	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7440-66-6	Zinc	31700	ug/Kg		425	1290	1290	1	P	JWJ	02/21/10 04:52	022010C-1	950379

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
950379	950377	SW846 3050B	0.536	g	50	mL	02/17/10	FGA
950387	950380	SW846 3050B	0.5	g	50	mL	02/17/10	FGA
951598	951597	SW846 7471A Prep	0.527	g	30	mL	02/19/10	TXB3

SEB  
3/16/10



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

SDG No: 10-1568-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246336007

BASIS: Dry Weight

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-8301

LEVEL: Low

DATE RECEIVED 05-FEB-10

MATRIX: SOIL

%SOLIDS: 94

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2870000	ug/Kg		6880	20200	20200	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7440-36-0	Antimony U,14b	787	ug/Kg	JN	334	1010	1010	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7440-38-2	Arsenic	1.5	mg/kg		0.211	1.06	1.06	2	MS	BAJ	02/26/10 15:18	100226-3	950387
7440-39-3	Barium	43900	ug/Kg		101	506	506	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7440-41-7	Beryllium	0.469	mg/kg		0.0211	0.106	0.106	2	MS	BAJ	02/26/10 15:18	100226-3	950387
7440-43-9	Cadmium	506	ug/Kg	U	101	506	506	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7440-70-2	Calcium	808000	ug/Kg		8090	25300	25300	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7440-47-3	Chromium J,110a	8690	ug/Kg	*N	152	506	506	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7440-48-4	Cobalt	1490	ug/Kg	*	152	506	506	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7440-50-8	Copper	3540	ug/Kg		303	1010	1010	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7439-89-6	Iron	8300000	ug/Kg		8090	25300	25300	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7439-92-1	Lead	5010	ug/Kg	*	253	1010	1010	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7439-95-4	Magnesium J+,16b	507000	ug/Kg	N	8590	30300	30300	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7439-96-5	Manganese	224000	ug/Kg		202	1010	1010	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7439-97-6	Mercury	8.49	ug/kg	J	4.21	12.4	12.4	1	AV	JXL1	02/22/10 12:54	022210S1-7	951598
7440-02-0	Nickel	3.14	mg/kg		0.106	0.423	0.423	2	MS	BAJ	02/26/10 15:18	100226-3	950387
7440-09-7	Potassium	478000	ug/Kg		6470	25300	25300	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7782-49-2	Selenium	1.06	mg/kg	U	0.529	1.06	1.06	2	MS	BAJ	02/26/10 15:18	100226-3	950387
7440-22-4	Silver	506	ug/Kg	U	101	506	506	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7440-23-5	Sodium U,14d	58800	ug/Kg		7080	25300	25300	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7440-28-0	Thallium U,14b	0.0643	mg/kg	J	0.0634	0.211	0.211	2	MS	BAJ	02/26/10 05:29	100225-2	950387
7440-61-1	Uranium J,110a	2.62	mg/kg	*	0.014	0.0423	0.0423	2	MS	BAJ	02/26/10 17:40	100226-6	950387
7440-62-2	Vanadium	7580	ug/Kg		101	506	506	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7440-66-6	Zinc	32900	ug/Kg		334	1010	1010	1	P	JWJ	02/21/10 04:55	022010C-1	950379

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
950379	950377	SW846 3050B	0.526	g	50	mL	02/17/10	FGA
950387	950380	SW846 3050B	0.503	g	50	mL	02/17/10	FGA
951598	951597	SW846 7471A Prep	0.515	g	30	mL	02/19/10	TXB3

SEB  
3/16/10

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

SDG No: 10-1568-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246336008

BASIS: Dry Weight

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-8300

LEVEL: Low

DATE RECEIVED 05-FEB-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	1050000	ug/Kg		9800	28800	28800	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7440-36-0	Antimony UJ,16a	1440	ug/Kg	UN	476	1440	1440	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7440-38-2	Arsenic	0.731	mg/kg	J	0.253	1.27	1.27	2	MS	BAJ	02/26/10 15:20	100226-3	950387
7440-39-3	Barium	18700	ug/Kg		144	721	721	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7440-41-7	Beryllium	0.415	mg/kg		0.0253	0.127	0.127	2	MS	BAJ	02/26/10 15:20	100226-3	950387
7440-43-9	Cadmium	721	ug/Kg	U	144	721	721	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7440-70-2	Calcium	664000	ug/Kg		11500	36000	36000	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7440-47-3	Chromium J,110a	5820	ug/Kg	*N	216	721	721	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7440-48-4	Cobalt	635	ug/Kg	J*	216	721	721	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7440-50-8	Copper	2300	ug/Kg		433	1440	1440	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7439-89-6	Iron	5490000	ug/Kg		11500	36000	36000	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7439-92-1	Lead	2740	ug/Kg	*	360	1440	1440	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7439-95-4	Magnesium J+,16b	242000	ug/Kg	N	12300	43300	43300	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7439-96-5	Mangancsc	202000	ug/Kg		288	1440	1440	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7439-97-6	Mercury	16.2	ug/kg	U	5.5	16.2	16.2	1	AV	JXL1	02/22/10 12:55	022210S1-7	951598
7440-02-0	Nickel	1.48	mg/kg		0.127	0.507	0.507	2	MS	BAJ	02/26/10 15:20	100226-3	950387
7440-09-7	Potassium	340000	ug/Kg		9230	36000	36000	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7782-49-2	Selenium	1.27	mg/kg	U	0.633	1.27	1.27	2	MS	BAJ	02/26/10 15:20	100226-3	950387
7440-22-4	Silver	721	ug/Kg	U	144	721	721	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7440-23-5	Sodium U,14d	49800	ug/Kg		10100	36000	36000	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7440-28-0	Thallium	0.253	mg/kg	U	0.076	0.253	0.253	2	MS	BAJ	02/26/10 05:36	100225-2	950387
7440-61-1	Uranium J,110a	1.5	mg/kg	*	0.0167	0.0507	0.0507	2	MS	BAJ	02/26/10 17:42	100226-6	950387
7440-62-2	Vanadium	2760	ug/Kg		144	721	721	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7440-66-6	Zinc	31000	ug/Kg		476	1440	1440	1	P	JWJ	02/21/10 04:59	022010C-1	950379

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
950379	950377	SW846 3050B	0.5	g	50	mL	02/17/10	FGA
950387	950380	SW846 3050B	0.569	g	50	mL	02/17/10	FGA
951598	951597	SW846 7471A Prep	0.535	g	30	mL	02/19/10	TXB3

SEB  
3/16/10

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

SDG No: 10-1568-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246336009

BASIS: Dry Weight

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-8324

LEVEL: Low

DATE RECEIVED 05-FEB-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	5970000	ug/Kg		8530	25100	25100	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7440-36-0	Antimony U,14b	577	ug/Kg	JN	414	1250	1250	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7440-38-2	Arsenic	2.07	mg/kg		0.249	1.24	1.24	2	MS	BAJ	02/26/10 15:23	100226-3	950387
7440-39-3	Barium	101000	ug/Kg		125	627	627	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7440-41-7	Beryllium	0.589	mg/kg		0.0249	0.124	0.124	2	MS	BAJ	02/26/10 15:23	100226-3	950387
7440-43-9	Cadmium	627	ug/Kg	U	125	627	627	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7440-70-2	Calcium	1560000	ug/Kg		10000	31400	31400	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7440-47-3	Chromium J,110a	7090	ug/Kg	*N	188	627	627	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7440-48-4	Cobalt	3580	ug/Kg	*	188	627	627	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7440-50-8	Copper	9550	ug/Kg		376	1250	1250	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7439-89-6	Iron	10700000	ug/Kg		10000	31400	31400	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7439-92-1	Lead	12900	ug/Kg	*	314	1250	1250	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7439-95-4	Magnesium J+,16b	1070000	ug/Kg	N	10700	37600	37600	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7439-96-5	Manganese	307000	ug/Kg		251	1250	1250	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7439-97-6	Mercury	12.4	ug/kg	J	4.36	12.8	12.8	1	AV	JXL1	02/22/10 12:57	022210S1-7	951598
7440-02-0	Nickel	4.18	mg/kg		0.124	0.498	0.498	2	MS	BAJ	02/26/10 15:23	100226-3	950387
7440-09-7	Potassium	908000	ug/Kg		8030	31400	31400	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7782-49-2	Selenium	1.24	mg/kg	U	0.622	1.24	1.24	2	MS	BAJ	02/26/10 15:23	100226-3	950387
7440-22-4	Silver	627	ug/Kg	U	125	627	627	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7440-23-5	Sodium U,14d	51500	ug/Kg		8780	31400	31400	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7440-28-0	Thallium U,14b	0.115	mg/kg	J	0.0747	0.249	0.249	2	MS	BAJ	02/26/10 05:42	100225-2	950387
7440-61-1	Uranium J,110a	51.6	mg/kg	*	0.164	0.498	0.498	20	MS	BAJ	02/26/10 18:01	100226-6	950387
7440-62-2	Vanadium	17100	ug/Kg		125	627	627	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7440-66-6	Zinc	34000	ug/Kg		414	1250	1250	1	P	JWJ	02/21/10 05:03	022010C-1	950379

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
950379	950377	SW846 3050B	0.504	g	50	mL	02/17/10	FGA
950387	950380	SW846 3050B	0.508	g	50	mL	02/17/10	FGA
951598	951597	SW846 7471A Prep	0.591	g	30	mL	02/19/10	TXB3

SEB  
3/16/10

**DATA VALIDATION COVER SHEET****5120-1****Data Validation Cover Sheet**

Records Use only

**Section I.**REQUEST NUMBER: 10-1568 VALIDATION DATE: 03/17/10 LAB CODE: GELCONTRACT LABORATORY NAME: GEL Laboratories LLCVALIDATOR: Susan Ball 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         |
| <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 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):

- The MS %R for nitrate-N was < the laboratory LAL but  $\geq 10\%$ . The nitrate-N results for samples RE15-10-8301, -8304, -8306, and -8324 were detects and, thus, were qualified J-,16a. The remaining associated sample results were NDs and, thus, were qualified UJ,16a.
- It should be noted that the parent QC samples for total cyanide were from other LANL RNs. No sample results were qualified.
- It should be noted that the nitrate/nitrite-N container for sample -8328, the FR blank, was not received by the lab. The data package included an e-mail which indicated the analysis was canceled per client instructions.


Reviewed by: Mary DonovanLevel: IDate: 03/17/10VALIDATOR'S SIGNATURE: DATE: 03/17/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
<b>5120-2</b>  <b>General Chemistry 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 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 type="checkbox"/>	<input checked="" 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	
<b>5120-2</b>  <b>General Chemistry 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"/>	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 type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input 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	
<b>5120-2</b>  <b>General Chemistry 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 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)

## 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 18, 2010

Client SDG: 10-1568

Client Sample ID: RE15-10-8328  
Sample ID: 246334001  
Matrix: W  
Collect Date: 01-FEB-10 12:00  
Receive Date: 05-FEB-10  
Collector: Client

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
-----------	-----------	--------	----	----	-------	----	---------	------	------	-------	--------

#### Flow Injection Analysis

SW9012A Cyanide, Total "As Received"

Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2	02/11/10	1033	949511	1
----------------	---	----	------	------	------	---	------	----------	------	--------	---

#### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	0838	949509

#### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

SEB  
3/17/10



# 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: March 2, 2010

Client SDG: 10-1568-1

Client Sample ID: RE15-10-8304  
Sample ID: 246336001  
Matrix: R  
Collect Date: 01-FEB-10 12:00  
Receive Date: 05-FEB-10  
Collector: Client  
Moisture: 20.3%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method	
Electrode Analysis												
SW9045C pH "As Received"												
pH at Temp 20.2C	H	6.47	0.010	0.100	SU	1	EXF1	02/08/10	1318	950202	1	
Flow Injection Analysis												
SW9012A Cyanide, Total "Dry Weight Corrected"												
Cyanide, Total	U	ND	79.0	291	ug/kg	1	AXC2	02/15/10	1320	950196	2	
Ion Chromatography												
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"												
Nitrate-N		1.75	J-,l6a	0.377	1.26	mg/kg	1	MAR1	02/24/10	1756	950804	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	02/24/10	1330	950802
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1535	950195

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

SEB  
3/17/10

# 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: March 2, 2010

Client SDG: 10-1568-1

Client Sample ID: RE15-10-8305  
Sample ID: 246336002  
Matrix: R  
Collect Date: 01-FEB-10 12:00  
Receive Date: 05-FEB-10  
Collector: Client  
Moisture: 38.4%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.1C	H	6.23	0.010	0.100	SU	1	EXF1	02/08/10	1322	950202	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		1220	100	369	ug/kg	1	AXC2	02/15/10	1321	950196	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	UJ,16a	0.482	1.61	mg/kg	1	MAR102/24/10	1952	950804	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	02/24/10	1330	950802
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1535	950195

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

SEB  
3/17/10

# 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: March 2, 2010

Client SDG: 10-1568-1

Client Sample ID: RE15-10-8306  
Sample ID: 246336003  
Matrix: R  
Collect Date: 01-FEB-10 12:00  
Receive Date: 05-FEB-10  
Collector: Client  
Moisture: 21.2%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.1C	H	5.98	0.010	0.100	SU	1	EXF1	02/08/10	1327	950202	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	75.7	278	ug/kg	1	AXC2	02/15/10	1325	950196	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		2.76	J-,16a	0.381	1.27	mg/kg	1	MAR1	02/24/10	2021	950804 3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	02/24/10	1330	950802
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1535	950195

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

SEB  
3/17/10

# 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: March 2, 2010

Client SDG: 10-1568-1

Client Sample ID: RE15-10-8307  
Sample ID: 246336004  
Matrix: R  
Collect Date: 01-FEB-10 12:00  
Receive Date: 05-FEB-10  
Collector: Client  
Moisture: 14.4%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.0C	H	5.47	0.010	0.100	SU	1	EXF1	02/08/10	1329	950202	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	79.5	292	ug/kg	1	AXC2	02/15/10	1326	950196	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	UJ,16a	0.351	1.17	mg/kg	1	MAR10	02/24/10	2050	950804 3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	02/24/10	1330	950802
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1535	950195

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

SEB  
3/17/10

# 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: March 2, 2010

Client SDG: 10-1568-1

Client Sample ID: RE15-10-8309  
Sample ID: 246336005  
Matrix: R  
Collect Date: 01-FEB-10 12:00  
Receive Date: 05-FEB-10  
Collector: Client  
Moisture: 10.6%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.0C	H	7.09	0.010	0.100	SU	1	EXF1	02/08/10	1331	950202	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	74.6	274	ug/kg	1	AXC2	02/15/10	1327	950196	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	UJ,16a	0.336	1.12	mg/kg	1	MAR1	02/24/10	2118	950804 3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	02/24/10	1330	950802
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1535	950195

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

SEB  
3/17/10

## 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: March 2, 2010

Client SDG: 10-1568-1

Client Sample ID:	RE15-10-8308	Project:	LANL01004
Sample ID:	246336006	Client ID:	LANL010
Matrix:	R		
Collect Date:	01-FEB-10 12:00		
Receive Date:	05-FEB-10		
Collector:	Client		
Moisture:	27.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.1C	H	6.80	0.010	0.100	SU	1	EXF1	02/08/10	1332	950202	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	88.6	326	ug/kg	1	AXC2	02/15/10	1328	950196	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	UJ,16a	0.411	1.37	mg/kg	1	MAR1	02/24/10	2245	950804 3

**The following Prep Methods were performed**

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	02/24/10	1330	950802
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1535	950195

**The following Analytical Methods were performed**

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

SEB  
3/17/10

# 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: March 2, 2010

Client SDG: 10-1568-1

Client Sample ID: RE15-10-8301  
Sample ID: 246336007  
Matrix: R  
Collect Date: 01-FEB-10 12:00  
Receive Date: 05-FEB-10  
Collector: Client  
Moisture: 5.98%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.4C	H	6.82	0.010	0.100	SU	1	EXF1	02/08/10	1335	950202	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	65.8	242	ug/kg	1	AXC2	02/15/10	1329	950196	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		1.30	J-,l6a	0.319	1.06	mg/kg	1	MAR1	02/24/10	2314	950804 3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	02/24/10	1330	950802
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1535	950195

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

SEB  
3/17/10

# 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: March 2, 2010

Client SDG: 10-1568-1

Client Sample ID: RE15-10-8300  
Sample ID: 246336008  
Matrix: R  
Collect Date: 01-FEB-10 12:00  
Receive Date: 05-FEB-10  
Collector: Client  
Moisture: 30.6%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.3C	H	6.19	0.010	0.100	SU	1	EXFI	02/08/10	1338	950202	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	98.0	360	ug/kg	1	AXC2	02/15/10	1330	950196	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	UJ,16a	0.433	1.44	mg/kg	1	MAR102/24/10	2343	950804	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	02/24/10	1330	950802
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1535	950195

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

SEB  
3/17/10



## 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: March 2, 2010

Client SDG: 10-1568-1

Client Sample ID:	RE15-10-8324	Project:	LANL01004
Sample ID:	246336009	Client ID:	LANL010
Matrix:	R		
Collect Date:	01-FEB-10 12:00		
Receive Date:	05-FEB-10		
Collector:	Client		
Moisture:	20.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method	
Electrode Analysis												
SW9045C pH "As Received"												
pH at Temp 20.3C	H	6.03	0.010	0.100	SU	1	EXF1	02/08/10	1340	950202	1	
Flow Injection Analysis												
SW9012A Cyanide, Total "Dry Weight Corrected"												
Cyanide, Total	U	ND	86.0	316	ug/kg	1	AXC2	02/15/10	1331	950196	2	
Ion Chromatography												
EPA 300.0 Nitrate in Soil "Dry Weight Corrected"												
Nitrate-N		2.40	J-.16a	0.379	1.26	mg/kg	1	MAR1	02/25/10	0012	950804	3

**The following Prep Methods were performed**

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	02/24/10	1330	950802
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1535	950195

**The following Analytical Methods were performed**

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

Wednesday, February 03, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1568

LOS ALAMOS

REQUEST NUMBER: 10-1568

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/5/2010

General Engineering Laboratories, Inc.,  
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

246334, 246336%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8328	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8328	1	POLY	NO3NO2	Sulfuric Acid (Hydrogen Sulfate)	W
RE15-10-8328	1	POLY	SW-846.6850	Ice	W
RE15-10-8328	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8304	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8304	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8305	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8305	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8308	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8308	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8307	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8307	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8309	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8309	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8308	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8308	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8301	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8301	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8300	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8300	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8324	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8324	1	POLY	Perchlorate+CN+N03+pH	Ice	R

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, February 03, 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: 10-1568  
Per Agreement Number: 126310011  
Project Cost Code: MR3A05529E00

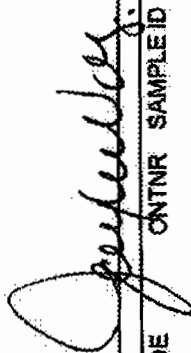
Please analyse the enclosed samples  
according to the schedule indicated:

SHIP DATE: 2/3/2010  
TURNAROUND/REPORT DUE: 3/5/2010  
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background  
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:



PRIORITY	METHOD CODE	QNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
EPA.300.0						
1		1	RE15-10-8300	R	2/1/2010	
1		1	RE15-10-8301	R	2/1/2010	
1		1	RE15-10-8304	R	2/1/2010	
1		1	RE15-10-8305	R	2/1/2010	
1		1	RE15-10-8306	R	2/1/2010	
1		1	RE15-10-8307	R	2/1/2010	
1		1	RE15-10-8308	R	2/1/2010	
1		1	RE15-10-8309	R	2/1/2010	
1		1	RE15-10-8324	R	2/1/2010	

Wednesday, February 03, 2010

REQUEST NUMBER: 10-1568

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA 353.2	1	RE15-10-8328	W	2/1/2010	
	SW-846:6010B	1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
	SW-846:6020	1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8328	W	2/1/2010	
	SW-846:6850	1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	

Wednesday, February 03, 2010

REQUEST NUMBER: 10-1568

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6850	1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8328	W	2/1/2010	
	SW-846:7470A	1	RE15-10-8328	W	2/1/2010	
	SW-846:7471A	1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
	SW-846:9012A	1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8328	W	2/1/2010	
	SW-846:9045C	1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	

Wednesday, February 03, 2010

REQUEST NUMBER: 10-1568

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846-9045C	1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	

Final Page of REQUEST NUMBER 10-1568



February 10, 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: 246334 246336  
SDG: 10-1568

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 05, 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: 10-1568  
Enclosures

**Los Alamos National Laboratory (72733-001-09)**  
**LANL ER Project**  
**Work Order #: 246334 and 246336**  
**SDG: 10-1568**



## Table of Contents

<b>Case Narrative.....</b>	<b>1</b>
<b>Chain of Custody and Supportong Documentation .....</b>	<b>5</b>
<b>Data Review Qualifier Flag Definition Sheet .....</b>	<b>20</b>
<b>LC/MS/MS Perchlorate Analysis.....</b>	<b>22</b>
Sample Data Summary .....	27
Quality Control Summary.....	29
Sample Data .....	59
Standards Data.....	62
Quality Control .....	91
Miscellaneous Data .....	96
<b>LC/MS/MS Perchlorate .....</b>	<b>105</b>
Sample Data Summary .....	110
Quality Control Summary.....	120
Sample Data .....	159
Standards Data.....	178
Quality Control .....	216
Miscellaneous Data .....	225
<b>Metals Analysis .....</b>	<b>235</b>
Case Narrative.....	236
Sample Data Summary .....	242
Quality Control Summary.....	244
Standards .....	298
Raw Data .....	311
Miscellaneous .....	792
<b>Metals Analysis .....</b>	<b>836</b>
Case Narrative.....	837
Sample Data Summary .....	843
Quality Control Summary.....	853
Standards .....	914
Raw Data .....	926
Miscellaneous .....	1289
<b>General Chemistry Analysis .....</b>	<b>1332</b>
Case Narrative.....	1333
Sample Data Summary .....	1338

Quality Control Summary.....	1341
Instrument QC Data Summary .....	1344
Cyanide, Total .....	1346
<b>General Chemistry Analysis .....</b>	<b>1354</b>
Case Narrative.....	1355
Sample Data Summary .....	1365
Quality Control Summary.....	1376
Instrument QC Data Summary .....	1379
Cyanide, Total .....	1382
Ion Chromatography .....	1392
pH .....	1430
Miscellaneous .....	1434

# Case Narrative

**Case Narrative for  
Los Alamos National Laboratory (72733-001-09)  
LANL ER Project  
Workorder #: 246334 and 246336  
SDG # : 10-1568**

**February 10, 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 February 05, 2010 for analysis. The sample was prepared/analyzed within the required holding time. Shipping container temperature was checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The lab did not receive the NO3NO2 container for sample RE15-10-8328. Los Alamos was notified and we were instructed to cancel the analysis. 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:

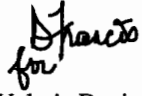
<b><u>Laboratory ID</u></b>	<b><u>Client ID</u></b>
246334001	RE15-10-8328
246336001	RE15-10-8304
246336002	RE15-10-8305
246336003	RE15-10-8306
246336004	RE15-10-8307
246336005	RE15-10-8309
246336006	RE15-10-8308
246336007	RE15-10-8301
246336008	RE15-10-8300
246336009	RE15-10-8324

**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 "Valerie Davis" with a stylized flourish at the end.

Valerie Davis

Project Manager

**List of current GEL Certifications as of 10 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, February 03, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1568

LOS ALAMOS

REQUEST NUMBER: 10-1568

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/5/2010

General Engineering Laboratories, Inc.,  
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

246334, 246336%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8328	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8328	1	POLY	NO3NO2	Sulfuric Acid (Hydrogen Sulfate)	W
RE15-10-8328	1	POLY	SW-846:6850	Ice	W
RE15-10-8328	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8304	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8304	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8305	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8305	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8306	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8306	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8307	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8307	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8309	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8309	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8308	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8308	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8301	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8301	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8300	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8300	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8324	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8324	1	POLY	Perchlorate+CN+N03+pH	Ice	R

Relinquished By:

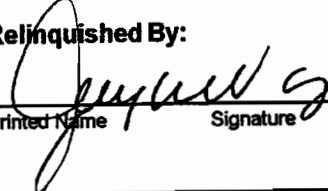
Date

Time

Received By:

Date

Time

 2/3/10 1400 Patricia Dwyer-Dent P. Dwyer-Dent 2-5-10 09:00  
 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, February 03, 2010

**LOS ALAMOS**  
NATIONAL LABORATORY

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: 2/3/2010**

**TURNAROUND/REPORT DUE: 3/5/2010**

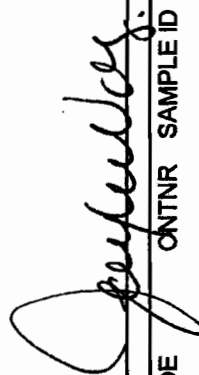
**TURNAROUND REQ'D: 30 Days**

**RAD SCREENING: Yes, Below Background**

**LAB REQUEST COMMENTS:**

LANL ER SMO CONTACT:

Signature:



PRIORITY	METHOD CODE	QNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0					
		1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	

These Samples are on:

LANL Request Number:10-1568  
Per Agreement Number:126310011  
Project Cost Code: MR3A05529E00

Wednesday, February 03, 2010

**REQUEST NUMBER: 10-1568**

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:353.2	1	RE15-10-8328	W	2/1/2010	
	SW-846:6010B	1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
	SW-846:6020	1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8328	W	2/1/2010	
	SW-846:6850	1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8328	W	2/1/2010	
		1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8328	W	2/1/2010	
		1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8328	W	2/1/2010	
		1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8328	W	2/1/2010	
		1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8328	W	2/1/2010	
		1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8328	W	2/1/2010	
		1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8328	W	2/1/2010	
		1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8328	W	2/1/2010	
		1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8328	W	2/1/2010	
		1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8328	W	2/1/2010	
		1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8328	W	2/1/2010	
		1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8328	W	2/1/2010	
		1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8328	W	2/1/2010	
		1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8328	W	2/1/2010	
		1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8328	W	2/1/2010	
		1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8328	W	2/1/2010	
		1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8328	W	2/1/2010	
		1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8328	W	2/1/2010	
		1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8328	W	2/1/2010	
		1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	

Wednesday, February 03, 2010

REQUEST NUMBER: 10-1568

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6850	1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8328	W	2/1/2010	
	SW-846:7470A	1	RE15-10-8328	W	2/1/2010	
	SW-846:7471A	1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
	SW-846:9012A	1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	
		1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	
		1	RE15-10-8328	W	2/1/2010	
	SW-846:9045C	1	RE15-10-8300	R	2/1/2010	
		1	RE15-10-8301	R	2/1/2010	
		1	RE15-10-8304	R	2/1/2010	
		1	RE15-10-8305	R	2/1/2010	
		1	RE15-10-8306	R	2/1/2010	
		1	RE15-10-8307	R	2/1/2010	

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9045C	1	RE15-10-8308	R	2/1/2010	
		1	RE15-10-8309	R	2/1/2010	
		1	RE15-10-8324	R	2/1/2010	

Final Page of REQUEST NUMBER 10-1568

# SAMPLE RECEIPT & REVIEW FORM

Client: LANL			SDG/ARCOC/Work Order: 10-1568		
Received By: Patricia Dover-Dent			Date Received: February 5, 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*: 80 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) 3-6   9-14C
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: RE15-10-8328 for NO3NO2 the lab did not receive
12	COC form is properly signed in relinquished/received sections?	X			

**Comments: FEDEX#S**

7209 7849 9021 3C	7209 7849 8963 4C	7209 7849 8724 6C	7209 7849 8665 12C
7209 7849 9065 3C	7209 7849 8805 4C	7209 7849 9043 6C	7209 7849 8676 13C
7209 7849 9010 3C	7209 7849 8779 4C	7209 7849 8827 6C	7209 7849 9000 14C
7209 7849 8780 4C	7209 7849 8838 5C	7209 7849 9124 6C	
7209 7849 8735 4C	7209 7849 8816 5C	7209 7849 8941 9C	
7209 7849 8713 4C	7209 7849 8790 5C	7209 7849 8952 10C	
7209 7849 8746 4C	7209 7849 9054 6C	7209 7849 8687 11C	
7209 7849 8974 4C	7209 7849 8702 6C	7209 7849 8698 12C	

PM (or PMA) review: Initials

*[Signature]*

Date

2/6/10

**Subject:** Re: Sample Receipt for 2/5/10  
**From:** Keith Grene <kgreene@lanl.gov>  
**Date:** Wed, 10 Feb 2010 10:24:41 -0700  
**To:** Dionne Francis <Dionne.Francis@gel.com>

cancel no3no2 bottle 8328 was not collected

At 06:34 PM 2/5/2010, you wrote:

Keith,

RN10-1592, 1598, 1617: the Gross A/B containers were preserved prior to analysis.

RN10-1573: the lab rec'd (1) 40ml vial 8260B container for sample RE16-10-1178 instead of (2) as indicated on the COC.

RN10-1614: the lab rec'd (1) 40ml vial 8260B container for sample CAMO-10-9327 instead of (2) as indicated on the COC.

RN10-1568: the lab did not receive a NO3NO2 container for sample RE15-10-8328. Please advise.

The following sample containers were rec'd without a COC:

RE15-10-1190 - Metals (250ml poly) 8270C+HEXP (500ml amber) 8260B (125ml amber) RAD (1L poly) CN+Anions+ClO4 (500ml poly)

RE16-10-1472- CN+Anions+ClO4 (500ml poly) Metals (125ml poly) 8260B (125ml amber) 8270C+HEXP (500ml amber) RAD (1L poly)

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) 865-8988  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 83

SHIP DATE: 04FEB10  
ACTWT: 52.0 LB MAN  
CAD: 0014176/CAFE244

LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 68010AMR1A015AGMKO

3°



TRK# 7209 7849 9021  
0201

FRI - 05FEB A1  
PRIORITY OVERNIGHT

XX CHSA

29407  
SC-US  
CHS



ORIGIN ID: SAFA (505) 865-8988  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 83

SHIP DATE: 04FEB10  
ACTWT: 55.0 LB MAN  
CAD: 0014176/CAFE2449

LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 68010AMR1A015AGMKO

3°



3 of 3  
NPS# 7209 7849 9010  
0203

FRI - 05FEB A1  
PRIORITY OVERNIGHT

Matr# 7209 7849 8996 0201

XX CHSA

29407  
SC-US

ORIGIN ID: SAFA (505) 865-8988  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 83

SHIP DATE: 04FEB10  
ACTWT: 52.0 LB MAN  
CAD: 0014176/CAFE2449

LOS ALAMOS, NM 87545  
UNITED STATES US

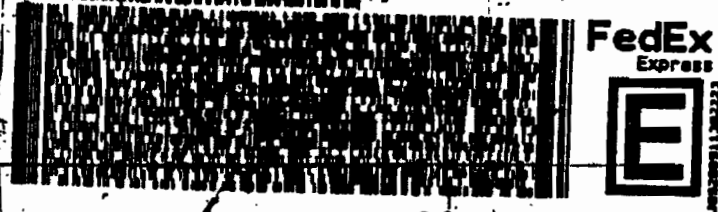
BILL SENDER

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 68010AMR3A0532VROO

3°



TRK# 7209 7849 9065  
0201

FRI - 05FEB A1  
PRIORITY OVERNIGHT

XX CHSA

29407  
SC-US  
CHS



ORIGIN ID: SAFA (505) 865-8988  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 83

SHIP DATE: 04FEB10  
ACTWT: 50.0 LB MAN  
CAD: 0014176/CAFE2449

LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 68010AMR1A015AGMKO

4°



2 of 2  
NPS# 7209 7849 8780  
0203

FRI - 05FEB A1  
PRIORITY OVERNIGHT

Matr# 7209 7849 8779 0201

XX CHSA

29407  
SC-US  
CHS

ALAMOS NATL LAB  
0 BLDG 1237 DPU 03

ALAMOS, NM 87548  
UNITED STATES US

ACTMGT: 46.0 LB-MAN  
CAD: 0014176/CAFE2449

BILL GENDER

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(943) 556-8171

REF: 6B010AMR1A015AGMKO

SHIP DATE: 04FEB10  
ACTMGT: 46.0 LB-MAN  
CAD: 0014176/CAFE2449



FedEx  
Express



2 of 3  
7209 7849 8735

FRI - 05FEB A1  
PRIORITY OVERNIGHT

LN 7209 7849 8724 (0201)

XX CHSA

29407  
SC-US  
CHS



ACTMGT: 46.0 LB-MAN

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(943) 556-8171

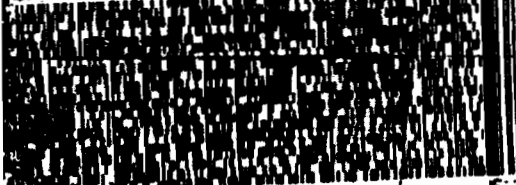
REF: 6B010AMR1A015AGMKO

SHIP DATE: 04FEB10  
ACTMGT: 46.0 LB-MAN  
CAD: 0014176/CAFE2449

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(943) 556-8171  
REF: 6B010AMR1A015AGMKO



FedEx  
Express



3 of 3  
7209 7849 8746

FRI - 05FEB A1  
PRIORITY OVERNIGHT

LN 7209 7849 8724 (0201)

XX CHSA

29407  
SC-US  
CHS

ACTMGT: 46.0 LB-MAN  
CAD: 0014176/CAFE2449

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(943) 556-8171

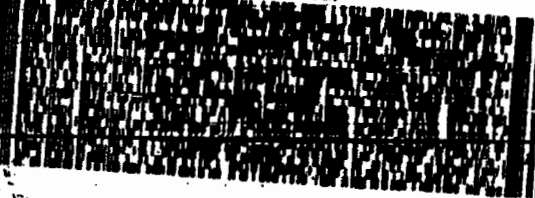
REF: 6B010AMR3A0520A00

SHIP DATE: 04FEB10  
ACTMGT: 46.0 LB-MAN  
CAD: 0014176/CAFE2449

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(943) 556-8171  
REF: 6B010AMR3A0520A00



FedEx  
Express

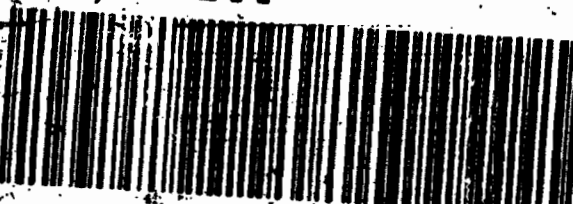


2 of 3  
7209 7849 8713

FRI - 05FEB A1  
PRIORITY OVERNIGHT

XX CHSA

29407  
SC-US  
CHS



ACTMGT: 46.0 LB-MAN

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(943) 556-8171

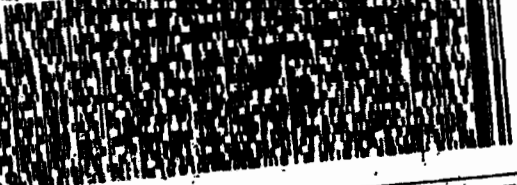
REF: 6B010AMR3A0520A00

SHIP DATE: 04FEB10  
ACTMGT: 46.0 LB-MAN  
CAD: 0014176/CAFE2449

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(943) 556-8171  
REF: 6B010AMR3A0520A00



FedEx  
Express



2 of 2  
7209 7849 8974

FRI - 05FEB A1  
PRIORITY OVERNIGHT

LN 7209 7849 8963 (0201)

XX CHSA

29407  
SC-US  
CHS



ORIGIN: SAFA (505) 565-8060  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TAGS BLDG 1237 DPU 63  
LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 04FEB10  
ACTMGT: 57.0 LB MAN  
CAD: 0014176/SAFE2449

BILL SENDER

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 88010ANR1A015AGWKO



FedEx  
Express



1 of 2  
TRKH 7209 7849 8963  
MASTER NN

FRI - 05FEB A1  
PRIORITY OVERNIGHT

FedEx

TRKH 7209 7849 8963

FRI - 05 FEB A1  
PRIORITY OVERNIGHT

XX CHSA

29407  
SC-US  
CHS



LOS ALAMOS, NM 87545  
UNITED STATES US

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 88010ANR1A015AGWKO



FedEx  
Express



1 of 2  
RKH 7209 7849 8779  
MASTER NN

FRI - 05FEB A1  
PRIORITY OVERNIGHT

Page 15 of 1436

29407  
SC-US

ORIGIN: SAFA (505) 565-8060  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TAGS BLDG 1237 DPU 63  
LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 04FEB10  
ACTMGT: 57.0 LB MAN  
CAD: 0014176/SAFE2449

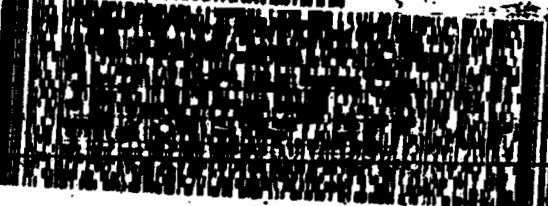
BILL SENDER

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 88010ANR1A015AGWKO



FedEx  
Express



2 of 2  
TRKH 7209 7849 8805  
MASTER NN

FRI - 05FEB A1  
PRIORITY OVERNIGHT

XX CHSA

29407  
SC-US  
CHS



ORIGIN: SAFA (505) 565-8060  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TAGS BLDG 1237 DPU 63  
LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 04FEB10  
ACTMGT: 57.0 LB MAN  
CAD: 0014176/SAFE2449

BILL SENDER

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 88010ANR1A015AGWKO



FedEx  
Express



TRKH 7209 7849 8838

FRI - 05FEB A1  
PRIORITY OVERNIGHT

XX CHSA

29407  
SC-US  
CHS

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

SHIP DATE: 04FEB10  
ACTGNT: 50.0 LB MAN  
CAD: 0014176/CAFE2449

LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

ERIE DAVIS  
ERAL ENGINEERING LAB  
04 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 68010AMR1A015AGWKO

FedEx  
Express



1 of 2

7209 7849 8816

MASTER NN

FRI - 05FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA



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

SHIP DATE: 04FEB10  
ACTGNT: 50.0 LB MAN  
CAD: 0014176/CAFE2449

LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 68010AMR3A0532VA00

FedEx  
Express



2 of 2

FRI - 05FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

PSN 7209 7849 9054

istrM 7209 7849 9043 [0201]

XX CHSA

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

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 04FEB10  
ACTGNT: 50.0 LB MAN  
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 68010AMR1A015AGWKO

FedEx  
Express



1 of 2

7209 7849 8790

MASTER NN

FRI - 05FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA



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

SHIP DATE: 04FEB10  
ACTGNT: 50.0 LB MAN  
CAD: 0014176/CAFE2449

LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 68010AMR3A0520A00

FedEx  
Express



3 of 3

7209 7849 8702

istrM 7209 7849 8887 [0201]

FRI - 05FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA

ORIGIN ID: SAFA (505) 555-8900  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TAGS BLDG 1237 DPU 63  
LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 04FEB10  
ACTWT: 49.9 LB MAN  
CDO: 0014175/CAFE2449  
BILL SENDER

JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TAGS BLDG 1237 DPU 63  
LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 04FEB10  
ACTWT: 59.9 LB MAN  
CDO: 0014175/CAFE2449  
BILL SENDER

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407  
(843) 555-8171  
REF: 6B010AMR1A015AGNKO



VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407  
(843) 555-8171  
REF: 6B010AMR3A0032VROO



1 of 3  
TRKH 7209 7849 8724  
0201  
NN MASTER NN

FRI - 05FEB A1  
PRIORITY OVERNIGHT

XX CHSA



1 of 2  
TRKH 7209 7849 9043  
0201  
NN MASTER NN

FRI - 05FEB A1  
PRIORITY OVERNIGHT

XX CHSA



ORIGIN ID: SAFA (505) 555-8900  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TAGS BLDG 1237 DPU 63  
LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 04FEB10  
ACTWT: 59.9 LB MAN  
CDO: 0014175/CAFE2449  
BILL SENDER

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407  
(843) 555-8171  
REF: 6B010AMR1A015AGNKO

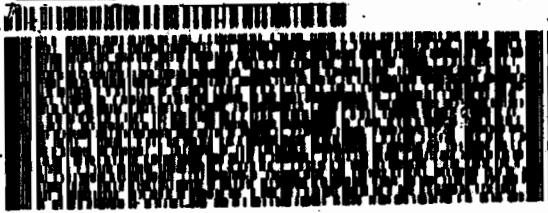


ORIGIN ID: SAFA (505) 555-8900  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TAGS BLDG 1237 DPU 63  
LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 04FEB10  
ACTWT: 57.9 LB MAN  
CDO: 0014175/CAFE2449  
BILL SENDER

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407  
(843) 555-8171  
REF: 6B010AMR1A015AGNKO



2 of 2  
PSN 7209 7849 8827  
263 strn 7209 7849 8815 0201

FRI - 05FEB A1  
PRIORITY OVERNIGHT

XX CHSA



TRKH 7209 7849 9124  
0201

FRI - 05FEB A1  
PRIORITY OVERNIGHT

XX CHSA

29407-SC-US  
CHS

LOS ALAMOS NATL LAB  
TAGS BLDG 1237 DPU 83  
LOS ALAMOS, NM 87545  
UNITED STATES US

ACTWGT: 50.0 LB MAN  
CRD: 0014175/CAFE2449

BILL SENDER

SHIP DATE: 04FEB10  
ACTWGT: 81.0 LB MAN  
CRD: 0014175/CAFE2449

LOS ALAMOS, NM 87545  
UNITED STATES US

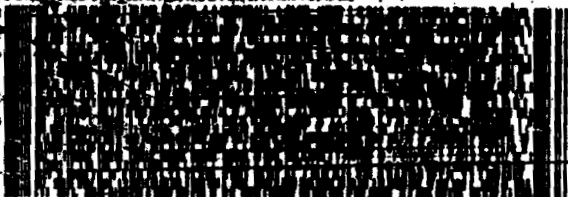
BILL SENDER

9°  
VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR3A0520A00

0014175/CAFE2449



FedEx  
Express



1 of 2  
TRKH  
0201 7209 7849 8941

MM MASTER MM

FRI - 05FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA



ORIGIN ID: SAFA (505) 665-8968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TAGS BLDG 1237 DPU 83  
LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 04FEB10  
ACTWGT: 52.0 LB MAN  
CRD: 0014175/CAFE2449

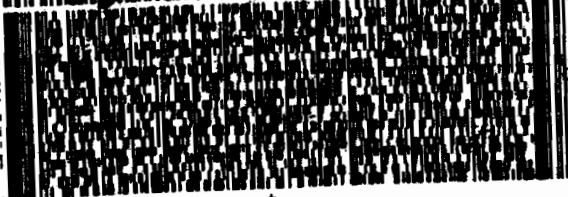
BILL SENDER

11°  
VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR3A0520A00

0014175/CAFE2449



FedEx  
Express



1 of 3  
TRKH  
0201 7209 7849 8687

MM MASTER MM

FRI - 05FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA

10°  
VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR3A0520A00

0014175/CAFE2449



FedEx  
Express



2 of 2  
TRKH  
0201 7209 7849 8952

MatrN 7209 7849 8941 0201

FRI - 05FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA



ORIGIN ID: SAFA (505) 665-8968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TAGS BLDG 1237 DPU 83

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 04FEB10  
ACTWGT: 48.0 LB MAN  
CRD: 0014175/CAFE2449

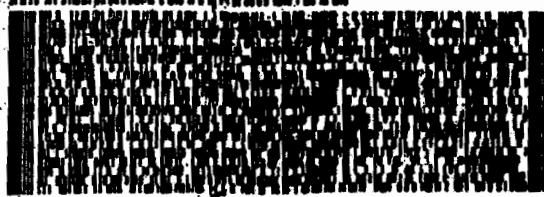
BILL SENDER

12°  
VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 6B010AMR3A0520A00

0014175/CAFE2449



FedEx  
Express



2 of 3  
TRKH  
0201 7209 7849 8698

MatrN 7209 7849 8687 0201

FRI - 05FEB A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA

0014175/CAFE2449



JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TAGE BLDG 1237 DPU 63  
ALAMOS NM 87545  
UNITED STATES US

CRD: 0014176/CAFE2449

BILL SENDER

120  
VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 68010MR3A0520A00

0010 011000 0000 0000 0000 0000 0000 0000



FedEx  
Express



1 of 2  
TIPS# 7209 7849 8665  
0263  
Matr# 7209 7849 8665

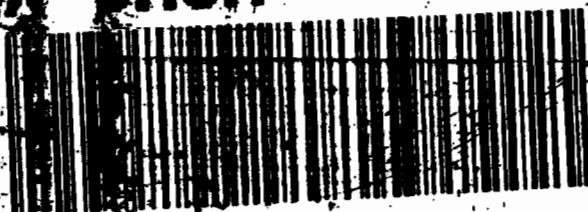
FRI - 05FEB A1  
PRIORITY OVERNIGHT

29407

SC-US

CHS

XX CHSA



JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TAGE BLDG 1237 DPU 63  
ALAMOS NM 87545  
UNITED STATES US

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: 68010MR1A015AGWKO

0010 011000 0000 0000 0000 0000 0000 0000



FedEx  
Express



2 of 3  
TIPS# 7209 7849 9000  
0263  
Matr# 7209 7849 8996 0201

XX CHSA

140  
FRI - 05FEB A1  
PRIORITY OVERNIGHT

29407

SC-US

CHS

SHIP DATE: 04FEB10  
ACTING: 30 8 LB 11MM  
CRD: 0014176/CAFE2449

BILL SENDER



FRI - 05FEB A1  
PRIORITY OVERNIGHT

29407

SC-US

CHS



FedEx  
Express



2 of 2  
TIPS# 7209 7849 8676  
0263  
Matr# 7209 7849 8665 0201

FRI - 05FEB A1  
PRIORITY OVERNIGHT

29407

SC-US

CHS

XX CHSA



SHIP DATE: 04FEB10  
ACTING: 30 8 LB 11MM  
CRD: 0014176/CAFE2449

BILL SENDER



FRI - 05FEB A1  
PRIORITY OVERNIGHT

29407

SC-US

CHS

# **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 10-1568**

**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:** 950042

**Prep Batch Number:** 950041

**Sample Analysis**

<b>Sample ID</b>	<b>Client ID</b>
246334001	RE15-10-8328
1202035613	Interference Check Sample (ICS)
1202035609	Method Blank (MB)
1202035610	Laboratory Control Sample (LCS)
1202035611	246292001(RE16-10-1495) Matrix Spike (MS)
1202035612	246292001(RE16-10-1495) 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.

10-1568-PERLCMS

Page 1 of 4

**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 246292001 (RE16-10-1495) from SDG 10-1554-1 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.

10-1568-PERLCMS

Page 2 of 4

### **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 sample in this SDG was 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: Hester M. Muen

Date: 02/23/10

10-1568-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: WATER

Extraction Batch ID: 950041

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.

RE15-10-8328

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1568

GEL Sample ID: 246334001

Date Filtered: 12-FEB-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	17-FEB-10 06:30	per0216097a
	Perchlorate Isotope Ratio						1	17-FEB-10 06:30	per0216097a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	17-FEB-10 06:30	per0216097a
	Perchlorate-O(18)			0.498	ug/L		1	17-FEB-10 06:30	per0216097a

<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): 10-1568

Extract Batch Code: 950041 Date Filtered: 12-FEB-10

Matrix: WATER Sample ID: 1202035610

Analyte <sup>^</sup>	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.211	ug/L	105		85 - 115
Perchlorate Isotope Ratio		3.3				-
Perchlorate-101	0.200	.206	ug/L	103		85 - 115
Perchlorate-O(18)		.505	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.



Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG):

10-1568

Extract Batch Code: 950041

Date Filtered: 12-FEB-10

Matrix:

WATER

Sample ID:

1202035613

Analyte <sup>^</sup>	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.194	ug/L	97		70 - 130
Perchlorate Isotope Ratio		3.15				
Perchlorate-101	0.200	.198	ug/L	98.8		70 - 130
Perchlorate-O(18)		.481	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.

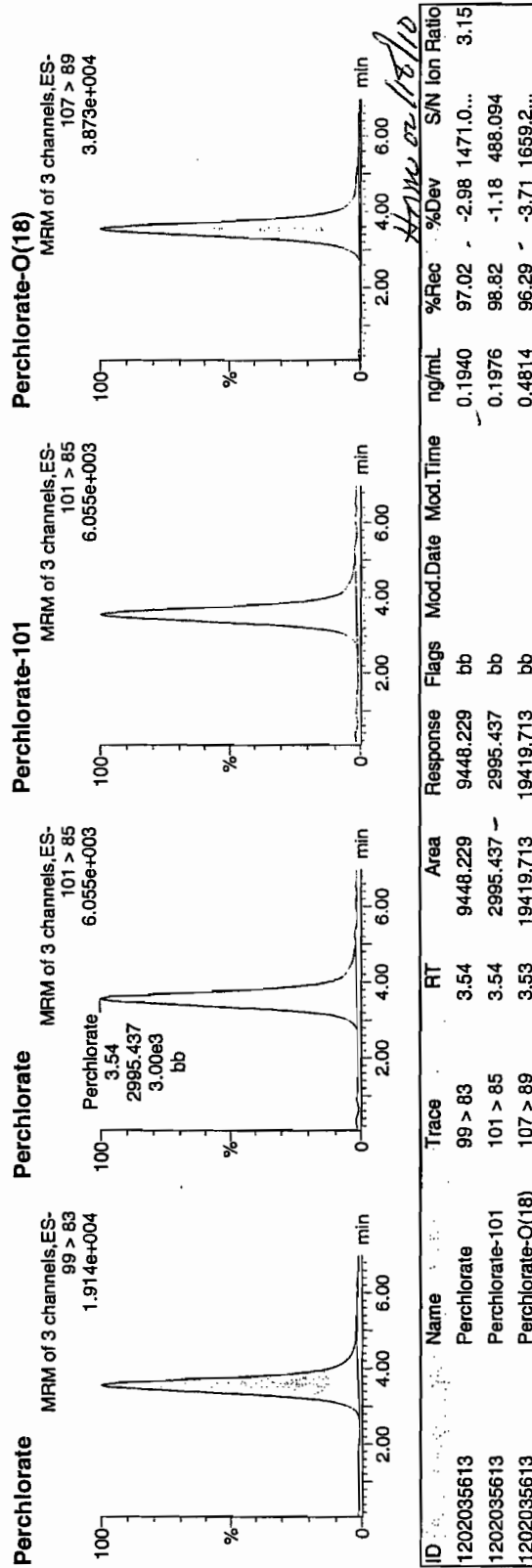
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216076a  
Date: 17-Feb-2010  
Time: 02:57:35  
ID: 1202035613  
Vial: 3:1,C

17100 | 950042 | EQ | 105 | 11 |  
02.17.10



Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10-1568

Extract Batch Code: 950041

Date Extracted: 12-FEB-10

GEL MS/PS ID: 1202035611

Client ID: RE16-10-1495

GEL MSD/PSD ID: 1202035612

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec	#	MSD Conc	MSD Rec	#	RPD	#	RPD Limit	Recovery Limit
Perchlorate	0.200	0.00193	ug/L	0.212	105		.214	106		1.25		30	75 - 125
Perchlorate Isotope Ratio	0	0.00		3.39			3.41			0			-
Perchlorate-101	0.200	0.00	ug/L	0.201	100		.202	101		.507		30	75 - 125
Perchlorate-O(18)	0	0.487	ug/L	0.505			.498			1.32			-

^ 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

GEL Job No.(SDG): 10-1568

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	16-FEB-10	per0216001a	IPB001
Perchlorate-101	0.00	0	NA	16-FEB-10	per0216001a	IPB001
Perchlorate	0.00	0	NA	16-FEB-10	per0216002a	IPB001
Perchlorate-101	0.00	0	NA	16-FEB-10	per0216002a	IPB001

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

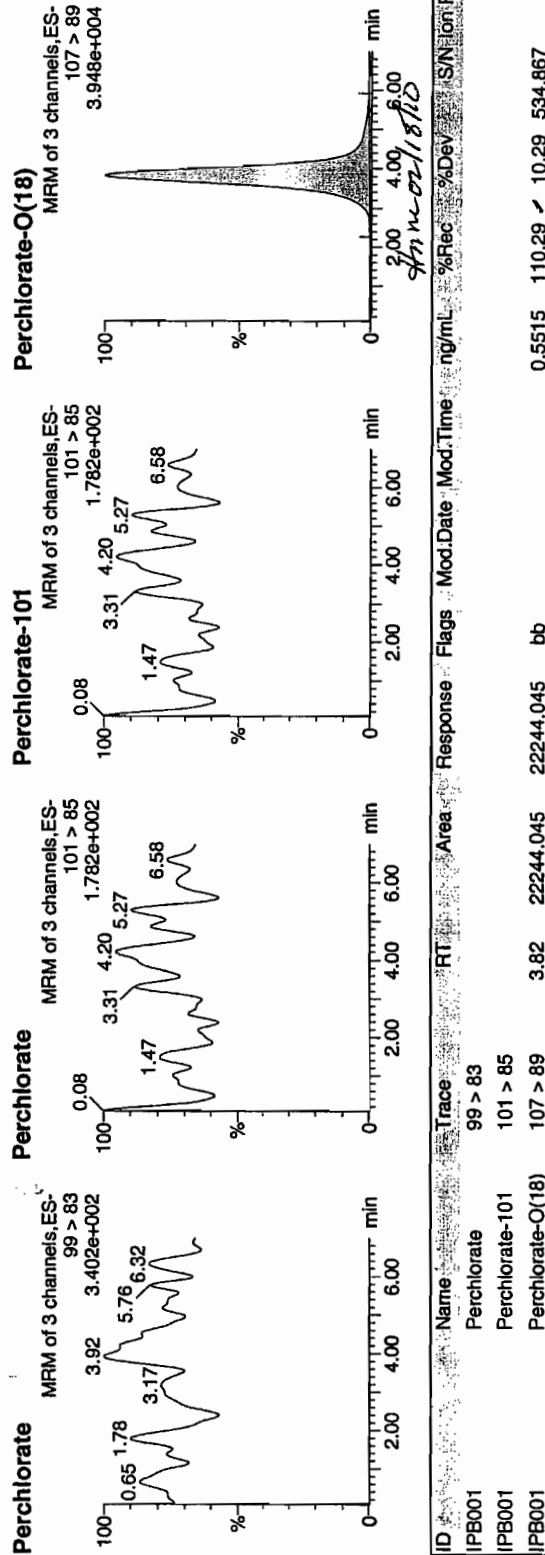
Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per021610a.mdb 17 Feb 2010 09:42:10  
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per021610a.cdb 17 Feb 2010 11:03:29

Name: per0216001a  
Date: 16-Feb-2010  
Time: 14:21:05  
ID: IPB001  
Vial: 1:1,A

02-17-10



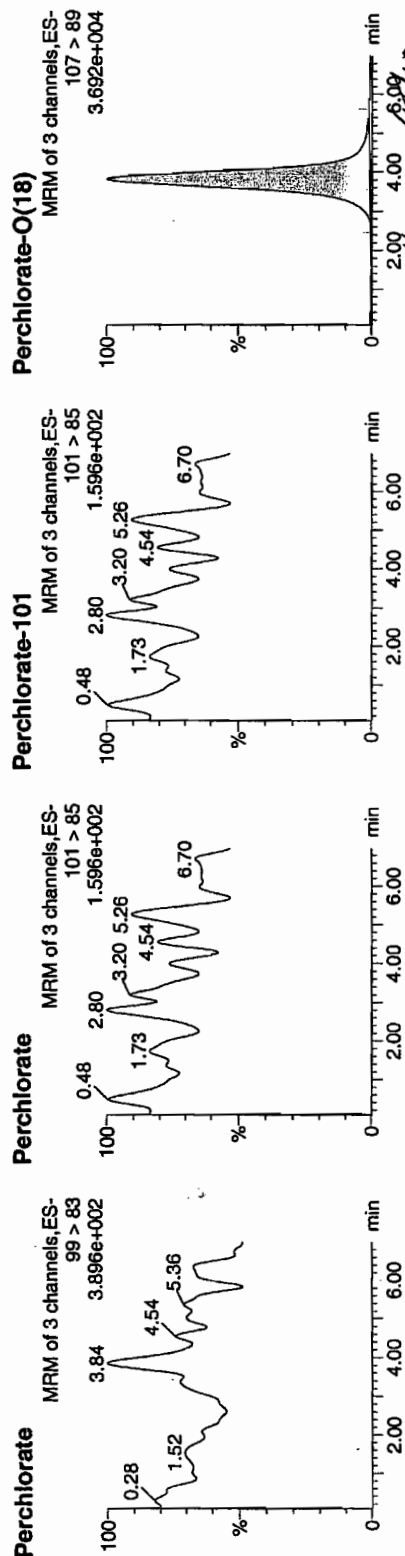
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216002a  
Date: 16-Feb-2010  
Time: 14:31:15  
ID: IPB001  
Vial: 1:1,A

02-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	3.81	20630.770	20630.770	bb			0.5115	102.29	2.29	947.702	0.00

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1568

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	16-FEB-10	per0216008a	IPB002
Perchlorate-101	0.00	0	NA	16-FEB-10	per0216008a	IPB002
Perchlorate	0.00	0	NA	16-FEB-10	per0216010a	IPB003
Perchlorate-101	0.00	0	NA	16-FEB-10	per0216010a	IPB003
Perchlorate	0.00	0	NA	16-FEB-10	per0216023a	IPB004
Perchlorate-101	0.00	0	NA	16-FEB-10	per0216023a	IPB004
Perchlorate	0.00	0	NA	16-FEB-10	per0216036a	IPB005
Perchlorate-101	0.00	0	NA	16-FEB-10	per0216036a	IPB005
Perchlorate	0.00	0	NA	16-FEB-10	per0216039a	IPB006
Perchlorate-101	0.00	0	NA	16-FEB-10	per0216039a	IPB006
Perchlorate	0.00	0	NA	16-FEB-10	per0216049a	IPB007
Perchlorate-101	0.00	0	NA	16-FEB-10	per0216049a	IPB007
Perchlorate	0.00	0	NA	17-FEB-10	per0216061a	IPB008

Perchlorate Continuing Calibration Blank

GEL Job No.(SDG): 10-1568

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-101	0.00	0	NA	17-FEB-10	per0216061a	IPB008
Perchlorate	0.00	0	NA	17-FEB-10	per0216072a	IPB009
Perchlorate-101	0.00	0	NA	17-FEB-10	per0216072a	IPB009
Perchlorate	0.00	0	NA	17-FEB-10	per0216082a	IPB010
Perchlorate-101	0.00	0	NA	17-FEB-10	per0216082a	IPB010
Perchlorate	0.00	0	NA	17-FEB-10	per0216093a	IPB011
Perchlorate-101	0.00	0	NA	17-FEB-10	per0216093a	IPB011
Perchlorate	0.00	0	NA	17-FEB-10	per0216104a	IPB012
Perchlorate-101	0.00	0	NA	17-FEB-10	per0216104a	IPB012



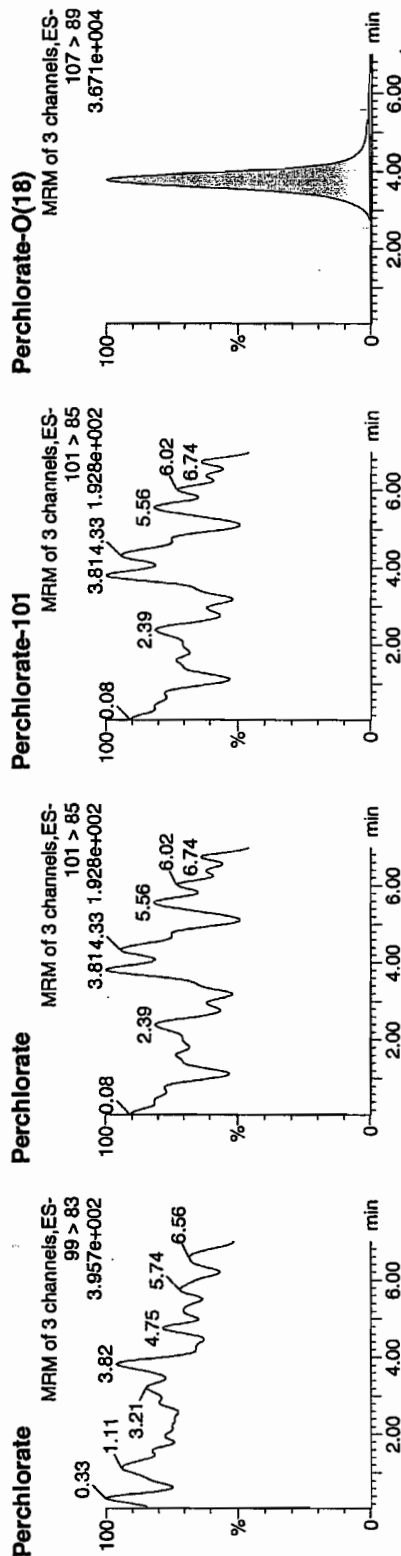
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216008a  
Date: 16-Feb-2010  
Time: 15:31:21  
ID: IPB002  
Vial: 1:1,A

02-17-10



ID	Name	Trace	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	Ion Ratio
IPB002	Perchlorate	99 > 83									0.00
IPB002	Perchlorate-101	101 > 85									
IPB002	Perchlorate-O(18)	107 > 89	3.78	20323.039	20323.039	bb		0.5038	100.77	~ 0.77	1746.4...

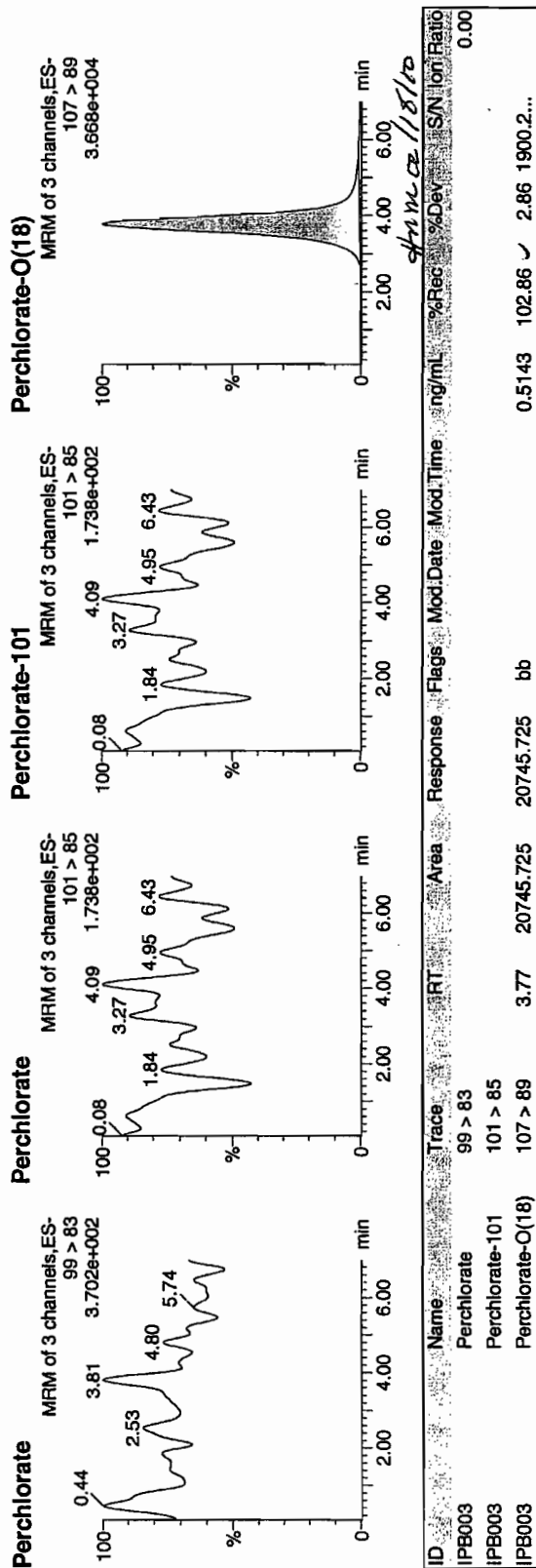
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216010a  
Date: 16-Feb-2010  
Time: 15:51:26  
ID: IPB003  
Vial: 1:1,A

02-17-10



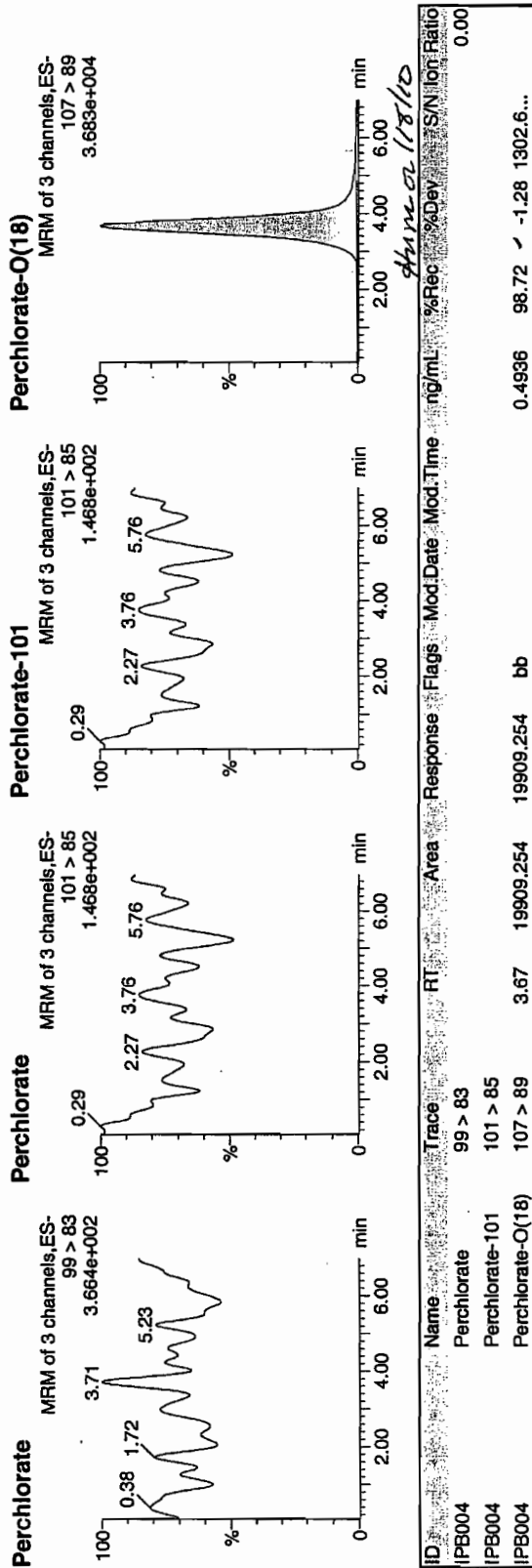
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216023a  
Date: 16-Feb-2010  
Time: 18:01:56  
ID: IPB004  
Vial: 1:1,A

22-17-10



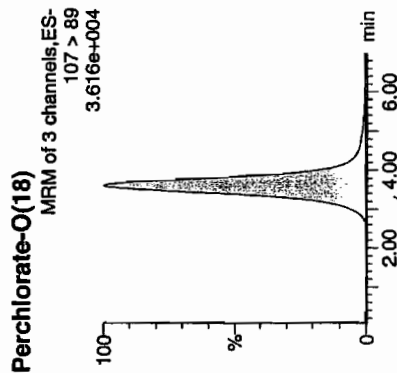
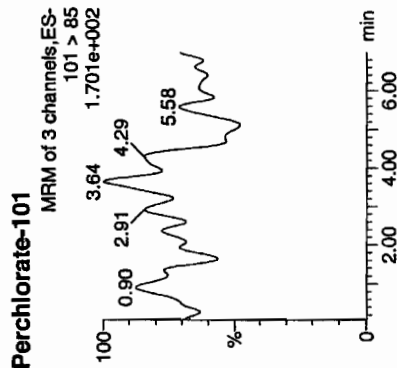
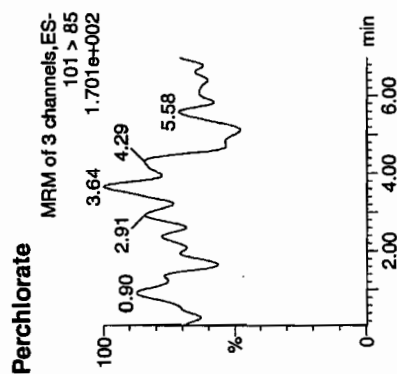
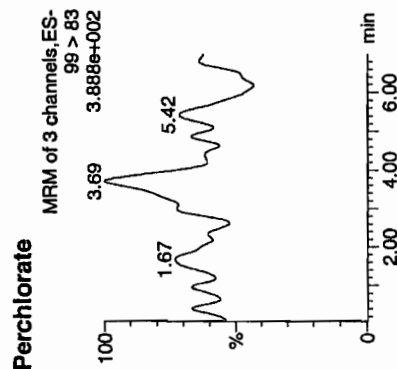
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216036a  
Date: 16-Feb-2010  
Time: 20:12:53  
ID: IPB005  
Vial: 1:1,A

OL-17-10



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	3.61	19878.104	19878.104	bb			0.4928	98.56	-1.44	3239.0...	

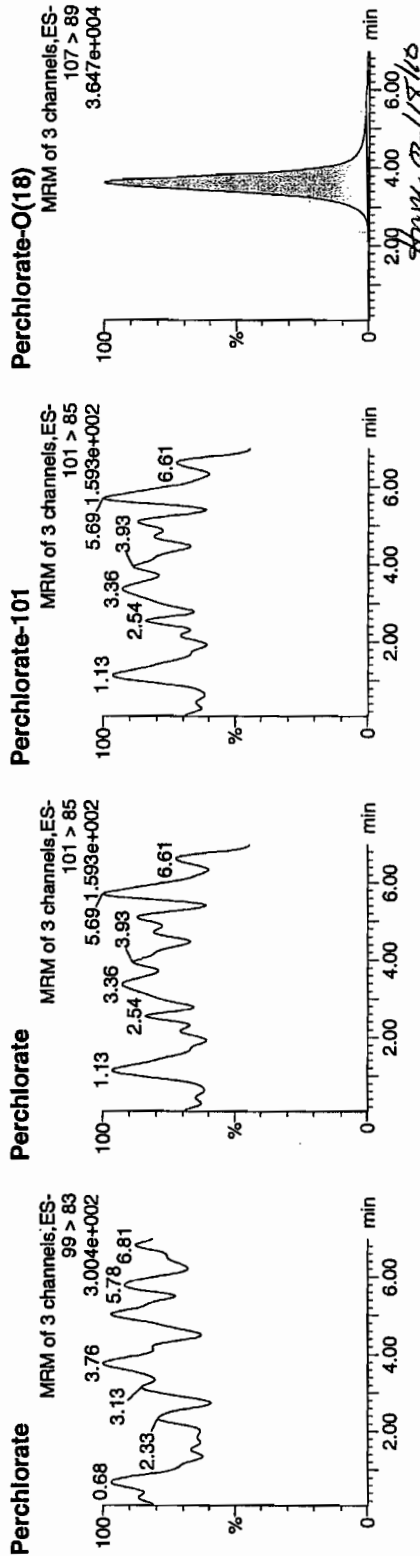
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216039a  
Date: 16-Feb-2010  
Time: 20:43:11  
ID: IPB006  
Vial: 1:1,A

02-17-10



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	3.62	19785.953	19785.953	bb			0.4905	98.11	-1.89	3518.4...	
IPB006	Perchlorate-O(18)	107 > 89											

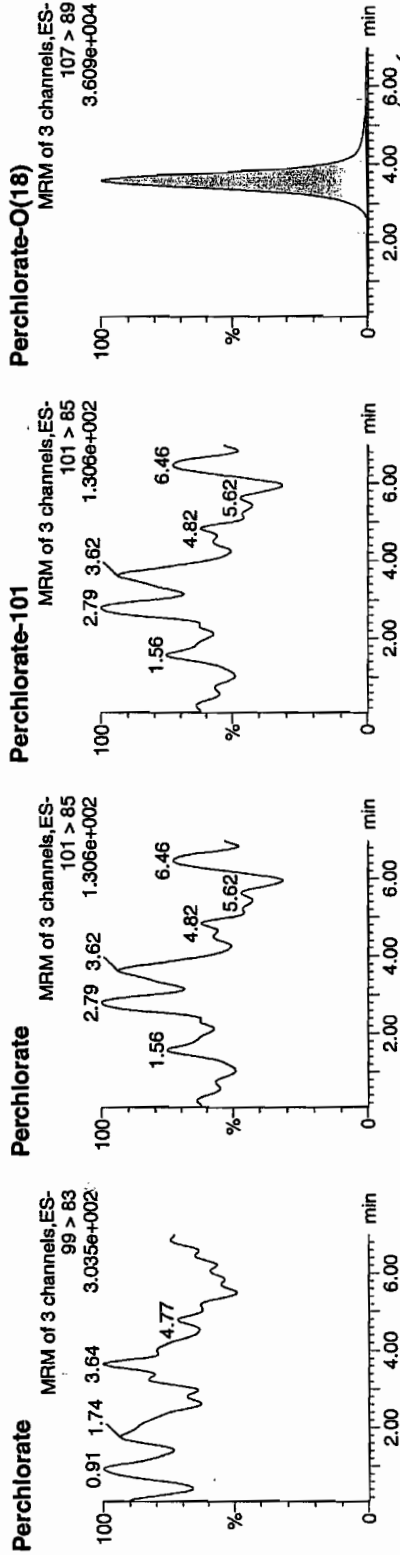
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216049a  
Date: 16-Feb-2010  
Time: 22:24:49  
ID: IPB007  
Vial: 1:1,A

02-17-10



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	3.58	19511.553	19511.553	bb			0.4837	96.74	-3.26	2577.0...	

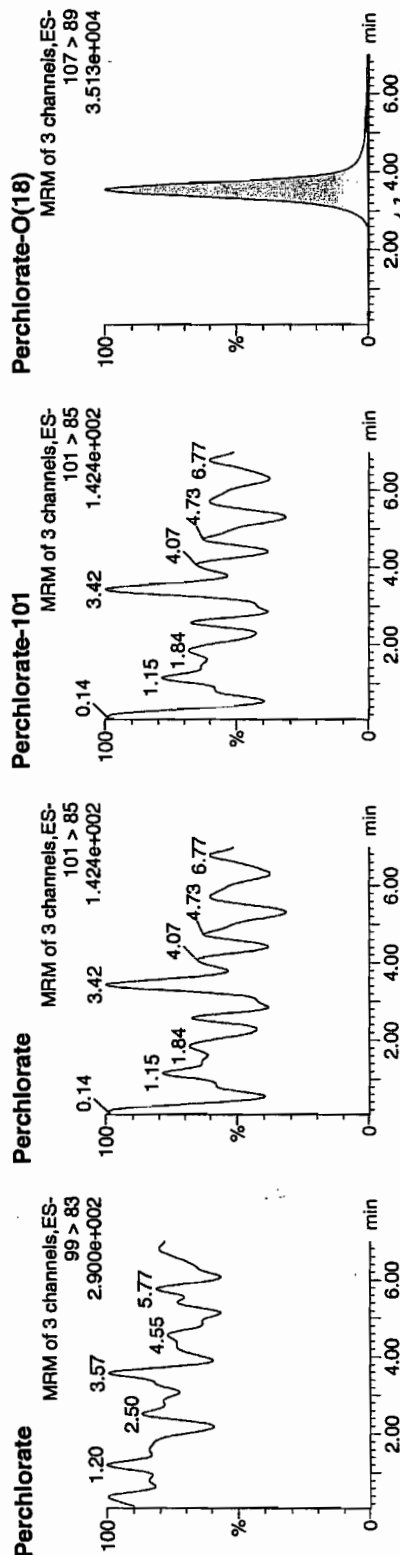
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216061a  
Date: 17-Feb-2010  
Time: 00:25:47  
ID: IPB008  
Vial: 1:1,A

3.513e+004  
02-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB008	Perchlorate	99 > 83											0.00
IPB008	Perchlorate-101	101 > 85											
IPB008	Perchlorate-O(18)	107 > 89	3.53	19011.539	19011.539	bb			0.4713	94.27	-5.73	450.995	

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charfers W. Wilson

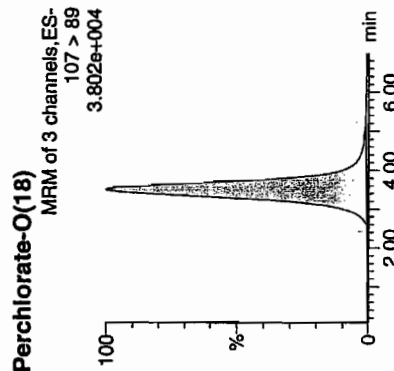
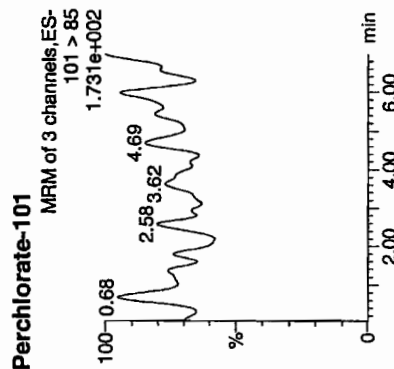
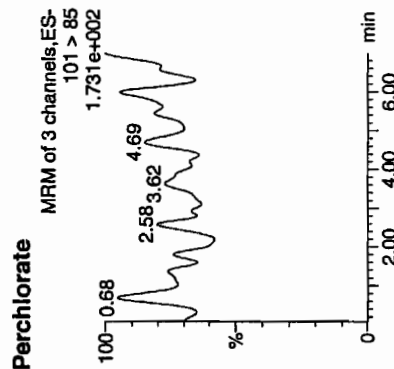
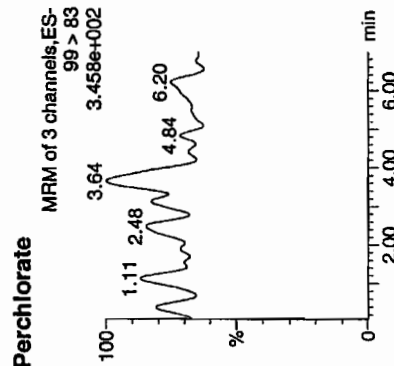
Page 72 of 109

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216072a  
Date: 17-Feb-2010  
Time: 02:16:48  
ID: IPB009  
Vial: 1:1,A

02-17-10



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	3.51	20058.123	20058.123	bb			0.4973	99.46	-0.54	966.944	



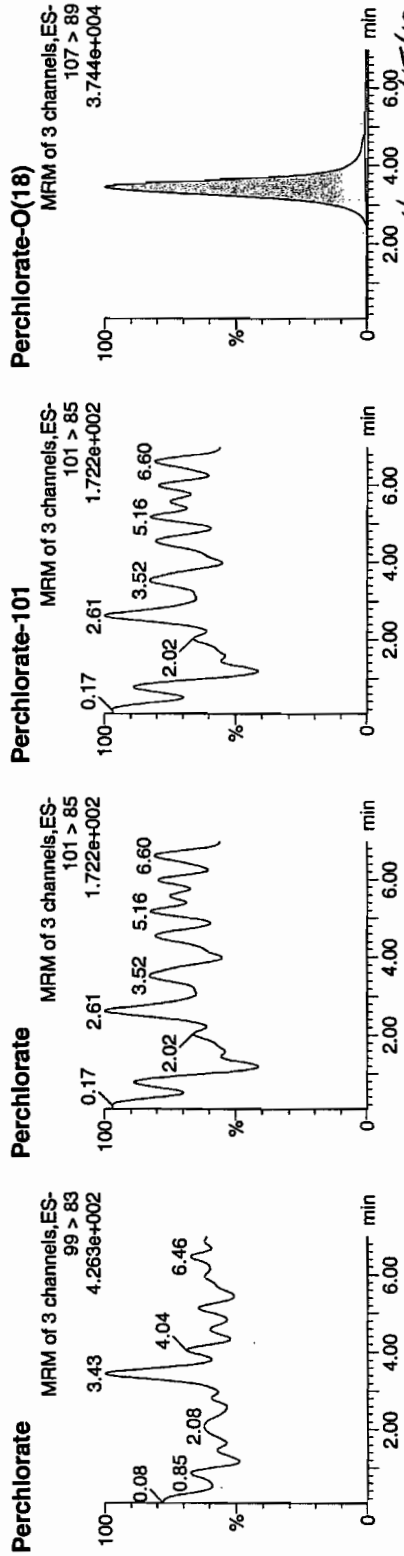
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216082a  
Date: 17-Feb-2010  
Time: 03:58:11  
ID: IPB010  
Vial: 1:1,A

0.00  
02.17.10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
IPB010	Perchlorate	99 > 83											0.00
IPB010	Perchlorate-101	101 > 85	3.43	19410.971	19410.971	bb			0.4812	96.25	-3.75	1629.3...	
IPB010	Perchlorate-O(18)	107 > 89											

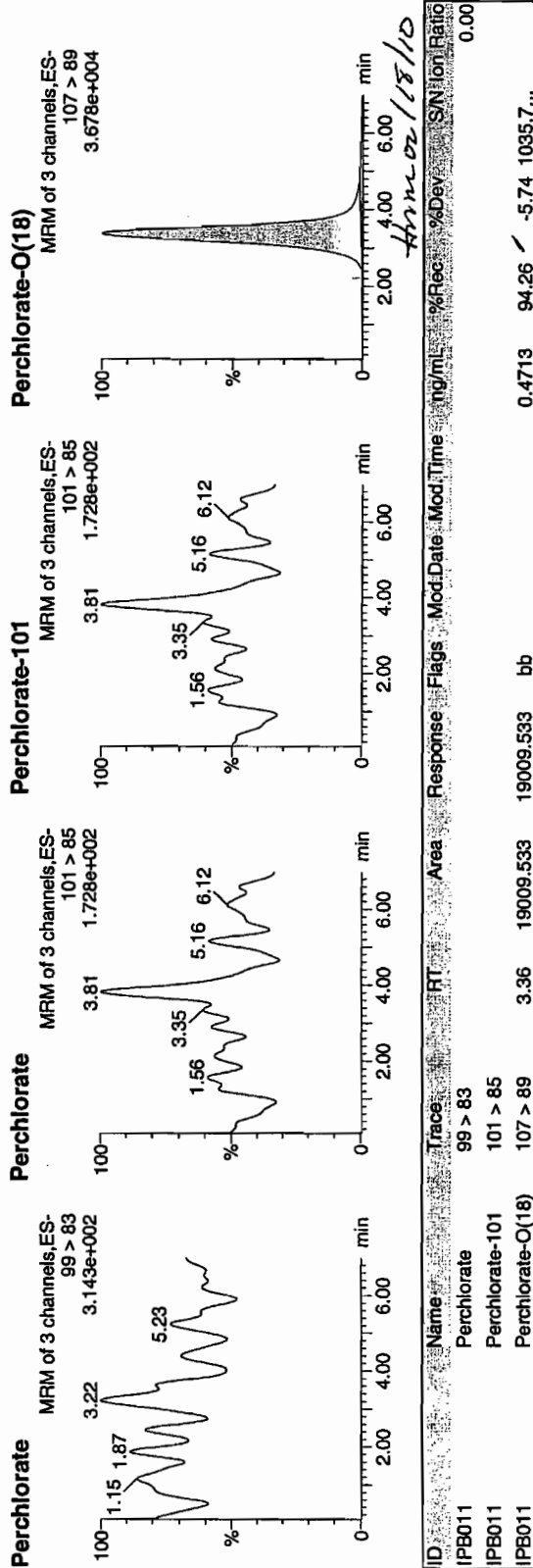
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216093a  
Date: 17-Feb-2010  
Time: 05:49:29  
ID: IPB011  
Vial: 1:1,A

02-17-10



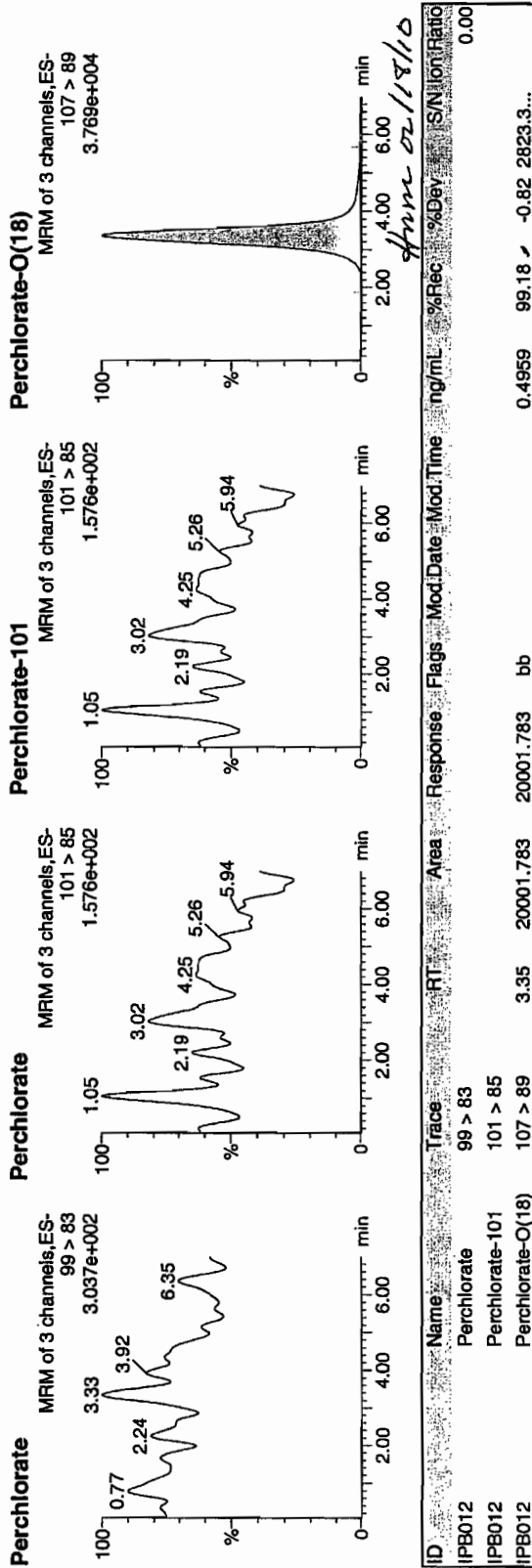
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216104a  
Date: 17-Feb-2010  
Time: 07:40:42  
ID: IPB012  
Vial: 1:1,A

02-17-10



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

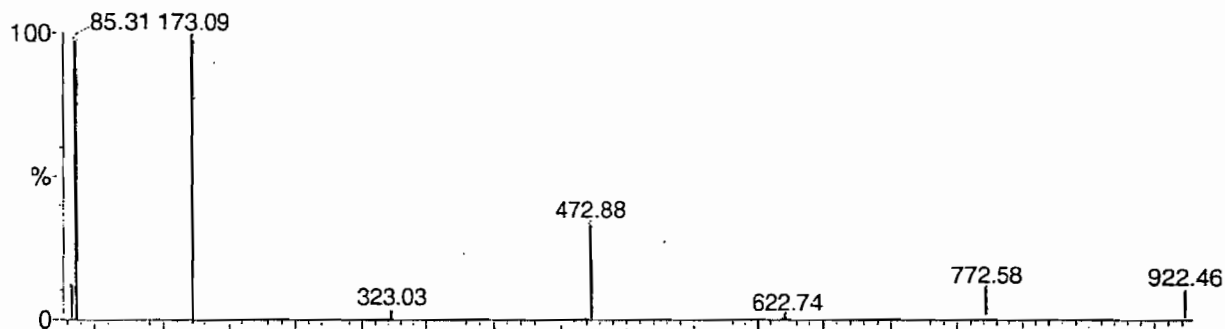
Page 1 of 1

Printed: Tue Jan 08 12:19:12 2008

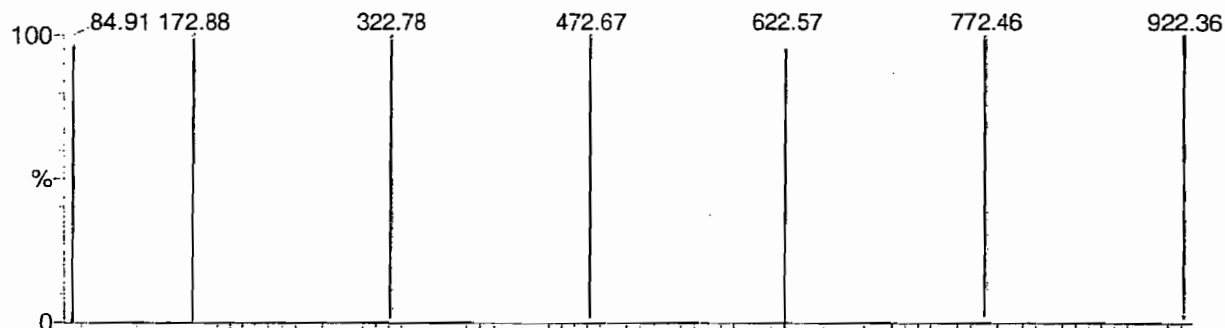
POINTS HIGHLIGHTED BY CURV 01-09-08

Data file: STATMS1 - Uncalibrated

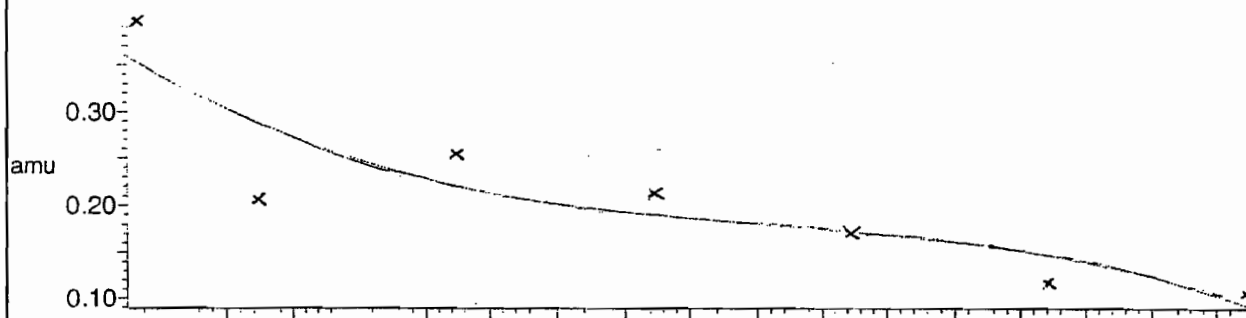
7 matches of 7 tested references



Reference file: Nairb

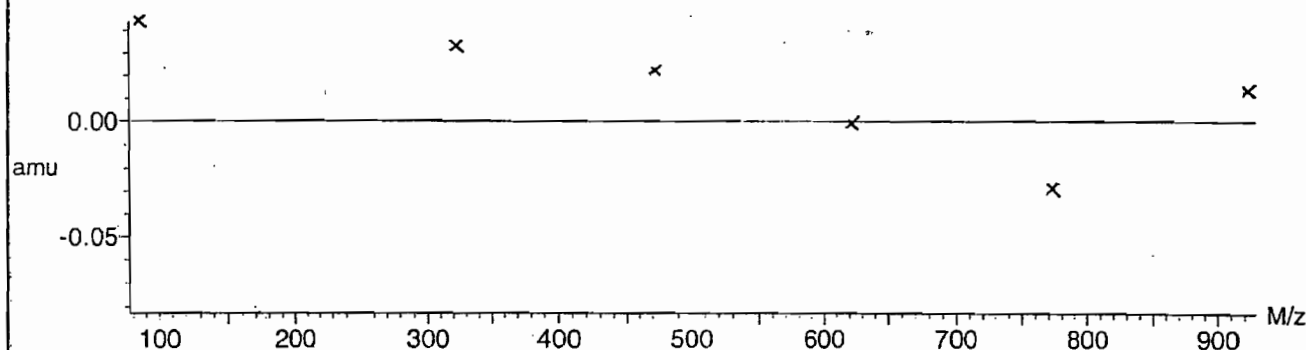


Mass difference (Raw - Ref mass)



Residuals

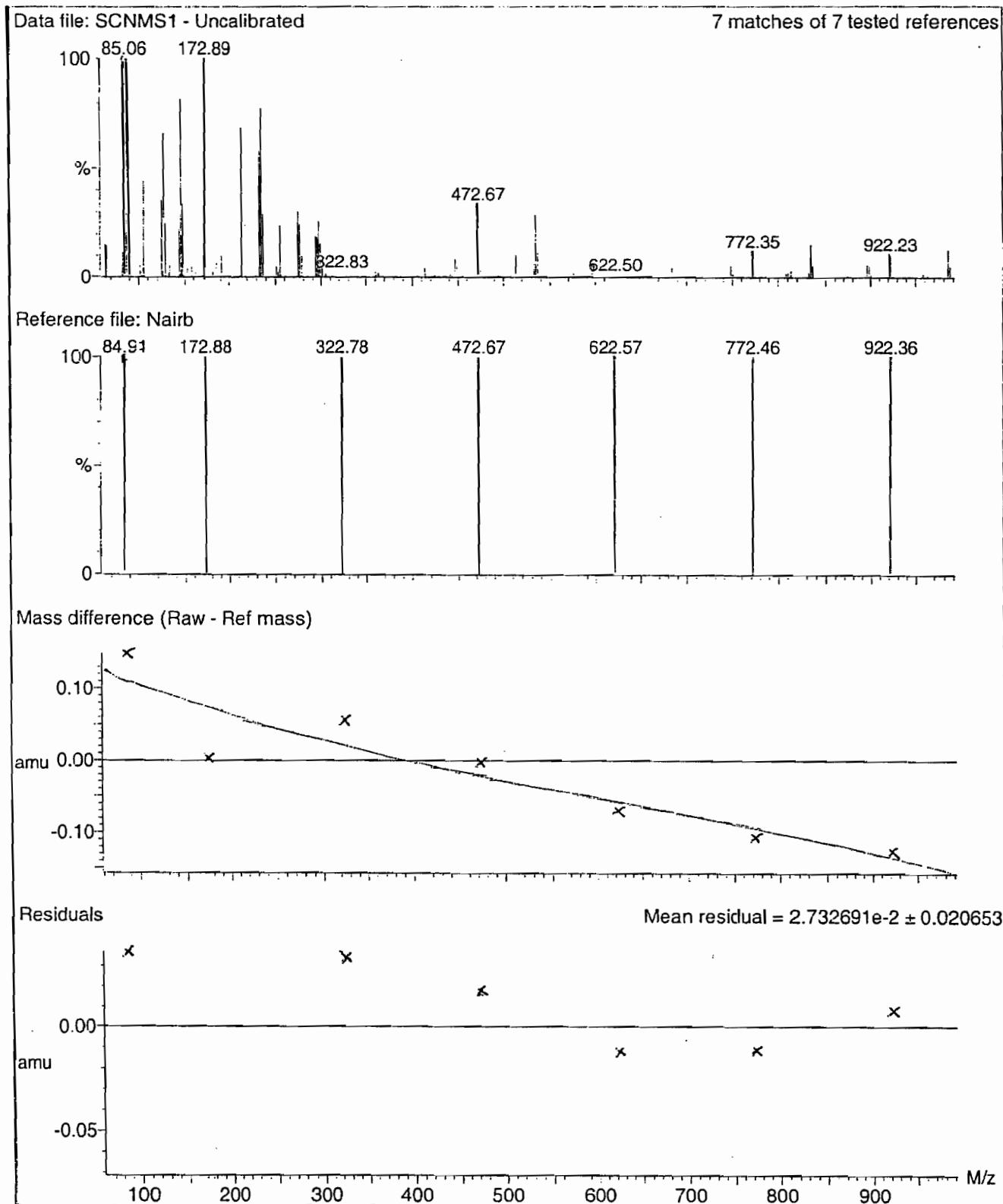
Mean residual =  $3.212012 \times 10^{-2} \pm 0.024108$



Calibration Report - MS1 Scanning

Page 1 of 1

Printed: Tue Jan 08 12:20:09 2008



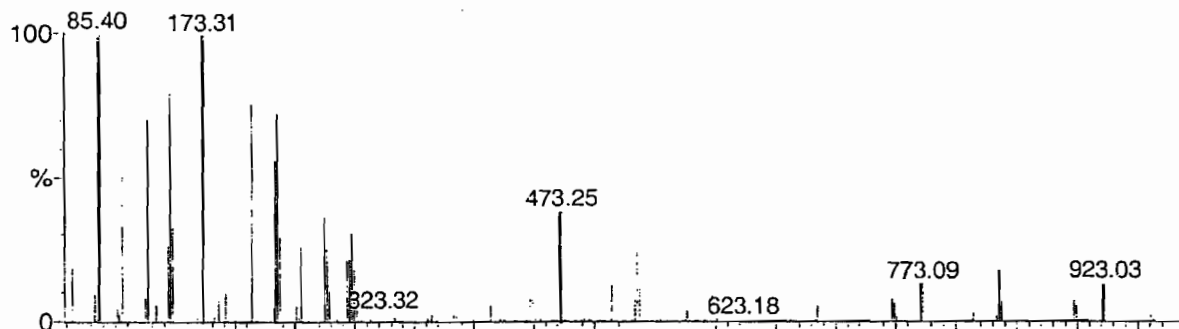
Calibration Report - MS1 Scan Speed Compensation

Page 1 of 1

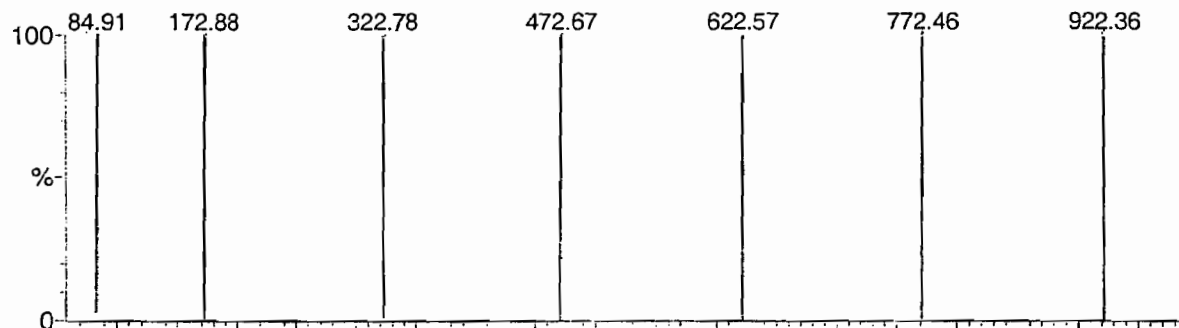
Printed: Tue Jan 08 12:21:04 2008

Data file: FASTMS1 - Uncalibrated

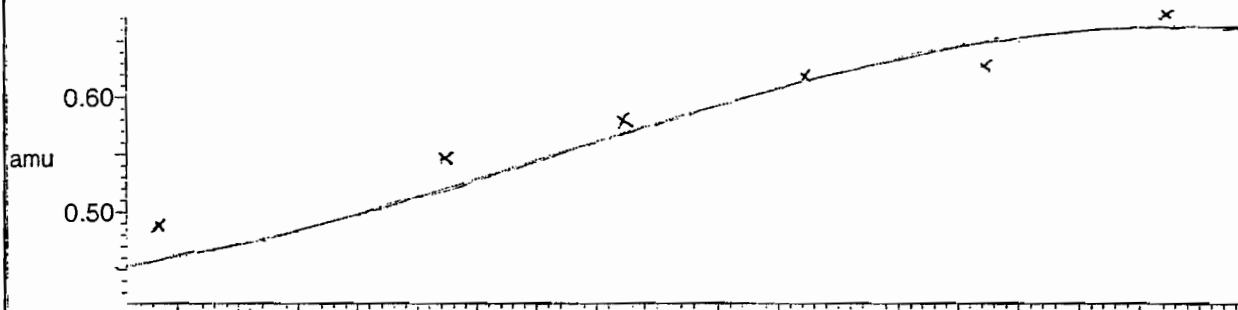
7 matches of 7 tested references



Reference file: Nairb

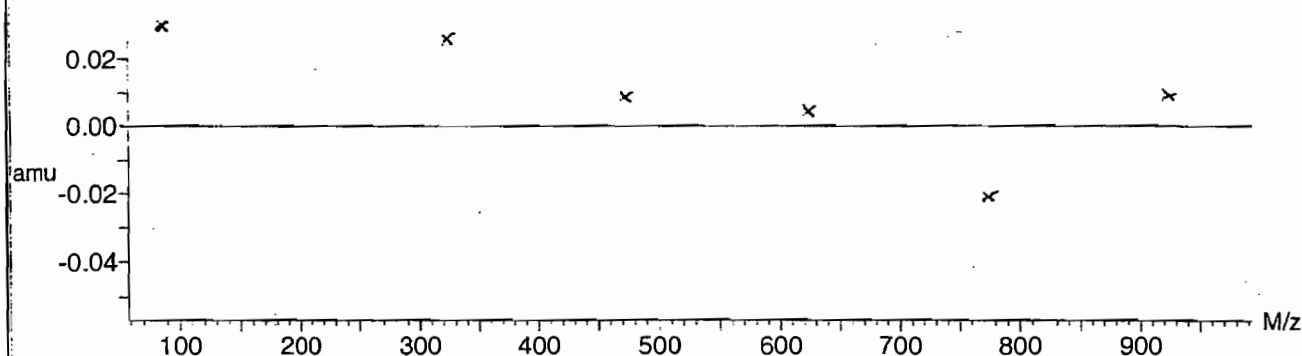


Mass difference (Raw - Ref mass)



Residuals

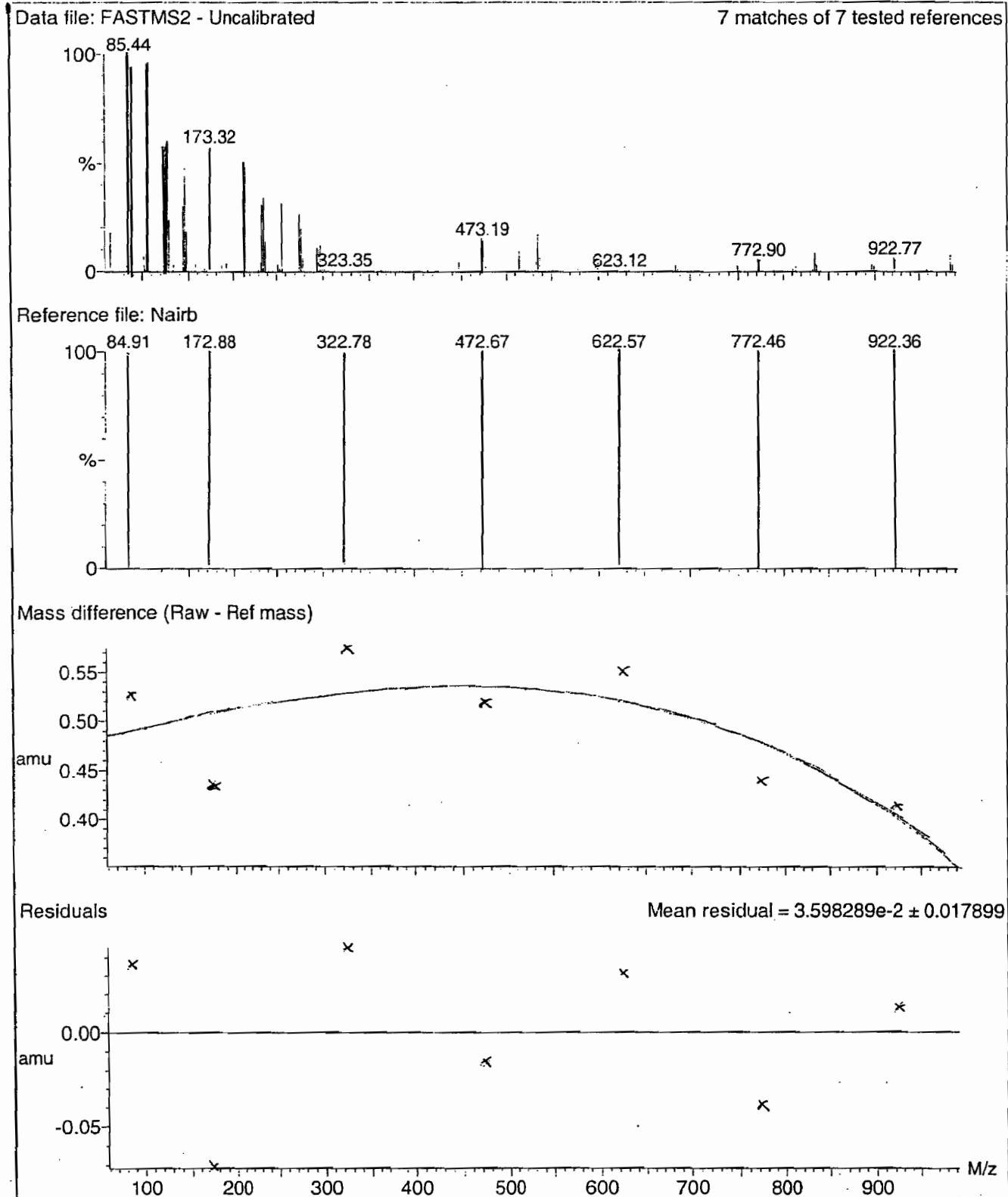
Mean residual =  $2.224580 \times 10^{-2} \pm 0.016544$



Calibration Report - MS2 Scan Speed Compensation

Page 1 of 1

Printed: Tue Jan 08 12:23:51 2008





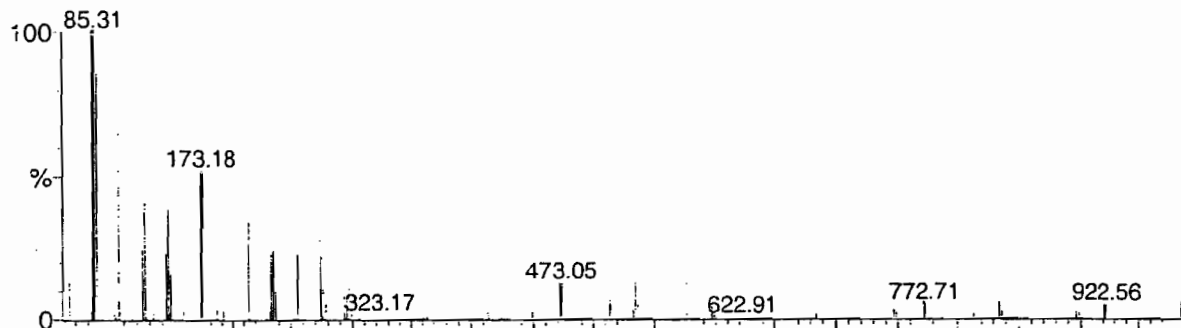
Calibration Report - MS2 Scanning

Page 1 of 1

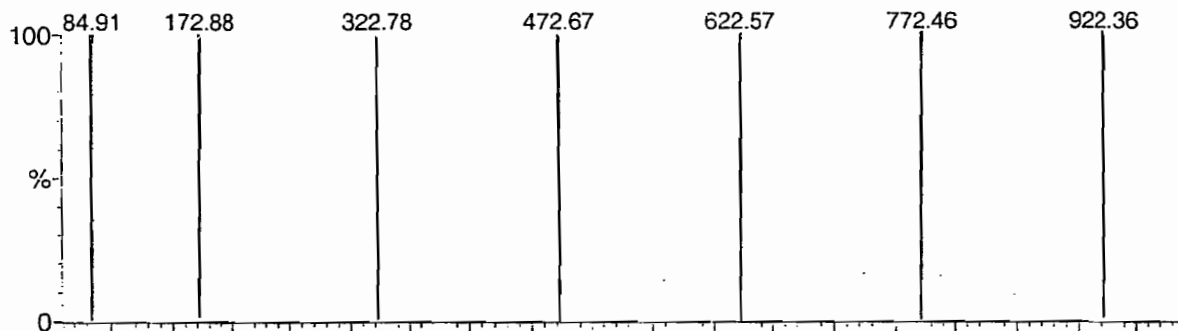
Printed: Tue Jan 08 12:22:56 2008

Data file: SCNMS2 - Uncalibrated

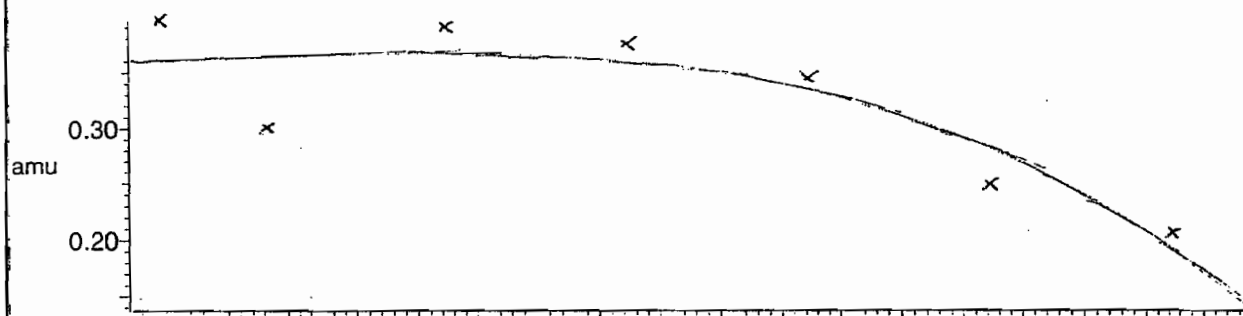
7 matches of 7 tested references



Reference file: Nairb

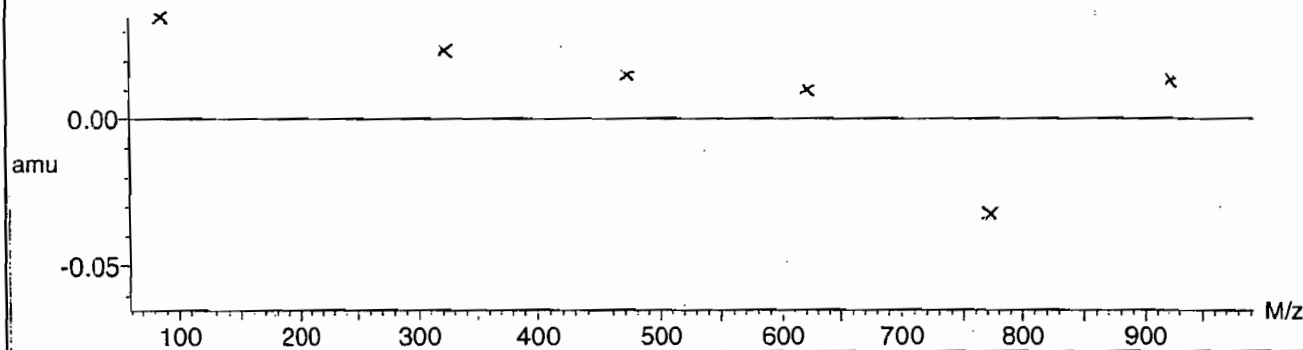


Mass difference (Raw - Ref mass)



Residuals

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



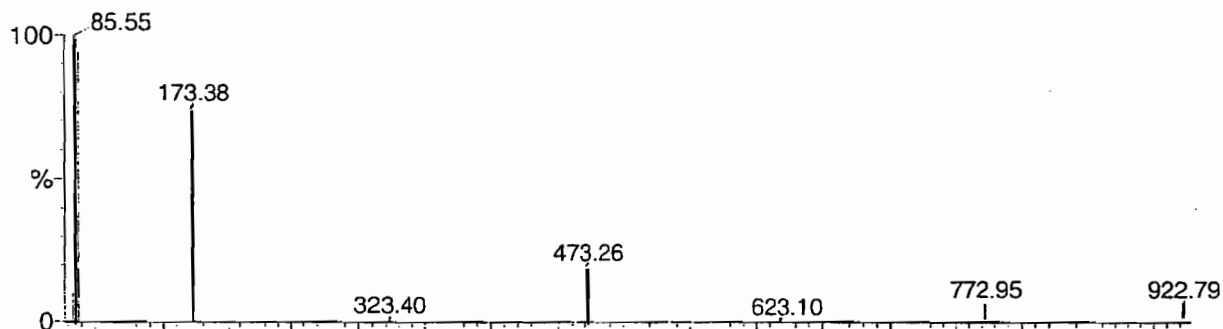
Calibration Report - MS2 Static

Page 1 of 1

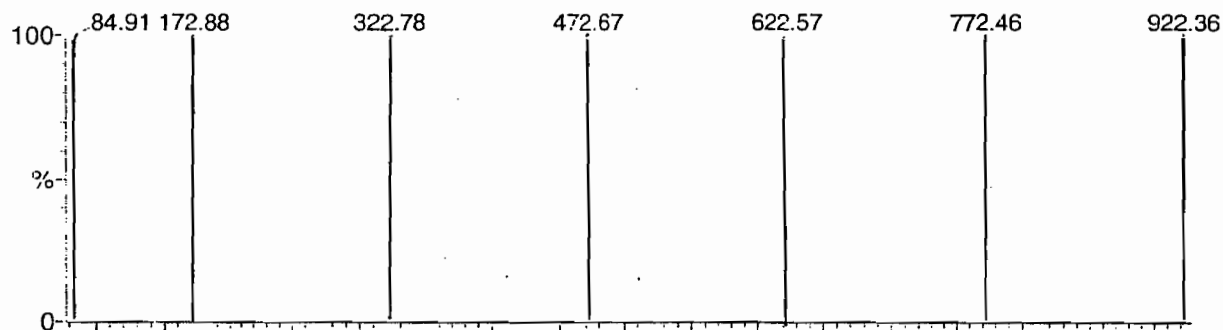
Printed: Tue Jan 08 12:21:59 2008

Data file: STATMS2 - Uncalibrated

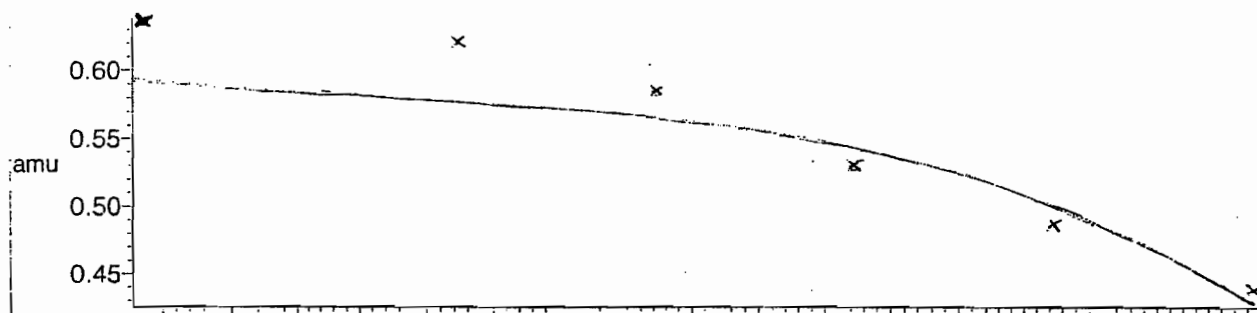
7 matches of 7 tested references



Reference file: Nairb

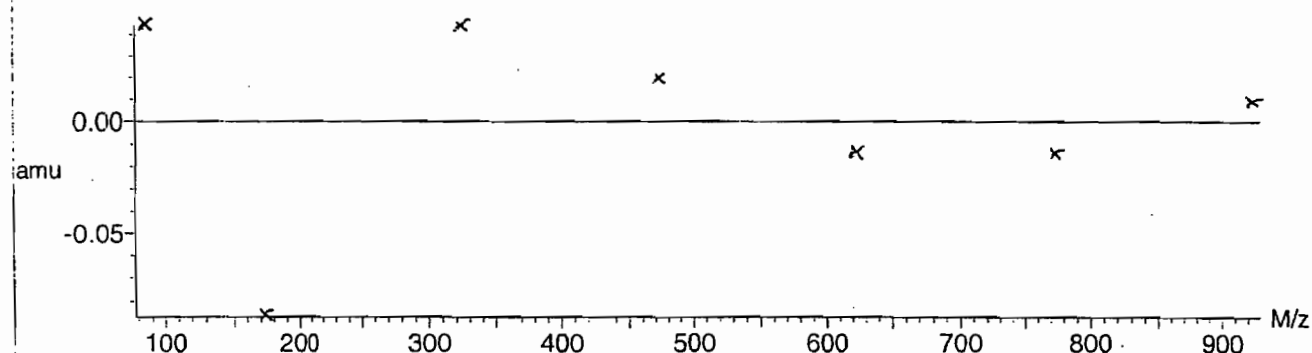


Mass difference (Raw - Ref mass)



Residuals

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



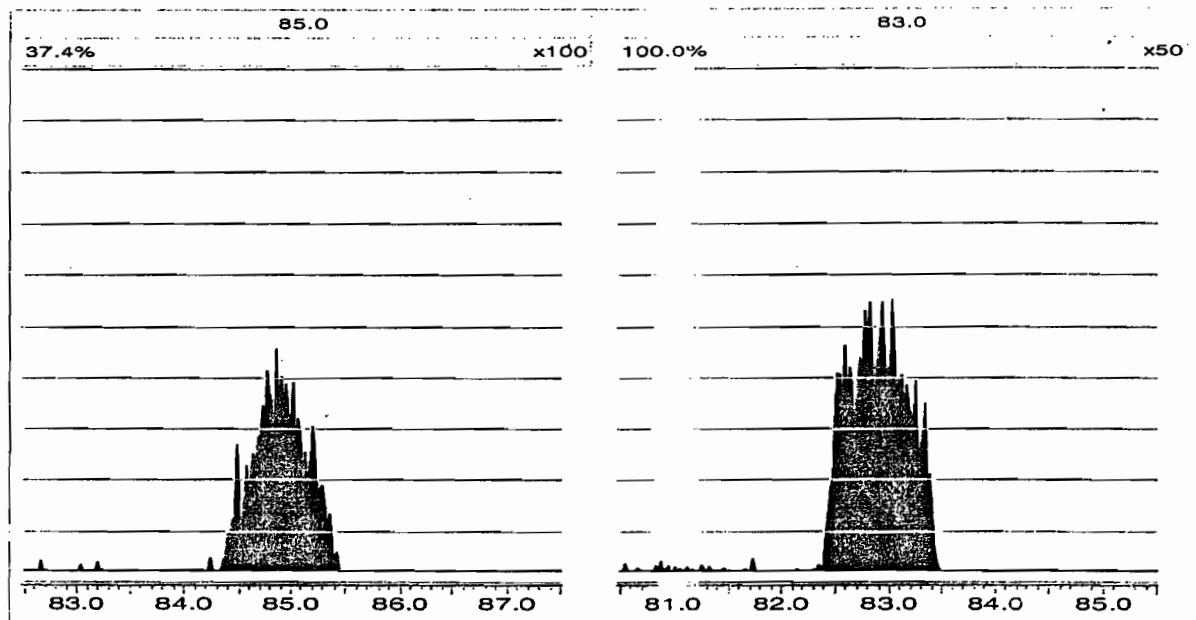
Tune Parameters

MassLynx 4.0 SP4

Page 1 of 1

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

Printed: Tuesday, February 16, 2010 10:54:24 Eastern Standard Time



Perchlorate RT And Area Summary

GEL Job No.(SDG): 10-1568

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	per0216006a	16-FEB-10	19812.8				
Lower Area Limit			9906.4				
Upper Area Limit			39625.6				
1202035609	per0216074a	17-FEB-10 02:37	19327.1	3.51			
1202035610	per0216075a	17-FEB-10 02:47	20369.2	3.5	3.50767	1.002	
1202035613	per0216076a	17-FEB-10 02:57	19419.7	3.53	3.54495	1.004	
246334001	per0216097a	17-FEB-10 06:30	20072.4	3.33	3.35862	1.009	

# SAMPLE DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 250041

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.

RE15-10-8328

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1568

GEL Sample ID: 246334001

Date Filtered: 12-FEB-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	17-FEB-10 06:30	per0216097a
	Perchlorate Isotope Ratio						1	17-FEB-10 06:30	per0216097a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	17-FEB-10 06:30	per0216097a
	Perchlorate-O(18)			0.498	ug/L		1	17-FEB-10 06:30	per0216097a

<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

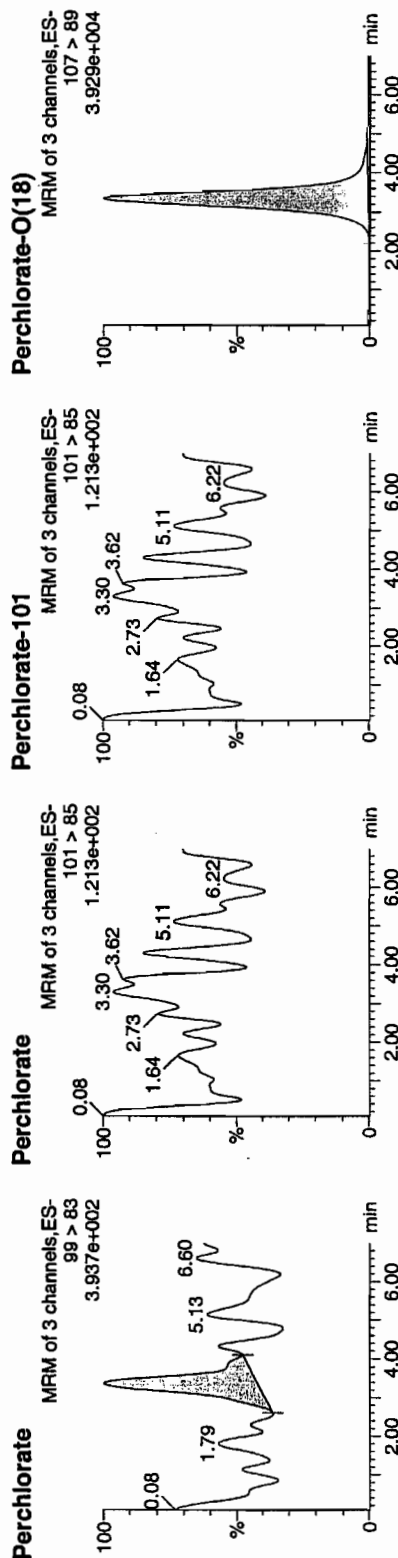
Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216097a  
Date: 17-Feb-2010  
Time: 06:30:04  
ID: 246334001  
Vial: 3:3,F

02-17-10

152042 | 1722 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246334001	Perchlorate	99 > 83	3.36	125.635	125.635	bb			0.0026			15.259	0.00
246334001	Perchlorate-101	101 > 85											
246334001	Perchlorate-O(18)	107 > 89	3.33	20072.398	20072.398	bb			0.4976	99.53	-0.47	361.086	

# STANDARDS DATA



Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1568

Lab Code: GEL

Instrument ID: LCM SMS Date Analyzed: 16-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

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 48694.12

Response Type: External Standard

Curve Type: RF

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1568

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 16-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: 15156.32

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\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time

Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per021610a.mdb 17 Feb 2010 09:42:10

Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per021610a.cdb 17 Feb 2010 11:03:29

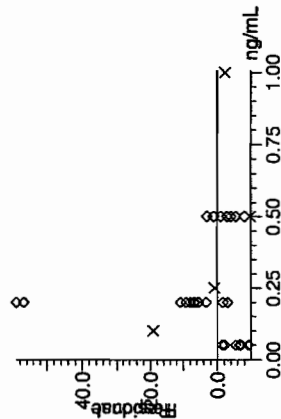
Compound name: Perchlorate

Response Factor: 48694.1

RRF SD: 5598.16, % Relative SD: 11.4966

Response type: External Std, Area

Curve type: RF



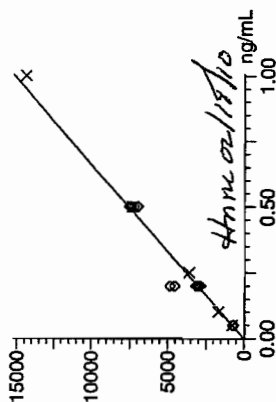
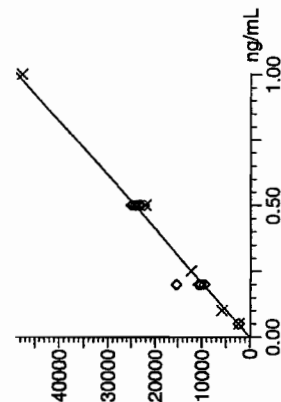
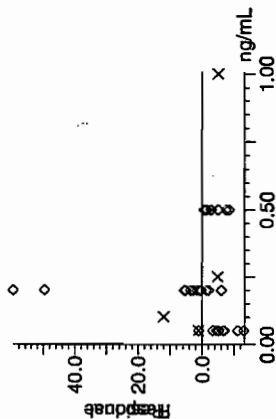
Compound name: Perchlorate-101

Response Factor: 15156.3

RRF SD: 1083.64, % Relative SD: 7.14976

Response type: External Std, Area

Curve type: RF



02-17-10

02-17-10

Quantify Calibration Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time

Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

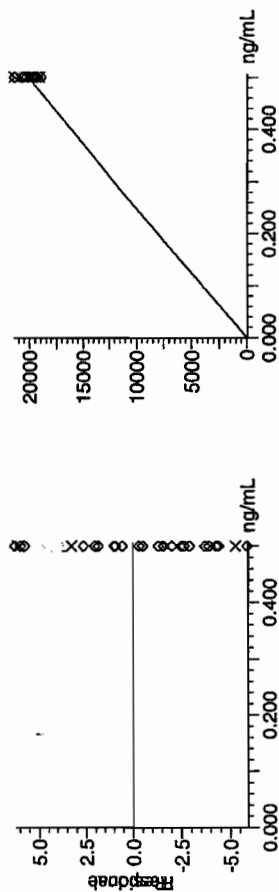
Compound name: Perchlorate-O(18)

Response Factor: 40336

RRF SD: 1845.58, % Relative SD: 4.57552

Response type: External Std, Area

Curve type: RF



Perchlorate Initial Calibration Verification

GEL Job No.(SDG): 10-1568

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.52	103	16-FEB-10 15:41	per0216009a
Perchlorate Isotope Ratio		3.32		16-FEB-10 15:41	per0216009a
Perchlorate-101	.5	.5	99.57	16-FEB-10 15:41	per0216009a

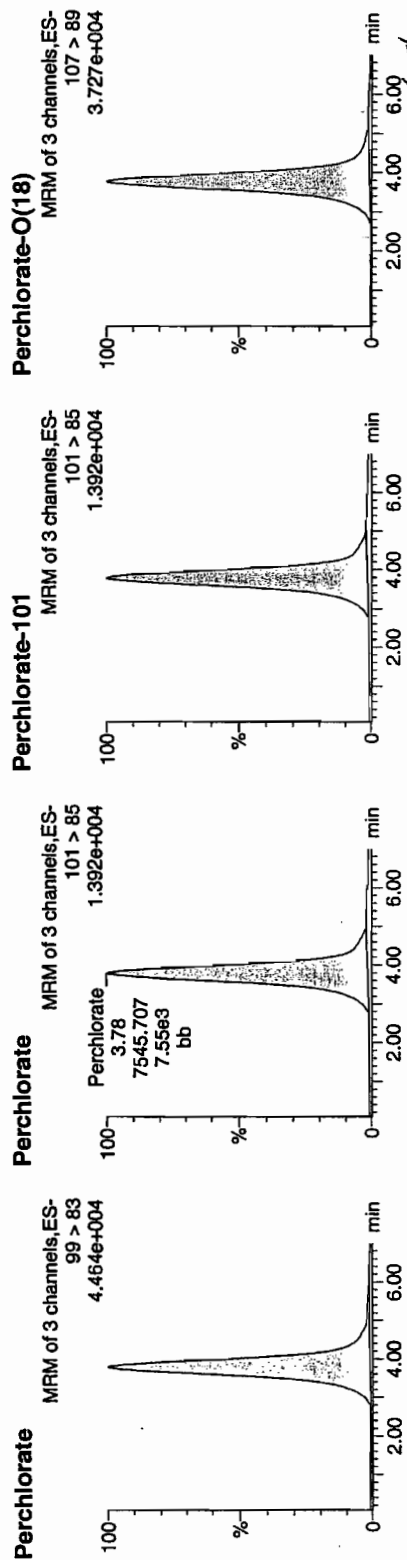
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216009a  
Date: 16-Feb-2010  
Time: 15:41:24  
ID: WCL100211-06ICV  
Vial: 1:2,A

Pure  
02-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-06ICV	Perchlorate	99 > 83	3.78	25078.299	25078.299	bb			0.5150	103.00	3.00	2940.9...	3.32
WCL100211-06ICV	Perchlorate-101	101 > 85	3.78	7545.707	7545.707	bb			0.4979	99.57	-0.43	1165.8...	
WCL100211-06ICV	Perchlorate-O(18)	107 > 89	3.77	20536.309	20536.309	bb			0.5091	101.83	1.83	2332.3...	

Perchlorate Continuing Calibration Verification

GEL Job No.(SDG): 10-1568

Lab Name: General Engineering Laboratories

Lab Code: GEL

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

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.49	98.95	16-FEB-10 17:51	per0216022a
Perchlorate Isotope Ratio		3.26		16-FEB-10 17:51	per0216022a
Perchlorate-101	.5	.49	97.38	16-FEB-10 17:51	per0216022a
Perchlorate	.5	.49	97.01	16-FEB-10 20:02	per0216035a
Perchlorate Isotope Ratio		3.21		16-FEB-10 20:02	per0216035a
Perchlorate-101	.5	.49	97.09	16-FEB-10 20:02	per0216035a
Perchlorate	.5	.47	94.55	16-FEB-10 22:14	per0216048a
Perchlorate Isotope Ratio		3.2		16-FEB-10 22:14	per0216048a
Perchlorate-101	.5	.47	94.94	16-FEB-10 22:14	per0216048a
Perchlorate	.5	.46	92.07	17-FEB-10 00:15	per0216060a
Perchlorate Isotope Ratio		3.23		17-FEB-10 00:15	per0216060a
Perchlorate-101	.5	.46	91.51	17-FEB-10 00:15	per0216060a
Perchlorate	.5	.51	101.24	17-FEB-10 02:06	per0216071a

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1568

Lab Code: GEL

Reporting Units: ug/L

Perchlorate Isotope Ratio		3.28		17-FEB-10 02:06	per0216071a
Perchlorate-101	.5	.5	99.06	17-FEB-10 02:06	per0216071a
Perchlorate	.5	.48	95.96	17-FEB-10 03:47	per0216081a
Perchlorate Isotope Ratio		3.24		17-FEB-10 03:47	per0216081a
Perchlorate-101	.5	.48	95.04	17-FEB-10 03:47	per0216081a
Perchlorate	.5	.49	97.28	17-FEB-10 05:39	per0216092a
Perchlorate Isotope Ratio		3.38		17-FEB-10 05:39	per0216092a
Perchlorate-101	.5	.46	92.42	17-FEB-10 05:39	per0216092a
Perchlorate	.5	.5	100.94	17-FEB-10 07:30	per0216103a
Perchlorate Isotope Ratio		3.29		17-FEB-10 07:30	per0216103a
Perchlorate-101	.5	.49	98.51	17-FEB-10 07:30	per0216103a



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

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216022a

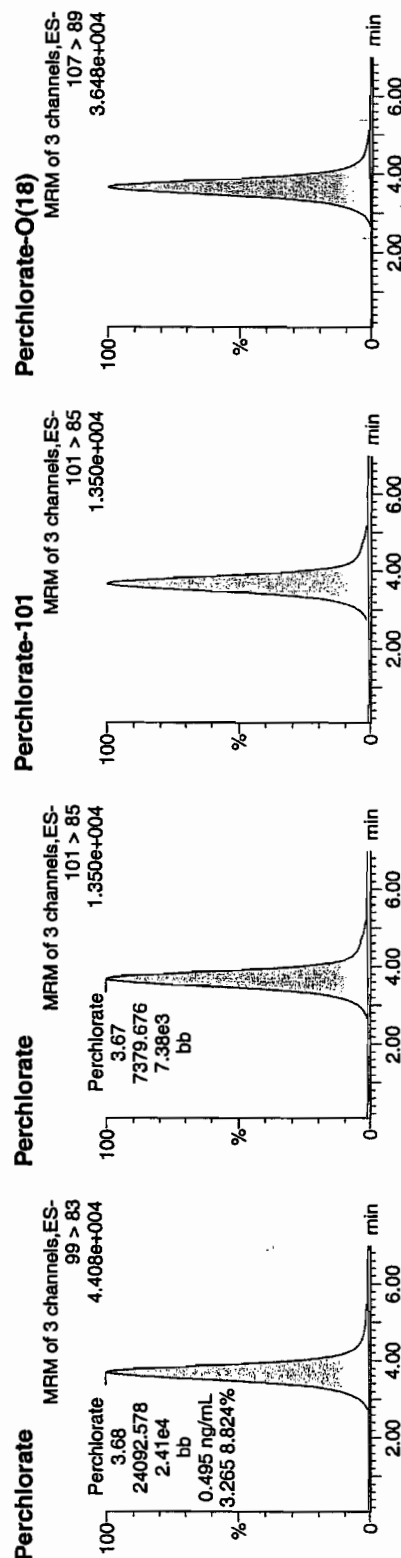
Date: 16-Feb-2010

Time: 17:51:54

ID: WCL100211-06CCV

Vial: 1:2,A

Per  
and  
02-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod	Date	Mod	Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
WCL100211-06CCV	Perchlorate	99 > 83	3.68	24092.578	24092.578	bb					0.4948	98.95	-1.05	3788.8...	3.26
WCL100211-06CCV	Perchlorate-101	101 > 85	3.67	7379.676	7379.676	bb					0.4869	97.38	-2.62	718.968	
WCL100211-06CCV	Perchlorate-O(18)	107 > 89	3.66	19578.602	19578.602	bb					0.4854	97.08	-2.92	1969.2...	

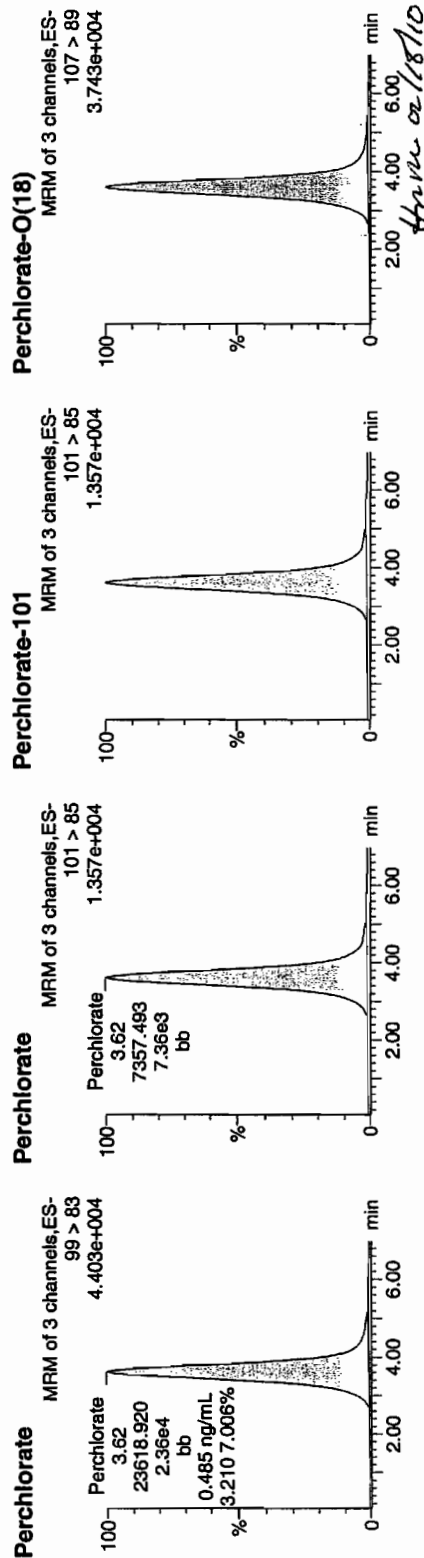
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216035a  
Date: 16-Feb-2010  
Time: 20:02:43  
ID: WCL100211-06CCV  
Vial: 1:2,A

*Run*  
*02-17-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-06CCV	Perchlorate	99 > 83	3.62	23618.920	23618.920	bb			0.4850	97.01	-2.99	958.546	3.21
WCL100211-06CCV	Perchlorate-101	101 > 85	3.62	7357.493	7357.493	bb			0.4854	97.09	-2.91	253.594	
WCL100211-06CCV	Perchlorate-O(18)	107 > 89	3.59	20062.182	20062.182	bb			0.4974	99.48	-0.52	3370.6...	

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

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216048a

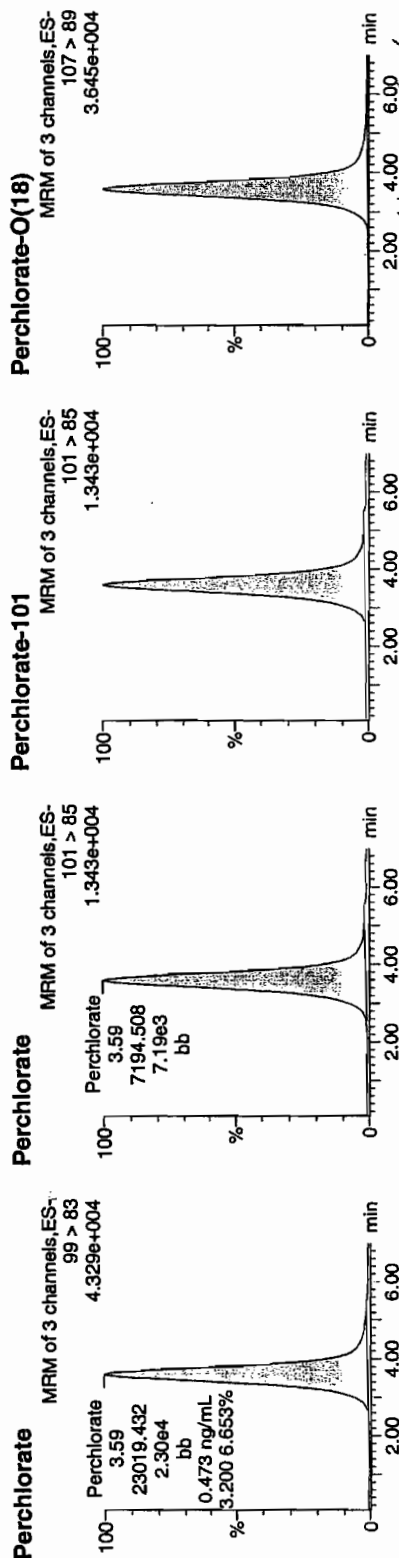
Date: 16-Feb-2010

Time: 22:14:33

ID: WCL100211-06CCV

Vial: 1:2,A

*Purs  
and  
02-17-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N	Ion Ratio
WCL100211-06CCV	Perchlorate	99 > 83	3.59	23019.432	23019.432	bb			0.4727	94.55	-5.45	1319.1...	3.20
WCL100211-06CCV	Perchlorate-101	101 > 85	3.59	7194.508	7194.508	bb			0.4747	94.94	-5.06	264.715	
WCL100211-06CCV	Perchlorate-O(18)	107 > 89	3.58	19580.137	19580.137	bb			0.4854	97.09	-2.91	2127.0...	

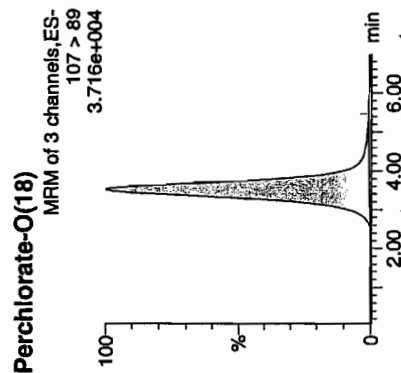
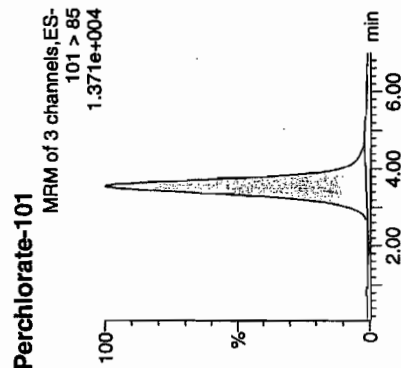
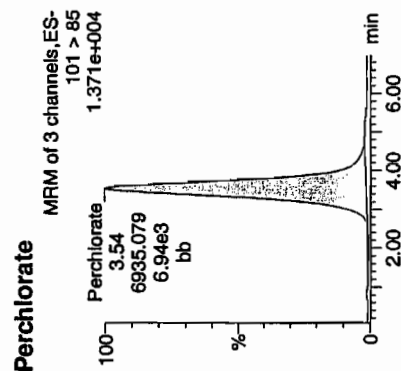
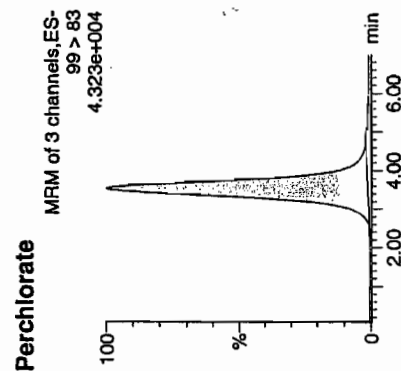
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216060a  
Date: 17-Feb-2010  
Time: 00:15:22  
ID: WCL100211-06CCV  
Vial: 1:2,A

*Pure*  
*600*  
*02-17-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-06CCV	Perchlorate	99 > 83	3.53	22417.438	22417.438	bb			0.4604	92.07	-7.93	1571.5...	3.23
WCL100211-06CCV	Perchlorate-101	101 > 85	3.54	6935.079	6935.079	bb			0.4576	91.51	-8.49	311.468	
WCL100211-06CCV	Perchlorate-O(18)	107 > 89	3.52	19667.754	19667.754	bb			0.4876	97.52	-2.48	2349.4...	

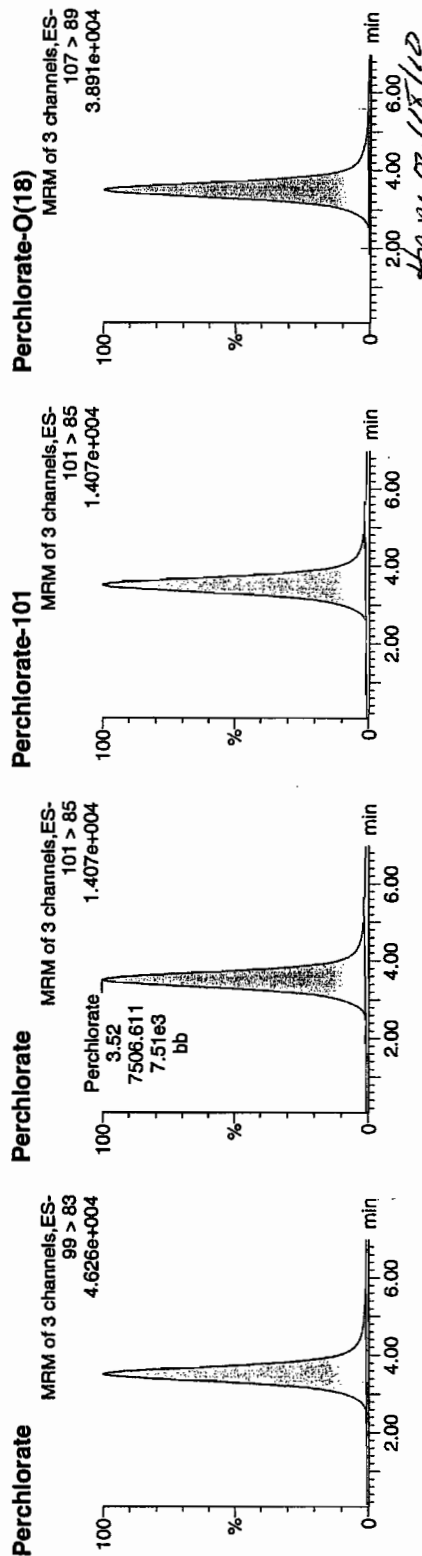
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216071a  
Date: 17-Feb-2010  
Time: 02:06:24  
ID: WCL100211-06CCV  
Vial: 1:2,A

*Run*  
*02-17-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-06CCV	Perchlorate	99 > 83	3.52	24649.779	24649.779	bb			0.5062	101.24	1.24	2662.3...	3.28
WCL100211-06CCV	Perchlorate-101	101 > 85	3.52	7506.611	7506.611	bb			0.4953	99.06	-0.94	475.783	
WCL100211-06CCV	Perchlorate-O(18)	107 > 89	3.50	20576.664	20576.664	bb			0.5101	102.03	2.03	2075.3...	

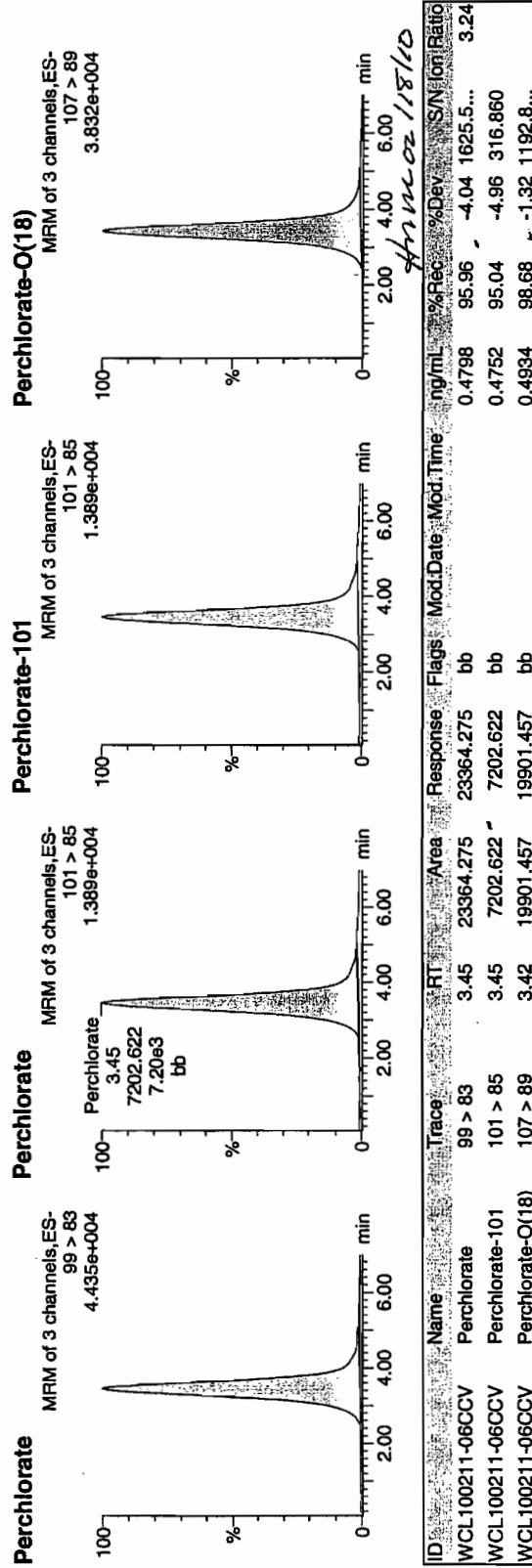
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216081a  
Date: 17-Feb-2010  
Time: 03:47:49  
ID: WCL100211-06CCV  
Vial: 1:2,A

Run  
02-17-10



ID	Name	Trace	RT	Area	Response	Flags	ModDate	ModTime	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-06CCV	Perchlorate	99 > 83	3.45	23364.275	23364.275	bb			0.4798	95.96	-4.04	1625.5...	3.24
WCL100211-06CCV	Perchlorate-101	101 > 85	3.45	7202.622	7202.622	bb			0.4752	95.04	-4.96	316.860	
WCL100211-06CCV	Perchlorate-O(18)	107 > 89	3.42	19901.457	19901.457	bb			0.4934	98.68	-1.32	1192.8...	

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216092a

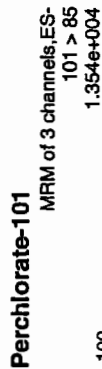
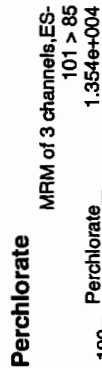
Date: 17-Feb-2010

Time: 05:39:14

ID: WCL100211-06CCV

Vial: 1:2,A

Perchlorate  
6-23  
02-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
WCL100211-06CCV	Perchlorate	99 > 83	3.37	23684.766	23684.766	bb			0.4864	97.28	-2.72	1909.4...	3.38
WCL100211-06CCV	Perchlorate-101	101 > 85	3.36	7003.574	7003.574	bb			0.4621	92.42	-7.58	1194.8...	
WCL100211-06CCV	Perchlorate-O(18)	107 > 89	3.35	19846.270	19846.270	bb			0.4920	98.40	-1.60	3367.0...	

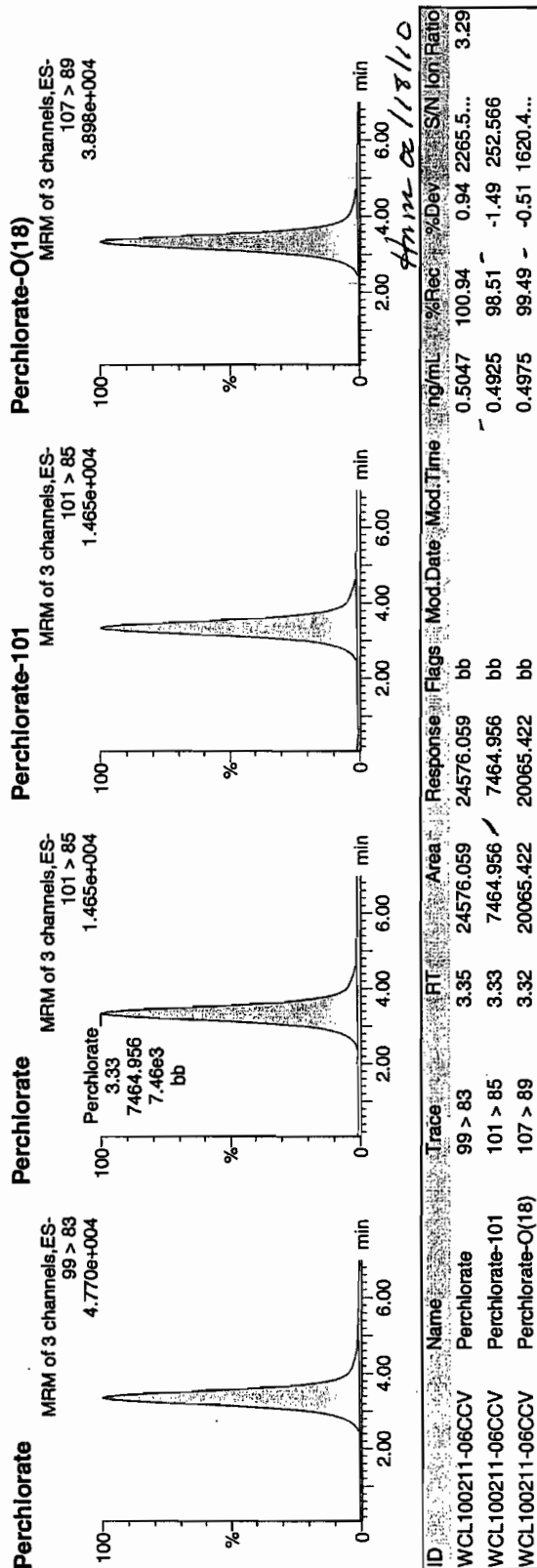
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216103a  
Date: 17-Feb-2010  
Time: 07:30:18  
ID: WCL100211-06CCV  
Vial: 1:2,A

*Pure*  
*and*  
*02-17-10*





Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1568

Lab Code: GEL

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

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	97.89	16-FEB-10 16:01	per0216011a
Perchlorate Isotope Ratio		3.38		16-FEB-10 16:01	per0216011a
Perchlorate-101	.05	.05	93.02	16-FEB-10 16:01	per0216011a
Perchlorate	.05	.05	93.36	16-FEB-10 18:11	per0216024a
Perchlorate Isotope Ratio		3.38		16-FEB-10 18:11	per0216024a
Perchlorate-101	.05	.04	88.83	16-FEB-10 18:11	per0216024a
Perchlorate	.05	.05	92.94	16-FEB-10 20:23	per0216037a
Perchlorate Isotope Ratio		3.09		16-FEB-10 20:23	per0216037a
Perchlorate-101	.05	.05	96.65	16-FEB-10 20:23	per0216037a
Perchlorate	.05	.05	98.66	16-FEB-10 22:34	per0216050a
Perchlorate Isotope Ratio		3.65		16-FEB-10 22:34	per0216050a

Perchlorate MDL Verification

GEL Job No.(SDG): 10-1568

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/L

Perchlorate-101	.05	.04	86.88	16-FEB-10 22:34	per0216050a
Perchlorate	.05	.05	93.1	17-FEB-10 00:35	per0216062a
Perchlorate Isotope Ratio		3.16		17-FEB-10 00:35	per0216062a
Perchlorate-101	.05	.05	94.68	17-FEB-10 00:35	per0216062a
Perchlorate	.05	.05	93.57	17-FEB-10 02:26	per0216073a
Perchlorate Isotope Ratio		3.17		17-FEB-10 02:26	per0216073a
Perchlorate-101	.05	.05	94.79	17-FEB-10 02:26	per0216073a
Perchlorate	.05	.05	94.54	17-FEB-10 04:08	per0216083a
Perchlorate Isotope Ratio		3.25		17-FEB-10 04:08	per0216083a
Perchlorate-101	.05	.05	93.57	17-FEB-10 04:08	per0216083a
Perchlorate	.05	.05	93.28	17-FEB-10 05:59	per0216094a

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1568

Lab Code: GEL

Reporting Units: ug/L

Perchlorate Isotope Ratio		3.14		17-FEB-10 05:59	per0216094a
Perchlorate-101	.05	.05	95.5	17-FEB-10 05:59	per0216094a
Perchlorate	.05	.05	90.98	17-FEB-10 07:50	per0216105a
Perchlorate Isotope Ratio		2.89		17-FEB-10 07:50	per0216105a
Perchlorate-101	.05	.05	101.14	17-FEB-10 07:50	per0216105a

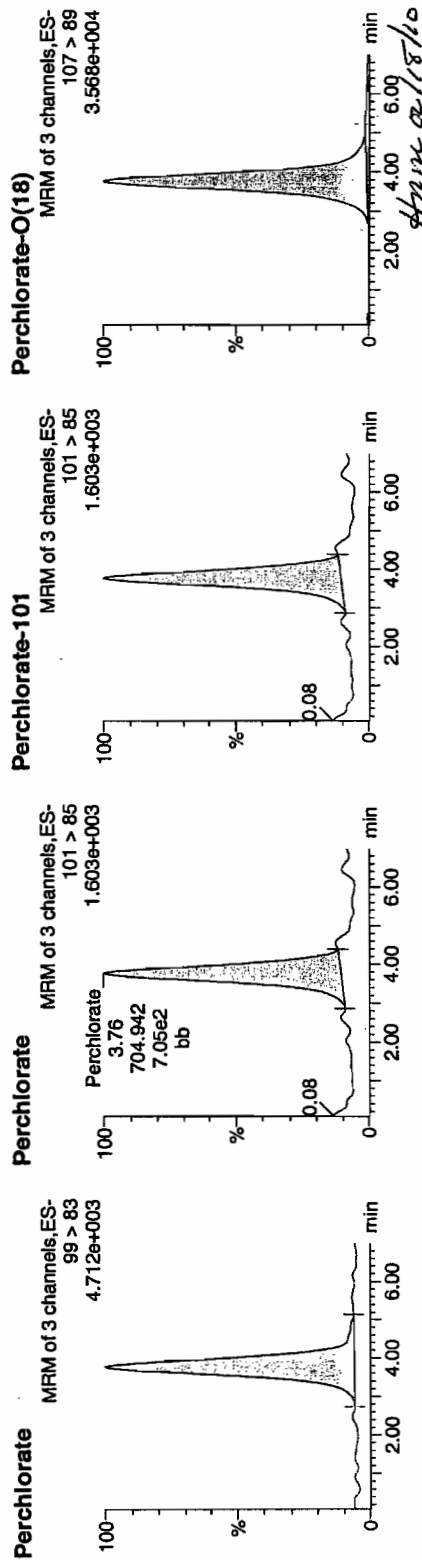
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216011a  
Date: 16-Feb-2010  
Time: 16:01:28  
ID: WCL100211-07CRI  
Vial: 1:2,B

*Per  
ans  
02/17-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-07CRI	Perchlorate	99 > 83	3.77	2383.393	2383.393	bb			0.0489	97.89	-2.11	187.352	3.38
WCL100211-07CRI	Perchlorate-101	101 > 85	3.76	704.942	704.942	bb			0.0465	93.02	-6.98	30.019	
WCL100211-07CRI	Perchlorate-O(18)	107 > 89	3.76	19370.289	19370.289	bb			0.4802	96.04	-3.96	849.260	

**Quantify Sample Report** MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time

Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216024a

Date: 16-Feb-2010

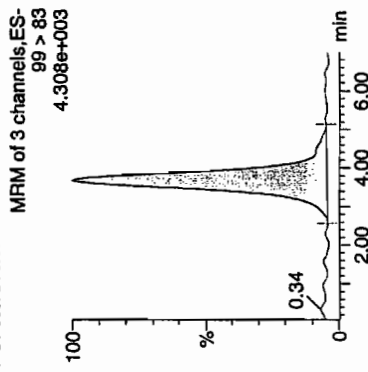
Time: 18:11:59

ID: WCL100211-07CRI

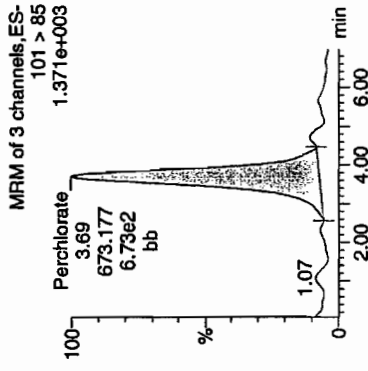
Vial: 1:2,B

*Perchlorate*  
*02-17-10*

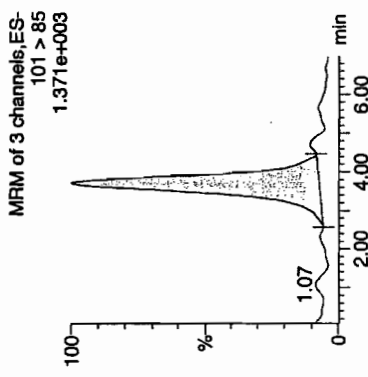
**Perchlorate**



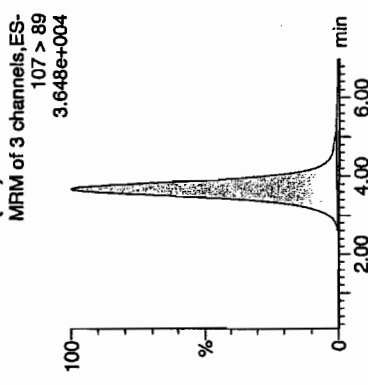
**Perchlorate**



**Perchlorate-101**



**Perchlorate-O(18)**



ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N	Ion Ratio
WCL100211-07CRI	Perchlorate	99 > 83	3.68	2272.925	2272.925	bb			0.0467	93.36	-6.64	241.554	3.38
WCL100211-07CRI	Perchlorate-101	101 > 85	3.69	673.177	673.177	bb			0.0444	88.83	-11.17	256.925	
WCL100211-07CRI	Perchlorate-O(18)	107 > 89	3.67	19278.473	19278.473	bb			0.4779	95.59	-4.41	2546.5...	

# Quantify Sample Report MassLynx 4.0 SP4

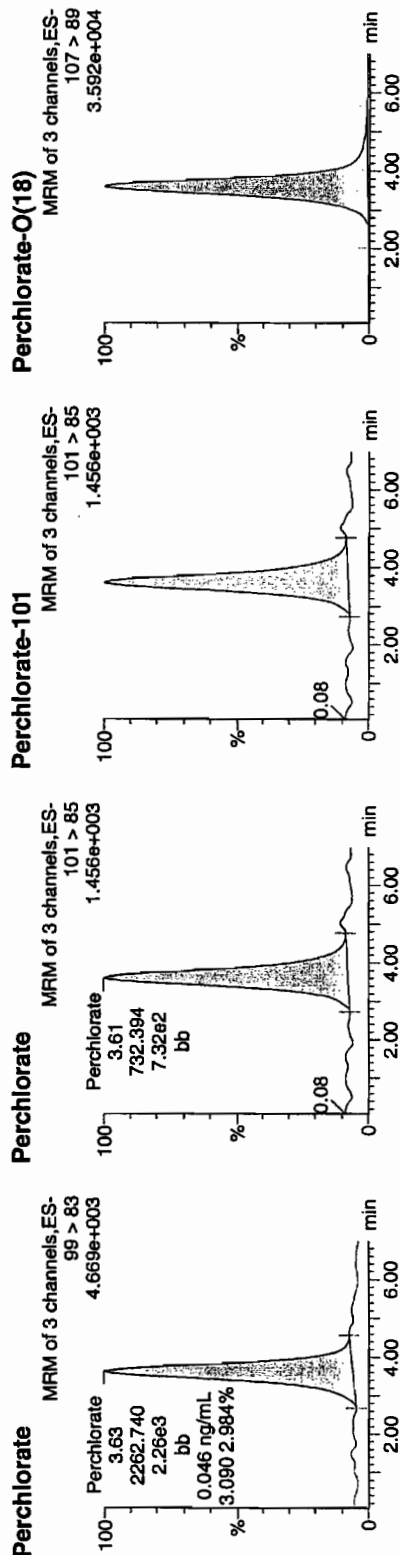
The GEL Group, LLC Analyst: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
 Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216037a  
 Date: 16-Feb-2010  
 Time: 20:23:04  
 ID: WCL100211-07CRI  
 Vial: 1:2,B

Pass  
 650  
 02-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-07CRI	Perchlorate	99 > 83	3.63	2262.740	2262.740	bb			0.0465	92.94	-7.06	178.571	3.09
WCL100211-07CRI	Perchlorate-101	101 > 85	3.61	732.394	732.394	bb			0.0483	96.65	-3.35	252.373	
WCL100211-07CRI	Perchlorate-Q(18)	107 > 89	3.61	19380.582	19380.582	bb			0.4805	96.10	-3.90	1524.6...	

**Quantify Sample Report MassLynx 4.0 SP4**

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
 Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216050a

Date: 16-Feb-2010

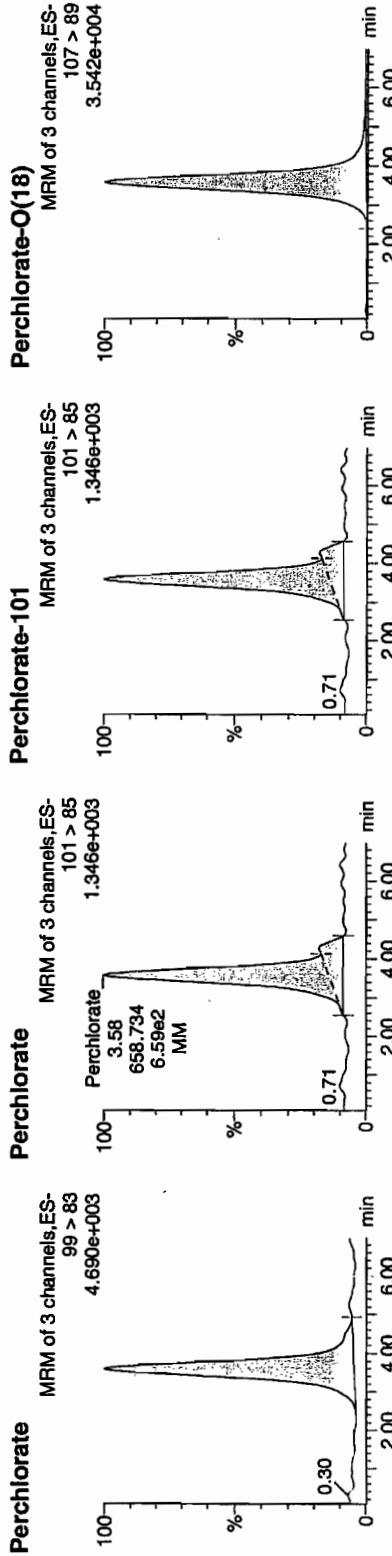
Time: 22:34:52

ID: WCL100211-07CRI

Vial: 1:2,B

MANUAL

Perchlorate  
 02-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-07CRI	Perchlorate	99 > 83	3.59	2402.146	2402.146	bb	17-Feb-10	11:08:35	0.0493	98.66	-1.34	198.764	3.65
WCL100211-07CRI	Perchlorate-101	101 > 85	3.58	658.410	658.410	MM	17-Feb-10	11:09:37	0.0434	86.88	-13.12	11.199	
WCL100211-07CRI	Perchlorate-O(18)	107 > 89	3.58	18982.666	18982.666	bb			0.4706	94.12	-5.88	2154.2...	

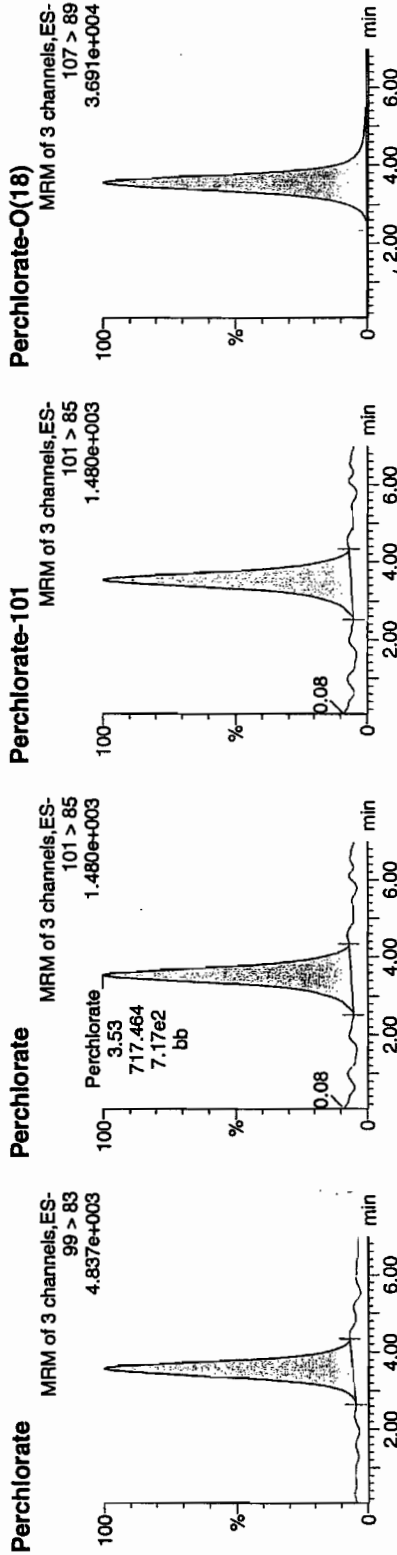
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216062a  
Date: 17-Feb-2010  
Time: 00:35:50  
ID: WCL100211-07CRI  
Vial: 1:2,B

Per  
02-17-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-07CRI	Perchlorate	99 > 83	3.56	2266.666	2266.666	bb			0.0465	93.10	-6.90	332.053	3.16
WCL100211-07CRI	Perchlorate-101	101 > 85	3.53	717.464	717.464	bb			0.0473	94.68	-5.32	154.139	
WCL100211-07CRI	Perchlorate-O(18)	107 > 89	3.54	19631.152	19631.152	bb			0.4867	97.34	-2.66	3049.6...	



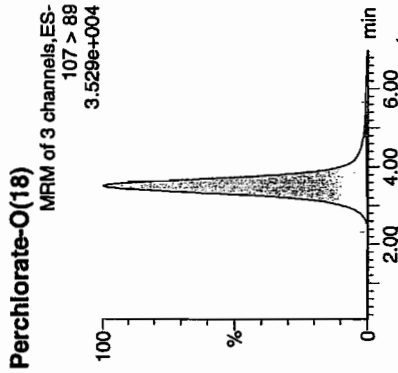
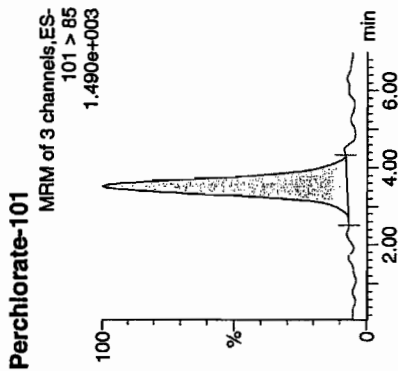
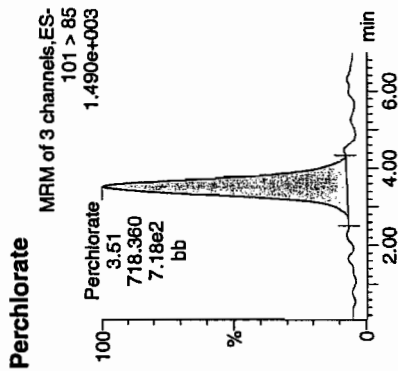
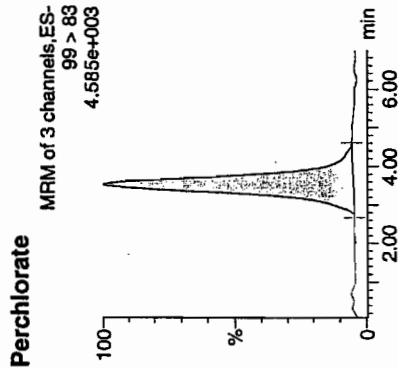
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216073a  
Date: 17-Feb-2010  
Time: 02:26:59  
ID: WCL100211-07CRI  
Vial: 1:2,B

*Per*  
*02-17-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N	Ion Ratio
WCL100211-07CRI	Perchlorate	99 > 83	3.53	2278.118	2278.118	bb			0.0468	93.57	-6.43	217.447	3.17
WCL100211-07CRI	Perchlorate-101	101 > 85	3.51	718.360	718.360	bb			0.0474	94.79	-5.21	17.933	
WCL100211-07CRI	Perchlorate-O(18)	107 > 89	3.51	18979.275	18979.275	bb			0.4705	94.11	-5.89	1263.3...	

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

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216083a

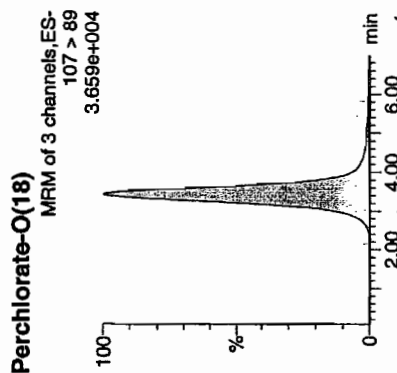
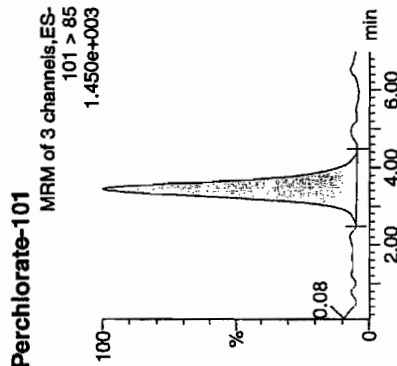
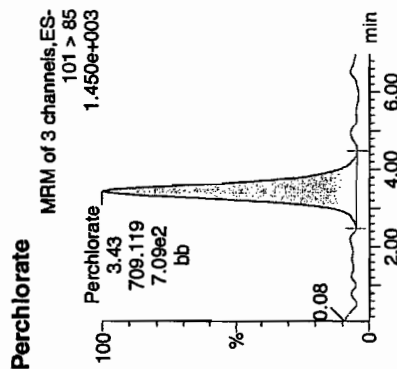
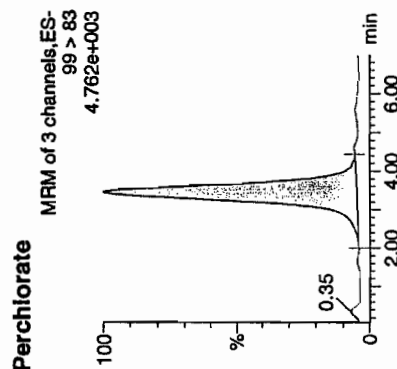
Date: 17-Feb-2010

Time: 04:08:21

ID: WCL100211-07CRI

Vial: 1:2,B

*Pure*  
*02-17-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-07CRI	Perchlorate	99 > 83	3.43	2301.800	2301.800	bb			0.0473	94.54	-5.46	271.167	3.25
WCL100211-07CRI	Perchlorate-101	101 > 85	3.43	709.119	709.119	bb			0.0468	93.57	-6.43	100.791	
WCL100211-07CRI	Perchlorate-Q(18)	107 > 89	3.43	19308.088	19309.088	bb			0.4787	95.74	-4.26	3564.2...	

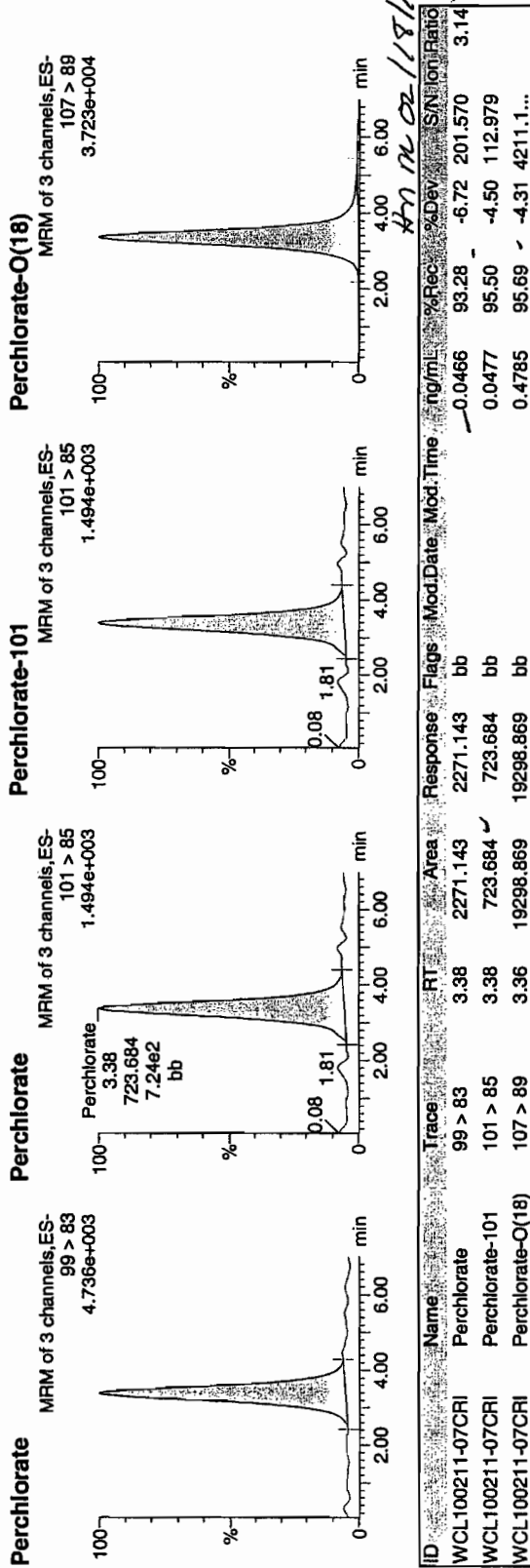
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216094a  
Date: 17-Feb-2010  
Time: 05:59:39  
ID: WCL100211-07CRI  
Vial: 1:2,B

*Rep  
02-17-10*



*477 N 02/18/10*

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

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216105a

Date: 17-Feb-2010

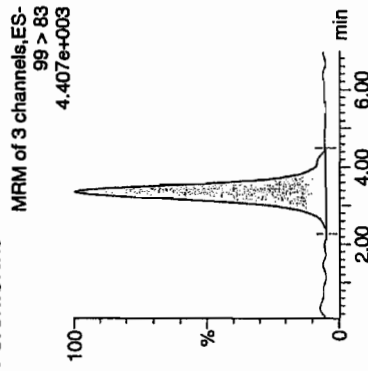
Time: 07:50:44

ID: WCL100211-07CRI

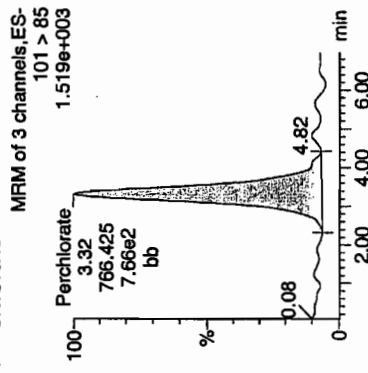
Vial: 1:2,B

Per  
WCL  
02-17-10

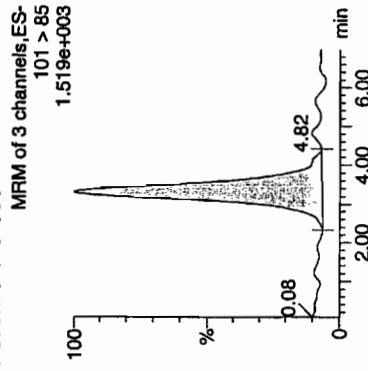
**Perchlorate**



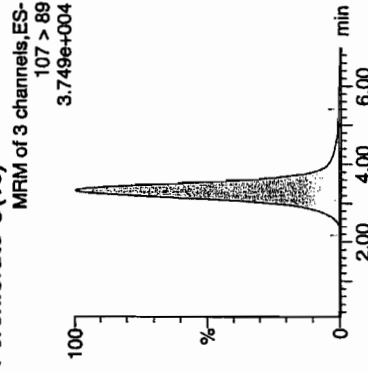
**Perchlorate**



**Perchlorate-101**



**Perchlorate-O(18)**



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-07CRI	Perchlorate	99 > 83	3.35	2215.006	2215.006	bb			0.0455	90.98	-9.02	285.998	2.89
WCL100211-07CRI	Perchlorate-101	101 > 85	3.32	766.425	766.425	bb			0.0506	101.14	1.14	158.219	
WCL100211-07CRI	Perchlorate-O(18)	107 > 89	3.32	19636.211	19636.211	bb			0.4868	97.36	-2.64	742.835	

Done 02/18/10

# 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: 950041  
 Extraction Type: Filter/DAI  
 Sample Volume/Weight: 10.0 mL  
 Concentrated Extract Volume: 10.0  
 Client Sample No. MB  
 Date Received: 12-FEB-10  
 GEL Job No (SDG): 10-1568  
 GEL Sample ID: 1202035609  
 Date Filtered: 12-FEB-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	17-FEB-10 02:37	per0216074a
	Perchlorate Isotope Ratio						1	17-FEB-10 02:37	per0216074a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	17-FEB-10 02:37	per0216074a
	Perchlorate-O(18)			0.479	ug/L		1	17-FEB-10 02:37	per0216074a

<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\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216074a

Date: 17-Feb-2010

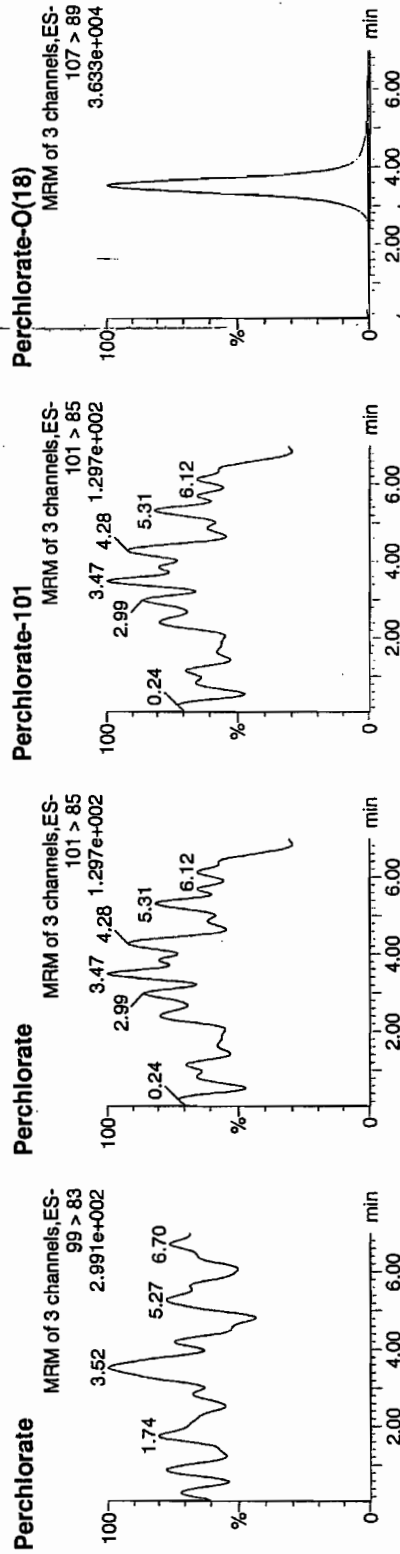
Time: 02:37:03

ID: 1202035609

Vial: 3:1,A

32-12-10

32-12-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035609	Perchlorate	99 > 83											0.00
1202035609	Perchlorate-101	101 > 85											
1202035609	Perchlorate-O(18)	107 > 89	3.51	19327.055	19327.055	bb			0.4792	95.83	-4.17	371.723	

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: EPA 6850 Modified  
 Matrix: WATER  
 Extraction Batch ID: 250041  
 Extraction Type: Filter/DAI  
 Sample Volume/Weight: 10.0 mL  
 Concentrated Extract Volume: 10.0  
 Client Sample No. LCS  
 Date Received: 12-FEB-10  
 GEL Job No (SDG): 10-1568  
 GEL Sample ID: 1202035610  
 Date Filtered: 12-FEB-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	0.211	ug/L		1	17-FEB-10 02:47	per0216075a
	Perchlorate Isotope Ratio			3.3			1	17-FEB-10 02:47	per0216075a
14797-73-0	Perchlorate-101	.05	.2	0.206	ug/L		1	17-FEB-10 02:47	per0216075a
	Perchlorate-O(18)			0.505	ug/L		1	17-FEB-10 02:47	per0216075a

<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\per021610a.qld

**Last Altered:** Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time

Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

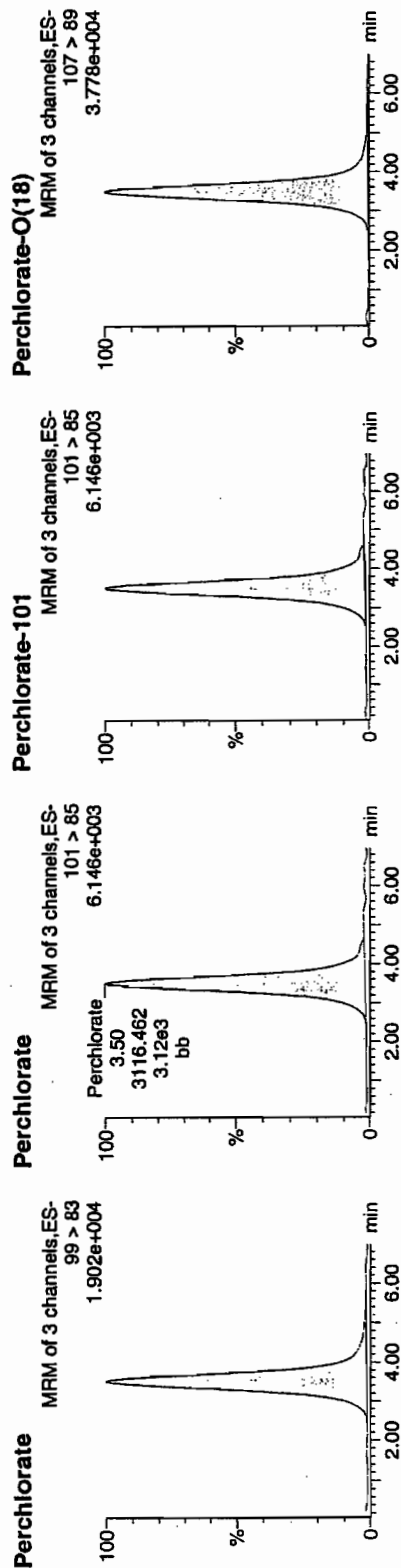
**Name: per0216075a**

Date: 17-Feb-2010

Time: 02:47:26

ID: 1202035610

Vial: 3:1.B



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035610	Perchlorate	99 > 83	3.51	10271.044	10271.044	bb			0.2109	105.46	5.46	624.785	3.30
1202035610	Perchlorate-101	101 > 85	3.50	3116.462	3116.462	bb			0.2056	102.81	2.81	125.506	
1202035610	Perchlorate-O(18)	107 > 89	3.50	20369.182	20369.182	bb			0.5050	101.00	1.00	649.757	

$$\frac{10271.044}{486941} = 0.2109$$

HW 22/18/10

# 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: 950041  
 Analyst: Jareth Shirley  
 Method: SW846 6850 Modified  
 Verified by:  
 Lab SOP: GL-OA-E-067 REV# 6  
 Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Initial Volume (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202035609 MB	12-FEB-2010 14:48:00	10	10	1
1202035610 LCS	12-FEB-2010 14:48:00	10	10	1
246264001	12-FEB-2010 14:48:00	10	10	1
246269001	12-FEB-2010 14:48:00	10	10	1
246278001	12-FEB-2010 14:48:00	10	10	1
246282001	12-FEB-2010 14:48:00	10	10	1
246292001	12-FEB-2010 14:48:00	10	10	1
1202035611 MS (246292001)	12-FEB-2010 14:48:00	10	10	1
1202035612 MSD (246292001)	12-FEB-2010 14:48:00	10	10	1
246292002	12-FEB-2010 14:48:00	10	10	1
246293002	12-FEB-2010 14:48:00	10	10	1
246293004	12-FEB-2010 14:48:00	10	10	1
246299001	12-FEB-2010 14:48:00	10	10	1
246306001	12-FEB-2010 14:48:00	10	10	1
246313001	12-FEB-2010 14:48:00	10	10	1
246323001	12-FEB-2010 14:48:00	10	10	1
246334001	12-FEB-2010 14:48:00	10	10	1
246436001	12-FEB-2010 14:48:00	10	10	1
246448001	12-FEB-2010 14:48:00	10	10	1
246451001	12-FEB-2010 14:48:00	10	10	1
246455001	12-FEB-2010 14:48:00	10	10	1
246459001	12-FEB-2010 14:48:00	10	10	1
1202035613 ICS	12-FEB-2010 14:48:00	10	10	1

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments
ICS	1202035613	10 ug/L ICV/CCV Second Source	UCL100210-02.2	.2	mL	Desalting cartridges used: B101/0211609 & B1000311609
LCS	1202035610	10 ug/L ICV/CCV Second Source	UCL100210-02.2	.2	mL	
MS	1202035611	10 ug/L ICV/CCV Second Source	UCL100210-02.2	.2	mL	
MSD	1202035612	10 ug/L ICV/CCV Second Source	UCL100210-02.2	.2	mL	
RGNT	All	O2SI HPLC Grade Water	1261217	10	mL	
RGNT	All	500 ppm Carbonate, Bicarbonate, Chloride, Sulfate	1262643	10	mL	

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 02/16/10  
 Extr. Injection Volume: 20uL  
 Sequence Number: per021610a  
 Initial Calibration Date: 02/16/10

Method: EPA 6850-Modified  
 Int. Std.: UCL100122-01  
 Mobile Phase Lot#: 1269535, 1261217  
 Standard-Samp Reagent Lot#: 1261217

Reviewed BY: *phym*  
 Date: *02/18/10*  
 SOP: GL-OA-E-067 Rev.6  
 Alt Check Std. ID: WCL100211-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0216001a	IPB001	CWW	2/16/2010 14:21			1		USE	B
per0216002a	IPB001	CWW	2/16/2010 14:31			1		USE	B
per0216003a	WCLICAL-01	CWW	2/16/2010 14:41			1		USE	I
per0216004a	WCLICAL-02	CWW	2/16/2010 14:51			1		USE	I
per0216005a	WCLICAL-03	CWW	2/16/2010 15:01			1		USE	I
per0216006a	WCLICAL-04	CWW	2/16/2010 15:11			1		USE	I
per0216007a	WCLICAL-05	CWW	2/16/2010 15:21			1		USE	I
per0216008a	IPB002	CWW	2/16/2010 15:31			1		USE	B
per0216009a	WCLICV	CWW	2/16/2010 15:41			1		USE	C
per0216010a	IPB003	CWW	2/16/2010 15:51			1		USE	B
per0216011a	WCLCRI	CWW	2/16/2010 16:01			1		USE	C
per0216012a	1202029072	CWW	2/16/2010 16:11	947243	10-1460	1	LANL	USE	S
per0216013a	1202029073	CWW	2/16/2010 16:21	947243	10-1460	1	LANL	USE	S
per0216014a	1202029076	CWW	2/16/2010 16:31	947243	10-1460	1	LANL	USE	S
per0216015a	245783001	CWW	2/16/2010 16:41	947243	10-1460	1	LANL	USE	S
per0216016a	1202029074	CWW	2/16/2010 16:51	947243	10-1460	1	LANL	USE	S
per0216017a	1202029075	CWW	2/16/2010 17:01	947243	10-1460	1	LANL	USE	S
per0216018a	245783002	CWW	2/16/2010 17:11	947243	10-1460	1	LANL	USE	S
per0216019a	245783003	CWW	2/16/2010 17:21	947243	10-1460	1	LANL	USE	S
per0216020a	245783004	CWW	2/16/2010 17:31	947243	10-1460	1	LANL	USE	S
per0216021a	245783005	CWW	2/16/2010 17:41	947243	10-1460	1	LANL	USE	S
per0216022a	WCLCCV	CWW	2/16/2010 17:51			1		USE	C
per0216023a	IPB004	CWW	2/16/2010 18:01			1		USE	B
per0216024a	WCLCRI	CWW	2/16/2010 18:11			1		USE	C
per0216025a	245783006	CWW	2/16/2010 18:22	947243	10-1460	1	LANL	USE	S
per0216026a	245783007	CWW	2/16/2010 18:32	947243	10-1460	1	LANL	USE	S
per0216027a	245783008	CWW	2/16/2010 18:42	947243	10-1460	1	LANL	USE	S
per0216028a	245783009	CWW	2/16/2010 18:52	947243	10-1460	1	LANL	USE	S
per0216029a	245783010	CWW	2/16/2010 19:02	947243	10-1460	1	LANL	USE	S

per0216030a	245783011	CWW	2/16/2010 19:12	947243	10-1460	1	LANL	USE	S
per0216031a	245783012	CWW	2/16/2010 19:22	947243	10-1460	1	LANL	USE	S
per0216032a	245783013	CWW	2/16/2010 19:32	947243	10-1460	1	LANL	USE	S
per0216033a	245783014	CWW	2/16/2010 19:42	947243	10-1460	1	LANL	USE	S
per0216034a	245783015	CWW	2/16/2010 19:52	947243	10-1460	1	LANL	USE	S
per0216035a	WCLCCV	CWW	2/16/2010 20:02			1		USE	C
per0216036a	IPB005	CWW	2/16/2010 20:12			1		USE	B
per0216037a	WCLCRI	CWW	2/16/2010 20:23			1		USE	C
per0216038a	245783016	CWW	2/16/2010 20:33	947243	10-1460	1	LANL	USE	S
per0216039a	IPB006	CWW	2/16/2010 20:43			1		USE	B
per0216040a	1202029077	CWW	2/16/2010 20:53	947246	VARIOUS	1	LANL	USE	S
per0216041a	1202029078	CWW	2/16/2010 21:03	947246	VARIOUS	1	LANL	USE	S
per0216042a	1202029081	CWW	2/16/2010 21:13	947246	VARIOUS	1	LANL	USE	S
per0216043a	245786001	CWW	2/16/2010 21:23	947246	10-1462	1	LANL	USE	S
per0216044a	245797001	CWW	2/16/2010 21:34	947246	10-1471	1	LANL	USE	S
per0216045a	1202029079	CWW	2/16/2010 21:44	947246	10-1471	1	LANL	USE	S
per0216046a	1202029080	CWW	2/16/2010 21:54	947246	10-1471	1	LANL	USE	S
per0216047a	245797002	CWW	2/16/2010 22:04	947246	10-1471	1	LANL	USE	S
per0216048a	WCLCCV	CWW	2/16/2010 22:14			1		USE	C
per0216049a	IPB007	CWW	2/16/2010 22:24			1		USE	B
per0216050a	WCLCRI	CWW	2/16/2010 22:34			1		USE	C
per0216051a	245797003	CWW	2/16/2010 22:44	947246	10-1471	1	LANL	USE	S
per0216052a	245797004	CWW	2/16/2010 22:55	947246	10-1471	1	LANL	USE	S
per0216053a	245797005	CWW	2/16/2010 23:05	947246	10-1471	1	LANL	USE	S
per0216054a	245797006	CWW	2/16/2010 23:15	947246	10-1471	1	LANL	USE	S
per0216055a	245797007	CWW	2/16/2010 23:25	947246	10-1471	1	LANL	USE	S
per0216056a	245797008	CWW	2/16/2010 23:35	947246	10-1471	1	LANL	USE	S
per0216057a	245797009	CWW	2/16/2010 23:45	947246	10-1471	1	LANL	USE	S
per0216058a	245797010	CWW	2/16/2010 23:55	947246	10-1471	1	LANL	USE	S
per0216059a	245797011	CWW	2/17/2010 0:05	947246	10-1471	1	LANL	USE	S
per0216060a	WCLCCV	CWW	2/17/2010 0:15			1		USE	C
per0216061a	IPB008	CWW	2/17/2010 0:25			1		USE	B
per0216062a	WCLCRI	CWW	2/17/2010 0:35			1		USE	C
per0216063a	245797012	CWW	2/17/2010 0:45	947246	10-1471	1	LANL	USE	S
per0216064a	245797013	CWW	2/17/2010 0:56	947246	10-1471	1	LANL	USE	S
per0216065a	245797014	CWW	2/17/2010 1:06	947246	10-1471	1	LANL	USE	S
per0216066a	245797015	CWW	2/17/2010 1:16	947246	10-1471	1	LANL	USE	S

per0216067a	245797016	CWW	2/17/2010 1:26	947246	10-1471	1	LANL	USE	S
per0216068a	245797017	CWW	2/17/2010 1:36	947246	10-1471	1	LANL	USE	S
per0216069a	245797018	CWW	2/17/2010 1:46	947246	10-1471	1	LANL	USE	S
per0216070a	245797019	CWW	2/17/2010 1:56	947246	10-1471	1	LANL	USE	S
per0216071a	WCLCCV	CWW	2/17/2010 2:06			1		USE	C
per0216072a	IPB009	CWW	2/17/2010 2:16			1		USE	B
per0216073a	WCLCRI	CWW	2/17/2010 2:26			1		USE	C
per0216074a	1202035609	CWW	2/17/2010 2:37	950042	VARIOUS	1	LANL	USE	S
per0216075a	1202035610	CWW	2/17/2010 2:47	950042	VARIOUS	1	LANL	USE	S
per0216076a	1202035613	CWW	2/17/2010 2:57	950042	VARIOUS	1	LANL	USE	S
per0216077a	246264001	CWW	2/17/2010 3:07	950042	10-1573-1	1	LANL	USE	S
per0216078a	246269001	CWW	2/17/2010 3:17	950042	10-1548-1	1	LANL	USE	S
per0216079a	246278001	CWW	2/17/2010 3:27	950042	10-1551	1	LANL	USE	S
per0216080a	246282001	CWW	2/17/2010 3:37	950042	10-1576	1	LANL	USE	S
per0216081a	WCLCCV	CWW	2/17/2010 3:47			1		USE	C
per0216082a	IPB010	CWW	2/17/2010 3:58			1		USE	B
per0216083a	WCLCRI	CWW	2/17/2010 4:08			1		USE	C
per0216084a	246292001	CWW	2/17/2010 4:18	950042	10-1554-1	1	LANL	USE	S
per0216085a	1202035611	CWW	2/17/2010 4:28	950042	10-1554-1	1	LANL	USE	S
per0216086a	1202035612	CWW	2/17/2010 4:38	950042	10-1554-1	1	LANL	USE	S
per0216087a	246292002	CWW	2/17/2010 4:49	950042	10-1554-1	1	LANL	USE	S
per0216088a	246293002	CWW	2/17/2010 4:59	950042	10-1591	1	LANL	USE	S
per0216089a	246293004	CWW	2/17/2010 5:09	950042	10-1591	1	LANL	USE	S
per0216090a	246299001	CWW	2/17/2010 5:19	950042	10-1557	1	LANL	USE	S
per0216091a	246306001	CWW	2/17/2010 5:29	950042	10-1559-1	1	LANL	USE	S
per0216092a	WCLCCV	CWW	2/17/2010 5:39			1		USE	C
per0216093a	IPB011	CWW	2/17/2010 5:49			1		USE	B
per0216094a	WCLCRI	CWW	2/17/2010 5:59			1		USE	C
per0216095a	246313001	CWW	2/17/2010 6:09	950042	10-1561-1	1	LANL	USE	S
per0216096a	246323001	CWW	2/17/2010 6:20	950042	10-1565-1	1	LANL	USE	S
per0216097a	246334001	CWW	2/17/2010 6:30	950042	10-1568	1	LANL	USE	S
per0216098a	246436001	CWW	2/17/2010 6:40	950042	10-1621	1	LANL	USE	S
per0216099a	246448001	CWW	2/17/2010 6:50	950042	10-1627-1	1	LANL	USE	S
per0216100a	246451001	CWW	2/17/2010 7:00	950042	10-1629	1	LANL	USE	S
per0216101a	246455001	CWW	2/17/2010 7:10	950042	10-1631	1	LANL	USE	S
per0216102a	246459001	CWW	2/17/2010 7:20	950042	10-1633	1	LANL	USE	S
per0216103a	WCLCCV	CWW	2/17/2010 7:30			1		USE	C

B C S S S S

USE  
USE

GEL  
GEL  
GEL  
GEL

1 1 1 1 1 1

SCREEN  
SCREEN  
SCREEN  
SCREEN

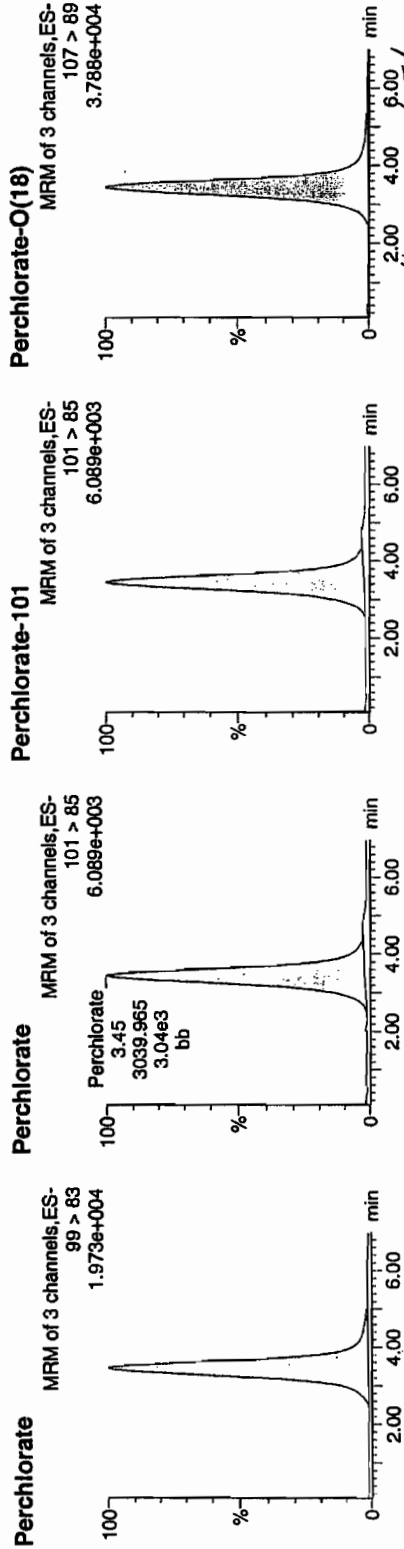
2/17/2010 7:40  
2/17/2010 7:50  
2/17/2010 8:00  
2/17/2010 8:11  
2/17/2010 8:21  
2/17/2010 8:31

CWW  
CWW  
CWW  
CWW  
CWW  
CWW

IPB012  
WCLCRI  
1267890 Supp  
1261217 H2O  
UCL100210-01  
UCL100210-02.1

per0216104a  
per0216105a  
per0216106a  
per0216107a  
per0216108a  
per0216109a

62-17-10  
 950042 / 172 / 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035611	Perchlorate	99 > 83	3.45	10301.391	10301.391	bb			0.2116	105.78	5.78	719.648	3.39
1202035611	Perchlorate-101	101 > 85	3.45	3039.965	3039.965	bb			0.2006	100.29	0.29	228.870	
1202035611	Perchlorate-O(18)	107 > 89	3.42	20369.920	20369.920	bb			0.5050	101.00	1.00	1276.4...	



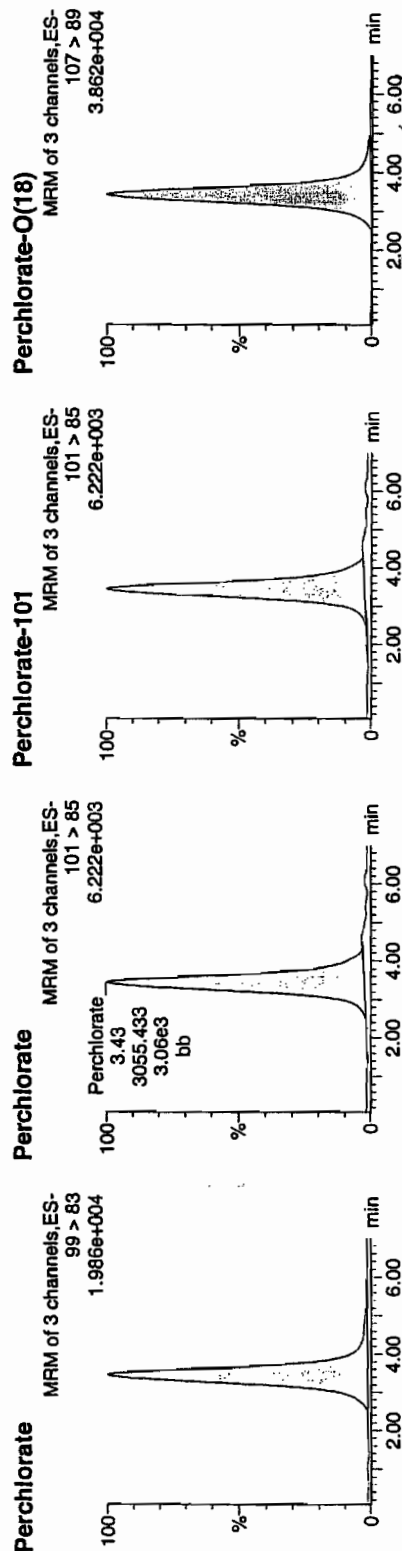
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time  
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216086a  
Date: 17-Feb-2010  
Time: 04:38:54  
ID: 1202035612  
Vial: 3:2,D

02-17-10  
Lane | 950042 | 1202 | 150 | 1 |



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035612	Perchlorate	99 > 83	3.45	10430.546	10430.546	bb			0.2142	107.10	7.10	684.770	3.41
1202035612	Perchlorate-101	101 > 85	3.43	3055.433	3055.433	bb			0.2016	100.80	0.80	424.148	
1202035612	Perchlorate-O(18)	107 > 89	3.42	20102.609	20102.609	bb			0.4984	99.68	-0.32	6190.7...	

## 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 10-1568-1**

**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: 952425

Prep Batch Number: 952422

**Sample Analysis**

<b>Sample ID</b>	<b>Client ID</b>
246336001	RE15-10-8304
246336002	RE15-10-8305
246336003	RE15-10-8306
246336004	RE15-10-8307
246336005	RE15-10-8309
246336006	RE15-10-8308
246336007	RE15-10-8301
246336008	RE15-10-8300
246336009	RE15-10-8324
1202041315	Interference Check Sample (ICS)
1202041311	Method Blank (MB)
1202041312	Laboratory Control Sample (LCS)
1202041313	246336001(RE15-10-8304) Matrix Spike (MS)
1202041314	246336001(RE15-10-8304) Matrix Spike Duplicate (MSD)

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

10-1568-1-PERLCMS

Page 1 of 4

### **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.

#### **QC Sample Designation**

Sample 246336001 (RE15-10-8304) 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.

10-1568-1-PERLCMS

Page 2 of 4

### **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**

Samples 246336007 (RE15-10-8301), 246336008 (RE15-10-8300) and 246336009 (RE15-10-8324) required re-analysis due to the low recovery of the bracketing CCV. The samples were re-analyzed and passed acceptance criteria. The re-analysis is reported.

### **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.

10-1568-1-PERLCMS

Page 3 of 4

### **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: Niebert M. Mauer Date: 03/04/10

10-1568-1-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: 952422

Extraction Type: Solid Prep

Client Sample No.

RE15-10-8304

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1568-1

GEL Sample ID: 246336001

Date Filtered: 19-FEB-10

Injection Volume (uL): 20

%Solids: 80

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	.628	2.51	0.628	ug/kg	U	1	28-FEB-10 22:52	per0228064a
	Perchlorate Isotope Ratio						1	28-FEB-10 22:52	per0228064a
14797-73-0	Perchlorate-101	.628	2.51	0.628	ug/kg	U	1	28-FEB-10 22:52	per0228064a
	Perchlorate-O(18)			6.36	ug/kg		1	28-FEB-10 22:52	per0228064a

<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: 952422

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8305

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1568-1

GEL Sample ID: 246336002

Date Filtered: 19-FEB-10

Injection Volume (uL): 20

%Solids: 62

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.811	3.25	0.811	ug/kg	U	1	28-FEB-10 23:19	per0228067a
	Perchlorate Isotope Ratio						1	28-FEB-10 23:19	per0228067a
14797-73-0	Perchlorate-101	.811	3.25	0.811	ug/kg	U	1	28-FEB-10 23:19	per0228067a
	Perchlorate-O(18)			8.31	ug/kg		1	28-FEB-10 23:19	per0228067a

<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: 952422

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8306

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1568-1

GEL Sample ID: 246336003

Date Filtered: 19-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	.635	2.54	0.635	ug/kg	U	1	28-FEB-10 23:28	per0228068a
	Perchlorate Isotope Ratio						1	28-FEB-10 23:28	per0228068a
14797-73-0	Perchlorate-101	.635	2.54	0.635	ug/kg	U	1	28-FEB-10 23:28	per0228068a
	Perchlorate-O(18)			6.29	ug/kg		1	28-FEB-10 23:28	per0228068a

<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: 952422

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8307

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1568-1

GEL Sample ID: 246336004

Date Filtered: 19-FEB-10

Injection Volume (uL): 20

%Solids: 86

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.584	2.34	0.584	ug/kg	U	1	28-FEB-10 23:37	per0228069a
	Perchlorate Isotope Ratio						1	28-FEB-10 23:37	per0228069a
14797-73-0	Perchlorate-101	.584	2.34	0.584	ug/kg	U	1	28-FEB-10 23:37	per0228069a
	Perchlorate-O(18)			5.64	ug/kg		1	28-FEB-10 23:37	per0228069a

<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: 952422

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8309

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1568-1

GEL Sample ID: 246336005

Date Filtered: 19-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.56	2.24	0.560	ug/kg	U	1	28-FEB-10 23:46	per0228070a
	Perchlorate Isotope Ratio						1	28-FEB-10 23:46	per0228070a
14797-73-0	Perchlorate-101	.56	2.24	0.560	ug/kg	U	1	28-FEB-10 23:46	per0228070a
	Perchlorate-O(18)			5.57	ug/kg		1	28-FEB-10 23:46	per0228070a

<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: 952422  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0

Client Sample No. RE15-10-8308  
 Date Received: 05-FEB-10  
 GEL Job No (SDG): 10-1568-1  
 GEL Sample ID: 246336006  
 Date Filtered: 19-FEB-10  
 Injection Volume (uL): 20  
 %Solids: 72

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.691	2.76	0.691	ug/kg	U	1	28-FEB-10 23:55	per0228071a
	Perchlorate Isotope Ratio						1	28-FEB-10 23:55	per0228071a
14797-73-0	Perchlorate-101	.691	2.76	0.691	ug/kg	U	1	28-FEB-10 23:55	per0228071a
	Perchlorate-O(18)			6.91	ug/kg		1	28-FEB-10 23:55	per0228071a

<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: 252422  
 Extraction Type: Solid Prep  
 Client Sample No. RE15-10-8301  
 Date Received: 05-FEB-10  
 GEL Job No (SDG): 10-1568-1  
 GEL Sample ID: 246336007  
 Date Filtered: 19-FEB-10  
 Injection Volume (uL): 20  
 Sample Volume/Weight: 2.00 g  
 %Solids: 24

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	.532	2.13	0.892	ug/kg	J	1	01-MAR-10 17:12	per0301032a
	Perchlorate Isotope Ratio			3.2			1	01-MAR-10 17:12	per0301032a
14797-73-0	Perchlorate-101	.532	2.13	0.837	ug/kg	J	1	01-MAR-10 17:12	per0301032a
	Perchlorate-O(18)			5.39	ug/kg		1	01-MAR-10 17:12	per0301032a

<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

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC Client Sample No. RE15-10-8300

Lab Code: GEL Date Received: 05-FEB-10

Instrument: LCMSMS GEL Job No (SDG): 10-1568-1

Method: SW846 6850 Modified GEL Sample ID: 246336008

Matrix: SOIL Date Filtered: 19-FEB-10

Extraction Batch ID: 952422 Injection Volume (uL): 20

Extraction Type: Solid Prep %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	.721	2.88	0.721	ug/kg	U	1	01-MAR-10 17:21	per0301033a
	Perchlorate Isotope Ratio						1	01-MAR-10 17:21	per0301033a
14797-73-0	Perchlorate-101	.721	2.88	0.721	ug/kg	U	1	01-MAR-10 17:21	per0301033a
	Perchlorate-O(18)			7.49	ug/kg		1	01-MAR-10 17:21	per0301033a

<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 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: 952422

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8324

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1568-1

GEL Sample ID: 246336009

Date Filtered: 19-FEB-10

Injection Volume (uL): 20

%Solids: 72

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.632	2.53	0.717	ug/kg	J	1	01-MAR-10 17:30	per0301034a
	Perchlorate Isotope Ratio			3.13			1	01-MAR-10 17:30	per0301034a
14797-73-0	Perchlorate-101	.632	2.53	0.689	ug/kg	J	1	01-MAR-10 17:30	per0301034a
	Perchlorate-O(18)			6.84	ug/kg		1	01-MAR-10 17:30	per0301034a

<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): 10-1568-1

Extract Batch Code: 952422 Date Filtered: 19-FEB-10

Matrix: SOIL Sample ID: 1202041312

Analyte <sup>^</sup>	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.07	ug/kg	103		70 - 130
Perchlorate Isotope Ratio		3.22				-
Perchlorate-101	2.00	2.05	ug/kg	103		70 - 130
Perchlorate-O(18)		5.16	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): 10-1568-1

Extract Batch Code: 952422

Date Filtered: 19-FEB-10

Matrix: SOIL

Sample ID: 1202041315

Analyte <sup>^</sup>	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.19	ug/kg	110		70 - 130
Perchlorate Isotope Ratio		3.27				
Perchlorate-101	2.00	2.14	ug/kg	107		70 - 130
Perchlorate-O(18)		5.18	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

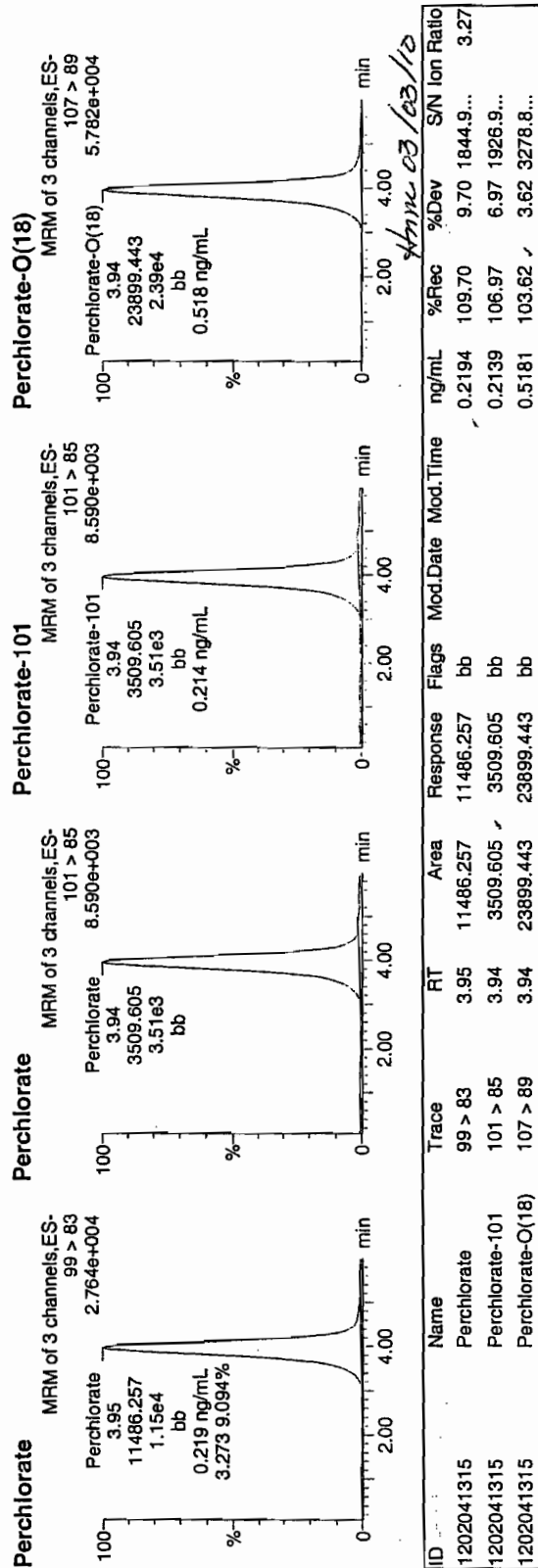
Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228051a  
Date: 28-Feb-2010  
Time: 20:54:20  
ID: 1202041315  
Vial: 2:1,C

WJ  
03-01-10

1572425 | 5070 | 125 | 11



GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10-1568-1

Extract Batch Code: 952422

Date Extracted: 19-FEB-10

GEL MS/PS ID: 1202041313

Client ID: RE15-10-8304

GEL MSD/PSD ID: 1202041314

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	2.51	0.140	ug/kg	2.77	105	2.8	106	1.04	30	75 - 125
Perchlorate Isotope Ratio	0	0.00		3.15		3.09		0		-
Perchlorate-101	2.51	0.153	ug/kg	2.81	106	2.89	109	2.83	30	75 - 125
Perchlorate-O(18)	0	6.36	ug/kg	6.30		6.46		2.43		-

<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

GEL Job No.(SDG): 10-1568-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

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

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	28-FEB-10	per0228001a	IPB001
Perchlorate-101	0.00	0	NA	28-FEB-10	per0228001a	IPB001
Perchlorate	0.00	0	NA	28-FEB-10	per0228002a	IPB001
Perchlorate-101	0.00	0	NA	28-FEB-10	per0228002a	IPB001
Perchlorate	0.00	0	NA	01-MAR-10	per0301001a	IPB001
Perchlorate-101	0.00	0	NA	01-MAR-10	per0301001a	IPB001
Perchlorate	0.00	0	NA	01-MAR-10	per0301002a	IPB001
Perchlorate-101	0.00	0	NA	01-MAR-10	per0301002a	IPB001

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

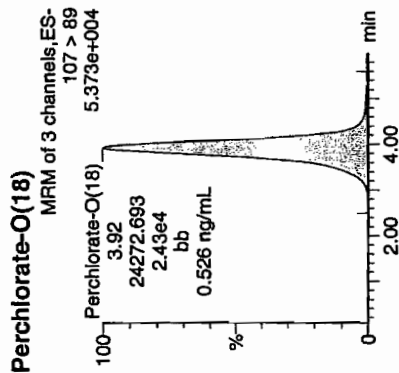
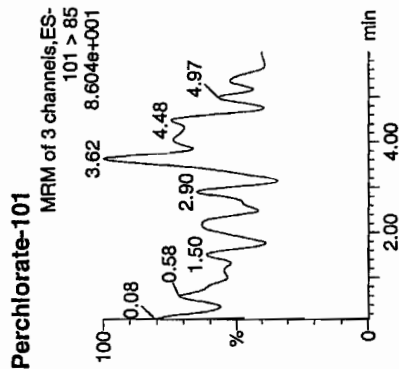
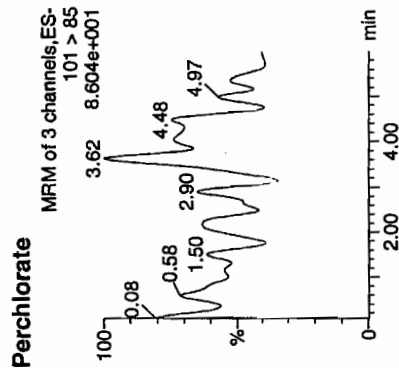
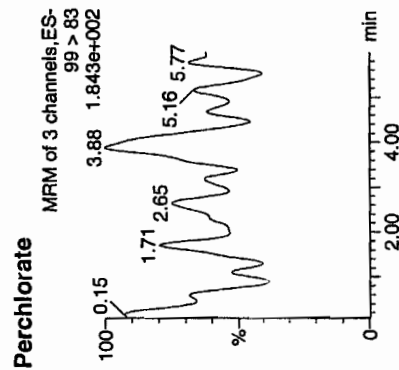
Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per022810a.mdb 28 Feb 2010 14:26:41  
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per022810a.cdb 01 Mar 2010 07:59:32

Name: per0228001a  
Date: 28-Feb-2010  
Time: 13:21:52  
ID: IPB001  
Vial: 1:1,A

03-01-10



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	3.92	24272.693	24272.693	bb			0.5262	105.24	✓	5.24	2341.0...

1077  
3/2/10



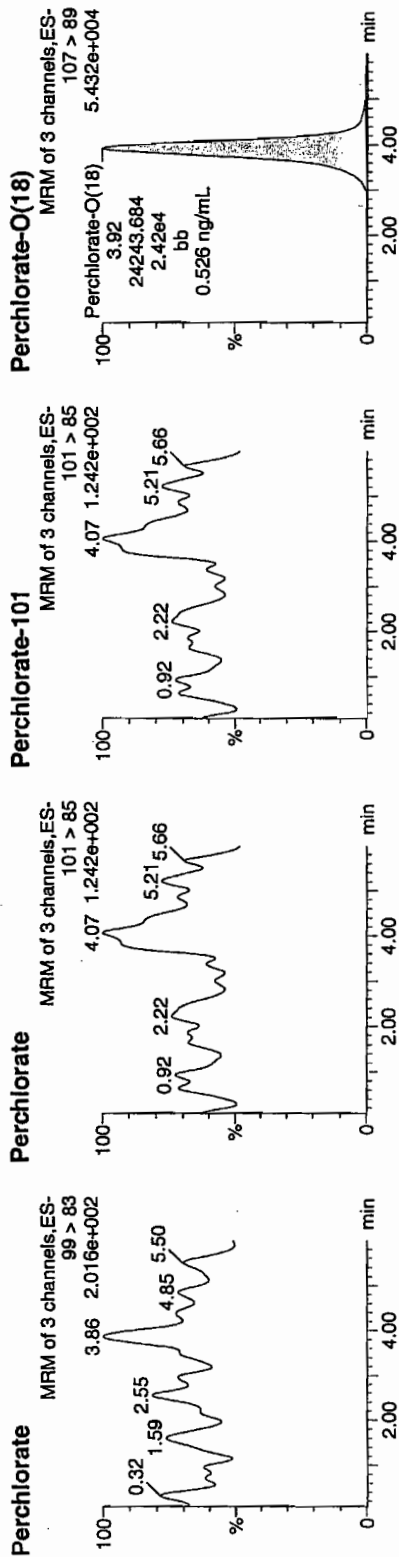
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228002a  
Date: 28-Feb-2010  
Time: 13:31:04  
ID: IPB001  
Vial: 1:1,A

03-01-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											
IPB001	Perchlorate-101	101 > 85	3.92	24243.684	24243.684	bb			0.5256	105.11	5.11	5966.8...	
IPB001	Perchlorate-O(18)	107 > 89											

1.477  
3/2/10

# Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

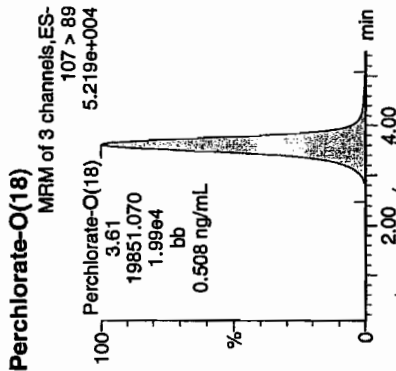
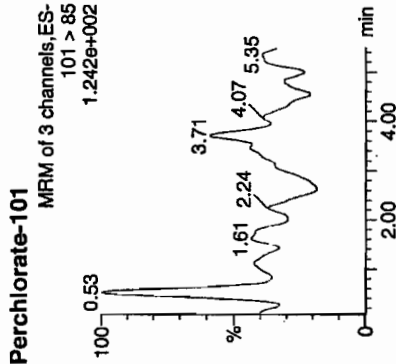
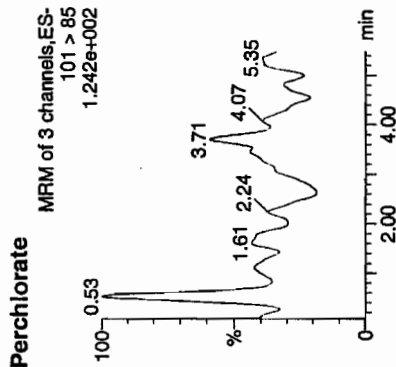
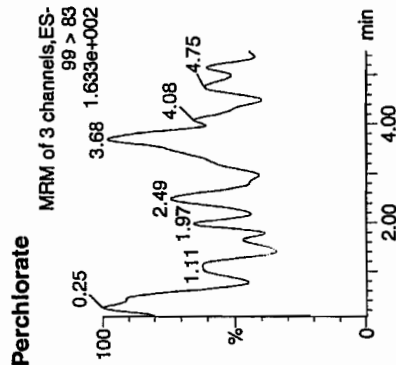
Dataset: C:\MassLynx\Perchlorate.PRO\per030110a.qld

Last Altered: Tuesday, March 02, 2010 8:52:39 AM Eastern Standard Time  
 Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per030110a.mdb 02 Mar 2010 08:52:20  
 Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per030110a.cdb 02 Mar 2010 08:52:38

Name: per0301001a  
 Date: 01-Mar-2010  
 Time: 12:47:16  
 ID: IPB001  
 Vial: 1:1,A

03-02-10



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	3.61	19851.070	19851.070	bb			0.5079	101.59	✓	1.59	3254.6...

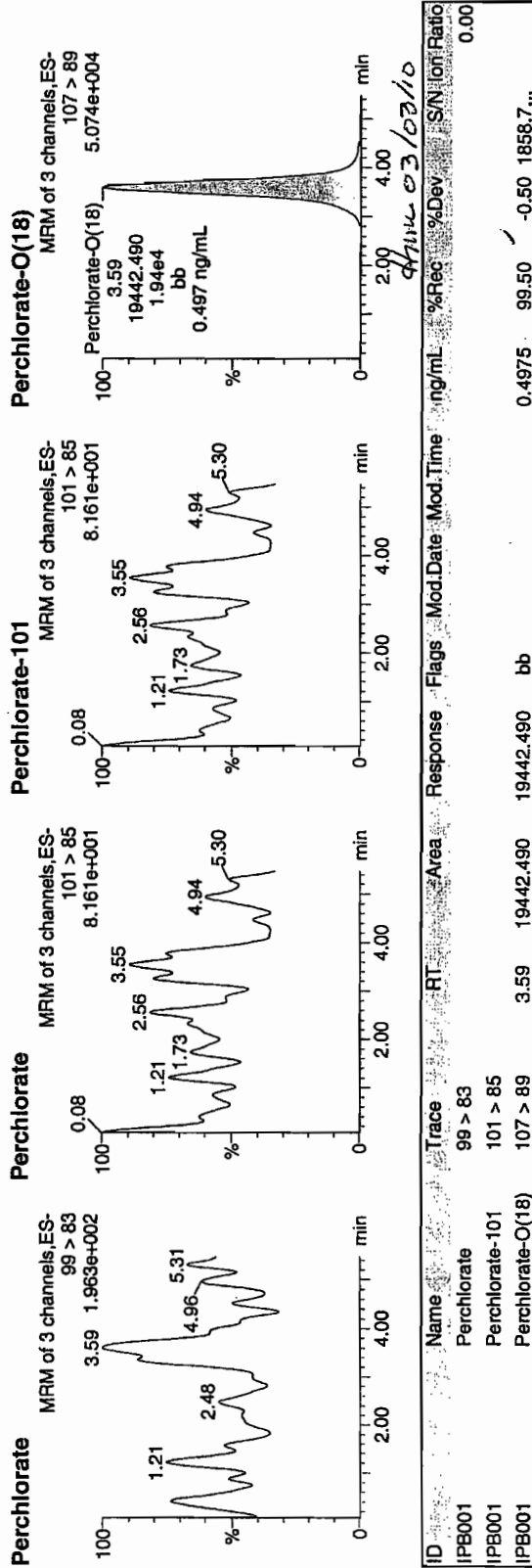
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030110a.qld

Last Altered: Tuesday, March 02, 2010 8:52:39 AM Eastern Standard Time  
Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Name: per0301002a  
Date: 01-Mar-2010  
Time: 12:55:59  
ID: IPB001  
Vial: 1:1,A

03-01-10



Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1568-1

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	28-FEB-10	per0228008a	IPB002
Perchlorate-101	0.00	0	NA	28-FEB-10	per0228008a	IPB002
Perchlorate	0.00	0	NA	28-FEB-10	per0228010a	IPB003
Perchlorate-101	0.00	0	NA	28-FEB-10	per0228010a	IPB003
Perchlorate	0.00	0	NA	28-FEB-10	per0228017a	IPB004
Perchlorate-101	0.00	0	NA	28-FEB-10	per0228017a	IPB004
Perchlorate	0.00	0	NA	28-FEB-10	per0228027a	IPB005
Perchlorate-101	0.00	0	NA	28-FEB-10	per0228027a	IPB005
Perchlorate	0.00	0	NA	28-FEB-10	per0228037a	IPB006
Perchlorate-101	0.00	0	NA	28-FEB-10	per0228037a	IPB006
Perchlorate	0.00	0	NA	28-FEB-10	per0228047a	IPB007
Perchlorate-101	0.00	0	NA	28-FEB-10	per0228047a	IPB007
Perchlorate	0.00	0	NA	28-FEB-10	per0228060a	IPB008

Perchlorate Continuing Calibration Blank

GEL Job No.(SDG): 10-1568-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate-101	0.00	0	NA	28-FEB-10	per0228060a	IPB008
Perchlorate	0.00	0	NA	01-MAR-10	per0228073a	IPB009
Perchlorate-101	0.00	0	NA	01-MAR-10	per0228073a	IPB009
Perchlorate	0.00	0	NA	01-MAR-10	per0301008a	IPB002
Perchlorate-101	0.00	0	NA	01-MAR-10	per0301008a	IPB002
Perchlorate	0.00	0	NA	01-MAR-10	per0301010a	IPB003
Perchlorate-101	0.00	0	NA	01-MAR-10	per0301010a	IPB003
Perchlorate	0.00	0	NA	01-MAR-10	per0301020a	IPB004
Perchlorate-101	0.00	0	NA	01-MAR-10	per0301020a	IPB004
Perchlorate	0.00	0	NA	01-MAR-10	per0301030a	IPB005
Perchlorate-101	0.00	0	NA	01-MAR-10	per0301030a	IPB005
Perchlorate	0.00	0	NA	01-MAR-10	per0301035a	IPB006
Perchlorate-101	0.00	0	NA	01-MAR-10	per0301035a	IPB006

Perchlorate Continuing Calibration Blank

GEL Job No.(SDG): 10-1568-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	01-MAR-10	per0301042a	IPB007
Perchlorate-101	0.00	0	NA	01-MAR-10	per0301042a	IPB007

Quantify Sample Report MassLynx 4.0 SP4

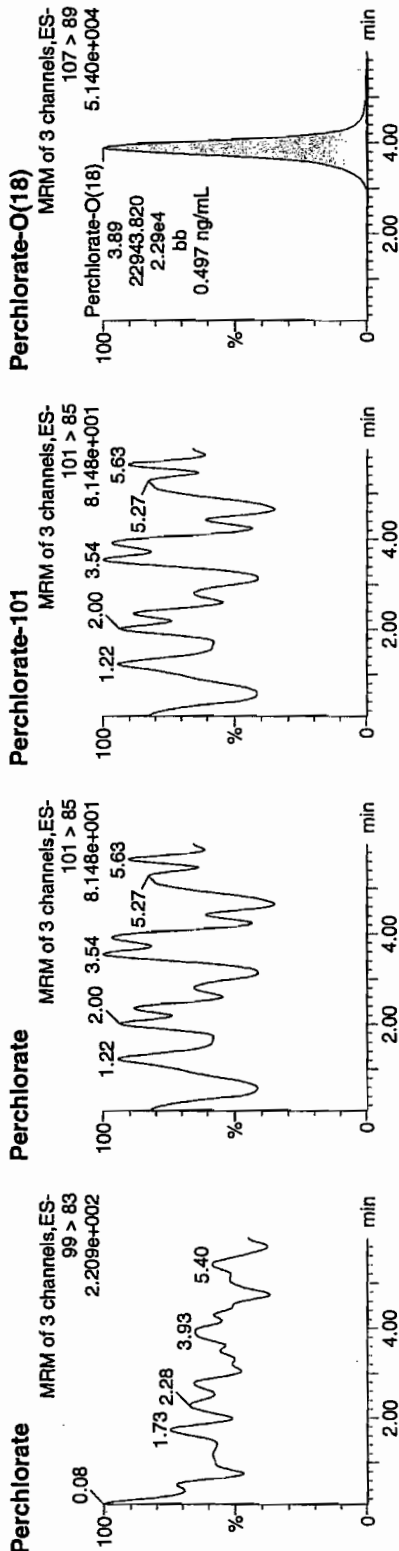
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228008a  
Date: 28-Feb-2010  
Time: 14:25:12  
ID: IPB002  
Vial: 1:1,A

03-01-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											0.00
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	3.89	22943.820	22943.820	bb			0.4974	99.47	-0.53	3703.4...	

107  
3/2/10

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228010a

Date: 28-Feb-2010

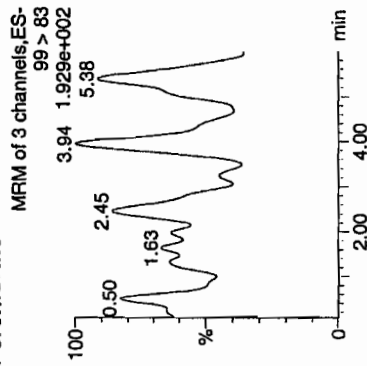
Time: 14:43:16

ID: IPB003

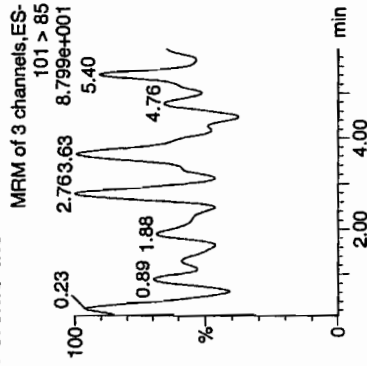
Vial: 1:1,A

03-01-10

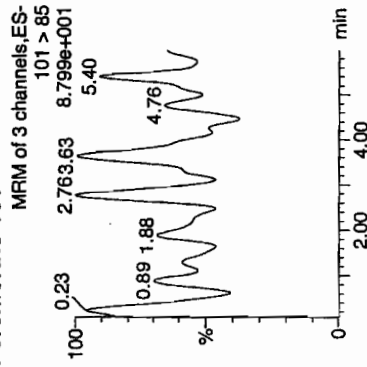
Perchlorate



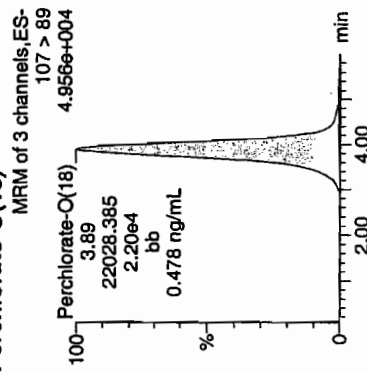
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83											
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-O(18)	107 > 89	3.89	22028.385	22028.385	bb			0.4775	95.51	-4.49	1705.2...	

1077  
3/2/10



# Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

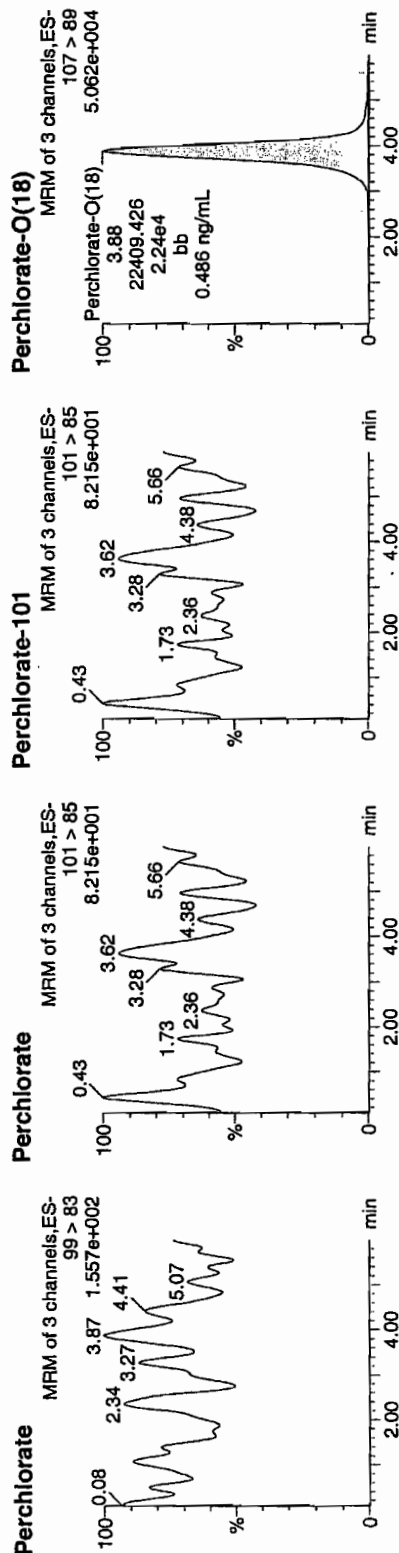
Page 17 of 86

Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
 Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228017a  
 Date: 28-Feb-2010  
 Time: 15:46:34  
 ID: IPB004  
 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
IPB004	Perchlorate	99 > 83											0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	3.88	22409.426	22409.426	bb			0.4858	97.16	-2.84	9103.5...	

6.07  
3/2/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228027a

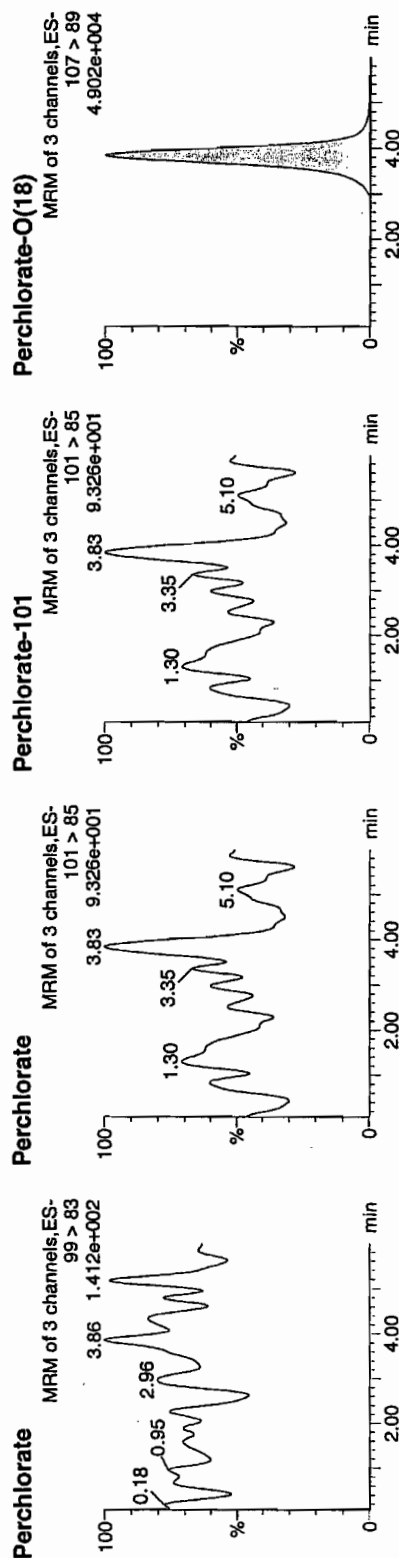
Date: 28-Feb-2010

Time: 17:16:58

ID: IPB005

Vial: 1:1,A

03-01-10



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	3.83	21766.459	21766.459	bb			0.4718	94.37	-5.63	4172.5...	
IPB005	Perchlorate-O(18)	107 > 89											

net  
3/2/10

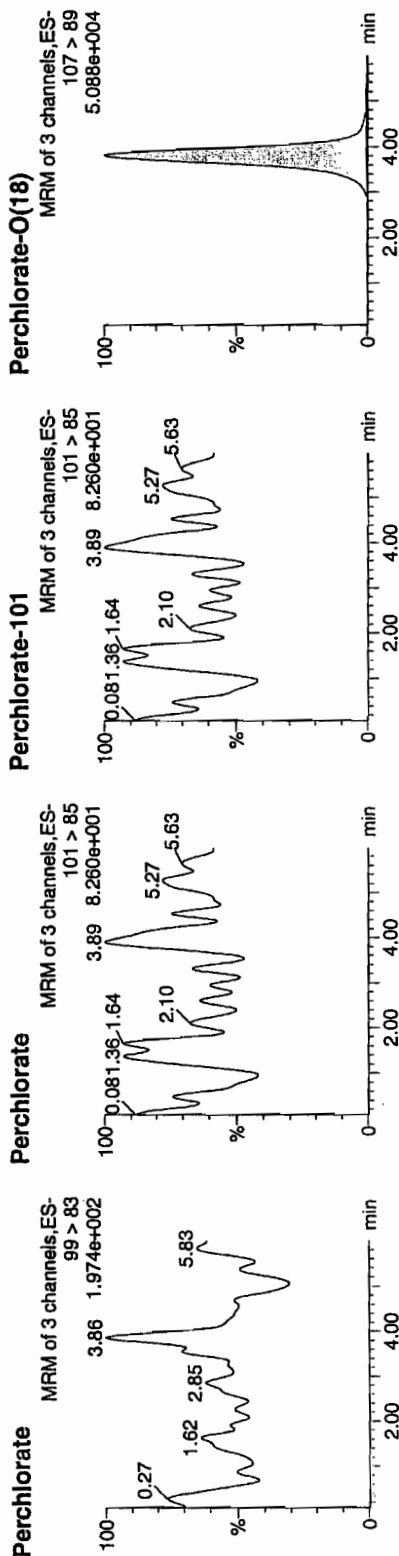
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228037a  
Date: 28-Feb-2010  
Time: 18:47:26  
ID: IPB006  
Vial: 1:1,A

03-01-10



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	3.81	21975.314	21975.314	bb			0.4764	95.28	-4.72	1409.5...	

not  
3/2/10

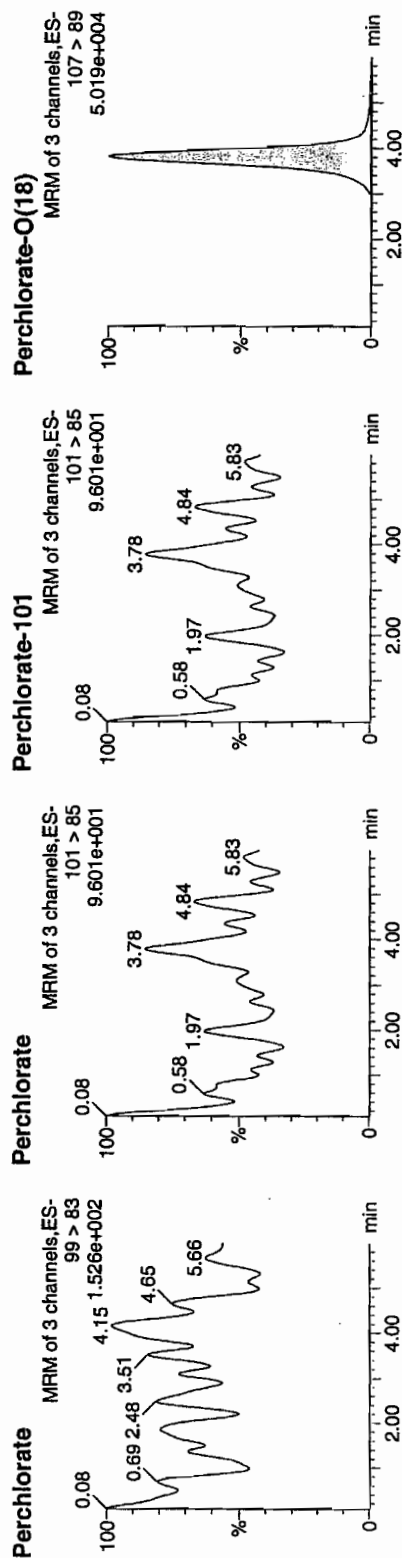
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charters W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228047a  
Date: 28-Feb-2010  
Time: 20:18:01  
ID: IPB007  
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
IPB007	Perchlorate	99 > 83											0.00
IPB007	Perchlorate-101	101 > 85											
IPB007	Perchlorate-O(18)	107 > 89	3.81	21695.666	21695.666	bb			0.4703	94.06	-5.94	7885.1...	

3/2/10

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228060a

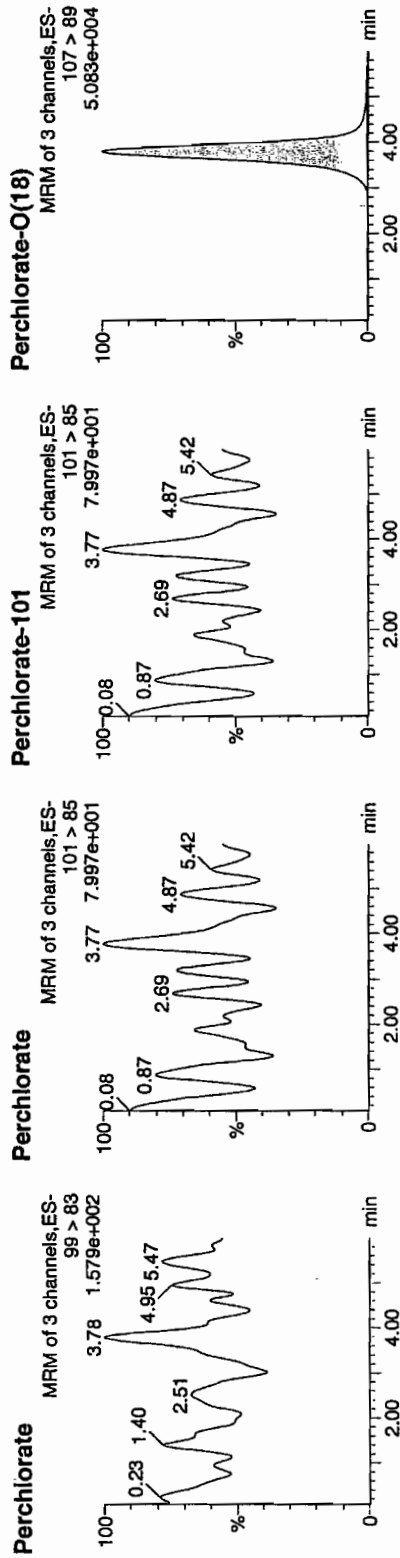
Date: 28-Feb-2010

Time: 22:15:47

ID: IPB008

Vial: 1:1,A

03-01-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB008	Perchlorate	99 > 83											0.00
IPB008	Perchlorate-101	101 > 85	3.78	22080.910	22080.910	bb			0.4787	95.73	-4.27	1635.6...	
IPB008	Perchlorate-O(18)	107 > 89											

not  
3/2/10

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030110a.qld

Last Altered: Tuesday, March 02, 2010 8:52:39 AM Eastern Standard Time  
Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Name: per0301068a

Date: 01-Mar-2010

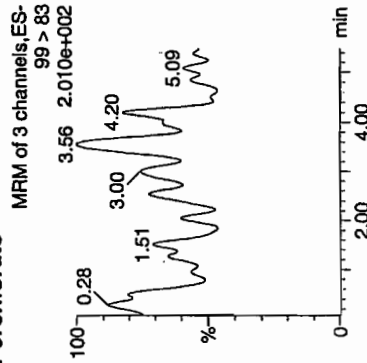
Time: 22:21:37

ID: IPB009

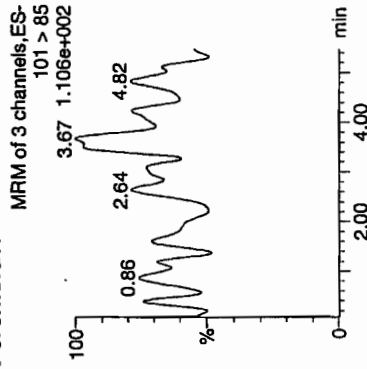
Vial: 1:1,A

03-01-10

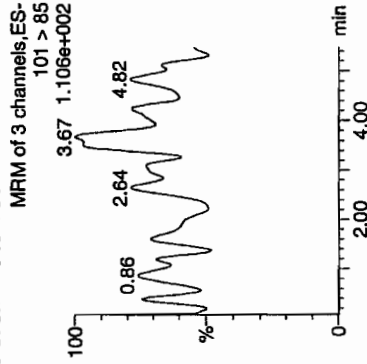
Perchlorate



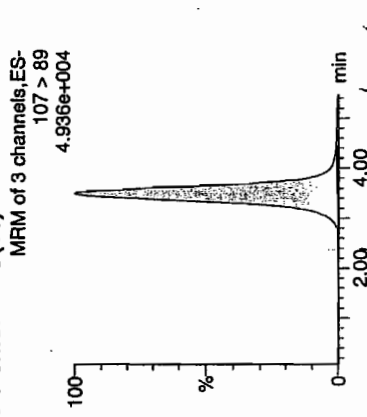
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB009	Perchlorate	99 > 83											0.00
IPB009	Perchlorate-101	101 > 85	3.50	18350.500	18350.500	bb			0.4695	93.91	-6.09	2021.7...	
IPB009	Perchlorate-O(18)	107 > 89											

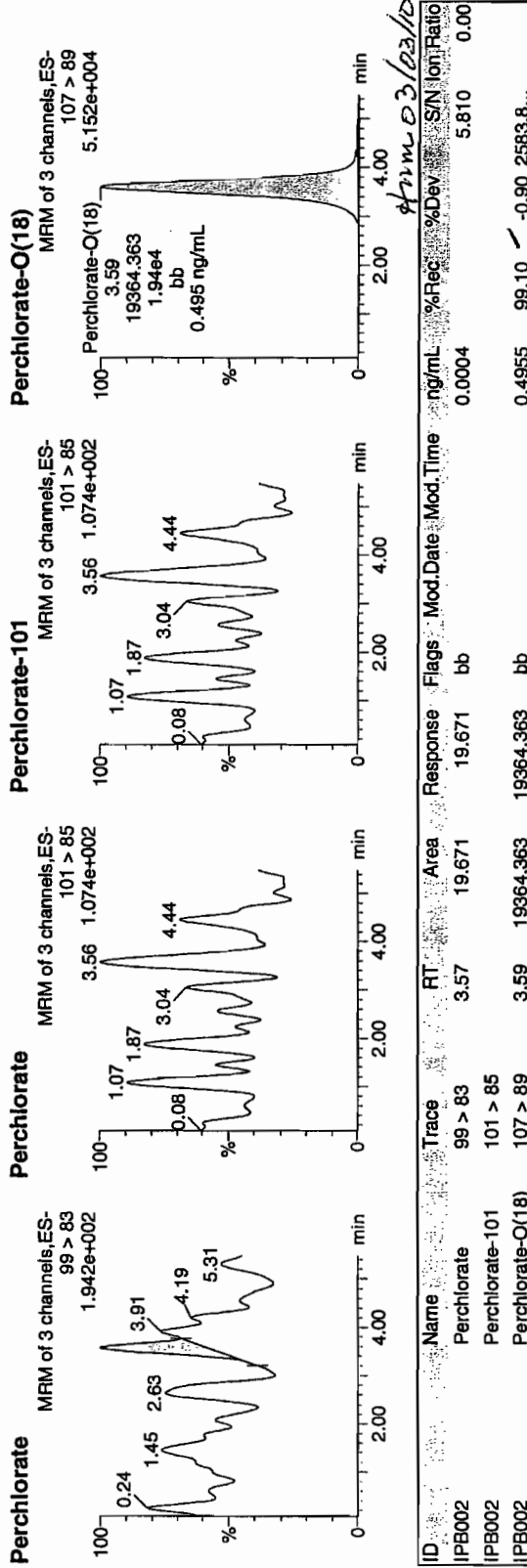
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030110a.qld

Last Altered: Tuesday, March 02, 2010 8:52:39 AM Eastern Standard Time  
Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Name: per0301008a  
Date: 01-Mar-2010  
Time: 13:47:06  
ID: IPB002  
Vial: 1:1,A

03-07-10

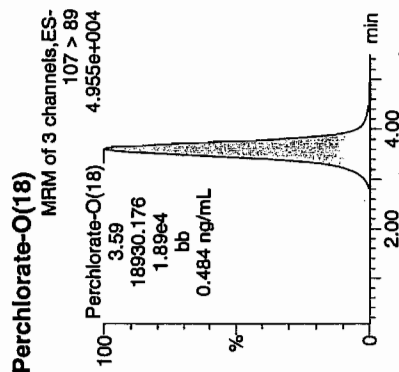
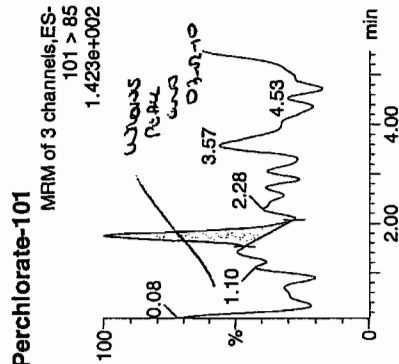
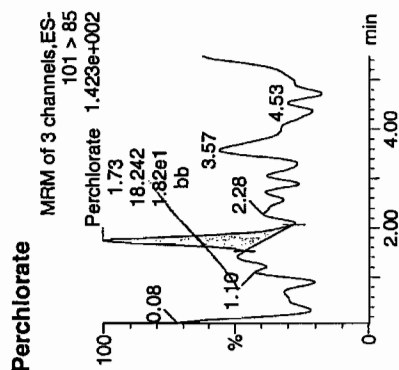
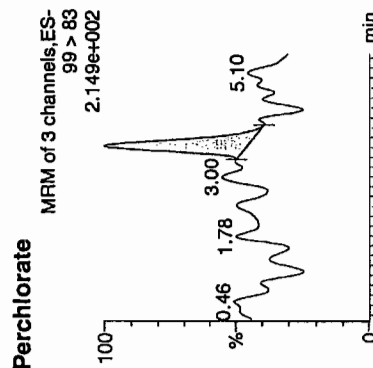


**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030110a.qld

Last Altered: Tuesday, March 02, 2010 8:52:39 AM Eastern Standard Time  
Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Name: per0301010a  
Date: 01-Mar-2010  
Time: 14:04:26  
ID: IPB003  
Vial: 1:1,A



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83	3.63	32.539	32.539	bb			0.0007			9.481	1.78
IPB003	Perchlorate-101	101 > 85	1.73	18.242	18.242	bb			0.0013			11.792	
IPB003	Perchlorate-O(18)	107 > 89	3.59	18930.176	18930.176	bb			0.4844	96.88	-3.12	730.850	

*think 03/02/10*

*6.94  
4.9500*



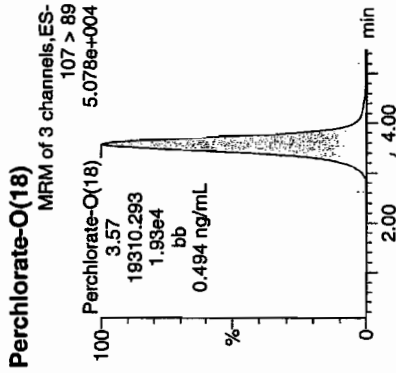
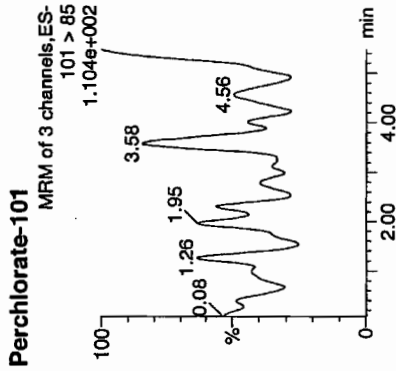
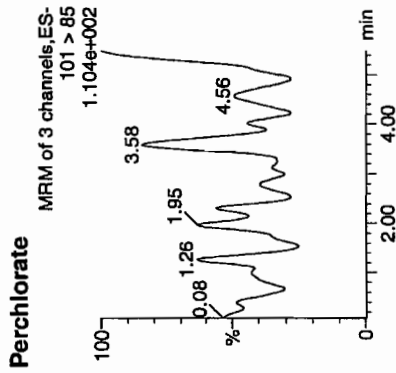
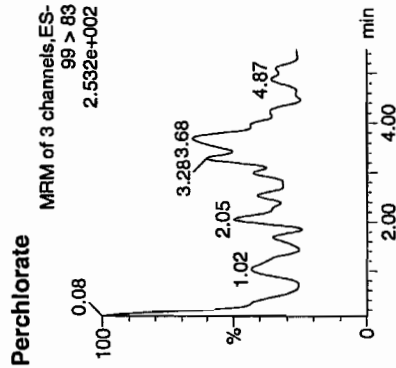
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030110a.qld

Last Altered: Tuesday, March 02, 2010 8:52:39 AM Eastern Standard Time  
Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Name: per0301020a  
Date: 01-Mar-2010  
Time: 15:29:50  
ID: IPB004  
Vial: 1:1,A

0.08  
0.08-0.10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
IPB004	Perchlorate	99 > 83											0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	3.57	19310.293	19310.293	bb			0.4941	98.82	-1.18	2690.7...	

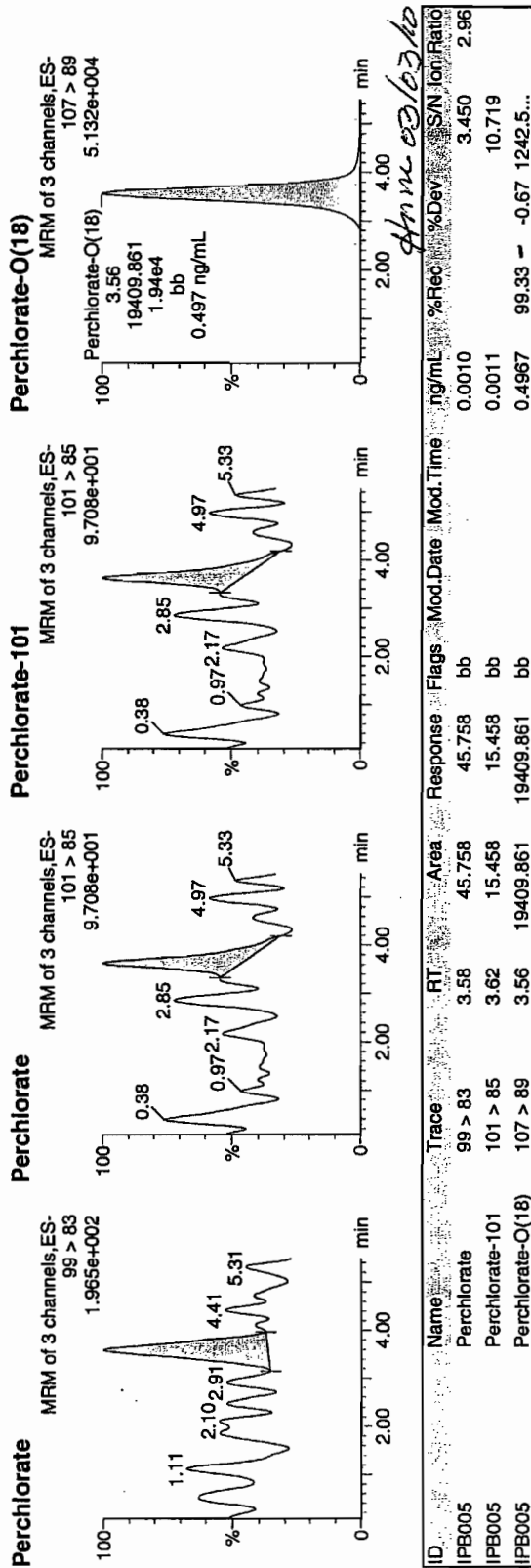
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030110a.qld

Last Altered: Tuesday, March 02, 2010 8:52:39 AM Eastern Standard Time  
Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Name: per0301030a  
Date: 01-Mar-2010  
Time: 16:55:24  
ID: IPB005  
Vial: 1:1,A

03-07-10



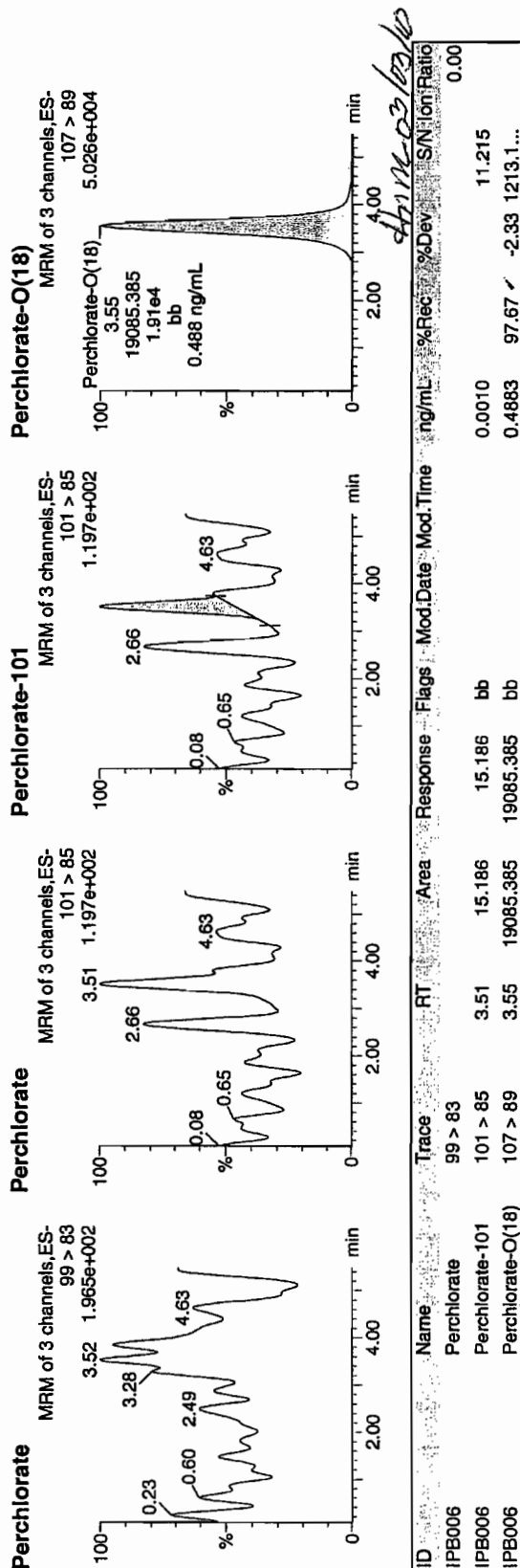
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\P perchlorate.PRO\per030110a.qld

Last Altered: Tuesday, March 02, 2010 8:52:39 AM Eastern Standard Time  
Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Name: per0301035a  
Date: 01-Mar-2010  
Time: 17:38:34  
ID: IPB006  
Vial: 1:1,A

03-07-10



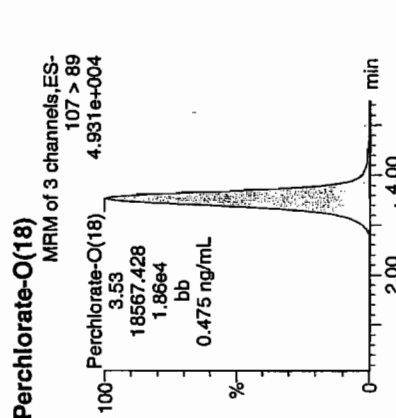
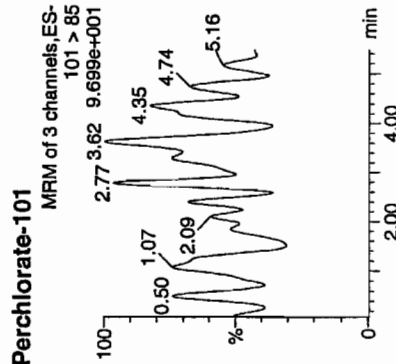
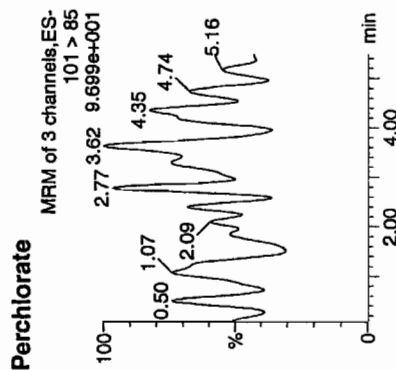
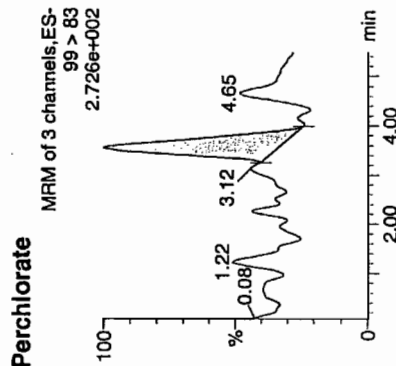
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030110a.qld

Last Altered: Tuesday, March 02, 2010 8:52:39 AM Eastern Standard Time  
Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Name: per0301042a  
Date: 01-Mar-2010  
Time: 18:38:50  
ID: IPB007  
Vial: 1:1,A

03-02-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83	3.56	64.215	64.215	bb			0.0015			13.175	0.00
IPB007	Perchlorate-101	101 > 85											
IPB007	Perchlorate-O(18)	107 > 89	3.53	18567.428	18567.428	bb			0.4751	95.02	-4.98	4258.7...	

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

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

Calibration Report - MS1 Static

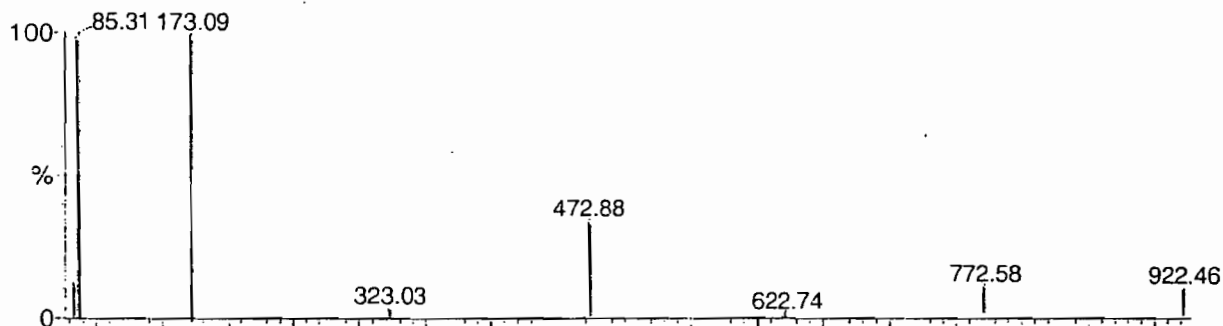
Page 1 of 1

Printed: Tue Jan 08 12:19:12 2008

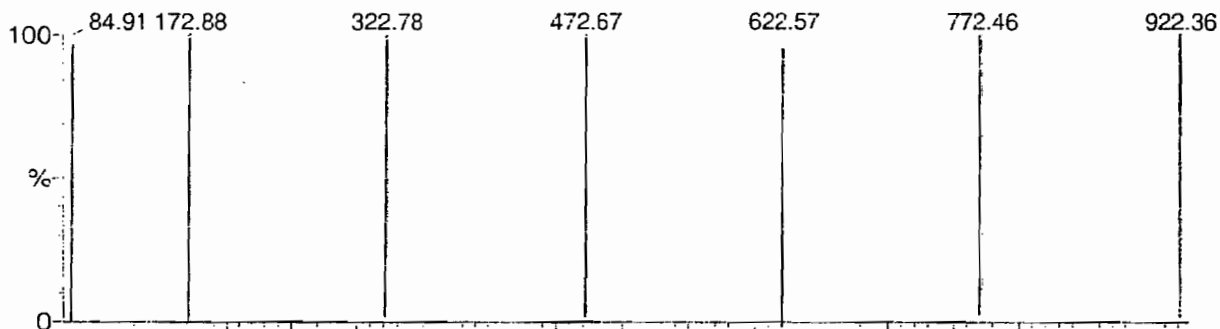
DATA HIGHLIGHTED BY CURS 01-09-03

Data file: STATMS1 - Uncalibrated

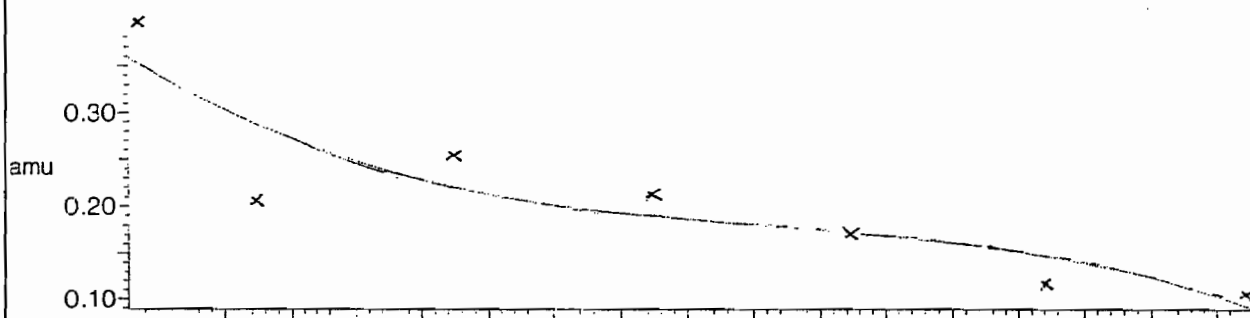
7 matches of 7 tested references



Reference file: Nairb

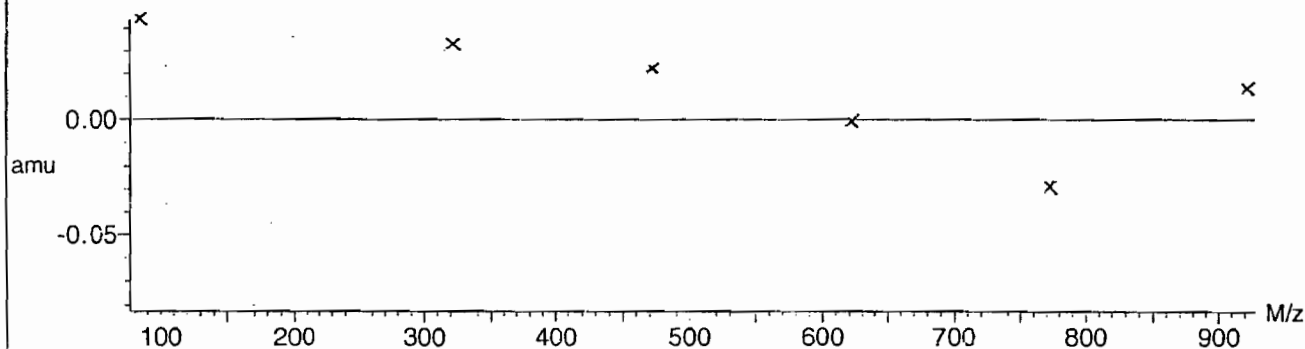


Mass difference (Raw - Ref mass)



Residuals

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



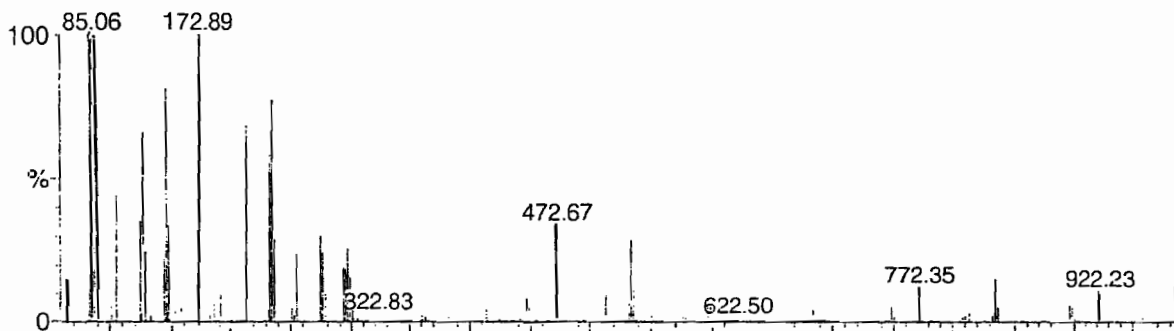
Calibration Report - MS1 Scanning

Page 1 of 1

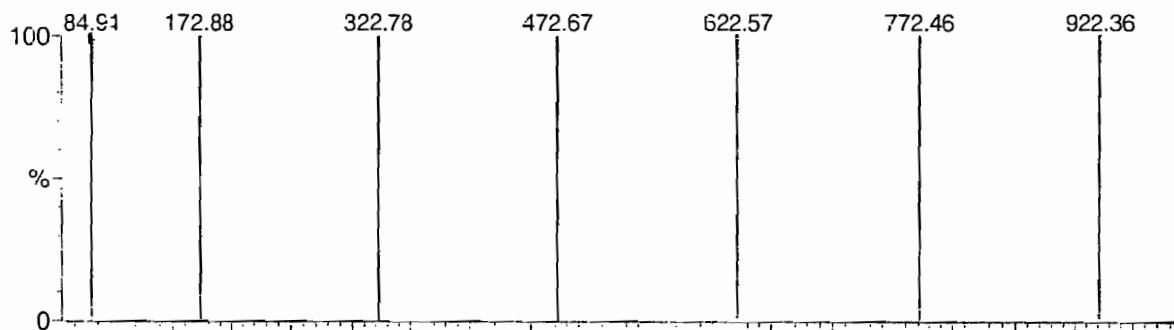
Printed: Tue Jan 08 12:20:09 2008

Data file: SCNMS1 - Uncalibrated

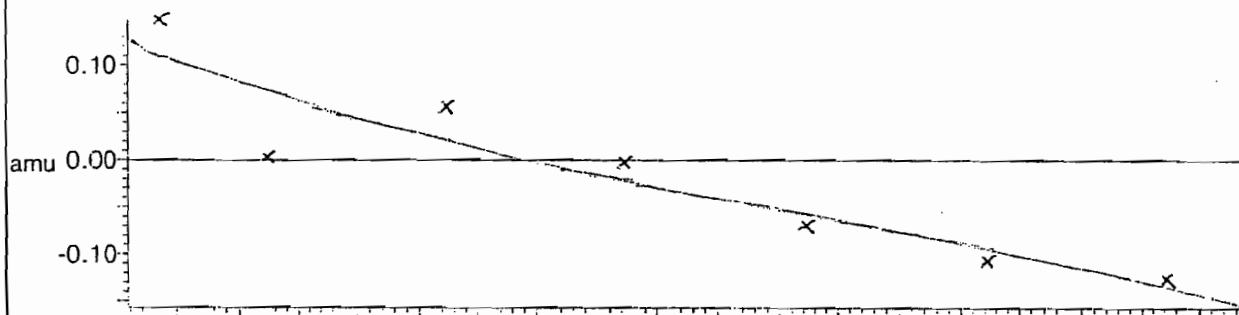
7 matches of 7 tested references



Reference file: Nairb

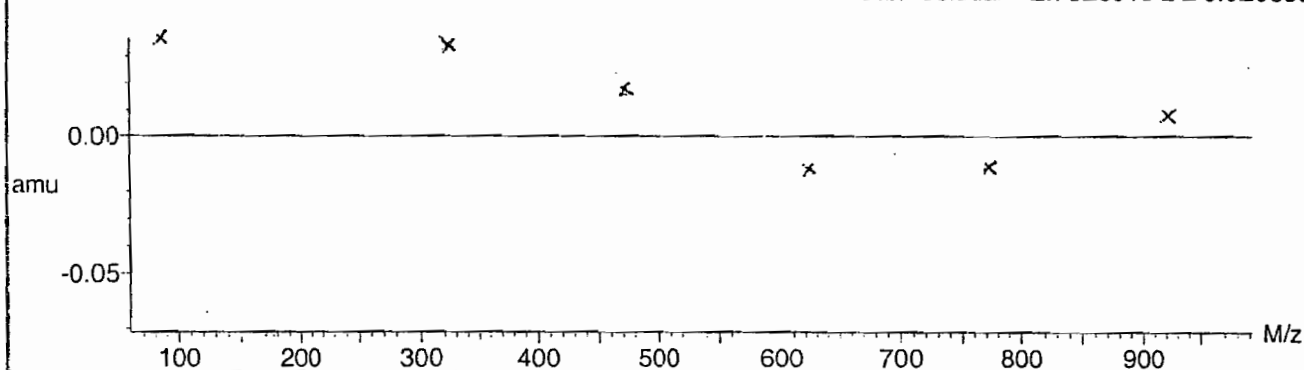


Mass difference (Raw - Ref mass)



Residuals

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

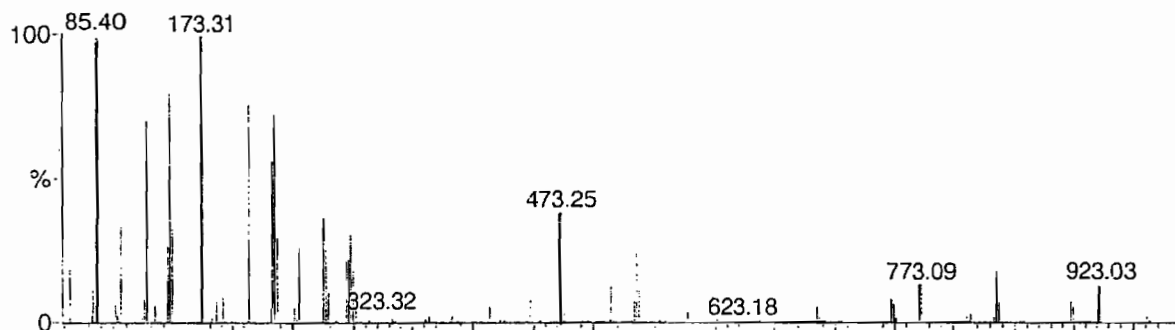


Calibration Report - MS1 Scan Speed Compensation

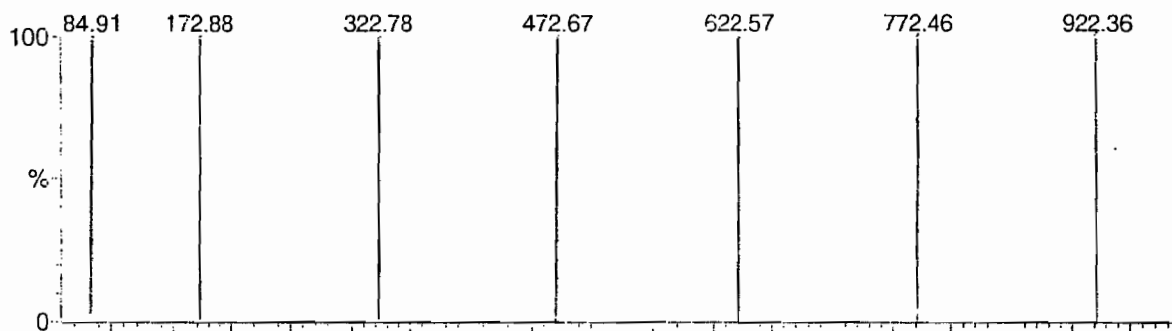
Page 1 of 1

Printed: Tue Jan 08 12:21:04 2008

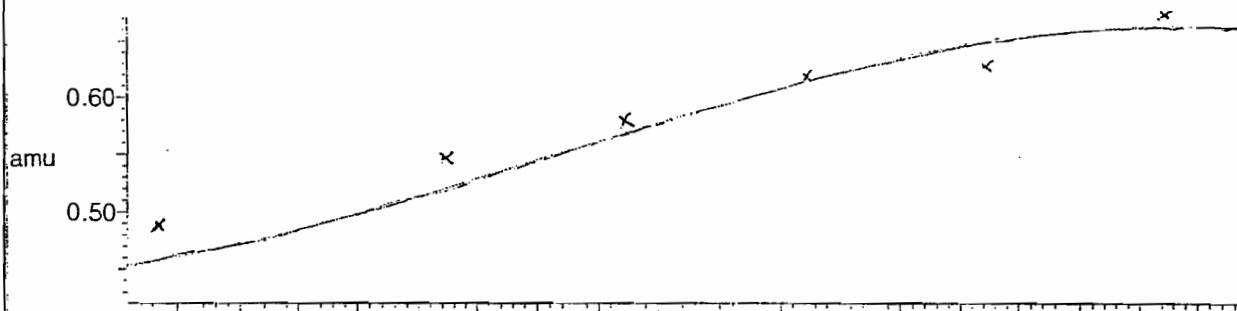
Data file: FASTMS1 - Uncalibrated 7 matches of 7 tested references



Reference file: Nairb

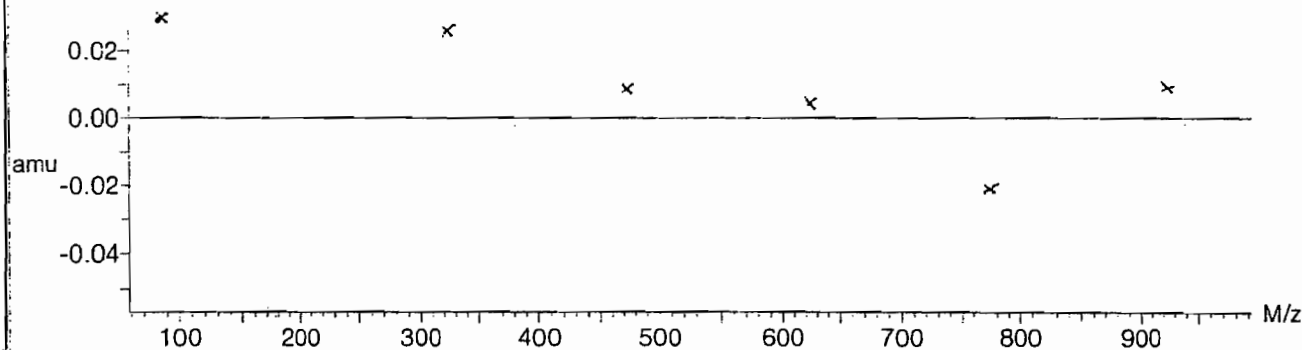


Mass difference (Raw - Ref mass)



Residuals

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





Calibration Report - MS2 Scan Speed Compensation

Page 1 of 1

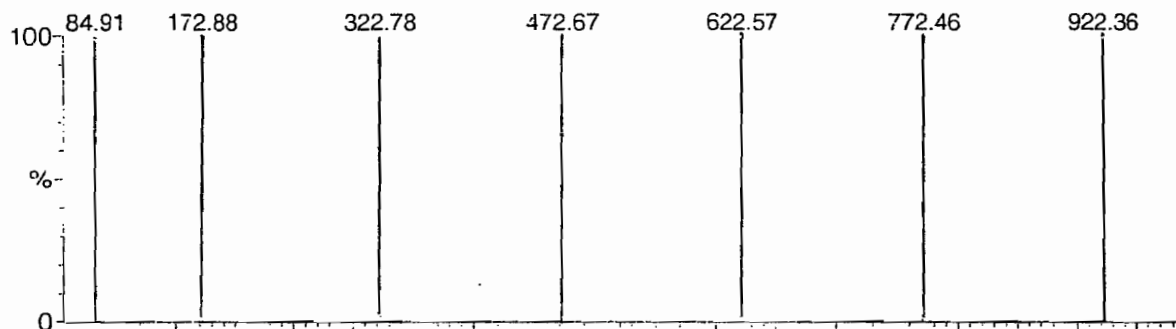
Printed: Tue Jan 08 12:23:51 2008

Data file: FASTMS2 - Uncalibrated

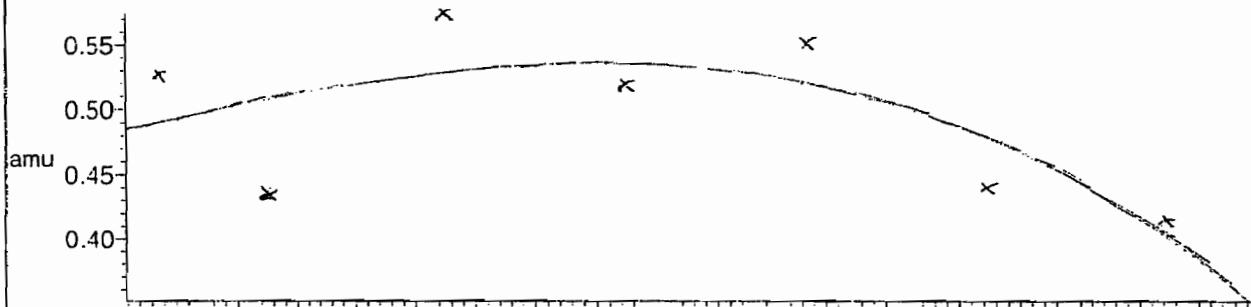
7 matches of 7 tested references



Reference file: Nairb

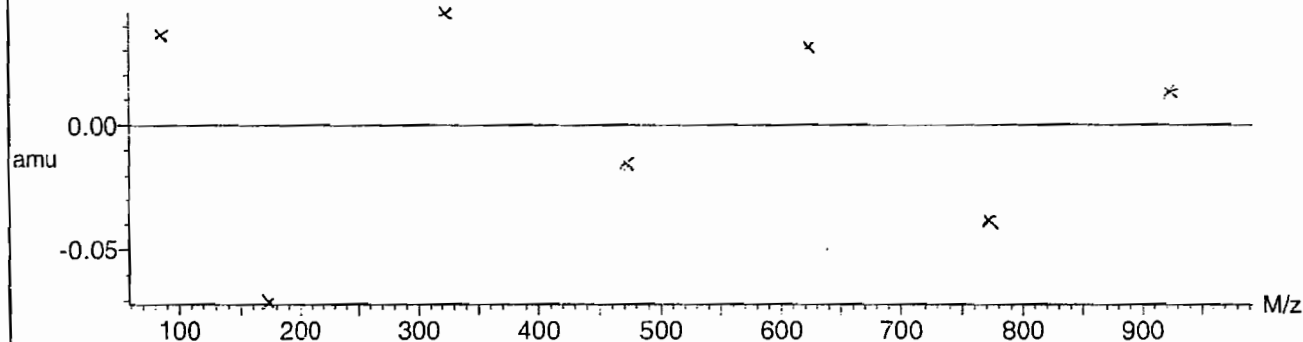


Mass difference (Raw - Ref mass)



Residuals

Mean residual =  $3.598289 \times 10^{-2} \pm 0.017899$



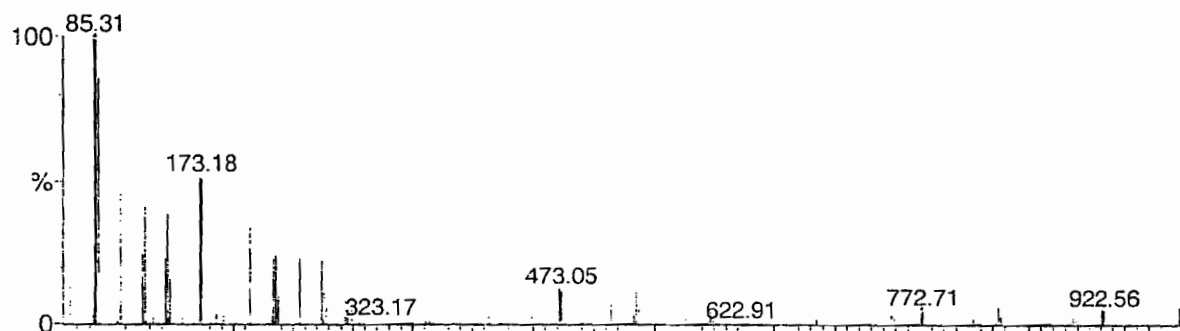
Calibration Report - MS2 Scanning

Page 1 of 1

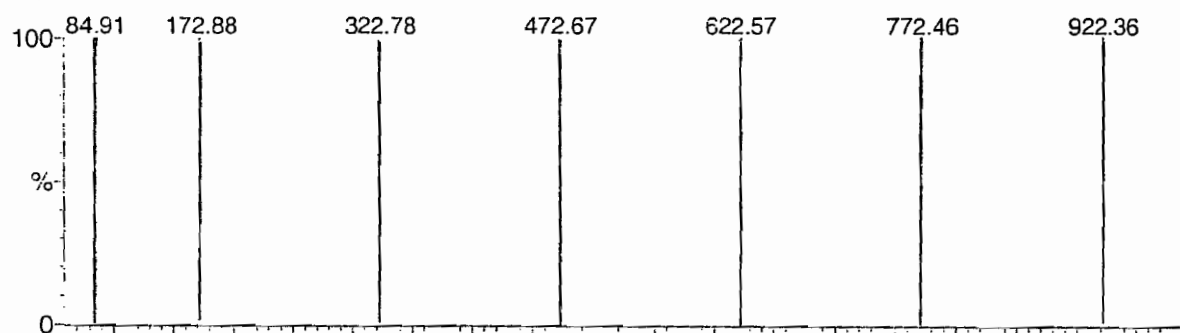
Printed: Tue Jan 08 12:22:56 2008

Data file: SCNMS2 - Uncalibrated

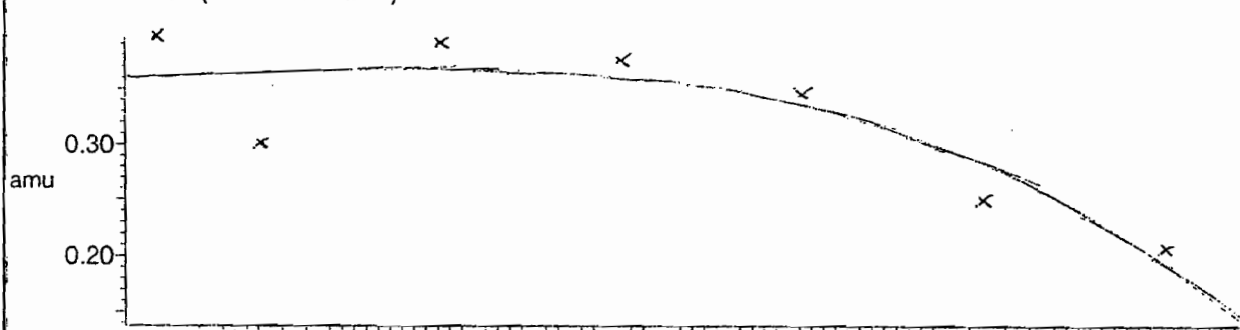
7 matches of 7 tested references



Reference file: Nairb

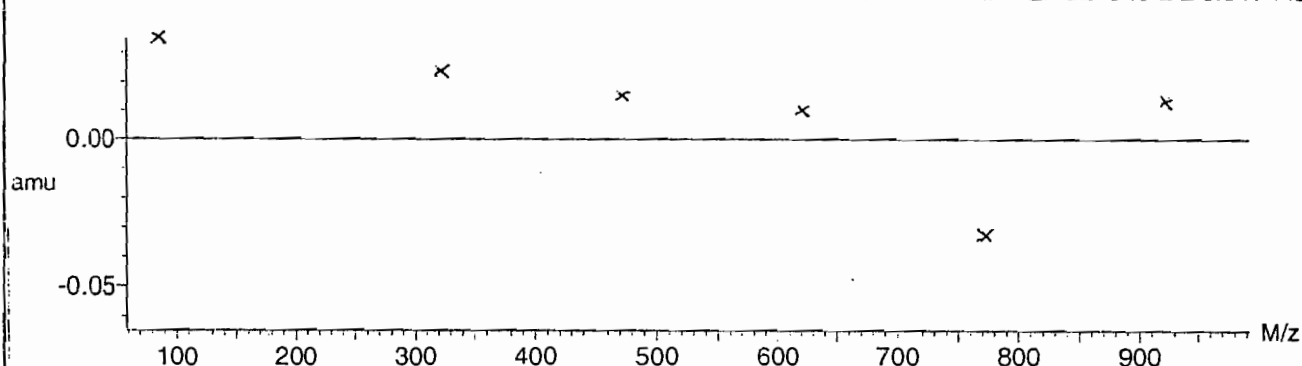


Mass difference (Raw - Ref mass)



Residuals

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



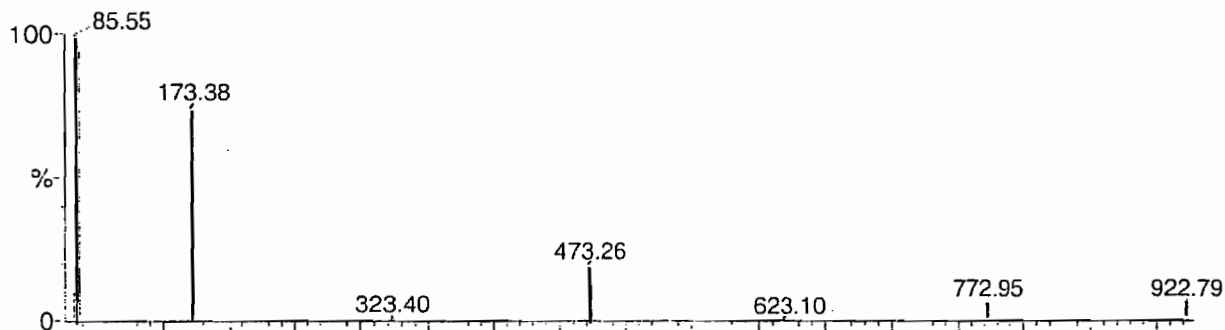
Calibration Report - MS2 Static

Page 1 of 1

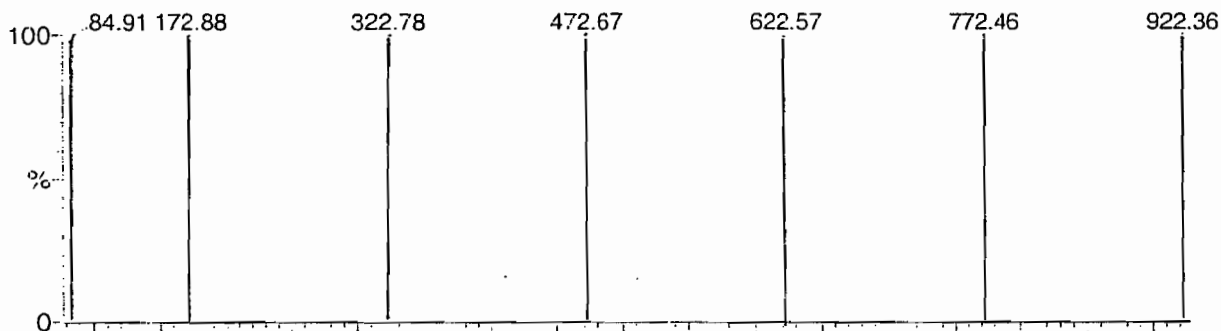
Printed: Tue Jan 08 12:21:59 2008

Data file: STATMS2 - Uncalibrated

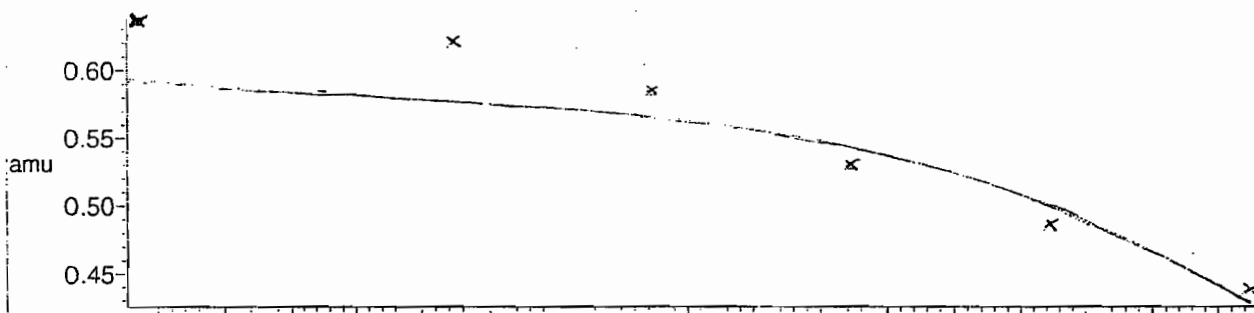
7 matches of 7 tested references



Reference file: Nairb

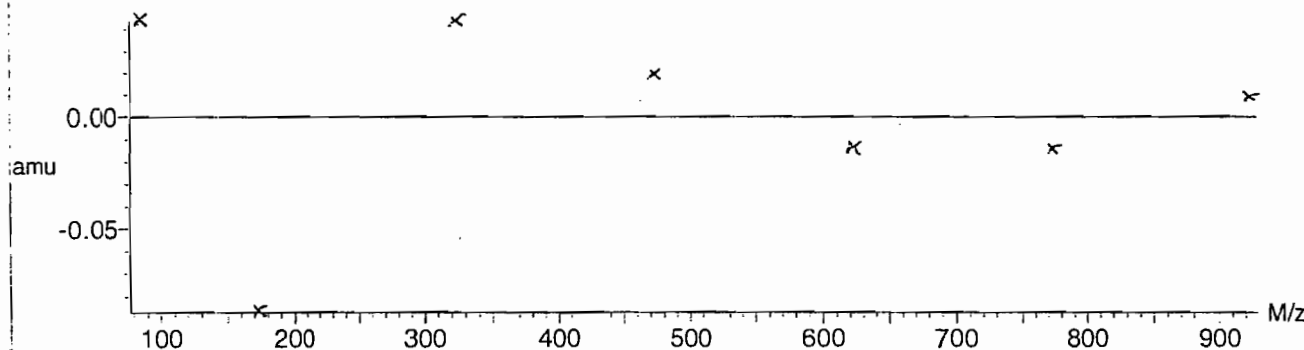


Mass difference (Raw - Ref mass)



Residuals

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



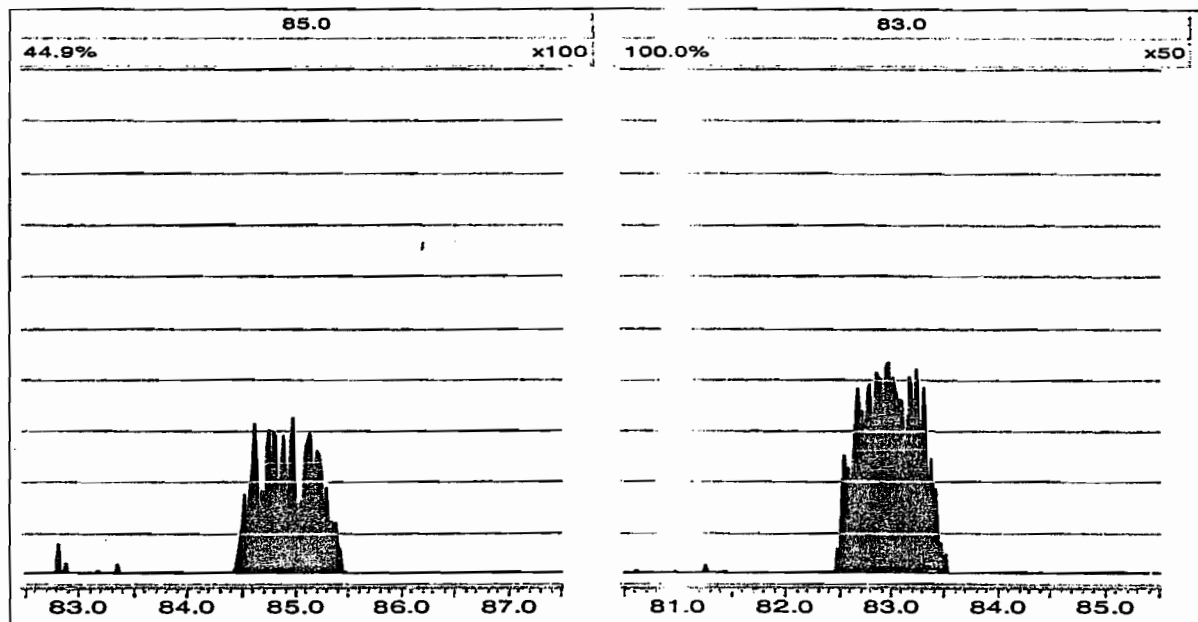
Tune Parameters

MassLynx 4.0 SP4

Page 1 of 1

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

Printed: Sunday, February 28, 2010 11:23:43 Eastern Standard Time



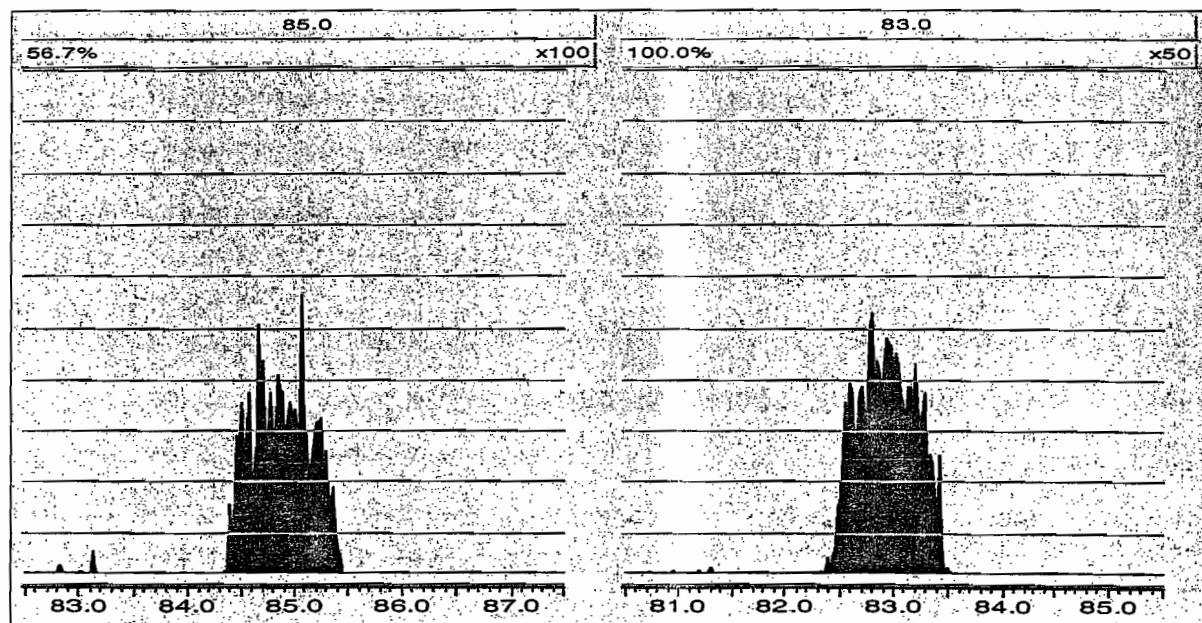
Tune Parameters

MassLynx 4.0 SP4

Page 1 of 1

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

Printed: Monday, March 01, 2010 09:44:20 Eastern Standard Time



Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1568-1

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	per0228006a	28-FEB-10	22640.4				
Lower Area Limit			11320.2				
Upper Area Limit			45280.8				
1202041311	per0228049a	28-FEB-10 20:36	23252.3	3.81	3.80582	.999	
1202041312	per0228050a	28-FEB-10 20:45	23810.6	3.81	3.8306	1.005	
1202041315	per0228051a	28-FEB-10 20:54	23899.4	3.94	3.95488	1.004	
246336001	per0228064a	28-FEB-10 22:52	23376.5	3.77	3.79337	1.006	
1202041313	per0228065a	28-FEB-10 23:01	23163	3.78	3.79333	1.004	
1202041314	per0228066a	28-FEB-10 23:10	23733.2	3.78	3.80582	1.007	
246336002	per0228067a	28-FEB-10 23:19	23610	3.77	3.78088	1.003	
246336003	per0228068a	28-FEB-10 23:28	22865.1	3.77	3.78087	1.003	

Perchlorate RT And Area Summary

GEL Job No.(SDG): 10-1568-1

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	per0228006a	28-FEB-10	22640.4				
Lower Area Limit			11320.2				
Upper Area Limit			45280.8				
246336004	per0228069a	28-FEB-10 23:37	22266.2	3.77	3.78087	1.003	
246336005	per0228070a	28-FEB-10 23:46	22968.2	3.76	3.76857	1.002	
246336006	per0228071a	28-FEB-10 23:55	23079.1	3.76	3.78092	1.006	

Perchlorate RT And Area Summary

GEL Job No.(SDG): 10-1568-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG-162 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98-1.02
MidLevel Standard Area	per0301006a	01-MAR-10	19759.7				
Lower Area Limit			9879.85				
Upper Area Limit			39519.4				
246336007	per0301032a	01-MAR-10 17:12	19791.4	3.55	3.5698	1.006	
246336008	per0301033a	01-MAR-10 17:21	20314.1	3.55	3.55735	1.002	
246336009	per0301034a	01-MAR-10 17:30	21158.7	3.53	3.55745	1.008	



# SAMPLE DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 952422  
 Extraction Type: Solid Prep  
 Client Sample No. RE15-10-8304  
 Date Received: 05-FEB-10  
 GEL Job No (SDG): 10-1568-1  
 GEL Sample ID: 246336001  
 Date Filtered: 19-FEB-10  
 Injection Volume (uL): 20  
 Sample Volume/Weight: 2.00 g  
 %Solids: 80  
 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	.628	2.51	0.628	ug/kg	U	1	28-FEB-10 22:52	per0228064a
	Perchlorate Isotope Ratio						1	28-FEB-10 22:52	per0228064a
14797-73-0	Perchlorate-101	.628	2.51	0.628	ug/kg	U	1	28-FEB-10 22:52	per0228064a
	Perchlorate-O(18)			6.36	ug/kg		1	28-FEB-10 22:52	per0228064a

<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

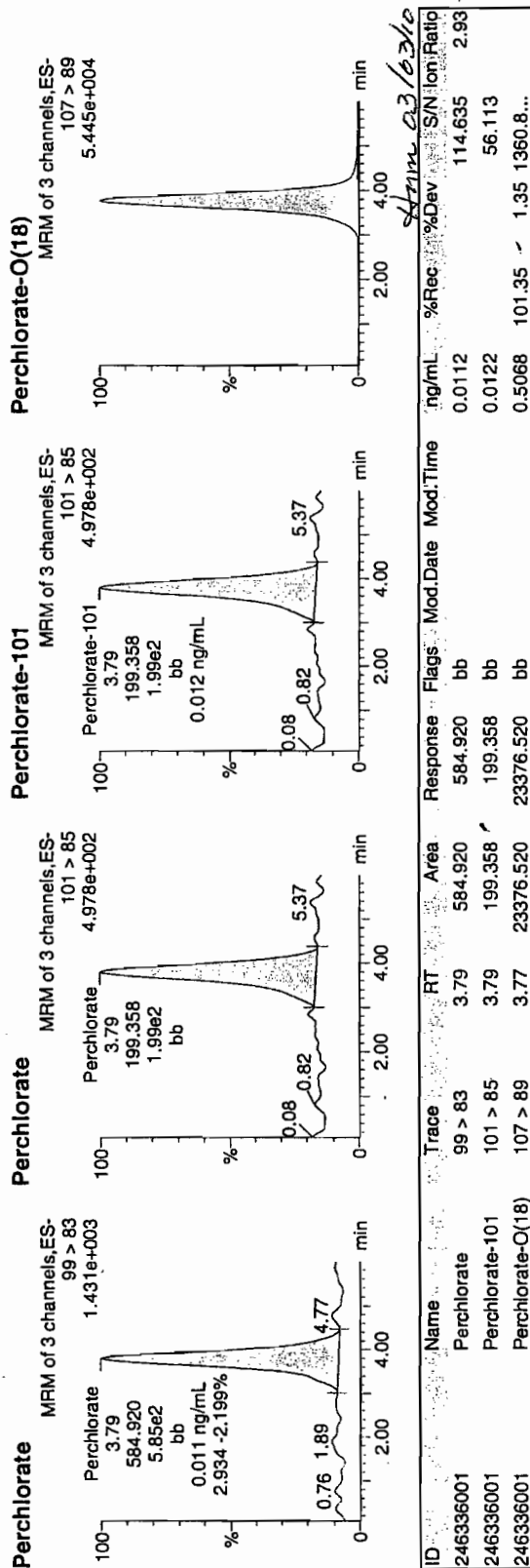
Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228064a  
Date: 28-Feb-2010  
Time: 22:52:05  
ID: 246336001  
Vial: 2:3,A

03-01-10

LANL 1952425 / 3020 / 11



Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC  
 Lab Code: GEL  
 Instrument: LCMSMS  
 Method: SW846 6850 Modified  
 Matrix: SOIL  
 Extraction Batch ID: 952422  
 Extraction Type: Solid Prep  
 Sample Volume/Weight: 2.00 g  
 Concentrated Extract Volume: 20.0  
 Client Sample No. RE15-10-8305  
 Date Received: 05-FEB-10  
 GEL Job No (SDG): 10-1568-1  
 GEL Sample ID: 246336002  
 Date Filtered: 19-FEB-10  
 Injection Volume (uL): 20  
 %Solids: 62

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.811	3.25	0.811	ug/kg	U	1	28-FEB-10 23:19	per0228067a
	Perchlorate Isotope Ratio						1	28-FEB-10 23:19	per0228067a
14797-73-0	Perchlorate-101	.811	3.25	0.811	ug/kg	U	1	28-FEB-10 23:19	per0228067a
	Perchlorate-O(18)			8.31	ug/kg		1	28-FEB-10 23:19	per0228067a

<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\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228067a

Date: 28-Feb-2010

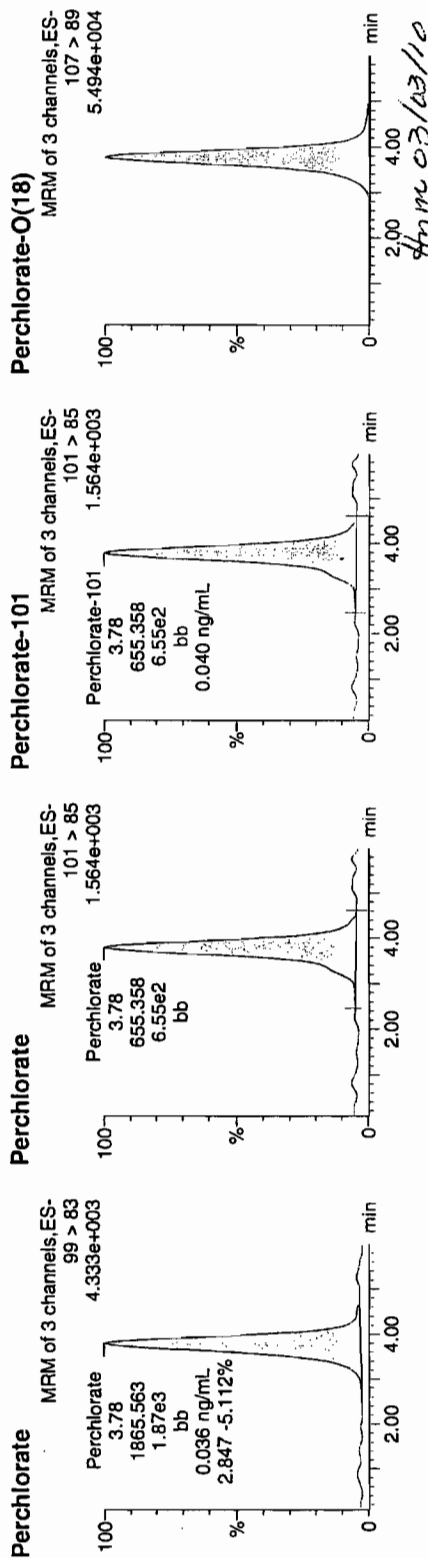
Time: 23:19:12

ID: 246336002

Vial: 2:3,D

WJ  
02-01-10

LOW 952425 / 5020 / 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246336002	Perchlorate	99 > 83	3.78	1865.563	1865.563	bb			0.0356			247.311	2.85
246336002	Perchlorate-101	101 > 85	3.78	655.358	655.358	bb			0.0399			122.945	
246336002	Perchlorate-O(18)	107 > 89	3.77	23610.039	23610.039	bb			0.5118	102.36	✓	2.36	1783.3...

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952422

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8306

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1568-1

GEL Sample ID: 246336003

Date Filtered: 19-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	.635	2.54	0.635	ug/kg	U	1	28-FEB-10 23:28	per0228068a
	Perchlorate Isotope Ratio						1	28-FEB-10 23:28	per0228068a
14797-73-0	Perchlorate-101	.635	2.54	0.635	ug/kg	U	1	28-FEB-10 23:28	per0228068a
	Perchlorate-O(18)			6.29	ug/kg		1	28-FEB-10 23:28	per0228068a

<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: Charfers W. Wilson

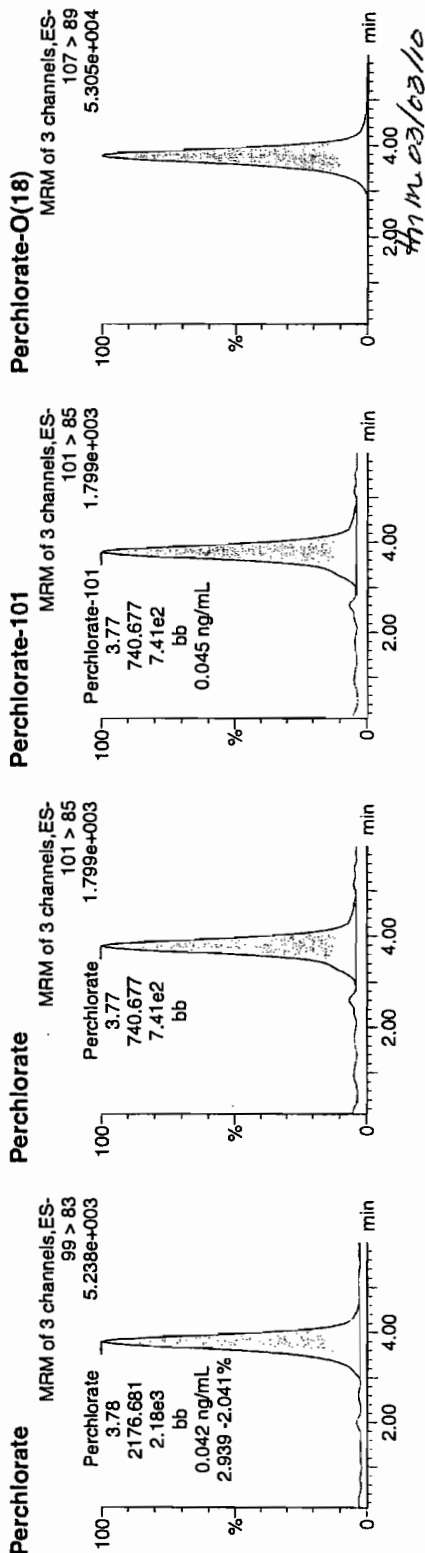
Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228068a  
Date: 28-Feb-2010  
Time: 23:28:13  
ID: 246336003  
Vial: 2:3,E

WJ  
03-01-10

LANU | 952425 | 5020 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246336003	Perchlorate	99 > 83	3.78	2176.681	2176.681	bb			0.0416			464.681	2.94
246336003	Perchlorate-101	101 > 85	3.77	740.677	740.677	bb			0.0452			146.266	
246336003	Perchlorate-O(18)	107 > 89	3.77	22865.078	22865.078	bb			0.4957	99.13	-0.87	6476.3...	

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952422

Extraction Type: Solid Prep

Client Sample No.

RE15-10-8307

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1568-1

GEL Sample ID: 246336004

Date Filtered: 19-FEB-10

Injection Volume (uL): 20

%Solids: 86

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	.584	2.34	0.584	ug/kg	U	1	28-FEB-10 23:37	per0228069a
	Perchlorate Isotope Ratio						1	28-FEB-10 23:37	per0228069a
14797-73-0	Perchlorate-101	.584	2.34	0.584	ug/kg	U	1	28-FEB-10 23:37	per0228069a
	Perchlorate-O(18)			5.64	ug/kg		1	28-FEB-10 23:37	per0228069a

<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\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228069a

Date: 28-Feb-2010

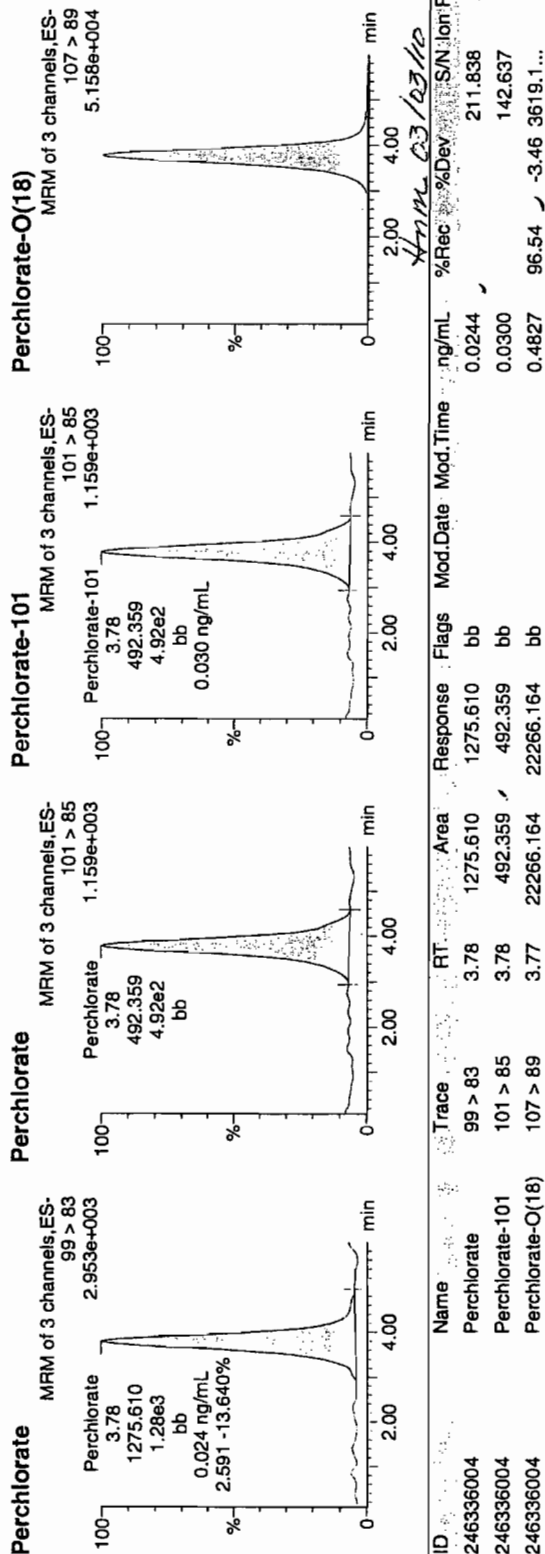
Time: 23:37:15

ID: 246336004

Vial: 2:3.F

WJW  
03-01-10

WJW | 952425 | 30725 | 11



Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952422

Extraction Type: Solid Prep

Client Sample No.

RE15-10-8309

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1568-1

GEL Sample ID: 246336005

Date Filtered: 19-FEB-10

Injection Volume (uL): 20

%Solids: 89

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	.56	2.24	0.560	ug/kg	U	1	28-FEB-10 23:46	per0228070a
	Perchlorate Isotope Ratio						1	28-FEB-10 23:46	per0228070a
14797-73-0	Perchlorate-101	.56	2.24	0.560	ug/kg	U	1	28-FEB-10 23:46	per0228070a
	Perchlorate-O(18)			5.57	ug/kg		1	28-FEB-10 23:46	per0228070a

<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

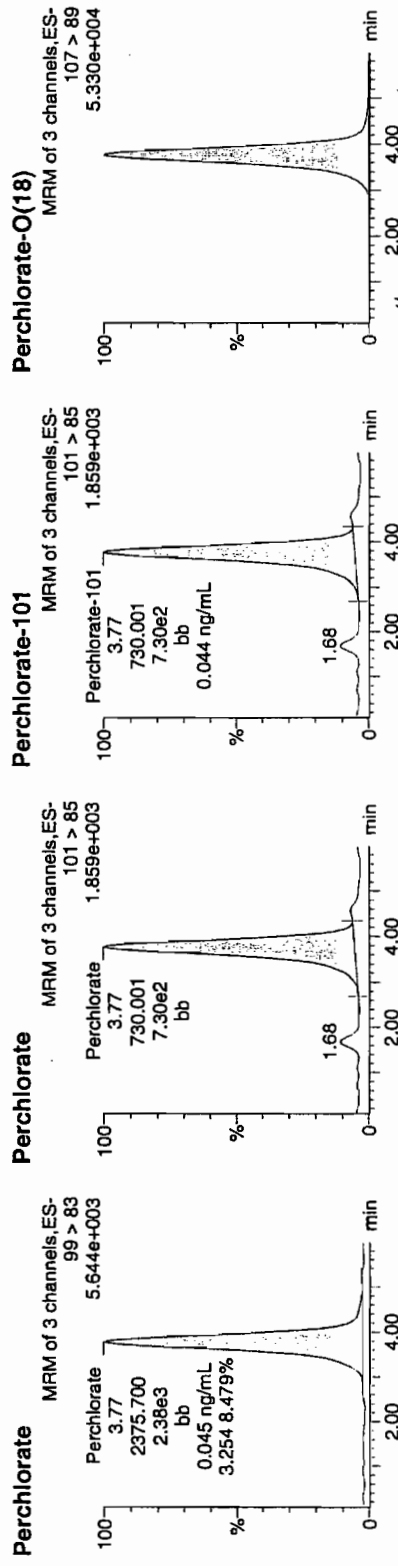
Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228070a  
Date: 28-Feb-2010  
Time: 23:46:16  
ID: 246336005  
Vial: 2:4,A

WJ  
03-01-10

WJW | 1952423 | 50703 | 1 |



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246336005	Perchlorate	99 > 83	3.77	2375.700	2375.700	bb			0.0454			750.473	3.25
246336005	Perchlorate-101	101 > 85	3.77	730.001	730.001	bb			0.0445			28.115	
246336005	Perchlorate-O(18)	107 > 89	3.76	22968.156	22968.156	bb			0.4979	99.58	-0.42	2280.8...	

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952422

Extraction Type: Solid Prep

Client Sample No.

RE15-10-8308

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1568-1

GEL Sample ID: 246336006

Date Filtered: 19-FEB-10

Injection Volume (uL): 20

%Solids: 72

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	.691	2.76	0.691	ug/kg	U	1	28-FEB-10 23:55	per0228071a
	Perchlorate Isotope Ratio						1	28-FEB-10 23:55	per0228071a
14797-73-0	Perchlorate-101	.691	2.76	0.691	ug/kg	U	1	28-FEB-10 23:55	per0228071a
	Perchlorate-O(18)			6.91	ug/kg		1	28-FEB-10 23:55	per0228071a

<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\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228071a

Date: 28-Feb-2010

Time: 23:55:21

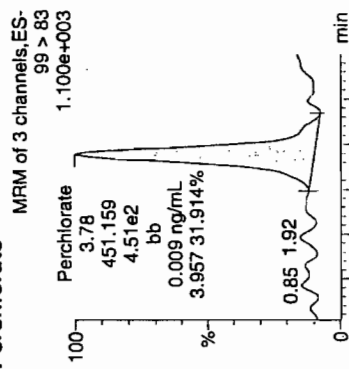
ID: 246336006

Vial: 2:4,B

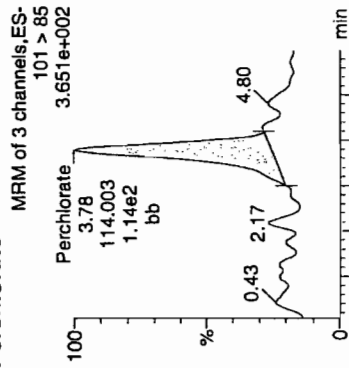
1952423 / 5000 / 11

0301-10

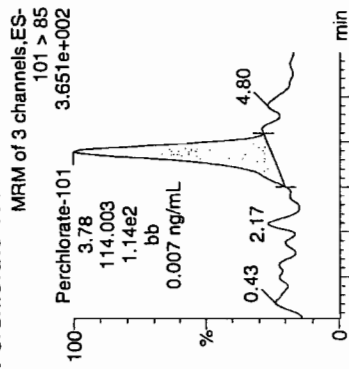
**Perchlorate**



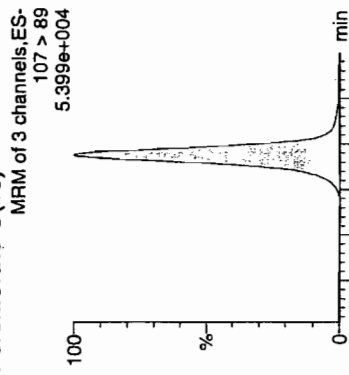
**Perchlorate**



**Perchlorate-101**



**Perchlorate-O(18)**



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246336006	Perchlorate	99 > 83	3.78	451.159	451.159	bb			0.0086	98.607	3.96		
246336006	Perchlorate-101	101 > 85	3.78	114.003	114.003	bb			0.0069	37.095			
246336006	Perchlorate-O(18)	107 > 89	3.76	23079.076	23079.076	bb			0.5003	100.06	0.06	3497.2...	

Handwritten notes: 03/01/10, 2094, 200300

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC Client Sample No. RE15-10-8301

Lab Code: GEL Date Received: 05-FEB-10

Instrument: LCMSMS GEL Job No (SDG): 10-1568-1

Method: SW846 6850 Modified GEL Sample ID: 246336007

Matrix: SOIL Date Filtered: 19-FEB-10

Extraction Batch ID: 252422 Injection Volume (uL): 20

Extraction Type: Solid Prep %Solids: 94

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	.532	2.13	0.892	ug/kg	J	1	01-MAR-10 17:12	per0301032a
	Perchlorate Isotope Ratio			3.2			1	01-MAR-10 17:12	per0301032a
14797-73-0	Perchlorate-101	.532	2.13	0.837	ug/kg	J	1	01-MAR-10 17:12	per0301032a
	Perchlorate-O(18)			5.39	ug/kg		1	01-MAR-10 17:12	per0301032a

<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: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030110a.qld

Last Altered: Tuesday, March 02, 2010 8:52:39 AM Eastern Standard Time  
Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Name: per0301032a

Date: 01-Mar-2010

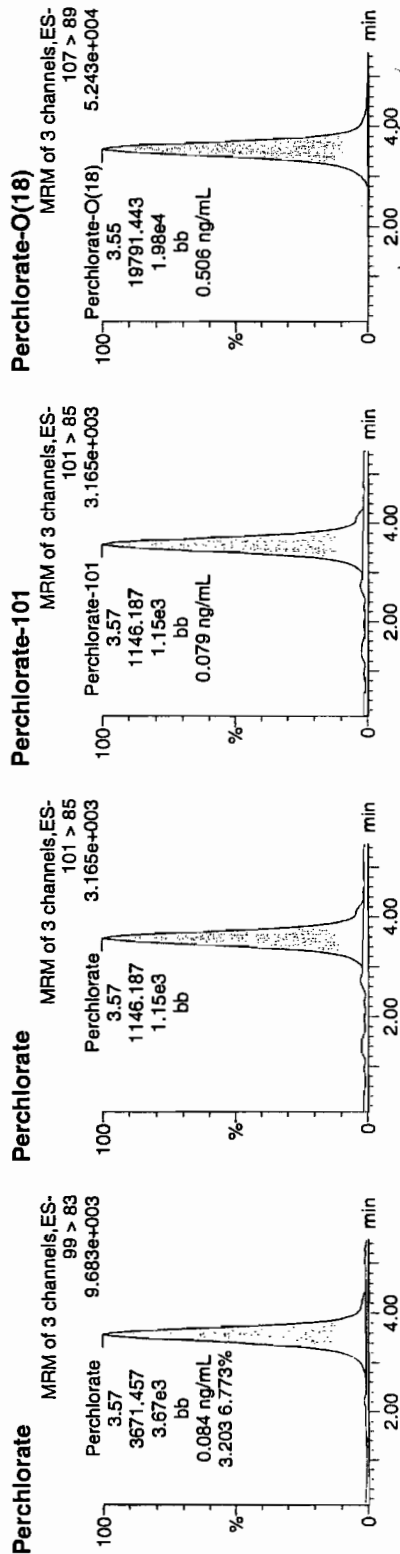
Time: 17:12:53

ID: 246336007

Vial: 1:7,A

03-02-10

1492L | 952425 | 3020 | 1 | 09



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246336007	Perchlorate	99 > 83	3.57	3671.457	3671.457	bb			0.0839	-		909.218	3.20
246336007	Perchlorate-101	101 > 85	3.57	1146.187	1146.187	bb			0.0787			149.377	
246336007	Perchlorate-O(18)	107 > 89	3.55	19791.443	19791.443	bb			0.5064	101.28	-	1.28	5723.9...

3671.457 | 10 | 100  
43756.3 | 194.02  
-0892

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952422

Extraction Type: Solid Prep

Client Sample No.

RE15-10-8300

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1568-1

GEL Sample ID: 246336008

Date Filtered: 19-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	.721	2.88	0.721	ug/kg	U	1	01-MAR-10 17:21	per0301033a
	Perchlorate Isotope Ratio						1	01-MAR-10 17:21	per0301033a
14797-73-0	Perchlorate-101	.721	2.88	0.721	ug/kg	U	1	01-MAR-10 17:21	per0301033a
	Perchlorate-O(18)			7.49	ug/kg		1	01-MAR-10 17:21	per0301033a

<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\per030110a.qld

Last Altered: Tuesday, March 02, 2010 8:52:39 AM Eastern Standard Time  
Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Name: per0301033a

Date: 01-Mar-2010

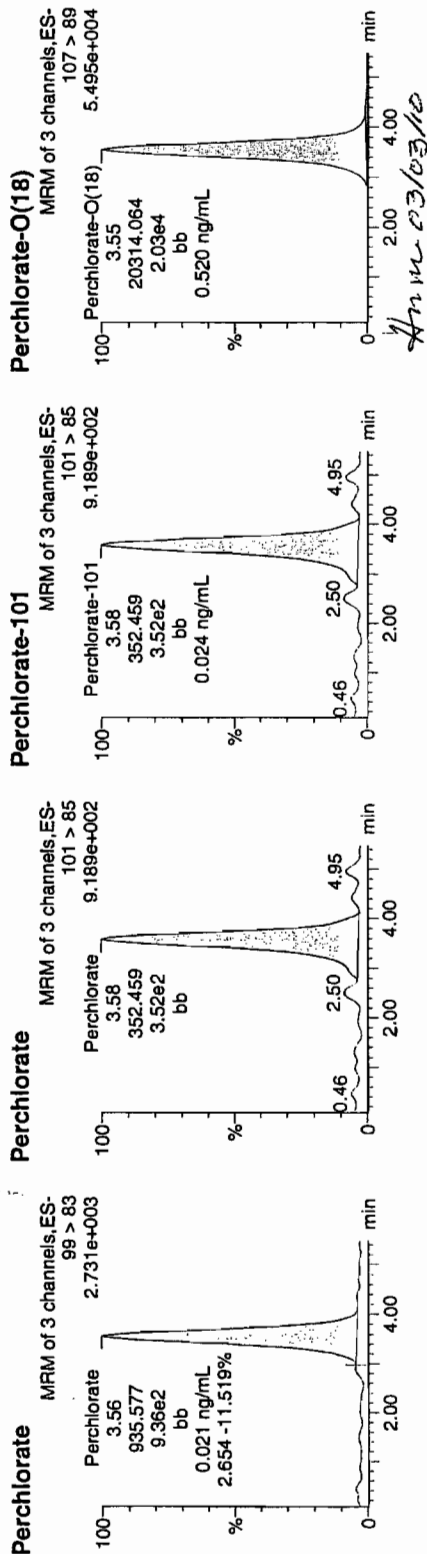
Time: 17:21:27

ID: 246336008

Vial: 1:7,B

03-02-10

152425 | 5020 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion.Ratio
246336008	Perchlorate	99 > 83	3.56	935.577	935.577	bb			0.0214			237.193	2.65
246336008	Perchlorate-101	101 > 85	3.58	352.459	352.459	bb			0.0242			39.927	
246336008	Perchlorate-O(18)	107 > 89	3.55	20314.064	20314.064	bb			0.5198	103.96	3.96	3877.2...	

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952422

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8324

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1568-1

GEL Sample ID: 246336009

Date Filtered: 19-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	.632	2.53	0.717	ug/kg	J	1	01-MAR-10 17:30	per0301034a
	Perchlorate Isotope Ratio			3.13			1	01-MAR-10 17:30	per0301034a
14797-73-0	Perchlorate-101	.632	2.53	0.689	ug/kg	J	1	01-MAR-10 17:30	per0301034a
	Perchlorate-O(18)			6.84	ug/kg		1	01-MAR-10 17:30	per0301034a

<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  $\frac{1}{\% \text{Solids}}$

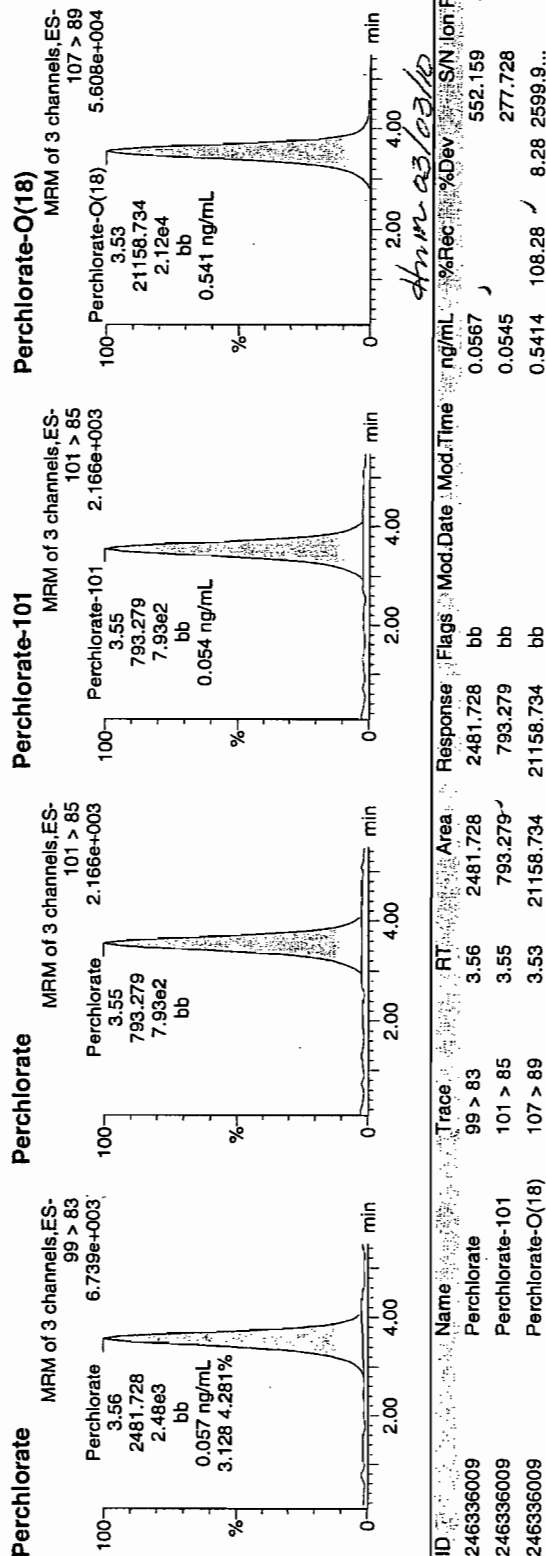
Dataset: C:\MassLynx\Perchlorate.PRO\per030110a.qld

Last Altered: Tuesday, March 02, 2010 8:52:39 AM Eastern Standard Time  
Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Name: per0301034a  
Date: 01-Mar-2010  
Time: 17:30:00  
ID: 246336009  
Vial: 1:7,C

LANC 1952425 | 50720 | 11/09

03-07-10



# STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1568-1

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 28-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: 52351.68

Response Type: External Standard

Curve Type: RF

Perchlorate Initial Calibration

GEL Job No.(SDG): 10-1568-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 28-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-101

Coefficient of Determination:

Calibration Curve: 16404.62

Response Type: External Standard

Curve Type: RF

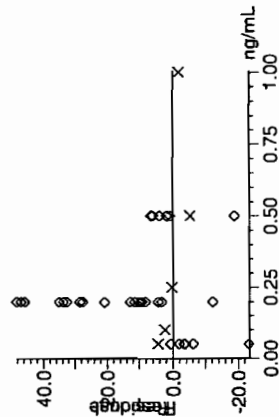
Quantify Calibration Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

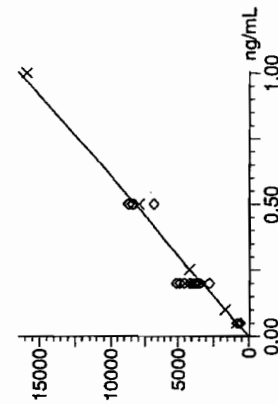
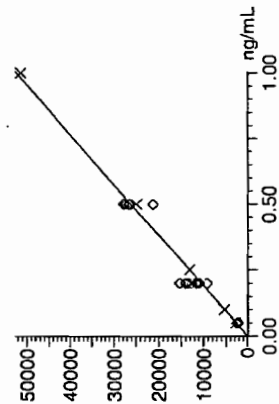
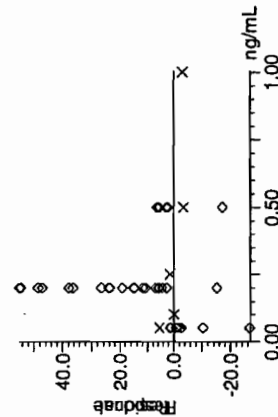
Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per022810a.mdb 28 Feb 2010 14:26:41  
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per022810a.cdb 01 Mar 2010 07:59:32

Compound name: Perchlorate  
Response Factor: 52351.7  
RRF SD: 1965.88, % Relative SD: 3.75513  
Response type: External Std, Area  
Curve type: RF



Compound name: Perchlorate-101  
Response Factor: 16404.7  
RRF SD: 612.292, % Relative SD: 3.73243  
Response type: External Std, Area  
Curve type: RF



GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

MTT  
3/2/10

03-01-10

Quantify Calibration Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time

Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

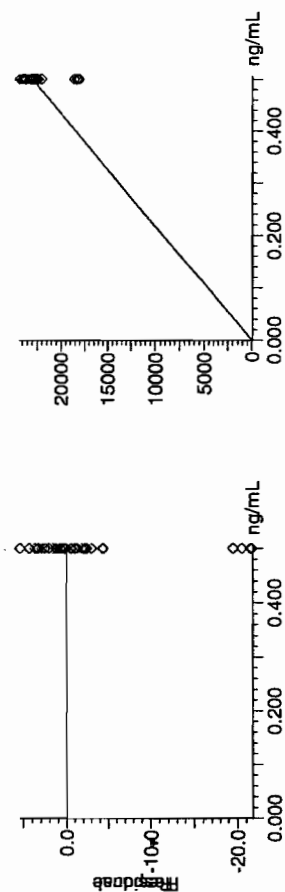
Compound name: Perchlorate-O(18)

Response Factor: 46130.1

RRF SD: 725.418, % Relative SD: 1.57255

Response type: External Std, Area

Curve type: RF





Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 01-MAR-10

HP/CL 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

Perchlorate

Coefficient of Determination:

Calibration Curve: 43756.34

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

Lab Code: GEL

Instrument ID: LCMSMS

Date Analyzed: 01-MAR-10

GEL Job No.(SDG): 10-1568-1

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

Parmname

Perchlorate-101

Coefficient of Determination:

Calibration Curve: 14564.22

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\per030110a.qld

Last Altered: Tuesday, March 02, 2010 8:52:39 AM Eastern Standard Time  
Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per030110a.mdb 02 Mar 2010 08:52:20  
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per030110a.cdb 02 Mar 2010 08:52:38

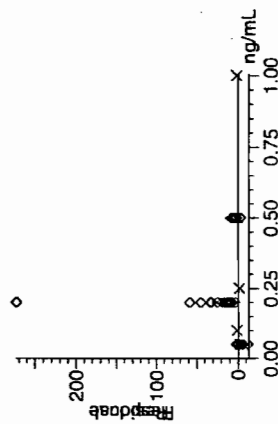
Compound name: Perchlorate

Response Factor: 43756.3

RRF SD: 769.757, % Relative SD: 1.75919 ✓

Response type: External Std, Area

Curve type: RF ✓



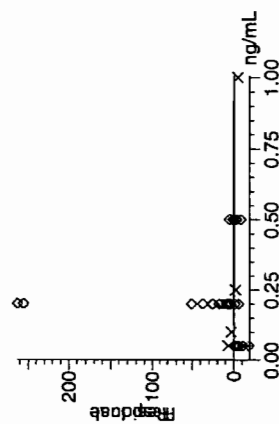
Compound name: Perchlorate-101

Response Factor: 14564.2

RRF SD: 704.149, % Relative SD: 4.83479 ✓

Response type: External Std, Area

Curve type: RF ✓



Quantify Calibration Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030110a.qld

Last Altered: Tuesday, March 02, 2010 8:52:39 AM Eastern Standard Time  
Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

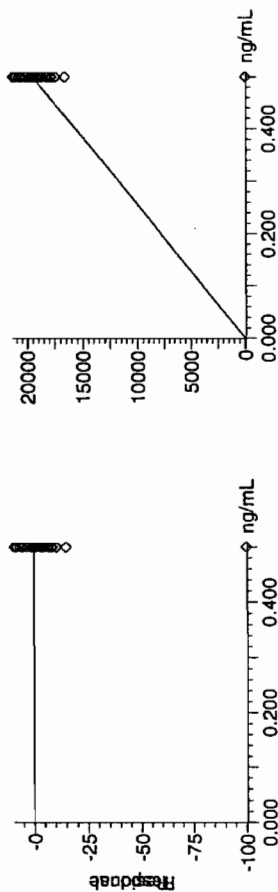
Compound name: Perchlorate-O(18)

Response Factor: 39081.4

RRF SD: 496.592, % Relative SD: 1.27066

Response type: External Std, Area

Curve type: RF



Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1568-1

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.52	104.03	28-FEB-10 14:34	per0228009a
Perchlorate Isotope Ratio		3.22		28-FEB-10 14:34	per0228009a
Perchlorate-101	.5	.51	102.95	28-FEB-10 14:34	per0228009a
Perchlorate	.5	.53	105.35	01-MAR-10 13:55	per0301009a
Perchlorate Isotope Ratio		3.12		01-MAR-10 13:55	per0301009a
Perchlorate-101	.5	.51	101.51	01-MAR-10 13:55	per0301009a

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228009a

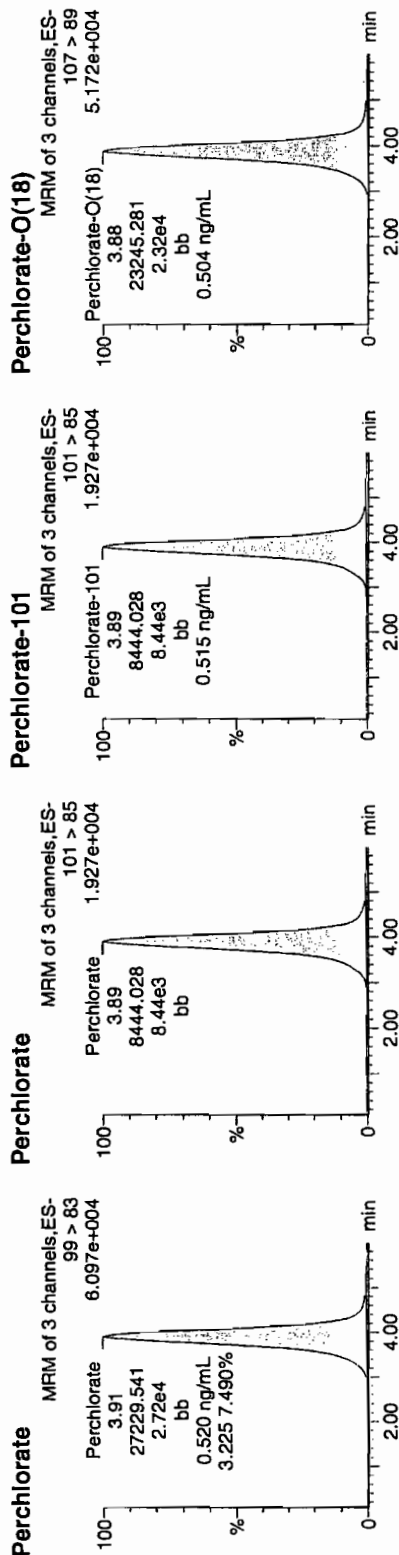
Date: 28-Feb-2010

Time: 14:34:14

ID: WCL100227-06ICV

Vial: 1:2,A

Pure  
03-0-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-06ICV	Perchlorate	99 > 83	3.91	27229.541	27229.541	bb			0.5201	104.03	4.03	2412.0...	3.22
WCL100227-06ICV	Perchlorate-101	101 > 85	3.89	8444.028	8444.028	bb			0.5147	102.95	2.95	262.949	
WCL100227-06ICV	Perchlorate-O(18)	107 > 89	3.88	23245.281	23245.281	bb			0.5039	100.78	0.78	856.941	

$$\frac{27229.541}{52351.7} = 0.5201$$

3/2/10

# Quantify Sample Report MassLynx 4.0 SP4

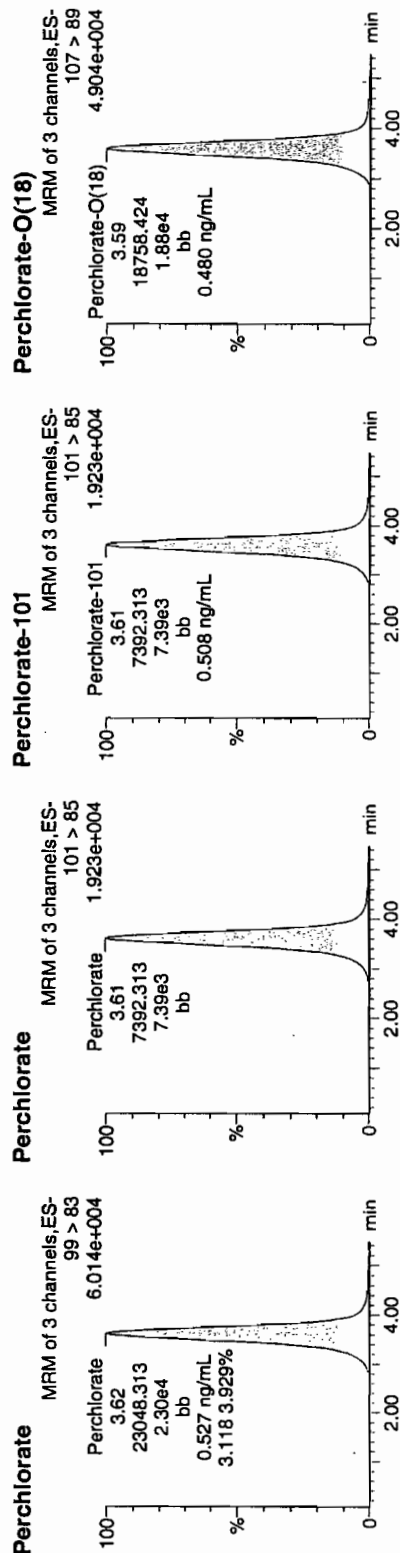
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030110a.qld

Last Altered: Tuesday, March 02, 2010 8:52:39 AM Eastern Standard Time  
Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Name: per0301009a  
Date: 01-Mar-2010  
Time: 13:55:47  
ID: WCL100227-06ICV  
Vial: 1:2,A

Pump  
and  
03-02-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-06ICV	Perchlorate	99 > 83	3.62	23048.313	23048.313	bb			0.5267	105.35	5.35	285.800	3.12
WCL100227-06ICV	Perchlorate-101	101 > 85	3.61	7392.313	7392.313	bb			0.5076	101.51	1.51	581.722	
WCL100227-06ICV	Perchlorate-O(18)	107 > 89	3.59	18758.424	18758.424	bb			0.4800	96.00	-4.00	5381.0...	

Perchlorate Continuing Calibration Verification

GEL Job No.(SDG): 10-1568-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.53	106.46	28-FEB-10 15:37	per0228016a
Perchlorate Isotope Ratio		3.22		28-FEB-10 15:37	per0228016a
Perchlorate-101	.5	.53	105.42	28-FEB-10 15:37	per0228016a
Perchlorate	.5	.5	100.74	28-FEB-10 17:07	per0228026a
Perchlorate Isotope Ratio		3.15		28-FEB-10 17:07	per0228026a
Perchlorate-101	.5	.51	102.06	28-FEB-10 17:07	per0228026a
Perchlorate	.5	.51	101.66	28-FEB-10 18:38	per0228036a
Perchlorate Isotope Ratio		3.06		28-FEB-10 18:38	per0228036a
Perchlorate-101	.5	.53	105.98	28-FEB-10 18:38	per0228036a
Perchlorate	.5	.51	101.97	28-FEB-10 20:08	per0228046a
Perchlorate Isotope Ratio		3.06		28-FEB-10 20:08	per0228046a
Perchlorate-101	.5	.53	106.51	28-FEB-10 20:08	per0228046a
Perchlorate	.5	.53	105.97	28-FEB-10 22:06	per0228059a



Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1568-1

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate Isotope Ratio		3.3		28-FEB-10 22:06	per0228059a
Perchlorate-101	.5	.51	102.36	28-FEB-10 22:06	per0228059a
Perchlorate	.5	.51	101.95	01-MAR-10 00:04	per0228072a
Perchlorate Isotope Ratio		3.09		01-MAR-10 00:04	per0228072a
Perchlorate-101	.5	.53	105.37	01-MAR-10 00:04	per0228072a
Perchlorate	.5	.54	108.86	01-MAR-10 15:21	per0301019a
Perchlorate Isotope Ratio		3.34		01-MAR-10 15:21	per0301019a
Perchlorate-101	.5	.49	97.78	01-MAR-10 15:21	per0301019a
Perchlorate	.5	.53	106.46	01-MAR-10 16:46	per0301029a
Perchlorate Isotope Ratio		3.05		01-MAR-10 16:46	per0301029a
Perchlorate-101	.5	.52	104.92	01-MAR-10 16:46	per0301029a
Perchlorate	.5	.53	105.15	01-MAR-10 18:30	per0301041a
Perchlorate Isotope Ratio		3.26		01-MAR-10 18:30	per0301041a

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1568-1

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate-101	.5	.49	97.01	01-MAR-10 18:30	per0301041a
-----------------	----	-----	-------	-----------------	-------------

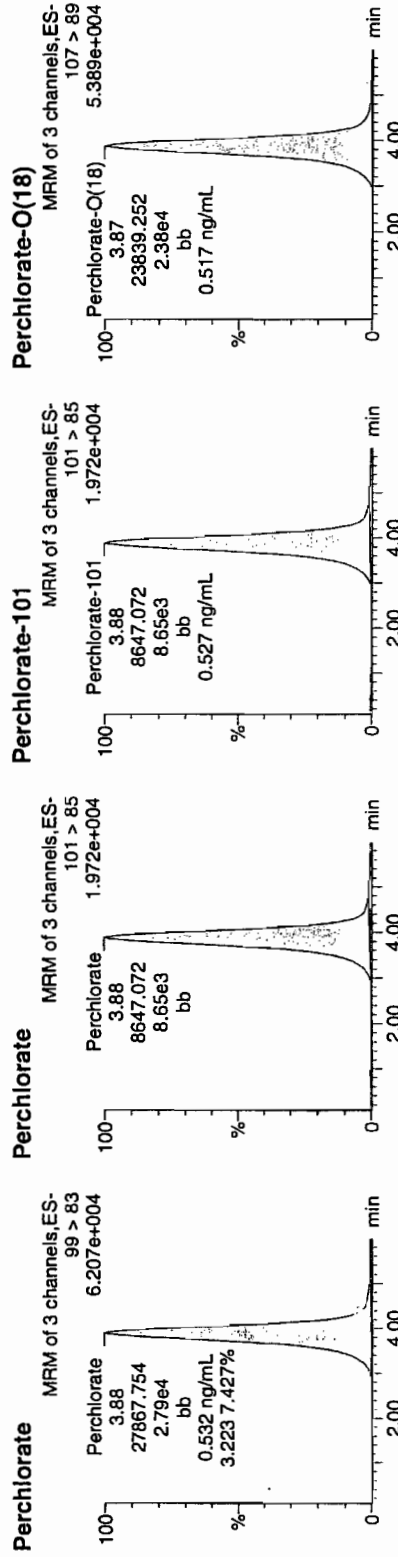
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228016a  
Date: 28-Feb-2010  
Time: 15:37:32  
ID: WCL100227-06CCV  
Vial: 1:2,A

Pass  
03-01-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-06CCV	Perchlorate	99 > 83	3.88	27867.754	27867.754	bb			0.5323	106.46	6.46	1199.3...	3.22
WCL100227-06CCV	Perchlorate-101	101 > 85	3.88	8647.072	8647.072	bb			0.5271	105.42	5.42	1735.7...	
WCL100227-06CCV	Perchlorate-O(18)	107 > 89	3.87	23839.252	23839.252	bb			0.5168	103.36	3.36	8562.0...	

not  
3/2/10

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228026a

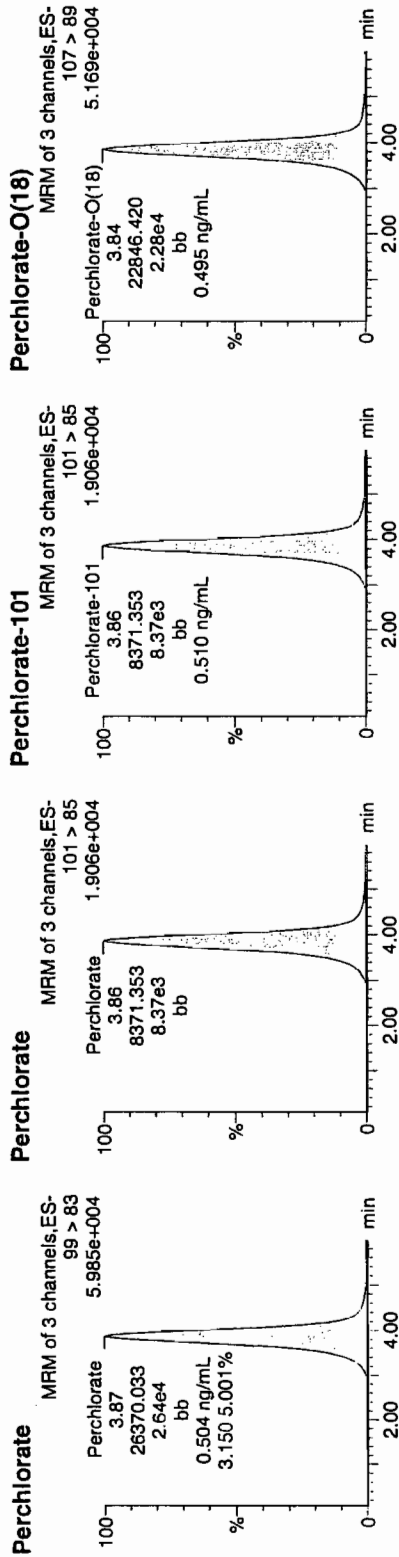
Date: 28-Feb-2010

Time: 17:07:55

ID: WCL100227-06CCV

Vial: 1:2,A

*Per  
and  
03-DL-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-06CCV	Perchlorate	99 > 83	3.87	26370.033	26370.033	bb			0.5037	100.74	0.74	4097.9...	3.15
WCL100227-06CCV	Perchlorate-101	101 > 85	3.86	8371.353	8371.353	bb			0.5103	102.06	2.06	2114.7...	
WCL100227-06CCV	Perchlorate-Q(18)	107 > 89	3.84	22846.420	22846.420	bb			0.4953	99.05	-0.95	6053.3...	

*not  
3/2/10*

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228036a

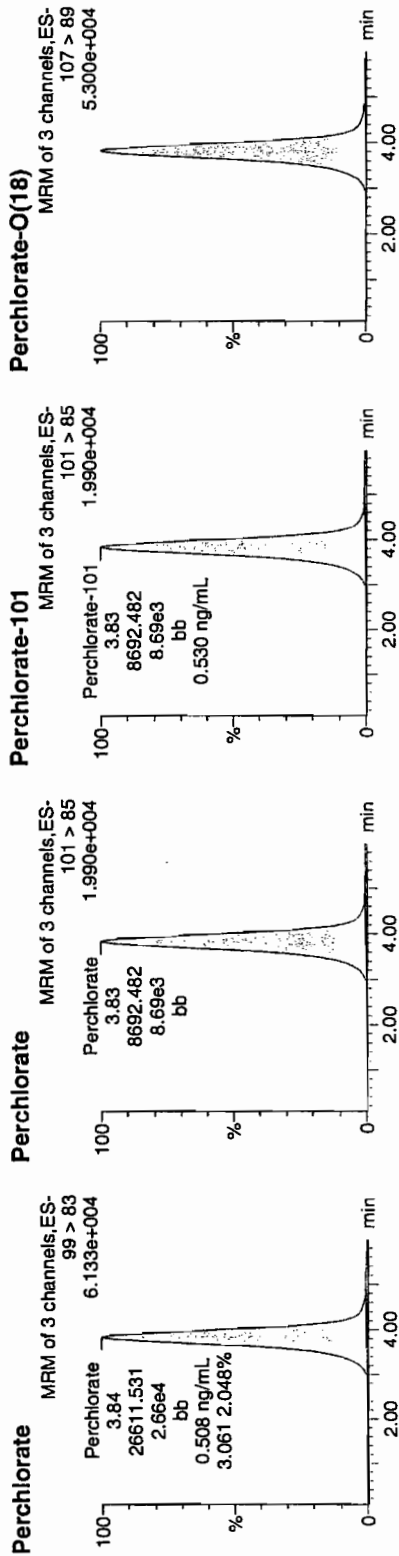
Date: 28-Feb-2010

Time: 18:38:24

ID: WCL100227-06CCV

Vial: 1:2,A

Per  
03-01-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-06CCV	Perchlorate	99 > 83	3.84	26611.531	26611.531	bb			0.5083	101.66	1.66	6268.7...	3.06
WCL100227-06CCV	Perchlorate-101	101 > 85	3.83	8692.482	8692.482	bb			0.5299	105.98	5.98	3933.2...	
WCL100227-06CCV	Perchlorate-O(18)	107 > 89	3.82	23130.422	23130.422	bb			0.5014	100.28	0.28	2520.9...	

MA  
3/2/10

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

Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228046a

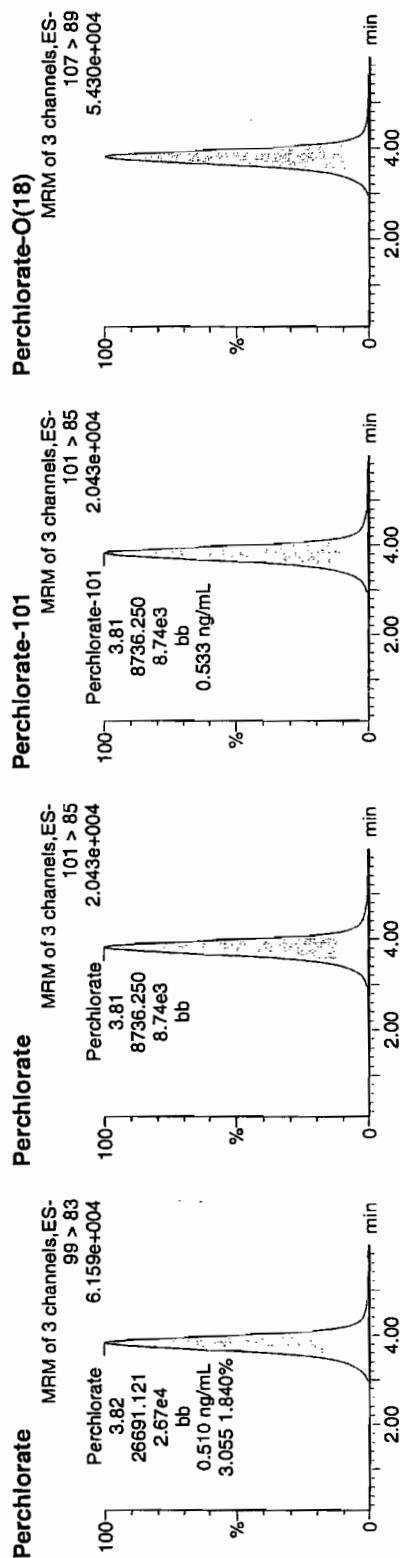
Date: 28-Feb-2010

Time: 20:08:58

ID: WCL100227-06CCV

Vial: 1:2,A

*Run*  
*03-01-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-06CCV	Perchlorate	99 > 83	3.82	26691.121	26691.121	bb			0.5098	101.97	1.97	3802.9...	3.06
WCL100227-06CCV	Perchlorate-101	101 > 85	3.81	8736.250	8736.250	bb			0.5325	106.51	6.51	964.295	
WCL100227-06CCV	Perchlorate-O(18)	107 > 89	3.79	23213.988	23213.988	bb			0.5032	100.65	0.65	2872.0...	

*MAF*  
*3/1/10*

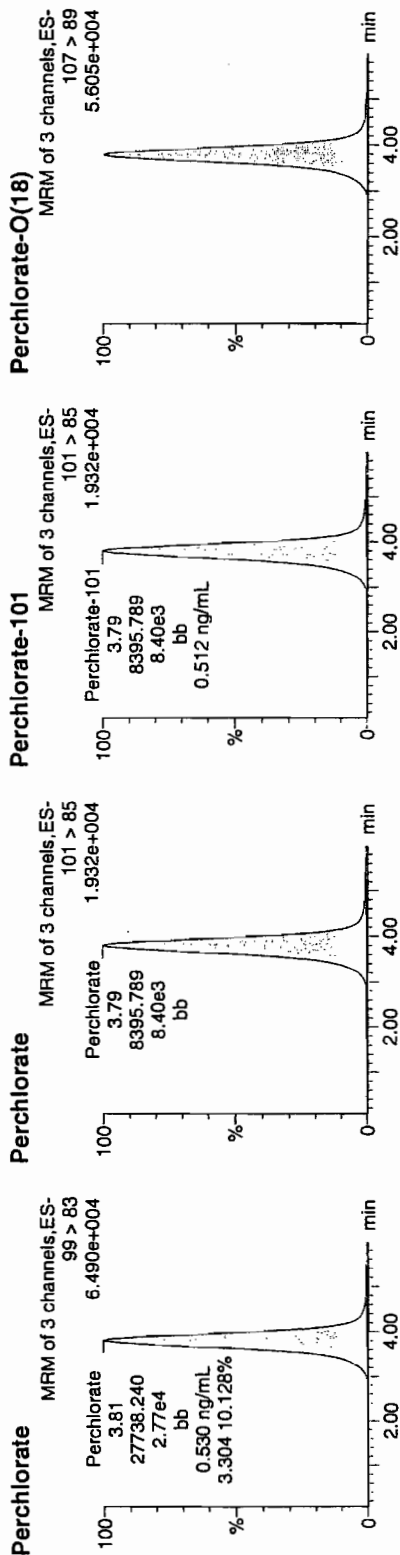
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charters W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228059a  
Date: 28-Feb-2010  
Time: 22:06:31  
ID: WCL100227-06CCV  
Vial: 1:2,A

*Per*  
*WCL*  
*03-01-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-06CCV	Perchlorate	99 > 83	3.81	27738.240	27738.240	bb			0.5298	105.97	5.97	5890.9...	3.30
WCL100227-06CCV	Perchlorate-101	101 > 85	3.79	8395.789	8395.789	bb			0.5118	102.36	2.36	2478.9...	
WCL100227-06CCV	Perchlorate-O(18)	107 > 89	3.78	24054.559	24054.559	bb			0.5215	104.29	4.29	1999.5...	

*WCL*  
*3/1/10*

# Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
 Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228072a

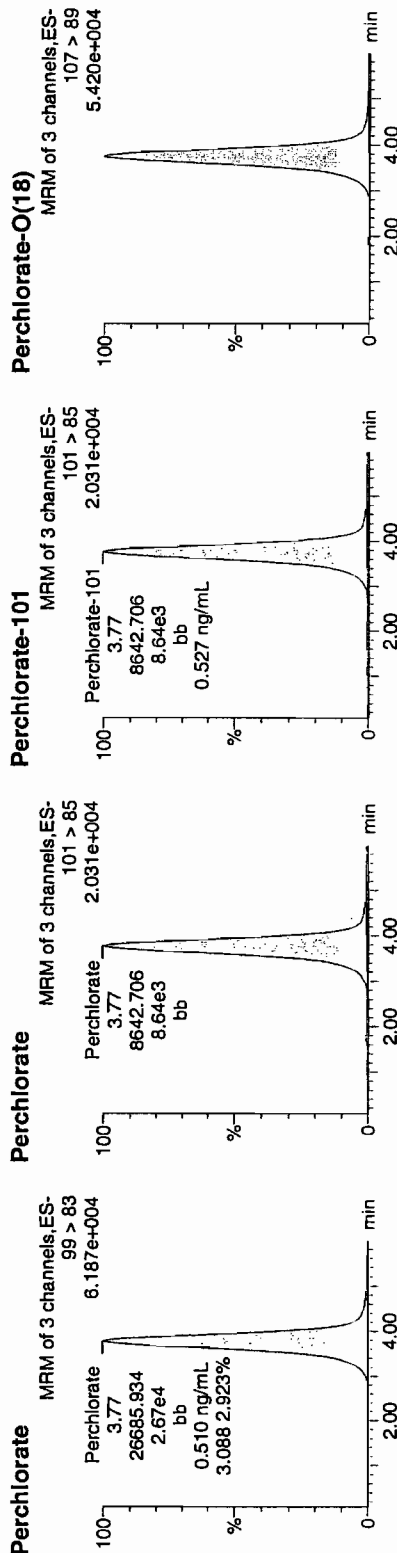
Date: 01-Mar-2010

Time: 00:04:24

ID: WCL100227-06CCV

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
WCL100227-06CCV	Perchlorate	99 > 83	3.77	26685.934	26685.934	bb			0.5097	101.95	1.95	1347.5...	3.09
WCL100227-06CCV	Perchlorate-101	101 > 85	3.77	8642.706	8642.706	bb			0.5268	105.37	5.37	2897.4...	
WCL100227-06CCV	Perchlorate-O(18)	107 > 89	3.76	23346.848	23346.848	bb			0.5061	101.22	1.22	10621....	

3/2/10



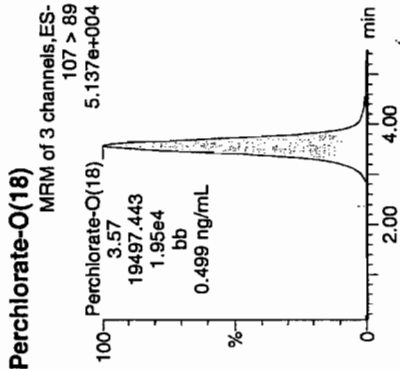
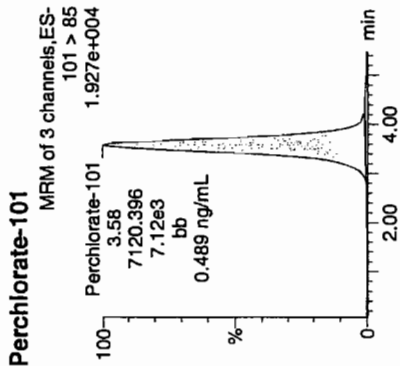
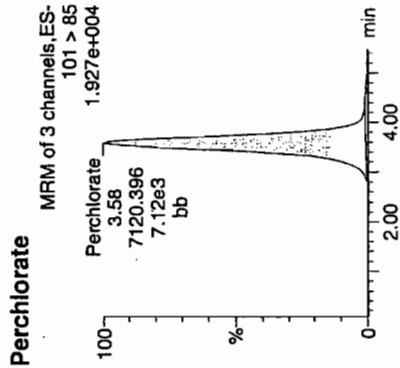
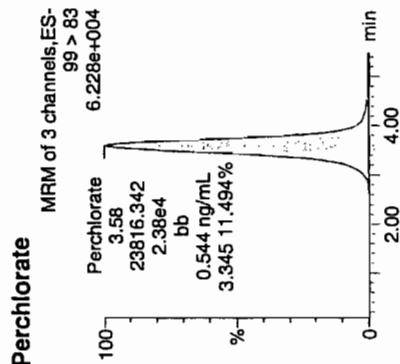
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030110a.qld

Last Altered: Tuesday, March 02, 2010 8:52:39 AM Eastern Standard Time  
Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Name: per0301019a  
Date: 01-Mar-2010  
Time: 15:21:16  
ID: WCL100227-06CCV  
Vial: 1:2,A

*Run  
and  
03-02-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-06CCV	Perchlorate	99 > 83	3.58	23816.342	23816.342	bb			0.5443	108.86	8.86	722.740	3.34
WCL100227-06CCV	Perchlorate-101	101 > 85	3.58	7120.396	7120.396	bb			0.4889	97.78	-2.22	2935.5...	
WCL100227-06CCV	Perchlorate-O(18)	107 > 89	3.57	19497.443	19497.443	bb			0.4989	99.78	-0.22	3503.2...	

*47716 03/03/10*

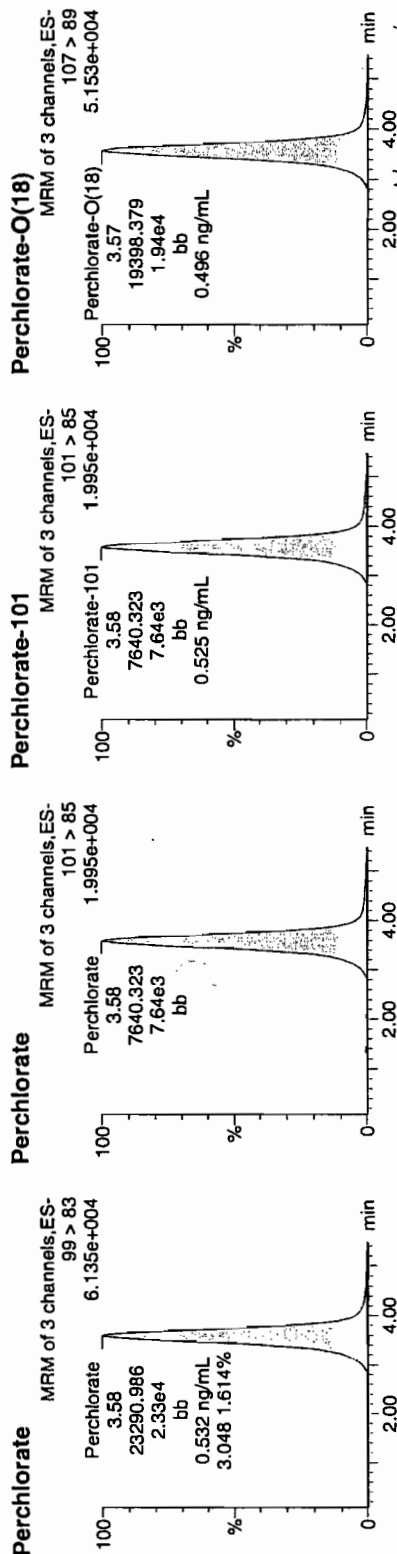
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charters W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030110a.qld

Last Altered: Tuesday, March 02, 2010 8:52:39 AM Eastern Standard Time  
Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Name: per0301029a  
Date: 01-Mar-2010  
Time: 16:46:52  
ID: WCL100227-06CCV  
Vial: 1:2,A

*Per  
and  
03-02-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-06CCV	Perchlorate	99 > 83	3.58	23290.986	23290.986	bb			0.5323	106.46	6.46	2562.1...	3.05
WCL100227-06CCV	Perchlorate-101	101 > 85	3.58	7640.323	7640.323	bb			0.5246	104.92	4.92	927.645	
WCL100227-06CCV	Perchlorate-O(18)	107 > 89	3.57	19398.379	19398.379	bb			0.4964	99.27	-0.73	10118...	

Quantify Sample Report MassLynx 4.0 SP4

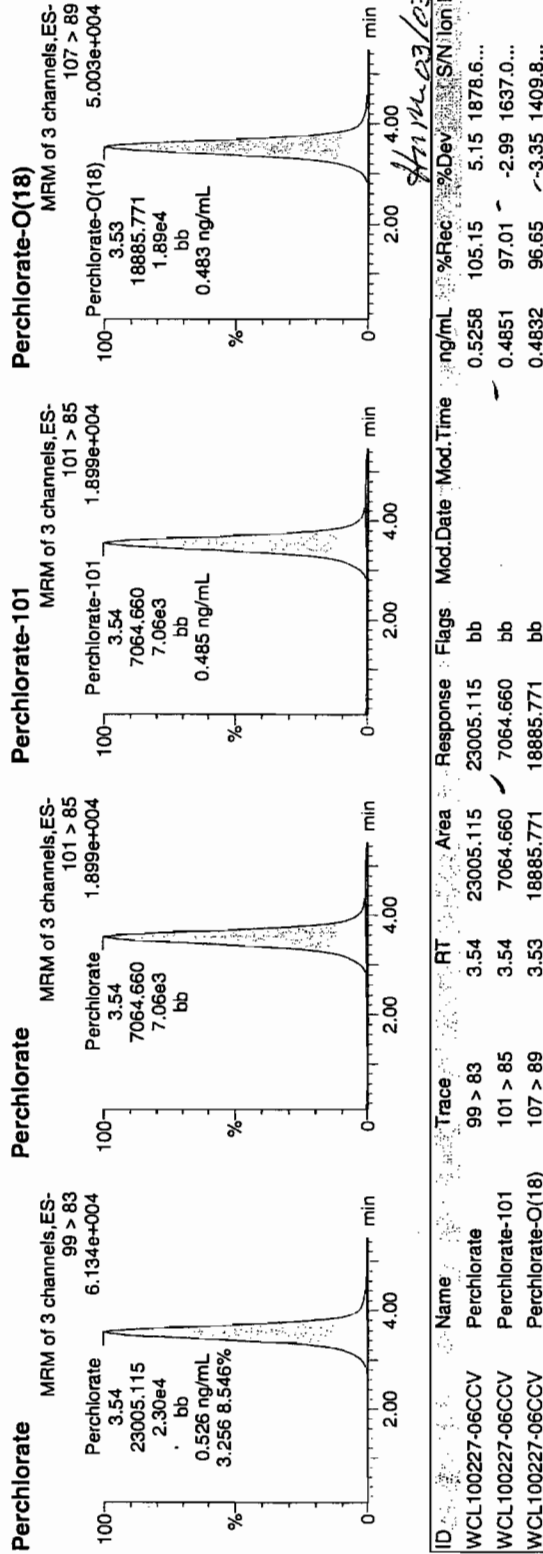
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030110a.qld

Last Altered: Tuesday, March 02, 2010 8:52:39 AM Eastern Standard Time  
Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Name: per0301041a  
Date: 01-Mar-2010  
Time: 18:30:04  
ID: WCL100227-06CCV  
Vial: 1:2,A

Per  
03-02-10



Handwritten signature: *Handwritten signature*

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-06CCV	Perchlorate	99 > 83	3.54	23005.115	23005.115	bb			0.5258	105.15	5.15	1878.6...	3.26
WCL100227-06CCV	Perchlorate-101	101 > 85	3.54	7064.660	7064.660	bb			0.4851	97.01	-2.99	1637.0...	
WCL100227-06CCV	Perchlorate-O(18)	107 > 89	3.53	18885.771	18885.771	bb			0.4832	96.65	-3.35	1409.8...	

Perchlorate MDL Verification

GEL Job No.(SDG): 10-1568-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	100.67	28-FEB-10 14:52	per0228011a
Perchlorate Isotope Ratio		3.18		28-FEB-10 14:52	per0228011a
Perchlorate-101	.05	.05	100.96	28-FEB-10 14:52	per0228011a
Perchlorate	.05	.05	96.62	28-FEB-10 15:55	per0228018a
Perchlorate Isotope Ratio		3.11		28-FEB-10 15:55	per0228018a
Perchlorate-101	.05	.05	99.3	28-FEB-10 15:55	per0228018a
Perchlorate	.05	.05	96.29	28-FEB-10 17:26	per0228028a
Perchlorate Isotope Ratio		3.42		28-FEB-10 17:26	per0228028a
Perchlorate-101	.05	.04	89.75	28-FEB-10 17:26	per0228028a
Perchlorate	.05	.05	96.75	28-FEB-10 18:56	per0228038a
Perchlorate Isotope Ratio		3.12		28-FEB-10 18:56	per0228038a

Perchlorate MDL Verification

GEL Job No.(SDG): 10-1568-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate-101	.05	.05	98.85	28-FEB-10 18:56	per0228038a
Perchlorate	.05	.05	93.82	28-FEB-10 20:27	per0228048a
Perchlorate Isotope Ratio		3.05		28-FEB-10 20:27	per0228048a
Perchlorate-101	.05	.05	98.07	28-FEB-10 20:27	per0228048a
Perchlorate	.05	.05	98.16	28-FEB-10 22:24	per0228061a
Perchlorate Isotope Ratio		3.08		28-FEB-10 22:24	per0228061a
Perchlorate-101	.05	.05	101.55	28-FEB-10 22:24	per0228061a
Perchlorate	.05	.05	96.71	01-MAR-10 00:22	per0228074a
Perchlorate Isotope Ratio		3.17		01-MAR-10 00:22	per0228074a
Perchlorate-101	.05	.05	97.27	01-MAR-10 00:22	per0228074a
Perchlorate	.05	.05	99.46	01-MAR-10 14:12	per0301011a

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1568-1

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate Isotope Ratio		3.01		01-MAR-10 14:12	per0301011a
Perchlorate-101	.05	.05	99.12	01-MAR-10 14:12	per0301011a
Perchlorate	.05	.05	99.36	01-MAR-10 15:38	per0301021a
Perchlorate Isotope Ratio		3.21		01-MAR-10 15:38	per0301021a
Perchlorate-101	.05	.05	92.98	01-MAR-10 15:38	per0301021a
Perchlorate	.05	.05	101.16	01-MAR-10 17:04	per0301031a
Perchlorate Isotope Ratio		3.17		01-MAR-10 17:04	per0301031a
Perchlorate-101	.05	.05	95.99	01-MAR-10 17:04	per0301031a
Perchlorate	.05	.05	96.24	01-MAR-10 18:47	per0301043a
Perchlorate Isotope Ratio		3.26		01-MAR-10 18:47	per0301043a
Perchlorate-101	.05	.04	88.6	01-MAR-10 18:47	per0301043a

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

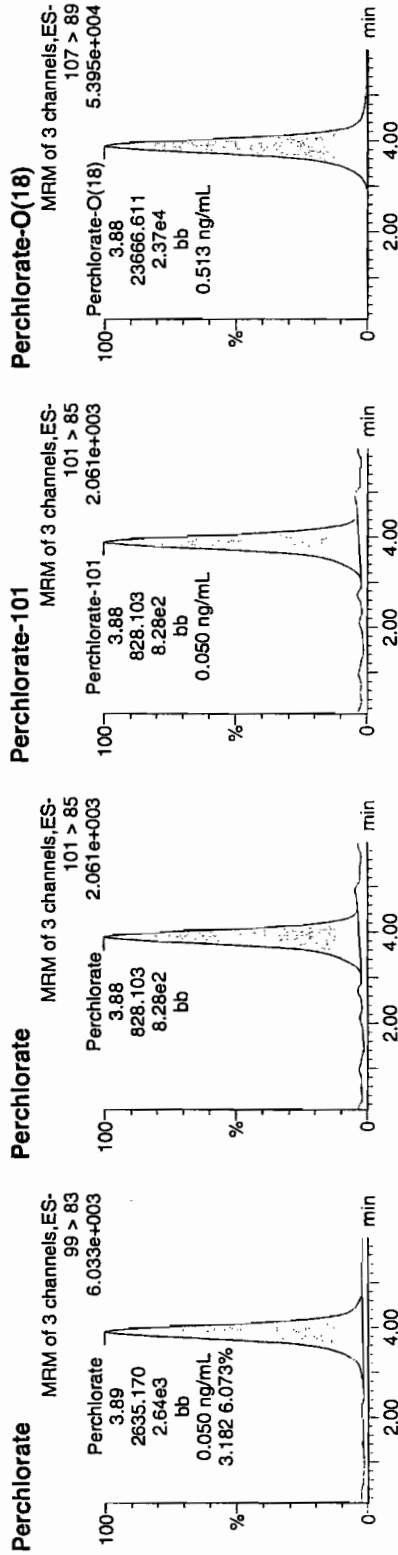
Page 11 of 86

Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228011a  
Date: 28-Feb-2010  
Time: 14:52:18  
ID: WCL100227-07CRI  
Vial: 1:2,B

Pure  
and  
03.10.10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	pg/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-07CRI	Perchlorate	99 > 83	3.89	2635.170	2635.170	bb			0.0503	100.67	0.67	223.191	3.18
WCL100227-07CRI	Perchlorate-101	101 > 85	3.88	828.103	828.103	bb			0.0505	100.96	0.96	139.538	
WCL100227-07CRI	Perchlorate-O(18)	107 > 89	3.88	23666.611	23666.611	bb			0.5130	102.61	2.61	1637.5...	

$$\frac{2635.170}{52357.7} = 0.0503$$

3/2/10

# Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
 Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228018a

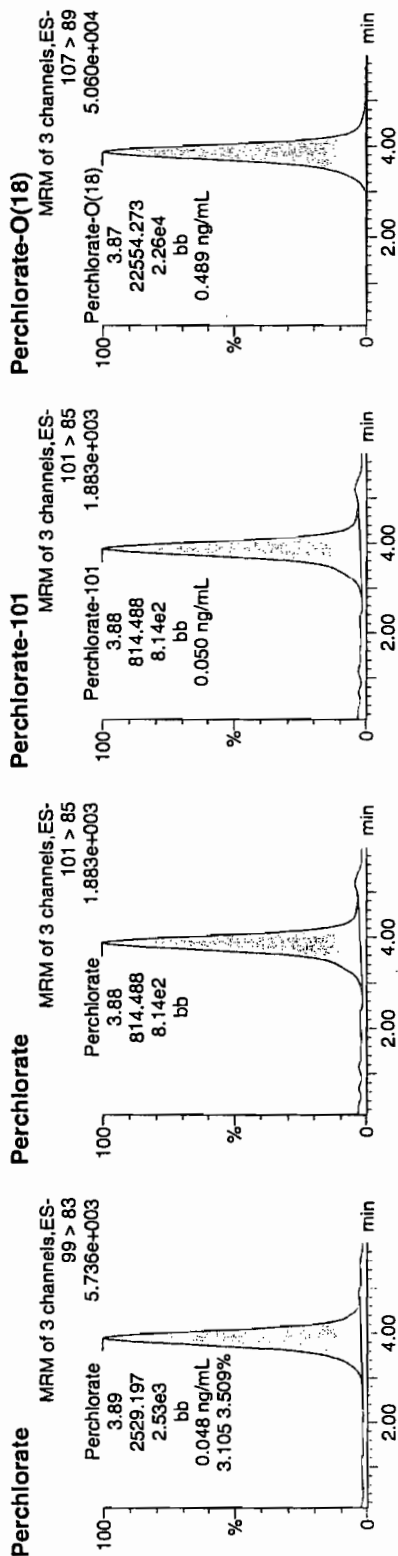
Date: 28-Feb-2010

Time: 15:55:36

ID: WCL100227-07CRI

Vial: 1:2,B

Per  
 03-01-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-07CRI	Perchlorate	99 > 83	3.89	2529.197	2529.197	bb			0.0483	96.62	-3.38	311.556	3.11
WCL100227-07CRI	Perchlorate-101	101 > 85	3.88	814.488	814.488	bb			0.0496	99.30	-0.70	98.681	
WCL100227-07CRI	Perchlorate-O(18)	107 > 89	3.87	22554.273	22554.273	bb			0.4889	97.79	-2.21	2001.2...	

3/2/10



Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228028a

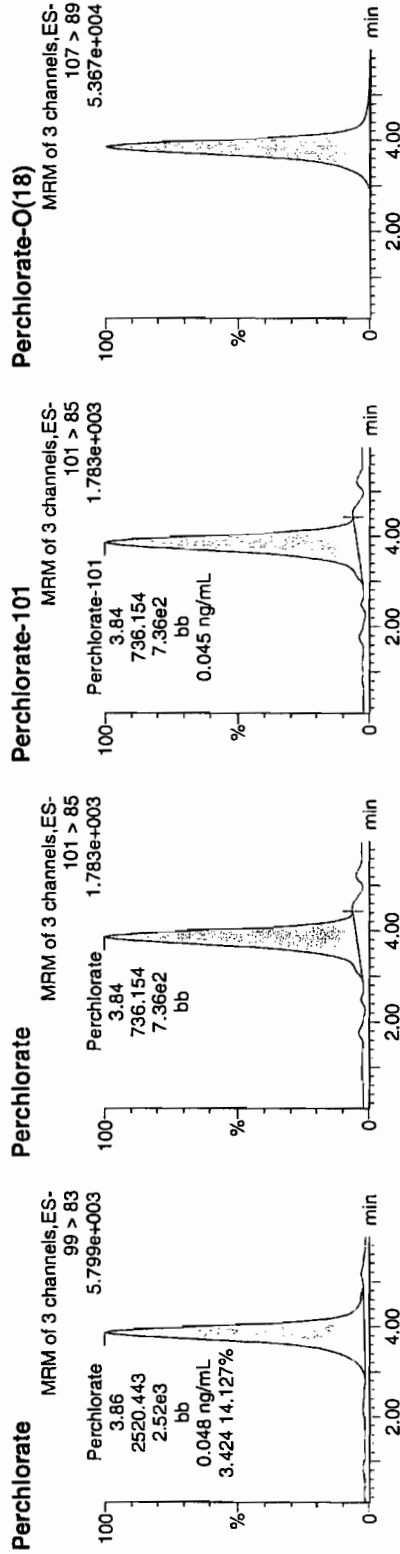
Date: 28-Feb-2010

Time: 17:26:00

ID: WCL100227-07CRI

Vial: 1;2,B

Per  
03-01-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-07CRI	Perchlorate	99 > 83	3.86	2520.443	2520.443	bb			0.0481	96.29	-3.71	182.387	3.42
WCL100227-07CRI	Perchlorate-101	101 > 85	3.84	736.154	736.154	bb			0.0449	89.75	-10.25	270.948	
WCL100227-07CRI	Perchlorate-O(18)	107 > 89	3.83	23332.670	23332.670	bb			0.5058	101.16	1.16	4666.4...	

WCL  
3/2/10

# Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
 Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228038a

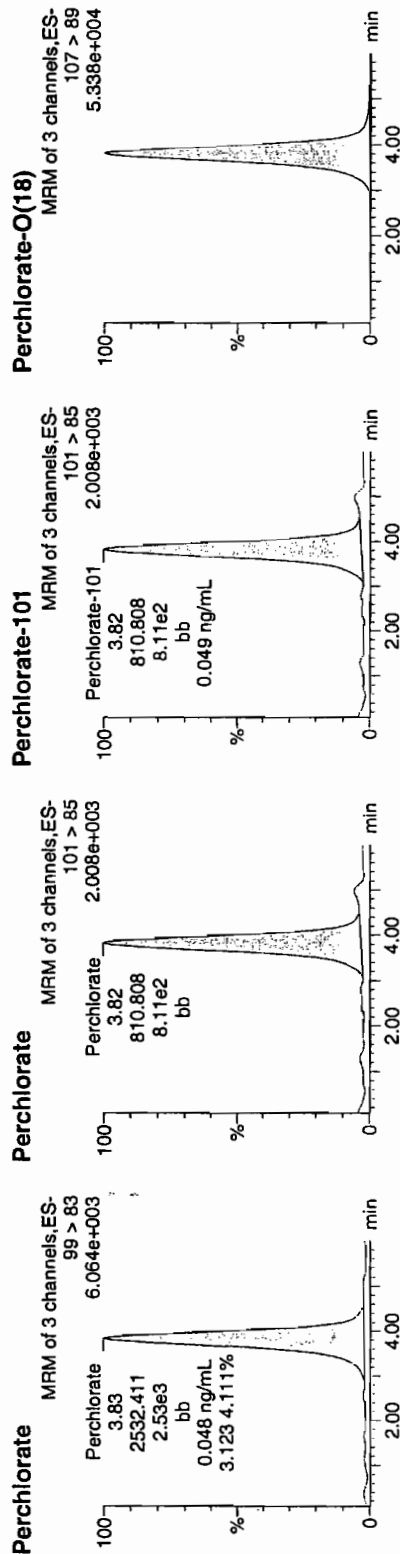
Date: 28-Feb-2010

Time: 18:56:28

ID: WCL100227-07CRI

Vial: 1:2,B

03-01-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-07CRI	Perchlorate	99 > 83	3.83	2532.411	2532.411	bb			0.0484	96.75	-3.25	397.853	3.12
WCL100227-07CRI	Perchlorate-101	101 > 85	3.82	810.808	810.808	bb			0.0494	98.85	-1.15	154.117	
WCL100227-07CRI	Perchlorate-O(18)	107 > 89	3.81	22936.805	22936.805	bb			0.4972	99.44	-0.56	2294.1...	

not  
3/2/10

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228048a

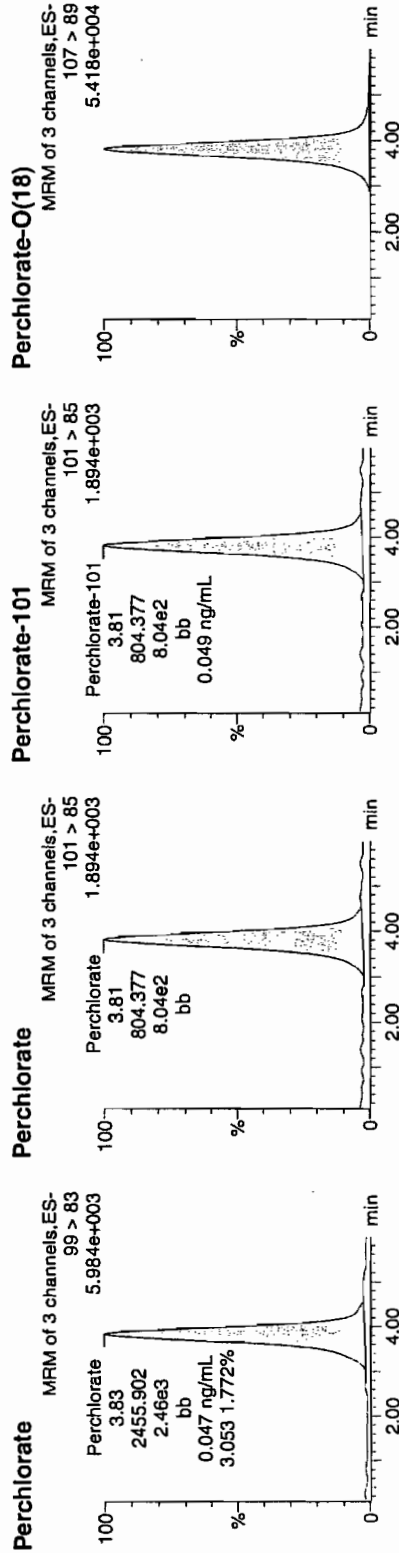
Date: 28-Feb-2010

Time: 20:27:03

ID: WCL100227-07CRI

Vial: 1:2,B

Runs  
03-01-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-07CRI	Perchlorate	99 > 83	3.83	2455.902	2455.902	bb			0.0469	93.82	-6.18	488.037	3.05
WCL100227-07CRI	Perchlorate-101	101 > 85	3.81	804.377	804.377	bb			0.0490	98.07	-1.93	370.049	
WCL100227-07CRI	Perchlorate-O(18)	107 > 89	3.81	23103.947	23103.947	bb			0.5008	100.17	0.17	4898.6...	

3/2/10

# Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228061a

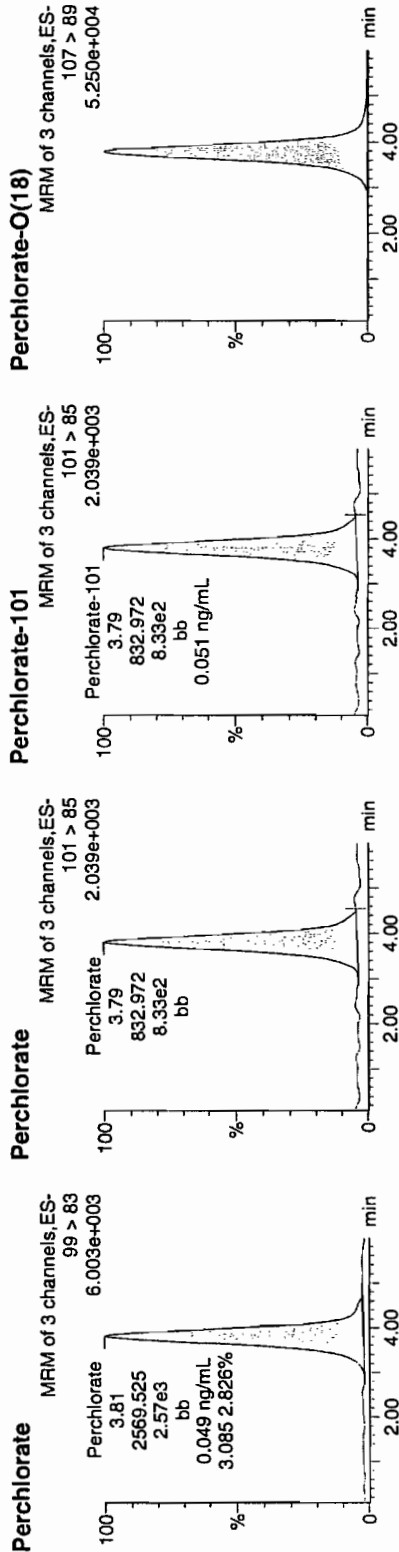
Date: 28-Feb-2010

Time: 22:24:50

ID: WCL100227-07CRI

Vial: 1:2,B

Pure  
0.051 ng/mL



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-07CRI	Perchlorate	99 > 83	3.81	2569.525	2569.525	bb			0.0491	98.16	-1.84	597.697	3.08
WCL100227-07CRI	Perchlorate-101	101 > 85	3.79	832.972	832.972	bb			0.0508	101.55	1.55	269.323	
WCL100227-07CRI	Perchlorate-O(18)	107 > 89	3.78	22761.428	22761.428	bb			0.4934	98.68	-1.32	2414.2...	

WAT  
3/2/10

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

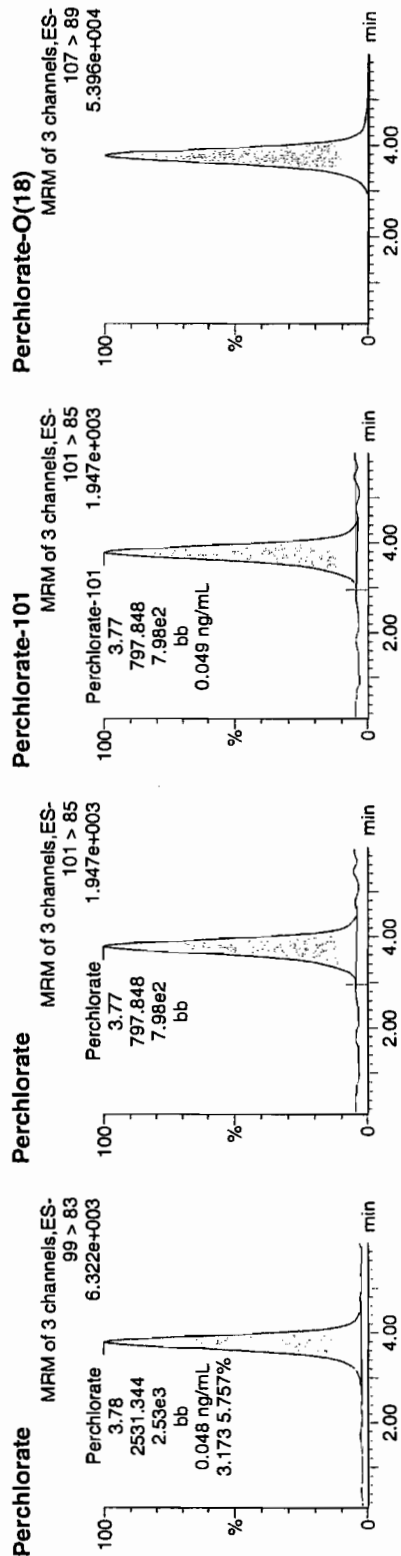
Page 74 of 86

Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228074a  
Date: 01-Mar-2010  
Time: 00:22:43  
ID: WCL100227-07CRI  
Vial: 1:2,B

WCL  
01-Mar-2010



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion.Ratio
WCL100227-07CRI	Perchlorate	99 > 83	3.78	2531.344	2531.344	bb			0.0484	96.71	-3.29	389.855	3.17
WCL100227-07CRI	Perchlorate-101	101 > 85	3.77	797.848	797.848	bb			0.0486	97.27	-2.73	56.081	
WCL100227-07CRI	Perchlorate-O(18)	107 > 89	3.76	23066.418	23066.418	bb			0.5000	100.01	0.01	8373.7...	

WCL  
3/1/10

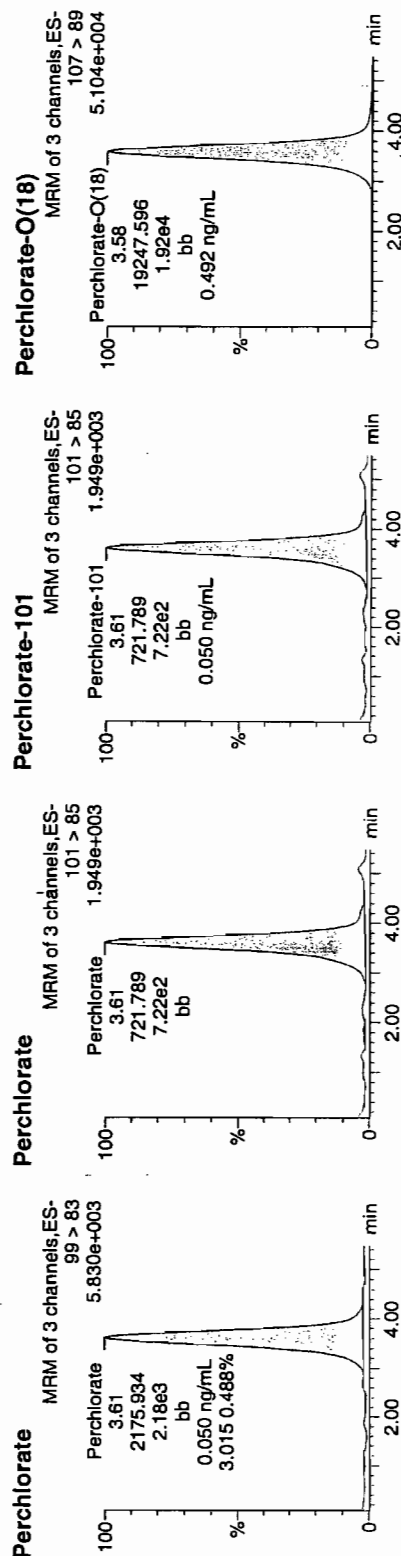
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030110a.qld

Last Altered: Tuesday, March 02, 2010 8:52:39 AM Eastern Standard Time  
Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Name: per0301011a  
Date: 01-Mar-2010  
Time: 14:12:58  
ID: WCL100227-07CRI  
Vial: 1:2,B

Run  
03-07-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-07CRI	Perchlorate	99 > 83	3.61	2175.934	2175.934	bb			0.0497	99.46	-0.54	242.908	3.01
WCL100227-07CRI	Perchlorate-101	101 > 85	3.61	721.789	721.789	bb			0.0496	99.12	-0.88	145.259	
WCL100227-07CRI	Perchlorate-O(18)	107 > 89	3.58	19247.596	19247.596	bb			0.4925	98.50	-1.50	5397.8...	

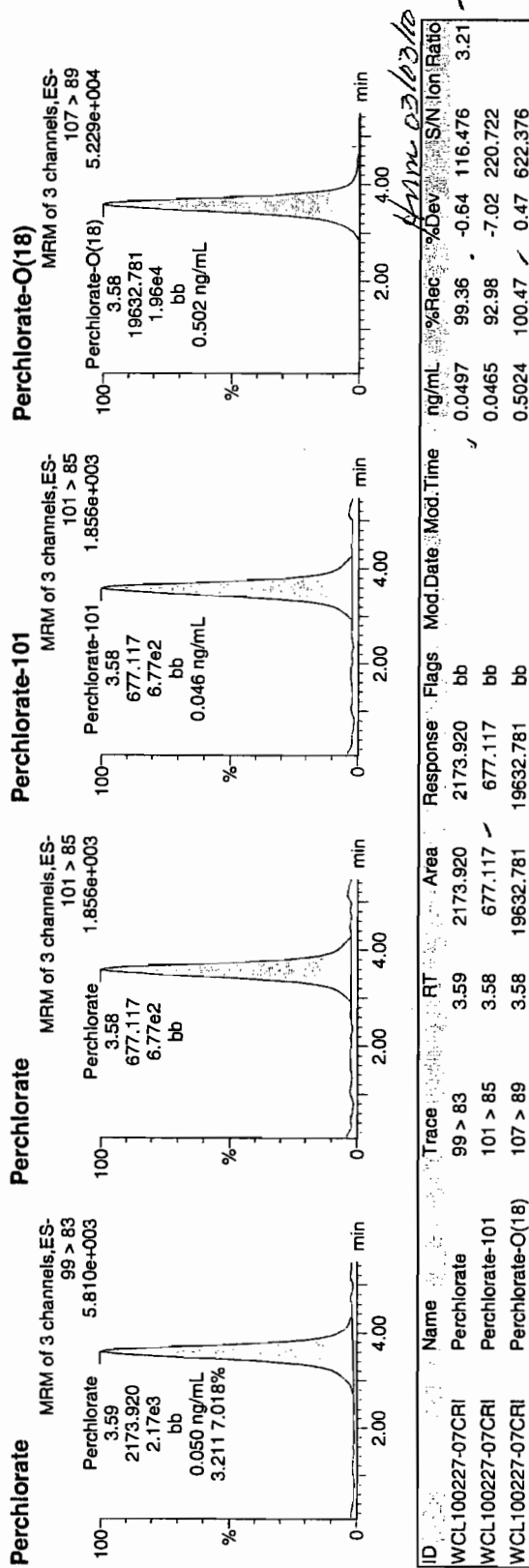
Quantify Sample Report MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030110a.qld

Last Altered: Tuesday, March 02, 2010 8:52:39 AM Eastern Standard Time  
Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Name: per0301021a  
Date: 01-Mar-2010  
Time: 15:38:29  
ID: WCL100227-07CRI  
Vial: 1:2,B

*Per  
and  
03-01-10*



*Sum 03/03/10*

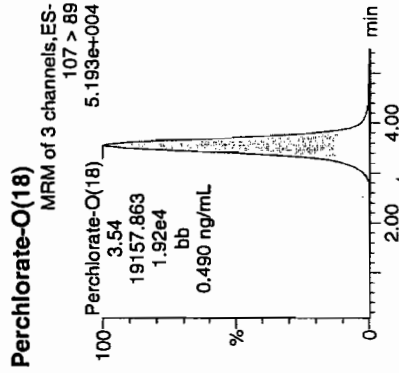
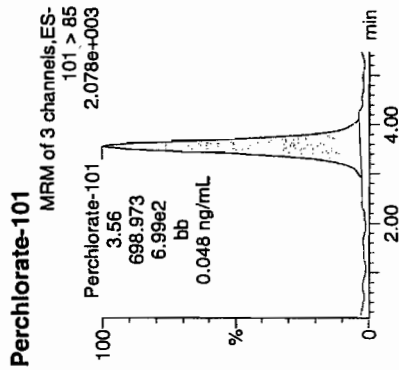
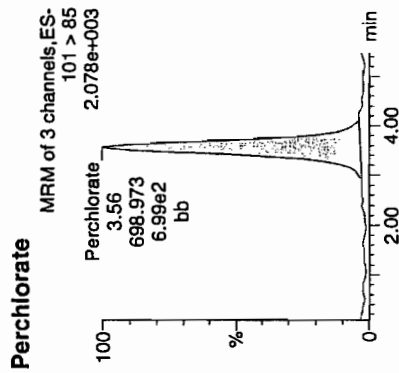
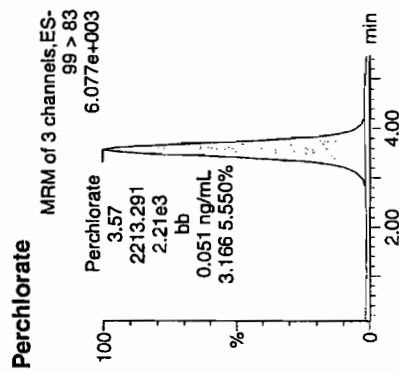
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030110a.qld

Last Altered: Tuesday, March 02, 2010 8:52:39 AM Eastern Standard Time  
Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Name: per0301031a  
Date: 01-Mar-2010  
Time: 17:04:11  
ID: WCL100227-07CRI  
Vial: 1:2,B

*Per  
and 03-02-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN/ Ion Ratio
WCL100227-07CRI	Perchlorate	99 > 83	3.57	2213.291	2213.291	bb			0.0506	101.16	1.16	529.756
WCL100227-07CRI	Perchlorate-101	101 > 85	3.56	698.973	698.973	bb			0.0480	95.99	-4.01	73.196
WCL100227-07CRI	Perchlorate-O(18)	107 > 89	3.54	19157.863	19157.863	bb			0.4902	98.04	-1.96	906.699

*Area 03/02/10*



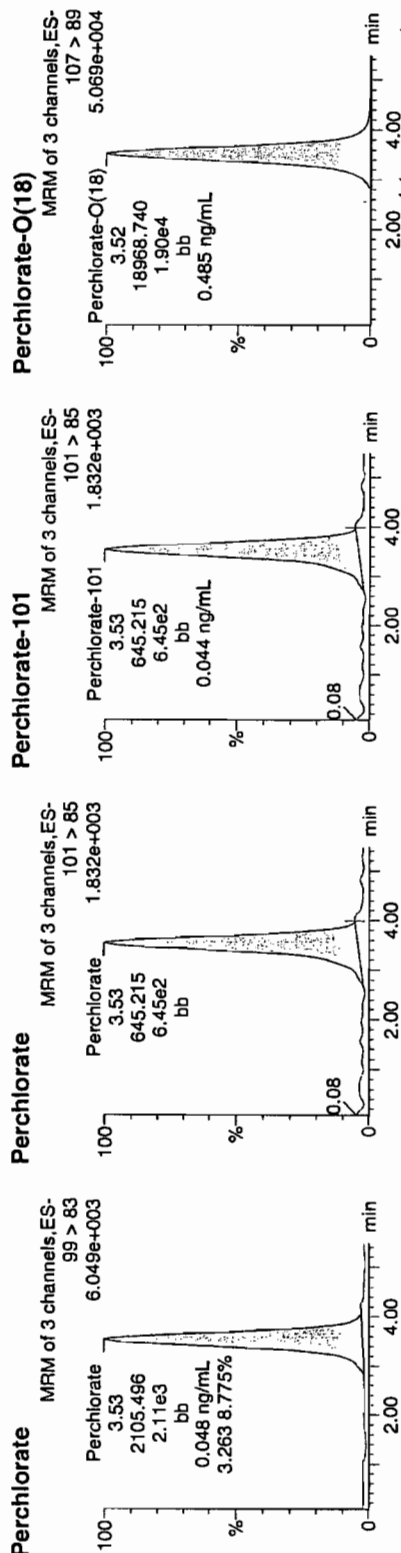
**Quantify Sample Report** MassLynx 4.0 SP4  
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030110a.qld

Last Altered: Tuesday, March 02, 2010 8:52:39 AM Eastern Standard Time  
Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Name: per0301043a  
Date: 01-Mar-2010  
Time: 18:47:22  
ID: WCL100227-07CRI  
Vial: 1;2,B

*Pure*  
*and 03-02-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-07CRI	Perchlorate	99 > 83	3.53	2105.496	2105.496	bb			0.0481	96.24	-3.76	827.986	3.26
WCL100227-07CRI	Perchlorate-101	101 > 85	3.53	645.215	645.215	bb			0.0443	88.60	-11.40	257.268	
WCL100227-07CRI	Perchlorate-O(18)	107 > 89	3.52	18968.740	18968.740	bb			0.4854	97.07	-2.93	1758.6...	

# QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952422

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

MB

Date Received: 19-FEB-10

GEL Job No (SDG): 10-1568-1

GEL Sample ID: 1202041311

Date Filtered: 19-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	28-FEB-10 20:36	per0228049a
	Perchlorate Isotope Ratio						1	28-FEB-10 20:36	per0228049a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	28-FEB-10 20:36	per0228049a
	Perchlorate-O(18)			5.04	ug/kg		1	28-FEB-10 20:36	per0228049a

<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

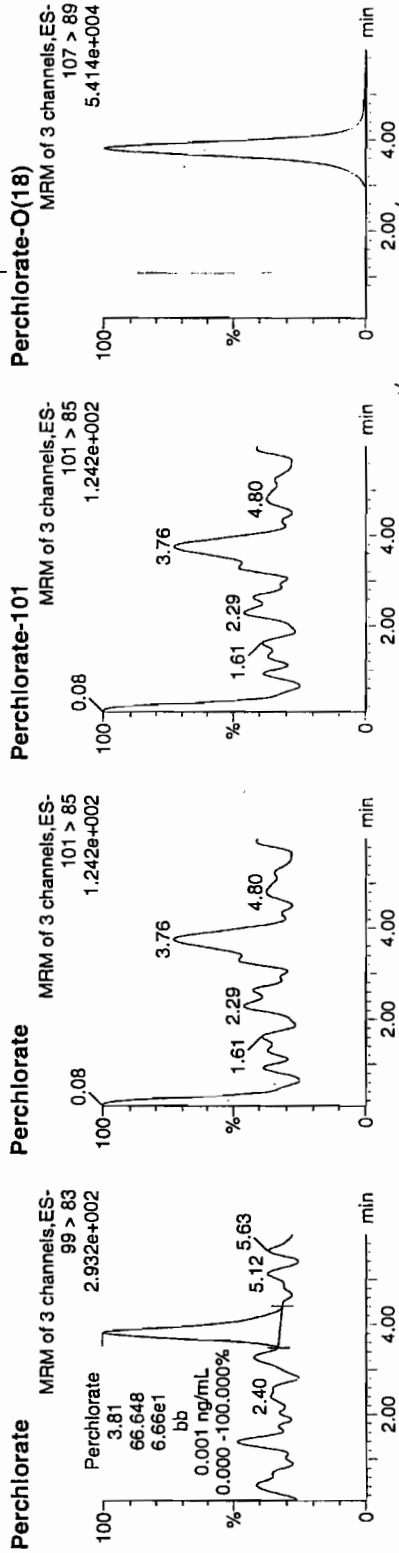
Dataset: C:\MassLynx\Perchlorate.PRO\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228049a  
Date: 28-Feb-2010  
Time: 20:36:05  
ID: 1202041311  
Vial: 2:1,A

02-01-10

1202041311 | 952425 | 5020 | 103 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202041311	Perchlorate	99 > 83	3.81	66.648	66.648	bb			0.0013			11.434	0.00
1202041311	Perchlorate-101	101 > 85											
1202041311	Perchlorate-Q(18)	107 > 89	3.81	23252.273	23252.273	bb			0.5041	100.81	0.81	2029.3...	

4.11e-03 103/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952422

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

LCS

Date Received: 19-FEB-10

GEL Job No (SDG): 10-1568-1

GEL Sample ID: 1202041312

Date Filtered: 19-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	2.07	ug/kg		1	28-FEB-10 20:45	per0228050a
	Perchlorate Isotope Ratio			3.22			1	28-FEB-10 20:45	per0228050a
14797-73-0	Perchlorate-101	.5	2	2.05	ug/kg		1	28-FEB-10 20:45	per0228050a
	Perchlorate-O(18)			5.16	ug/kg		1	28-FEB-10 20:45	per0228050a

<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\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228050a

Date: 28-Feb-2010

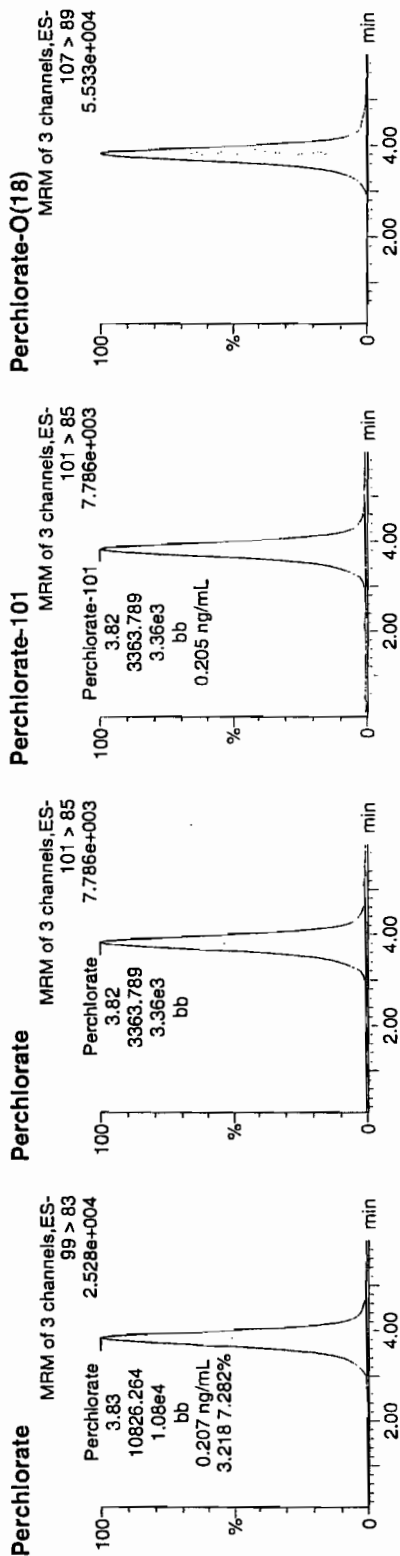
Time: 20:45:18

ID: 1202041312

Vial: 2:1,B

6223  
07-01-10

15700 | 952425 | 5020 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202041312	Perchlorate	99 > 83	3.83	10826.264	10826.264	bb			0.2068	103.40	3.40	841.208	3.22
1202041312	Perchlorate-101	101 > 85	3.82	3363.789	3363.789	bb			0.2051	102.53	2.53	781.738	
1202041312	Perchlorate-O(18)	107 > 89	3.81	23810.559	23810.559	bb			0.5162	103.23	3.23	6706.8...	

$$\frac{10826.264}{52851.7} = 0.2068$$

H/mw 23810.559 / 10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 952422

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8304MS

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1568-1

GEL Sample ID: 1202041313

Date Filtered: 19-FEB-10

Injection Volume (uL): 20

%Solids: 80

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.628	2.51	2.77	ug/kg		1	28-FEB-10 23:01	per0228065a
	Perchlorate Isotope Ratio			3.15			1	28-FEB-10 23:01	per0228065a
14797-73-0	Perchlorate-101	.628	2.51	2.81	ug/kg		1	28-FEB-10 23:01	per0228065a
	Perchlorate-O(18)			6.30	ug/kg		1	28-FEB-10 23:01	per0228065a

<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\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time

Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228065a

Date: 28-Feb-2010

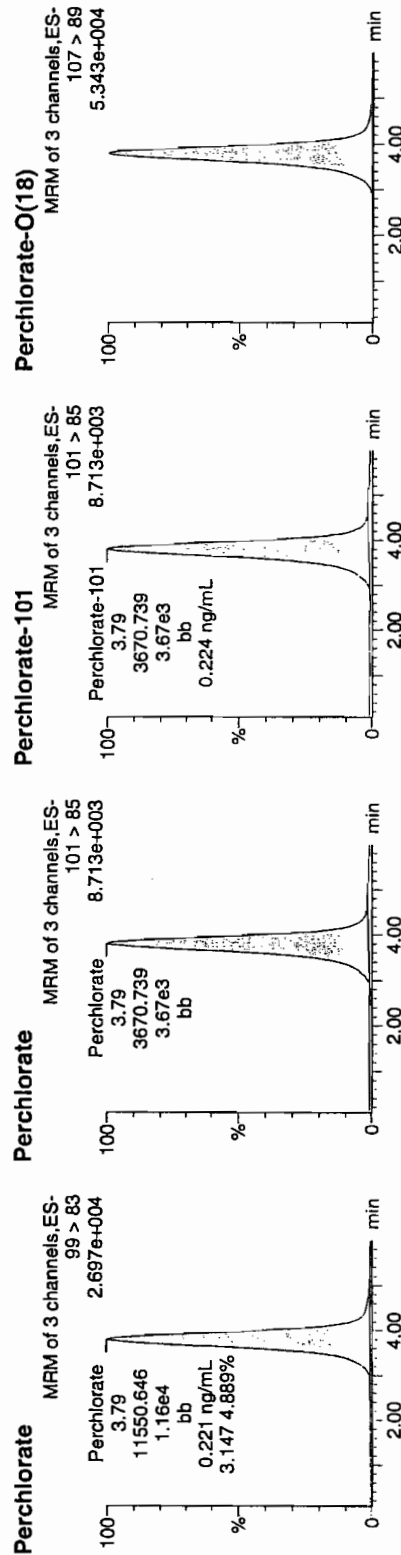
Time: 23:01:08

ID: 1202041313

Vial: 2:3,B

1202041313 | 3020 | MS | 11

02-01-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
1202041313	Perchlorate	99 > 83	3.79	11550.646	11550.646	bb			0.2206	110.32	10.32	3290.6...	3.15
1202041313	Perchlorate-101	101 > 85	3.79	3670.739	3670.739	bb			0.2238	111.88	11.88	550.602	
1202041313	Perchlorate-O(18)	107 > 89	3.78	23162.953	23162.953	bb			0.5021	100.42	0.42	3536.0...	



Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846.6850 Modified

Matrix: SOIL

Extraction Batch ID: 952422

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8304MSD

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1568-1

GEL Sample ID: 1202041314

Date Filtered: 19-FEB-10

Injection Volume (uL): 20

%Solids: 80

CAS No.	Analyte <sup>^</sup>	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.628	2.51	2.80	ug/kg		1	28-FEB-10 23:10	per0228066a
	Perchlorate Isotope Ratio			3.09			1	28-FEB-10 23:10	per0228066a
14797-73-0	Perchlorate-101	.628	2.51	2.89	ug/kg		1	28-FEB-10 23:10	per0228066a
	Perchlorate-O(18)			6.46	ug/kg		1	28-FEB-10 23:10	per0228066a

<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\per022810a.qld

Last Altered: Monday, March 01, 2010 7:59:33 AM Eastern Standard Time  
 Printed: Monday, March 01, 2010 8:10:40 AM Eastern Standard Time

Name: per0228066a

Date: 28-Feb-2010

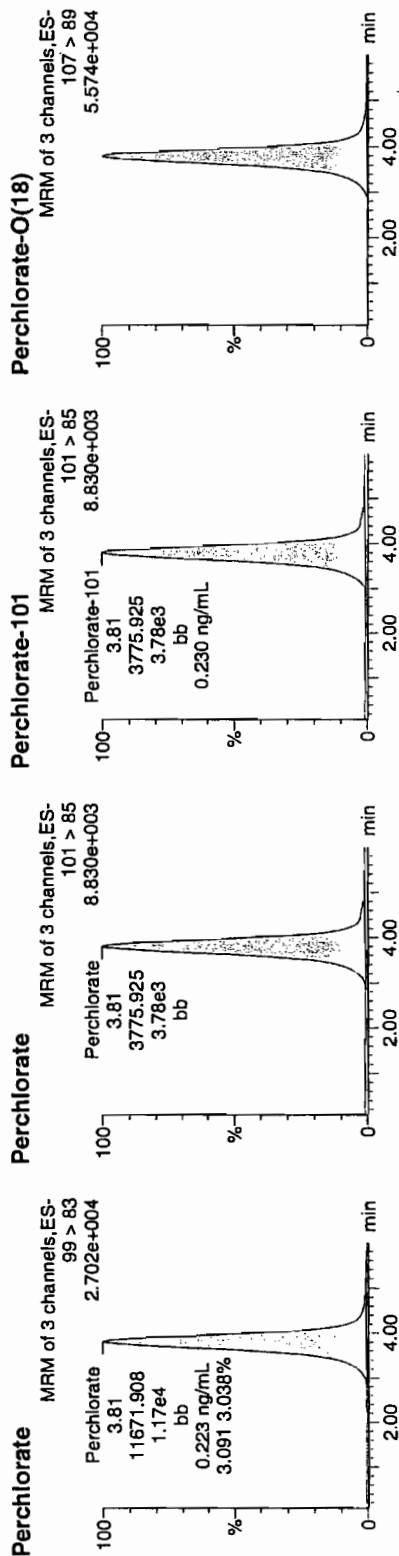
Time: 23:10:10

ID: 1202041314

Vial: 2:3,C

03-01-10

LANL 952425 | 5000 | MSO | 1.1



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202041314	Perchlorate	99 > 83	3.81	11671.908	11671.908	bb			0.2230	111.48	11.48	1342.1...	3.09
1202041314	Perchlorate-101	101 > 85	3.81	3775.925	3775.925	bb			0.2302	115.09	15.09	1069.5...	
1202041314	Perchlorate-O(18)	107 > 89	3.78	23733.184	23733.184	bb			0.5145	102.90	2.90	1376.3...	

# 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: 952422 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	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202041311 MB	19-FEB-2010 16:04:00	2	20	10
1202041312 LCS	19-FEB-2010 16:04:00	2	20	10
246322001	19-FEB-2010 16:04:00	2	20	10
246322002	19-FEB-2010 16:04:00	2	20	10
246322003	19-FEB-2010 16:04:00	2	20	10
246322004	19-FEB-2010 16:04:00	2	20	10
246322005	19-FEB-2010 16:04:00	2	20	10
246322006	19-FEB-2010 16:04:00	2	20	10
246322007	19-FEB-2010 16:04:00	2	20	10
246322008	19-FEB-2010 16:04:00	2	20	10
246322009	19-FEB-2010 16:04:00	2	20	10
246336001	19-FEB-2010 16:04:00	2	20	10
1202041313 MS (246336001)	19-FEB-2010 16:04:00	2	20	10
1202041314 MSD (246336001)	19-FEB-2010 16:04:00	2	20	10
246336002	19-FEB-2010 16:04:00	2	20	10
246336003	19-FEB-2010 16:04:00	2	20	10
246336004	19-FEB-2010 16:04:00	2	20	10
246336005	19-FEB-2010 16:04:00	2	20	10
246336006	19-FEB-2010 16:04:00	2	20	10
246336007	19-FEB-2010 16:04:00	2	20	10
246336008	19-FEB-2010 16:04:00	2	20	10
246336009	19-FEB-2010 16:04:00	2	20	10
1202041315 LCS	19-FEB-2010 16:04:00	2	20	10

Comments:

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments
LCS	1202041315	10 ug/L ICV/CCV Second Source	UCL100210-02.1	.4	mL	Desalting cartridges used: 090810-1-Ba & 100112-1-H
LCS	1202041312	10 ug/L ICV/CCV Second Source	UCL100210-02.1	.4	mL	
MS	1202041313	10 ug/L ICV/CCV Second Source	UCL100210-02.1	.4	mL	
MSD	1202041314	10 ug/L ICV/CCV Second Source	UCL100210-02.1	.4	mL	

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 02/28/10  
 Extr. Injection Volume: 20uL  
 Sequence Number: per022810a  
 Initial Calibration Date: 02/28/10

Method: EPA 6850-Modified  
 Int. Std.: UCL100126-01  
 Mobile Phase Lot#: 1269535, 1261217  
 Standard-Samp Reagent Lot#: 1261217

Reviewed BY: *hmc*  
 Date: *02/03/10*  
 SOP: GL-OA-E-067 Rev.6  
 Alt Check Std. ID: WCL100227-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0228001a	IPB001	CWW	2/28/2010 13:21			1		USE	B
per0228002a	IPB001	CWW	2/28/2010 13:31			1		USE	B
per0228003a	WCLICAL-01	CWW	2/28/2010 13:40			1		USE	I
per0228004a	WCLICAL-02	CWW	2/28/2010 13:49			1		USE	I
per0228005a	WCLICAL-03	CWW	2/28/2010 13:58			1		USE	I
per0228006a	WCLICAL-04	CWW	2/28/2010 14:07			1		USE	I
per0228007a	WCLICAL-05	CWW	2/28/2010 14:16			1		USE	I
per0228008a	IPB002	CWW	2/28/2010 14:25			1		USE	B
per0228009a	WCLICV	CWW	2/28/2010 14:34			1		USE	C
per0228010a	IPB003	CWW	2/28/2010 14:43			1		USE	B
per0228011a	WCLCRI	CWW	2/28/2010 14:52			1		USE	C
per0228012a	1202055810	CWW	2/28/2010 15:01	958567	WP10-1	1	PTQA	USE	S
per0228013a	1202055812	CWW	2/28/2010 15:10	958567	WP10-1	1	PTQA	USE	S
per0228014a	247883002	CWW	2/28/2010 15:19	958567	WP10-1	50	PTQA	USE	S
per0228015a	1202055811	CWW	2/28/2010 15:28	958567	WP10-1	50	PTQA	USE	S
per0228016a	WCLCCV	CWW	2/28/2010 15:37			1		USE	C
per0228017a	IPB004	CWW	2/28/2010 15:46			1		USE	B
per0228018a	WCLCRI	CWW	2/28/2010 15:55			1		USE	C
per0228019a	1202055394	CWW	2/28/2010 16:04	958431	10-2019	1	LANL	USE	S
per0228020a	1202055395	CWW	2/28/2010 16:13	958431	10-2019	1	LANL	USE	S
per0228021a	1202055398	CWW	2/28/2010 16:22	958431	10-2019	1	LANL	USE	S
per0228022a	247913001	CWW	2/28/2010 16:31	958431	10-2019	1	LANL	USE	S
per0228023a	1202055396	CWW	2/28/2010 16:40	958431	10-2019	1	LANL	USE	S
per0228024a	1202055397	CWW	2/28/2010 16:49	958431	10-2019	1	LANL	USE	S
per0228025a	247913002	CWW	2/28/2010 16:58	958431	10-2019	1	LANL	USE	S
per0228026a	WCLCCV	CWW	2/28/2010 17:07			1		USE	C
per0228027a	IPB005	CWW	2/28/2010 17:16			1		USE	B
per0228028a	WCLCRI	CWW	2/28/2010 17:26			1		USE	C
per0228029a	1202055275	CWW	2/28/2010 17:35	958362	IDOC-KW-6850-S	1	QCQA	DUSE-RE	S

per0228030a	1202055276	CWW	2/28/2010 17:44	958362	IDOC-KW-6850-S	1	QCQA	DUSE-RE	S
per0228031a	1202055277	CWW	2/28/2010 17:53	958362	IDOC-KW-6850-S	1	QCQA	DUSE-RE	S
per0228032a	1202055278	CWW	2/28/2010 18:02	958362	IDOC-KW-6850-S	1	QCQA	DUSE-RE	S
per0228033a	1202055279	CWW	2/28/2010 18:11	958362	IDOC-KW-6850-S	1	QCQA	DUSE-RE	S
per0228034a	1202055280	CWW	2/28/2010 18:20	958362	IDOC-KW-6850-S	1	QCQA	DUSE-RE	S
per0228035a	248195001	CWW	2/28/2010 18:29	958362	IDOC-KW-6850-S	1	QCQA	DUSE-RE	S
per0228036a	WCLCCV	CWW	2/28/2010 18:38			1		USE	C
per0228037a	IPB006	CWW	2/28/2010 18:47			1		USE	B
per0228038a	WCLCRI	CWW	2/28/2010 18:56			1		USE	C
per0228039a	1202055269	CWW	2/28/2010 19:05	958360	IDOC-KW-6850-W	1	QCQA	DUSE-RE	S
per0228040a	1202055270	CWW	2/28/2010 19:14	958360	IDOC-KW-6850-W	1	QCQA	DUSE-RE	S
per0228041a	1202055271	CWW	2/28/2010 19:23	958360	IDOC-KW-6850-W	1	QCQA	DUSE-RE	S
per0228042a	1202055272	CWW	2/28/2010 19:32	958360	IDOC-KW-6850-W	1	QCQA	DUSE-RE	S
per0228043a	1202055273	CWW	2/28/2010 19:41	958360	IDOC-KW-6850-W	1	QCQA	DUSE-RE	S
per0228044a	1202055274	CWW	2/28/2010 19:50	958360	IDOC-KW-6850-W	1	QCQA	DUSE-RE	S
per0228045a	248193001	CWW	2/28/2010 19:59	958360	IDOC-KW-6850-W	1	QCQA	DUSE-RE	S
per0228046a	WCLCCV	CWW	2/28/2010 20:08			1		USE	C
per0228047a	IPB007	CWW	2/28/2010 20:18			1		USE	B
per0228048a	WCLCRI	CWW	2/28/2010 20:27			1		USE	C
per0228049a	1202041311	CWW	2/28/2010 20:36	952425	VARIOUS	1	LANL	USE	S
per0228050a	1202041312	CWW	2/28/2010 20:45	952425	VARIOUS	1	LANL	USE	S
per0228051a	1202041315	CWW	2/28/2010 20:54	952425	VARIOUS	1	LANL	USE	S
per0228052a	246322001	CWW	2/28/2010 21:03	952425	10-1565	1	LANL	USE	S
per0228053a	246322002	CWW	2/28/2010 21:12	952425	10-1565	1	LANL	USE	S
per0228054a	246322003	CWW	2/28/2010 21:21	952425	10-1565	1	LANL	USE	S
per0228055a	246322004	CWW	2/28/2010 21:30	952425	10-1565	1	LANL	USE	S
per0228056a	246322005	CWW	2/28/2010 21:39	952425	10-1565	1	LANL	USE	S
per0228057a	246322006	CWW	2/28/2010 21:48	952425	10-1565	1	LANL	USE	S
per0228058a	246322007	CWW	2/28/2010 21:57	952425	10-1565	1	LANL	USE	S
per0228059a	WCLCCV	CWW	2/28/2010 22:06			1		USE	C
per0228060a	IPB008	CWW	2/28/2010 22:15			1		USE	B
per0228061a	WCLCRI	CWW	2/28/2010 22:24			1		USE	C
per0228062a	246322008	CWW	2/28/2010 22:33	952425	10-1565	1	LANL	USE	S
per0228063a	246322009	CWW	2/28/2010 22:43	952425	10-1565	1	LANL	USE	S
per0228064a	246336001	CWW	2/28/2010 22:52	952425	10-1568-1	1	LANL	USE	S
per0228065a	1202041313	CWW	2/28/2010 23:01	952425	10-1568-1	1	LANL	USE	S
per0228066a	1202041314	CWW	2/28/2010 23:10	952425	10-1568-1	1	LANL	USE	S

per0228067a	246336002	CWW	2/28/2010 23:19	952425	10-1568-1	1	LANL	USE	S
per0228068a	246336003	CWW	2/28/2010 23:28	952425	10-1568-1	1	LANL	USE	S
per0228069a	246336004	CWW	2/28/2010 23:37	952425	10-1568-1	1	LANL	USE	S
per0228070a	246336005	CWW	2/28/2010 23:46	952425	10-1568-1	1	LANL	USE	S
per0228071a	246336006	CWW	2/28/2010 23:55	952425	10-1568-1	1	LANL	USE	S
per0228072a	WCLCCV	CWW	3/1/2010 0:04			1		USE	C
per0228073a	IPB009	CWW	3/1/2010 0:13			1		USE	B
per0228074a	WCLCRI	CWW	3/1/2010 0:22			1		USE	C
per0228075a	246336007	CWW	3/1/2010 0:31	952425	10-1565	1	LANL	DUSE-RA	S
per0228076a	246336008	CWW	3/1/2010 0:40	952425	10-1565	1	LANL	DUSE-RA	S
per0228077a	246336009	CWW	3/1/2010 0:50	952425	10-1565	1	LANL	DUSE-RA	S
per0228078a	IPB010	CWW	3/1/2010 0:59			1			B
per0228079a	1202042706	CWW	3/1/2010 1:08	953012	VARIOUS	1	LANL	DUSE-RA	S
per0228080a	1202042707	CWW	3/1/2010 1:17	953012	VARIOUS	1	LANL	DUSE-RA	S
per0228081a	1202042712	CWW	3/1/2010 1:26	953012	VARIOUS	1	LANL	DUSE-RA	S
per0228082a	246574002	CWW	3/1/2010 1:35	953012	10-1679	1	LANL	DUSE-RA	S
per0228083a	246598002	CWW	3/1/2010 1:44	953012	10-1696	1	LANL	DUSE-RA	S
per0228084a	WCLCCV	CWW	3/1/2010 1:53			1		DUSE	C
per0228085a	IPB011	CWW	3/1/2010 2:03			1		DUSE	B
per0228086a	WCLCRI	CWW	3/1/2010 2:12			1		DUSE	C

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/01/10  
Extr. Injection Volume: 20uL  
Sequence Number: per030110a  
Initial Calibration Date: 03/01/10

Method: EPA 6850-Modified  
Int. Std.: UCL100126-01  
Mobile Phase Lot#: 1269535, 1261217  
Standard-Samp Reagent Lot#: 1261217

Reviewed BY: *Am*  
Date: *03/03/10*  
SOP: GL-OA-E-067 Rev.6  
Alt Check Std. ID: WCL100227-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0301001a	IPB001	CWW	3/1/2010 12:47			1		USE	B
per0301002a	IPB001	CWW	3/1/2010 12:55			1		USE	B
per0301003a	WCLICAL-01	CWW	3/1/2010 13:04			1		USE	I
per0301004a	WCLICAL-02	CWW	3/1/2010 13:13			1		USE	I
per0301005a	WCLICAL-03	CWW	3/1/2010 13:21			1		USE	I
per0301006a	WCLICAL-04	CWW	3/1/2010 13:30			1		USE	I
per0301007a	WCLICAL-05	CWW	3/1/2010 13:38			1		USE	I
per0301008a	IPB002	CWW	3/1/2010 13:47			1		USE	B
per0301009a	WCLICV	CWW	3/1/2010 13:55			1		USE	C
per0301010a	IPB003	CWW	3/1/2010 14:04			1		USE	B
per0301011a	WCLCRI	CWW	3/1/2010 14:12			1		USE	C
per0301012a	1202057198	CWW	3/1/2010 14:21	959224	IDOC-KW-L	1	QCQA	USE	S
per0301013a	1202057199	CWW	3/1/2010 14:30	959224	IDOC-KW-L	1	QCQA	USE	S
per0301014a	1202057200	CWW	3/1/2010 14:38	959224	IDOC-KW-L	1	QCQA	USE	S
per0301015a	1202057201	CWW	3/1/2010 14:47	959224	IDOC-KW-L	1	QCQA	USE	S
per0301016a	1202057202	CWW	3/1/2010 14:55	959224	IDOC-KW-L	1	QCQA	USE	S
per0301017a	1202057203	CWW	3/1/2010 15:04	959224	IDOC-KW-L	1	QCQA	USE	S
per0301018a	248193001	CWW	3/1/2010 15:12	959224	IDOC-KW-L	1	QCQA	USE	S
per0301019a	WCLCCV	CWW	3/1/2010 15:21			1		USE	C
per0301020a	IPB004	CWW	3/1/2010 15:29			1		USE	B
per0301021a	WCLCRI	CWW	3/1/2010 15:38			1		USE	C
per0301022a	1202057204	CWW	3/1/2010 15:47	959227	IDOC-KW-S	1	QCQA	USE	S
per0301023a	1202057326	CWW	3/1/2010 15:55	959227	IDOC-KW-S	1	QCQA	USE	S
per0301024a	1202057327	CWW	3/1/2010 16:04	959227	IDOC-KW-S	1	QCQA	USE	S
per0301025a	1202057328	CWW	3/1/2010 16:12	959227	IDOC-KW-S	1	QCQA	USE	S
per0301026a	1202057329	CWW	3/1/2010 16:21	959227	IDOC-KW-S	1	QCQA	USE	S
per0301027a	1202057330	CWW	3/1/2010 16:29	959227	IDOC-KW-S	1	QCQA	USE	S
per0301028a	248195001	CWW	3/1/2010 16:38	959227	IDOC-KW-S	1	QCQA	USE	S
per0301029a	WCLCCV	CWW	3/1/2010 16:46			1		USE	C



per0301030a	IPB005	CWW	3/1/2010 16:55			1		USE	B
per0301031a	WCLCRI	CWW	3/1/2010 17:04			1		USE	C
per0301032a	246336007	CWW	3/1/2010 17:12	952425	10-1568-1	1	LANL	USE	S
per0301033a	246336008	CWW	3/1/2010 17:21	952425	10-1568-1	1	LANL	USE	S
per0301034a	246336009	CWW	3/1/2010 17:30	952425	10-1568-1	1	LANL	USE	S
per0301035a	IPB006	CWW	3/1/2010 17:38			1		USE	B
per0301036a	1202042706	CWW	3/1/2010 17:47	953012	VARIOUS	1	LANL	DUSE-RE	S
per0301037a	1202042707	CWW	3/1/2010 17:55	953012	VARIOUS	1	LANL	DUSE-RE	S
per0301038a	1202042712	CWW	3/1/2010 18:04	953012	VARIOUS	1	LANL	DUSE-RE	S
per0301039a	246574002	CWW	3/1/2010 18:13	953012	10-1679	1	LANL	DUSE-RE	S
per0301040a	246598002	CWW	3/1/2010 18:21	953012	10-1696	1	LANL	DUSE-RE	S
per0301041a	WCLCCV	CWW	3/1/2010 18:30			1		USE	C
per0301042a	IPB007	CWW	3/1/2010 18:38			1		USE	B
per0301043a	WCLCRI	CWW	3/1/2010 18:47			1		USE	C
per0301044a	246690002	CWW	3/1/2010 18:55	953012	10-1722	1	LANL	DUSE-RE	S
per0301045a	1202042708	CWW	3/1/2010 19:04	953012	10-1722	1	LANL	DUSE-RE	S
per0301046a	1202042709	CWW	3/1/2010 19:13	953012	10-1722	1	LANL	DUSE-RE	S
per0301047a	246690003	CWW	3/1/2010 19:21	953012	10-1722	1	LANL	DUSE-RE	S
per0301048a	246853001	CWW	3/1/2010 19:30	953012	10-1753	1	LANL	DUSE-RE	S
per0301049a	246860001	CWW	3/1/2010 19:38	953012	10-1756	1	LANL	DUSE-RE	S
per0301050a	246862001	CWW	3/1/2010 19:47	953012	10-1780	1	LANL	DUSE-RE	S
per0301051a	246871001	CWW	3/1/2010 19:55	953012	10-1759	1	LANL	DUSE-RE	S
per0301052a	246877001	CWW	3/1/2010 20:04	953012	10-1774	1	LANL	DUSE-RE	S
per0301053a	246877004	CWW	3/1/2010 20:12	953012	10-1774	1	LANL	DUSE-RE	S
per0301054a	WCLCCV	CWW	3/1/2010 20:21			1		USE	C
per0301055a	IPB008	CWW	3/1/2010 20:30			1		USE	B
per0301056a	WCLCRI	CWW	3/1/2010 20:38			1		USE	C
per0301057a	246882001	CWW	3/1/2010 20:47	953012	10-1770	1	LANL	DUSE-RE	S
per0301058a	246882002	CWW	3/1/2010 20:56	953012	10-1770	1	LANL	DUSE-RE	S
per0301059a	246883001	CWW	3/1/2010 21:04	953012	10-1767-1	1	LANL	DUSE-RE	S
per0301060a	1202042710	CWW	3/1/2010 21:13	953012	10-1767-1	1	LANL	DUSE-RE	S
per0301061a	1202042711	CWW	3/1/2010 21:21	953012	10-1767-1	1	LANL	DUSE-RE	S
per0301062a	246883002	CWW	3/1/2010 21:30	953012	10-1767-1	1	LANL	DUSE-RE	S
per0301063a	246883003	CWW	3/1/2010 21:38	953012	10-1767-1	1	LANL	DUSE-RE	S
per0301064a	246883004	CWW	3/1/2010 21:47	953012	10-1767-1	1	LANL	DUSE-RE	S
per0301065a	246886002	CWW	3/1/2010 21:55	953012	10-1777	1	LANL	DUSE-RE	S
per0301066a	246886004	CWW	3/1/2010 22:04	953012	10-1777	1	LANL	DUSE-RE	S



per0301104a	247438001	CWW	3/2/2010 3:30	957439	10-1932	1	LANL	USE	S
per0301105a	247441001	CWW	3/2/2010 3:39	957439	10-1934	1	LANL	USE	S
per0301106a	WCLCCV	CWW	3/2/2010 3:47			1		USE	C
per0301107a	IPB013	CWW	3/2/2010 3:56			1		USE	B
per0301108a	WCLCRI	CWW	3/2/2010 4:05			1		USE	C
per0301109a	247443004	CWW	3/2/2010 4:13	957439	10-1935	1	LANL	USE	S
per0301110a	247449001	CWW	3/2/2010 4:22	957439	10-1936	1	LANL	USE	S
per0301111a	247548001	CWW	3/2/2010 4:30	957439	10-1965-1	1	LANL	USE	S
per0301112a	247548002	CWW	3/2/2010 4:39	957439	10-1965-1	1	LANL	USE	S
per0301113a	247559001	CWW	3/2/2010 4:47	957439	10-1954-1	1	LANL	USE	S
per0301114a	247560001	CWW	3/2/2010 4:56	957439	10-1951	1	LANL	USE	S
per0301115a	247567001	CWW	3/2/2010 5:05	957439	10-1957-1	1	LANL	USE	S
per0301116a	247771001	CWW	3/2/2010 5:13	957439	10-1973-1	1	LANL	USE	S
per0301117a	247780001	CWW	3/2/2010 5:22	957439	10-1976	1	LANL	USE	S
per0301118a	247793001	CWW	3/2/2010 5:30	957439	10-1983	1	LANL	USE	S
per0301119a	WCLCCV	CWW	3/2/2010 5:39			1		USE	C
per0301120a	IPB014	CWW	3/2/2010 5:47			1		USE	B
per0301121a	WCLCRI	CWW	3/2/2010 5:56			1		USE	C
per0301122a	247807001	CWW	3/2/2010 6:04	957439	10-1991-1	1	LANL	USE	S
per0301123a	1202052907	CWW	3/2/2010 6:13	957439	10-1991-1	1	LANL	USE	S
per0301124a	1202052908	CWW	3/2/2010 6:22	957439	10-1991-1	1	LANL	USE	S
per0301125a	247807002	CWW	3/2/2010 6:30	957439	10-1991-1	1	LANL	USE	S
per0301126a	247807003	CWW	3/2/2010 6:39	957439	10-1991-1	1	LANL	USE	S
per0301127a	247807004	CWW	3/2/2010 6:47	957439	10-1991-1	1	LANL	USE	S
per0301128a	IPB015	CWW	3/2/2010 6:56			1		USE	B
per0301129a	1202042707	CWW	3/2/2010 7:07	953012	VARIOUS	1	LANL	DUSE	S
per0301130a	246598002	CWW	3/2/2010 7:16	953012	10-1696	2	LANL	USE	S
per0301131a	UCL100226-01.1	CWW	3/2/2010 7:24	Screen		1	GEL	USE	S
per0301132a	WCLCCV	CWW	3/2/2010 7:33			1		USE	C
per0301133a	IPB016	CWW	3/2/2010 7:42			1		USE	B
per0301134a	WCLCRI	CWW	3/2/2010 7:50			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.

# **Metals Analysis**

# Case Narrative

**Metals Fractional Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-1568**

**Sample Analysis**

<b>Sample ID</b>	<b>Client ID</b>
246334001	RE15-10-8328
1202036425	Method Blank (MB) ICP
1202036426	Laboratory Control Sample (LCS)
1202036429	246334001(RE15-10-8328L) Serial Dilution (SD)
1202036427	246334001(RE15-10-8328D) Sample Duplicate (DUP)
1202036428	246334001(RE15-10-8328S) Matrix Spike (MS)
1202036451	Method Blank (MB) ICP-MS
1202036452	Laboratory Control Sample (LCS)
1202036455	246334001(RE15-10-8328L) Serial Dilution (SD)
1202036453	246334001(RE15-10-8328D) Sample Duplicate (DUP)
1202036454	246334001(RE15-10-8328S) Matrix Spike (MS)
1202039378	Method Blank (MB) CVAA
1202039379	Laboratory Control Sample (LCS)
1202039382	246431001(RE46-10-11893L) Serial Dilution (SD)
1202039380	246431001(RE46-10-11893D) Sample Duplicate (DUP)
1202039381	246431001(RE46-10-11893S) Matrix Spike (MS)

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

**Method/Analysis Information**

**Analytical Batch:** 950319, 950326 and 951593

**Prep Batch :** 950315, 950323 and 951592

**Standard Operating Procedures:** 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

**Analytical Method:** SW846 3005/6010B, SW846 3005/6020 and SW846 7470A

**Prep Method :** 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 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 - 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.

## **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: 246334001 (RE15-10-8328) and 246431001 (RE46-10-11893).

### **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 Fanson Date: 3/4/10

# Sample Data Summary

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

SDG No: 10-1568

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246334001

BASIS: As Received

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-8328

LEVEL: Low

DATE RECEIVED 05-FEB-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	70.6	ug/L	J	68	200	200	1	P	HSC	02/17/10 23:08	021710B-1	950319
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	03/04/10 05:51	100303-5	950326
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/17/10 23:08	021710B-1	950319
7440-39-3	Barium	2.37	ug/L	J	1	5	5	1	P	HSC	02/17/10 23:08	021710B-1	950319
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	03/04/10 13:01	100304-6	950326
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	03/04/10 05:51	100303-5	950326
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	02/17/10 23:08	021710B-1	950319
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	02/20/10 05:01	021910B-2	950319
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/17/10 23:08	021710B-1	950319
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/17/10 23:08	021710B-1	950319
7439-89-6	Iron	71.2	ug/L	J	30	100	100	1	P	HSC	02/17/10 23:08	021710B-1	950319
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	03/04/10 05:51	100303-5	950326
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	02/17/10 23:08	021710B-1	950319
7439-96-5	Manganese	3.36	ug/L	J	1	5	5	1	MS	BAJ	03/04/10 13:01	100304-6	950326
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/17/10 10:55	021710W2-7	951593
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/17/10 23:08	021710B-1	950319
7440-09-7	Potassium	115	ug/L	J	50	150	150	1	P	HSC	02/17/10 23:08	021710B-1	950319
7782-49-2	Selenium	5.39	ug/L	J	5	30	30	1	P	HSC	02/17/10 23:08	021710B-1	950319
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/17/10 23:08	021710B-1	950319
7440-23-5	Sodium	134	ug/L	J	100	300	300	1	P	HSC	02/17/10 23:08	021710B-1	950319
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	PRB	03/04/10 13:02	100304-3	950326
7440-61-1	Uranium	0.157	ug/L	J	0.05	0.2	0.2	1	MS	PRB	03/04/10 13:49	100304-4	950326
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	02/17/10 23:08	021710B-1	950319
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/17/10 23:08	021710B-1	950319

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
950319	950315	SW846 3005A	50	mL	50	mL	02/15/10	FGA
950326	950323	SW846 3005A	50	mL	50	mL	02/15/10	FGA
951593	951592	SW846 7470A Prep	20	mL	20	mL	02/16/10	TXB3

# **Quality Control Summary**

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1568

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,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										
	Mercury	5.23	ug/L	5	ug/L	104.6	90.0 – 110.0	AV	17-FEB-10 09:48	021710W2-7
	Aluminum	4830	ug/L	5000	ug/L	96.6	90.0 – 110.0	P	17-FEB-10 13:58	021710B-1
	Arsenic	468	ug/L	500	ug/L	93.6	90.0 – 110.0	P	17-FEB-10 13:58	021710B-1
	Barium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	17-FEB-10 13:58	021710B-1
	Calcium	4800	ug/L	5000	ug/L	96	90.0 – 110.0	P	17-FEB-10 13:58	021710B-1
	Cobalt	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	17-FEB-10 13:58	021710B-1
	Copper	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	17-FEB-10 13:58	021710B-1
	Iron	4880	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	17-FEB-10 13:58	021710B-1
	Magnesium	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	17-FEB-10 13:58	021710B-1
	Nickel	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	17-FEB-10 13:58	021710B-1
	Potassium	2340	ug/L	2500	ug/L	93.5	90.0 – 110.0	P	17-FEB-10 13:58	021710B-1
	Selenium	2510	ug/L	2500	ug/L	100.2	90.0 – 110.0	P	17-FEB-10 13:58	021710B-1
	Silver	252	ug/L	250	ug/L	100.8	90.0 – 110.0	P	17-FEB-10 13:58	021710B-1
	Sodium	2360	ug/L	2500	ug/L	94.3	90.0 – 110.0	P	17-FEB-10 13:58	021710B-1
	Vanadium	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	17-FEB-10 13:58	021710B-1
	Zinc	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	17-FEB-10 13:58	021710B-1
	Chromium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	19-FEB-10 17:05	021910B-2
	Antimony	52.4	ug/L	50	ug/L	104.9	90.0 – 110.0	MS	04-MAR-10 02:59	100303-5
	Cadmium	51.9	ug/L	50	ug/L	103.8	90.0 – 110.0	MS	04-MAR-10 02:59	100303-5
	Lead	55.2	ug/L	50	ug/L	110.4	90.0 – 110.0	MS	04-MAR-10 02:59	100303-5
	Thallium	51.3	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	04-MAR-10 11:47	100304-3
	Beryllium	50	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	04-MAR-10 12:37	100304-6
	Manganese	51.9	ug/L	50	ug/L	103.7	90.0 – 110.0	MS	04-MAR-10 12:37	100304-6
	Uranium	54.3	ug/L	50	ug/L	108.6	90.0 – 110.0	MS	04-MAR-10 13:28	100304-4
CCV01										
	Mercury	5.12	ug/L	5	ug/L	102.3	80.0 – 120.0	AV	17-FEB-10 09:54	021710W2-7
	Aluminum	4890	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	17-FEB-10 14:56	021710B-1
	Arsenic	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	17-FEB-10 14:56	021710B-1
	Barium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	17-FEB-10 14:56	021710B-1
	Calcium	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	17-FEB-10 14:56	021710B-1

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1568

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,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	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	17-FEB-10 14:56	021710B-1
	Copper	467	ug/L	500	ug/L	93.4	90.0 – 110.0	P	17-FEB-10 14:56	021710B-1
	Iron	5240	ug/L	5000	ug/L	104.9	90.0 – 110.0	P	17-FEB-10 14:56	021710B-1
	Magnesium	5380	ug/L	5000	ug/L	107.7	90.0 – 110.0	P	17-FEB-10 14:56	021710B-1
	Nickel	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	17-FEB-10 14:56	021710B-1
	Potassium	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	17-FEB-10 14:56	021710B-1
	Selenium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	17-FEB-10 14:56	021710B-1
	Silver	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	17-FEB-10 14:56	021710B-1
	Sodium	11000	ug/L	10000	ug/L	110.4	90.0 – 110.0	P	17-FEB-10 14:56	021710B-1
	Vanadium	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	17-FEB-10 14:56	021710B-1
	Zinc	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	17-FEB-10 14:56	021710B-1
	Chromium	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	19-FEB-10 17:53	021910B-2
	Antimony	50.1	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	04-MAR-10 03:30	100303-5
	Cadmium	49	ug/L	50	ug/L	97.9	90.0 – 110.0	MS	04-MAR-10 03:30	100303-5
	Lead	53.6	ug/L	50	ug/L	107.2	90.0 – 110.0	MS	04-MAR-10 03:30	100303-5
	Thallium	50.6	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	04-MAR-10 12:01	100304-3
	Beryllium	51.8	ug/L	50	ug/L	103.6	90.0 – 110.0	MS	04-MAR-10 12:49	100304-6
	Manganese	54.4	ug/L	50	ug/L	108.8	90.0 – 110.0	MS	04-MAR-10 12:49	100304-6
	Uranium	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	04-MAR-10 13:37	100304-4
CCV02	Mercury	5.09	ug/L	5	ug/L	101.7	80.0 – 120.0	AV	17-FEB-10 10:17	021710W2-7
	Aluminum	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	17-FEB-10 15:25	021710B-1
	Arsenic	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	17-FEB-10 15:25	021710B-1
	Barium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	17-FEB-10 15:25	021710B-1
	Calcium	5060	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	17-FEB-10 15:25	021710B-1
	Cobalt	480	ug/L	500	ug/L	96	90.0 – 110.0	P	17-FEB-10 15:25	021710B-1
	Copper	475	ug/L	500	ug/L	95.1	90.0 – 110.0	P	17-FEB-10 15:25	021710B-1
	Iron	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	17-FEB-10 15:25	021710B-1
	Magnesium	5170	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	17-FEB-10 15:25	021710B-1
	Nickel	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	17-FEB-10 15:25	021710B-1



**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1568

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,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	4950	ug/L	5000	ug/L	99	90.0 - 110.0	P	17-FEB-10 15:25	021710B-1
	Selenium	506	ug/L	500	ug/L	101.2	90.0 - 110.0	P	17-FEB-10 15:25	021710B-1
	Silver	482	ug/L	500	ug/L	96.3	90.0 - 110.0	P	17-FEB-10 15:25	021710B-1
	Sodium	9530	ug/L	10000	ug/L	95.3	90.0 - 110.0	P	17-FEB-10 15:25	021710B-1
	Vanadium	489	ug/L	500	ug/L	97.7	90.0 - 110.0	P	17-FEB-10 15:25	021710B-1
	Zinc	481	ug/L	500	ug/L	96.2	90.0 - 110.0	P	17-FEB-10 15:25	021710B-1
	Chromium	479	ug/L	500	ug/L	95.8	90.0 - 110.0	P	19-FEB-10 18:13	021910B-2
	Antimony	53.1	ug/L	50	ug/L	106.1	90.0 - 110.0	MS	04-MAR-10 03:48	100303-5
	Cadmium	51	ug/L	50	ug/L	102	90.0 - 110.0	MS	04-MAR-10 03:48	100303-5
	Lead	54.6	ug/L	50	ug/L	109.3	90.0 - 110.0	MS	04-MAR-10 03:48	100303-5
	Thallium	50.3	ug/L	50	ug/L	100.6	90.0 - 110.0	MS	04-MAR-10 12:26	100304-3
	Beryllium	50.1	ug/L	50	ug/L	100.3	90.0 - 110.0	MS	04-MAR-10 13:11	100304-6
	Manganese	54.2	ug/L	50	ug/L	108.4	90.0 - 110.0	MS	04-MAR-10 13:11	100304-6
	Uranium	50	ug/L	50	ug/L	99.9	90.0 - 110.0	MS	04-MAR-10 13:57	100304-4
CCV03										
	Mercury	4.91	ug/L	5	ug/L	98.2	80.0 - 120.0	AV	17-FEB-10 10:40	021710W2-7
	Aluminum	4640	ug/L	5000	ug/L	92.8	90.0 - 110.0	P	17-FEB-10 15:54	021710B-1
	Arsenic	489	ug/L	500	ug/L	97.9	90.0 - 110.0	P	17-FEB-10 15:54	021710B-1
	Barium	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	17-FEB-10 15:54	021710B-1
	Calcium	4780	ug/L	5000	ug/L	95.6	90.0 - 110.0	P	17-FEB-10 15:54	021710B-1
	Cobalt	487	ug/L	500	ug/L	97.5	90.0 - 110.0	P	17-FEB-10 15:54	021710B-1
	Copper	473	ug/L	500	ug/L	94.5	90.0 - 110.0	P	17-FEB-10 15:54	021710B-1
	Iron	4770	ug/L	5000	ug/L	95.5	90.0 - 110.0	P	17-FEB-10 15:54	021710B-1
	Magnesium	4960	ug/L	5000	ug/L	99.2	90.0 - 110.0	P	17-FEB-10 15:54	021710B-1
	Nickel	487	ug/L	500	ug/L	97.4	90.0 - 110.0	P	17-FEB-10 15:54	021710B-1
	Potassium	4640	ug/L	5000	ug/L	92.8	90.0 - 110.0	P	17-FEB-10 15:54	021710B-1
	Selenium	505	ug/L	500	ug/L	101	90.0 - 110.0	P	17-FEB-10 15:54	021710B-1
	Silver	483	ug/L	500	ug/L	96.7	90.0 - 110.0	P	17-FEB-10 15:54	021710B-1
	Sodium	9240	ug/L	10000	ug/L	92.4	90.0 - 110.0	P	17-FEB-10 15:54	021710B-1
	Vanadium	490	ug/L	500	ug/L	97.9	90.0 - 110.0	P	17-FEB-10 15:54	021710B-1

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1568

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,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	96.1	90.0 – 110.0	P	17-FEB-10 15:54	021710B-1
	Chromium	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	19-FEB-10 19:15	021910B-2
	Antimony	50.1	ug/L	50	ug/L	100.2	90.0 – 110.0	MS	04-MAR-10 04:44	100303-5
	Cadmium	48.9	ug/L	50	ug/L	97.8	90.0 – 110.0	MS	04-MAR-10 04:44	100303-5
	Lead	53.6	ug/L	50	ug/L	107.3	90.0 – 110.0	MS	04-MAR-10 04:44	100303-5
	Thallium	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	04-MAR-10 12:48	100304-3
CCV04										
	Mercury	4.9	ug/L	5	ug/L	98.1	80.0 – 120.0	AV	17-FEB-10 11:03	021710W2-7
	Aluminum	4850	ug/L	5000	ug/L	96.9	90.0 – 110.0	P	17-FEB-10 17:15	021710B-1
	Arsenic	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	17-FEB-10 17:15	021710B-1
	Barium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	17-FEB-10 17:15	021710B-1
	Calcium	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	17-FEB-10 17:15	021710B-1
	Cobalt	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	17-FEB-10 17:15	021710B-1
	Copper	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	17-FEB-10 17:15	021710B-1
	Iron	4880	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	17-FEB-10 17:15	021710B-1
	Magnesium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	17-FEB-10 17:15	021710B-1
	Nickel	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	17-FEB-10 17:15	021710B-1
	Potassium	4770	ug/L	5000	ug/L	95.3	90.0 – 110.0	P	17-FEB-10 17:15	021710B-1
	Selenium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	17-FEB-10 17:15	021710B-1
	Silver	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	17-FEB-10 17:15	021710B-1
	Sodium	9820	ug/L	10000	ug/L	98.2	90.0 – 110.0	P	17-FEB-10 17:15	021710B-1
	Vanadium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	17-FEB-10 17:15	021710B-1
	Zinc	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	17-FEB-10 17:15	021710B-1
	Chromium	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	19-FEB-10 20:17	021910B-2
	Antimony	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	04-MAR-10 05:20	100303-5
	Cadmium	49.1	ug/L	50	ug/L	98.3	90.0 – 110.0	MS	04-MAR-10 05:20	100303-5
	Lead	53.4	ug/L	50	ug/L	106.8	90.0 – 110.0	MS	04-MAR-10 05:20	100303-5
	Thallium	50.1	ug/L	50	ug/L	100.2	90.0 – 110.0	MS	04-MAR-10 13:16	100304-3
CCV05										
	Mercury	4.91	ug/L	5	ug/L	98.2	80.0 – 120.0	AV	17-FEB-10 11:26	021710W2-7

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1568

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,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>
	Aluminum	5060	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	17-FEB-10 18:11	021710B-1
	Arsenic	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	17-FEB-10 18:11	021710B-1
	Barium	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	17-FEB-10 18:11	021710B-1
	Calcium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	17-FEB-10 18:11	021710B-1
	Cobalt	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	17-FEB-10 18:11	021710B-1
	Copper	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	17-FEB-10 18:11	021710B-1
	Iron	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	17-FEB-10 18:11	021710B-1
	Magnesium	5340	ug/L	5000	ug/L	106.8	90.0 – 110.0	P	17-FEB-10 18:11	021710B-1
	Nickel	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	17-FEB-10 18:11	021710B-1
	Potassium	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	17-FEB-10 18:11	021710B-1
	Selenium	516	ug/L	500	ug/L	103.3	90.0 – 110.0	P	17-FEB-10 18:11	021710B-1
	Silver	485	ug/L	500	ug/L	97	90.0 – 110.0	P	17-FEB-10 18:11	021710B-1
	Sodium	9810	ug/L	10000	ug/L	98.1	90.0 – 110.0	P	17-FEB-10 18:11	021710B-1
	Vanadium	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	17-FEB-10 18:11	021710B-1
	Zinc	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	17-FEB-10 18:11	021710B-1
	Chromium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	19-FEB-10 21:11	021910B-2
	Antimony	50.3	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	04-MAR-10 06:16	100303-5
	Cadmium	48.4	ug/L	50	ug/L	96.8	90.0 – 110.0	MS	04-MAR-10 06:16	100303-5
	Lead	53.8	ug/L	50	ug/L	107.6	90.0 – 110.0	MS	04-MAR-10 06:16	100303-5
CCV06	Aluminum	4980	ug/L	5000	ug/L	99.6	90.0 – 110.0	P	17-FEB-10 18:59	021710B-1
	Arsenic	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	17-FEB-10 18:59	021710B-1
	Barium	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	17-FEB-10 18:59	021710B-1
	Calcium	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	17-FEB-10 18:59	021710B-1
	Cobalt	480	ug/L	500	ug/L	96	90.0 – 110.0	P	17-FEB-10 18:59	021710B-1
	Copper	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	17-FEB-10 18:59	021710B-1
	Iron	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	17-FEB-10 18:59	021710B-1
	Magnesium	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	17-FEB-10 18:59	021710B-1
	Nickel	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	17-FEB-10 18:59	021710B-1
	Potassium	4830	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	17-FEB-10 18:59	021710B-1

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1568

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,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>
CCV07	Selenium	515	ug/L	500	ug/L	103	90.0 – 110.0	P	17-FEB-10 18:59	021710B-1
	Silver	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	17-FEB-10 18:59	021710B-1
	Sodium	9840	ug/L	10000	ug/L	98.4	90.0 – 110.0	P	17-FEB-10 18:59	021710B-1
	Vanadium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	17-FEB-10 18:59	021710B-1
	Zinc	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	17-FEB-10 18:59	021710B-1
	Chromium	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	19-FEB-10 22:20	021910B-2
	Aluminum	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	17-FEB-10 19:46	021710B-1
	Arsenic	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	17-FEB-10 19:46	021710B-1
	Barium	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	17-FEB-10 19:46	021710B-1
	Calcium	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	17-FEB-10 19:46	021710B-1
	Cobalt	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	17-FEB-10 19:46	021710B-1
	Copper	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	17-FEB-10 19:46	021710B-1
	Iron	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	17-FEB-10 19:46	021710B-1
	Magnesium	5160	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	17-FEB-10 19:46	021710B-1
	Nickel	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	17-FEB-10 19:46	021710B-1
	Potassium	4830	ug/L	5000	ug/L	96.7	90.0 – 110.0	P	17-FEB-10 19:46	021710B-1
CCV08	Selenium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	17-FEB-10 19:46	021710B-1
	Silver	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	17-FEB-10 19:46	021710B-1
	Sodium	9450	ug/L	10000	ug/L	94.5	90.0 – 110.0	P	17-FEB-10 19:46	021710B-1
	Vanadium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	17-FEB-10 19:46	021710B-1
	Zinc	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	17-FEB-10 19:46	021710B-1
	Chromium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	19-FEB-10 23:28	021910B-2
	Aluminum	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	17-FEB-10 20:48	021710B-1
	Arsenic	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	17-FEB-10 20:48	021710B-1
	Barium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	17-FEB-10 20:48	021710B-1
	Calcium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	17-FEB-10 20:48	021710B-1
	Cobalt	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	17-FEB-10 20:48	021710B-1
	Copper	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	17-FEB-10 20:48	021710B-1

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1568

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,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>
CCV09	Iron	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	17-FEB-10 20:48	021710B-1
	Magnesium	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	17-FEB-10 20:48	021710B-1
	Nickel	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	17-FEB-10 20:48	021710B-1
	Potassium	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	17-FEB-10 20:48	021710B-1
	Selenium	515	ug/L	500	ug/L	102.9	90.0 – 110.0	P	17-FEB-10 20:48	021710B-1
	Silver	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	17-FEB-10 20:48	021710B-1
	Sodium	9860	ug/L	10000	ug/L	98.6	90.0 – 110.0	P	17-FEB-10 20:48	021710B-1
	Vanadium	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	17-FEB-10 20:48	021710B-1
	Zinc	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	17-FEB-10 20:48	021710B-1
	Chromium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	20-FEB-10 00:50	021910B-2
	Aluminum	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	17-FEB-10 21:43	021710B-1
	Arsenic	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	17-FEB-10 21:43	021710B-1
	Barium	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	17-FEB-10 21:43	021710B-1
	Calcium	5140	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	17-FEB-10 21:43	021710B-1
	Cobalt	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	17-FEB-10 21:43	021710B-1
	Copper	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	17-FEB-10 21:43	021710B-1
	Iron	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	17-FEB-10 21:43	021710B-1
	Magnesium	5140	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	17-FEB-10 21:43	021710B-1
	Nickel	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	17-FEB-10 21:43	021710B-1
	Potassium	4970	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	17-FEB-10 21:43	021710B-1
	Selenium	521	ug/L	500	ug/L	104.2	90.0 – 110.0	P	17-FEB-10 21:43	021710B-1
	Silver	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	17-FEB-10 21:43	021710B-1
	Sodium	9990	ug/L	10000	ug/L	99.9	90.0 – 110.0	P	17-FEB-10 21:43	021710B-1
	Vanadium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	17-FEB-10 21:43	021710B-1
	Zinc	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	17-FEB-10 21:43	021710B-1
	Chromium	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	20-FEB-10 01:38	021910B-2
CCV10	Aluminum	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	17-FEB-10 22:34	021710B-1
	Arsenic	528	ug/L	500	ug/L	105.5	90.0 – 110.0	P	17-FEB-10 22:34	021710B-1

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1568

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,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	515	ug/L	500	ug/L	103	90.0 - 110.0	P	17-FEB-10 22:34	021710B-1
	Calcium	5310	ug/L	5000	ug/L	106.2	90.0 - 110.0	P	17-FEB-10 22:34	021710B-1
	Cobalt	511	ug/L	500	ug/L	102.2	90.0 - 110.0	P	17-FEB-10 22:34	021710B-1
	Copper	505	ug/L	500	ug/L	101.1	90.0 - 110.0	P	17-FEB-10 22:34	021710B-1
	Iron	5330	ug/L	5000	ug/L	106.5	90.0 - 110.0	P	17-FEB-10 22:34	021710B-1
	Magnesium	5490	ug/L	5000	ug/L	109.9	90.0 - 110.0	P	17-FEB-10 22:34	021710B-1
	Nickel	513	ug/L	500	ug/L	102.6	90.0 - 110.0	P	17-FEB-10 22:34	021710B-1
	Potassium	5130	ug/L	5000	ug/L	102.6	90.0 - 110.0	P	17-FEB-10 22:34	021710B-1
	Selenium	543	ug/L	500	ug/L	108.6	90.0 - 110.0	P	17-FEB-10 22:34	021710B-1
	Silver	509	ug/L	500	ug/L	101.7	90.0 - 110.0	P	17-FEB-10 22:34	021710B-1
	Sodium	10500	ug/L	10000	ug/L	105.5	90.0 - 110.0	P	17-FEB-10 22:34	021710B-1
	Vanadium	519	ug/L	500	ug/L	103.7	90.0 - 110.0	P	17-FEB-10 22:34	021710B-1
	Zinc	509	ug/L	500	ug/L	101.8	90.0 - 110.0	P	17-FEB-10 22:34	021710B-1
	Chromium	496	ug/L	500	ug/L	99.3	90.0 - 110.0	P	20-FEB-10 02:40	021910B-2
CCV11	Aluminum	5290	ug/L	5000	ug/L	105.9	90.0 - 110.0	P	17-FEB-10 23:36	021710B-1
	Arsenic	518	ug/L	500	ug/L	103.6	90.0 - 110.0	P	17-FEB-10 23:36	021710B-1
	Barium	513	ug/L	500	ug/L	102.5	90.0 - 110.0	P	17-FEB-10 23:36	021710B-1
	Calcium	5320	ug/L	5000	ug/L	106.4	90.0 - 110.0	P	17-FEB-10 23:36	021710B-1
	Cobalt	505	ug/L	500	ug/L	101	90.0 - 110.0	P	17-FEB-10 23:36	021710B-1
	Copper	506	ug/L	500	ug/L	101.2	90.0 - 110.0	P	17-FEB-10 23:36	021710B-1
	Iron	5290	ug/L	5000	ug/L	105.8	90.0 - 110.0	P	17-FEB-10 23:36	021710B-1
	Magnesium	5490	ug/L	5000	ug/L	109.8	90.0 - 110.0	P	17-FEB-10 23:36	021710B-1
	Nickel	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	17-FEB-10 23:36	021710B-1
	Potassium	5190	ug/L	5000	ug/L	103.8	90.0 - 110.0	P	17-FEB-10 23:36	021710B-1
	Selenium	534	ug/L	500	ug/L	106.8	90.0 - 110.0	P	17-FEB-10 23:36	021710B-1
	Silver	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	17-FEB-10 23:36	021710B-1
	Sodium	10600	ug/L	10000	ug/L	105.6	90.0 - 110.0	P	17-FEB-10 23:36	021710B-1
	Vanadium	517	ug/L	500	ug/L	103.5	90.0 - 110.0	P	17-FEB-10 23:36	021710B-1
	Zinc	505	ug/L	500	ug/L	101.1	90.0 - 110.0	P	17-FEB-10 23:36	021710B-1

---

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1568

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,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>
CCV12	Chromium	491	ug/L	500	ug/L	98.2	90.0 - 110.0	P	20-FEB-10 03:36	021910B-2
	Chromium	491	ug/L	500	ug/L	98.1	90.0 - 110.0	P	20-FEB-10 04:27	021910B-2
CCV13	Chromium	494	ug/L	500	ug/L	98.7	90.0 - 110.0	P	20-FEB-10 05:28	021910B-2

**METALS**  
**-2b-**  
**CRDL Standard for AA & ICP**

SDG No: 10-1568

Contract: LANL01004

Lab Code: GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS3,ICPMS5,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	.176	ug/L	.2	ug/L	88	70.0 – 130.0	AV	17-FEB-10 09:52	021710W2-7
	Lead	2.52	ug/L	2	ug/L	126	70.0 – 130.0	MS	04-MAR-10 03:12	100303-5
	Antimony	3.41	ug/L	3	ug/L	113.6	70.0 – 130.0	MS	04-MAR-10 03:12	100303-5
	Cadmium	1.13	ug/L	1	ug/L	113.3	70.0 – 130.0	MS	04-MAR-10 03:12	100303-5
	Thallium	1.19	ug/L	1	ug/L	119.2	70.0 – 130.0	MS	04-MAR-10 11:52	100304-3
	Manganese	5.86	ug/L	5	ug/L	117.2	70.0 – 130.0	MS	04-MAR-10 12:42	100304-6
	Beryllium	.527	ug/L	.5	ug/L	105.4	70.0 – 130.0	MS	04-MAR-10 12:42	100304-6
	Uranium	.243	ug/L	.2	ug/L	121.5	70.0 – 130.0	MS	04-MAR-10 13:31	100304-4
PQL01										
	Zinc	11.2	ug/L	10	ug/L	112.4	70.0 – 130.0	P	17-FEB-10 14:11	021710B-1
	Copper	9.82	ug/L	10	ug/L	98.2	70.0 – 130.0	P	17-FEB-10 14:11	021710B-1
	Cobalt	4.81	ug/L	5	ug/L	96.1	70.0 – 130.0	P	17-FEB-10 14:11	021710B-1
	Barium	5.11	ug/L	5	ug/L	102.3	70.0 – 130.0	P	17-FEB-10 14:11	021710B-1
	Arsenic	25.7	ug/L	30	ug/L	85.5	70.0 – 130.0	P	17-FEB-10 14:11	021710B-1
	Sodium	287	ug/L	300	ug/L	95.7	70.0 – 130.0	P	17-FEB-10 14:11	021710B-1
	Silver	5	ug/L	5	ug/L	100.1	70.0 – 130.0	P	17-FEB-10 14:11	021710B-1
	Potassium	121	ug/L	150	ug/L	80.5	70.0 – 130.0	P	17-FEB-10 14:11	021710B-1
	Nickel	5.21	ug/L	5	ug/L	104.2	70.0 – 130.0	P	17-FEB-10 14:11	021710B-1
	Selenium	35.9	ug/L	30	ug/L	119.8	70.0 – 130.0	P	17-FEB-10 14:11	021710B-1
	Vanadium	5.23	ug/L	5	ug/L	104.6	70.0 – 130.0	P	17-FEB-10 14:11	021710B-1
	Aluminum	192	ug/L	200	ug/L	96.1	70.0 – 130.0	P	17-FEB-10 14:11	021710B-1
	Magnesium	312	ug/L	300	ug/L	104.2	70.0 – 130.0	P	17-FEB-10 14:11	021710B-1
	Iron	105	ug/L	100	ug/L	105.5	70.0 – 130.0	P	17-FEB-10 14:11	021710B-1
	Calcium	210	ug/L	200	ug/L	104.9	70.0 – 130.0	P	17-FEB-10 14:11	021710B-1
	Chromium	4.72	ug/L	5	ug/L	94.4	70.0 – 130.0	P	19-FEB-10 17:18	021910B-2



**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1568

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>
<b>ICB01</b>										
	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	17-FEB-10 09:50	021710W2-7
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	17-FEB-10 14:04	021710B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	17-FEB-10 14:04	021710B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 14:04	021710B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	17-FEB-10 14:04	021710B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 14:04	021710B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	17-FEB-10 14:04	021710B-1
	Iron	-32.35	+/-100	J	30.0	100	LIQ	P	17-FEB-10 14:04	021710B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	17-FEB-10 14:04	021710B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	17-FEB-10 14:04	021710B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	17-FEB-10 14:04	021710B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	17-FEB-10 14:04	021710B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 14:04	021710B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	17-FEB-10 14:04	021710B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 14:04	021710B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	17-FEB-10 14:04	021710B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-FEB-10 17:12	021910B-2
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	04-MAR-10 03:05	100303-5
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	04-MAR-10 03:05	100303-5
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	04-MAR-10 03:05	100303-5
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	04-MAR-10 11:50	100304-3
	Beryllium	0.1	+/-5	U	0.1	0.5	LIQ	MS	04-MAR-10 12:40	100304-6
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	04-MAR-10 12:40	100304-6
	Uranium	0.05	+/-2	U	0.05	0.2	LIQ	MS	04-MAR-10 13:29	100304-4
<b>CCB01</b>										
	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	17-FEB-10 09:56	021710W2-7
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	17-FEB-10 15:03	021710B-1
	Arsenic	5.45	+/-30	J	5.0	30.0	LIQ	P	17-FEB-10 15:03	021710B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 15:03	021710B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	17-FEB-10 15:03	021710B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 15:03	021710B-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1568

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	17-FEB-10 15:03	021710B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	17-FEB-10 15:03	021710B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	17-FEB-10 15:03	021710B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	17-FEB-10 15:03	021710B-1
	Potassium	60.87	+/-150	J	50.0	150	LIQ	P	17-FEB-10 15:03	021710B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	17-FEB-10 15:03	021710B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 15:03	021710B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	17-FEB-10 15:03	021710B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 15:03	021710B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	17-FEB-10 15:03	021710B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-FEB-10 18:00	021910B-2
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	04-MAR-10 03:36	100303-5
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	04-MAR-10 03:36	100303-5
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	04-MAR-10 03:36	100303-5
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	04-MAR-10 12:04	100304-3
	Beryllium	0.1	+/-5	U	0.1	0.5	LIQ	MS	04-MAR-10 12:51	100304-6
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	04-MAR-10 12:51	100304-6
	Uranium	0.05	+/-2	U	0.05	0.2	LIQ	MS	04-MAR-10 13:39	100304-4
<b>CCB02</b>	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	17-FEB-10 10:19	021710W2-7
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	17-FEB-10 15:32	021710B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	17-FEB-10 15:32	021710B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 15:32	021710B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	17-FEB-10 15:32	021710B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 15:32	021710B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	17-FEB-10 15:32	021710B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	17-FEB-10 15:32	021710B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	17-FEB-10 15:32	021710B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	17-FEB-10 15:32	021710B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	17-FEB-10 15:32	021710B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	17-FEB-10 15:32	021710B-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1568

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>
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 15:32	021710B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	17-FEB-10 15:32	021710B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 15:32	021710B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	17-FEB-10 15:32	021710B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-FEB-10 18:20	021910B-2
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	04-MAR-10 03:54	100303-5
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	04-MAR-10 03:54	100303-5
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	04-MAR-10 03:54	100303-5
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	04-MAR-10 12:29	100304-3
	Beryllium	0.1	+/-5	U	0.1	0.5	LIQ	MS	04-MAR-10 13:13	100304-6
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	04-MAR-10 13:13	100304-6
	Uranium	0.05	+/-2	U	0.05	0.2	LIQ	MS	04-MAR-10 13:59	100304-4
<b>CCB03</b>	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	17-FEB-10 10:42	021710W2-7
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	17-FEB-10 16:01	021710B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	17-FEB-10 16:01	021710B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 16:01	021710B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	17-FEB-10 16:01	021710B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 16:01	021710B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	17-FEB-10 16:01	021710B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	17-FEB-10 16:01	021710B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	17-FEB-10 16:01	021710B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	17-FEB-10 16:01	021710B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	17-FEB-10 16:01	021710B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	17-FEB-10 16:01	021710B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 16:01	021710B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	17-FEB-10 16:01	021710B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 16:01	021710B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	17-FEB-10 16:01	021710B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-FEB-10 19:22	021910B-2
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	04-MAR-10 04:50	100303-5

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1568

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>
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	04-MAR-10 04:50	100303-5
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	04-MAR-10 04:50	100303-5
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	04-MAR-10 12:51	100304-3
<b>CCB04</b>	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	17-FEB-10 11:05	021710W2-7
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	17-FEB-10 17:22	021710B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	17-FEB-10 17:22	021710B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 17:22	021710B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	17-FEB-10 17:22	021710B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 17:22	021710B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	17-FEB-10 17:22	021710B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	17-FEB-10 17:22	021710B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	17-FEB-10 17:22	021710B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	17-FEB-10 17:22	021710B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	17-FEB-10 17:22	021710B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	17-FEB-10 17:22	021710B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 17:22	021710B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	17-FEB-10 17:22	021710B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 17:22	021710B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	17-FEB-10 17:22	021710B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-FEB-10 20:24	021910B-2
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	04-MAR-10 05:27	100303-5
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	04-MAR-10 05:27	100303-5
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	04-MAR-10 05:27	100303-5
	Thallium	0.443	+/-1	J	0.3	1.0	LIQ	MS	04-MAR-10 13:19	100304-3
<b>CCB05</b>	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	17-FEB-10 11:28	021710W2-7
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	17-FEB-10 18:18	021710B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	17-FEB-10 18:18	021710B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 18:18	021710B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	17-FEB-10 18:18	021710B-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1568

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	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 18:18	021710B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	17-FEB-10 18:18	021710B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	17-FEB-10 18:18	021710B-1
	Magnesium	97.62	+/-300	J	85.0	300	LIQ	P	17-FEB-10 18:18	021710B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	17-FEB-10 18:18	021710B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	17-FEB-10 18:18	021710B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	17-FEB-10 18:18	021710B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 18:18	021710B-1
	Sodium	100.32	+/-300	J	100	300	LIQ	P	17-FEB-10 18:18	021710B-1
	Vanadium	1.7	+/-5	J	1.0	5.0	LIQ	P	17-FEB-10 18:18	021710B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	17-FEB-10 18:18	021710B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-FEB-10 21:18	021910B-2
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	04-MAR-10 06:22	100303-5
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	04-MAR-10 06:22	100303-5
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	04-MAR-10 06:22	100303-5
<b>CCB06</b>	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	17-FEB-10 19:05	021710B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	17-FEB-10 19:05	021710B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 19:05	021710B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	17-FEB-10 19:05	021710B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 19:05	021710B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	17-FEB-10 19:05	021710B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	17-FEB-10 19:05	021710B-1
	Magnesium	94.42	+/-300	J	85.0	300	LIQ	P	17-FEB-10 19:05	021710B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	17-FEB-10 19:05	021710B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	17-FEB-10 19:05	021710B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	17-FEB-10 19:05	021710B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 19:05	021710B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	17-FEB-10 19:05	021710B-1
	Vanadium	1.6	+/-5	J	1.0	5.0	LIQ	P	17-FEB-10 19:05	021710B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	17-FEB-10 19:05	021710B-1

SW846

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1568

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>
CCB07	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-FEB-10 22:27	021910B-2
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	17-FEB-10 19:53	021710B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	17-FEB-10 19:53	021710B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 19:53	021710B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	17-FEB-10 19:53	021710B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 19:53	021710B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	17-FEB-10 19:53	021710B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	17-FEB-10 19:53	021710B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	17-FEB-10 19:53	021710B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	17-FEB-10 19:53	021710B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	17-FEB-10 19:53	021710B-1
	Selenium	6.3	+/-30	J	5.0	30.0	LIQ	P	17-FEB-10 19:53	021710B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 19:53	021710B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	17-FEB-10 19:53	021710B-1
	Vanadium	2.21	+/-5	J	1.0	5.0	LIQ	P	17-FEB-10 19:53	021710B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	17-FEB-10 19:53	021710B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	19-FEB-10 23:35	021910B-2
CCB08	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	17-FEB-10 20:55	021710B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	17-FEB-10 20:55	021710B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 20:55	021710B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	17-FEB-10 20:55	021710B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 20:55	021710B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	17-FEB-10 20:55	021710B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	17-FEB-10 20:55	021710B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	17-FEB-10 20:55	021710B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	17-FEB-10 20:55	021710B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	17-FEB-10 20:55	021710B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	17-FEB-10 20:55	021710B-1
	Silver	1.03	+/-5	J	1.0	5.0	LIQ	P	17-FEB-10 20:55	021710B-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1568

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>
	Sodium	100	+/-300	U	100	300	LIQ	P	17-FEB-10 20:55	021710B-1
	Vanadium	1.18	+/-5	J	1.0	5.0	LIQ	P	17-FEB-10 20:55	021710B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	17-FEB-10 20:55	021710B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-FEB-10 00:57	021910B-2
<b>CCB09</b>	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	17-FEB-10 21:50	021710B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	17-FEB-10 21:50	021710B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 21:50	021710B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	17-FEB-10 21:50	021710B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 21:50	021710B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	17-FEB-10 21:50	021710B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	17-FEB-10 21:50	021710B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	17-FEB-10 21:50	021710B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	17-FEB-10 21:50	021710B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	17-FEB-10 21:50	021710B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	17-FEB-10 21:50	021710B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 21:50	021710B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	17-FEB-10 21:50	021710B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 21:50	021710B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	17-FEB-10 21:50	021710B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-FEB-10 01:45	021910B-2
<b>CCB10</b>	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	17-FEB-10 22:41	021710B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	17-FEB-10 22:41	021710B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 22:41	021710B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	17-FEB-10 22:41	021710B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 22:41	021710B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	17-FEB-10 22:41	021710B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	17-FEB-10 22:41	021710B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	17-FEB-10 22:41	021710B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	17-FEB-10 22:41	021710B-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1568

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	51.61	+/-150	J	50.0	150	LIQ	P	17-FEB-10 22:41	021710B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	17-FEB-10 22:41	021710B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 22:41	021710B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	17-FEB-10 22:41	021710B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 22:41	021710B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	17-FEB-10 22:41	021710B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-FEB-10 02:47	021910B-2
<b>CCB11</b>	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	17-FEB-10 23:43	021710B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	17-FEB-10 23:43	021710B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 23:43	021710B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	17-FEB-10 23:43	021710B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 23:43	021710B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	17-FEB-10 23:43	021710B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	17-FEB-10 23:43	021710B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	17-FEB-10 23:43	021710B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	17-FEB-10 23:43	021710B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	17-FEB-10 23:43	021710B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	17-FEB-10 23:43	021710B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 23:43	021710B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	17-FEB-10 23:43	021710B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-FEB-10 23:43	021710B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	17-FEB-10 23:43	021710B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-FEB-10 03:43	021910B-2
<b>CCB12</b>	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-FEB-10 04:34	021910B-2
<b>CCB13</b>	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-FEB-10 05:35	021910B-2



**METALS**  
**-3b-**  
**PREPARATION BLANK SUMMARY**

**SDG NO.** 10-1568  
**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>
1202036425	Selenium	5	ug/L	+/-30	U	P	5	30
	Silver	1	ug/L	+/-5	U	P	1	5
	Sodium	100	ug/L	+/-300	U	P	100	300
	Vanadium	1	ug/L	+/-5	U	P	1	5
	Barium	1	ug/L	+/-5	U	P	1	5
	Chromium	1	ug/L	+/-5	U	P	1	5
	Copper	3	ug/L	+/-10	U	P	3	10
	Magnesium	112	ug/L	+/-300	J	P	85	300
	Potassium	50	ug/L	+/-150	U	P	50	150
	Nickel	1.5	ug/L	+/-5	U	P	1.5	5
	Iron	30	ug/L	+/-100	U	P	30	100
	Cobalt	1	ug/L	+/-5	U	P	1	5
	Calcium	50	ug/L	+/-200	U	P	50	200
	Arsenic	5	ug/L	+/-30	U	P	5	30
	Aluminum	68	ug/L	+/-200	U	P	68	200
	Zinc	3.3	ug/L	+/-10	U	P	3.3	10
1202036451	Antimony	1	ug/L	+/-3	U	MS	1	3
	Beryllium	0.1	ug/L	+/-0.5	U	MS	0.1	0.5
	Cadmium	0.11	ug/L	+/-1	U	MS	0.11	1
	Lead	0.5	ug/L	+/-2	U	MS	0.5	2
	Manganese	1.88	ug/L	+/-5	J	MS	1	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
1202039378	Mercury	0.066	ug/L	+/-0.2	U	AV	0.066	0.2

**METALS**  
**-4-**  
**Interference Check Sample**

SDG No: 10-1568

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	521000	ug/L	500000	ug/L	104	80.0 – 120.0	17-FEB-10 14:18	021710B-1
	Arsenic	4.84	ug/L					17-FEB-10 14:18	021710B-1
	Barium	0.82	ug/L					17-FEB-10 14:18	021710B-1
	Calcium	490000	ug/L	500000	ug/L	98	80.0 – 120.0	17-FEB-10 14:18	021710B-1
	Cobalt	-1.03	ug/L					17-FEB-10 14:18	021710B-1
	Copper	4.22	ug/L					17-FEB-10 14:18	021710B-1
	Iron	193000	ug/L	200000	ug/L	96.7	80.0 – 120.0	17-FEB-10 14:18	021710B-1
	Magnesium	503000	ug/L	500000	ug/L	101	80.0 – 120.0	17-FEB-10 14:18	021710B-1
	Nickel	4.47	ug/L					17-FEB-10 14:18	021710B-1
	Potassium	-157.0	ug/L					17-FEB-10 14:18	021710B-1
	Selenium	-0.0007	ug/L					17-FEB-10 14:18	021710B-1
	Silver	-0.841	ug/L					17-FEB-10 14:18	021710B-1
	Sodium	269	ug/L					17-FEB-10 14:18	021710B-1
	Vanadium	-2.35	ug/L					17-FEB-10 14:18	021710B-1
	Zinc	-1.63	ug/L					17-FEB-10 14:18	021710B-1
<b>ICSAB01</b>									
	Aluminum	504000	ug/L	500000	ug/L	101	80.0 – 120.0	17-FEB-10 14:32	021710B-1
	Arsenic	523	ug/L	500	ug/L	105	80.0 – 120.0	17-FEB-10 14:32	021710B-1
	Barium	488	ug/L	500	ug/L	97.6	80.0 – 120.0	17-FEB-10 14:32	021710B-1
	Calcium	480000	ug/L	500000	ug/L	95.9	80.0 – 120.0	17-FEB-10 14:32	021710B-1
	Cobalt	446	ug/L	500	ug/L	89.2	80.0 – 120.0	17-FEB-10 14:32	021710B-1
	Copper	546	ug/L	500	ug/L	109	80.0 – 120.0	17-FEB-10 14:32	021710B-1
	Iron	188000	ug/L	200000	ug/L	94	80.0 – 120.0	17-FEB-10 14:32	021710B-1
	Magnesium	493000	ug/L	500000	ug/L	98.6	80.0 – 120.0	17-FEB-10 14:32	021710B-1
	Nickel	454	ug/L	500	ug/L	90.8	80.0 – 120.0	17-FEB-10 14:32	021710B-1
	Potassium	5190	ug/L	5000	ug/L	104	80.0 – 120.0	17-FEB-10 14:32	021710B-1
	Selenium	2530	ug/L	2500	ug/L	101	80.0 – 120.0	17-FEB-10 14:32	021710B-1
	Silver	268	ug/L	250	ug/L	107	80.0 – 120.0	17-FEB-10 14:32	021710B-1
	Sodium	5710	ug/L	5000	ug/L	114	80.0 – 120.0	17-FEB-10 14:32	021710B-1

---

**METALS**  
**-4-**  
**Interference Check Sample**

**SDG No:** 10-1568

**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>
	Vanadium	495	ug/L	500	ug/L	99	80.0 – 120.0	17-FEB-10 14:32	021710B-1
	Zinc	492	ug/L	500	ug/L	98.4	80.0 – 120.0	17-FEB-10 14:32	021710B-1

---

**METALS**  
**-4-**  
**Interference Check Sample**

---

**SDG No:** 10-1568

**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>
ICSA01	Chromium	-1.18	ug/L					19-FEB-10 17:25	021910B-2
ICSAB01	Chromium	469	ug/L	500	ug/L	93.8	80.0 - 120.0	19-FEB-10 17:32	021910B-2

---

**METALS**  
**-4-**  
**Interference Check Sample**

SDG No: 10-1568

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	Thallium	0.055	ug/L					04-MAR-10 11:55	100304-3
ICSAB01	Thallium	19.6	ug/L	20	ug/L	98.1	80.0 - 120.0	04-MAR-10 11:58	100304-3

---

**METALS**  
**-4-**  
**Interference Check Sample**

---

**SDG No:** 10-1568

**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	Uranium	0.001	ug/L					04-MAR-10 13:33	100304-4
ICSAB01	Uranium	22.2	ug/L	20	ug/L	111	80.0 – 120.0	04-MAR-10 13:35	100304-4

---

---

**METALS**  
**-4-**  
**Interference Check Sample**

SDG No: 10-1568

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>
<b>ICSA01</b>									
	Antimony	0.066	ug/L					04-MAR-10 03:18	100303-5
	Cadmium	0.661	ug/L					04-MAR-10 03:18	100303-5
	Lead	0.237	ug/L					04-MAR-10 03:18	100303-5
<b>ICSAB01</b>									
	Antimony	20.7	ug/L	20	ug/L	104	80.0 - 120.0	04-MAR-10 03:24	100303-5
	Cadmium	19.2	ug/L	20.44	ug/L	93.7	80.0 - 120.0	04-MAR-10 03:24	100303-5
	Lead	21.7	ug/L	20.19	ug/L	108	80.0 - 120.0	04-MAR-10 03:24	100303-5

---

**METALS**  
**-4-**  
**Interference Check Sample**

---

**SDG No:** 10-1568

**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>
<b>ICSA01</b>	Beryllium	0.096	ug/L					04-MAR-10 12:44	100304-6
	Manganese	5.97	ug/L					04-MAR-10 12:44	100304-6
<b>ICSAB01</b>	Beryllium	19.0	ug/L	20	ug/L	95.2	80.0 - 120.0	04-MAR-10 12:47	100304-6
	Manganese	27.6	ug/L	25.8	ug/L	107	80.0 - 120.0	04-MAR-10 12:47	100304-6



## METALS

-5a-

## Matrix Spike Summary

SDG NO. 10-1568

Client ID RE15-10-8328S

Contract: LANL01004

Level: Low

Matrix: WATER

% Solids:

Sample ID: 246334001

Spike ID: 1202036428

<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>
Aluminum	ug/L	75-125	4950		70.6	J	5000	97.6		P
Arsenic	ug/L	75-125	491		5	U	500	98.1		P
Barium	ug/L	75-125	493		2.37	J	500	98.2		P
Calcium	ug/L	75-125	4910		50	U	5000	97.2		P
Chromium	ug/L	75-125	479		1	U	500	95.7		P
Cobalt	ug/L	75-125	471		1	U	500	94.2		P
Copper	ug/L	75-125	485		3	U	500	96.9		P
Iron	ug/L	75-125	4910		71.2	J	5000	96.7		P
Magnesium	ug/L	75-125	5030		85	U	5000	99.6		P
Nickel	ug/L	75-125	483		1.5	U	500	96.5		P
Potassium	ug/L	75-125	4880		115	J	5000	95.3		P
Selenium	ug/L	75-125	490		5.39	J	500	96.9		P
Silver	ug/L	75-125	478		1	U	500	95.5		P
Sodium	ug/L	75-125	4970		134	J	5000	96.8		P
Vanadium	ug/L	75-125	494		1	U	500	98.7		P
Zinc	ug/L	75-125	473		3.3	U	500	94.4		P

## METALS

-5a-

## Matrix Spike Summary

SDG NO. 10-1568 Client ID RE15-10-8328S

Contract: LANL01004 Level: Low

Matrix: WATER % Solids:

Sample ID: 246334001 Spike ID: 1202036454

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	75-125	184		1	U	200	92.2		MS
Beryllium	ug/L	75-125	49.6		0.1	U	50	99.2		MS
Cadmium	ug/L	75-125	9.69		0.11	U	10	96.8		MS
Lead	ug/L	75-125	42.7		0.5	U	40	106		MS
Manganese	ug/L	75-125	53.3		3.36	J	50	99.9		MS
Thallium	ug/L	75-125	94.1		0.3	U	100	94		MS
Uranium	ug/L	75-125	52.8		0.157	J	50	105		MS

## METALS

-5a-

## Matrix Spike Summary

**SDG NO.** 10-1568 **Client ID** RE46-10-11893S**Contract:** LANL01004 **Level:** Low**Matrix:** WATER **% Solids:****Sample ID:** 246431001 **Spike ID:** 1202039381

<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	1.93		0.066	U	2	96.7		AV

**Metals**  
**-6-**  
**Duplicate Sample Summary**

SDG No.: 10-1568

Contract: LANL01004

Lab Code: GEL

Matrix: LIQUID

Level: Low

Client ID: RE15-10-8328D

Sample ID: 246334001

Duplicate ID: 1202036427

Percent Solids for Dup: N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L		70.6 J		68 U		200		P
Arsenic	ug/L		5 U		5 U				P
Barium	ug/L		2.37 J		1 U		200		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	+/-100	71.2 J		51.8 J		31.6		P
Magnesium	ug/L		85 U		101 J		200		P
Nickel	ug/L		1.5 U		1.5 U				P
Potassium	ug/L	+/-150	115 J		117 J		1.81		P
Selenium	ug/L		5.39 J		5 U		200		P
Silver	ug/L		1 U		1 U				P
Sodium	ug/L	+/-300	134 J		104 J		25.8		P
Vanadium	ug/L		1 U		1 U				P
Zinc	ug/L		3.3 U		3.3 U				P

---

**Metals**  
**-6-**  
**Duplicate Sample Summary**

---

SDG No.: 10-1568

Contract: LANL01004

Lab Code: GEL

Matrix: LIQUID

Level: Low

Client ID: RE15-10-8328D

Sample ID: 246334001

Duplicate ID: 1202036453

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	3.36 J		3.09 J		8.38		MS
Thallium	ug/L		0.3 U		0.3 U				MS
Uranium	ug/L		0.157 J		0.05 U		200		MS

---

**Metals**  
**-6-**  
**Duplicate Sample Summary**

**SDG No.:** 10-1568

**Contract:** LANL01004

**Lab Code:** GEL

**Matrix:** LIQUID

**Level:** Low

**Client ID:** RE46-10-11893D

**Sample ID:** 246431001

**Duplicate ID:** 1202039380

**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

-7-

## Laboratory Control Sample Summary

SDG NO. 10-1568

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>
1202036426								
	Aluminum	ug/L	5000	5070		101	80-120	P
	Arsenic	ug/L	500	509		102	80-120	P
	Barium	ug/L	500	501		100	80-120	P
	Calcium	ug/L	5000	5120		102	80-120	P
	Chromium	ug/L	500	487		97.4	80-120	P
	Cobalt	ug/L	500	486		97.3	80-120	P
	Copper	ug/L	500	490		97.9	80-120	P
	Iron	ug/L	5000	5140		103	80-120	P
	Magnesium	ug/L	5000	5230		105	80-120	P
	Nickel	ug/L	500	497		99.5	80-120	P
	Potassium	ug/L	5000	4930		98.7	80-120	P
	Selenium	ug/L	500	513		103	80-120	P
	Silver	ug/L	500	487		97.4	80-120	P
	Sodium	ug/L	5000	5120		102	80-120	P
	Vanadium	ug/L	500	502		100	80-120	P
	Zinc	ug/L	500	482		96.5	80-120	P

## METALS

-7-

## Laboratory Control Sample Summary

SDG NO. 10-1568

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>
1202036452								
	Antimony	ug/L	50	47.9		95.8	80-120	MS
	Beryllium	ug/L	50	50.3		101	80-120	MS
	Cadmium	ug/L	50	46.7		93.4	80-120	MS
	Lead	ug/L	50	50.3		101	80-120	MS
	Manganese	ug/L	50	53.3		107	80-120	MS
	Thallium	ug/L	50	48.2		96.4	80-120	MS
	Uranium	ug/L	50	52.4		105	80-120	MS



## METALS

-7-

## Laboratory Control Sample Summary

SDG NO. 10-1568

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>
1202039379	Mercury	ug/L	2	1.96		98.2	80-120	AV

## METALS

-9-

## Serial Dilution Sample Summary

SDG NO. 10-1568 Client ID RE15-10-8328L

Contract: LANL01004

Matrix: LIQUID Level: Low

Sample ID: 246334001 Serial Dilution ID: 1202036429

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	70.6	J	340	U	100			P
Arsenic	5	U	25	U				P
Barium	2.37	J	5	U	100			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	71.2	J	150	U	100			P
Magnesium	85	U	425	U				P
Nickel	1.5	U	7.5	U				P
Potassium	115	J	250	U	100			P
Selenium	5.39	J	25	U	100			P
Silver	1	U	5	U				P
Sodium	134	J	500	U	100			P
Vanadium	1	U	5	U				P
Zinc	3.3	U	16.5	U				P

## METALS

-9-

## Serial Dilution Sample Summary

SDG NO. 10-1568 Client ID RE15-10-8328L

Contract: LANL01004

Matrix: LIQUID Level: Low

Sample ID: 246334001 Serial Dilution ID: 1202036455

<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>
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	3.36	J	5	U	100			MS
Thallium	.3	U	5.45					MS
Uranium	.157	J	.25	U	100			MS

## METALS

-9-

## Serial Dilution Sample Summary

SDG NO. 10-1568 Client ID RE46-10-11893L

Contract: LANL01004

Matrix: LIQUID Level: Low

Sample ID: 246431001 Serial Dilution ID: 1202039382

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>
Mercury	.066	U	.33	U				AV

---

METALS  
-13-  
SAMPLE PREPARATION SUMMARY

SDG No: 10-1568

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	950315						
1202036425	MB for batch 950315	MB	W	15-FEB-10	50mL	50mL	
1202036426	LCS for batch 950315	LCS	W	15-FEB-10	50mL	50mL	
1202036428	RE15-10-8328S	MS	W	15-FEB-10	50mL	50mL	
1202036427	RE15-10-8328D	DUP	W	15-FEB-10	50mL	50mL	
246334001	RE15-10-8328	SAMPLE	W	15-FEB-10	50mL	50mL	

---

SW846

---

METALS  
-13-  
SAMPLE PREPARATION SUMMARY

---

SDG No: 10-1568

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	950323						
1202036451	MB for batch 950323	MB	W	15-FEB-10	50mL	50mL	
1202036452	LCS for batch 950323	LCS	W	15-FEB-10	50mL	50mL	
1202036454	RE15-10-8328S	MS	W	15-FEB-10	50mL	50mL	
1202036453	RE15-10-8328D	DUP	W	15-FEB-10	50mL	50mL	
246334001	RE15-10-8328	SAMPLE	W	15-FEB-10	50mL	50mL	

---

SW846

---

**METALS**  
**-13-**  
**SAMPLE PREPARATION SUMMARY**

SDG No: 10-1568

Method Type: AV

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</b> 951592							
1202039378	MB for batch 951592	MB	W	16-FEB-10	20mL	20mL	
1202039379	LCS for batch 951592	LCS	W	16-FEB-10	20mL	20mL	
1202039381	RE46-10-11893S	MS	W	16-FEB-10	20mL	20mL	
1202039380	RE46-10-11893D	DUP	W	16-FEB-10	20mL	20mL	
246334001	RE15-10-8328	SAMPLE	W	16-FEB-10	20mL	20mL	

---

SW846

Metals  
-14-  
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS5

Start Date: 04-MAR-10

End Date: 04-MAR-10

Client Sdg: 10-1568

Method MS

Data File: 100303-5

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	02:41		X				X						X												
S10	1	02:47		X				X						X												
S100	1	02:53		X				X						X												
ICV01	1	02:59		X				X						X												
ICB01	1	03:05		X				X						X												
CRDL01	1	03:12		X				X						X												
ICSA01	1	03:18		X				X						X												
ICSAB01	1	03:24		X				X						X												
CCV01	1	03:30		X				X						X												
CCB01	1	03:36		X				X						X												
LR01	1	03:42		X				X						X												
CCV02	1	03:48		X				X						X												
CCB02	1	03:54		X				X						X												
ZZZZZZ	2	04:00																								
ZZZZZZ	40	04:07																								
ZZZZZZ	2	04:13																								
ZZZZZZ	2	04:19																								
ZZZZZZ	2	04:25																								
ZZZZZZ	2	04:31																								
ZZZZZZ	10	04:37																								
CCV03	1	04:44		X				X						X												
CCB03	1	04:50		X				X						X												
ZZZZZZ	2	04:56																								
ZZZZZZ	2	05:02																								
ZZZZZZ	2	05:08																								
ZZZZZZ	2	05:14																								
CCV04	1	05:20		X				X						X												
CCB04	1	05:27		X				X						X												
1202036451	1	05:33		X				X						X												
1202036452	1	05:39		X				X						X												
ZZZZZZ	1	05:45																								
246334001	1	05:51		X				X						X												
1202036453	1	05:57		X				X						X												
1202036454	1	06:04		X				X						X												
1202036455	5	06:10		X				X						X												
CCV05	1	06:16		X				X						X												
CCB05	1	06:22		X				X						X												



**Metals**  
**-14-**  
**Analysis Run Log**

**Contract:** LANL01004**Lab Code:** GEL**Inst Name:** ICPMS5**Start Date:** 04-MAR-10**Client Sdg:** 10-1568**Method:** MS**Data File:** 100304-6**End Date:** 04-MAR-10

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	12:31					X									X										
S10	1	12:33					X									X										
S100	1	12:35					X									X										
ICV01	1	12:37					X									X										
ICB01	1	12:40					X									X										
CRDL01	1	12:42					X									X										
ICSA01	1	12:44					X									X										
ICSAB01	1	12:47					X									X										
CCV01	1	12:49					X									X										
CCB01	1	12:51					X									X										
1202036451	1	12:54					X									X										
1202036452	1	12:56					X									X										
ZZZZZZ	1	12:59																								
246334001	1	13:01					X									X										
1202036453	1	13:03					X									X										
1202036454	1	13:06					X									X										
1202036455	5	13:08					X									X										
CCV02	1	13:11					X									X										
CCB02	1	13:13					X									X										

**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: OPTIMA3

Start Date: 17-FEB-10

End Date: 17-FEB-10

Client Sdg: 10-1568

Method P

Data File: 021710B-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	13:25	X		X	X			X		X	X	X		X			X	X	X	X	X			X	X
S0.1	1	13:32			X	X					X	X						X	X	X	X				X	X
S0.5	1	13:38	X		X	X			X		X	X			X			X	X	X	X				X	X
SCAL	1	13:45	X		X	X			X		X	X	X		X			X	X	X	X	X			X	X
S10	1	13:52	X						X				X		X							X				
ICV01	1	13:58	X		X	X			X		X	X	X		X			X	X	X	X	X			X	X
ICB01	1	14:04	X		X	X			X		X	X	X		X			X	X	X	X	X			X	X
PQL01	1	14:11	X		X	X			X		X	X	X		X			X	X	X	X	X			X	X
ICSA01	1	14:18	X		X	X			X		X	X	X		X			X	X	X	X	X			X	X
ICSAB01	1	14:32	X		X	X			X		X	X	X		X			X	X	X	X	X			X	X
LR01	1	14:38	X		X	X			X		X	X	X		X			X	X	X	X	X			X	X
LR02	1	14:49	X		X	X			X		X	X	X		X			X	X	X	X	X			X	X
CCV01	1	14:56	X		X	X			X		X	X	X		X			X	X	X	X	X			X	X
CCB01	1	15:03	X		X	X			X		X	X	X		X			X	X	X	X	X			X	X
LR03	1	15:11	X		X	X			X		X	X	X		X			X	X	X	X	X			X	X
LR04	1	15:18	X		X	X			X		X	X	X		X			X	X	X	X	X			X	X
CCV02	1	15:25	X		X	X			X		X	X	X		X			X	X	X	X	X			X	X
CCB02	1	15:32	X		X	X			X		X	X	X		X			X	X	X	X	X			X	X
CCV03	1	15:54	X		X	X			X		X	X	X		X			X	X	X	X	X			X	X
CCB03	1	16:01	X		X	X			X		X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	16:07																								
ZZZZZZ	1	16:14																								
ZZZZZZ	1	16:21																								
ZZZZZZ	1	16:28																								
ZZZZZZ	1	16:35																								
ZZZZZZ	1	16:41																								
ZZZZZZ	1	16:48																								
ZZZZZZ	1	16:55																								
ZZZZZZ	5	17:02																								
ZZZZZZ	1	17:09																								
CCV04	1	17:15	X		X	X			X		X	X	X		X			X	X	X	X	X			X	X
CCB04	1	17:22	X		X	X			X		X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	17:29																								
ZZZZZZ	1	17:36																								
ZZZZZZ	1	17:43																								
ZZZZZZ	1	17:50																								
ZZZZZZ	1	17:57																								
ZZZZZZ	1	18:04																								
CCV05	1	18:11	X		X	X			X		X	X	X		X			X	X	X	X	X			X	X
CCB05	1	18:18	X		X	X			X		X	X	X		X			X	X	X	X	X			X	X

**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
777777	1	23:02																								
246334001	1	23:08	X		X	X			X		X	X	X		X			X	X	X	X	X			X	X
1202036427	1	23:15	X		X	X			X		X	X	X		X			X	X	X	X	X			X	X
1202036428	1	23:22	X		X	X			X		X	X	X		X			X	X	X	X	X			X	X
1202036429	15	23:29	X		X	X			X		X	X	X		X			X	X	X	X	X			X	X
CCV11	1	23:36	X		X	X			X		X	X	X		X			X	X	X	X	X			X	X
CCB11	1	23:43	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: OPTIMA3

Start Date: 19-FEB-10

End Date: 20-FEB-10

Client Sdg: 10-1568

Method P

Data File: 021910B-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	16:32								X																
S0.1	1	16:39								X																
S0.5	1	16:45								X																
SCAL	1	16:52								X																
S10	1	16:59																								
ICV01	1	17:05								X																
ICB01	1	17:12								X																
PQL01	1	17:18								X																
ICSA01	1	17:25								X																
ICSAB01	1	17:32								X																
LR01	1	17:39								X																
LR02	1	17:46								X																
CCV01	1	17:53								X																
CCB01	1	18:00								X																
LR03	1	18:06								X																
CCV02	1	18:13								X																
CCB02	1	18:20								X																
ZZZZZZ	1	18:27																								
ZZZZZZ	1	18:34																								
ZZZZZZ	1	18:41																								
ZZZZZZ	1	18:48																								
ZZZZZZ	1	18:54																								
ZZZZZZ	1	19:01																								
ZZZZZZ	5	19:08																								
CCV03	1	19:15								X																
CCB03	1	19:22								X																
ZZZZZZ	1	19:29																								
ZZZZZZ	1	19:36																								
ZZZZZZ	1	19:43																								
ZZZZZZ	1	19:49																								
ZZZZZZ	1	19:56																								
ZZZZZZ	1	20:03																								
ZZZZZZ	1	20:10																								
CCV04	1	20:17								X																
CCB04	1	20:24								X																
ZZZZZZ	1	20:31																								
ZZZZZZ	1	20:37																								
ZZZZZZ	1	20:44																								
ZZZZZZ	1	20:51																								
ZZZZZZ	1	20:58																								

**Metals**  
**-14-**  
**Analysis Run Log**

Samp No.	D/F	Run Time
ZZZZZZ	1	21:05
CCV05	1	21:11
CCB05	1	21:18
ZZZZZZ	1	21:25
ZZZZZZ	1	21:32
ZZZZZZ	1	21:39
ZZZZZZ	1	21:46
ZZZZZZ	1	21:52
ZZZZZZ	1	21:59
ZZZZZZ	1	22:06
ZZZZZZ	1	22:13
CCV06	1	22:20
CCB06	1	22:27
ZZZZZZ	1	22:34
ZZZZZZ	5	22:40
ZZZZZZ	1	22:47
ZZZZZZ	1	22:54
ZZZZZZ	1	23:01
ZZZZZZ	1	23:08
ZZZZZZ	1	23:15
ZZZZZZ	1	23:21
CCV07	1	23:28
CCB07	1	23:35
ZZZZZZ	1	23:42
ZZZZZZ	1	23:49
ZZZZZZ	1	23:56
ZZZZZZ	1	00:03
ZZZZZZ	1	00:09
ZZZZZZ	1	00:16
ZZZZZZ	1	00:23
ZZZZZZ	1	00:30
ZZZZZZ	5	00:37
ZZZZZZ	1	00:43
CCV08	1	00:50
CCB08	1	00:57
ZZZZZZ	1	01:04
ZZZZZZ	1	01:11
ZZZZZZ	1	01:18
ZZZZZZ	1	01:25
ZZZZZZ	5	01:31

**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
CCV09	1	01:38								X																
CCB09	1	01:45								X																
ZZZZZZ	1	01:52																								
ZZZZZZ	1	01:59																								
ZZZZZZ	1	02:06																								
ZZZZZZ	1	02:12																								
ZZZZZZ	1	02:19																								
ZZZZZZ	5	02:26																								
ZZZZZZ	1	02:33																								
CCV10	1	02:40								X																
CCB10	1	02:47								X																
ZZZZZZ	1	02:54																								
ZZZZZZ	1	03:00																								
ZZZZZZ	1	03:07																								
ZZZZZZ	1	03:15																								
ZZZZZZ	1	03:22																								
ZZZZZZ	5	03:29																								
CCV11	1	03:36								X																
CCB11	1	03:43								X																
ZZZZZZ	1	03:50																								
ZZZZZZ	1	03:57																								
ZZZZZZ	1	04:04																								
ZZZZZZ	1	04:12																								
ZZZZZZ	1	04:19																								
CCV12	1	04:27								X																
CCB12	1	04:34								X																
1202036425	1	04:41								X																
1202036426	1	04:47								X																
ZZZZZZ	1	04:54																								
246334001	1	05:01								X																
1202036427	1	05:08								X																
1202036428	1	05:15								X																
1202036429	5	05:22								X																
CCV13	1	05:28								X																
CCB13	1	05:35								X																

**Metals**  
**-14-**  
**Analysis Run Log**

**Contract:** LANL01004**Lab Code:** GEL**Inst Name:** HG3**Start Date:** 17-FEB-10**Client Sdg:** 10-1568**Method:** AV**Data File:** 021710W2-7**End Date:** 17-FEB-10

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	09:36															X									
S0.2	1	09:38															X									
S0.5	1	09:40															X									
S2.0	1	09:42															X									
S5.0	1	09:44															X									
S10.0	1	09:46															X									
ICV01	1	09:48															X									
ICB01	1	09:50															X									
CRDL01	1	09:52															X									
CCV01	1	09:54															X									
CCB01	1	09:56															X									
ZZZZZZ	1	09:57																								
ZZZZZZ	1	09:59																								
ZZZZZZ	1	10:01																								
ZZZZZZ	1	10:03																								
ZZZZZZ	1	10:05																								
ZZZZZZ	1	10:07																								
ZZZZZZ	1	10:09																								
ZZZZZZ	1	10:11																								
ZZZZZZ	1	10:13																								
ZZZZZZ	5	10:15																								
CCV02	1	10:17															X									
CCB02	1	10:19															X									
ZZZZZZ	1	10:20																								
ZZZZZZ	1	10:22																								
ZZZZZZ	1	10:24																								
ZZZZZZ	1	10:26																								
ZZZZZZ	1	10:28																								
ZZZZZZ	1	10:30																								
ZZZZZZ	1	10:32																								
ZZZZZZ	1	10:34																								
ZZZZZZ	1	10:36																								
ZZZZZZ	1	10:38																								
CCV03	1	10:40															X									
CCB03	1	10:42															X									
ZZZZZZ	1	10:44																								
ZZZZZZ	1	10:45																								
ZZZZZZ	5	10:47																								
1202039378	1	10:49															X									
1202039379	1	10:51															X									



Samp No.	D/F	Run Time
ZZZZZZ	1	10:53
246334001	1	10:55
ZZZZZZ	1	10:57
1202039380	1	10:59
1202039381	1	11:01
CCV04	1	11:03
CCB04	1	11:05
1202039382	5	11:07
ZZZZZZ	1	11:09
ZZZZZZ	1	11:11
ZZZZZZ	1	11:12
ZZZZZZ	1	11:14
ZZZZZZ	1	11:16
ZZZZZZ	1	11:18
ZZZZZZ	1	11:20
ZZZZZZ	1	11:22
ZZZZZZ	1	11:24
CCV05	1	11:26
CCB05	1	11:28

Metals  
-14-  
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS3

Start Date: 04-MAR-10

Client Sdg: 10-1568

Method MS

Data File: 100304-3

End Date: 04-MAR-10

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	Ti	U	V	Zn
S0.0	1	11:39																					X			
S10	1	11:41																					X			
S100	1	11:44																					X			
ICV01	1	11:47																					X			
ICB01	1	11:50																					X			
CRDL01	1	11:52																					X			
ICSA01	1	11:55																					X			
ICSAB01	1	11:58																					X			
CCV01	1	12:01																					X			
CCB01	1	12:04																					X			
ZZZZZZ	2	12:06																								
ZZZZZZ	40	12:09																								
ZZZZZZ	2	12:12																								
ZZZZZZ	2	12:15																								
ZZZZZZ	2	12:17																								
ZZZZZZ	2	12:20																								
ZZZZZZ	10	12:23																								
CCV02	1	12:26																					X			
CCB02	1	12:29																					X			
ZZZZZZ	2	12:31																								
ZZZZZZ	2	12:34																								
ZZZZZZ	2	12:37																								
ZZZZZZ	2	12:40																								
ZZZZZZ	2	12:42																								
ZZZZZZ	2	12:45																								
CCV03	1	12:48																					X			
CCB03	1	12:51																					X			
1202036451	1	12:54																					X			
1202036452	1	12:56																					X			
ZZZZZZ	1	12:59																								
246334001	1	13:02																					X			
1202036453	1	13:05																					X			
1202036454	1	13:08																					X			
1202036455	5	13:11																					X			
ZZZZZZ	1	13:13																								
CCV04	1	13:16																					X			
CCB04	1	13:19																					X			

Metals  
-14-  
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS3

Start Date: 04-MAR-10

Client Sdg: 10-1568

Method MS

Data File: 100304-4

End Date: 04-MAR-10

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	13:22																						X		
S10	1	13:24																						X		
S100	1	13:26																						X		
ICV01	1	13:28																						X		
ICB01	1	13:29																						X		
CRDL01	1	13:31																						X		
ICSA01	1	13:33																						X		
ICSAB01	1	13:35																						X		
CCV01	1	13:37																						X		
CCB01	1	13:39																						X		
1202036451	1	13:42																						X		
1202036452	1	13:44																						X		
ZZZZZZ	1	13:47																								
246334001	1	13:49																						X		
1202036453	1	13:51																						X		
1202036454	1	13:53																						X		
1202036455	5	13:55																						X		
CCV02	1	13:57																						X		
CCB02	1	13:59																						X		

# Standards

---

**METALS**  
**-10-**  
**Instrument Detection Limits**

---

**SDG NO.** 10-1568

**Contract:** LANL01004

**Lab Code:** GEL

**MDL Effective Date:** 01-JUL-09

---

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

---

**METALS**  
**-10-**  
**Instrument Detection Limits**

**SDG NO.** 10-1568

**Contract:** LANL01004

**Lab Code:** GEL

**MDL Effective Date:** 01-JUL-09

---

	<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

---

**METALS**  
**-10-**  
**Instrument Detection Limits**

---

SDG NO. 10-1568

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

---

ICP	<u>Analyte</u>	<u>Wavelength</u>	<u>MDL</u>	<u>RDL</u>
		<u>(nm)</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: GEL

GEL Job No: 10-1568

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Aluminum	Antimony	Arsenic	Barium	Beryllium
Parmname	Wavelength					
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: GELGEL Job No: **10-1568**

Contract: LANL01004

Instrument: OPTIMA3

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	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-**  
**Interement Correction Factors**

Lab Code: GELGEL Job No: **10-1568**

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: **01-FEB-10**

Interement 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-**  
**Interelement Correction Factors**

Lab Code: GELGEL Job No: **10-1568**

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: **01-FEB-10**

Interelement 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-**  
**Interement Correction Factors**

Lab Code: GELGEL Job No: **10-1568**

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: **01-FEB-10**

Interement 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: GELGEL Job No: **10-1568**

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. 10-1568

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

---

**METALS**  
**-12-**  
**Linear Ranges**

---

SDG NO. 10-1568

Contract: LANL01004

Lab Code: GEL

Instrument ID OPTIMA3

---

<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

---

**METALS**  
**-12-**  
**Linear Ranges**

SDG NO. 10-1568

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



# Raw Data

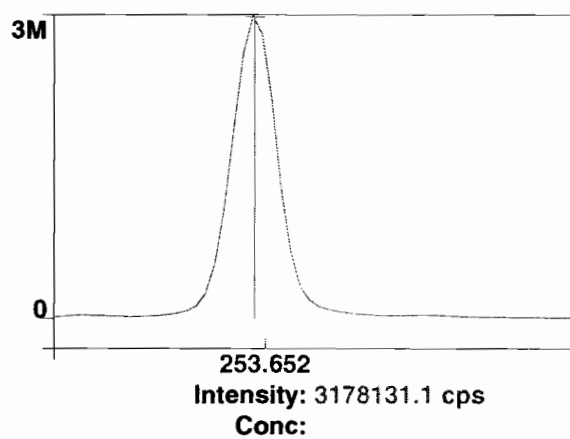
20

Method: Hg\_ReAlign  
Result: 030410

Sample ID: Hg\_ReAlign

Hg 253.652

Rep: 1



1

## =====

Reprocessing Begun

Logged In Analyst: Optima3

Technique: ICP Continuous

Results Data Set (original): 021710A

Results Library (original): C:\pe\Optima3\Results\Results.mdb

Results Data Set (reprocessed): 021710B

Results Library (reprocessed): C:\pe\Optima3\Results\Results.mdb

## =====

Method Loaded

Method Name: General Eng.2AX

Method Last Saved: 2/17/2010 15:39:33

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: 8

Sample ID: S0

Date Collected: 2/17/2010 13:25:46

Analyst:

Data Type: Reprocessed on 2/17/2010 15:41:00

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

## -----

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc 361.383	792965.2	792965.2	99.650 %	13:28:55
1	Sc Radial	3957.6	3957.6	99.5 %	13:27:38
1	Y 371.029	641331.2	641331.2	99.741 %	13:28:55
1	Y RADIAL	4134.3	4134.3	100.1 %	13:27:38
1	Ag 328.068†	230.8	231.7	[0.00] ug/L	13:28:55

1	Al 396.153Radial†	-150.9	-151.6	[0.00]	ug/L	13:27:38
1	As 188.979†	-31.2	-31.3	[0.00]	ug/L	13:29:15
1	B 249.677†	58.1	58.3	[0.00]	ug/L	13:28:55
1	Ba 233.527†	23.0	23.1	[0.00]	ug/L	13:29:15
1	Be 313.107†	-4221.2	-4236.0	[0.00]	ug/L	13:28:55
1	Ca 317.933Radial†	20.7	20.8	[0.00]	ug/L	13:27:58
1	Cd 226.502†	-214.0	-214.8	[0.00]	ug/L	13:29:15
1	Co 228.616†	-72.6	-72.9	[0.00]	ug/L	13:29:15
1	Cr 267.716†	715.6	718.2	[0.00]	ug/L	13:29:15
1	Cu 324.752†	8311.0	8340.2	[0.00]	ug/L	13:28:55
1	Fe 238.204 Radial†	12.8	12.8	[0.00]	ug/L	13:27:58
1	K 766.490 Radial†	3201.8	3216.5	[0.00]	ug/L	13:27:38
1	Mg 279.077 IEC†	2.3	2.4	[0.00]	ug/L	13:27:58
1	Mn 257.610†	530.4	532.3	[0.00]	ug/L	13:29:15
1	Mo 202.031†	22.3	22.4	[0.00]	ug/L	13:29:15
1	Na 589.592 Radial†	-126.2	-126.7	[0.00]	ug/L	13:27:38
1	Ni 231.604†	89.0	89.3	[0.00]	ug/L	13:29:15
1	P 214.914†	233.7	234.5	[0.00]	ug/L	13:29:15
1	Pb 220.353†	-26.6	-26.7	[0.00]	ug/L	13:29:15
1	S 181.975 Axial†	57.8	58.0	[0.00]	ug/L	13:29:15
1	Sb 206.836†	38.6	38.7	[0.00]	ug/L	13:29:15
1	Se 196.026†	-25.9	-26.0	[0.00]	ug/L	13:29:15
1	Si 251.611†	569.0	571.0	[0.00]	ug/L	13:29:15
1	Sn 189.927†	38.8	39.0	[0.00]	ug/L	13:29:15
1	Sr 421.552†	108.8	109.3	[0.00]	ug/L	13:27:38
1	Ti 334.940†	-1543.1	-1548.5	[0.00]	ug/L	13:28:55
1	Tl 190.801†	-17.0	-17.0	[0.00]	ug/L	13:29:15
1	U 409.014†	-3531.5	-3543.9	[0.00]	ug/L	13:28:55
1	V 292.402†	-1756.6	-1762.8	[0.00]	ug/L	13:28:55
1	Zn 213.857†	859.6	862.6	[0.00]	ug/L	13:29:15
1	SiO2†	600.4	602.5	[0.00]	ug/L	13:30:11
2	Sc 361.383	799345.5	799345.5	100.45	%	13:29:21
2	Sc Radial	3977.0	3977.0	100	%	13:28:03
2	Y 371.029	645940.9	645940.9	100.46	%	13:29:21
2	Y RADIAL	4121.6	4121.6	99.77	%	13:28:03
2	Ag 328.068†	159.0	158.3	[0.00]	ug/L	13:29:21
2	Al 396.153Radial†	-119.9	-119.8	[0.00]	ug/L	13:28:03
2	As 188.979†	-22.7	-22.6	[0.00]	ug/L	13:29:41
2	B 249.677†	43.7	43.5	[0.00]	ug/L	13:29:21
2	Ba 233.527†	1.0	1.0	[0.00]	ug/L	13:29:41
2	Be 313.107†	-4219.6	-4200.7	[0.00]	ug/L	13:29:21
2	Ca 317.933Radial†	32.7	32.7	[0.00]	ug/L	13:28:23
2	Cd 226.502†	-213.1	-212.2	[0.00]	ug/L	13:29:41
2	Co 228.616†	-83.2	-82.8	[0.00]	ug/L	13:29:41
2	Cr 267.716†	683.5	680.4	[0.00]	ug/L	13:29:41
2	Cu 324.752†	8336.9	8299.4	[0.00]	ug/L	13:29:21
2	Fe 238.204 Radial†	11.1	11.1	[0.00]	ug/L	13:28:23
2	K 766.490 Radial†	3219.5	3218.5	[0.00]	ug/L	13:28:03
2	Mg 279.077 IEC†	-0.0	-0.0	[0.00]	ug/L	13:28:23
2	Mn 257.610†	567.2	564.7	[0.00]	ug/L	13:29:41
2	Mo 202.031†	19.4	19.3	[0.00]	ug/L	13:29:41
2	Na 589.592 Radial†	-33.2	-33.2	[0.00]	ug/L	13:28:03
2	Ni 231.604†	90.4	90.0	[0.00]	ug/L	13:29:41
2	P 214.914†	247.0	245.8	[0.00]	ug/L	13:29:41
2	Pb 220.353†	-10.5	-10.4	[0.00]	ug/L	13:29:41
2	S 181.975 Axial†	68.9	68.6	[0.00]	ug/L	13:29:41
2	Sb 206.836†	47.6	47.4	[0.00]	ug/L	13:29:41
2	Se 196.026†	-26.1	-25.9	[0.00]	ug/L	13:29:41
2	Si 251.611†	562.7	560.2	[0.00]	ug/L	13:29:41
2	Sn 189.927†	28.5	28.4	[0.00]	ug/L	13:29:41
2	Sr 421.552†	126.0	126.0	[0.00]	ug/L	13:28:03
2	Ti 334.940†	-1561.6	-1554.6	[0.00]	ug/L	13:29:21
2	Tl 190.801†	-21.4	-21.3	[0.00]	ug/L	13:29:41
2	U 409.014†	-3577.4	-3561.4	[0.00]	ug/L	13:29:21
2	V 292.402†	-1761.8	-1753.9	[0.00]	ug/L	13:29:21
2	Zn 213.857†	861.0	857.1	[0.00]	ug/L	13:29:41
2	SiO2†	588.4	585.7	[0.00]	ug/L	13:30:16
3	Sc 361.383	794947.3	794947.3	99.899	%	13:29:46
3	Sc Radial	3992.8	3992.8	100	%	13:28:29
3	Y 371.029	641721.1	641721.1	99.801	%	13:29:46
3	Y RADIAL	4137.0	4137.0	100.1	%	13:28:29

3	Ag 328.068†	166.8	167.0	[0.00]	ug/L	13:29:46
3	Al 396.153Radial†	-154.9	-154.2	[0.00]	ug/L	13:28:29
3	As 188.979†	-28.9	-29.0	[0.00]	ug/L	13:30:06
3	B 249.677†	72.2	72.3	[0.00]	ug/L	13:29:46
3	Ba 233.527†	-4.8	-4.8	[0.00]	ug/L	13:30:06
3	Be 313.107†	-4274.2	-4278.5	[0.00]	ug/L	13:29:46
3	Ca 317.933Radial†	19.3	19.2	[0.00]	ug/L	13:28:49
3	Cd 226.502†	-198.8	-199.0	[0.00]	ug/L	13:30:06
3	Co 228.616†	-79.6	-79.7	[0.00]	ug/L	13:30:06
3	Cr 267.716†	692.3	693.0	[0.00]	ug/L	13:30:06
3	Cu 324.752†	8308.8	8317.2	[0.00]	ug/L	13:29:46
3	Fe 238.204 Radial†	9.2	9.2	[0.00]	ug/L	13:28:49
3	K 766.490 Radial†	3202.6	3189.0	[0.00]	ug/L	13:28:29
3	Mg 279.077 IEC†	1.7	1.7	[0.00]	ug/L	13:28:49
3	Mn 257.610†	556.8	557.3	[0.00]	ug/L	13:30:06
3	Mo 202.031†	21.5	21.6	[0.00]	ug/L	13:30:06
3	Na 589.592 Radial†	-151.8	-151.1	[0.00]	ug/L	13:28:29
3	Ni 231.604†	95.4	95.5	[0.00]	ug/L	13:30:06
3	P 214.914†	249.4	249.6	[0.00]	ug/L	13:30:06
3	Pb 220.353†	-10.7	-10.7	[0.00]	ug/L	13:30:06
3	S 181.975 Axial†	58.4	58.5	[0.00]	ug/L	13:30:06
3	Sb 206.836†	45.8	45.8	[0.00]	ug/L	13:30:06
3	Se 196.026†	-27.4	-27.5	[0.00]	ug/L	13:30:06
3	Si 251.611†	865.8	866.7	[0.00]	ug/L	13:30:06
3	Sn 189.927†	39.7	39.7	[0.00]	ug/L	13:30:06
3	Sr 421.552†	100.1	99.7	[0.00]	ug/L	13:28:29
3	Ti 334.940†	-1702.2	-1703.9	[0.00]	ug/L	13:29:46
3	Tl 190.801†	-25.7	-25.7	[0.00]	ug/L	13:30:06
3	U 409.014†	-3609.7	-3613.4	[0.00]	ug/L	13:29:46
3	V 292.402†	-1797.2	-1799.0	[0.00]	ug/L	13:29:46
3	Zn 213.857†	865.0	865.9	[0.00]	ug/L	13:30:06
3	SiO2†	585.0	585.6	[0.00]	ug/L	13:30:21

## Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	795752.7	3265.49	0.41%	100.00 %
Sc Radial	3975.8	17.62	0.44%	100 %
Y 371.029	642997.7	2556.28	0.40%	100.00 %
Y RADIAL	4131.0	8.24	0.20%	100.0 %
Ag 328.068†	185.6	40.09	21.60%	[0.00] ug/L
Al 396.153Radial†	-141.9	19.15	13.49%	[0.00] ug/L
As 188.979†	-27.7	4.51	16.30%	[0.00] ug/L
B 249.677†	58.0	14.38	24.78%	[0.00] ug/L
Ba 233.527†	6.4	14.73	229.17%	[0.00] ug/L
Be 313.107†	-4238.4	38.99	0.92%	[0.00] ug/L
Ca 317.933Radial†	24.3	7.38	30.45%	[0.00] ug/L
Cd 226.502†	-208.6	8.47	4.06%	[0.00] ug/L
Co 228.616†	-78.5	5.09	6.49%	[0.00] ug/L
Cr 267.716†	697.2	19.23	2.76%	[0.00] ug/L
Cu 324.752†	8318.9	20.46	0.25%	[0.00] ug/L
Fe 238.204 Radial†	11.0	1.82	16.54%	[0.00] ug/L
K 766.490 Radial†	3208.0	16.49	0.51%	[0.00] ug/L
Mg 279.077 IEC†	1.4	1.24	91.96%	[0.00] ug/L
Mn 257.610†	551.4	17.00	3.08%	[0.00] ug/L
Mo 202.031†	21.1	1.59	7.53%	[0.00] ug/L
Na 589.592 Radial†	-103.7	62.25	60.03%	[0.00] ug/L
Ni 231.604†	91.6	3.38	3.69%	[0.00] ug/L
P 214.914†	243.3	7.86	3.23%	[0.00] ug/L
Pb 220.353†	-16.0	9.32	58.35%	[0.00] ug/L
S 181.975 Axial†	61.7	5.98	9.70%	[0.00] ug/L
Sb 206.836†	44.0	4.62	10.50%	[0.00] ug/L
Se 196.026†	-26.5	0.87	3.28%	[0.00] ug/L
Si 251.611†	665.9	173.95	26.12%	[0.00] ug/L
Sn 189.927†	35.7	6.34	17.76%	[0.00] ug/L
Sr 421.552†	111.7	13.31	11.92%	[0.00] ug/L
Ti 334.940†	-1602.3	88.02	5.49%	[0.00] ug/L
Tl 190.801†	-21.4	4.34	20.31%	[0.00] ug/L
U 409.014†	-3572.9	36.13	1.01%	[0.00] ug/L
V 292.402†	-1771.9	23.91	1.35%	[0.00] ug/L

Zn 213.857†	861.9	4.43	0.51%	[0.00] ug/L
SiO2†	591.3	9.71	1.64%	[0.00] ug/L

Sequence No.: 2

Sample ID: S0.1

Analyst:

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 2

Date Collected: 2/17/2010 13:32:32

Data Type: Reprocessed on 2/17/2010 15:41:02

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc 361.383	790133.2	790133.2	99.294 %	13:34:56
1	Sc Radial	4005.8	4005.8	101 %	13:34:29
1	Y 371.029	637778.5	637778.5	99.188 %	13:34:56
1	Y RADIAL	4159.1	4159.1	100.7 %	13:34:29
1	Ag 328.068†	19435.2	19387.8	[100] ug/L	13:34:56
1	As 188.979†	212.6	241.8	[100] ug/L	13:35:16
1	B 249.677†	4098.6	4069.7	[100] ug/L	13:34:56
1	Ba 233.527†	11879.5	11957.5	[100] ug/L	13:34:56
1	Be 313.107†	257782.3	263854.0	[100] ug/L	13:34:56
1	Cd 226.502†	7911.4	8176.3	[100] ug/L	13:35:16
1	Co 228.616†	4695.9	4807.8	[100] ug/L	13:35:16
1	Cr 267.716†	8560.1	7923.8	[100] ug/L	13:35:16
1	Cu 324.752†	39246.9	31207.1	[100] ug/L	13:34:56
1	K 766.490 Radial†	7572.4	4307.7	[1000] ug/L	13:34:24
1	Mn 257.610†	87041.4	87109.0	[100] ug/L	13:34:56
1	Mo 202.031†	1317.1	1305.4	[100] ug/L	13:35:16
1	Ni 231.604†	3843.5	3779.2	[100] ug/L	13:35:16
1	P 214.914†	1160.1	925.0	[500] ug/L	13:35:16
1	Pb 220.353†	762.1	783.5	[100] ug/L	13:35:16
1	S 181.975 Axial†	208.8	148.6	[200] ug/L	13:35:16
1	Sb 206.836†	332.4	290.8	[100] ug/L	13:35:16
1	Se 196.026†	146.2	173.7	[100] ug/L	13:35:16
1	Si 251.611†	16153.8	15602.8	[500] ug/L	13:34:56
1	Sn 189.927†	570.4	538.8	[100] ug/L	13:35:16
1	Sr 421.552†	11775.0	11575.2	[100] ug/L	13:34:29
1	Ti 334.940†	58758.9	60779.1	[100] ug/L	13:34:56
1	Tl 190.801†	294.2	317.7	[100] ug/L	13:35:16
1	U 409.014†	-548.9	3020.1	[100] ug/L	13:34:56
1	V 292.402†	10798.4	12647.1	[100] ug/L	13:34:56
1	Zn 213.857†	10747.7	9962.2	[100] ug/L	13:35:16
1	SiO2†	16401.9	15927.3	[1069.5] ug/L	13:36:12
2	Sc 361.383	761602.4	761602.4	95.708 %	13:35:22
2	Sc Radial	3998.8	3998.8	101 %	13:34:39
2	Y 371.029	614566.2	614566.2	95.578 %	13:35:22
2	Y RADIAL	4112.2	4112.2	99.55 %	13:34:39
2	Ag 328.068†	19935.0	20643.2	[100] ug/L	13:35:22
2	As 188.979†	212.6	249.8	[100] ug/L	13:35:42
2	B 249.677†	4183.5	4313.1	[100] ug/L	13:35:22
2	Ba 233.527†	12202.6	12743.3	[100] ug/L	13:35:22
2	Be 313.107†	265212.8	281343.4	[100] ug/L	13:35:22
2	Cd 226.502†	8106.7	8678.9	[100] ug/L	13:35:42
2	Co 228.616†	4837.6	5133.0	[100] ug/L	13:35:42
2	Cr 267.716†	8743.2	8438.0	[100] ug/L	13:35:42
2	Cu 324.752†	40201.0	33684.7	[100] ug/L	13:35:22
2	K 766.490 Radial†	7693.2	4441.0	[1000] ug/L	13:34:34
2	Mn 257.610†	89185.1	92632.8	[100] ug/L	13:35:22
2	Mo 202.031†	1342.6	1381.7	[100] ug/L	13:35:42
2	Ni 231.604†	3961.0	4047.0	[100] ug/L	13:35:42
2	P 214.914†	1196.5	1006.8	[500] ug/L	13:35:42
2	Pb 220.353†	774.7	825.4	[100] ug/L	13:35:42
2	S 181.975 Axial†	220.2	168.4	[200] ug/L	13:35:42
2	Sb 206.836†	339.0	310.2	[100] ug/L	13:35:42
2	Se 196.026†	155.3	188.7	[100] ug/L	13:35:42
2	Si 251.611†	16529.2	16604.4	[500] ug/L	13:35:22
2	Sn 189.927†	599.6	590.8	[100] ug/L	13:35:42
2	Sr 421.552†	11754.7	11575.6	[100] ug/L	13:34:39
2	Ti 334.940†	60312.0	64618.8	[100] ug/L	13:35:22
2	Tl 190.801†	292.3	326.8	[100] ug/L	13:35:42

2	U 409.014†	-375.8	3180.3	[100]	ug/L	13:35:22
2	V 292.402†	11206.0	13480.4	[100]	ug/L	13:35:22
2	Zn 213.857†	11029.5	10662.2	[100]	ug/L	13:35:42
2	SiO2†	16261.9	16399.8	[1069.5]	ug/L	13:36:17
3	Sc 361.383	839960.4	839960.4	105.56	%	13:35:47
3	Sc Radial	4013.6	4013.6	101	%	13:34:49
3	Y 371.029	676780.1	676780.1	105.25	%	13:35:47
3	Y RADIAL	4138.3	4138.3	100.2	%	13:34:49
3	Ag 328.068†	19367.8	18162.9	[100]	ug/L	13:35:47
3	As 188.979†	218.7	234.8	[100]	ug/L	13:36:07
3	B 249.677†	4110.4	3836.0	[100]	ug/L	13:35:47
3	Ba 233.527†	11830.6	11201.5	[100]	ug/L	13:35:47
3	Be 313.107†	257223.6	247924.1	[100]	ug/L	13:35:47
3	Cd 226.502†	7895.5	7688.6	[100]	ug/L	13:36:07
3	Co 228.616†	4687.2	4519.0	[100]	ug/L	13:36:07
3	Cr 267.716†	8542.2	7395.5	[100]	ug/L	13:36:07
3	Cu 324.752†	39308.7	28920.9	[100]	ug/L	13:35:47
3	K 766.490 Radial†	7620.8	4341.1	[1000]	ug/L	13:34:44
3	Mn 257.610†	86604.9	81495.4	[100]	ug/L	13:35:47
3	Mo 202.031†	1306.7	1216.8	[100]	ug/L	13:36:07
3	Ni 231.604†	3888.8	3592.5	[100]	ug/L	13:36:07
3	P 214.914†	1148.5	844.7	[500]	ug/L	13:36:07
3	Pb 220.353†	757.0	733.2	[100]	ug/L	13:36:07
3	S 181.975 Axial†	216.0	143.0	[200]	ug/L	13:36:07
3	Sb 206.836†	327.3	266.1	[100]	ug/L	13:36:07
3	Se 196.026†	145.8	164.6	[100]	ug/L	13:36:07
3	Si 251.611†	16179.5	14662.1	[500]	ug/L	13:35:47
3	Sn 189.927†	580.7	514.4	[100]	ug/L	13:36:07
3	Sr 421.552†	11797.5	11574.8	[100]	ug/L	13:34:49
3	Ti 334.940†	58496.8	57020.4	[100]	ug/L	13:35:47
3	Tl 190.801†	289.3	295.4	[100]	ug/L	13:36:07
3	U 409.014†	-514.6	3085.3	[100]	ug/L	13:35:47
3	V 292.402†	10749.8	11955.9	[100]	ug/L	13:35:47
3	Zn 213.857†	10727.5	9301.0	[100]	ug/L	13:36:07
3	SiO2†	16349.3	14897.6	[1069.5]	ug/L	13:36:23

## Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Sc 361.383	797232.0	39658.44	4.97%	100.19	%
Sc Radial	4006.1	7.41	0.18%	101	%
Y 371.029	643041.6	31439.13	4.89%	100.01	%
Y RADIAL	4136.5	23.52	0.57%	100.1	%
Ag 328.068†	19398.0	1240.22	6.39%	[100]	ug/L
As 188.979†	242.1	7.51	3.10%	[100]	ug/L
B 249.677†	4072.9	238.53	5.86%	[100]	ug/L
Ba 233.527†	11967.4	770.96	6.44%	[100]	ug/L
Be 313.107†	264373.8	16715.71	6.32%	[100]	ug/L
Cd 226.502†	8181.2	495.16	6.05%	[100]	ug/L
Co 228.616†	4819.9	307.20	6.37%	[100]	ug/L
Cr 267.716†	7919.1	521.31	6.58%	[100]	ug/L
Cu 324.752†	31270.9	2382.52	7.62%	[100]	ug/L
K 766.490 Radial†	4363.3	69.35	1.59%	[1000]	ug/L
Mn 257.610†	87079.1	5568.76	6.40%	[100]	ug/L
Mo 202.031†	1301.3	82.53	6.34%	[100]	ug/L
Ni 231.604†	3806.3	228.44	6.00%	[100]	ug/L
P 214.914†	925.5	81.07	8.76%	[500]	ug/L
Pb 220.353†	780.7	46.16	5.91%	[100]	ug/L
S 181.975 Axial†	153.3	13.37	8.72%	[200]	ug/L
Sb 206.836†	289.0	22.10	7.64%	[100]	ug/L
Se 196.026†	175.7	12.20	6.95%	[100]	ug/L
Si 251.611†	15623.1	971.32	6.22%	[500]	ug/L
Sn 189.927†	548.0	39.02	7.12%	[100]	ug/L
Sr 421.552†	11575.2	0.39	0.00%	[100]	ug/L
Ti 334.940†	60806.1	3799.25	6.25%	[100]	ug/L
Tl 190.801†	313.3	16.13	5.15%	[100]	ug/L
U 409.014†	3095.2	80.53	2.60%	[100]	ug/L
V 292.402†	12694.5	763.33	6.01%	[100]	ug/L
Zn 213.857†	9975.1	680.68	6.82%	[100]	ug/L
SiO2†	15741.6	768.13	4.88%	[1069.5]	ug/L



Sequence No.: 3  
 Sample ID: S0.5  
 Analyst:  
 Logged In Analyst (Original) : Optima3  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 3  
 Date Collected: 2/17/2010 13:38:33  
 Data Type: Reprocessed on 2/17/2010 15:41:06  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc 361.383	805710.3	805710.3	101.25 %	13:41:45
1	Sc Radial	3962.2	3962.2	99.7 %	13:40:26
1	Y 371.029	644793.5	644793.5	100.28 %	13:41:45
1	Y RADIAL	4089.1	4089.1	98.99 %	13:40:26
1	Ag 328.068†	97027.6	95642.8	[500] ug/L	13:41:45
1	Al 396.153Radial†	4571.4	4728.9	[5000] ug/L	13:40:26
1	As 188.979†	1144.0	1157.5	[500] ug/L	13:42:05
1	B 249.677†	20578.2	20265.9	[500] ug/L	13:41:45
1	Ba 233.527†	60331.0	59579.0	[500] ug/L	13:41:45
1	Be 313.107†	1320625.4	1308542.4	[500] ug/L	13:41:45
1	Ca 317.933Radial†	2579.9	2564.5	[5000] ug/L	13:40:46
1	Cd 226.502†	39667.7	39386.1	[500] ug/L	13:42:05
1	Co 228.616†	23370.3	23160.0	[500] ug/L	13:42:05
1	Cr 267.716†	42865.0	41638.1	[500] ug/L	13:41:45
1	Cu 324.752†	185989.2	175371.6	[500] ug/L	13:41:45
1	K 766.490 Radial†	25554.6	22434.2	[5000] ug/L	13:40:26
1	Mg 279.077 IEC†	133.6	132.7	[5000] ug/L	13:40:46
1	Mn 257.610†	440515.6	434519.9	[500] ug/L	13:41:45
1	Mo 202.031†	6391.6	6291.5	[500] ug/L	13:42:05
1	Ni 231.604†	18655.7	18333.6	[500] ug/L	13:42:05
1	P 214.914†	4784.0	4481.5	[2500] ug/L	13:42:05
1	Pb 220.353†	3838.9	3807.4	[500] ug/L	13:42:05
1	S 181.975 Axial†	819.5	747.7	[1000] ug/L	13:42:05
1	Sb 206.836†	1441.8	1380.0	[500] ug/L	13:42:05
1	Se 196.026†	847.2	863.2	[500] ug/L	13:42:05
1	Si 251.611†	82576.5	80890.0	[2500] ug/L	13:41:45
1	Sn 189.927†	2694.2	2625.2	[500] ug/L	13:42:05
1	Sr 421.552†	58425.0	58513.6	[500] ug/L	13:40:26
1	Ti 334.940†	302781.2	300641.6	[500] ug/L	13:41:45
1	Tl 190.801†	1521.1	1523.6	[500] ug/L	13:42:05
1	U 409.014†	11460.6	14891.8	[500] ug/L	13:41:45
1	V 292.402†	62069.1	63073.9	[500] ug/L	13:41:45
1	Zn 213.857†	55397.3	53850.8	[500] ug/L	13:41:45
1	SiO2†	79138.5	77569.2	[5347.5] ug/L	13:43:05
2	Sc 361.383	809490.4	809490.4	101.73 %	13:42:12
2	Sc Radial	3974.0	3974.0	100.0 %	13:40:51
2	Y 371.029	647842.0	647842.0	100.75 %	13:42:12
2	Y RADIAL	4104.6	4104.6	99.36 %	13:40:51
2	Ag 328.068†	96210.1	94391.7	[500] ug/L	13:42:12
2	Al 396.153Radial†	4592.4	4736.4	[5000] ug/L	13:40:51
2	As 188.979†	1164.9	1172.8	[500] ug/L	13:42:32
2	B 249.677†	20615.8	20207.9	[500] ug/L	13:42:12
2	Ba 233.527†	59184.5	58173.7	[500] ug/L	13:42:12
2	Be 313.107†	1320243.6	1302076.5	[500] ug/L	13:42:12
2	Ca 317.933Radial†	2587.8	2564.7	[5000] ug/L	13:41:11
2	Cd 226.502†	39780.4	39314.0	[500] ug/L	13:42:32
2	Co 228.616†	23456.0	23136.4	[500] ug/L	13:42:32
2	Cr 267.716†	40509.8	39125.1	[500] ug/L	13:42:12
2	Cu 324.752†	165885.8	154751.6	[500] ug/L	13:42:12
2	K 766.490 Radial†	25559.8	22363.5	[5000] ug/L	13:40:51
2	Mg 279.077 IEC†	134.3	133.0	[5000] ug/L	13:41:11
2	Mn 257.610†	428608.8	420783.5	[500] ug/L	13:42:12
2	Mo 202.031†	6420.9	6290.8	[500] ug/L	13:42:32
2	Ni 231.604†	18723.7	18314.3	[500] ug/L	13:42:32
2	P 214.914†	4806.6	4481.7	[2500] ug/L	13:42:32
2	Pb 220.353†	3867.5	3817.8	[500] ug/L	13:42:32
2	S 181.975 Axial†	815.7	740.2	[1000] ug/L	13:42:32
2	Sb 206.836†	1445.3	1376.8	[500] ug/L	13:42:32

2	Se 196.026†	850.2	862.2	[500]	ug/L	13:42:32
2	Si 251.611†	78801.0	76797.8	[2500]	ug/L	13:42:12
2	Sn 189.927†	2689.5	2608.1	[500]	ug/L	13:42:32
2	Sr 421.552†	58620.9	58535.9	[500]	ug/L	13:40:51
2	Ti 334.940†	300705.0	297204.2	[500]	ug/L	13:42:12
2	Tl 190.801†	1513.9	1509.5	[500]	ug/L	13:42:32
2	U 409.014†	11236.4	14618.6	[500]	ug/L	13:42:12
2	V 292.402†	61924.4	62645.4	[500]	ug/L	13:42:12
2	Zn 213.857†	50556.2	48836.3	[500]	ug/L	13:42:12
2	SiO2†	78697.6	76770.7	[5347.5]	ug/L	13:43:10
3	Sc 361.383	814214.3	814214.3	102.32	%	13:42:39
3	Sc Radial	3952.9	3952.9	99.4	%	13:41:16
3	Y 371.029	652336.8	652336.8	101.45	%	13:42:39
3	Y RADIAL	4105.4	4105.4	99.38	%	13:41:16
3	Ag 328.068†	96584.2	94208.6	[500]	ug/L	13:42:39
3	Al 396.153Radial†	4558.7	4727.0	[5000]	ug/L	13:41:16
3	As 188.979†	1167.6	1168.8	[500]	ug/L	13:42:59
3	B 249.677†	20792.3	20262.9	[500]	ug/L	13:42:39
3	Ba 233.527†	59583.4	58225.9	[500]	ug/L	13:42:39
3	Be 313.107†	1328931.3	1303037.2	[500]	ug/L	13:42:39
3	Ca 317.933Radial†	2573.1	2563.8	[5000]	ug/L	13:41:36
3	Cd 226.502†	40012.7	39314.1	[500]	ug/L	13:42:59
3	Co 228.616†	23623.5	23166.3	[500]	ug/L	13:42:59
3	Cr 267.716†	40847.1	39223.7	[500]	ug/L	13:42:39
3	Cu 324.752†	166799.8	154698.8	[500]	ug/L	13:42:39
3	K 766.490 Radial†	25649.0	22589.7	[5000]	ug/L	13:41:16
3	Mg 279.077 IEC†	135.6	135.1	[5000]	ug/L	13:41:36
3	Mn 257.610†	431023.8	420699.3	[500]	ug/L	13:42:39
3	Mo 202.031†	6468.1	6300.3	[500]	ug/L	13:42:59
3	Ni 231.604†	18810.7	18292.6	[500]	ug/L	13:42:59
3	P 214.914†	4855.5	4502.1	[2500]	ug/L	13:42:59
3	Pb 220.353†	3881.1	3809.1	[500]	ug/L	13:42:59
3	S 181.975 Axial†	828.2	747.7	[1000]	ug/L	13:42:59
3	Sb 206.836†	1436.5	1359.9	[500]	ug/L	13:42:59
3	Se 196.026†	858.6	865.6	[500]	ug/L	13:42:59
3	Si 251.611†	79204.9	76743.1	[2500]	ug/L	13:42:39
3	Sn 189.927†	2716.6	2619.3	[500]	ug/L	13:42:59
3	Sr 421.552†	58392.7	58619.7	[500]	ug/L	13:41:16
3	Ti 334.940†	301924.9	296681.3	[500]	ug/L	13:42:39
3	Tl 190.801†	1558.0	1544.0	[500]	ug/L	13:42:59
3	U 409.014†	11411.5	14725.6	[500]	ug/L	13:42:39
3	V 292.402†	62361.3	62719.2	[500]	ug/L	13:42:39
3	Zn 213.857†	50929.6	48913.0	[500]	ug/L	13:42:39
3	SiO2†	79256.7	76868.4	[5347.5]	ug/L	13:43:15

## Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	809805.0	4260.74	0.53%	101.77	%
Sc Radial	3963.1	10.58	0.27%	99.7	%
Y 371.029	648324.1	3794.68	0.59%	100.83	%
Y RADIAL	4099.7	9.17	0.22%	99.24	%
Ag 328.068†	94747.7	780.57	0.82%	[500]	ug/L
Al 396.153Radial†	4730.8	4.96	0.10%	[5000]	ug/L
As 188.979†	1166.4	7.91	0.68%	[500]	ug/L
B 249.677†	20245.6	32.62	0.16%	[500]	ug/L
Ba 233.527†	58659.5	796.70	1.36%	[500]	ug/L
Be 313.107†	1304552.0	3489.00	0.27%	[500]	ug/L
Ca 317.933Radial†	2564.4	0.48	0.02%	[5000]	ug/L
Cd 226.502†	39338.1	41.63	0.11%	[500]	ug/L
Co 228.616†	23154.2	15.77	0.07%	[500]	ug/L
Cr 267.716†	39995.6	1423.25	3.56%	[500]	ug/L
Cu 324.752†	161607.4	11920.24	7.38%	[500]	ug/L
K 766.490 Radial†	22462.4	115.76	0.52%	[5000]	ug/L
Mg 279.077 IEC†	133.6	1.31	0.98%	[5000]	ug/L
Mn 257.610†	425334.2	7955.14	1.87%	[500]	ug/L
Mo 202.031†	6294.2	5.30	0.08%	[500]	ug/L
Ni 231.604†	18313.5	20.52	0.11%	[500]	ug/L
P 214.914†	4488.4	11.83	0.26%	[2500]	ug/L
Pb 220.353†	3811.4	5.58	0.15%	[500]	ug/L

S 181.975 Axial†	745.2	4.36	0.59%	[1000]	ug/L
Sb 206.836†	1372.3	10.77	0.78%	[500]	ug/L
Se 196.026†	863.7	1.75	0.20%	[500]	ug/L
Si 251.611†	78143.6	2378.61	3.04%	[2500]	ug/L
Sn 189.927†	2617.6	8.66	0.33%	[500]	ug/L
Sr 421.552†	58556.4	55.93	0.10%	[500]	ug/L
Ti 334.940†	298175.7	2151.45	0.72%	[500]	ug/L
Tl 190.801†	1525.7	17.34	1.14%	[500]	ug/L
U 409.014†	14745.4	137.68	0.93%	[500]	ug/L
V 292.402†	62812.8	229.09	0.36%	[500]	ug/L
Zn 213.857†	50533.4	2873.21	5.69%	[500]	ug/L
SiO2†	77069.4	435.53	0.57%	[5347.5]	ug/L

Sequence No.: 4  
 Sample ID: SCAL  
 Analyst:  
 Logged In Analyst (Original) : Optima3  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 4  
 Date Collected: 2/17/2010 13:45:26  
 Data Type: Reprocessed on 2/17/2010 15:41:07  
 Initial Sample Vol:  
 Sample Prep Vol:

## Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Analysis Time
1	Sc 361.383	788006.3	788006.3	99.027 %	13:48:42
1	Sc Radial	3852.5	3852.5	96.9 %	13:47:39
1	Y 371.029	632246.3	632246.3	98.328 %	13:48:42
1	Y RADIAL	4035.7	4035.7	97.69 %	13:47:19
1	Ag 328.068†	194560.4	196287.3	[1000] ug/L	13:48:42
1	Al 396.153Radial†	9243.9	9681.8	[10000] ug/L	13:47:19
1	As 188.979†	2324.9	2375.4	[1000] ug/L	13:49:02
1	B 249.677†	41797.8	42150.7	[1000] ug/L	13:48:42
1	Ba 233.527†	118345.6	119502.6	[1000] ug/L	13:48:42
1	Be 313.107†	2648106.6	2678376.8	[1000] ug/L	13:48:37
1	Ca 317.933Radial†	5146.9	5287.5	[10000] ug/L	13:47:19
1	Cd 226.502†	80596.9	81597.8	[1000] ug/L	13:48:42
1	Co 228.616†	47129.3	47671.0	[1000] ug/L	13:48:42
1	Cr 267.716†	80929.8	81028.2	[1000] ug/L	13:48:42
1	Cu 324.752†	326429.4	321319.4	[1000] ug/L	13:48:42
1	Fe 238.204 Radial†	917.6	936.0	[10000] ug/L	13:47:39
1	K 766.490 Radial†	47830.6	46154.1	[10000] ug/L	13:47:19
1	Mg 279.077 IEC†	258.6	265.5	[10000] ug/L	13:47:39
1	Mn 257.610†	854382.5	862229.9	[1000] ug/L	13:48:37
1	Mo 202.031†	12896.2	13001.9	[1000] ug/L	13:49:02
1	Na 589.592 Radial†	27087.0	28058.0	[10000] ug/L	13:47:19
1	Ni 231.604†	37291.0	37566.0	[1000] ug/L	13:48:42
1	P 214.914†	9343.2	9191.8	[5000] ug/L	13:49:02
1	Pb 220.353†	7682.3	7773.7	[1000] ug/L	13:49:02
1	S 181.975 Axial†	1605.1	1559.2	[2000] ug/L	13:49:02
1	Sb 206.836†	2884.1	2868.4	[1000] ug/L	13:49:02
1	Se 196.026†	1707.1	1750.4	[1000] ug/L	13:49:02
1	Si 251.611†	158470.0	159361.8	[5000] ug/L	13:48:42
1	Sn 189.927†	5441.9	5459.7	[1000] ug/L	13:49:02
1	Sr 421.552†	116773.1	120400.4	[1000] ug/L	13:47:19
1	Ti 334.940†	597512.4	604988.5	[1000] ug/L	13:48:42
1	Tl 190.801†	3065.3	3116.8	[1000] ug/L	13:49:02
1	U 409.014†	27709.1	31554.4	[1000] ug/L	13:48:42
1	V 292.402†	126545.6	129561.5	[1000] ug/L	13:48:42
1	Zn 213.857†	99654.9	99772.7	[1000] ug/L	13:48:42
1	SiO2†	159833.6	160813.6	[10695] ug/L	13:50:11
2	Sc 361.383	790760.5	790760.5	99.373 %	13:49:14
2	Sc Radial	3866.5	3866.5	97.3 %	13:48:04
2	Y 371.029	635419.5	635419.5	98.821 %	13:49:14
2	Y RADIAL	4122.9	4122.9	99.80 %	13:47:44
2	Ag 328.068†	195306.7	196354.1	[1000] ug/L	13:49:14
2	Al 396.153Radial†	9390.4	9797.7	[10000] ug/L	13:47:44
2	As 188.979†	2326.6	2369.0	[1000] ug/L	13:49:34
2	B 249.677†	42153.2	42361.3	[1000] ug/L	13:49:14
2	Ba 233.527†	118884.7	119628.8	[1000] ug/L	13:49:14
2	Be 313.107†	2663347.8	2684400.3	[1000] ug/L	13:49:08
2	Ca 317.933Radial†	5217.3	5340.5	[10000] ug/L	13:47:44
2	Cd 226.502†	80853.1	81572.2	[1000] ug/L	13:49:14
2	Co 228.616†	47380.7	47758.2	[1000] ug/L	13:49:14
2	Cr 267.716†	81351.6	81168.0	[1000] ug/L	13:49:14
2	Cu 324.752†	327589.4	321338.6	[1000] ug/L	13:49:14
2	Fe 238.204 Radial†	919.9	934.8	[10000] ug/L	13:48:04
2	K 766.490 Radial†	48475.1	46637.1	[10000] ug/L	13:47:44
2	Mg 279.077 IEC†	265.4	271.5	[10000] ug/L	13:48:04
2	Mn 257.610†	856522.7	861378.6	[1000] ug/L	13:49:08
2	Mo 202.031†	12936.8	12997.4	[1000] ug/L	13:49:34
2	Na 589.592 Radial†	27533.4	28415.2	[10000] ug/L	13:47:44
2	Ni 231.604†	37456.4	37601.3	[1000] ug/L	13:49:14

2	P 214.914†	9356.1	9171.8	[5000]	ug/L	13:49:34
2	Pb 220.353†	7708.4	7773.1	[1000]	ug/L	13:49:34
2	S 181.975 Axial†	1605.7	1554.2	[2000]	ug/L	13:49:34
2	Sb 206.836†	2905.9	2880.2	[1000]	ug/L	13:49:34
2	Se 196.026†	1713.7	1751.0	[1000]	ug/L	13:49:34
2	Si 251.611†	159112.0	159450.5	[5000]	ug/L	13:49:14
2	Sn 189.927†	5447.7	5446.4	[1000]	ug/L	13:49:34
2	Sr 421.552†	118439.8	121675.5	[1000]	ug/L	13:47:44
2	Ti 334.940†	599263.0	604648.6	[1000]	ug/L	13:49:14
2	Tl 190.801†	3075.8	3116.6	[1000]	ug/L	13:49:34
2	U 409.014†	27761.2	31509.4	[1000]	ug/L	13:49:14
2	V 292.402†	127155.7	129730.3	[1000]	ug/L	13:49:14
2	Zn 213.857†	100155.1	99925.5	[1000]	ug/L	13:49:14
2	SiO2†	160631.4	161054.3	[10695]	ug/L	13:50:16
3	Sc 361.383	790312.3	790312.3	99.316	%	13:49:45
3	Sc Radial	3850.1	3850.1	96.8	%	13:48:29
3	Y 371.029	635811.7	635811.7	98.882	%	13:49:45
3	Y RADIAL	4091.3	4091.3	99.04	%	13:48:09
3	Ag 328.068†	195144.4	196302.1	[1000]	ug/L	13:49:45
3	Al 396.153Radial†	9334.4	9781.2	[10000]	ug/L	13:48:09
3	As 188.979†	2316.0	2359.6	[1000]	ug/L	13:50:05
3	B 249.677†	42103.6	42335.4	[1000]	ug/L	13:49:45
3	Ba 233.527†	118775.2	119586.4	[1000]	ug/L	13:49:45
3	Be 313.107†	2673748.0	2696392.1	[1000]	ug/L	13:49:40
3	Ca 317.933Radial†	5200.3	5345.9	[10000]	ug/L	13:48:09
3	Cd 226.502†	81015.5	81781.8	[1000]	ug/L	13:49:45
3	Co 228.616†	47321.5	47725.7	[1000]	ug/L	13:49:45
3	Cr 267.716†	81325.9	81188.5	[1000]	ug/L	13:49:45
3	Cu 324.752†	326509.5	320438.2	[1000]	ug/L	13:49:45
3	Fe 238.204 Radial†	922.2	941.3	[10000]	ug/L	13:48:29
3	K 766.490 Radial†	48299.1	46668.7	[10000]	ug/L	13:48:09
3	Mg 279.077 IEC†	263.4	270.6	[10000]	ug/L	13:48:29
3	Mn 257.610†	859656.7	865023.1	[1000]	ug/L	13:49:40
3	Mo 202.031†	12868.0	12935.5	[1000]	ug/L	13:50:05
3	Na 589.592 Radial†	27426.3	28425.9	[10000]	ug/L	13:48:09
3	Ni 231.604†	37474.6	37640.9	[1000]	ug/L	13:49:45
3	P 214.914†	9318.9	9139.7	[5000]	ug/L	13:50:05
3	Pb 220.353†	7672.4	7741.1	[1000]	ug/L	13:50:05
3	S 181.975 Axial†	1598.4	1547.7	[2000]	ug/L	13:50:05
3	Sb 206.836†	2875.0	2850.8	[1000]	ug/L	13:50:05
3	Se 196.026†	1693.5	1731.7	[1000]	ug/L	13:50:05
3	Si 251.611†	158900.0	159327.9	[5000]	ug/L	13:49:45
3	Sn 189.927†	5441.6	5443.4	[1000]	ug/L	13:50:05
3	Sr 421.552†	117586.6	121315.6	[1000]	ug/L	13:48:09
3	Ti 334.940†	598101.6	603821.2	[1000]	ug/L	13:49:45
3	Tl 190.801†	3070.9	3113.3	[1000]	ug/L	13:50:05
3	U 409.014†	27775.7	31539.8	[1000]	ug/L	13:49:45
3	V 292.402†	127242.1	129889.9	[1000]	ug/L	13:49:45
3	Zn 213.857†	100170.2	99997.9	[1000]	ug/L	13:49:45
3	SiO2†	159908.4	160417.9	[10695]	ug/L	13:50:21

## Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Sc 361.383	789693.0	1477.83	0.19%	99.239	%
Sc Radial	3856.4	8.90	0.23%	97.0	%
Y 371.029	634492.5	1955.16	0.31%	98.677	%
Y RADIAL	4083.3	44.16	1.08%	98.85	%
Ag 328.068†	196314.5	35.07	0.02%	[1000]	ug/L
Al 396.153Radial†	9753.6	62.67	0.64%	[10000]	ug/L
As 188.979†	2368.0	7.95	0.34%	[1000]	ug/L
B 249.677†	42282.4	114.86	0.27%	[1000]	ug/L
Ba 233.527†	119572.6	64.26	0.05%	[1000]	ug/L
Be 313.107†	2686389.7	9170.97	0.34%	[1000]	ug/L
Ca 317.933Radial†	5324.6	32.30	0.61%	[10000]	ug/L
Cd 226.502†	81650.6	114.34	0.14%	[1000]	ug/L
Co 228.616†	47718.3	44.08	0.09%	[1000]	ug/L
Cr 267.716†	81128.2	87.26	0.11%	[1000]	ug/L
Cu 324.752†	321032.1	514.43	0.16%	[1000]	ug/L
Fe 238.204 Radial†	937.3	3.43	0.37%	[10000]	ug/L

---

K 766.490 Radial†	46486.6	288.42	0.62%	[10000]	ug/L
Mg 279.077 IEC†	269.2	3.22	1.20%	[10000]	ug/L
Mn 257.610†	862877.2	1906.49	0.22%	[1000]	ug/L
Mo 202.031†	12978.2	37.09	0.29%	[1000]	ug/L
Na 589.592 Radial†	28299.7	209.41	0.74%	[10000]	ug/L
Ni 231.604†	37602.8	37.48	0.10%	[1000]	ug/L
P 214.914†	9167.8	26.27	0.29%	[5000]	ug/L
Pb 220.353†	7762.7	18.63	0.24%	[1000]	ug/L
S 181.975 Axial†	1553.7	5.73	0.37%	[2000]	ug/L
Sb 206.836†	2866.5	14.80	0.52%	[1000]	ug/L
Se 196.026†	1744.3	10.98	0.63%	[1000]	ug/L
Si 251.611†	159380.1	63.31	0.04%	[5000]	ug/L
Sn 189.927†	5449.8	8.68	0.16%	[1000]	ug/L
Sr 421.552†	121130.5	657.37	0.54%	[1000]	ug/L
Ti 334.940†	604486.1	600.38	0.10%	[1000]	ug/L
Tl 190.801†	3115.6	1.94	0.06%	[1000]	ug/L
U 409.014†	31534.5	22.96	0.07%	[1000]	ug/L
V 292.402†	129727.2	164.24	0.13%	[1000]	ug/L
Zn 213.857†	99898.7	114.98	0.12%	[1000]	ug/L
SiO2†	160761.9	321.32	0.20%	[10695]	ug/L

Sequence No.: 5

Sample ID: S10

Analyst:

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 5

Date Collected: 2/17/2010 13:52:33

Data Type: Reprocessed on 2/17/2010 15:41:08

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc 361.383	789438.6	789438.6	99.207 %	13:55:43
1	Sc Radial	3918.0	3918.0	98.5 %	13:54:46
1	Y 371.029	629184.5	629184.5	97.852 %	13:55:43
1	Y RADIAL	4045.5	4045.5	97.93 %	13:54:46
1	Al 396.153Radial†	46772.2	47604.5	[50000] ug/L	13:54:26
1	Ca 317.933Radial†	25019.6	25364.7	[50000] ug/L	13:54:26
1	Fe 238.204 Radial†	1788.1	1803.4	[20000] ug/L	13:54:46
1	Mg 279.077 IEC†	1250.7	1267.8	[50000] ug/L	13:54:46
1	Na 589.592 Radial†	55431.2	56353.2	[20000] ug/L	13:54:26
2	Sc 361.383	791088.0	791088.0	99.414 %	13:55:49
2	Sc Radial	3897.5	3897.5	98.0 %	13:55:11
2	Y 371.029	630980.2	630980.2	98.131 %	13:55:49
2	Y RADIAL	4015.1	4015.1	97.19 %	13:55:11
2	Al 396.153Radial†	47710.5	48811.1	[50000] ug/L	13:54:51
2	Ca 317.933Radial†	25468.9	25956.5	[50000] ug/L	13:54:51
2	Fe 238.204 Radial†	1799.6	1824.8	[20000] ug/L	13:55:11
2	Mg 279.077 IEC†	1254.6	1278.4	[50000] ug/L	13:55:11
2	Na 589.592 Radial†	56531.1	57770.7	[20000] ug/L	13:54:51
3	Sc 361.383	802119.9	802119.9	100.80 %	13:55:55
3	Sc Radial	3897.1	3897.1	98.0 %	13:55:36
3	Y 371.029	638610.4	638610.4	99.318 %	13:55:55
3	Y RADIAL	4019.6	4019.6	97.30 %	13:55:36
3	Al 396.153Radial†	47438.9	48539.5	[50000] ug/L	13:55:16
3	Ca 317.933Radial†	25335.0	25822.8	[50000] ug/L	13:55:16
3	Fe 238.204 Radial†	1777.7	1802.6	[20000] ug/L	13:55:36
3	Mg 279.077 IEC†	1257.4	1281.5	[50000] ug/L	13:55:36
3	Na 589.592 Radial†	56021.5	57257.3	[20000] ug/L	13:55:16

## Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	794215.5	6894.92	0.87%	99.807 %
Sc Radial	3904.2	11.95	0.31%	98.2 %
Y 371.029	632925.0	5004.89	0.79%	98.433 %
Y RADIAL	4026.7	16.44	0.41%	97.48 %
Al 396.153Radial†	48318.4	632.97	1.31%	[50000] ug/L
Ca 317.933Radial†	25714.6	310.34	1.21%	[50000] ug/L
Fe 238.204 Radial†	1810.3	12.57	0.69%	[20000] ug/L
Mg 279.077 IEC†	1275.9	7.20	0.56%	[50000] ug/L
Na 589.592 Radial†	57127.1	717.72	1.26%	[20000] ug/L

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	194.9	0.00000	0.999903	
Al 396.153Radial	3	Lin Thru 0	0.0	0.9665	0.00000	0.999996	
As 188.979	3	Lin Thru 0	0.0	2.361	0.00000	0.999980	
B 249.677	3	Lin Thru 0	0.0	41.91	0.00000	0.999852	
Ba 233.527	3	Lin Thru 0	0.0	119.1	0.00000	0.999972	
Be 313.107	3	Lin Thru 0	0.0	2671	0.00000	0.999933	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.5150	0.00000	0.999977	
Cd 226.502	3	Lin Thru 0	0.0	81.06	0.00000	0.999893	
Co 228.616	3	Lin Thru 0	0.0	47.44	0.00000	0.999929	
Cr 267.716	3	Lin Thru 0	0.0	80.89	0.00000	0.999983	
Cu 324.752	3	Lin Thru 0	0.0	321.4	0.00000	0.999993	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0912	0.00000	0.999900	

K 766.490 Radial	3	Lin Thru 0	0.0	4.615	0.00000	0.999897
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0256	0.00000	0.999936
Mn 257.610	3	Lin Thru 0	0.0	860.5	0.00000	0.999983
Mo 202.031	3	Lin Thru 0	0.0	12.90	0.00000	0.999927
Na 589.592 Radia	2	Lin Thru 0	0.0	2.851	0.00000	0.999993
Ni 231.604	3	Lin Thru 0	0.0	37.41	0.00000	0.999945
P 214.914	3	Lin Thru 0	0.0	1.826	0.00000	0.999965
Pb 220.353	3	Lin Thru 0	0.0	7.735	0.00000	0.999974
S 181.975 Axial	3	Lin Thru 0	0.0	0.7705	0.00000	0.999866
Sb 206.836	3	Lin Thru 0	0.0	2.842	0.00000	0.999853
Se 196.026	3	Lin Thru 0	0.0	1.741	0.00000	0.999992
Si 251.611	3	Lin Thru 0	0.0	31.75	0.00000	0.999969
Sn 189.927	3	Lin Thru 0	0.0	5.407	0.00000	0.999874
Sr 421.552	3	Lin Thru 0	0.0	120.3	0.00000	0.999906
Ti 334.940	3	Lin Thru 0	0.0	602.9	0.00000	0.999985
Tl 190.801	3	Lin Thru 0	0.0	3.103	0.00000	0.999966
U 409.014	3	Lin Thru 0	0.0	31.12	0.00000	0.999658
V 292.402	3	Lin Thru 0	0.0	128.9	0.00000	0.999919
Zn 213.857	3	Lin Thru 0	0.0	100.1	0.00000	0.999989
SiO2	3	Lin Thru 0	0.0	14.91	0.00000	0.999862



Sequence No.: 6

Sample ID: ICV

Analyst:

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 9

Date Collected: 2/17/2010 13:58:06

Data Type: Reprocessed on 2/17/2010 15:41:09

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 361.383	812358.1	812358.1	102.09 %		14:01:16
1	Sc Radial	3956.9	3956.9	99.5 %		13:59:59
1	Y 371.029	653053.6	653053.6	101.56 %		14:01:16
1	Y RADIAL	4096.6	4096.6	99.17 %		13:59:59
1	Ag 328.068†	49740.8	48538.4	252.05 ug/L	252.05 ppb	14:01:16
1	Al 396.153Radial†	4543.0	4706.6	4844.5 ug/L	4844.5 ppb	13:59:59
1	As 188.979†	1078.5	1084.1	463.22 ug/L	463.22 ppb	14:01:36
1	B 249.677†	21446.5	20950.1	497.64 ug/L	497.64 ppb	14:01:16
1	Ba 233.527†	59663.5	58437.5	491.79 ug/L	491.79 ppb	14:01:16
1	Be 313.107†	683845.0	674104.9	253.51 ug/L	253.51 ppb	14:01:16
1	Ca 317.933Radial†	2523.6	2511.4	4876.8 ug/L	4876.8 ppb	14:00:19
1	Cd 226.502†	38854.3	38268.7	471.98 ug/L	471.98 ppb	14:01:36
1	Co 228.616†	23305.3	22907.4	482.99 ug/L	482.99 ppb	14:01:36
1	Cr 267.716†	39179.0	37681.0	466.45 ug/L	466.45 ppb	14:01:16
1	Cu 324.752†	166545.0	154821.6	481.71 ug/L	481.71 ppb	14:01:16
1	Fe 238.204 Radial†	462.0	453.1	4985.3 ug/L	4985.3 ppb	14:00:19
1	K 766.490 Radial†	14073.8	10933.0	2365.4 ug/L	2365.4 ppb	13:59:59
1	Mg 279.077 IEC†	137.1	136.4	5333.3 ug/L	5333.3 ppb	14:00:19
1	Mn 257.610†	437109.6	427623.1	497.21 ug/L	497.21 ppb	14:01:16
1	Mo 202.031†	6852.3	6691.1	519.08 ug/L	519.08 ppb	14:01:36
1	Na 589.592 Radial†	6629.8	6765.2	2372.8 ug/L	2372.8 ppb	13:59:59
1	Ni 231.604†	18517.1	18047.0	482.08 ug/L	482.08 ppb	14:01:36
1	P 214.914†	4752.8	4412.3	2322.6 ug/L	2322.6 ppb	14:01:36
1	Pb 220.353†	3777.5	3716.3	482.10 ug/L	482.10 ppb	14:01:36
1	S 181.975 Axial†	1953.7	1852.1	2402.8 ug/L	2402.8 ppb	14:01:36
1	Sb 206.836†	1444.4	1370.9	500.92 ug/L	500.92 ppb	14:01:36
1	Se 196.026†	4368.1	4305.3	2489.1 ug/L	2489.1 ppb	14:01:36
1	Si 251.611†	154678.0	150850.2	4745.1 ug/L	4745.1 ppb	14:01:16
1	Sn 189.927†	2887.0	2792.3	516.50 ug/L	516.50 ppb	14:01:36
1	Sr 421.552†	60736.9	60915.5	506.37 ug/L	506.37 ppb	13:59:59
1	Ti 334.940†	298881.3	294374.2	488.10 ug/L	488.10 ppb	14:01:16
1	Tl 190.801†	1565.2	1554.6	504.38 ug/L	504.38 ppb	14:01:36
1	U 409.014†	11773.2	15105.4	483.72 ug/L	483.72 ppb	14:01:16
1	V 292.402†	63072.0	63554.6	500.03 ug/L	500.03 ppb	14:01:16
1	Zn 213.857†	51533.8	49618.5	491.08 ug/L	491.08 ppb	14:01:16
1	SiO2†	155051.8	151291.1	10135 ug/L	10135 ppb	14:02:34
2	Sc 361.383	812277.8	812277.8	102.08 %		14:01:42
2	Sc Radial	4057.7	4057.7	102 %		14:00:24
2	Y 371.029	652311.5	652311.5	101.45 %		14:01:42
2	Y RADIAL	4168.0	4168.0	100.9 %		14:00:24
2	Ag 328.068†	49797.5	48598.7	252.29 ug/L	252.29 ppb	14:01:42
2	Al 396.153Radial†	4611.6	4660.5	4796.7 ug/L	4796.7 ppb	14:00:24
2	As 188.979†	1091.6	1097.0	468.65 ug/L	468.65 ppb	14:02:02
2	B 249.677†	21524.2	21028.3	499.53 ug/L	499.53 ppb	14:01:42
2	Ba 233.527†	59755.0	58532.9	492.58 ug/L	492.58 ppb	14:01:42
2	Be 313.107†	684679.0	674988.2	253.85 ug/L	253.85 ppb	14:01:42
2	Ca 317.933Radial†	2511.6	2436.7	4731.6 ug/L	4731.6 ppb	14:00:44
2	Cd 226.502†	39272.5	38682.1	477.11 ug/L	477.11 ppb	14:02:02
2	Co 228.616†	23561.4	23160.5	488.33 ug/L	488.33 ppb	14:02:02
2	Cr 267.716†	39283.3	37786.9	467.75 ug/L	467.75 ppb	14:01:42
2	Cu 324.752†	166991.7	155275.4	483.11 ug/L	483.11 ppb	14:01:42
2	Fe 238.204 Radial†	454.4	434.2	4777.3 ug/L	4777.3 ppb	14:00:44
2	K 766.490 Radial†	14238.2	10742.9	2324.3 ug/L	2324.3 ppb	14:00:24
2	Mg 279.077 IEC†	134.7	130.6	5104.8 ug/L	5104.8 ppb	14:00:44
2	Mn 257.610†	438109.8	428645.4	498.39 ug/L	498.39 ppb	14:01:42
2	Mo 202.031†	6878.1	6717.1	521.08 ug/L	521.08 ppb	14:02:02
2	Na 589.592 Radial†	6707.8	6676.2	2341.6 ug/L	2341.6 ppb	14:00:24
2	Ni 231.604†	18700.5	18228.5	486.93 ug/L	486.93 ppb	14:02:02

2	P 214.914†	4816.5	4475.2	2357.0 ug/L	2357.0 ppb	14:02:02
2	Pb 220.353†	3813.8	3752.2	486.76 ug/L	486.76 ppb	14:02:02
2	S 181.975 Axial†	1981.3	1879.3	2438.2 ug/L	2438.2 ppb	14:02:02
2	Sb 206.836†	1444.4	1371.1	501.09 ug/L	501.09 ppb	14:02:02
2	Se 196.026†	4399.3	4336.2	2506.3 ug/L	2506.3 ppb	14:02:02
2	Si 251.611†	155132.8	151310.8	4759.5 ug/L	4759.5 ppb	14:01:42
2	Sn 189.927†	2909.6	2814.7	520.65 ug/L	520.65 ppb	14:02:02
2	Sr 421.552†	61813.6	60455.1	502.54 ug/L	502.54 ppb	14:00:24
2	Ti 334.940†	299512.0	295021.0	489.17 ug/L	489.17 ppb	14:01:42
2	Tl 190.801†	1607.4	1596.0	517.73 ug/L	517.73 ppb	14:02:02
2	U 409.014†	11744.4	15078.3	482.86 ug/L	482.86 ppb	14:01:42
2	V 292.402†	62961.7	63452.6	499.29 ug/L	499.29 ppb	14:01:42
2	Zn 213.857†	51596.1	49684.5	491.73 ug/L	491.73 ppb	14:01:42
2	SiO2†	155836.0	152074.4	10188 ug/L	10188 ppb	14:02:39
3	Sc 361.383	806472.7	806472.7	101.35 %		14:02:08
3	Sc Radial	3997.1	3997.1	101 %		14:00:49
3	Y 371.029	647028.2	647028.2	100.63 %		14:02:08
3	Y RADIAL	4115.2	4115.2	99.62 %		14:00:49
3	Ag 328.068†	49358.0	48516.2	251.89 ug/L	251.89 ppb	14:02:08
3	Al 396.153Radial†	4597.3	4714.7	4852.7 ug/L	4852.7 ppb	14:00:49
3	As 188.979†	1092.7	1105.8	472.39 ug/L	472.39 ppb	14:02:28
3	B 249.677†	21169.1	20829.7	494.77 ug/L	494.77 ppb	14:02:08
3	Ba 233.527†	59211.4	58417.9	491.62 ug/L	491.62 ppb	14:02:08
3	Be 313.107†	676124.2	671375.3	252.49 ug/L	252.49 ppb	14:02:08
3	Ca 317.933Radial†	2505.8	2468.1	4792.8 ug/L	4792.8 ppb	14:01:09
3	Cd 226.502†	39060.4	38749.9	477.93 ug/L	477.93 ppb	14:02:28
3	Co 228.616†	23408.3	23175.6	488.65 ug/L	488.65 ppb	14:02:28
3	Cr 267.716†	38882.0	37668.0	466.28 ug/L	466.28 ppb	14:02:08
3	Cu 324.752†	164778.3	154269.0	479.98 ug/L	479.98 ppb	14:02:08
3	Fe 238.204 Radial†	455.7	442.2	4865.9 ug/L	4865.9 ppb	14:01:09
3	K 766.490 Radial†	14021.5	10738.7	2323.4 ug/L	2323.4 ppb	14:00:49
3	Mg 279.077 IEC†	133.3	131.3	5131.2 ug/L	5131.2 ppb	14:01:09
3	Mn 257.610†	433761.9	427444.7	497.00 ug/L	497.00 ppb	14:02:08
3	Mo 202.031†	6851.3	6739.1	522.80 ug/L	522.80 ppb	14:02:28
3	Na 589.592 Radial†	6647.8	6716.1	2355.6 ug/L	2355.6 ppb	14:00:49
3	Ni 231.604†	18578.3	18239.8	487.23 ug/L	487.23 ppb	14:02:28
3	P 214.914†	4779.3	4472.5	2356.0 ug/L	2356.0 ppb	14:02:28
3	Pb 220.353†	3772.5	3738.3	484.97 ug/L	484.97 ppb	14:02:28
3	S 181.975 Axial†	1967.1	1879.2	2438.1 ug/L	2438.1 ppb	14:02:28
3	Sb 206.836†	1460.2	1396.8	510.19 ug/L	510.19 ppb	14:02:28
3	Se 196.026†	4395.9	4363.9	2522.5 ug/L	2522.5 ppb	14:02:28
3	Si 251.611†	153454.3	150748.6	4741.8 ug/L	4741.8 ppb	14:02:08
3	Sn 189.927†	2897.5	2823.3	522.25 ug/L	522.25 ppb	14:02:28
3	Sr 421.552†	60659.2	60224.1	500.62 ug/L	500.62 ppb	14:00:49
3	Ti 334.940†	296300.9	293964.7	487.43 ug/L	487.43 ppb	14:02:08
3	Tl 190.801†	1604.9	1604.9	520.57 ug/L	520.57 ppb	14:02:28
3	U 409.014†	11667.5	15085.3	483.08 ug/L	483.08 ppb	14:02:08
3	V 292.402†	62441.6	63383.5	498.77 ug/L	498.77 ppb	14:02:08
3	Zn 213.857†	51078.0	49537.2	490.25 ug/L	490.25 ppb	14:02:08
3	SiO2†	156786.6	154111.2	10325 ug/L	10325 ppb	14:02:44

## Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	810369.5	101.84 %	0.424			0.42%
Sc Radial	4003.9	101 %	1.3			1.27%
Y 371.029	650797.8	101.21 %	0.511			0.50%
Y RADIAL	4126.6	99.89 %	0.896			0.90%
Ag 328.068†	48551.1	252.08 ug/L	0.201	252.08 ppb	0.201	0.08%
QC value within limits for Ag 328.068 Recovery = 100.83%						
Al 396.153Radial†	4693.9	4831.3 ug/L	30.23	4831.3 ppb	30.23	0.63%
QC value within limits for Al 396.153Radial Recovery = 96.63%						
As 188.979†	1095.6	468.09 ug/L	4.611	468.09 ppb	4.611	0.98%
QC value within limits for As 188.979 Recovery = 93.62%						
B 249.677†	20936.0	497.31 ug/L	2.394	497.31 ppb	2.394	0.48%
QC value within limits for B 249.677 Recovery = 99.46%						
Ba 233.527†	58462.8	492.00 ug/L	0.514	492.00 ppb	0.514	0.10%
QC value within limits for Ba 233.527 Recovery = 98.40%						
Be 313.107†	673489.4	253.28 ug/L	0.707	253.28 ppb	0.707	0.28%
QC value within limits for Be 313.107 Recovery = 101.31%						

Ca 317.933Radial†	2472.1	4800.4 ug/L	72.86	4800.4 ppb	72.86	1.52%
QC value within limits for Ca 317.933Radial Recovery = 96.01%						
Cd 226.502†	38566.9	475.67 ug/L	3.224	475.67 ppb	3.224	0.68%
QC value within limits for Cd 226.502 Recovery = 95.13%						
Co 228.616†	23081.2	486.66 ug/L	3.181	486.66 ppb	3.181	0.65%
QC value within limits for Co 228.616 Recovery = 97.33%						
Cr 267.716†	37712.0	466.83 ug/L	0.805	466.83 ppb	0.805	0.17%
QC value within limits for Cr 267.716 Recovery = 93.37%						
Cu 324.752†	154788.7	481.60 ug/L	1.566	481.60 ppb	1.566	0.33%
QC value within limits for Cu 324.752 Recovery = 96.32%						
Fe 238.204 Radial†	443.2	4876.2 ug/L	104.37	4876.2 ppb	104.37	2.14%
QC value within limits for Fe 238.204 Radial Recovery = 97.52%						
K 766.490 Radial†	10804.9	2337.7 ug/L	24.02	2337.7 ppb	24.02	1.03%
QC value within limits for K 766.490 Radial Recovery = 93.51%						
Mg 279.077 IEC†	132.8	5189.8 ug/L	125.00	5189.8 ppb	125.00	2.41%
QC value within limits for Mg 279.077 IEC Recovery = 103.80%						
Mn 257.610†	427904.4	497.53 ug/L	0.748	497.53 ppb	0.748	0.15%
QC value within limits for Mn 257.610 Recovery = 99.51%						
Mo 202.031†	6715.8	520.99 ug/L	1.859	520.99 ppb	1.859	0.36%
QC value within limits for Mo 202.031 Recovery = 104.20%						
Na 589.592 Radial†	6719.1	2356.7 ug/L	15.64	2356.7 ppb	15.64	0.66%
QC value within limits for Na 589.592 Radial Recovery = 94.27%						
Ni 231.604†	18171.8	485.42 ug/L	2.890	485.42 ppb	2.890	0.60%
QC value within limits for Ni 231.604 Recovery = 97.08%						
P 214.914†	4453.3	2345.2 ug/L	19.57	2345.2 ppb	19.57	0.83%
QC value within limits for P 214.914 Recovery = 93.81%						
Pb 220.353†	3735.6	484.61 ug/L	2.349	484.61 ppb	2.349	0.48%
QC value within limits for Pb 220.353 Recovery = 96.92%						
S 181.975 Axial†	1870.2	2426.4 ug/L	20.38	2426.4 ppb	20.38	0.84%
QC value within limits for S 181.975 Axial Recovery = 97.06%						
Sb 206.836†	1379.6	504.07 ug/L	5.305	504.07 ppb	5.305	1.05%
QC value within limits for Sb 206.836 Recovery = 100.81%						
Se 196.026†	4335.1	2506.0 ug/L	16.68	2506.0 ppb	16.68	0.67%
QC value within limits for Se 196.026 Recovery = 100.24%						
Si 251.611†	150969.9	4748.8 ug/L	9.44	4748.8 ppb	9.44	0.20%
QC value within limits for Si 251.611 Recovery = 94.98%						
Sn 189.927†	2810.1	519.80 ug/L	2.966	519.80 ppb	2.966	0.57%
QC value within limits for Sn 189.927 Recovery = 103.96%						
Sr 421.552†	60531.6	503.17 ug/L	2.926	503.17 ppb	2.926	0.58%
QC value within limits for Sr 421.552 Recovery = 100.63%						
Ti 334.940†	294453.3	488.23 ug/L	0.880	488.23 ppb	0.880	0.18%
QC value within limits for Ti 334.940 Recovery = 97.65%						
Tl 190.801†	1585.2	514.22 ug/L	8.643	514.22 ppb	8.643	1.68%
QC value within limits for Tl 190.801 Recovery = 102.84%						
U 409.014†	15089.7	483.22 ug/L	0.442	483.22 ppb	0.442	0.09%
QC value within limits for U 409.014 Recovery = 96.64%						
V 292.402†	63463.6	499.37 ug/L	0.634	499.37 ppb	0.634	0.13%
QC value within limits for V 292.402 Recovery = 99.87%						
Zn 213.857†	49613.4	491.02 ug/L	0.743	491.02 ppb	0.743	0.15%
QC value within limits for Zn 213.857 Recovery = 98.20%						
SiO2†	152492.3	10216 ug/L	97.6	10216 ppb	97.6	0.96%
QC value within limits for SiO2 Recovery = 95.52%						
All analyte(s) passed QC.						

Sequence No.: 7

Sample ID: ICB

Analyst:

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 2/17/2010 14:04:56

Data Type: Reprocessed on 2/17/2010 15:41:10

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 361.383	804267.6	804267.6	101.07 %		14:08:05
1	Sc Radial	3968.9	3968.9	99.8 %		14:06:49
1	Y 371.029	652767.7	652767.7	101.52 %		14:08:05
1	Y RADIAL	4127.7	4127.7	99.92 %		14:06:49
1	Ag 328.068†	288.7	100.1	0.5150 ug/L	0.5150 ppb	14:08:05
1	Al 396.153Radial†	-132.5	9.2	9.4745 ug/L	9.4745 ppb	14:06:49
1	As 188.979†	-22.2	5.7	2.3963 ug/L	2.3963 ppb	14:08:25
1	B 249.677†	167.2	107.4	2.5604 ug/L	2.5604 ppb	14:08:05
1	Ba 233.527†	11.2	4.7	0.0406 ug/L	0.0406 ppb	14:08:25
1	Be 313.107†	-4116.8	165.2	0.0622 ug/L	0.0622 ppb	14:08:05
1	Ca 317.933Radial†	19.4	-4.8	-9.2679 ug/L	-9.2679 ppb	14:07:09
1	Cd 226.502†	-212.1	-1.3	-0.0161 ug/L	-0.0161 ppb	14:08:25
1	Co 228.616†	-67.8	11.4	0.2423 ug/L	0.2423 ppb	14:08:25
1	Cr 267.716†	424.1	-277.6	-3.4327 ug/L	-3.4327 ppb	14:08:25
1	Cu 324.752†	8298.4	-108.4	-0.3393 ug/L	-0.3393 ppb	14:08:05
1	Fe 238.204 Radial†	12.4	1.3	14.697 ug/L	14.697 ppb	14:07:09
1	K 766.490 Radial†	3111.7	-90.9	-19.701 ug/L	-19.701 ppb	14:06:49
1	Mg 279.077 IEC†	1.1	-0.2	-8.5825 ug/L	-8.5825 ppb	14:07:09
1	Mn 257.610†	553.6	-3.7	-0.0025 ug/L	-0.0025 ppb	14:08:25
1	Mo 202.031†	29.4	7.9	0.6163 ug/L	0.6163 ppb	14:08:25
1	Na 589.592 Radial†	-82.9	20.7	7.2481 ug/L	7.2481 ppb	14:06:49
1	Ni 231.604†	91.1	-1.5	-0.0390 ug/L	-0.0390 ppb	14:08:25
1	P 214.914†	243.7	-2.2	-1.1895 ug/L	-1.1895 ppb	14:08:25
1	Pb 220.353†	-13.7	2.4	0.3151 ug/L	0.3151 ppb	14:08:25
1	S 181.975 Axial†	45.7	-16.5	-21.422 ug/L	-21.422 ppb	14:08:25
1	Sb 206.836†	52.4	7.9	2.7594 ug/L	2.7594 ppb	14:08:25
1	Se 196.026†	-19.5	7.2	4.1965 ug/L	4.1965 ppb	14:08:25
1	Si 251.611†	554.9	-116.9	-3.6909 ug/L	-3.6909 ppb	14:08:25
1	Sn 189.927†	26.1	-9.9	-1.8319 ug/L	-1.8319 ppb	14:08:25
1	Sr 421.552†	27.9	-83.7	-0.6957 ug/L	-0.6957 ppb	14:06:49
1	Ti 334.940†	-1531.3	87.3	0.1432 ug/L	0.1432 ppb	14:08:05
1	Tl 190.801†	-18.1	3.4	1.1110 ug/L	1.1110 ppb	14:08:25
1	U 409.014†	-3450.9	158.5	5.0979 ug/L	5.0979 ppb	14:08:05
1	V 292.402†	-1749.4	41.0	0.3356 ug/L	0.3356 ppb	14:08:05
1	Zn 213.857†	872.3	1.2	0.0100 ug/L	0.0100 ppb	14:08:25
1	SiO2†	619.6	21.8	1.4441 ug/L	1.4441 ppb	14:09:22
2	Sc 361.383	813682.3	813682.3	102.25 %		14:08:31
2	Sc Radial	3973.8	3973.8	99.9 %		14:07:14
2	Y 371.029	658784.2	658784.2	102.46 %		14:08:31
2	Y RADIAL	4109.5	4109.5	99.48 %		14:07:14
2	Ag 328.068†	300.8	108.5	0.5257 ug/L	0.5257 ppb	14:08:31
2	Al 396.153Radial†	-143.0	-1.1	-1.2094 ug/L	-1.2094 ppb	14:07:14
2	As 188.979†	-28.4	-0.1	-0.0802 ug/L	-0.0802 ppb	14:08:51
2	B 249.677†	203.4	140.9	3.3755 ug/L	3.3755 ppb	14:08:31
2	Ba 233.527†	18.3	11.4	0.0932 ug/L	0.0932 ppb	14:08:51
2	Be 313.107†	-4285.6	47.2	0.0183 ug/L	0.0183 ppb	14:08:31
2	Ca 317.933Radial†	17.8	-6.5	-12.529 ug/L	-12.529 ppb	14:07:34
2	Cd 226.502†	-209.4	3.8	0.0568 ug/L	0.0568 ppb	14:08:51
2	Co 228.616†	-82.6	-2.4	-0.0457 ug/L	-0.0457 ppb	14:08:51
2	Cr 267.716†	421.4	-285.0	-3.5273 ug/L	-3.5273 ppb	14:08:51
2	Cu 324.752†	8377.0	-126.5	-0.4010 ug/L	-0.4010 ppb	14:08:31
2	Fe 238.204 Radial†	3.0	-8.0	-88.201 ug/L	-88.201 ppb	14:07:34
2	K 766.490 Radial†	3089.6	-116.9	-25.311 ug/L	-25.311 ppb	14:07:14
2	Mg 279.077 IEC†	2.3	0.9	36.061 ug/L	36.061 ppb	14:07:34
2	Mn 257.610†	550.3	-13.2	-0.0255 ug/L	-0.0255 ppb	14:08:51
2	Mo 202.031†	30.2	8.4	0.6449 ug/L	0.6449 ppb	14:08:51
2	Na 589.592 Radial†	-153.5	-49.9	-17.504 ug/L	-17.504 ppb	14:07:14
2	Ni 231.604†	77.6	-15.7	-0.4184 ug/L	-0.4184 ppb	14:08:51

2	P 214.914†	244.7	-4.0	-2.0735 ug/L	-2.0735 ppb	14:08:51
2	Pb 220.353†	-26.9	-10.3	-1.3266 ug/L	-1.3266 ppb	14:08:51
2	S 181.975 Axial†	58.3	-4.7	-6.0820 ug/L	-6.0820 ppb	14:08:51
2	Sb 206.836†	43.2	-1.7	-0.6223 ug/L	-0.6223 ppb	14:08:51
2	Se 196.026†	-16.4	10.4	5.7202 ug/L	5.7202 ppb	14:08:51
2	Si 251.611†	563.2	-115.2	-3.6367 ug/L	-3.6367 ppb	14:08:51
2	Sn 189.927†	22.7	-13.5	-2.4935 ug/L	-2.4935 ppb	14:08:51
2	Sr 421.552†	28.8	-82.9	-0.6890 ug/L	-0.6890 ppb	14:07:14
2	Ti 334.940†	-1481.5	153.5	0.2492 ug/L	0.2492 ppb	14:08:31
2	Tl 190.801†	-22.1	-0.2	-0.0714 ug/L	-0.0714 ppb	14:08:51
2	U 409.014†	-3502.3	147.8	4.7650 ug/L	4.7650 ppb	14:08:31
2	V 292.402†	-1813.9	-2.0	0.0170 ug/L	0.0170 ppb	14:08:31
2	Zn 213.857†	876.5	-4.7	-0.0305 ug/L	-0.0305 ppb	14:08:51
2	SiO2†	575.0	-29.0	-1.9605 ug/L	-1.9605 ppb	14:09:27
3	Sc 361.383	750714.7	750714.7	94.340 %		14:08:56
3	Sc Radial	3926.7	3926.7	98.8 %		14:07:39
3	Y 371.029	607861.3	607861.3	94.536 %		14:08:56
3	Y RADIAL	4091.5	4091.5	99.05 %		14:07:39
3	Ag 328.068†	297.7	129.9	0.6616 ug/L	0.6616 ppb	14:08:56
3	Al 396.153Radial†	-120.7	19.6	20.294 ug/L	20.294 ppb	14:07:39
3	As 188.979†	-33.2	-7.5	-3.1947 ug/L	-3.1947 ppb	14:09:16
3	B 249.677†	221.3	176.5	4.2152 ug/L	4.2152 ppb	14:08:56
3	Ba 233.527†	9.6	3.7	0.0292 ug/L	0.0292 ppb	14:09:16
3	Be 313.107†	-4274.8	-292.8	-0.1097 ug/L	-0.1097 ppb	14:08:56
3	Ca 317.933Radial†	20.1	-3.9	-7.6380 ug/L	-7.6380 ppb	14:07:59
3	Cd 226.502†	-206.6	-10.4	-0.1263 ug/L	-0.1263 ppb	14:09:16
3	Co 228.616†	-71.4	2.7	0.0607 ug/L	0.0607 ppb	14:09:16
3	Cr 267.716†	397.6	-275.7	-3.4075 ug/L	-3.4075 ppb	14:09:16
3	Cu 324.752†	8310.5	490.1	1.5268 ug/L	1.5268 ppb	14:08:56
3	Fe 238.204 Radial†	8.8	-2.1	-23.547 ug/L	-23.547 ppb	14:07:59
3	K 766.490 Radial†	3013.0	-157.3	-34.064 ug/L	-34.064 ppb	14:07:39
3	Mg 279.077 IEC†	-0.5	-1.9	-74.503 ug/L	-74.503 ppb	14:07:59
3	Mn 257.610†	544.9	26.1	0.0311 ug/L	0.0311 ppb	14:09:16
3	Mo 202.031†	26.6	7.1	0.5506 ug/L	0.5506 ppb	14:09:16
3	Na 589.592 Radial†	-237.3	-136.5	-47.893 ug/L	-47.893 ppb	14:07:39
3	Ni 231.604†	93.2	7.2	0.1921 ug/L	0.1921 ppb	14:09:16
3	P 214.914†	244.6	15.9	8.4322 ug/L	8.4322 ppb	14:09:16
3	Pb 220.353†	-27.8	-13.5	-1.7330 ug/L	-1.7330 ppb	14:09:16
3	S 181.975 Axial†	50.3	-8.3	-10.826 ug/L	-10.826 ppb	14:09:16
3	Sb 206.836†	45.5	4.2	1.5116 ug/L	1.5116 ppb	14:09:16
3	Se 196.026†	-18.1	7.3	4.1447 ug/L	4.1447 ppb	14:09:16
3	Si 251.611†	620.6	-8.1	-0.2617 ug/L	-0.2617 ppb	14:09:16
3	Sn 189.927†	36.3	2.8	0.5226 ug/L	0.5226 ppb	14:09:16
3	Sr 421.552†	51.3	-59.7	-0.4964 ug/L	-0.4964 ppb	14:07:39
3	Ti 334.940†	-1522.8	-11.9	-0.0110 ug/L	-0.0110 ppb	14:08:56
3	Tl 190.801†	-32.3	-12.9	-4.1443 ug/L	-4.1443 ppb	14:09:16
3	U 409.014†	-3530.5	-169.4	-5.4324 ug/L	-5.4324 ppb	14:08:56
3	V 292.402†	-1735.7	-67.9	-0.5262 ug/L	-0.5262 ppb	14:08:56
3	Zn 213.857†	855.8	45.3	0.4525 ug/L	0.4525 ppb	14:09:16
3	SiO2†	579.9	23.4	1.5579 ug/L	1.5579 ppb	14:09:32

## Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	789554.9	99.221 %	4.2682			4.30%
Sc Radial	3956.5	99.5 %	0.65			0.65%
Y 371.029	639804.4	99.503 %	4.3276			4.35%
Y RADIAL	4109.6	99.48 %	0.437			0.44%
Ag 328.068†	112.8	0.5675 ug/L	0.08172	0.5675 ppb	0.08172	14.40%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	9.2	9.5197 ug/L	10.75165	9.5197 ppb	10.75165	112.94%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-0.7	-0.2929 ug/L	2.80158	-0.2929 ppb	2.80158	956.58%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	141.6	3.3837 ug/L	0.82740	3.3837 ppb	0.82740	24.45%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	6.6	0.0543 ug/L	0.03417	0.0543 ppb	0.03417	62.89%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-26.8	-0.0097 ug/L	0.08929	-0.0097 ppb	0.08929	916.36%
QC value within limits for Be 313.107 Recovery = Not calculated						

Ca 317.933Radial†	-5.1	-9.8115 ug/L	2.49028	-9.8115 ppb	2.49028	25.38%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-2.6	-0.0285 ug/L	0.09220	-0.0285 ppb	0.09220	323.06%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	3.9	0.0858 ug/L	0.14565	0.0858 ppb	0.14565	169.84%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-279.4	-3.4559 ug/L	0.06317	-3.4559 ppb	0.06317	1.83%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	85.1	0.2622 ug/L	1.09561	0.2622 ppb	1.09561	417.88%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-2.9	-32.351 ug/L	52.0109	-32.351 ppb	52.0109	160.77%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	-121.7	-26.358 ug/L	7.2384	-26.358 ppb	7.2384	27.46%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-0.4	-15.675 ug/L	55.6222	-15.675 ppb	55.6222	354.85%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	3.1	0.0010 ug/L	0.02848	0.0010 ppb	0.02848	>999.9%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	7.8	0.6039 ug/L	0.04839	0.6039 ppb	0.04839	8.01%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-55.3	-19.383 ug/L	27.6186	-19.383 ppb	27.6186	142.49%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-3.3	-0.0884 ug/L	0.30825	-0.0884 ppb	0.30825	348.58%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	3.2	1.7231 ug/L	5.82706	1.7231 ppb	5.82706	338.18%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-7.1	-0.9148 ug/L	1.08433	-0.9148 ppb	1.08433	118.53%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-9.8	-12.776 ug/L	7.8538	-12.776 ppb	7.8538	61.47%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	3.5	1.2162 ug/L	1.71012	1.2162 ppb	1.71012	140.61%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	8.3	4.6871 ug/L	0.89503	4.6871 ppb	0.89503	19.10%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	-80.1	-2.5298 ug/L	1.96436	-2.5298 ppb	1.96436	77.65%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	-6.9	-1.2676 ug/L	1.58529	-1.2676 ppb	1.58529	125.06%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-75.4	-0.6270 ug/L	0.11318	-0.6270 ppb	0.11318	18.05%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	76.3	0.1272 ug/L	0.13083	0.1272 ppb	0.13083	102.89%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-3.2	-1.0349 ug/L	2.75692	-1.0349 ppb	2.75692	266.40%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	45.6	1.4769 ug/L	5.98592	1.4769 ppb	5.98592	405.31%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-9.6	-0.0579 ug/L	0.43575	-0.0579 ppb	0.43575	753.13%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	13.9	0.1440 ug/L	0.26792	0.1440 ppb	0.26792	186.03%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	5.4	0.3472 ug/L	1.99931	0.3472 ppb	1.99931	575.88%
QC value within limits for SiO2 Recovery = Not calculated						
All analyte(s) passed QC.						

Sequence No.: 8

Sample ID: PQL

Analyst:

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 11

Date Collected: 2/17/2010 14:11:42

Data Type: Reprocessed on 2/17/2010 15:41:11

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 361.383	799442.7	799442.7	100.46 %		14:14:52
1	Sc Radial	3904.9	3904.9	98.2 %		14:13:55
1	Y 371.029	648510.5	648510.5	100.86 %		14:14:52
1	Y RADIAL	4161.4	4161.4	100.7 %		14:13:35
1	Ag 328.068†	1189.9	998.8	5.1225 ug/L	5.1225 ppb	14:14:52
1	Al 396.153Radial†	25.5	167.9	173.19 ug/L	173.19 ppb	14:13:35
1	As 188.979†	33.1	60.6	25.698 ug/L	25.698 ppb	14:15:12
1	B 249.677†	2163.8	2095.7	49.971 ug/L	49.971 ppb	14:14:52
1	Ba 233.527†	624.2	614.9	5.1754 ug/L	5.1754 ppb	14:15:12
1	Be 313.107†	9117.3	13313.6	4.9969 ug/L	4.9969 ppb	14:14:52
1	Ca 317.933Radial†	130.3	108.4	210.45 ug/L	210.45 ppb	14:13:55
1	Cd 226.502†	217.9	425.5	5.2541 ug/L	5.2541 ppb	14:15:12
1	Co 228.616†	149.7	227.5	4.8092 ug/L	4.8092 ppb	14:15:12
1	Cr 267.716†	726.7	26.2	0.3099 ug/L	0.3099 ppb	14:15:12
1	Cu 324.752†	11562.6	3190.3	9.8994 ug/L	9.8994 ppb	14:14:52
1	Fe 238.204 Radial†	19.3	8.6	94.357 ug/L	94.357 ppb	14:13:55
1	K 766.490 Radial†	3721.5	581.1	125.71 ug/L	125.71 ppb	14:13:35
1	Mg 279.077 IEC†	10.8	9.6	376.63 ug/L	376.63 ppb	14:13:55
1	Mn 257.610†	9421.5	8826.6	10.251 ug/L	10.251 ppb	14:14:52
1	Mo 202.031†	153.7	131.9	10.233 ug/L	10.233 ppb	14:15:12
1	Na 589.592 Radial†	706.3	822.8	288.59 ug/L	288.59 ppb	14:13:35
1	Ni 231.604†	282.2	189.4	5.0583 ug/L	5.0583 ppb	14:15:12
1	P 214.914†	511.5	265.8	143.63 ug/L	143.63 ppb	14:15:12
1	Pb 220.353†	53.1	68.8	8.9448 ug/L	8.9448 ppb	14:15:12
1	S 181.975 Axial†	136.1	73.8	95.765 ug/L	95.765 ppb	14:15:12
1	Sb 206.836†	81.2	36.9	13.275 ug/L	13.275 ppb	14:15:12
1	Se 196.026†	30.4	56.7	32.879 ug/L	32.879 ppb	14:15:12
1	Si 251.611†	3686.1	3003.2	94.467 ug/L	94.467 ppb	14:14:52
1	Sn 189.927†	71.5	35.5	6.5905 ug/L	6.5905 ppb	14:15:12
1	Sr 421.552†	644.8	544.9	4.5281 ug/L	4.5281 ppb	14:13:35
1	Ti 334.940†	1544.1	3139.3	5.1792 ug/L	5.1792 ppb	14:14:52
1	Tl 190.801†	36.9	58.1	18.786 ug/L	18.786 ppb	14:15:12
1	U 409.014†	-1797.4	1783.7	57.298 ug/L	57.298 ppb	14:14:52
1	V 292.402†	-1147.5	629.7	5.1273 ug/L	5.1273 ppb	14:14:52
1	Zn 213.857†	2033.3	1162.0	11.546 ug/L	11.546 ppb	14:15:12
1	SiO2†	3728.7	3120.2	209.04 ug/L	209.04 ppb	14:16:09
2	Sc 361.383	811381.8	811381.8	101.96 %		14:15:18
2	Sc Radial	3885.2	3885.2	97.7 %		14:14:21
2	Y 371.029	658475.5	658475.5	102.41 %		14:15:18
2	Y RADIAL	4138.1	4138.1	100.2 %		14:14:01
2	Ag 328.068†	1211.0	1002.1	5.1420 ug/L	5.1420 ppb	14:15:18
2	Al 396.153Radial†	53.5	196.7	202.98 ug/L	202.98 ppb	14:14:01
2	As 188.979†	38.1	65.0	27.586 ug/L	27.586 ppb	14:15:38
2	B 249.677†	2161.1	2061.5	49.152 ug/L	49.152 ppb	14:15:18
2	Ba 233.527†	620.0	601.7	5.0648 ug/L	5.0648 ppb	14:15:38
2	Be 313.107†	9276.1	13335.9	5.0052 ug/L	5.0052 ppb	14:15:18
2	Ca 317.933Radial†	127.8	106.6	206.91 ug/L	206.91 ppb	14:14:21
2	Cd 226.502†	209.2	413.8	5.1085 ug/L	5.1085 ppb	14:15:38
2	Co 228.616†	153.7	229.2	4.8458 ug/L	4.8458 ppb	14:15:38
2	Cr 267.716†	748.7	37.1	0.4450 ug/L	0.4450 ppb	14:15:38
2	Cu 324.752†	11676.6	3132.7	9.7211 ug/L	9.7211 ppb	14:15:18
2	Fe 238.204 Radial†	19.5	8.9	97.987 ug/L	97.987 ppb	14:14:21
2	K 766.490 Radial†	3757.3	637.0	137.82 ug/L	137.82 ppb	14:14:01
2	Mg 279.077 IEC†	9.1	8.0	312.81 ug/L	312.81 ppb	14:14:21
2	Mn 257.610†	9614.6	8878.0	10.314 ug/L	10.314 ppb	14:15:18
2	Mo 202.031†	163.4	139.1	10.795 ug/L	10.795 ppb	14:15:38
2	Na 589.592 Radial†	652.0	770.9	270.40 ug/L	270.40 ppb	14:14:01
2	Ni 231.604†	293.5	196.3	5.2436 ug/L	5.2436 ppb	14:15:38

2	P 214.914†	509.8	256.7	138.67 ug/L	138.67 ppb	14:15:38
2	Pb 220.353†	46.4	61.5	8.0074 ug/L	8.0074 ppb	14:15:38
2	S 181.975 Axial†	141.6	77.2	100.14 ug/L	100.14 ppb	14:15:38
2	Sb 206.836†	65.8	20.5	7.5446 ug/L	7.5446 ppb	14:15:38
2	Se 196.026†	43.2	68.9	39.872 ug/L	39.872 ppb	14:15:38
2	Si 251.611†	3719.0	2981.4	93.774 ug/L	93.774 ppb	14:15:18
2	Sn 189.927†	77.4	40.2	7.4558 ug/L	7.4558 ppb	14:15:38
2	Sr 421.552†	651.9	555.4	4.6156 ug/L	4.6156 ppb	14:14:01
2	Ti 334.940†	1583.2	3155.1	5.2104 ug/L	5.2104 ppb	14:15:18
2	Tl 190.801†	49.9	70.2	22.700 ug/L	22.700 ppb	14:15:38
2	U 409.014†	-1852.4	1756.2	56.411 ug/L	56.411 ppb	14:15:18
2	V 292.402†	-1139.2	654.6	5.3254 ug/L	5.3254 ppb	14:15:18
2	Zn 213.857†	2020.6	1119.8	11.122 ug/L	11.122 ppb	14:15:38
2	SiO2†	3742.5	3079.1	206.27 ug/L	206.27 ppb	14:16:14
3	Sc 361.383	816060.6	816060.6	102.55 %		14:15:43
3	Sc Radial	3904.3	3904.3	98.2 %		14:14:46
3	Y 371.029	661431.1	661431.1	102.87 %		14:15:43
3	Y RADIAL	4184.3	4184.3	101.3 %		14:14:26
3	Ag 328.068†	1139.1	925.2	4.7498 ug/L	4.7498 ppb	14:15:43
3	Al 396.153Radial†	51.2	194.0	200.24 ug/L	200.24 ppb	14:14:26
3	As 188.979†	28.8	55.8	23.671 ug/L	23.671 ppb	14:16:03
3	B 249.677†	2180.5	2068.2	49.309 ug/L	49.309 ppb	14:15:43
3	Ba 233.527†	628.4	606.3	5.1044 ug/L	5.1044 ppb	14:16:03
3	Be 313.107†	9306.2	13313.0	4.9967 ug/L	4.9967 ppb	14:15:43
3	Ca 317.933Radial†	131.0	109.2	211.96 ug/L	211.96 ppb	14:14:46
3	Cd 226.502†	203.8	407.4	5.0287 ug/L	5.0287 ppb	14:16:03
3	Co 228.616†	150.5	225.2	4.7598 ug/L	4.7598 ppb	14:16:03
3	Cr 267.716†	727.5	12.2	0.1358 ug/L	0.1358 ppb	14:16:03
3	Cu 324.752†	11787.0	3174.7	9.8494 ug/L	9.8494 ppb	14:15:43
3	Fe 238.204 Radial†	21.9	11.3	123.99 ug/L	123.99 ppb	14:14:46
3	K 766.490 Radial†	3598.4	456.3	98.657 ug/L	98.657 ppb	14:14:26
3	Mg 279.077 IEC†	7.6	6.3	247.95 ug/L	247.95 ppb	14:14:46
3	Mn 257.610†	9608.8	8818.3	10.250 ug/L	10.250 ppb	14:15:43
3	Mo 202.031†	153.1	128.1	9.9444 ug/L	9.9444 ppb	14:16:03
3	Na 589.592 Radial†	743.6	860.9	301.95 ug/L	301.95 ppb	14:14:26
3	Ni 231.604†	298.3	199.3	5.3231 ug/L	5.3231 ppb	14:16:03
3	P 214.914†	504.9	249.0	134.43 ug/L	134.43 ppb	14:16:03
3	Pb 220.353†	59.0	73.5	9.5546 ug/L	9.5546 ppb	14:16:03
3	S 181.975 Axial†	125.3	60.5	78.458 ug/L	78.458 ppb	14:16:03
3	Sb 206.836†	68.0	22.3	8.1557 ug/L	8.1557 ppb	14:16:03
3	Se 196.026†	34.8	60.4	35.062 ug/L	35.062 ppb	14:16:03
3	Si 251.611†	3735.3	2976.4	93.629 ug/L	93.629 ppb	14:15:43
3	Sn 189.927†	73.0	35.5	6.5869 ug/L	6.5869 ppb	14:16:03
3	Sr 421.552†	596.6	495.8	4.1202 ug/L	4.1202 ppb	14:14:26
3	Ti 334.940†	1602.4	3164.9	5.2299 ug/L	5.2299 ppb	14:15:43
3	Tl 190.801†	41.6	61.9	20.004 ug/L	20.004 ppb	14:16:03
3	U 409.014†	-1652.6	1961.4	63.005 ug/L	63.005 ppb	14:15:43
3	V 292.402†	-1157.0	643.7	5.2359 ug/L	5.2359 ppb	14:15:43
3	Zn 213.857†	2024.8	1112.6	11.046 ug/L	11.046 ppb	14:16:03
3	SiO2†	3675.9	2993.2	200.53 ug/L	200.53 ppb	14:16:19

## Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	808961.7	101.66 %	1.077			1.06%
Sc Radial	3898.1	98.0 %	0.28			0.29%
Y 371.029	656139.0	102.04 %	1.053			1.03%
Y RADIAL	4161.3	100.7 %	0.56			0.55%
Ag 328.068†	975.3	5.0048 ug/L	0.22103	5.0048 ppb	0.22103	4.42%
QC value within limits for Ag 328.068 Recovery = 100.10%						
Al 396.153Radial†	186.2	192.14 ug/L	16.467	192.14 ppb	16.467	8.57%
QC value within limits for Al 396.153Radial Recovery = 96.07%						
As 188.979†	60.5	25.651 ug/L	1.9579	25.651 ppb	1.9579	7.63%
QC value within limits for As 188.979 Recovery = 85.50%						
B 249.677†	2075.1	49.478 ug/L	0.4347	49.478 ppb	0.4347	0.88%
QC value within limits for B 249.677 Recovery = 98.96%						
Ba 233.527†	607.6	5.1149 ug/L	0.05602	5.1149 ppb	0.05602	1.10%
QC value within limits for Ba 233.527 Recovery = 102.30%						
Be 313.107†	13320.8	4.9996 ug/L	0.00487	4.9996 ppb	0.00487	0.10%
QC value within limits for Be 313.107 Recovery = 99.99%						



QC value within limits for Ca 317.933 Radial Recovery = 104.89%							
Cd 226.502†	415.6	5.1304 ug/L	0.11427	5.1304 ppb	0.11427	2.23%	
QC value within limits for Cd 226.502 Recovery = 102.61%							
Co 228.616†	227.3	4.8050 ug/L	0.04317	4.8050 ppb	0.04317	0.90%	
QC value within limits for Co 228.616 Recovery = 96.10%							
Cr 267.716†	25.2	0.2969 ug/L	0.15498	0.2969 ppb	0.15498	52.20%	
QC value less than the lower limit for Cr 267.716 Recovery = 5.94%							
Cu 324.752†	3165.9	9.8233 ug/L	0.09197	9.8233 ppb	0.09197	0.94%	
QC value within limits for Cu 324.752 Recovery = 98.23%							
Fe 238.204 Radial†	9.6	105.45 ug/L	16.166	105.45 ppb	16.166	15.33%	
QC value within limits for Fe 238.204 Radial Recovery = 105.45%							
K 766.490 Radial†	558.1	120.73 ug/L	20.050	120.73 ppb	20.050	16.61%	
QC value within limits for K 766.490 Radial Recovery = 80.49%							
Mg 279.077 IEC†	8.0	312.46 ug/L	64.343	312.46 ppb	64.343	20.59%	
QC value within limits for Mg 279.077 IEC Recovery = 104.15%							
Mn 257.610†	8841.0	10.272 ug/L	0.0366	10.272 ppb	0.0366	0.36%	
QC value within limits for Mn 257.610 Recovery = 102.72%							
Mo 202.031†	133.1	10.324 ug/L	0.4326	10.324 ppb	0.4326	4.19%	
QC value within limits for Mo 202.031 Recovery = 103.24%							
Na 589.592 Radial†	818.2	286.98 ug/L	15.836	286.98 ppb	15.836	5.52%	
QC value within limits for Na 589.592 Radial Recovery = 95.66%							
Ni 231.604†	195.0	5.2083 ug/L	0.13586	5.2083 ppb	0.13586	2.61%	
QC value within limits for Ni 231.604 Recovery = 104.17%							
P 214.914†	257.2	138.91 ug/L	4.604	138.91 ppb	4.604	3.31%	
QC value within limits for P 214.914 Recovery = 92.61%							
Pb 220.353†	67.9	8.8356 ug/L	0.77939	8.8356 ppb	0.77939	8.82%	
QC value within limits for Pb 220.353 Recovery = 88.36%							
S 181.975 Axial†	70.5	91.453 ug/L	11.4647	91.453 ppb	11.4647	12.54%	
QC value within limits for S 181.975 Axial Recovery = 91.45%							
Sb 206.836†	26.6	9.6586 ug/L	3.14717	9.6586 ppb	3.14717	32.58%	
QC value within limits for Sb 206.836 Recovery = 96.59%							
Se 196.026†	62.0	35.975 ug/L	3.5786	35.975 ppb	3.5786	9.95%	
QC value within limits for Se 196.026 Recovery = 119.92%							
Si 251.611†	2987.0	93.957 ug/L	0.4478	93.957 ppb	0.4478	0.48%	
QC value within limits for Si 251.611 Recovery = 93.96%							
Sn 189.927†	37.1	6.8777 ug/L	0.50061	6.8777 ppb	0.50061	7.28%	
QC value less than the lower limit for Sn 189.927 Recovery = 68.78%							
Sr 421.552†	532.0	4.4213 ug/L	0.26439	4.4213 ppb	0.26439	5.98%	
QC value within limits for Sr 421.552 Recovery = 88.43%							
Ti 334.940†	3153.1	5.2065 ug/L	0.02558	5.2065 ppb	0.02558	0.49%	
QC value within limits for Ti 334.940 Recovery = 104.13%							
Tl 190.801†	63.4	20.497 ug/L	2.0026	20.497 ppb	2.0026	9.77%	
QC value within limits for Tl 190.801 Recovery = 102.48%							
U 409.014†	1833.8	58.905 ug/L	3.5783	58.905 ppb	3.5783	6.07%	
QC value within limits for U 409.014 Recovery = 117.81%							
V 292.402†	642.7	5.2296 ug/L	0.09922	5.2296 ppb	0.09922	1.90%	
QC value within limits for V 292.402 Recovery = 104.59%							
Zn 213.857†	1131.5	11.238 ug/L	0.2694	11.238 ppb	0.2694	2.40%	
QC value within limits for Zn 213.857 Recovery = 112.38%							
SiO2†	3064.2	205.28 ug/L	4.343	205.28 ppb	4.343	2.12%	
QC value within limits for SiO2 Recovery = 96.38%							
QC Failed. Continue with analysis.							

Sequence No.: 9

Sample ID: IC5A

Analyst:

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 13

Date Collected: 2/17/2010 14:18:30

Data Type: Reprocessed on 2/17/2010 15:41:12

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: IC5A

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc 361.383	701715.3	701715.3	88.183 %		14:21:40
1	Sc Radial	3564.8	3564.8	89.7 %		14:20:43
1	Y 371.029	556417.1	556417.1	86.535 %		14:21:40
1	Y RADIAL	3695.6	3695.6	89.46 %		14:20:43
1	Ag 328.068†	-8994.9	-10385.9	0.9054 ug/L	0.9054 ppb	14:21:40
1	Al 396.153Radial†	465545.4	519363.1	537360 ug/L	537360 ppb	14:20:23
1	As 188.979†	-111.8	-99.2	4.3846 ug/L	4.3846 ppb	14:22:01
1	B 249.677†	1253.2	1363.1	0.2779 ug/L	0.2779 ppb	14:21:40
1	Ba 233.527†	-522.1	-598.5	1.0516 ug/L	1.0516 ppb	14:22:01
1	Be 313.107†	-4330.8	-672.8	-0.2986 ug/L	-0.2986 ppb	14:21:40
1	Ca 317.933Radial†	233239.1	260106.5	505090 ug/L	505090 ppb	14:20:23
1	Cd 226.502†	1140.4	1501.8	-1.9669 ug/L	-1.9669 ppb	14:22:01
1	Co 228.616†	7.5	86.9	-1.0395 ug/L	-1.0395 ppb	14:22:01
1	Cr 267.716†	130.8	-548.9	-2.9222 ug/L	-2.9222 ppb	14:22:01
1	Cu 324.752†	5943.2	-1579.3	5.5695 ug/L	5.5695 ppb	14:21:40
1	Fe 238.204 Radial†	16235.6	18096.5	198520 ug/L	198520 ppb	14:20:43
1	K 766.490 Radial†	2977.7	113.0	-144.55 ug/L	-144.55 ppb	14:20:23
1	Mg 279.077 IEC†	11845.2	13209.6	516130 ug/L	516130 ppb	14:20:43
1	Mn 257.610†	1631.2	1298.4	0.0040 ug/L	0.0040 ppb	14:21:40
1	Mo 202.031†	-215.4	-265.4	0.8466 ug/L	0.8466 ppb	14:22:01
1	Na 589.592 Radial†	613.2	787.6	276.26 ug/L	276.26 ppb	14:20:43
1	Ni 231.604†	249.2	191.1	5.1059 ug/L	5.1059 ppb	14:22:01
1	P 214.914†	221.4	7.7	-21.298 ug/L	-21.298 ppb	14:22:01
1	Pb 220.353†	-813.6	-906.7	-11.899 ug/L	-11.899 ppb	14:22:01
1	S 181.975 Axial†	72.1	20.1	-74.613 ug/L	-74.613 ppb	14:22:01
1	Sb 206.836†	88.3	56.2	1.7644 ug/L	1.7644 ppb	14:22:01
1	Se 196.026†	-883.8	-975.7	11.820 ug/L	11.820 ppb	14:22:01
1	Si 251.611†	587.6	0.4	0.2651 ug/L	0.2651 ppb	14:22:01
1	Sn 189.927†	-273.2	-345.5	-11.623 ug/L	-11.623 ppb	14:22:01
1	Sr 421.552†	494.7	440.0	-0.1134 ug/L	-0.1134 ppb	14:20:43
1	Ti 334.940†	-12356.5	-12410.1	4.9710 ug/L	4.9710 ppb	14:21:40
1	Tl 190.801†	-72.7	-61.1	-19.902 ug/L	-19.902 ppb	14:22:01
1	U 409.014†	-1952.8	1358.4	21.029 ug/L	21.029 ppb	14:21:40
1	V 292.402†	269.8	2077.8	-3.0030 ug/L	-3.0030 ppb	14:22:01
1	Zn 213.857†	3171.1	2734.2	-2.4272 ug/L	-2.4272 ppb	14:22:01
1	SiO2†	600.1	89.3	6.5505 ug/L	6.5505 ppb	14:22:57
2	Sc 361.383	697891.5	697891.5	87.702 %		14:22:06
2	Sc Radial	3655.8	3655.8	92.0 %		14:21:08
2	Y 371.029	553224.4	553224.4	86.038 %		14:22:06
2	Y RADIAL	3790.9	3790.9	91.77 %		14:21:08
2	Ag 328.068†	-8967.0	-10410.0	-1.0923 ug/L	-1.0923 ppb	14:22:06
2	Al 396.153Radial†	450976.9	490597.3	507590 ug/L	507590 ppb	14:20:48
2	As 188.979†	-113.1	-101.3	1.7610 ug/L	1.7610 ppb	14:22:26
2	B 249.677†	1345.9	1476.5	4.1738 ug/L	4.1738 ppb	14:22:06
2	Ba 233.527†	-520.1	-599.5	0.8204 ug/L	0.8204 ppb	14:22:26
2	Be 313.107†	-4189.2	-538.2	-0.2466 ug/L	-0.2466 ppb	14:22:06
2	Ca 317.933Radial†	225881.0	245630.4	476980 ug/L	476980 ppb	14:20:48
2	Cd 226.502†	1129.4	1496.4	-1.2769 ug/L	-1.2769 ppb	14:22:26
2	Co 228.616†	8.5	88.2	-0.9116 ug/L	-0.9116 ppb	14:22:26
2	Cr 267.716†	134.3	-544.1	-3.0069 ug/L	-3.0069 ppb	14:22:26
2	Cu 324.752†	5564.1	-1974.7	3.9491 ug/L	3.9491 ppb	14:22:06
2	Fe 238.204 Radial†	16035.7	17428.4	191190 ug/L	191190 ppb	14:21:08
2	K 766.490 Radial†	2998.0	52.4	-148.29 ug/L	-148.29 ppb	14:20:48
2	Mg 279.077 IEC†	11690.6	12712.7	496720 ug/L	496720 ppb	14:21:08
2	Mn 257.610†	1280.5	908.6	-0.3786 ug/L	-0.3786 ppb	14:22:06
2	Mo 202.031†	-227.0	-280.0	-1.1830 ug/L	-1.1830 ppb	14:22:26
2	Na 589.592 Radial†	612.6	770.0	270.06 ug/L	270.06 ppb	14:21:08
2	Ni 231.604†	209.4	147.2	3.9343 ug/L	3.9343 ppb	14:22:26

2	P 214.914†	221.8	9.6	-21.551 ug/L	-21.551 ppb	14:22:26
2	Pb 220.353†	-796.4	-892.1	-16.204 ug/L	-16.204 ppb	14:22:26
2	S 181.975 Axial†	87.8	38.4	-45.298 ug/L	-45.298 ppb	14:22:26
2	Sb 206.836†	89.2	57.7	3.1772 ug/L	3.1772 ppb	14:22:26
2	Se 196.026†	-850.3	-943.1	9.8963 ug/L	9.8963 ppb	14:22:26
2	Si 251.611†	605.2	24.1	1.0262 ug/L	1.0262 ppb	14:22:26
2	Sn 189.927†	-262.2	-334.7	-12.998 ug/L	-12.998 ppb	14:22:26
2	Sr 421.552†	467.5	396.8	-0.2632 ug/L	-0.2632 ppb	14:21:08
2	Ti 334.940†	-11895.2	-11960.9	3.5301 ug/L	3.5301 ppb	14:22:06
2	Tl 190.801†	-65.1	-52.9	-17.253 ug/L	-17.253 ppb	14:22:26
2	U 409.014†	-1814.5	1503.9	26.538 ug/L	26.538 ppb	14:22:06
2	V 292.402†	276.0	2086.5	-2.2508 ug/L	-2.2508 ppb	14:22:26
2	Zn 213.857†	3160.1	2741.3	-1.2508 ug/L	-1.2508 ppb	14:22:26
2	SiO2†	632.5	129.9	9.3064 ug/L	9.3064 ppb	14:23:02
3	Sc 361.383	694820.0	694820.0	87.316 %		14:22:31
3	Sc Radial	3656.8	3656.8	92.0 %		14:21:34
3	Y 371.029	550101.9	550101.9	85.553 %		14:22:31
3	Y RADIAL	3806.8	3806.8	92.15 %		14:21:34
3	Ag 328.068†	-9074.3	-10578.1	-2.3361 ug/L	-2.3361 ppb	14:22:31
3	Al 396.153Radial†	461292.5	501675.1	519060 ug/L	519060 ppb	14:21:14
3	As 188.979†	-98.6	-85.2	8.3815 ug/L	8.3815 ppb	14:22:51
3	B 249.677†	1224.8	1344.7	1.1566 ug/L	1.1566 ppb	14:22:31
3	Ba 233.527†	-539.8	-624.6	0.5865 ug/L	0.5865 ppb	14:22:51
3	Be 313.107†	-4409.6	-811.8	-0.3493 ug/L	-0.3493 ppb	14:22:31
3	Ca 317.933Radial†	230878.6	250995.0	487400 ug/L	487400 ppb	14:21:14
3	Cd 226.502†	1141.8	1516.3	-0.9498 ug/L	-0.9498 ppb	14:22:51
3	Co 228.616†	-1.6	76.6	-1.1452 ug/L	-1.1452 ppb	14:22:51
3	Cr 267.716†	121.7	-557.9	-3.1919 ug/L	-3.1919 ppb	14:22:51
3	Cu 324.752†	5327.5	-2217.6	3.1516 ug/L	3.1516 ppb	14:22:31
3	Fe 238.204 Radial†	15974.4	17356.9	190410 ug/L	190410 ppb	14:21:34
3	K 766.490 Radial†	2885.3	-71.0	-178.49 ug/L	-178.49 ppb	14:21:14
3	Mg 279.077 IEC†	11648.4	12663.2	494790 ug/L	494790 ppb	14:21:34
3	Mn 257.610†	1100.2	708.6	-0.6095 ug/L	-0.6095 ppb	14:22:31
3	Mo 202.031†	-230.7	-285.3	-1.5318 ug/L	-1.5318 ppb	14:22:51
3	Na 589.592 Radial†	591.9	747.3	262.10 ug/L	262.10 ppb	14:21:34
3	Ni 231.604†	223.0	163.8	4.3762 ug/L	4.3762 ppb	14:22:51
3	P 214.914†	249.7	42.7	0.4440 ug/L	0.4440 ppb	14:22:51
3	Pb 220.353†	-786.0	-884.3	-12.471 ug/L	-12.471 ppb	14:22:51
3	S 181.975 Axial†	78.3	28.0	-60.896 ug/L	-60.896 ppb	14:22:51
3	Sb 206.836†	64.5	29.9	-6.5402 ug/L	-6.5402 ppb	14:22:51
3	Se 196.026†	-890.2	-993.1	-21.718 ug/L	-21.718 ppb	14:22:51
3	Si 251.611†	614.6	37.9	1.4665 ug/L	1.4665 ppb	14:22:51
3	Sn 189.927†	-152.9	-210.8	11.601 ug/L	11.601 ppb	14:22:51
3	Sr 421.552†	466.1	395.1	-0.3552 ug/L	-0.3552 ppb	14:21:34
3	Ti 334.940†	-11904.3	-12031.3	4.9684 ug/L	4.9684 ppb	14:22:31
3	Tl 190.801†	-64.3	-52.3	-17.047 ug/L	-17.047 ppb	14:22:51
3	U 409.014†	-1802.0	1509.1	26.795 ug/L	26.795 ppb	14:22:31
3	V 292.402†	317.7	2135.7	-1.7974 ug/L	-1.7974 ppb	14:22:51
3	Zn 213.857†	3138.6	2732.7	-1.2212 ug/L	-1.2212 ppb	14:22:51
3	SiO2†	569.2	60.6	4.6689 ug/L	4.6689 ppb	14:23:07

## Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	698142.2	87.734 %	0.4341			0.49%
Sc Radial	3625.8	91.2 %	1.33			1.46%
Y 371.029	553247.8	86.042 %	0.4911			0.57%
Y RADIAL	3764.5	91.13 %	1.456			1.60%
Ag 328.068†	-10458.0	-0.8410 ug/L	1.63530	-0.8410 ppb	1.63530	194.45%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	503878.5	521330 ug/L	15011.5	521330 ppb	15011.5	2.88%
QC value within limits for Al 396.153Radial Recovery = 104.27%						
As 188.979†	-95.2	4.8424 ug/L	3.33393	4.8424 ppb	3.33393	68.85%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	1394.8	1.8694 ug/L	2.04340	1.8694 ppb	2.04340	109.31%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-607.5	0.8195 ug/L	0.23258	0.8195 ppb	0.23258	28.38%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-674.3	-0.2982 ug/L	0.05135	-0.2982 ppb	0.05135	17.22%
QC value within limits for Be 313.107 Recovery = Not calculated						

Ca 317.933Radial†	252244.0	489820 ug/L	14211.4	489820 ppb	14211.4	2.90%
QC value within limits for Ca 317.933Radial Recovery = 97.96%						
Cd 226.502†	1504.8	-1.3979 ug/L	0.51924	-1.3979 ppb	0.51924	37.15%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	83.9	-1.0321 ug/L	0.11699	-1.0321 ppb	0.11699	11.33%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-550.3	-3.0404 ug/L	0.13791	-3.0404 ppb	0.13791	4.54%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-1923.9	4.2234 ug/L	1.23208	4.2234 ppb	1.23208	29.17%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	17627.2	193370 ug/L	4474.9	193370 ppb	4474.9	2.31%
QC value within limits for Fe 238.204 Radial Recovery = 96.69%						
K 766.490 Radial†	31.5	-157.11 ug/L	18.610	-157.11 ppb	18.610	11.85%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	12861.8	502550 ug/L	11806.9	502550 ppb	11806.9	2.35%
QC value within limits for Mg 279.077 IEC Recovery = 100.51%						
Mn 257.610†	971.9	-0.3280 ug/L	0.30988	-0.3280 ppb	0.30988	94.47%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-276.9	-0.6227 ug/L	1.28435	-0.6227 ppb	1.28435	206.24%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	768.3	269.47 ug/L	7.098	269.47 ppb	7.098	2.63%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	167.4	4.4721 ug/L	0.59169	4.4721 ppb	0.59169	13.23%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	20.0	-14.135 ug/L	12.6265	-14.135 ppb	12.6265	89.33%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-894.3	-13.525 ug/L	2.3380	-13.525 ppb	2.3380	17.29%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	28.8	-60.269 ug/L	14.6673	-60.269 ppb	14.6673	24.34%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	47.9	-0.5328 ug/L	5.25024	-0.5328 ppb	5.25024	985.35%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-970.6	-0.0007 ug/L	18.83221	-0.0007 ppb	18.83221	>999.9%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	20.8	0.9193 ug/L	0.60782	0.9193 ppb	0.60782	66.12%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	-297.0	-4.3398 ug/L	13.82249	-4.3398 ppb	13.82249	318.50%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	410.6	-0.2439 ug/L	0.12207	-0.2439 ppb	0.12207	50.04%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-12134.1	4.4898 ug/L	0.83117	4.4898 ppb	0.83117	18.51%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-55.4	-18.067 ug/L	1.5920	-18.067 ppb	1.5920	8.81%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	1457.1	24.787 ug/L	3.2575	24.787 ppb	3.2575	13.14%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	2100.0	-2.3504 ug/L	0.60894	-2.3504 ppb	0.60894	25.91%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	2736.1	-1.6331 ug/L	0.68789	-1.6331 ppb	0.68789	42.12%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	93.3	6.8419 ug/L	2.33244	6.8419 ppb	2.33244	34.09%
QC value within limits for SiO2 Recovery = Not calculated						
All analyte(s) passed QC.						

Sequence No.: 10  
 Sample ID: ICSAB  
 Analyst:  
 Logged In Analyst (Original) : Optima3  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 14  
 Date Collected: 2/17/2010 14:32:02  
 Data Type: Reprocessed on 2/17/2010 15:41:13  
 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 361.383	710657.3	710657.3	89.306 %		14:35:12
1	Sc Radial	3658.6	3658.6	92.0 %		14:34:14
1	Y 371.029	560822.9	560822.9	87.220 %		14:35:12
1	Y RADIAL	3805.5	3805.5	92.12 %		14:34:14
1	Ag 328.068†	37615.8	41934.4	268.03 ug/L	268.03 ppb	14:35:12
1	Al 396.153Radial†	450579.8	489795.8	506740 ug/L	506740 ppb	14:33:54
1	As 188.979†	979.9	1124.9	523.48 ug/L	523.48 ppb	14:35:32
1	B 249.677†	19769.4	22078.6	494.91 ug/L	494.91 ppb	14:35:12
1	Ba 233.527†	51123.5	57238.7	487.33 ug/L	487.33 ppb	14:35:12
1	Be 313.107†	581382.3	655236.4	246.43 ug/L	246.43 ppb	14:35:12
1	Ca 317.933Radial†	228414.6	248198.4	481970 ug/L	481970 ppb	14:33:54
1	Cd 226.502†	34890.5	39277.0	465.48 ug/L	465.48 ppb	14:35:32
1	Co 228.616†	18930.9	21276.2	445.84 ug/L	445.84 ppb	14:35:32
1	Cr 267.716†	34608.3	38055.2	474.64 ug/L	474.64 ppb	14:35:12
1	Cu 324.752†	161676.2	172716.6	547.07 ug/L	547.07 ppb	14:35:12
1	Fe 238.204 Radial†	15795.8	17154.6	188200 ug/L	188200 ppb	14:34:14
1	K 766.490 Radial†	25847.2	24880.6	5226.6 ug/L	5226.6 ppb	14:33:54
1	Mg 279.077 IEC†	11630.4	12637.6	493790 ug/L	493790 ppb	14:34:14
1	Mn 257.610†	368095.8	411620.8	476.73 ug/L	476.73 ppb	14:35:12
1	Mo 202.031†	5309.8	5924.5	479.56 ug/L	479.56 ppb	14:35:32
1	Na 589.592 Radial†	15036.0	16443.6	5767.5 ug/L	5767.5 ppb	14:33:54
1	Ni 231.604†	15275.2	17012.7	454.46 ug/L	454.46 ppb	14:35:32
1	P 214.914†	4398.0	4681.3	2435.5 ug/L	2435.5 ppb	14:35:32
1	Pb 220.353†	2441.1	2749.4	455.64 ug/L	455.64 ppb	14:35:32
1	S 181.975 Axial†	1906.8	2073.5	2596.1 ug/L	2596.1 ppb	14:35:32
1	Sb 206.836†	1455.4	1585.7	558.17 ug/L	558.17 ppb	14:35:32
1	Se 196.026†	3081.1	3476.5	2540.8 ug/L	2540.8 ppb	14:35:32
1	Si 251.611†	145818.9	162613.6	5116.3 ug/L	5116.3 ppb	14:35:12
1	Sn 189.927†	2042.7	2251.6	466.41 ug/L	466.41 ppb	14:35:32
1	Sr 421.552†	55997.2	60741.6	501.36 ug/L	501.36 ppb	14:33:54
1	Ti 334.940†	256238.4	288523.2	502.46 ug/L	502.46 ppb	14:35:12
1	Tl 190.801†	1285.2	1460.5	474.01 ug/L	474.01 ppb	14:35:32
1	U 409.014†	10963.5	15849.2	486.72 ug/L	486.72 ppb	14:35:12
1	V 292.402†	56651.8	65207.3	494.82 ug/L	494.82 ppb	14:35:12
1	Zn 213.857†	47492.8	52317.8	490.72 ug/L	490.72 ppb	14:35:12
1	SiO2†	144715.2	161452.4	10819 ug/L	10819 ppb	14:36:30
2	Sc 361.383	708398.2	708398.2	89.022 %		14:35:38
2	Sc Radial	3621.2	3621.2	91.1 %		14:34:39
2	Y 371.029	557923.3	557923.3	86.769 %		14:35:38
2	Y RADIAL	3769.2	3769.2	91.24 %		14:34:39
2	Ag 328.068†	37442.1	41873.5	267.60 ug/L	267.60 ppb	14:35:38
2	Al 396.153Radial†	439163.5	482319.0	499010 ug/L	499010 ppb	14:34:19
2	As 188.979†	983.9	1132.9	526.71 ug/L	526.71 ppb	14:35:58
2	B 249.677†	19944.6	22346.0	501.41 ug/L	501.41 ppb	14:35:38
2	Ba 233.527†	51159.1	57461.2	489.17 ug/L	489.17 ppb	14:35:38
2	Be 313.107†	581452.3	657391.1	247.24 ug/L	247.24 ppb	14:35:38
2	Ca 317.933Radial†	222552.3	244325.8	474450 ug/L	474450 ppb	14:34:19
2	Cd 226.502†	34756.4	39250.9	465.24 ug/L	465.24 ppb	14:35:58
2	Co 228.616†	18918.8	21330.2	446.98 ug/L	446.98 ppb	14:35:58
2	Cr 267.716†	34784.6	38376.9	478.61 ug/L	478.61 ppb	14:35:38
2	Cu 324.752†	161129.5	172679.8	546.92 ug/L	546.92 ppb	14:35:38
2	Fe 238.204 Radial†	15572.6	17086.8	187460 ug/L	187460 ppb	14:34:39
2	K 766.490 Radial†	25207.6	24468.6	5139.9 ug/L	5139.9 ppb	14:34:19
2	Mg 279.077 IEC†	11456.6	12577.3	491440 ug/L	491440 ppb	14:34:39
2	Mn 257.610†	368419.6	413299.0	478.70 ug/L	478.70 ppb	14:35:38
2	Mo 202.031†	5290.3	5921.5	479.19 ug/L	479.19 ppb	14:35:58
2	Na 589.592 Radial†	14547.1	16075.6	5638.4 ug/L	5638.4 ppb	14:34:19
2	Ni 231.604†	15195.0	16977.2	453.51 ug/L	453.51 ppb	14:35:58

2	P 214.914†	4362.3	4656.9	2420.9 ug/L	2420.9 ppb	14:35:58
2	Pb 220.353†	2429.8	2745.4	453.41 ug/L	453.41 ppb	14:35:58
2	S 181.975 Axial†	1890.7	2062.1	2582.9 ug/L	2582.9 ppb	14:35:58
2	Sb 206.836†	1448.4	1583.0	557.57 ug/L	557.57 ppb	14:35:58
2	Se 196.026†	3055.2	3458.5	2528.6 ug/L	2528.6 ppb	14:35:58
2	Si 251.611†	145921.0	163248.9	5136.3 ug/L	5136.3 ppb	14:35:38
2	Sn 189.927†	2078.0	2298.6	474.05 ug/L	474.05 ppb	14:35:58
2	Sr 421.552†	54515.9	59743.7	493.12 ug/L	493.12 ppb	14:34:19
2	Ti 334.940†	256279.4	289484.2	503.24 ug/L	503.24 ppb	14:35:38
2	Tl 190.801†	1283.3	1462.9	474.81 ug/L	474.81 ppb	14:35:58
2	U 409.014†	10840.6	15750.3	483.61 ug/L	483.61 ppb	14:35:38
2	V 292.402†	56481.1	65217.8	494.96 ug/L	494.96 ppb	14:35:38
2	Zn 213.857†	47713.5	52735.3	495.00 ug/L	495.00 ppb	14:35:38
2	SiO2†	145615.5	162980.5	10921 ug/L	10921 ppb	14:36:35
3	Sc 361.383	703305.6	703305.6	88.382 %		14:36:04
3	Sc Radial	3617.9	3617.9	91.0 %		14:35:05
3	Y 371.029	555451.1	555451.1	86.385 %		14:36:04
3	Y RADIAL	3779.8	3779.8	91.50 %		14:35:05
3	Ag 328.068†	37173.5	41874.1	267.73 ug/L	267.73 ppb	14:36:04
3	Al 396.153Radial†	446240.3	490528.7	507500 ug/L	507500 ppb	14:34:45
3	As 188.979†	962.5	1116.7	520.04 ug/L	520.04 ppb	14:36:24
3	B 249.677†	19502.0	22007.5	493.21 ug/L	493.21 ppb	14:36:04
3	Ba 233.527†	50584.0	57226.7	487.23 ug/L	487.23 ppb	14:36:04
3	Be 313.107†	574703.4	654484.6	246.15 ug/L	246.15 ppb	14:36:04
3	Ca 317.933Radial†	226210.5	248565.2	482680 ug/L	482680 ppb	14:34:45
3	Cd 226.502†	34464.0	39202.8	464.56 ug/L	464.56 ppb	14:36:24
3	Co 228.616†	18721.3	21260.6	445.50 ug/L	445.50 ppb	14:36:24
3	Cr 267.716†	34303.3	38115.2	475.39 ug/L	475.39 ppb	14:36:04
3	Cu 324.752†	159138.4	171737.6	544.03 ug/L	544.03 ppb	14:36:04
3	Fe 238.204 Radial†	15623.1	17157.7	188230 ug/L	188230 ppb	14:35:05
3	K 766.490 Radial†	25429.0	24736.6	5195.2 ug/L	5195.2 ppb	14:34:45
3	Mg 279.077 IEC†	11510.2	12647.6	494180 ug/L	494180 ppb	14:35:05
3	Mn 257.610†	364120.0	411430.9	476.50 ug/L	476.50 ppb	14:36:04
3	Mo 202.031†	5236.5	5903.7	477.96 ug/L	477.96 ppb	14:36:24
3	Na 589.592 Radial†	14766.4	16330.9	5728.0 ug/L	5728.0 ppb	14:34:45
3	Ni 231.604†	15095.9	16988.6	453.82 ug/L	453.82 ppb	14:36:24
3	P 214.914†	4372.0	4703.3	2448.3 ug/L	2448.3 ppb	14:36:24
3	Pb 220.353†	2406.6	2738.9	454.47 ug/L	454.47 ppb	14:36:24
3	S 181.975 Axial†	1881.8	2067.4	2588.2 ug/L	2588.2 ppb	14:36:24
3	Sb 206.836†	1432.7	1577.0	555.00 ug/L	555.00 ppb	14:36:24
3	Se 196.026†	3027.2	3451.6	2526.6 ug/L	2526.6 ppb	14:36:24
3	Si 251.611†	143994.5	162256.2	5105.1 ug/L	5105.1 ppb	14:36:04
3	Sn 189.927†	1998.8	2225.8	461.75 ug/L	461.75 ppb	14:36:24
3	Sr 421.552†	55361.6	60726.8	501.23 ug/L	501.23 ppb	14:34:45
3	Ti 334.940†	254013.6	289005.1	503.33 ug/L	503.33 ppb	14:36:04
3	Tl 190.801†	1254.9	1441.2	467.80 ug/L	467.80 ppb	14:36:24
3	U 409.014†	10775.3	15764.5	483.99 ug/L	483.99 ppb	14:36:04
3	V 292.402†	56172.0	65327.5	495.73 ug/L	495.73 ppb	14:36:04
3	Zn 213.857†	46997.9	52313.7	490.68 ug/L	490.68 ppb	14:36:04
3	SiO2†	143749.7	162053.9	10859 ug/L	10859 ppb	14:36:40

## Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	707453.7	88.904 %	0.4732			0.53%
Sc Radial	3632.5	91.4 %	0.57			0.62%
Y 371.029	558065.8	86.791 %	0.4181			0.48%
Y RADIAL	3784.8	91.62 %	0.452			0.49%
Ag 328.068†	41894.0	267.79 ug/L	0.223	267.79 ppb	0.223	0.08%
QC value within limits for Ag 328.068 Recovery = 107.11%						
Al 396.153Radial†	487547.8	504420 ug/L	4700.5	504420 ppb	4700.5	0.93%
QC value within limits for Al 396.153Radial Recovery = 100.88%						
As 188.979†	1124.8	523.41 ug/L	3.335	523.41 ppb	3.335	0.64%
QC value within limits for As 188.979 Recovery = 104.68%						
B 249.677†	22144.0	496.51 ug/L	4.327	496.51 ppb	4.327	0.87%
QC value within limits for B 249.677 Recovery = 99.30%						
Ba 233.527†	57308.9	487.91 ug/L	1.095	487.91 ppb	1.095	0.22%
QC value within limits for Ba 233.527 Recovery = 97.58%						
Be 313.107†	655704.0	246.60 ug/L	0.566	246.60 ppb	0.566	0.23%
QC value within limits for Be 313.107 Recovery = 98.64%						

Ca 317.933Radial†	247029.8	479700 ug/L	4561.3	479700 ppb	4561.3	0.95%
QC value within limits for Ca 317.933Radial Recovery = 95.94%						
Cd 226.502†	39243.6	465.09 ug/L	0.476	465.09 ppb	0.476	0.10%
QC value within limits for Cd 226.502 Recovery = 93.02%						
Co 228.616†	21289.0	446.10 ug/L	0.775	446.10 ppb	0.775	0.17%
QC value within limits for Co 228.616 Recovery = 89.22%						
Cr 267.716†	38182.4	476.21 ug/L	2.106	476.21 ppb	2.106	0.44%
QC value within limits for Cr 267.716 Recovery = 95.24%						
Cu 324.752†	172378.0	546.00 ug/L	1.714	546.00 ppb	1.714	0.31%
QC value within limits for Cu 324.752 Recovery = 109.20%						
Fe 238.204 Radial†	17133.0	187960 ug/L	439.4	187960 ppb	439.4	0.23%
QC value within limits for Fe 238.204 Radial Recovery = 93.98%						
K 766.490 Radial†	24695.3	5187.2 ug/L	43.90	5187.2 ppb	43.90	0.85%
QC value within limits for K 766.490 Radial Recovery = 103.74%						
Mg 279.077 IEC†	12620.8	493140 ug/L	1485.6	493140 ppb	1485.6	0.30%
QC value within limits for Mg 279.077 IEC Recovery = 98.63%						
Mn 257.610†	412116.9	477.31 ug/L	1.212	477.31 ppb	1.212	0.25%
QC value within limits for Mn 257.610 Recovery = 95.46%						
Mo 202.031†	5916.6	478.90 ug/L	0.839	478.90 ppb	0.839	0.18%
QC value within limits for Mo 202.031 Recovery = 95.78%						
Na 589.592 Radial†	16283.4	5711.3 ug/L	66.13	5711.3 ppb	66.13	1.16%
QC value within limits for Na 589.592 Radial Recovery = 114.23%						
Ni 231.604†	16992.8	453.93 ug/L	0.484	453.93 ppb	0.484	0.11%
QC value within limits for Ni 231.604 Recovery = 90.79%						
P 214.914†	4680.5	2434.9 ug/L	13.70	2434.9 ppb	13.70	0.56%
QC value within limits for P 214.914 Recovery = 97.39%						
Pb 220.353†	2744.6	454.51 ug/L	1.118	454.51 ppb	1.118	0.25%
QC value within limits for Pb 220.353 Recovery = 90.90%						
S 181.975 Axial†	2067.7	2589.1 ug/L	6.67	2589.1 ppb	6.67	0.26%
QC value within limits for S 181.975 Axial Recovery = 103.56%						
Sb 206.836†	1581.9	556.91 ug/L	1.686	556.91 ppb	1.686	0.30%
QC value within limits for Sb 206.836 Recovery = 111.38%						
Se 196.026†	3462.2	2532.0 ug/L	7.70	2532.0 ppb	7.70	0.30%
QC value within limits for Se 196.026 Recovery = 101.28%						
Si 251.611†	162706.2	5119.2 ug/L	15.83	5119.2 ppb	15.83	0.31%
QC value within limits for Si 251.611 Recovery = 102.38%						
Sn 189.927†	2258.6	467.40 ug/L	6.211	467.40 ppb	6.211	1.33%
QC value within limits for Sn 189.927 Recovery = 93.48%						
Sr 421.552†	60404.0	498.57 ug/L	4.720	498.57 ppb	4.720	0.95%
QC value within limits for Sr 421.552 Recovery = 99.71%						
Ti 334.940†	289004.2	503.01 ug/L	0.476	503.01 ppb	0.476	0.09%
QC value within limits for Ti 334.940 Recovery = 100.60%						
Tl 190.801†	1454.9	472.21 ug/L	3.840	472.21 ppb	3.840	0.81%
QC value within limits for Tl 190.801 Recovery = 94.44%						
U 409.014†	15788.0	484.77 ug/L	1.693	484.77 ppb	1.693	0.35%
QC value within limits for U 409.014 Recovery = 96.95%						
V 292.402†	65250.9	495.17 ug/L	0.490	495.17 ppb	0.490	0.10%
QC value within limits for V 292.402 Recovery = 99.03%						
Zn 213.857†	52455.6	492.13 ug/L	2.486	492.13 ppb	2.486	0.51%
QC value within limits for Zn 213.857 Recovery = 98.43%						
SiO2†	162162.2	10866 ug/L	51.6	10866 ppb	51.6	0.48%
QC value within limits for SiO2 Recovery = 101.60%						

All analyte(s) passed QC.

Sequence No.: 11  
 Sample ID: LR1  
 Analyst:  
 Logged In Analyst (Original) : Optima3  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 15  
 Date Collected: 2/17/2010 14:38:51  
 Data Type: Reprocessed on 2/17/2010 15:41:15  
 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 361.383	690492.5	690492.5	86.772 %		14:42:02
1	Sc Radial	3527.1	3527.1	88.7 %		14:41:04
1	Y 371.029	548021.8	548021.8	85.229 %		14:42:02
1	Y RADIAL	3669.5	3669.5	88.83 %		14:41:04
1	Ag 328.068†	-20639.9	-23971.9	-2.9577 ug/L	-2.9577 ppb	14:42:02
1	Al 396.153Radial†	421357.8	475110.9	491570 ug/L	491570 ppb	14:40:44
1	As 188.979†	-202.2	-205.4	17.347 ug/L	17.347 ppb	14:42:22
1	B 249.677†	1430.3	1590.3	-34.392 ug/L	-34.392 ppb	14:42:02
1	Ba 233.527†	-1646.0	-1903.4	-2.3680 ug/L	-2.3680 ppb	14:42:22
1	Be 313.107†	-8980.5	-6111.0	-2.3137 ug/L	-2.3137 ppb	14:42:02
1	Ca 317.933Radial†	214070.0	241282.9	468540 ug/L	468540 ppb	14:40:44
1	Cd 226.502†	2856.3	3500.3	-0.2814 ug/L	-0.2814 ppb	14:42:22
1	Co 228.616†	184.7	291.3	-0.3727 ug/L	-0.3727 ppb	14:42:22
1	Cr 267.716†	110.8	-569.4	-3.4982 ug/L	-3.4982 ppb	14:42:22
1	Cu 324.752†	2236.0	-5742.1	-1.4898 ug/L	-1.4898 ppb	14:42:02
1	Fe 238.204 Radial†	36021.7	40593.9	445320 ug/L	445320 ppb	14:40:44
1	K 766.490 Radial†	2966.1	135.5	-329.06 ug/L	-329.06 ppb	14:40:44
1	Mg 279.077 IEC†	10934.8	12324.7	481290 ug/L	481290 ppb	14:41:04
1	Mn 257.610†	-20639.4	-24337.2	-3.9974 ug/L	-3.9974 ppb	14:42:02
1	Mo 202.031†	-460.3	-551.6	-2.6081 ug/L	-2.6081 ppb	14:42:22
1	Na 589.592 Radial†	1308048.3	1474580.8	517200 ug/L	517200 ppb	14:40:44
1	Ni 231.604†	334.8	294.3	7.8619 ug/L	7.8619 ppb	14:42:22
1	P 214.914†	576.7	421.2	-2.6345 ug/L	-2.6345 ppb	14:42:22
1	Pb 220.353†	-582.5	-655.3	-13.495 ug/L	-13.495 ppb	14:42:22
1	S 181.975 Axial†	102.1	55.9	-19.512 ug/L	-19.512 ppb	14:42:22
1	Sb 206.836†	74.0	41.3	-5.7056 ug/L	-5.7056 ppb	14:42:22
1	Se 196.026†	-2036.8	-2320.9	-16.385 ug/L	-16.385 ppb	14:42:22
1	Si 251.611†	-269.0	-975.9	-30.213 ug/L	-30.213 ppb	14:42:22
1	Sn 189.927†	-346.8	-435.3	-64.239 ug/L	-64.239 ppb	14:42:22
1	Sr 421.552†	599.2	563.8	1.1880 ug/L	1.1880 ppb	14:41:04
1	Ti 334.940†	-7271.3	-6777.4	6.5484 ug/L	6.5484 ppb	14:42:02
1	Tl 190.801†	-88.5	-80.7	-26.311 ug/L	-26.311 ppb	14:42:22
1	U 409.014†	347874.5	404478.1	12945 ug/L	12945 ppb	14:42:02
1	V 292.402†	1555.5	3564.5	-3.6161 ug/L	-3.6161 ppb	14:42:22
1	Zn 213.857†	5556.3	5541.5	-11.324 ug/L	-11.324 ppb	14:42:22
1	SiO2†	-288.4	-923.6	-60.796 ug/L	-60.796 ppb	14:43:19
2	Sc 361.383	687162.2	687162.2	86.354 %		14:42:28
2	Sc Radial	3499.3	3499.3	88.0 %		14:41:30
2	Y 371.029	545419.6	545419.6	84.824 %		14:42:28
2	Y RADIAL	3675.7	3675.7	88.98 %		14:41:30
2	Ag 328.068†	-20792.7	-24264.1	-4.0162 ug/L	-4.0162 ppb	14:42:28
2	Al 396.153Radial†	419588.5	476875.0	493400 ug/L	493400 ppb	14:41:10
2	As 188.979†	-219.3	-226.3	8.8617 ug/L	8.8617 ppb	14:42:48
2	B 249.677†	1534.4	1718.9	-31.582 ug/L	-31.582 ppb	14:42:28
2	Ba 233.527†	-1686.1	-1959.0	-2.7868 ug/L	-2.7868 ppb	14:42:48
2	Be 313.107†	-8976.8	-6157.0	-2.3326 ug/L	-2.3326 ppb	14:42:28
2	Ca 317.933Radial†	213591.9	242657.2	471200 ug/L	471200 ppb	14:41:10
2	Cd 226.502†	2845.5	3503.8	-0.3996 ug/L	-0.3996 ppb	14:42:48
2	Co 228.616†	158.9	262.5	-0.9974 ug/L	-0.9974 ppb	14:42:48
2	Cr 267.716†	62.4	-625.0	-4.1593 ug/L	-4.1593 ppb	14:42:48
2	Cu 324.752†	2442.0	-5491.1	-0.6322 ug/L	-0.6322 ppb	14:42:28
2	Fe 238.204 Radial†	35865.1	40738.6	446900 ug/L	446900 ppb	14:41:10
2	K 766.490 Radial†	3144.5	364.8	-279.75 ug/L	-279.75 ppb	14:41:10
2	Mg 279.077 IEC†	10815.7	12287.3	479830 ug/L	479830 ppb	14:41:30
2	Mn 257.610†	-19792.2	-23471.4	-2.7748 ug/L	-2.7748 ppb	14:42:28
2	Mo 202.031†	-445.5	-537.0	-1.3283 ug/L	-1.3283 ppb	14:42:48
2	Na 589.592 Radial†	1294343.0	1470726.0	515850 ug/L	515850 ppb	14:41:10
2	Ni 231.604†	320.6	279.7	7.4726 ug/L	7.4726 ppb	14:42:48



2	P 214.914†	564.7	410.6	-9.4680 ug/L	-9.4680 ppb	14:42:48
2	Pb 220.353†	-597.0	-675.3	-15.797 ug/L	-15.797 ppb	14:42:48
2	S 181.975 Axial†	92.7	45.6	-33.225 ug/L	-33.225 ppb	14:42:48
2	Sb 206.836†	60.4	25.9	-11.175 ug/L	-11.175 ppb	14:42:48
2	Se 196.026†	-2002.4	-2292.4	4.6855 ug/L	4.6855 ppb	14:42:48
2	Si 251.611†	-263.2	-970.7	-30.063 ug/L	-30.063 ppb	14:42:48
2	Sn 189.927†	-356.7	-448.8	-66.518 ug/L	-66.518 ppb	14:42:48
2	Sr 421.552†	571.3	537.5	0.9498 ug/L	0.9498 ppb	14:41:30
2	Ti 334.940†	-7637.6	-7242.3	6.2488 ug/L	6.2488 ppb	14:42:28
2	Tl 190.801†	-67.8	-57.2	-18.734 ug/L	-18.734 ppb	14:42:48
2	U 409.014†	346569.7	404910.1	12958 ug/L	12958 ppb	14:42:28
2	V 292.402†	1550.2	3567.0	-3.8126 ug/L	-3.8126 ppb	14:42:48
2	Zn 213.857†	5544.8	5559.2	-11.384 ug/L	-11.384 ppb	14:42:48
2	SiO2†	-404.0	-1059.1	-69.920 ug/L	-69.920 ppb	14:43:24
3	Sc 361.383	692098.5	692098.5	86.974 %		14:42:54
3	Sc Radial	3512.5	3512.5	88.3 %		14:41:55
3	Y 371.029	548447.1	548447.1	85.295 %		14:42:54
3	Y RADIAL	3671.9	3671.9	88.89 %		14:41:55
3	Ag 328.068†	-20810.5	-24112.8	-2.5925 ug/L	-2.5925 ppb	14:42:54
3	Al 396.153Radial†	423176.3	479144.2	495740 ug/L	495740 ppb	14:41:35
3	As 188.979†	-202.5	-205.2	18.279 ug/L	18.279 ppb	14:43:14
3	B 249.677†	1596.3	1777.4	-30.517 ug/L	-30.517 ppb	14:42:54
3	Ba 233.527†	-1608.1	-1855.4	-1.8583 ug/L	-1.8583 ppb	14:43:14
3	Be 313.107†	-9063.3	-6182.3	-2.3338 ug/L	-2.3338 ppb	14:42:54
3	Ca 317.933Radial†	215470.1	243871.0	473560 ug/L	473560 ppb	14:41:35
3	Cd 226.502†	2851.4	3487.0	-0.8307 ug/L	-0.8307 ppb	14:43:14
3	Co 228.616†	189.6	296.4	-0.3210 ug/L	-0.3210 ppb	14:43:14
3	Cr 267.716†	42.1	-648.7	-4.3858 ug/L	-4.3858 ppb	14:43:14
3	Cu 324.752†	2234.8	-5749.4	-1.2873 ug/L	-1.2873 ppb	14:42:54
3	Fe 238.204 Radial†	36163.7	40923.5	448930 ug/L	448930 ppb	14:41:35
3	K 766.490 Radial†	3032.8	224.8	-312.13 ug/L	-312.13 ppb	14:41:35
3	Mg 279.077 IEC†	10918.4	12357.5	482560 ug/L	482560 ppb	14:41:55
3	Mn 257.610†	-20264.2	-23850.6	-3.1272 ug/L	-3.1272 ppb	14:42:54
3	Mo 202.031†	-456.1	-545.6	-1.8040 ug/L	-1.8040 ppb	14:43:14
3	Na 589.592 Radial†	1307447.3	1480031.1	519110 ug/L	519110 ppb	14:41:35
3	Ni 231.604†	328.5	286.1	7.6442 ug/L	7.6442 ppb	14:43:14
3	P 214.914†	597.5	443.7	7.7853 ug/L	7.7853 ppb	14:43:14
3	Pb 220.353†	-588.0	-660.1	-13.474 ug/L	-13.474 ppb	14:43:14
3	S 181.975 Axial†	101.7	55.3	-21.176 ug/L	-21.176 ppb	14:43:14
3	Sb 206.836†	76.1	43.5	-5.0538 ug/L	-5.0538 ppb	14:43:14
3	Se 196.026†	-2031.0	-2308.7	1.2707 ug/L	1.2707 ppb	14:43:14
3	Si 251.611†	-216.7	-915.1	-28.303 ug/L	-28.303 ppb	14:43:14
3	Sn 189.927†	-341.8	-428.7	-62.684 ug/L	-62.684 ppb	14:43:14
3	Sr 421.552†	609.8	578.6	1.2738 ug/L	1.2738 ppb	14:41:55
3	Ti 334.940†	-5766.6	-5027.9	10.047 ug/L	10.047 ppb	14:42:54
3	Tl 190.801†	-79.1	-69.5	-22.692 ug/L	-22.692 ppb	14:43:14
3	U 409.014†	347032.5	402579.7	12883 ug/L	12883 ppb	14:42:54
3	V 292.402†	1426.9	3412.4	-5.4108 ug/L	-5.4108 ppb	14:43:14
3	Zn 213.857†	5519.2	5483.9	-12.439 ug/L	-12.439 ppb	14:43:14
3	SiO2†	-81.6	-685.1	-44.811 ug/L	-44.811 ppb	14:43:29

## Mean Data: LRI

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	689917.7	86.700 %	0.3164			0.36%
Sc Radial	3512.9	88.4 %	0.35			0.40%
Y 371.029	547296.1	85.116 %	0.2549			0.30%
Y RADIAL	3672.3	88.90 %	0.075			0.08%
Ag 328.068†	-24116.3	-3.1888 ug/L	0.73943	-3.1888 ppb	0.73943	23.19%
Al 396.153Radial†	477043.4	493570 ug/L	2091.9	493570 ppb	2091.9	0.42%
QC value within limits for Al 396.153Radial Recovery = 98.71%						
As 188.979†	-212.3	14.829 ug/L	5.1891	14.829 ppb	5.1891	34.99%
B 249.677†	1695.5	-32.164 ug/L	2.0021	-32.164 ppb	2.0021	6.22%
Ba 233.527†	-1905.9	-2.3377 ug/L	0.46501	-2.3377 ppb	0.46501	19.89%
Be 313.107†	-6150.1	-2.3267 ug/L	0.01129	-2.3267 ppb	0.01129	0.49%
Ca 317.933Radial†	242603.7	471100 ug/L	2514.4	471100 ppb	2514.4	0.53%
QC value within limits for Ca 317.933Radial Recovery = 94.22%						
Cd 226.502†	3497.1	-0.5039 ug/L	0.28915	-0.5039 ppb	0.28915	57.38%
Co 228.616†	283.4	-0.5637 ug/L	0.37648	-0.5637 ppb	0.37648	66.79%
Cr 267.716†	-614.4	-4.0144 ug/L	0.46123	-4.0144 ppb	0.46123	11.49%

Cu 324.752†	-5660.9	-1.1364 ug/L	0.44823	-1.1364 ppb	0.44823	39.44%
Fe 238.204 Radial†	40752.0	447050 ug/L	1812.3	447050 ppb	1812.3	0.41%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 89.41%						
K 766.490 Radial†	241.7	-306.98 ug/L	25.055	-306.98 ppb	25.055	8.16%
Mg 279.077 IEC†	12323.2	481230 ug/L	1370.4	481230 ppb	1370.4	0.28%
QC value within limits for Mg 279.077 IEC Recovery = 96.25%						
Mn 257.610†	-23886.4	-3.2998 ug/L	0.62930	-3.2998 ppb	0.62930	19.07%
Mo 202.031†	-544.7	-1.9135 ug/L	0.64687	-1.9135 ppb	0.64687	33.81%
Na 589.592 Radial†	1475112.7	517390 ug/L	1639.8	517390 ppb	1639.8	0.32%
QC value within limits for Na 589.592 Radial Recovery = 103.48%						
Ni 231.604†	286.7	7.6596 ug/L	0.19509	7.6596 ppb	0.19509	2.55%
P 214.914†	425.2	-1.4391 ug/L	8.68856	-1.4391 ppb	8.68856	603.77%
Pb 220.353†	-663.6	-14.256 ug/L	1.3352	-14.256 ppb	1.3352	9.37%
S 181.975 Axial†	52.3	-24.638 ug/L	7.4831	-24.638 ppb	7.4831	30.37%
Sb 206.836†	36.9	-7.3114 ug/L	3.36161	-7.3114 ppb	3.36161	45.98%
Se 196.026†	-2307.3	-3.4762 ug/L	11.30883	-3.4762 ppb	11.30883	325.32%
Si 251.611†	-953.9	-29.526 ug/L	1.0623	-29.526 ppb	1.0623	3.60%
Sn 189.927†	-437.6	-64.480 ug/L	1.9286	-64.480 ppb	1.9286	2.99%
Sr 421.552†	559.9	1.1372 ug/L	0.16792	1.1372 ppb	0.16792	14.77%
Ti 334.940†	-6349.2	7.6147 ug/L	2.11161	7.6147 ppb	2.11161	27.73%
Tl 190.801†	-69.1	-22.579 ug/L	3.7897	-22.579 ppb	3.7897	16.78%
U 409.014†	403989.3	12929 ug/L	40.0	12929 ppb	40.0	0.31%
QC value less than the lower limit for U 409.014 Recovery = 86.19%						
V 292.402†	3514.7	-4.2798 ug/L	0.98437	-4.2798 ppb	0.98437	23.00%
Zn 213.857†	5528.2	-11.716 ug/L	0.6272	-11.716 ppb	0.6272	5.35%
SiO2†	-889.3	-58.509 ug/L	12.7096	-58.509 ppb	12.7096	21.72%

QC Failed. Continue with analysis.

Sequence No.: 12  
 Sample ID: LR2  
 Analyst:  
 Logged In Analyst (Original) : Optima3  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 16  
 Date Collected: 2/17/2010 14:49:47  
 Data Type: Reprocessed on 2/17/2010 15:41:16  
 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 361.383	811567.7	811567.7	101.99 %		14:53:22
1	Sc Radial	3667.9	3667.9	92.3 %		14:52:05
1	Y 371.029	647976.2	647976.2	100.77 %		14:53:22
1	Y RADIAL	4136.4	4136.4	100.1 %		14:51:45
1	Ag 328.068†	-6965.8	-7015.7	3.2137 ug/L	3.2137 ppb	14:53:27
1	Al 396.153Radial†	278.5	443.8	3.5744 ug/L	3.5744 ppb	14:51:45
1	As 188.979†	22468.1	22058.0	9400.3 ug/L	9400.3 ppb	14:53:27
1	B 249.677†	205589.3	201524.9	4782.1 ug/L	4782.1 ppb	14:53:22
1	Ba 233.527†	1587899.4	1556949.4	13091 ug/L	13091 ppb	14:53:22
1	Be 313.107†	7516868.4	7374625.0	2782.8 ug/L	2782.8 ppb	14:53:16
1	Ca 317.933Radial†	28.5	6.6	12.890 ug/L	12.890 ppb	14:52:05
1	Cd 226.502†	785632.3	770531.3	9511.5 ug/L	9511.5 ppb	14:53:22
1	Co 228.616†	439897.2	431403.3	9091.2 ug/L	9091.2 ppb	14:53:27
1	Cr 267.716†	1921548.2	1883405.7	23298 ug/L	23298 ppb	14:53:22
1	Cu 324.752†	6248075.8	6118000.1	19035 ug/L	19035 ppb	14:53:16
1	Fe 238.204 Radial†	-15.2	-27.5	-29.885 ug/L	-29.885 ppb	14:52:05
1	K 766.490 Radial†	1314393.9	1421549.6	307990 ug/L	307990 ppb	14:51:40
1	Mg 279.077 IEC†	-0.4	-1.8	27.640 ug/L	27.640 ppb	14:52:05
1	Mn 257.610†	7929142.1	7774074.9	9034.2 ug/L	9034.2 ppb	14:53:16
1	Mo 202.031†	123624.9	121194.7	9394.1 ug/L	9394.1 ppb	14:53:27
1	Na 589.592 Radial†	0.9	104.6	36.697 ug/L	36.697 ppb	14:51:45
1	Ni 231.604†	356638.0	349596.6	9338.8 ug/L	9338.8 ppb	14:53:27
1	P 214.914†	32857.1	31973.4	13824 ug/L	13824 ppb	14:53:27
1	Pb 220.353†	189145.0	185475.1	23990 ug/L	23990 ppb	14:53:27
1	S 181.975 Axial†	40487.8	39637.1	51444 ug/L	51444 ppb	14:53:27
1	Sb 206.836†	30546.8	29907.6	10876 ug/L	10876 ppb	14:53:27
1	Se 196.026†	17519.6	17204.7	9909.7 ug/L	9909.7 ppb	14:53:27
1	Si 251.611†	1490105.4	1460401.7	45884 ug/L	45884 ppb	14:53:22
1	Sn 189.927†	56250.5	55118.7	10193 ug/L	10193 ppb	14:53:27
1	Sr 421.552†	1123313.9	1217521.8	10121 ug/L	10121 ppb	14:51:40
1	Ti 334.940†	5826317.1	5714381.5	9469.7 ug/L	9469.7 ppb	14:53:16
1	Tl 190.801†	30238.0	29670.1	9625.4 ug/L	9625.4 ppb	14:53:27
1	U 409.014†	-2909.7	719.9	-28.942 ug/L	-28.942 ppb	14:53:22
1	V 292.402†	1276116.1	1253020.2	9835.7 ug/L	9835.7 ppb	14:53:22
1	Zn 213.857†	1391650.0	1363669.0	13534 ug/L	13534 ppb	14:53:22
1	SiO2†	1496399.1	1466647.3	98136 ug/L	98136 ppb	14:54:15
2	Sc 361.383	811788.3	811788.3	102.02 %		14:53:42
2	Sc Radial	3939.9	3939.9	99.1 %		14:52:35
2	Y 371.029	647730.2	647730.2	100.74 %		14:53:42
2	Y RADIAL	3982.4	3982.4	96.40 %		14:52:15
2	Ag 328.068†	-6850.0	-6900.3	3.7063 ug/L	3.7063 ppb	14:53:47
2	Al 396.153Radial†	267.0	411.3	-22.902 ug/L	-22.902 ppb	14:52:15
2	As 188.979†	21981.9	21575.3	9197.9 ug/L	9197.9 ppb	14:53:47
2	B 249.677†	205070.7	200961.8	4769.1 ug/L	4769.1 ppb	14:53:42
2	Ba 233.527†	1584787.7	1553476.3	13062 ug/L	13062 ppb	14:53:42
2	Be 313.107†	7665238.0	7518061.4	2836.9 ug/L	2836.9 ppb	14:53:35
2	Ca 317.933Radial†	36.4	12.5	24.258 ug/L	24.258 ppb	14:52:35
2	Cd 226.502†	782111.4	766870.7	9466.2 ug/L	9466.2 ppb	14:53:42
2	Co 228.616†	432733.6	424264.1	8940.0 ug/L	8940.0 ppb	14:53:47
2	Cr 267.716†	1916470.9	1877916.8	23230 ug/L	23230 ppb	14:53:42
2	Cu 324.752†	6391793.7	6257214.7	19469 ug/L	19469 ppb	14:53:35
2	Fe 238.204 Radial†	-15.0	-26.1	-19.213 ug/L	-19.213 ppb	14:52:35
2	K 766.490 Radial†	1307599.6	1316327.5	285190 ug/L	285190 ppb	14:52:10
2	Mg 279.077 IEC†	-4.2	-5.6	-122.48 ug/L	-122.48 ppb	14:52:35
2	Mn 257.610†	8083499.6	7923271.0	9207.5 ug/L	9207.5 ppb	14:53:35
2	Mo 202.031†	121723.9	119298.4	9247.1 ug/L	9247.1 ppb	14:53:47
2	Na 589.592 Radial†	-13.7	89.9	31.534 ug/L	31.534 ppb	14:52:15
2	Ni 231.604†	350862.5	343840.2	9185.0 ug/L	9185.0 ppb	14:53:47

2	P 214.914†	32292.6	31411.4	13429 ug/L	13429 ppb	14:53:47
2	Pb 220.353†	186087.7	182427.8	23596 ug/L	23596 ppb	14:53:47
2	S 181.975 Axial†	39602.8	38758.8	50304 ug/L	50304 ppb	14:53:47
2	Sb 206.836†	29919.9	29284.9	10650 ug/L	10650 ppb	14:53:47
2	Se 196.026†	17130.4	16818.5	9687.5 ug/L	9687.5 ppb	14:53:47
2	Si 251.611†	1486232.7	1456208.5	45753 ug/L	45753 ppb	14:53:42
2	Sn 189.927†	55284.9	54157.2	10015 ug/L	10015 ppb	14:53:47
2	Sr 421.552†	1114701.8	1124765.2	9350.4 ug/L	9350.4 ppb	14:52:10
2	Ti 334.940†	5942899.4	5827108.9	9656.7 ug/L	9656.7 ppb	14:53:35
2	Tl 190.801†	29715.3	29149.7	9460.8 ug/L	9460.8 ppb	14:53:47
2	U 409.014†	-2696.0	930.1	-22.038 ug/L	-22.038 ppb	14:53:42
2	V 292.402†	1273268.9	1249889.3	9809.2 ug/L	9809.2 ppb	14:53:42
2	Zn 213.857†	1387632.2	1359359.8	13491 ug/L	13491 ppb	14:53:42
2	SiO2†	1483851.9	1453949.4	97288 ug/L	97288 ppb	14:54:22
3	Sc 361.383	799311.1	799311.1	100.45 %		14:54:02
3	Sc Radial	3782.0	3782.0	95.1 %		14:53:06
3	Y 371.029	638667.7	638667.7	99.327 %		14:54:02
3	Y RADIAL	4002.6	4002.6	96.89 %		14:52:46
3	Ag 328.068†	-6864.5	-7019.6	3.2372 ug/L	3.2372 ppb	14:54:07
3	Al 396.153Radial†	280.7	437.0	-4.4056 ug/L	-4.4056 ppb	14:52:46
3	As 188.979†	22050.2	21979.7	9370.9 ug/L	9370.9 ppb	14:54:07
3	B 249.677†	201763.2	200807.0	4764.9 ug/L	4764.9 ppb	14:54:02
3	Ba 233.527†	1565950.8	1558973.0	13108 ug/L	13108 ppb	14:54:02
3	Be 313.107†	7747271.7	7717020.5	2912.0 ug/L	2912.0 ppb	14:53:55
3	Ca 317.933Radial†	27.2	4.3	8.4458 ug/L	8.4458 ppb	14:53:06
3	Cd 226.502†	774274.8	771036.5	9517.7 ug/L	9517.7 ppb	14:54:02
3	Co 228.616†	433584.0	431732.2	9097.2 ug/L	9097.2 ppb	14:54:07
3	Cr 267.716†	1896563.8	1887423.4	23348 ug/L	23348 ppb	14:54:02
3	Cu 324.752†	6459324.7	6422249.9	19982 ug/L	19982 ppb	14:53:55
3	Fe 238.204 Radial†	-13.4	-25.2	-3.8730 ug/L	-3.8730 ppb	14:53:06
3	K 766.490 Radial†	1301267.6	1364747.1	295680 ug/L	295680 ppb	14:52:41
3	Mg 279.077 IEC†	-2.4	-3.8	-51.438 ug/L	-51.438 ppb	14:53:06
3	Mn 257.610†	8166361.0	8129454.2	9447.1 ug/L	9447.1 ppb	14:53:55
3	Mo 202.031†	122022.4	121458.1	9414.5 ug/L	9414.5 ppb	14:54:07
3	Na 589.592 Radial†	-18.0	84.7	29.717 ug/L	29.717 ppb	14:52:46
3	Ni 231.604†	351541.7	349885.1	9346.5 ug/L	9346.5 ppb	14:54:07
3	P 214.914†	32230.0	31843.2	13565 ug/L	13565 ppb	14:54:07
3	Pb 220.353†	186172.9	185360.0	23975 ug/L	23975 ppb	14:54:07
3	S 181.975 Axial†	39632.1	39394.0	51128 ug/L	51128 ppb	14:54:07
3	Sb 206.836†	30053.9	29876.1	10864 ug/L	10864 ppb	14:54:07
3	Se 196.026†	17232.5	17182.2	9896.9 ug/L	9896.9 ppb	14:54:07
3	Si 251.611†	1463357.4	1456176.8	45750 ug/L	45750 ppb	14:54:02
3	Sn 189.927†	55366.9	55084.8	10187 ug/L	10187 ppb	14:54:07
3	Sr 421.552†	1103002.5	1159417.6	9638.5 ug/L	9638.5 ppb	14:52:41
3	Ti 334.940†	6002299.9	5977181.0	9905.6 ug/L	9905.6 ppb	14:53:55
3	Tl 190.801†	29788.2	29677.0	9633.2 ug/L	9633.2 ppb	14:54:07
3	U 409.014†	-2835.9	749.6	-28.103 ug/L	-28.103 ppb	14:54:02
3	V 292.402†	1258012.4	1254183.8	9844.6 ug/L	9844.6 ppb	14:54:02
3	Zn 213.857†	1370821.4	1363856.9	13534 ug/L	13534 ppb	14:54:02
3	SiO2†	1483089.8	1475896.1	98756 ug/L	98756 ppb	14:54:29

## Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	807555.7	101.48 %	0.897			0.88%
Sc Radial	3796.6	95.5 %	3.44			3.60%
Y 371.029	644791.4	100.28 %	0.825			0.82%
Y RADIAL	4040.5	97.81 %	2.026			2.07%
Ag 328.068†	-6978.5	3.3857 ug/L	0.27784	3.3857 ppb	0.27784	8.21%
Al 396.153Radial†	430.7	-7.9111 ug/L	13.58180	-7.9111 ppb	13.58180	171.68%
As 188.979†	21871.0	9323.1 ug/L	109.36	9323.1 ppb	109.36	1.17%
QC value within limits for As 188.979 Recovery = 93.23%						
B 249.677†	201097.9	4772.0 ug/L	8.95	4772.0 ppb	8.95	0.19%
QC value within limits for B 249.677 Recovery = 95.44%						
Ba 233.527†	1556466.2	13087 ug/L	23.4	13087 ppb	23.4	0.18%
QC value less than the lower limit for Ba 233.527 Recovery = 87.25%						
Be 313.107†	7536568.9	2843.9 ug/L	64.88	2843.9 ppb	64.88	2.28%
QC value within limits for Be 313.107 Recovery = 94.80%						
Ca 317.933Radial†	7.8	15.198 ug/L	8.1549	15.198 ppb	8.1549	53.66%
Cd 226.502†	769479.5	9498.5 ug/L	28.10	9498.5 ppb	28.10	0.30%

QC value within limits for Cd 226.502 Recovery = 94.98%							
Co	228.616†	429133.2	9042.8 ug/L	89.09	9042.8 ppb	89.09	0.99%
QC value within limits for Co 228.616 Recovery = 90.43%							
Cr	267.716†	1882915.3	23292 ug/L	59.0	23292 ppb	59.0	0.25%
QC value within limits for Cr 267.716 Recovery = 93.17%							
Cu	324.752†	6265821.6	19495 ug/L	473.9	19495 ppb	473.9	2.43%
QC value within limits for Cu 324.752 Recovery = 97.48%							
Fe	238.204 Radial†	-26.3	-17.657 ug/L	13.0758	-17.657 ppb	13.0758	74.05%
K	766.490 Radial†	1367541.4	296280 ug/L	11411.0	296280 ppb	11411.0	3.85%
QC value within limits for K 766.490 Radial Recovery = 98.76%							
Mg	279.077 IEC†	-3.8	-48.759 ug/L	75.0957	-48.759 ppb	75.0957	154.01%
Mn	257.610†	7942266.7	9229.6 ug/L	207.38	9229.6 ppb	207.38	2.25%
QC value within limits for Mn 257.610 Recovery = 92.30%							
Mo	202.031†	120650.4	9351.9 ug/L	91.33	9351.9 ppb	91.33	0.98%
QC value within limits for Mo 202.031 Recovery = 93.52%							
Na	589.592 Radial†	93.1	32.649 ug/L	3.6211	32.649 ppb	3.6211	11.09%
Ni	231.604†	347774.0	9290.1 ug/L	91.09	9290.1 ppb	91.09	0.98%
QC value within limits for Ni 231.604 Recovery = 92.90%							
P	214.914†	31742.7	13606 ug/L	200.9	13606 ppb	200.9	1.48%
QC value within limits for P 214.914 Recovery = 90.70%							
Pb	220.353†	184421.0	23854 ug/L	223.5	23854 ppb	223.5	0.94%
QC value within limits for Pb 220.353 Recovery = 95.41%							
S	181.975 Axial†	39263.3	50959 ug/L	588.6	50959 ppb	588.6	1.16%
QC value within limits for S 181.975 Axial Recovery = 101.92%							
Sb	206.836†	29689.5	10797 ug/L	126.9	10797 ppb	126.9	1.18%
QC value within limits for Sb 206.836 Recovery = 107.97%							
Se	196.026†	17068.5	9831.4 ug/L	124.78	9831.4 ppb	124.78	1.27%
QC value within limits for Se 196.026 Recovery = 98.31%							
Si	251.611†	1457595.7	45796 ug/L	76.1	45796 ppb	76.1	0.17%
QC value within limits for Si 251.611 Recovery = 91.59%							
Sn	189.927†	54786.9	10132 ug/L	100.9	10132 ppb	100.9	1.00%
QC value within limits for Sn 189.927 Recovery = 101.32%							
Sr	421.552†	1167234.9	9703.5 ug/L	389.64	9703.5 ppb	389.64	4.02%
QC value within limits for Sr 421.552 Recovery = 97.03%							
Ti	334.940†	5839557.2	9677.4 ug/L	218.67	9677.4 ppb	218.67	2.26%
QC value within limits for Ti 334.940 Recovery = 96.77%							
Tl	190.801†	29498.9	9573.1 ug/L	97.36	9573.1 ppb	97.36	1.02%
QC value within limits for Tl 190.801 Recovery = 95.73%							
U	409.014†	799.9	-26.361 ug/L	3.7671	-26.361 ppb	3.7671	14.29%
V	292.402†	1252364.4	9829.8 ug/L	18.41	9829.8 ppb	18.41	0.19%
QC value within limits for V 292.402 Recovery = 98.30%							
Zn	213.857†	1362295.2	13520 ug/L	24.8	13520 ppb	24.8	0.18%
QC value within limits for Zn 213.857 Recovery = 90.13%							
SiO2†		1465497.6	98060 ug/L	736.8	98060 ppb	736.8	0.75%
QC value within limits for SiO2 Recovery = 91.65%							
QC Failed. Continue with analysis.							

Sequence No.: 13

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/17/2010 14:56:40

Data Type: Reprocessed on 2/17/2010 15:41:17

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 361.383	837284.4	837284.4	105.22 %		14:59:51
1	Sc Radial	3878.6	3878.6	97.6 %		14:58:52
1	Y 371.029	672801.0	672801.0	104.64 %		14:59:51
1	Y RADIAL	4194.1	4194.1	101.5 %		14:58:32
1	Ag 328.068†	97041.6	92042.4	475.30 ug/L	475.30 ppb	14:59:51
1	Al 396.153Radial†	4572.6	4829.1	4973.1 ug/L	4973.1 ppb	14:58:32
1	As 188.979†	1192.0	1160.6	495.72 ug/L	495.72 ppb	15:00:11
1	B 249.677†	21566.5	20438.7	485.39 ug/L	485.39 ppb	14:59:51
1	Ba 233.527†	60329.0	57330.1	482.47 ug/L	482.47 ppb	14:59:51
1	Be 313.107†	1355852.9	1292837.1	485.17 ug/L	485.17 ppb	14:59:51
1	Ca 317.933Radial†	2633.5	2675.3	5195.1 ug/L	5195.1 ppb	14:58:52
1	Cd 226.502†	40709.2	38898.6	479.70 ug/L	479.70 ppb	15:00:11
1	Co 228.616†	23775.2	22674.3	477.99 ug/L	477.99 ppb	15:00:11
1	Cr 267.716†	42142.9	39355.3	487.15 ug/L	487.15 ppb	14:59:51
1	Cu 324.752†	166444.2	149869.2	466.34 ug/L	466.34 ppb	14:59:51
1	Fe 238.204 Radial†	488.2	489.5	5383.6 ug/L	5383.6 ppb	14:58:52
1	K 766.490 Radial†	26781.1	24244.5	5246.0 ug/L	5246.0 ppb	14:58:32
1	Mg 279.077 IEC†	139.6	141.8	5541.4 ug/L	5541.4 ppb	14:58:52
1	Mn 257.610†	435311.6	413167.4	480.44 ug/L	480.44 ppb	14:59:51
1	Mo 202.031†	6555.0	6208.8	481.73 ug/L	481.73 ppb	15:00:11
1	Na 589.592 Radial†	31394.6	32285.5	11324 ug/L	11324 ppb	14:58:32
1	Ni 231.604†	19023.5	17988.3	480.52 ug/L	480.52 ppb	15:00:11
1	P 214.914†	4890.5	4404.6	2320.9 ug/L	2320.9 ppb	15:00:11
1	Pb 220.353†	3974.1	3793.0	491.93 ug/L	491.93 ppb	15:00:11
1	S 181.975 Axial†	836.1	733.0	950.38 ug/L	950.38 ppb	15:00:11
1	Sb 206.836†	1473.4	1356.4	494.59 ug/L	494.59 ppb	15:00:11
1	Se 196.026†	860.2	844.0	502.18 ug/L	502.18 ppb	15:00:11
1	Si 251.611†	79747.5	75125.9	2360.4 ug/L	2360.4 ppb	14:59:51
1	Sn 189.927†	2820.9	2645.3	489.32 ug/L	489.32 ppb	15:00:11
1	Sr 421.552†	62267.6	63717.1	529.65 ug/L	529.65 ppb	14:58:32
1	Ti 334.940†	302713.7	289300.6	479.72 ug/L	479.72 ppb	14:59:51
1	Tl 190.801†	1641.3	1581.3	512.87 ug/L	512.87 ppb	15:00:11
1	U 409.014†	10984.0	14012.0	448.49 ug/L	448.49 ppb	14:59:51
1	V 292.402†	63034.5	61679.7	484.84 ug/L	484.84 ppb	14:59:51
1	Zn 213.857†	51758.1	48328.9	478.17 ug/L	478.17 ppb	14:59:51
1	SiO2†	80400.1	75820.7	5073.4 ug/L	5073.4 ppb	15:01:11
2	Sc 361.383	839686.1	839686.1	105.52 %		15:00:18
2	Sc Radial	3954.0	3954.0	99.4 %		14:59:17
2	Y 371.029	674224.8	674224.8	104.86 %		15:00:18
2	Y RADIAL	4112.1	4112.1	99.54 %		14:58:57
2	Ag 328.068†	97442.6	92158.7	475.83 ug/L	475.83 ppb	15:00:18
2	Al 396.153Radial†	4525.0	4691.9	4831.2 ug/L	4831.2 ppb	14:58:57
2	As 188.979†	1188.9	1154.3	493.03 ug/L	493.03 ppb	15:00:39
2	B 249.677†	21652.1	20461.2	485.96 ug/L	485.96 ppb	15:00:18
2	Ba 233.527†	60525.5	57352.3	482.65 ug/L	482.65 ppb	15:00:18
2	Be 313.107†	1359793.3	1292885.5	485.19 ug/L	485.19 ppb	15:00:18
2	Ca 317.933Radial†	2600.5	2590.7	5030.7 ug/L	5030.7 ppb	14:59:17
2	Cd 226.502†	40640.1	38722.4	477.55 ug/L	477.55 ppb	15:00:39
2	Co 228.616†	23791.5	22625.1	476.95 ug/L	476.95 ppb	15:00:39
2	Cr 267.716†	42105.3	39205.1	485.28 ug/L	485.28 ppb	15:00:18
2	Cu 324.752†	166950.1	149896.1	466.41 ug/L	466.41 ppb	15:00:18
2	Fe 238.204 Radial†	479.1	470.7	5178.3 ug/L	5178.3 ppb	14:59:17
2	K 766.490 Radial†	26403.7	23341.8	5050.6 ug/L	5050.6 ppb	14:58:57
2	Mg 279.077 IEC†	136.5	135.9	5313.4 ug/L	5313.4 ppb	14:59:17
2	Mn 257.610†	436743.9	413341.5	480.63 ug/L	480.63 ppb	15:00:18
2	Mo 202.031†	6553.5	6189.5	480.22 ug/L	480.22 ppb	15:00:39
2	Na 589.592 Radial†	30915.7	31190.4	10940 ug/L	10940 ppb	14:58:57
2	Ni 231.604†	19037.3	17949.6	479.48 ug/L	479.48 ppb	15:00:39

2	P 214.914†	4873.2	4374.9	2304.7 ug/L	2304.7 ppb	15:00:39
2	Pb 220.353†	3958.7	3767.6	488.63 ug/L	488.63 ppb	15:00:39
2	S 181.975 Axial†	845.6	739.7	959.09 ug/L	959.09 ppb	15:00:39
2	Sb 206.836†	1479.1	1357.7	494.96 ug/L	494.96 ppb	15:00:39
2	Se 196.026†	867.0	848.1	503.91 ug/L	503.91 ppb	15:00:39
2	Si 251.611†	80073.7	75218.2	2363.3 ug/L	2363.3 ppb	15:00:18
2	Sn 189.927†	2800.6	2618.4	484.34 ug/L	484.34 ppb	15:00:39
2	Sr 421.552†	61381.8	61609.6	512.14 ug/L	512.14 ppb	14:58:57
2	Ti 334.940†	303728.7	289439.5	479.94 ug/L	479.94 ppb	15:00:18
2	Tl 190.801†	1646.3	1581.5	512.95 ug/L	512.95 ppb	15:00:39
2	U 409.014†	11218.4	14204.3	454.70 ug/L	454.70 ppb	15:00:18
2	V 292.402†	63218.6	61682.8	484.88 ug/L	484.88 ppb	15:00:18
2	Zn 213.857†	51925.7	48347.0	478.39 ug/L	478.39 ppb	15:00:18
2	SiO2†	79429.3	74682.2	4997.1 ug/L	4997.1 ppb	15:01:16
3	Sc 361.383	834201.5	834201.5	104.83 %		15:00:46
3	Sc Radial	3995.3	3995.3	100 %		14:59:42
3	Y 371.029	669753.9	669753.9	104.16 %		15:00:46
3	Y RADIAL	4276.1	4276.1	103.5 %		14:59:22
3	Ag 328.068†	97243.0	92575.3	477.97 ug/L	477.97 ppb	15:00:46
3	Al 396.153Radial†	4597.0	4716.4	4856.4 ug/L	4856.4 ppb	14:59:22
3	As 188.979†	1203.8	1176.0	502.23 ug/L	502.23 ppb	15:01:06
3	B 249.677†	21503.1	20454.0	485.78 ug/L	485.78 ppb	15:00:46
3	Ba 233.527†	60319.2	57532.6	484.17 ug/L	484.17 ppb	15:00:46
3	Be 313.107†	1352998.6	1294876.5	485.94 ug/L	485.94 ppb	15:00:46
3	Ca 317.933Radial†	2628.5	2591.4	5032.2 ug/L	5032.2 ppb	14:59:42
3	Cd 226.502†	40674.2	39008.1	481.08 ug/L	481.08 ppb	15:01:06
3	Co 228.616†	23796.5	22778.2	480.18 ug/L	480.18 ppb	15:01:06
3	Cr 267.716†	42029.1	39394.7	487.63 ug/L	487.63 ppb	15:00:46
3	Cu 324.752†	166553.2	150557.7	468.46 ug/L	468.46 ppb	15:00:46
3	Fe 238.204 Radial†	483.4	470.0	5170.7 ug/L	5170.7 ppb	14:59:42
3	K 766.490 Radial†	26500.6	23163.1	5012.0 ug/L	5012.0 ppb	14:59:22
3	Mg 279.077 IEC†	137.6	135.6	5299.6 ug/L	5299.6 ppb	14:59:42
3	Mn 257.610†	435595.8	414967.5	482.52 ug/L	482.52 ppb	15:00:46
3	Mo 202.031†	6551.8	6228.7	483.26 ug/L	483.26 ppb	15:01:06
3	Na 589.592 Radial†	30985.3	30937.6	10851 ug/L	10851 ppb	14:59:22
3	Ni 231.604†	19051.6	18081.9	483.02 ug/L	483.02 ppb	15:01:06
3	P 214.914†	4890.4	4421.7	2330.0 ug/L	2330.0 ppb	15:01:06
3	Pb 220.353†	3937.3	3771.8	489.18 ug/L	489.18 ppb	15:01:06
3	S 181.975 Axial†	843.9	743.3	963.80 ug/L	963.80 ppb	15:01:06
3	Sb 206.836†	1472.4	1360.5	496.07 ug/L	496.07 ppb	15:01:06
3	Se 196.026†	867.8	854.3	507.46 ug/L	507.46 ppb	15:01:06
3	Si 251.611†	79825.0	75479.9	2371.5 ug/L	2371.5 ppb	15:00:46
3	Sn 189.927†	2799.5	2634.8	487.38 ug/L	487.38 ppb	15:01:06
3	Sr 421.552†	61896.7	61482.6	511.08 ug/L	511.08 ppb	14:59:22
3	Ti 334.940†	303080.6	290713.8	482.06 ug/L	482.06 ppb	15:00:46
3	Tl 190.801†	1628.9	1575.2	510.94 ug/L	510.94 ppb	15:01:06
3	U 409.014†	11174.7	14232.5	455.60 ug/L	455.60 ppb	15:00:46
3	V 292.402†	63037.9	61904.4	486.64 ug/L	486.64 ppb	15:00:46
3	Zn 213.857†	51722.4	48476.6	479.66 ug/L	479.66 ppb	15:00:46
3	SiO2†	79629.4	75368.0	5043.0 ug/L	5043.0 ppb	15:01:22

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	837057.3	105.19 %	0.346			0.33%
Sc Radial	3942.6	99.2 %	1.49			1.50%
Y 371.029	672259.9	104.55 %	0.355			0.34%
Y RADIAL	4194.1	101.5 %	1.98			1.95%
Ag 328.068†	92258.8	476.37 ug/L	1.415	476.37 ppb	1.415	0.30%
QC value within limits for Ag 328.068 Recovery = 95.27%						
Al 396.153Radial†	4745.8	4886.9 ug/L	75.70	4886.9 ppb	75.70	1.55%
QC value within limits for Al 396.153Radial Recovery = 97.74%						
As 188.979†	1163.6	496.99 ug/L	4.733	496.99 ppb	4.733	0.95%
QC value within limits for As 188.979 Recovery = 99.40%						
B 249.677†	20451.3	485.71 ug/L	0.293	485.71 ppb	0.293	0.06%
QC value within limits for B 249.677 Recovery = 97.14%						
Ba 233.527†	57405.0	483.10 ug/L	0.933	483.10 ppb	0.933	0.19%
QC value within limits for Ba 233.527 Recovery = 96.62%						
Be 313.107†	1293533.0	485.43 ug/L	0.439	485.43 ppb	0.439	0.09%
QC value within limits for Be 313.107 Recovery = 97.09%						

Ca 317.933Radial†	2619.1	5086.0 ug/L	94.48	5086.0 ppb	94.48	1.86%
QC value within limits for Ca 317.933Radial Recovery = 101.72%						
Cd 226.502†	38876.4	479.44 ug/L	1.778	479.44 ppb	1.778	0.37%
QC value within limits for Cd 226.502 Recovery = 95.89%						
Co 228.616†	22692.5	478.37 ug/L	1.648	478.37 ppb	1.648	0.34%
QC value within limits for Co 228.616 Recovery = 95.67%						
Cr 267.716†	39318.4	486.69 ug/L	1.239	486.69 ppb	1.239	0.25%
QC value within limits for Cr 267.716 Recovery = 97.34%						
Cu 324.752†	150107.7	467.07 ug/L	1.208	467.07 ppb	1.208	0.26%
QC value within limits for Cu 324.752 Recovery = 93.41%						
Fe 238.204 Radial†	476.7	5244.2 ug/L	120.80	5244.2 ppb	120.80	2.30%
QC value within limits for Fe 238.204 Radial Recovery = 104.88%						
K 766.490 Radial†	23583.1	5102.9 ug/L	125.48	5102.9 ppb	125.48	2.46%
QC value within limits for K 766.490 Radial Recovery = 102.06%						
Mg 279.077 IEC†	137.8	5384.8 ug/L	135.81	5384.8 ppb	135.81	2.52%
QC value within limits for Mg 279.077 IEC Recovery = 107.70%						
Mn 257.610†	413825.5	481.20 ug/L	1.150	481.20 ppb	1.150	0.24%
QC value within limits for Mn 257.610 Recovery = 96.24%						
Mo 202.031†	6209.0	481.74 ug/L	1.519	481.74 ppb	1.519	0.32%
QC value within limits for Mo 202.031 Recovery = 96.35%						
Na 589.592 Radial†	31471.1	11038 ug/L	251.3	11038 ppb	251.3	2.28%
QC value greater than the upper limit for Na 589.592 Radial Recovery = 110.38%						
Ni 231.604†	18006.6	481.01 ug/L	1.817	481.01 ppb	1.817	0.38%
QC value within limits for Ni 231.604 Recovery = 96.20%						
P 214.914†	4400.4	2318.5 ug/L	12.80	2318.5 ppb	12.80	0.55%
QC value within limits for P 214.914 Recovery = 92.74%						
Pb 220.353†	3777.4	489.91 ug/L	1.768	489.91 ppb	1.768	0.36%
QC value within limits for Pb 220.353 Recovery = 97.98%						
S 181.975 Axial†	738.7	957.76 ug/L	6.808	957.76 ppb	6.808	0.71%
QC value within limits for S 181.975 Axial Recovery = 95.78%						
Sb 206.836†	1358.2	495.21 ug/L	0.768	495.21 ppb	0.768	0.16%
QC value within limits for Sb 206.836 Recovery = 99.04%						
Se 196.026†	848.8	504.52 ug/L	2.689	504.52 ppb	2.689	0.53%
QC value within limits for Se 196.026 Recovery = 100.90%						
Si 251.611†	75274.6	2365.1 ug/L	5.77	2365.1 ppb	5.77	0.24%
QC value within limits for Si 251.611 Recovery = 94.60%						
Sn 189.927†	2632.8	487.02 ug/L	2.510	487.02 ppb	2.510	0.52%
QC value within limits for Sn 189.927 Recovery = 97.40%						
Sr 421.552†	62269.8	517.62 ug/L	10.433	517.62 ppb	10.433	2.02%
QC value within limits for Sr 421.552 Recovery = 103.52%						
Ti 334.940†	289818.0	480.57 ug/L	1.290	480.57 ppb	1.290	0.27%
QC value within limits for Ti 334.940 Recovery = 96.11%						
Tl 190.801†	1579.3	512.25 ug/L	1.141	512.25 ppb	1.141	0.22%
QC value within limits for Tl 190.801 Recovery = 102.45%						
U 409.014†	14149.6	452.93 ug/L	3.869	452.93 ppb	3.869	0.85%
QC value within limits for U 409.014 Recovery = 90.59%						
V 292.402†	61755.6	485.45 ug/L	1.029	485.45 ppb	1.029	0.21%
QC value within limits for V 292.402 Recovery = 97.09%						
Zn 213.857†	48384.1	478.74 ug/L	0.804	478.74 ppb	0.804	0.17%
QC value within limits for Zn 213.857 Recovery = 95.75%						
SiO2†	75290.3	5037.8 ug/L	38.43	5037.8 ppb	38.43	0.76%
QC value within limits for SiO2 Recovery = 94.21%						
QC Failed. Continue with analysis.						



Sequence No.: 14

Sample ID: CCB

Analyst:

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/17/2010 15:03:32

Data Type: Reprocessed on 2/17/2010 15:41:18

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 361.383	827660.5	827660.5	104.01 %		15:06:41
1	Sc Radial	3964.1	3964.1	99.7 %		15:05:44
1	Y 371.029	672786.2	672786.2	104.63 %		15:06:41
1	Y RADIAL	4267.4	4267.4	103.3 %		15:05:24
1	Ag 328.068†	220.7	26.6	0.1390 ug/L	0.1390 ppb	15:06:41
1	Al 396.153Radial†	-144.8	-3.4	-3.5573 ug/L	-3.5573 ppb	15:05:24
1	As 188.979†	-22.0	6.5	2.7609 ug/L	2.7609 ppb	15:07:01
1	B 249.677†	472.1	395.8	9.4404 ug/L	9.4404 ppb	15:06:41
1	Ba 233.527†	32.7	25.1	0.2118 ug/L	0.2118 ppb	15:07:01
1	Be 313.107†	-4076.3	319.2	0.1200 ug/L	0.1200 ppb	15:06:41
1	Ca 317.933Radial†	22.9	-1.3	-2.4684 ug/L	-2.4684 ppb	15:05:44
1	Cd 226.502†	-140.5	73.5	0.9064 ug/L	0.9064 ppb	15:07:01
1	Co 228.616†	-59.6	21.2	0.4479 ug/L	0.4479 ppb	15:07:01
1	Cr 267.716†	1043.4	306.0	3.7820 ug/L	3.7820 ppb	15:06:41
1	Cu 324.752†	8389.9	-252.5	-0.7873 ug/L	-0.7873 ppb	15:06:41
1	Fe 238.204 Radial†	12.1	1.1	12.099 ug/L	12.099 ppb	15:05:44
1	K 766.490 Radial†	3613.5	416.2	90.168 ug/L	90.168 ppb	15:05:24
1	Mg 279.077 IEC†	1.7	0.3	12.585 ug/L	12.585 ppb	15:05:44
1	Mn 257.610†	583.6	9.6	0.0119 ug/L	0.0119 ppb	15:07:01
1	Mo 202.031†	45.3	22.4	1.7405 ug/L	1.7405 ppb	15:07:01
1	Na 589.592 Radial†	-12.7	90.9	31.893 ug/L	31.893 ppb	15:05:24
1	Ni 231.604†	98.2	2.9	0.0764 ug/L	0.0764 ppb	15:07:01
1	P 214.914†	240.9	-11.7	-6.2681 ug/L	-6.2681 ppb	15:07:01
1	Pb 220.353†	-8.1	8.2	1.0567 ug/L	1.0567 ppb	15:07:01
1	S 181.975 Axial†	62.3	-1.8	-2.3670 ug/L	-2.3670 ppb	15:07:01
1	Sb 206.836†	50.2	4.3	1.5819 ug/L	1.5819 ppb	15:07:01
1	Se 196.026†	-20.6	6.7	3.8820 ug/L	3.8820 ppb	15:07:01
1	Si 251.611†	668.0	-23.7	-0.7672 ug/L	-0.7672 ppb	15:07:01
1	Sn 189.927†	49.5	11.9	2.1929 ug/L	2.1929 ppb	15:07:01
1	Sr 421.552†	2.6	-109.1	-0.9067 ug/L	-0.9067 ppb	15:05:24
1	Ti 334.940†	-1538.4	123.2	0.1999 ug/L	0.1999 ppb	15:06:41
1	Tl 190.801†	22.0	42.5	13.707 ug/L	13.707 ppb	15:07:01
1	U 409.014†	-3588.5	122.7	3.9338 ug/L	3.9338 ppb	15:06:41
1	V 292.402†	-1775.9	64.4	0.5288 ug/L	0.5288 ppb	15:06:41
1	Zn 213.857†	971.2	71.8	0.7163 ug/L	0.7163 ppb	15:07:01
1	SiO2†	737.9	118.2	7.8803 ug/L	7.8803 ppb	15:07:57
2	Sc 361.383	824853.0	824853.0	103.66 %		15:07:06
2	Sc Radial	3968.0	3968.0	99.8 %		15:06:09
2	Y 371.029	670585.4	670585.4	104.29 %		15:07:06
2	Y RADIAL	4256.1	4256.1	103.0 %		15:05:49
2	Ag 328.068†	207.0	14.1	0.0741 ug/L	0.0741 ppb	15:07:06
2	Al 396.153Radial†	-139.7	1.9	1.9278 ug/L	1.9278 ppb	15:05:49
2	As 188.979†	-13.5	14.6	6.2063 ug/L	6.2063 ppb	15:07:27
2	B 249.677†	489.5	414.2	9.8793 ug/L	9.8793 ppb	15:07:06
2	Ba 233.527†	23.0	15.8	0.1339 ug/L	0.1339 ppb	15:07:27
2	Be 313.107†	-3908.8	467.5	0.1767 ug/L	0.1767 ppb	15:07:06
2	Ca 317.933Radial†	26.2	2.0	3.8417 ug/L	3.8417 ppb	15:06:09
2	Cd 226.502†	-161.0	53.3	0.6575 ug/L	0.6575 ppb	15:07:27
2	Co 228.616†	-80.6	0.7	0.0119 ug/L	0.0119 ppb	15:07:27
2	Cr 267.716†	1010.3	277.5	3.4303 ug/L	3.4303 ppb	15:07:06
2	Cu 324.752†	8286.2	-325.0	-1.0131 ug/L	-1.0131 ppb	15:07:06
2	Fe 238.204 Radial†	11.9	0.9	10.048 ug/L	10.048 ppb	15:06:09
2	K 766.490 Radial†	3364.3	162.9	35.283 ug/L	35.283 ppb	15:05:49
2	Mg 279.077 IEC†	3.5	2.1	83.436 ug/L	83.436 ppb	15:06:09
2	Mn 257.610†	590.5	18.2	0.0188 ug/L	0.0188 ppb	15:07:27
2	Mo 202.031†	27.1	5.0	0.3880 ug/L	0.3880 ppb	15:07:27
2	Na 589.592 Radial†	-31.7	72.0	25.239 ug/L	25.239 ppb	15:05:49
2	Ni 231.604†	100.9	5.8	0.1545 ug/L	0.1545 ppb	15:07:27

2	P 214.914†	252.7	0.5	0.4793 ug/L	0.4793 ppb	15:07:27
2	Pb 220.353†	-11.3	5.0	0.6535 ug/L	0.6535 ppb	15:07:27
2	S 181.975 Axial†	65.1	1.1	1.4147 ug/L	1.4147 ppb	15:07:27
2	Sb 206.836†	56.9	10.9	3.8894 ug/L	3.8894 ppb	15:07:27
2	Se 196.026†	-19.5	7.6	4.4119 ug/L	4.4119 ppb	15:07:27
2	Si 251.611†	672.0	-17.6	-0.5598 ug/L	-0.5598 ppb	15:07:27
2	Sn 189.927†	57.3	19.6	3.6239 ug/L	3.6239 ppb	15:07:27
2	Sr 421.552†	40.2	-71.4	-0.5934 ug/L	-0.5934 ppb	15:05:49
2	Ti 334.940†	-1197.0	447.6	0.7330 ug/L	0.7330 ppb	15:07:06
2	Tl 190.801†	20.6	41.2	13.278 ug/L	13.278 ppb	15:07:27
2	U 409.014†	-3572.8	126.1	4.0434 ug/L	4.0434 ppb	15:07:06
2	V 292.402†	-1770.8	63.5	0.5041 ug/L	0.5041 ppb	15:07:06
2	Zn 213.857†	982.4	85.9	0.8565 ug/L	0.8565 ppb	15:07:27
2	SiO2†	697.7	81.8	5.4754 ug/L	5.4754 ppb	15:08:02
3	Sc 361.383	823784.5	823784.5	103.52 %		15:07:32
3	Sc Radial	3975.6	3975.6	100.0 %		15:06:34
3	Y 371.029	668191.5	668191.5	103.92 %		15:07:32
3	Y RADIAL	4275.1	4275.1	103.5 %		15:06:14
3	Ag 328.068†	249.9	55.8	0.2882 ug/L	0.2882 ppb	15:07:32
3	Al 396.153Radial†	-157.0	-15.1	-15.675 ug/L	-15.675 ppb	15:06:14
3	As 188.979†	-10.6	17.5	7.3906 ug/L	7.3906 ppb	15:07:52
3	B 249.677†	435.6	362.8	8.6561 ug/L	8.6561 ppb	15:07:32
3	Ba 233.527†	27.6	20.3	0.1728 ug/L	0.1728 ppb	15:07:52
3	Be 313.107†	-4032.7	342.9	0.1287 ug/L	0.1287 ppb	15:07:32
3	Ca 317.933Radial†	23.1	-1.1	-2.1515 ug/L	-2.1515 ppb	15:06:34
3	Cd 226.502†	-162.5	51.7	0.6384 ug/L	0.6384 ppb	15:07:52
3	Co 228.616†	-89.5	-8.0	-0.1668 ug/L	-0.1668 ppb	15:07:52
3	Cr 267.716†	1008.6	277.1	3.4267 ug/L	3.4267 ppb	15:07:32
3	Cu 324.752†	8413.9	-191.3	-0.5968 ug/L	-0.5968 ppb	15:07:32
3	Fe 238.204 Radial†	10.7	-0.4	-4.0990 ug/L	-4.0990 ppb	15:06:34
3	K 766.490 Radial†	3471.7	263.9	57.156 ug/L	57.156 ppb	15:06:14
3	Mg 279.077 IEC†	4.2	2.8	109.44 ug/L	109.44 ppb	15:06:34
3	Mn 257.610†	596.0	24.3	0.0234 ug/L	0.0234 ppb	15:07:52
3	Mo 202.031†	45.0	22.3	1.7297 ug/L	1.7297 ppb	15:07:52
3	Na 589.592 Radial†	-18.7	85.0	29.807 ug/L	29.807 ppb	15:06:14
3	Ni 231.604†	89.1	-5.5	-0.1472 ug/L	-0.1472 ppb	15:07:52
3	P 214.914†	239.1	-12.4	-6.6288 ug/L	-6.6288 ppb	15:07:52
3	Pb 220.353†	3.9	19.7	2.5475 ug/L	2.5475 ppb	15:07:52
3	S 181.975 Axial†	62.5	-1.3	-1.6686 ug/L	-1.6686 ppb	15:07:52
3	Sb 206.836†	59.0	13.0	4.6468 ug/L	4.6468 ppb	15:07:52
3	Se 196.026†	-19.5	7.6	4.3554 ug/L	4.3554 ppb	15:07:52
3	Si 251.611†	687.8	-1.5	-0.0694 ug/L	-0.0694 ppb	15:07:52
3	Sn 189.927†	47.9	10.6	1.9527 ug/L	1.9527 ppb	15:07:52
3	Sr 421.552†	60.9	-50.8	-0.4223 ug/L	-0.4223 ppb	15:06:14
3	Ti 334.940†	-1568.1	87.6	0.1338 ug/L	0.1338 ppb	15:07:32
3	Tl 190.801†	15.8	36.6	11.787 ug/L	11.787 ppb	15:07:52
3	U 409.014†	-3623.0	73.1	2.3428 ug/L	2.3428 ppb	15:07:32
3	V 292.402†	-1660.7	167.7	1.3310 ug/L	1.3310 ppb	15:07:32
3	Zn 213.857†	996.5	100.7	1.0080 ug/L	1.0080 ppb	15:07:52
3	SiO2†	696.3	81.3	5.4075 ug/L	5.4075 ppb	15:08:07

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	825432.7	103.73 %	0.252			0.24%
Sc Radial	3969.2	99.8 %	0.15			0.15%
Y 371.029	670521.0	104.28 %	0.357			0.34%
Y RADIAL	4266.2	103.3 %	0.23			0.22%
Ag 328.068†	32.2	0.1671 ug/L	0.10977	0.1671 ppb	0.10977	65.70%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-5.5	-5.7683 ug/L	9.00744	-5.7683 ppb	9.00744	156.16%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	12.9	5.4526 ug/L	2.40513	5.4526 ppb	2.40513	44.11%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	390.9	9.3253 ug/L	0.61964	9.3253 ppb	0.61964	6.64%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	20.4	0.1728 ug/L	0.03893	0.1728 ppb	0.03893	22.52%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	376.5	0.1418 ug/L	0.03055	0.1418 ppb	0.03055	21.54%
QC value within limits for Be 313.107 Recovery = Not calculated						

Ca 317.933Radial†	-0.1	-0.2594 ug/L	3.55522	-0.2594 ppb	3.55522	>999.9%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	59.5	0.7341 ug/L	0.14951	0.7341 ppb	0.14951	20.37%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	4.6	0.0977 ug/L	0.31621	0.0977 ppb	0.31621	323.81%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	286.9	3.5463 ug/L	0.20412	3.5463 ppb	0.20412	5.76%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-256.3	-0.7991 ug/L	0.20836	-0.7991 ppb	0.20836	26.08%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	0.5	6.0158 ug/L	8.81944	6.0158 ppb	8.81944	146.60%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	281.0	60.869 ug/L	27.6307	60.869 ppb	27.6307	45.39%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	1.8	68.487 ug/L	50.1279	68.487 ppb	50.1279	73.19%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	17.4	0.0180 ug/L	0.00579	0.0180 ppb	0.00579	32.13%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	16.6	1.2861 ug/L	0.77774	1.2861 ppb	0.77774	60.47%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	82.6	28.980 ug/L	3.4031	28.980 ppb	3.4031	11.74%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	1.0	0.0279 ug/L	0.15660	0.0279 ppb	0.15660	560.60%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-7.9	-4.1392 ug/L	4.00382	-4.1392 ppb	4.00382	96.73%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	11.0	1.4192 ug/L	0.99771	1.4192 ppb	0.99771	70.30%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-0.7	-0.8737 ug/L	2.01226	-0.8737 ppb	2.01226	230.33%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	9.4	3.3727 ug/L	1.59646	3.3727 ppb	1.59646	47.33%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	7.3	4.2164 ug/L	0.29099	4.2164 ppb	0.29099	6.90%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	-14.3	-0.4655 ug/L	0.35832	-0.4655 ppb	0.35832	76.98%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	14.0	2.5898 ug/L	0.90352	2.5898 ppb	0.90352	34.89%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-77.1	-0.6408 ug/L	0.24566	-0.6408 ppb	0.24566	38.33%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	219.5	0.3556 ug/L	0.32855	0.3556 ppb	0.32855	92.40%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	40.1	12.924 ug/L	1.0079	12.924 ppb	1.0079	7.80%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	107.3	3.4400 ug/L	0.95176	3.4400 ppb	0.95176	27.67%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	98.5	0.7880 ug/L	0.47044	0.7880 ppb	0.47044	59.70%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	86.1	0.8603 ug/L	0.14587	0.8603 ppb	0.14587	16.96%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	93.8	6.2544 ug/L	1.40847	6.2544 ppb	1.40847	22.52%
QC value within limits for SiO2 Recovery = Not calculated						
All analyte(s) passed QC.						

Sequence No.: 15

Sample ID: LR1

Analyst: HSC

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 36

Date Collected: 2/17/2010 15:11:42

Data Type: Reprocessed on 2/17/2010 15:41:19

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 361.383	814468.7	814468.7	102.35 %		15:14:52
1	Sc Radial	3889.7	3889.7	97.8 %		15:13:55
1	Y 371.029	658766.2	658766.2	102.45 %		15:14:52
1	Y RADIAL	4203.9	4203.9	101.8 %		15:13:35
1	Ag 328.068†	-20956.6	-20660.7	2.5235 ug/L	2.5235 ppb	15:14:52
1	Al 396.153Radial†	-154.1	-15.6	-14.953 ug/L	-14.953 ppb	15:13:35
1	As 188.979†	-209.7	-177.2	13.764 ug/L	13.764 ppb	15:15:12
1	B 249.677†	1752.0	1653.7	-22.090 ug/L	-22.090 ppb	15:14:52
1	Ba 233.527†	-1779.7	-1745.3	-3.0542 ug/L	-3.0542 ppb	15:14:52
1	Be 313.107†	-8214.8	-3787.6	-1.4081 ug/L	-1.4081 ppb	15:14:52
1	Ca 317.933Radial†	3.5	-20.7	-4.0.224 ug/L	-4.0.224 ppb	15:13:55
1	Cd 226.502†	2512.9	2663.8	-4.3360 ug/L	-4.3360 ppb	15:14:52
1	Co 228.616†	716.2	778.2	10.860 ug/L	10.860 ppb	15:15:12
1	Cr 267.716†	132.8	-567.5	-3.5080 ug/L	-3.5080 ppb	15:14:52
1	Cu 324.752†	2617.6	-5761.5	-3.3284 ug/L	-3.3284 ppb	15:14:52
1	Fe 238.204 Radial†	33784.2	34520.8	378690 ug/L	378690 ppb	15:13:35
1	K 766.490 Radial†	2995.8	-145.9	-31.512 ug/L	-31.512 ppb	15:13:35
1	Mg 279.077 IEC†	11.0	9.9	-9.1870 ug/L	-9.1870 ppb	15:13:55
1	Mn 257.610†	-30693.6	-30539.7	1.8964 ug/L	1.8964 ppb	15:14:52
1	Mo 202.031†	-313.8	-327.7	3.9964 ug/L	3.9964 ppb	15:14:52
1	Na 589.592 Radial†	-368.8	-273.3	-95.849 ug/L	-95.849 ppb	15:13:35
1	Ni 231.604†	289.1	190.8	5.0907 ug/L	5.0907 ppb	15:15:12
1	P 214.914†	758.5	497.8	-28.925 ug/L	-28.925 ppb	15:15:12
1	Pb 220.353†	228.3	239.0	-5.3382 ug/L	-5.3382 ppb	15:15:12
1	S 181.975 Axial†	66.6	3.4	4.3640 ug/L	4.3640 ppb	15:15:12
1	Sb 206.836†	27.0	-17.6	-10.937 ug/L	-10.937 ppb	15:15:12
1	Se 196.026†	-1728.0	-1661.8	184.52 ug/L	184.52 ppb	15:15:12
1	Si 251.611†	-531.4	-1185.1	-37.016 ug/L	-37.016 ppb	15:14:52
1	Sn 189.927†	4.8	-31.0	-52.446 ug/L	-52.446 ppb	15:15:12
1	Sr 421.552†	137.0	28.4	0.2365 ug/L	0.2365 ppb	15:13:35
1	Ti 334.940†	1105.6	2682.5	0.0945 ug/L	0.0945 ppb	15:14:52
1	Tl 190.801†	-28.3	-6.3	-2.3123 ug/L	-2.3123 ppb	15:15:12
1	U 409.014†	309749.9	306204.9	9794.9 ug/L	9794.9 ppb	15:14:52
1	V 292.402†	2654.6	4365.5	-2.8094 ug/L	-2.8094 ppb	15:14:52
1	Zn 213.857†	4199.1	3240.7	-24.314 ug/L	-24.314 ppb	15:15:12
1	SiO2†	-507.5	-1087.1	-72.240 ug/L	-72.240 ppb	15:16:10
2	Sc 361.383	818770.7	818770.7	102.89 %		15:15:18
2	Sc Radial	3881.5	3881.5	97.6 %		15:14:20
2	Y 371.029	662015.2	662015.2	102.96 %		15:15:18
2	Y RADIAL	4289.5	4289.5	103.8 %		15:14:00
2	Ag 328.068†	-20887.6	-20486.0	5.5604 ug/L	5.5604 ppb	15:15:18
2	Al 396.153Radial†	-163.7	-25.8	-25.533 ug/L	-25.533 ppb	15:14:00
2	As 188.979†	-206.9	-173.4	16.981 ug/L	16.981 ppb	15:15:38
2	B 249.677†	1831.2	1721.7	-21.582 ug/L	-21.582 ppb	15:15:18
2	Ba 233.527†	-1864.5	-1818.5	-3.4600 ug/L	-3.4600 ppb	15:15:18
2	Be 313.107†	-8206.1	-3737.0	-1.3895 ug/L	-1.3895 ppb	15:15:18
2	Ca 317.933Radial†	5.5	-18.7	-36.257 ug/L	-36.257 ppb	15:14:20
2	Cd 226.502†	2517.6	2655.4	-5.1563 ug/L	-5.1563 ppb	15:15:18
2	Co 228.616†	740.5	798.1	11.185 ug/L	11.185 ppb	15:15:38
2	Cr 267.716†	44.2	-654.2	-4.4305 ug/L	-4.4305 ppb	15:15:18
2	Cu 324.752†	2551.5	-5839.2	-3.1846 ug/L	-3.1846 ppb	15:15:18
2	Fe 238.204 Radial†	34322.3	35145.6	385550 ug/L	385550 ppb	15:14:00
2	K 766.490 Radial†	3100.6	-32.0	-6.8451 ug/L	-6.8451 ppb	15:14:00
2	Mg 279.077 IEC†	11.9	10.8	19.483 ug/L	19.483 ppb	15:14:20
2	Mn 257.610†	-31141.4	-30817.3	2.2492 ug/L	2.2492 ppb	15:15:18
2	Mo 202.031†	-299.3	-312.0	5.7435 ug/L	5.7435 ppb	15:15:18
2	Na 589.592 Radial†	-341.3	-245.9	-86.258 ug/L	-86.258 ppb	15:14:00
2	Ni 231.604†	230.2	132.2	3.5231 ug/L	3.5231 ppb	15:15:38

2	P 214.914†	731.1	467.2	-51.129 ug/L	-51.129 ppb	15:15:38
2	Pb 220.353†	229.9	239.4	-5.9398 ug/L	-5.9398 ppb	15:15:38
2	S 181.975 Axial†	61.1	-2.3	-2.9258 ug/L	-2.9258 ppb	15:15:38
2	Sb 206.836†	44.1	-1.2	-5.1995 ug/L	-5.1995 ppb	15:15:38
2	Se 196.026†	-1723.3	-1648.3	212.89 ug/L	212.89 ppb	15:15:38
2	Si 251.611†	-593.9	-1243.1	-38.858 ug/L	-38.858 ppb	15:15:18
2	Sn 189.927†	4.3	-31.5	-53.388 ug/L	-53.388 ppb	15:15:38
2	Sr 421.552†	147.7	39.6	0.3297 ug/L	0.3297 ppb	15:14:00
2	Ti 334.940†	1025.6	2599.1	-0.0277 ug/L	-0.0277 ppb	15:15:18
2	Tl 190.801†	-1.2	20.2	6.2267 ug/L	6.2267 ppb	15:15:38
2	U 409.014†	310065.2	304921.2	9752.9 ug/L	9752.9 ppb	15:15:18
2	V 292.402†	2688.7	4385.0	-3.7172 ug/L	-3.7172 ppb	15:15:18
2	Zn 213.857†	4212.9	3232.6	-25.411 ug/L	-25.411 ppb	15:15:38
2	SiO2†	-478.4	-1056.3	-70.201 ug/L	-70.201 ppb	15:16:15
3	Sc 361.383	820967.0	820967.0	103.17 %		15:15:44
3	Sc Radial	3904.9	3904.9	98.2 %		15:14:45
3	Y 371.029	663206.0	663206.0	103.14 %		15:15:44
3	Y RADIAL	4173.7	4173.7	101.0 %		15:14:25
3	Ag 328.068†	-21097.7	-20635.4	0.8184 ug/L	0.8184 ppb	15:15:44
3	Al 396.153Radial†	-163.5	-24.6	-24.221 ug/L	-24.221 ppb	15:14:25
3	As 188.979†	-205.1	-171.2	14.897 ug/L	14.897 ppb	15:16:04
3	B 249.677†	1815.4	1701.6	-19.957 ug/L	-19.957 ppb	15:15:44
3	Ba 233.527†	-1845.6	-1795.4	-3.6594 ug/L	-3.6594 ppb	15:15:44
3	Be 313.107†	-8207.9	-3717.4	-1.3822 ug/L	-1.3822 ppb	15:15:44
3	Ca 317.933Radial†	3.0	-21.2	-41.262 ug/L	-41.262 ppb	15:14:45
3	Cd 226.502†	2569.4	2699.1	-3.2796 ug/L	-3.2796 ppb	15:15:44
3	Co 228.616†	717.6	774.1	10.861 ug/L	10.861 ppb	15:16:04
3	Cr 267.716†	57.1	-641.8	-4.5264 ug/L	-4.5264 ppb	15:15:44
3	Cu 324.752†	2513.6	-5882.5	-4.0017 ug/L	-4.0017 ppb	15:15:44
3	Fe 238.204 Radial†	33369.2	33964.6	372590 ug/L	372590 ppb	15:14:25
3	K 766.490 Radial†	3167.3	16.8	3.7327 ug/L	3.7327 ppb	15:14:25
3	Mg 279.077 IEC†	10.9	9.8	-7.4518 ug/L	-7.4518 ppb	15:14:45
3	Mn 257.610†	-30972.1	-30572.3	1.2561 ug/L	1.2561 ppb	15:15:44
3	Mo 202.031†	-324.4	-335.5	2.9184 ug/L	2.9184 ppb	15:15:44
3	Na 589.592 Radial†	-297.9	-199.7	-70.030 ug/L	-70.030 ppb	15:14:25
3	Ni 231.604†	247.9	148.7	3.9642 ug/L	3.9642 ppb	15:16:04
3	P 214.914†	731.1	465.3	-41.721 ug/L	-41.721 ppb	15:16:04
3	Pb 220.353†	239.4	248.0	-3.5993 ug/L	-3.5993 ppb	15:16:04
3	S 181.975 Axial†	73.0	9.1	11.840 ug/L	11.840 ppb	15:16:04
3	Sb 206.836†	33.2	-11.8	-8.8608 ug/L	-8.8608 ppb	15:16:04
3	Se 196.026†	-1729.9	-1650.3	172.78 ug/L	172.78 ppb	15:16:04
3	Si 251.611†	-541.6	-1190.9	-37.191 ug/L	-37.191 ppb	15:15:44
3	Sn 189.927†	0.8	-34.9	-52.429 ug/L	-52.429 ppb	15:16:04
3	Sr 421.552†	103.9	-5.9	-0.0483 ug/L	-0.0483 ppb	15:14:25
3	Ti 334.940†	1001.9	2573.5	-0.0651 ug/L	-0.0651 ppb	15:15:44
3	Tl 190.801†	-5.5	16.0	4.8937 ug/L	4.8937 ppb	15:16:04
3	U 409.014†	310707.5	304737.6	9748.5 ug/L	9748.5 ppb	15:15:44
3	V 292.402†	2746.5	4434.0	-1.4876 ug/L	-1.4876 ppb	15:15:44
3	Zn 213.857†	4193.5	3202.8	-23.772 ug/L	-23.772 ppb	15:16:04
3	SiO2†	-498.9	-1074.9	-71.400 ug/L	-71.400 ppb	15:16:20

## Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	818068.8	102.80 %		0.415				0.40%
Sc Radial	3892.0	97.9 %		0.30				0.30%
Y 371.029	661329.1	102.85 %		0.357				0.35%
Y RADIAL	4222.4	102.2 %		1.45				1.42%
Ag 328.068†	-20594.0	2.9674 ug/L		2.40194	2.9674 ppb		2.40194	80.94%
Al 396.153Radial†	-22.0	-21.569 ug/L		5.7670	-21.569 ppb		5.7670	26.74%
As 188.979†	-173.9	15.214 ug/L		1.6320	15.214 ppb		1.6320	10.73%
B 249.677†	1692.3	-21.210 ug/L		1.1138	-21.210 ppb		1.1138	5.25%
Ba 233.527†	-1786.4	-3.3912 ug/L		0.30841	-3.3912 ppb		0.30841	9.09%
Be 313.107†	-3747.4	-1.3933 ug/L		0.01334	-1.3933 ppb		0.01334	0.96%
Ca 317.933Radial†	-20.2	-39.247 ug/L		2.6417	-39.247 ppb		2.6417	6.73%
Cd 226.502†	2672.8	-4.2573 ug/L		0.94083	-4.2573 ppb		0.94083	22.10%
Co 228.616†	783.4	10.969 ug/L		0.1872	10.969 ppb		0.1872	1.71%
Cr 267.716†	-621.2	-4.1550 ug/L		0.56235	-4.1550 ppb		0.56235	13.53%
Cu 324.752†	-5827.7	-3.5049 ug/L		0.43623	-3.5049 ppb		0.43623	12.45%
Fe 238.204 Radial†	34543.7	378940 ug/L		6481.1	378940 ppb		6481.1	1.71%

K 766.490 Radial†	-53.7	-11.542 ug/L	18.0857	-11.542 ppb	18.0857	156.70%
Mg 279.077 IEC†	10.2	0.9482 ug/L	16.07536	0.9482 ppb	16.07536	>999.9%
Mn 257.610†	-30643.1	1.8006 ug/L	0.50343	1.8006 ppb	0.50343	27.96%
Mo 202.031†	-325.1	4.2194 ug/L	1.42570	4.2194 ppb	1.42570	33.79%
Na 589.592 Radial†	-239.6	-84.046 ug/L	13.0508	-84.046 ppb	13.0508	15.53%
Ni 231.604†	157.2	4.1927 ug/L	0.80839	4.1927 ppb	0.80839	19.28%
P 214.914†	476.8	-40.592 ug/L	11.1447	-40.592 ppb	11.1447	27.46%
Pb 220.353†	242.1	-4.9591 ug/L	1.21543	-4.9591 ppb	1.21543	24.51%
S 181.975 Axial†	3.4	4.4261 ug/L	7.38318	4.4261 ppb	7.38318	166.81%
Sb 206.836†	-10.2	-8.3323 ug/L	2.90486	-8.3323 ppb	2.90486	34.86%
Se 196.026†	-1653.5	190.06 ug/L	20.620	190.06 ppb	20.620	10.85%
Si 251.611†	-1206.4	-37.689 ug/L	1.0168	-37.689 ppb	1.0168	2.70%
Sn 189.927†	-32.5	-52.754 ug/L	0.5488	-52.754 ppb	0.5488	1.04%
Sr 421.552†	20.7	0.1726 ug/L	0.19697	0.1726 ppb	0.19697	114.09%
Ti 334.940†	2618.4	0.0006 ug/L	0.08345	0.0006 ppb	0.08345	>999.9%
Tl 190.801†	10.0	2.9360 ug/L	4.59381	2.9360 ppb	4.59381	156.46%
U 409.014†	305287.9	9765.5 ug/L	25.63	9765.5 ppb	25.63	0.26%
V 292.402†	4394.8	-2.6714 ug/L	1.12119	-2.6714 ppb	1.12119	41.97%
Zn 213.857†	3225.4	-24.499 ug/L	0.8348	-24.499 ppb	0.8348	3.41%
SiO2†	-1072.7	-71.280 ug/L	1.0245	-71.280 ppb	1.0245	1.44%

Sequence No.: 16

Sample ID: LR2

Analyst: HSC

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 37

Date Collected: 2/17/2010 15:18:33

Data Type: Reprocessed on 2/17/2010 15:41:20

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc 361.383	829261.7	829261.7	104.21	%		15:21:43
1	Sc Radial	3945.0	3945.0	99.2	%		15:20:46
1	Y 371.029	671866.2	671866.2	104.49	%		15:21:43
1	Y RADIAL	4281.9	4281.9	103.7	%		15:20:26
1	Ag 328.068†	220.5	26.0	0.1576	ug/L	0.1576 ppb	15:21:48
1	Al 396.153Radial†	-165.7	-25.1	-25.884	ug/L	-25.884 ppb	15:20:26
1	As 188.979†	-39.8	-10.5	-4.4234	ug/L	-4.4234 ppb	15:22:08
1	B 249.677†	173.6	108.6	2.5887	ug/L	2.5887 ppb	15:21:48
1	Ba 233.527†	1208748.4	1159898.5	9736.7	ug/L	9736.7 ppb	15:21:43
1	Be 313.107†	-4038.8	362.8	0.1375	ug/L	0.1375 ppb	15:21:48
1	Ca 317.933Radial†	30.4	6.4	12.420	ug/L	12.420 ppb	15:20:46
1	Cd 226.502†	-157.4	57.6	0.7039	ug/L	0.7039 ppb	15:22:08
1	Co 228.616†	-292.4	-202.1	0.4233	ug/L	0.4233 ppb	15:22:08
1	Cr 267.716†	681.0	-43.7	-0.5405	ug/L	-0.5405 ppb	15:21:48
1	Cu 324.752†	8622.0	-45.4	-0.1422	ug/L	-0.1422 ppb	15:21:48
1	Fe 238.204 Radial†	19.0	8.1	89.157	ug/L	89.157 ppb	15:20:46
1	K 766.490 Radial†	3351.3	169.5	36.741	ug/L	36.741 ppb	15:20:26
1	Mg 279.077 IEC†	2.6	1.3	49.742	ug/L	49.742 ppb	15:20:46
1	Mn 257.610†	648.7	71.1	0.0894	ug/L	0.0894 ppb	15:22:08
1	Mo 202.031†	11.3	-10.2	-0.7857	ug/L	-0.7857 ppb	15:22:08
1	Na 589.592 Radial†	-267.5	-165.9	-58.194	ug/L	-58.194 ppb	15:20:26
1	Ni 231.604†	125.4	28.8	0.7717	ug/L	0.7717 ppb	15:22:08
1	P 214.914†	251.9	-1.6	-0.9235	ug/L	-0.9235 ppb	15:22:08
1	Pb 220.353†	-43.6	-25.8	-3.3549	ug/L	-3.3549 ppb	15:22:08
1	S 181.975 Axial†	63.4	-0.8	-1.0735	ug/L	-1.0735 ppb	15:22:08
1	Sb 206.836†	45.5	-0.3	-0.1508	ug/L	-0.1508 ppb	15:22:08
1	Se 196.026†	-22.0	5.4	3.3647	ug/L	3.3647 ppb	15:22:08
1	Si 251.611†	672.8	-20.3	-0.6309	ug/L	-0.6309 ppb	15:22:08
1	Sn 189.927†	27.7	-9.1	-1.6909	ug/L	-1.6909 ppb	15:22:08
1	Sr 421.552†	79.3	-31.7	-0.2637	ug/L	-0.2637 ppb	15:20:26
1	Ti 334.940†	-1217.9	433.7	0.7126	ug/L	0.7126 ppb	15:21:48
1	Tl 190.801†	0.7	22.0	7.1126	ug/L	7.1126 ppb	15:22:08
1	U 409.014†	-3386.9	322.8	10.363	ug/L	10.363 ppb	15:21:43
1	V 292.402†	-1662.0	177.0	1.3694	ug/L	1.3694 ppb	15:21:48
1	Zn 213.857†	941.4	41.5	0.3960	ug/L	0.3960 ppb	15:22:08
1	SiO2†	643.4	26.1	1.7741	ug/L	1.7741 ppb	15:23:14
2	Sc 361.383	830105.0	830105.0	104.32	%		15:22:13
2	Sc Radial	3962.6	3962.6	99.7	%		15:21:11
2	Y 371.029	672643.4	672643.4	104.61	%		15:22:13
2	Y RADIAL	4282.2	4282.2	103.7	%		15:20:51
2	Ag 328.068†	254.3	58.2	0.3110	ug/L	0.3110 ppb	15:22:18
2	Al 396.153Radial†	-148.8	-7.4	-7.7148	ug/L	-7.7148 ppb	15:20:51
2	As 188.979†	-23.2	5.4	2.3069	ug/L	2.3069 ppb	15:22:38
2	B 249.677†	127.5	64.2	1.5342	ug/L	1.5342 ppb	15:22:18
2	Ba 233.527†	1208904.7	1158869.9	9728.1	ug/L	9728.1 ppb	15:22:13
2	Be 313.107†	-4109.3	299.2	0.1140	ug/L	0.1140 ppb	15:22:18
2	Ca 317.933Radial†	30.6	6.4	12.444	ug/L	12.444 ppb	15:21:11
2	Cd 226.502†	-167.8	47.8	0.5859	ug/L	0.5859 ppb	15:22:38
2	Co 228.616†	-295.4	-204.8	0.3673	ug/L	0.3673 ppb	15:22:38
2	Cr 267.716†	640.9	-82.8	-1.0260	ug/L	-1.0260 ppb	15:22:18
2	Cu 324.752†	8720.9	41.1	0.1253	ug/L	0.1253 ppb	15:22:18
2	Fe 238.204 Radial†	16.3	5.3	58.049	ug/L	58.049 ppb	15:21:11
2	K 766.490 Radial†	3230.5	33.2	7.2262	ug/L	7.2262 ppb	15:20:51
2	Mg 279.077 IEC†	3.7	2.4	91.880	ug/L	91.880 ppb	15:21:11
2	Mn 257.610†	665.0	86.0	0.1020	ug/L	0.1020 ppb	15:22:38
2	Mo 202.031†	30.8	8.4	0.6543	ug/L	0.6543 ppb	15:22:38
2	Na 589.592 Radial†	-302.4	-199.7	-70.038	ug/L	-70.038 ppb	15:20:51
2	Ni 231.604†	131.5	34.4	0.9233	ug/L	0.9233 ppb	15:22:38

2	P 214.914†	247.3	-6.2	-3.5156 ug/L	-3.5156 ppb	15:22:38
2	Pb 220.353†	-13.7	2.8	0.3553 ug/L	0.3553 ppb	15:22:38
2	S 181.975 Axial†	61.1	-3.2	-4.0879 ug/L	-4.0879 ppb	15:22:38
2	Sb 206.836†	49.5	3.5	1.1942 ug/L	1.1942 ppb	15:22:38
2	Se 196.026†	-27.1	0.4	0.4355 ug/L	0.4355 ppb	15:22:38
2	Si 251.611†	1184.3	469.4	14.777 ug/L	14.777 ppb	15:22:38
2	Sn 189.927†	24.8	-11.9	-2.2033 ug/L	-2.2033 ppb	15:22:38
2	Sr 421.552†	18.9	-92.7	-0.7710 ug/L	-0.7710 ppb	15:20:51
2	Ti 334.940†	-1136.4	513.0	0.8410 ug/L	0.8410 ppb	15:22:18
2	Tl 190.801†	0.6	21.9	7.0870 ug/L	7.0870 ppb	15:22:38
2	U 409.014†	-3400.0	313.5	10.069 ug/L	10.069 ppb	15:22:13
2	V 292.402†	-1746.4	97.7	0.7794 ug/L	0.7794 ppb	15:22:18
2	Zn 213.857†	935.3	34.7	0.3323 ug/L	0.3323 ppb	15:22:38
2	SiO2†	597.8	-18.2	-1.2397 ug/L	-1.2397 ppb	15:23:19
3	Sc 361.383	837286.8	837286.8	105.22 %		15:22:44
3	Sc Radial	3938.8	3938.8	99.1 %		15:21:36
3	Y 371.029	678131.5	678131.5	105.46 %		15:22:44
3	Y RADIAL	4198.5	4198.5	101.6 %		15:21:16
3	Ag 328.068†	170.2	-23.9	-0.1157 ug/L	-0.1157 ppb	15:22:49
3	Al 396.153Radial†	-131.3	9.4	9.6554 ug/L	9.6554 ppb	15:21:16
3	As 188.979†	-29.7	-0.5	-0.2198 ug/L	-0.2198 ppb	15:23:09
3	B 249.677†	192.4	124.9	2.9846 ug/L	2.9846 ppb	15:22:49
3	Ba 233.527†	1222371.7	1161728.8	9752.1 ug/L	9752.1 ppb	15:22:44
3	Be 313.107†	-4205.3	241.8	0.0908 ug/L	0.0908 ppb	15:22:49
3	Ca 317.933Radial†	32.2	8.2	15.964 ug/L	15.964 ppb	15:21:36
3	Cd 226.502†	-173.3	43.9	0.5394 ug/L	0.5394 ppb	15:23:09
3	Co 228.616†	-301.8	-208.3	0.3057 ug/L	0.3057 ppb	15:23:09
3	Cr 267.716†	556.8	-168.0	-2.0789 ug/L	-2.0789 ppb	15:22:49
3	Cu 324.752†	8776.2	21.9	0.0648 ug/L	0.0648 ppb	15:22:49
3	Fe 238.204 Radial†	14.7	3.8	41.917 ug/L	41.917 ppb	15:21:36
3	K 766.490 Radial†	3282.2	105.1	22.794 ug/L	22.794 ppb	15:21:16
3	Mg 279.077 IEC†	0.4	-0.9	-37.048 ug/L	-37.048 ppb	15:21:36
3	Mn 257.610†	665.7	81.2	0.1000 ug/L	0.1000 ppb	15:23:09
3	Mo 202.031†	31.2	8.5	0.6637 ug/L	0.6637 ppb	15:23:09
3	Na 589.592 Radial†	-335.6	-235.1	-82.455 ug/L	-82.455 ppb	15:21:16
3	Ni 231.604†	103.3	6.6	0.1801 ug/L	0.1801 ppb	15:23:09
3	P 214.914†	225.9	-28.6	-15.721 ug/L	-15.721 ppb	15:23:09
3	Pb 220.353†	-14.0	2.7	0.3475 ug/L	0.3475 ppb	15:23:09
3	S 181.975 Axial†	65.8	0.8	1.0730 ug/L	1.0730 ppb	15:23:09
3	Sb 206.836†	34.4	-11.3	-3.9664 ug/L	-3.9664 ppb	15:23:09
3	Se 196.026†	-27.2	0.6	0.4844 ug/L	0.4844 ppb	15:23:09
3	Si 251.611†	691.9	-8.4	-0.2724 ug/L	-0.2724 ppb	15:23:09
3	Sn 189.927†	38.8	1.2	0.2193 ug/L	0.2193 ppb	15:23:09
3	Sr 421.552†	17.1	-94.4	-0.7849 ug/L	-0.7849 ppb	15:21:16
3	Ti 334.940†	-1621.9	60.9	0.1025 ug/L	0.1025 ppb	15:22:49
3	Tl 190.801†	-6.5	15.1	4.8994 ug/L	4.8994 ppb	15:23:09
3	U 409.014†	-3422.6	320.1	10.283 ug/L	10.283 ppb	15:22:44
3	V 292.402†	-1775.8	84.1	0.6757 ug/L	0.6757 ppb	15:22:49
3	Zn 213.857†	954.7	45.5	0.4465 ug/L	0.4465 ppb	15:23:09
3	SiO2†	669.5	45.0	2.9998 ug/L	2.9998 ppb	15:23:24

## Mean Data: LR2

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Sc 361.383	832217.8	104.58 %		0.554			0.53%
Sc Radial	3948.8	99.3 %		0.31			0.31%
Y 371.029	674213.7	104.85 %		0.531			0.51%
Y RADIAL	4254.2	103.0 %		1.17			1.13%
Ag 328.068†	20.1	0.1176 ug/L		0.21615	0.1176 ppb	0.21615	183.76%
Al 396.153Radial†	-7.7	-7.9811 ug/L		17.77116	-7.9811 ppb	17.77116	222.66%
As 188.979†	-1.9	-0.7788 ug/L		3.39977	-0.7788 ppb	3.39977	436.54%
B 249.677†	99.2	2.3691 ug/L		0.74971	2.3691 ppb	0.74971	31.64%
Ba 233.527†	1160165.7	9739.0 ug/L		12.15	9739.0 ppb	12.15	0.12%
Be 313.107†	301.3	0.1141 ug/L		0.02336	0.1141 ppb	0.02336	20.48%
Ca 317.933Radial†	7.0	13.609 ug/L		2.0391	13.609 ppb	2.0391	14.98%
Cd 226.502†	49.8	0.6097 ug/L		0.08482	0.6097 ppb	0.08482	13.91%
Co 228.616†	-205.1	0.3654 ug/L		0.05881	0.3654 ppb	0.05881	16.09%
Cr 267.716†	-98.2	-1.2151 ug/L		0.78641	-1.2151 ppb	0.78641	64.72%
Cu 324.752†	5.9	0.0160 ug/L		0.14027	0.0160 ppb	0.14027	879.09%
Fe 238.204 Radial†	5.8	63.041 ug/L		24.0120	63.041 ppb	24.0120	38.09%



K 766.490 Radial†	102.6	22.254 ug/L	14.7650	22.254 ppb	14.7650	66.35%
Mg 279.077 IEC†	0.9	34.858 ug/L	65.7400	34.858 ppb	65.7400	188.59%
Mn 257.610†	79.4	0.0971 ug/L	0.00680	0.0971 ppb	0.00680	7.00%
Mo 202.031†	2.2	0.1775 ug/L	0.83412	0.1775 ppb	0.83412	469.98%
Na 589.592 Radial†	-200.2	-70.229 ug/L	12.1316	-70.229 ppb	12.1316	17.27%
Ni 231.604†	23.3	0.6250 ug/L	0.39270	0.6250 ppb	0.39270	62.83%
P 214.914†	-12.1	-6.7199 ug/L	7.90186	-6.7199 ppb	7.90186	117.59%
Pb 220.353†	-6.8	-0.8841 ug/L	2.13982	-0.8841 ppb	2.13982	242.04%
S 181.975 Axial†	-1.1	-1.3628 ug/L	2.59255	-1.3628 ppb	2.59255	190.24%
Sb 206.836†	-2.7	-0.9743 ug/L	2.67703	-0.9743 ppb	2.67703	274.76%
Se 196.026†	2.2	1.4282 ug/L	1.67723	1.4282 ppb	1.67723	117.44%
Si 251.611†	146.9	4.6245 ug/L	8.79391	4.6245 ppb	8.79391	190.16%
Sn 189.927†	-6.6	-1.2250 ug/L	1.27674	-1.2250 ppb	1.27674	104.22%
Sr 421.552†	-72.9	-0.6065 ug/L	0.29699	-0.6065 ppb	0.29699	48.97%
Ti 334.940†	335.9	0.5520 ug/L	0.39458	0.5520 ppb	0.39458	71.48%
Tl 190.801†	19.7	6.3663 ug/L	1.27047	6.3663 ppb	1.27047	19.96%
U 409.014†	318.8	10.239 ug/L	0.1521	10.239 ppb	0.1521	1.49%
V 292.402†	119.6	0.9415 ug/L	0.37419	0.9415 ppb	0.37419	39.74%
Zn 213.857†	40.6	0.3916 ug/L	0.05723	0.3916 ppb	0.05723	14.61%
SiO2†	17.6	1.1781 ug/L	2.18170	1.1781 ppb	2.18170	185.20%

Sequence No.: 17

Sample ID: CCV

Analyst:

Logged In Analyst (Original) : Optima3

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/17/2010 15:25:36

Data Type: Reprocessed on 2/17/2010 15:41:22

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 361.383	834710.2	834710.2	104.90 %		15:28:48
1	Sc Radial	3881.8	3881.8	97.6 %		15:27:49
1	Y 371.029	668576.4	668576.4	103.98 %		15:28:48
1	Y RADIAL	4146.7	4146.7	100.4 %		15:27:29
1	Ag 328.068†	98065.0	93302.4	481.66 ug/L	481.66 ppb	15:28:48
1	Al 396.153Radial†	4572.1	4824.8	4968.8 ug/L	4968.8 ppb	15:27:29
1	As 188.979†	1175.0	1147.9	490.34 ug/L	490.34 ppb	15:29:08
1	B 249.677†	21014.9	19976.0	474.41 ug/L	474.41 ppb	15:28:48
1	Ba 233.527†	60679.6	57841.1	486.76 ug/L	486.76 ppb	15:28:48
1	Be 313.107†	1359086.2	1299893.4	487.83 ug/L	487.83 ppb	15:28:48
1	Ca 317.933Radial†	2579.1	2617.3	5082.5 ug/L	5082.5 ppb	15:27:49
1	Cd 226.502†	40182.5	38515.8	475.02 ug/L	475.02 ppb	15:29:08
1	Co 228.616†	23661.0	22635.1	477.15 ug/L	477.15 ppb	15:29:08
1	Cr 267.716†	41451.3	38819.5	480.51 ug/L	480.51 ppb	15:28:48
1	Cu 324.752†	169278.8	153059.3	476.24 ug/L	476.24 ppb	15:28:48
1	Fe 238.204 Radial†	460.1	460.2	5063.0 ug/L	5063.0 ppb	15:27:49
1	K 766.490 Radial†	25586.8	22998.7	4976.8 ug/L	4976.8 ppb	15:27:29
1	Mg 279.077 IEC†	132.3	134.2	5245.5 ug/L	5245.5 ppb	15:27:49
1	Mn 257.610†	438398.0	417385.6	485.32 ug/L	485.32 ppb	15:28:48
1	Mo 202.031†	6474.3	6151.0	477.23 ug/L	477.23 ppb	15:29:08
1	Na 589.592 Radial†	26693.7	27444.1	9625.9 ug/L	9625.9 ppb	15:27:29
1	Ni 231.604†	18897.1	17923.6	478.79 ug/L	478.79 ppb	15:29:08
1	P 214.914†	4841.4	4372.1	2301.3 ug/L	2301.3 ppb	15:29:08
1	Pb 220.353†	3897.4	3731.5	483.99 ug/L	483.99 ppb	15:29:08
1	S 181.975 Axial†	821.7	721.7	935.68 ug/L	935.68 ppb	15:29:08
1	Sb 206.836†	1434.3	1323.4	482.73 ug/L	482.73 ppb	15:29:08
1	Se 196.026†	864.3	850.4	504.87 ug/L	504.87 ppb	15:29:08
1	Si 251.611†	80320.7	75906.0	2385.0 ug/L	2385.0 ppb	15:28:48
1	Sn 189.927†	2754.1	2589.9	479.10 ug/L	479.10 ppb	15:29:08
1	Sr 421.552†	57926.1	59217.8	492.25 ug/L	492.25 ppb	15:27:29
1	Ti 334.940†	306220.9	293531.3	486.74 ug/L	486.74 ppb	15:28:48
1	Tl 190.801†	1577.4	1525.2	494.88 ug/L	494.88 ppb	15:29:08
1	U 409.014†	11589.6	14621.5	468.13 ug/L	468.13 ppb	15:28:48
1	V 292.402†	63174.5	61998.0	487.32 ug/L	487.32 ppb	15:28:48
1	Zn 213.857†	51781.9	48503.2	479.95 ug/L	479.95 ppb	15:28:48
1	SiO2†	78888.2	74615.0	4992.7 ug/L	4992.7 ppb	15:30:08
2	Sc 361.383	828337.4	828337.4	104.09 %		15:29:15
2	Sc Radial	3902.7	3902.7	98.2 %		15:28:14
2	Y 371.029	663464.7	663464.7	103.18 %		15:29:15
2	Y RADIAL	4155.1	4155.1	100.6 %		15:27:54
2	Ag 328.068†	97133.0	93126.4	480.74 ug/L	480.74 ppb	15:29:15
2	Al 396.153Radial†	4555.4	4782.6	4925.0 ug/L	4925.0 ppb	15:27:54
2	As 188.979†	1162.4	1144.3	488.82 ug/L	488.82 ppb	15:29:35
2	B 249.677†	20824.1	19946.9	473.71 ug/L	473.71 ppb	15:29:15
2	Ba 233.527†	60193.2	57818.9	486.57 ug/L	486.57 ppb	15:29:15
2	Be 313.107†	1349333.3	1300492.3	488.05 ug/L	488.05 ppb	15:29:15
2	Ca 317.933Radial†	2565.4	2589.2	5027.8 ug/L	5027.8 ppb	15:28:14
2	Cd 226.502†	40258.0	38883.0	479.55 ug/L	479.55 ppb	15:29:35
2	Co 228.616†	23675.2	22822.4	481.10 ug/L	481.10 ppb	15:29:35
2	Cr 267.716†	41162.0	38845.6	480.83 ug/L	480.83 ppb	15:29:15
2	Cu 324.752†	167408.1	152503.7	474.50 ug/L	474.50 ppb	15:29:15
2	Fe 238.204 Radial†	457.8	455.4	5010.0 ug/L	5010.0 ppb	15:28:14
2	K 766.490 Radial†	25802.2	23077.4	4993.9 ug/L	4993.9 ppb	15:27:54
2	Mg 279.077 IEC†	129.0	130.1	5083.9 ug/L	5083.9 ppb	15:28:14
2	Mn 257.610†	435073.4	417407.3	485.35 ug/L	485.35 ppb	15:29:15
2	Mo 202.031†	6469.1	6193.5	480.52 ug/L	480.52 ppb	15:29:35
2	Na 589.592 Radial†	26691.3	27294.8	9573.5 ug/L	9573.5 ppb	15:27:54
2	Ni 231.604†	18917.0	18081.3	483.00 ug/L	483.00 ppb	15:29:35

2	P 214.914†	4846.9	4412.9	2324.0 ug/L	2324.0 ppb	15:29:35
2	Pb 220.353†	3927.4	3788.9	491.41 ug/L	491.41 ppb	15:29:35
2	S 181.975 Axial†	829.2	734.9	952.82 ug/L	952.82 ppb	15:29:35
2	Sb 206.836†	1454.7	1353.5	493.42 ug/L	493.42 ppb	15:29:35
2	Se 196.026†	864.2	856.7	508.34 ug/L	508.34 ppb	15:29:35
2	Si 251.611†	79565.9	75770.0	2380.7 ug/L	2380.7 ppb	15:29:15
2	Sn 189.927†	2745.4	2601.7	481.28 ug/L	481.28 ppb	15:29:35
2	Sr 421.552†	58076.3	59052.2	490.88 ug/L	490.88 ppb	15:27:54
2	Ti 334.940†	303677.9	293334.3	486.42 ug/L	486.42 ppb	15:29:15
2	Tl 190.801†	1563.0	1522.9	494.13 ug/L	494.13 ppb	15:29:35
2	U 409.014†	11637.7	14752.8	472.35 ug/L	472.35 ppb	15:29:15
2	V 292.402†	62902.5	62199.9	488.95 ug/L	488.95 ppb	15:29:15
2	Zn 213.857†	51454.3	48568.4	480.59 ug/L	480.59 ppb	15:29:15
2	SiO2†	79935.7	76200.0	5098.9 ug/L	5098.9 ppb	15:30:13
3	Sc 361.383	825891.6	825891.6	103.79 %		15:29:42
3	Sc Radial	3921.4	3921.4	98.6 %		15:28:39
3	Y 371.029	661779.0	661779.0	102.92 %		15:29:42
3	Y RADIAL	4120.8	4120.8	99.75 %		15:28:19
3	Ag 328.068†	97139.2	93408.7	482.20 ug/L	482.20 ppb	15:29:42
3	Al 396.153Radial†	4497.0	4701.3	4840.8 ug/L	4840.8 ppb	15:28:19
3	As 188.979†	1158.3	1143.7	488.55 ug/L	488.55 ppb	15:30:02
3	B 249.677†	20854.8	20035.8	475.82 ug/L	475.82 ppb	15:29:42
3	Ba 233.527†	60162.3	57960.4	487.76 ug/L	487.76 ppb	15:29:42
3	Be 313.107†	1345799.6	1300926.3	488.21 ug/L	488.21 ppb	15:29:42
3	Ca 317.933Radial†	2591.4	2603.1	5054.8 ug/L	5054.8 ppb	15:28:39
3	Cd 226.502†	40224.4	38965.1	480.57 ug/L	480.57 ppb	15:30:02
3	Co 228.616†	23670.0	22884.7	482.42 ug/L	482.42 ppb	15:30:02
3	Cr 267.716†	41137.5	38939.1	481.99 ug/L	481.99 ppb	15:29:42
3	Cu 324.752†	167067.9	152652.2	474.97 ug/L	474.97 ppb	15:29:42
3	Fe 238.204 Radial†	460.9	456.3	5020.1 ug/L	5020.1 ppb	15:28:39
3	K 766.490 Radial†	25426.0	22570.7	4884.2 ug/L	4884.2 ppb	15:28:19
3	Mg 279.077 IEC†	131.8	132.3	5170.0 ug/L	5170.0 ppb	15:28:39
3	Mn 257.610†	434536.8	418128.0	486.19 ug/L	486.19 ppb	15:29:42
3	Mo 202.031†	6474.5	6217.2	482.36 ug/L	482.36 ppb	15:30:02
3	Na 589.592 Radial†	26277.3	26745.5	9380.8 ug/L	9380.8 ppb	15:28:19
3	Ni 231.604†	18899.4	18118.1	483.98 ug/L	483.98 ppb	15:30:02
3	P 214.914†	4838.6	4418.7	2327.1 ug/L	2327.1 ppb	15:30:02
3	Pb 220.353†	3924.1	3796.9	492.44 ug/L	492.44 ppb	15:30:02
3	S 181.975 Axial†	825.0	733.3	950.76 ug/L	950.76 ppb	15:30:02
3	Sb 206.836†	1437.9	1341.4	489.31 ug/L	489.31 ppb	15:30:02
3	Se 196.026†	856.3	851.6	505.42 ug/L	505.42 ppb	15:30:02
3	Si 251.611†	79560.3	75990.9	2387.6 ug/L	2387.6 ppb	15:29:42
3	Sn 189.927†	2765.3	2628.7	486.28 ug/L	486.28 ppb	15:30:02
3	Sr 421.552†	57176.1	57857.6	480.94 ug/L	480.94 ppb	15:28:19
3	Ti 334.940†	303235.5	293772.0	487.14 ug/L	487.14 ppb	15:29:42
3	Tl 190.801†	1563.2	1527.5	495.61 ug/L	495.61 ppb	15:30:02
3	U 409.014†	11380.9	14538.4	465.46 ug/L	465.46 ppb	15:29:42
3	V 292.402†	62784.4	62265.1	489.46 ug/L	489.46 ppb	15:29:42
3	Zn 213.857†	51412.8	48674.7	481.64 ug/L	481.64 ppb	15:29:42
3	SiO2†	80055.9	76543.2	5121.9 ug/L	5121.9 ppb	15:30:18

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	829646.4	104.26 %	0.572			0.55%
Sc Radial	3902.0	98.1 %	0.50			0.51%
Y 371.029	664606.7	103.36 %	0.550			0.53%
Y RADIAL	4140.9	100.2 %	0.43			0.43%
Ag 328.068†	93279.2	481.53 ug/L	0.737	481.53 ppb	0.737	0.15%
QC value within limits for Ag 328.068 Recovery = 96.31%						
Al 396.153Radial†	4769.6	4911.5 ug/L	65.04	4911.5 ppb	65.04	1.32%
QC value within limits for Al 396.153Radial Recovery = 98.23%						
As 188.979†	1145.3	489.24 ug/L	0.965	489.24 ppb	0.965	0.20%
QC value within limits for As 188.979 Recovery = 97.85%						
B 249.677†	19986.2	474.65 ug/L	1.078	474.65 ppb	1.078	0.23%
QC value within limits for B 249.677 Recovery = 94.93%						
Ba 233.527†	57873.5	487.03 ug/L	0.640	487.03 ppb	0.640	0.13%
QC value within limits for Ba 233.527 Recovery = 97.41%						
Be 313.107†	1300437.3	488.03 ug/L	0.195	488.03 ppb	0.195	0.04%
QC value within limits for Be 313.107 Recovery = 97.61%						

Ca 317.933Radial†	2603.2	5055.0 ug/L	27.33	5055.0 ppb	27.33	0.54%
QC value within limits for Ca 317.933Radial Recovery = 101.10%						
Cd 226.502†	38788.0	478.38 ug/L	2.956	478.38 ppb	2.956	0.62%
QC value within limits for Cd 226.502 Recovery = 95.68%						
Co 228.616†	22780.7	480.22 ug/L	2.744	480.22 ppb	2.744	0.57%
QC value within limits for Co 228.616 Recovery = 96.04%						
Cr 267.716†	38868.1	481.11 ug/L	0.779	481.11 ppb	0.779	0.16%
QC value within limits for Cr 267.716 Recovery = 96.22%						
Cu 324.752†	152738.4	475.23 ug/L	0.897	475.23 ppb	0.897	0.19%
QC value within limits for Cu 324.752 Recovery = 95.05%						
Fe 238.204 Radial†	457.3	5031.0 ug/L	28.13	5031.0 ppb	28.13	0.56%
QC value within limits for Fe 238.204 Radial Recovery = 100.62%						
K 766.490 Radial†	22882.3	4951.6 ug/L	59.04	4951.6 ppb	59.04	1.19%
QC value within limits for K 766.490 Radial Recovery = 99.03%						
Mg 279.077 IEC†	132.2	5166.4 ug/L	80.89	5166.4 ppb	80.89	1.57%
QC value within limits for Mg 279.077 IEC Recovery = 103.33%						
Mn 257.610†	417640.3	485.62 ug/L	0.490	485.62 ppb	0.490	0.10%
QC value within limits for Mn 257.610 Recovery = 97.12%						
Mo 202.031†	6187.2	480.03 ug/L	2.597	480.03 ppb	2.597	0.54%
QC value within limits for Mo 202.031 Recovery = 96.01%						
Na 589.592 Radial†	27161.5	9526.7 ug/L	129.04	9526.7 ppb	129.04	1.35%
QC value within limits for Na 589.592 Radial Recovery = 95.27%						
Ni 231.604†	18041.0	481.92 ug/L	2.760	481.92 ppb	2.760	0.57%
QC value within limits for Ni 231.604 Recovery = 96.38%						
P 214.914†	4401.2	2317.5 ug/L	14.10	2317.5 ppb	14.10	0.61%
QC value within limits for P 214.914 Recovery = 92.70%						
Pb 220.353†	3772.4	489.28 ug/L	4.608	489.28 ppb	4.608	0.94%
QC value within limits for Pb 220.353 Recovery = 97.86%						
S 181.975 Axial†	729.9	946.42 ug/L	9.355	946.42 ppb	9.355	0.99%
QC value within limits for S 181.975 Axial Recovery = 94.64%						
Sb 206.836†	1339.4	488.49 ug/L	5.390	488.49 ppb	5.390	1.10%
QC value within limits for Sb 206.836 Recovery = 97.70%						
Se 196.026†	852.9	506.21 ug/L	1.869	506.21 ppb	1.869	0.37%
QC value within limits for Se 196.026 Recovery = 101.24%						
Si 251.611†	75889.0	2384.4 ug/L	3.50	2384.4 ppb	3.50	0.15%
QC value within limits for Si 251.611 Recovery = 95.38%						
Sn 189.927†	2606.8	482.22 ug/L	3.681	482.22 ppb	3.681	0.76%
QC value within limits for Sn 189.927 Recovery = 96.44%						
Sr 421.552†	58709.2	488.02 ug/L	6.170	488.02 ppb	6.170	1.26%
QC value within limits for Sr 421.552 Recovery = 97.60%						
Ti 334.940†	293545.9	486.77 ug/L	0.363	486.77 ppb	0.363	0.07%
QC value within limits for Ti 334.940 Recovery = 97.35%						
Tl 190.801†	1525.2	494.87 ug/L	0.741	494.87 ppb	0.741	0.15%
QC value within limits for Tl 190.801 Recovery = 98.97%						
U 409.014†	14637.6	468.65 ug/L	3.474	468.65 ppb	3.474	0.74%
QC value within limits for U 409.014 Recovery = 93.73%						
V 292.402†	62154.3	488.58 ug/L	1.119	488.58 ppb	1.119	0.23%
QC value within limits for V 292.402 Recovery = 97.72%						
Zn 213.857†	48582.1	480.73 ug/L	0.853	480.73 ppb	0.853	0.18%
QC value within limits for Zn 213.857 Recovery = 96.15%						
SiO2†	75786.1	5071.2 ug/L	68.93	5071.2 ppb	68.93	1.36%
QC value within limits for SiO2 Recovery = 94.83%						

All analyte(s) passed QC.

Sequence No.: 18  
 Sample ID: CCB  
 Analyst:  
 Logged In Analyst (Original) : Optima3  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 2/17/2010 15:32:28  
 Data Type: Reprocessed on 2/17/2010 15:41:23  
 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 361.383	809732.9	809732.9	101.76 %		15:35:38
1	Sc Radial	3938.2	3938.2	99.1 %		15:34:41
1	Y 371.029	658106.7	658106.7	102.35 %		15:35:38
1	Y RADIAL	4246.0	4246.0	102.8 %		15:34:21
1	Ag 328.068†	123.3	-64.5	-0.3212 ug/L	-0.3212 ppb	15:35:38
1	Al 396.153Radial†	-141.0	-0.4	-0.4870 ug/L	-0.4870 ppb	15:34:21
1	As 188.979†	-29.0	-0.9	-0.3598 ug/L	-0.3598 ppb	15:35:58
1	B 249.677†	187.0	125.7	2.9966 ug/L	2.9966 ppb	15:35:38
1	Ba 233.527†	31.5	24.6	0.2075 ug/L	0.2075 ppb	15:35:58
1	Be 313.107†	-4085.4	223.5	0.0839 ug/L	0.0839 ppb	15:35:38
1	Ca 317.933Radial†	25.0	1.0	1.9594 ug/L	1.9594 ppb	15:34:41
1	Cd 226.502†	-175.8	35.9	0.4398 ug/L	0.4398 ppb	15:35:58
1	Co 228.616†	-75.1	4.6	0.1010 ug/L	0.1010 ppb	15:35:58
1	Cr 267.716†	475.4	-230.0	-2.8417 ug/L	-2.8417 ppb	15:35:38
1	Cu 324.752†	8351.5	-111.6	-0.3446 ug/L	-0.3446 ppb	15:35:38
1	Fe 238.204 Radial†	12.7	1.7	19.124 ug/L	19.124 ppb	15:34:41
1	K 766.490 Radial†	3293.0	116.5	25.239 ug/L	25.239 ppb	15:34:21
1	Mg 279.077 IEC†	1.6	0.2	8.7297 ug/L	8.7297 ppb	15:34:41
1	Mn 257.610†	630.9	68.6	0.0812 ug/L	0.0812 ppb	15:35:58
1	Mo 202.031†	34.5	12.8	0.9917 ug/L	0.9917 ppb	15:35:58
1	Na 589.592 Radial†	-115.6	-13.0	-4.5634 ug/L	-4.5634 ppb	15:34:21
1	Ni 231.604†	96.9	3.7	0.0979 ug/L	0.0979 ppb	15:35:58
1	P 214.914†	227.3	-19.9	-10.878 ug/L	-10.878 ppb	15:35:58
1	Pb 220.353†	-23.5	-7.1	-0.9196 ug/L	-0.9196 ppb	15:35:58
1	S 181.975 Axial†	57.6	-5.1	-6.6189 ug/L	-6.6189 ppb	15:35:58
1	Sb 206.836†	46.0	1.3	0.4450 ug/L	0.4450 ppb	15:35:58
1	Se 196.026†	-14.1	12.6	7.3093 ug/L	7.3093 ppb	15:35:58
1	Si 251.611†	584.6	-91.4	-2.8915 ug/L	-2.8915 ppb	15:35:58
1	Sn 189.927†	29.5	-6.7	-1.2365 ug/L	-1.2365 ppb	15:35:58
1	Sr 421.552†	50.5	-60.7	-0.5043 ug/L	-0.5043 ppb	15:34:21
1	Ti 334.940†	-1578.2	51.4	0.0872 ug/L	0.0872 ppb	15:35:38
1	Tl 190.801†	-9.5	12.0	3.8736 ug/L	3.8736 ppb	15:35:58
1	U 409.014†	-3734.6	-97.2	-3.1194 ug/L	-3.1194 ppb	15:35:38
1	V 292.402†	-1763.5	38.8	0.3074 ug/L	0.3074 ppb	15:35:38
1	Zn 213.857†	894.1	16.7	0.1641 ug/L	0.1641 ppb	15:35:58
1	SiO2†	603.8	2.1	0.1126 ug/L	0.1126 ppb	15:36:54
2	Sc 361.383	812472.9	812472.9	102.10 %		15:36:03
2	Sc Radial	3960.5	3960.5	99.6 %		15:35:06
2	Y 371.029	659676.6	659676.6	102.59 %		15:36:03
2	Y RADIAL	4164.7	4164.7	100.8 %		15:34:46
2	Ag 328.068†	227.0	36.7	0.1827 ug/L	0.1827 ppb	15:36:03
2	Al 396.153Radial†	-148.7	-7.3	-7.6159 ug/L	-7.6159 ppb	15:34:46
2	As 188.979†	-23.7	4.4	1.8605 ug/L	1.8605 ppb	15:36:23
2	B 249.677†	196.1	134.0	3.1981 ug/L	3.1981 ppb	15:36:03
2	Ba 233.527†	53.6	46.1	0.3872 ug/L	0.3872 ppb	15:36:23
2	Be 313.107†	-4100.4	222.4	0.0837 ug/L	0.0837 ppb	15:36:03
2	Ca 317.933Radial†	18.9	-5.3	-10.339 ug/L	-10.339 ppb	15:35:06
2	Cd 226.502†	-187.3	25.2	0.3130 ug/L	0.3130 ppb	15:36:23
2	Co 228.616†	-67.2	12.7	0.2690 ug/L	0.2690 ppb	15:36:23
2	Cr 267.716†	504.8	-202.8	-2.5089 ug/L	-2.5089 ppb	15:36:03
2	Cu 324.752†	8401.9	-90.0	-0.2831 ug/L	-0.2831 ppb	15:36:03
2	Fe 238.204 Radial†	10.0	-1.0	-11.124 ug/L	-11.124 ppb	15:35:06
2	K 766.490 Radial†	3296.1	100.8	21.848 ug/L	21.848 ppb	15:34:46
2	Mg 279.077 IEC†	3.1	1.8	68.665 ug/L	68.665 ppb	15:35:06
2	Mn 257.610†	593.8	30.2	0.0311 ug/L	0.0311 ppb	15:36:23
2	Mo 202.031†	26.6	4.9	0.3811 ug/L	0.3811 ppb	15:36:23
2	Na 589.592 Radial†	-203.5	-100.6	-35.300 ug/L	-35.300 ppb	15:34:46
2	Ni 231.604†	102.6	8.9	0.2385 ug/L	0.2385 ppb	15:36:23

2	P 214.914†	240.0	-8.3	-4.4945 ug/L	-4.4945 ppb	15:36:23
2	Pb 220.353†	-28.9	-12.3	-1.5947 ug/L	-1.5947 ppb	15:36:23
2	S 181.975 Axial†	60.6	-2.3	-3.0050 ug/L	-3.0050 ppb	15:36:23
2	Sb 206.836†	42.6	-2.3	-0.7994 ug/L	-0.7994 ppb	15:36:23
2	Se 196.026†	-25.7	1.3	0.7168 ug/L	0.7168 ppb	15:36:23
2	Si 251.611†	591.2	-86.9	-2.7419 ug/L	-2.7419 ppb	15:36:23
2	Sn 189.927†	32.6	-3.8	-0.7001 ug/L	-0.7001 ppb	15:36:23
2	Sr 421.552†	60.8	-50.6	-0.4206 ug/L	-0.4206 ppb	15:34:46
2	Ti 334.940†	-1533.7	100.2	0.1581 ug/L	0.1581 ppb	15:36:03
2	Tl 190.801†	-7.1	14.4	4.6403 ug/L	4.6403 ppb	15:36:23
2	U 409.014†	-3505.8	139.3	4.4809 ug/L	4.4809 ppb	15:36:03
2	V 292.402†	-1760.8	47.3	0.3846 ug/L	0.3846 ppb	15:36:03
2	Zn 213.857†	899.3	18.9	0.1894 ug/L	0.1894 ppb	15:36:23
2	SiO2†	550.6	-52.0	-3.5000 ug/L	-3.5000 ppb	15:36:59
3	Sc 361.383	806934.5	806934.5	101.41 %		15:36:29
3	Sc Radial	3945.7	3945.7	99.2 %		15:35:31
3	Y 371.029	655855.5	655855.5	102.00 %		15:36:29
3	Y RADIAL	4130.9	4130.9	100.00 %		15:35:11
3	Ag 328.068†	252.9	63.8	0.3324 ug/L	0.3324 ppb	15:36:29
3	Al 396.153Radial†	-165.3	-24.7	-25.572 ug/L	-25.572 ppb	15:35:11
3	As 188.979†	-30.1	-2.0	-0.8625 ug/L	-0.8625 ppb	15:36:49
3	B 249.677†	202.0	141.2	3.3669 ug/L	3.3669 ppb	15:36:29
3	Ba 233.527†	49.4	42.3	0.3553 ug/L	0.3553 ppb	15:36:49
3	Be 313.107†	-4083.6	211.4	0.0792 ug/L	0.0792 ppb	15:36:29
3	Ca 317.933Radial†	17.0	-7.1	-13.773 ug/L	-13.773 ppb	15:35:31
3	Cd 226.502†	-178.9	32.2	0.3957 ug/L	0.3957 ppb	15:36:49
3	Co 228.616†	-80.9	-1.4	-0.0270 ug/L	-0.0270 ppb	15:36:49
3	Cr 267.716†	500.6	-203.5	-2.5150 ug/L	-2.5150 ppb	15:36:29
3	Cu 324.752†	8243.6	-189.5	-0.5877 ug/L	-0.5877 ppb	15:36:29
3	Fe 238.204 Radial†	11.7	0.7	8.0199 ug/L	8.0199 ppb	15:35:31
3	K 766.490 Radial†	3274.4	91.4	19.818 ug/L	19.818 ppb	15:35:11
3	Mg 279.077 IEC†	3.1	1.7	67.798 ug/L	67.798 ppb	15:35:31
3	Mn 257.610†	598.7	38.9	0.0433 ug/L	0.0433 ppb	15:36:49
3	Mo 202.031†	25.1	3.6	0.2832 ug/L	0.2832 ppb	15:36:49
3	Na 589.592 Radial†	-232.4	-130.5	-45.777 ug/L	-45.777 ppb	15:35:11
3	Ni 231.604†	110.9	17.8	0.4751 ug/L	0.4751 ppb	15:36:49
3	P 214.914†	246.0	-0.7	-0.3068 ug/L	-0.3068 ppb	15:36:49
3	Pb 220.353†	-17.2	-1.0	-0.1315 ug/L	-0.1315 ppb	15:36:49
3	S 181.975 Axial†	52.6	-9.8	-12.682 ug/L	-12.682 ppb	15:36:49
3	Sb 206.836†	50.8	6.1	2.1109 ug/L	2.1109 ppb	15:36:49
3	Se 196.026†	-34.2	-7.2	-4.1275 ug/L	-4.1275 ppb	15:36:49
3	Si 251.611†	571.9	-102.0	-3.2150 ug/L	-3.2150 ppb	15:36:49
3	Sn 189.927†	24.7	-11.3	-2.0956 ug/L	-2.0956 ppb	15:36:49
3	Sr 421.552†	33.0	-78.4	-0.6517 ug/L	-0.6517 ppb	15:35:11
3	Ti 334.940†	-1607.8	16.8	0.0227 ug/L	0.0227 ppb	15:36:29
3	Tl 190.801†	-4.4	17.0	5.4724 ug/L	5.4724 ppb	15:36:49
3	U 409.014†	-3713.9	-89.6	-2.8731 ug/L	-2.8731 ppb	15:36:29
3	V 292.402†	-1787.7	9.0	0.0691 ug/L	0.0691 ppb	15:36:29
3	Zn 213.857†	904.5	30.1	0.2971 ug/L	0.2971 ppb	15:36:49
3	SiO2†	577.9	-21.4	-1.4423 ug/L	-1.4423 ppb	15:37:04

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	809713.4	101.75 %		0.348			0.34%
Sc Radial	3948.1	99.3 %		0.29			0.29%
Y 371.029	657879.6	102.31 %		0.299			0.29%
Y RADIAL	4180.5	101.2 %		1.43			1.41%
Ag 328.068†	12.0	0.0646 ug/L		0.34244	0.0646 ppb	0.34244	529.89%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	-10.8	-11.225 ug/L		12.9263	-11.225 ppb	12.9263	115.15%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	0.5	0.2127 ug/L		1.44895	0.2127 ppb	1.44895	681.11%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	133.6	3.1872 ug/L		0.18540	3.1872 ppb	0.18540	5.82%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	37.6	0.3166 ug/L		0.09584	0.3166 ppb	0.09584	30.27%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	219.1	0.0823 ug/L		0.00263	0.0823 ppb	0.00263	3.20%
QC value within limits for Be 313.107 Recovery = Not calculated							

Ca 317.933Radial†	-3.8	-7.3842 ug/L	8.27201	-7.3842 ppb	8.27201	112.02%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	31.1	0.3828 ug/L	0.06437	0.3828 ppb	0.06437	16.81%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	5.3	0.1143 ug/L	0.14843	0.1143 ppb	0.14843	129.84%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-212.1	-2.6219 ug/L	0.19040	-2.6219 ppb	0.19040	7.26%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-130.4	-0.4051 ug/L	0.16109	-0.4051 ppb	0.16109	39.76%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	0.5	5.3399 ug/L	15.30140	5.3399 ppb	15.30140	286.55%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	102.9	22.302 ug/L	2.7386	22.302 ppb	2.7386	12.28%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	1.2	48.398 ug/L	34.3562	48.398 ppb	34.3562	70.99%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	45.9	0.0519 ug/L	0.02612	0.0519 ppb	0.02612	50.35%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	7.1	0.5520 ug/L	0.38396	0.5520 ppb	0.38396	69.56%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-81.4	-28.547 ug/L	21.4207	-28.547 ppb	21.4207	75.04%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	10.1	0.2705 ug/L	0.19061	0.2705 ppb	0.19061	70.46%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-9.7	-5.2263 ug/L	5.32329	-5.2263 ppb	5.32329	101.86%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-6.8	-0.8819 ug/L	0.73236	-0.8819 ppb	0.73236	83.04%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-5.7	-7.4352 ug/L	4.88976	-7.4352 ppb	4.88976	65.76%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	1.7	0.5855 ug/L	1.46024	0.5855 ppb	1.46024	249.41%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	2.2	1.2995 ug/L	5.74066	1.2995 ppb	5.74066	441.75%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	-93.4	-2.9495 ug/L	0.24178	-2.9495 ppb	0.24178	8.20%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	-7.3	-1.3441 ug/L	0.70394	-1.3441 ppb	0.70394	52.37%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-63.2	-0.5255 ug/L	0.11700	-0.5255 ppb	0.11700	22.26%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	56.1	0.0893 ug/L	0.06776	0.0893 ppb	0.06776	75.86%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	14.5	4.6621 ug/L	0.79960	4.6621 ppb	0.79960	17.15%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-15.8	-0.5039 ug/L	4.31867	-0.5039 ppb	4.31867	857.10%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	31.7	0.2537 ug/L	0.16448	0.2537 ppb	0.16448	64.83%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	21.9	0.2169 ug/L	0.07061	0.2169 ppb	0.07061	32.56%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	-23.8	-1.6099 ug/L	1.81211	-1.6099 ppb	1.81211	112.56%
QC value within limits for SiO2 Recovery = Not calculated						
All analyte(s) passed QC.						

=====  
Analysis Begun

Start Time: 2/17/2010 15:54:01

Plasma On Time: 2/17/2010 14:48:31

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\021710A.sif

Batch ID:

Results Data Set: 021710B

Results Library: C:\pe\Optima3\Results\Results.mdb

=====  
Sequence No.: 1

Autosampler Location: 1

Sample ID: CCV

Date Collected: 2/17/2010 15:54:02

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	4136.8	4136.8	104 %		15:55:54
1	Y RADIAL	4265.2	4265.2	103.3 %		15:55:54
1	Al 396.153Radial†	4666.9	4627.2	4764.1 ug/L	4764.1 ppb	15:55:54
1	Ca 317.933Radial†	2618.2	2492.0	4839.2 ug/L	4839.2 ppb	15:56:14
1	Fe 238.204 Radial†	469.5	440.2	4843.2 ug/L	4843.2 ppb	15:56:14
1	K 766.490 Radial†	26287.4	22056.2	4772.7 ug/L	4772.7 ppb	15:55:54
1	Mg 279.077 IEC†	132.2	125.7	4911.7 ug/L	4911.7 ppb	15:56:14
1	Na 589.592 Radial†	28080.4	27091.1	9502.0 ug/L	9502.0 ppb	15:55:54
1	Sr 421.552†	60318.2	57858.7	480.95 ug/L	480.95 ppb	15:55:54
1	Sc 361.383	823470.5	823470.5	103.48 %		15:57:12
1	Y 371.029	657758.3	657758.3	102.30 %		15:57:12
1	Ag 328.068†	97328.0	93866.4	484.49 ug/L	484.49 ppb	15:57:17
1	As 188.979†	1168.5	1156.8	494.00 ug/L	494.00 ppb	15:57:37
1	B 249.677†	20730.5	19974.7	474.38 ug/L	474.38 ppb	15:57:17
1	Ba 233.527†	59814.6	57794.8	486.37 ug/L	486.37 ppb	15:57:17
1	Be 313.107†	1333945.7	1293283.7	485.33 ug/L	485.33 ppb	15:57:12
1	Cd 226.502†	40869.4	39702.4	489.69 ug/L	489.69 ppb	15:57:17
1	Co 228.616†	23841.3	23117.3	487.34 ug/L	487.34 ppb	15:57:17
1	Cr 267.716†	40938.3	38863.2	481.05 ug/L	481.05 ppb	15:57:17
1	Cu 324.752†	166308.2	152391.3	474.14 ug/L	474.14 ppb	15:57:17
1	Mn 257.610†	434357.7	419185.9	487.41 ug/L	487.41 ppb	15:57:12
1	Mo 202.031†	6439.5	6201.6	481.13 ug/L	481.13 ppb	15:57:37
1	Ni 231.604†	18985.7	18255.1	487.64 ug/L	487.64 ppb	15:57:17
1	P 214.914†	4829.7	4423.8	2330.1 ug/L	2330.1 ppb	15:57:37
1	Pb 220.353†	3843.6	3730.2	483.81 ug/L	483.81 ppb	15:57:37
1	S 181.975 Axial†	827.6	738.0	956.98 ug/L	956.98 ppb	15:57:37
1	Sb 206.836†	1444.9	1352.3	493.04 ug/L	493.04 ppb	15:57:37
1	Se 196.026†	854.4	852.1	505.18 ug/L	505.18 ppb	15:57:37
1	Si 251.611†	79365.3	76027.9	2388.8 ug/L	2388.8 ppb	15:57:17
1	Sn 189.927†	2719.9	2592.7	479.60 ug/L	479.60 ppb	15:57:37
1	Ti 334.940†	296448.6	288072.6	477.67 ug/L	477.67 ppb	15:57:17
1	Tl 190.801†	1547.7	1516.9	492.10 ug/L	492.10 ppb	15:57:37
1	U 409.014†	11952.0	15122.5	484.25 ug/L	484.25 ppb	15:57:17
1	V 292.402†	62716.6	62377.4	490.38 ug/L	490.38 ppb	15:57:17
1	Zn 213.857†	51207.6	48622.1	481.12 ug/L	481.12 ppb	15:57:17
1	SiO2†	79501.0	76233.7	5101.2 ug/L	5101.2 ppb	15:58:44
2	Sc Radial	4283.7	4283.7	108 %		15:56:19
2	Y RADIAL	4425.1	4425.1	107.1 %		15:56:19
2	Al 396.153Radial†	4436.1	4259.2	4383.3 ug/L	4383.3 ppb	15:56:19
2	Ca 317.933Radial†	2588.6	2378.3	4618.3 ug/L	4618.3 ppb	15:56:39
2	Fe 238.204 Radial†	462.7	418.4	4604.6 ug/L	4604.6 ppb	15:56:39
2	K 766.490 Radial†	25123.6	20110.0	4351.4 ug/L	4351.4 ppb	15:56:19
2	Mg 279.077 IEC†	136.0	124.9	4882.4 ug/L	4882.4 ppb	15:56:39
2	Na 589.592 Radial†	26664.9	24852.2	8716.8 ug/L	8716.8 ppb	15:56:19
2	Sr 421.552†	57207.5	52984.4	440.44 ug/L	440.44 ppb	15:56:19
2	Sc 361.383	816427.2	816427.2	102.60 %		15:57:43
2	Y 371.029	653060.0	653060.0	101.56 %		15:57:43



2	Ag 328.068†	97214.1	94566.7	488.02 ug/L	488.02 ppb	15:57:48
2	As 188.979†	1154.2	1152.6	492.18 ug/L	492.18 ppb	15:58:08
2	B 249.677†	20642.1	20061.3	476.47 ug/L	476.47 ppb	15:57:48
2	Ba 233.527†	59904.9	58381.5	491.29 ug/L	491.29 ppb	15:57:48
2	Be 313.107†	1325764.0	1296429.9	486.52 ug/L	486.52 ppb	15:57:43
2	Cd 226.502†	40904.6	40077.4	494.34 ug/L	494.34 ppb	15:57:48
2	Co 228.616†	23936.2	23408.5	493.48 ug/L	493.48 ppb	15:57:48
2	Cr 267.716†	41008.0	39272.4	486.11 ug/L	486.11 ppb	15:57:48
2	Cu 324.752†	166021.0	153497.9	477.57 ug/L	477.57 ppb	15:57:48
2	Mn 257.610†	430060.3	418618.4	486.73 ug/L	486.73 ppb	15:57:43
2	Mo 202.031†	6418.7	6235.1	483.71 ug/L	483.71 ppb	15:58:08
2	Ni 231.604†	18990.1	18417.6	491.98 ug/L	491.98 ppb	15:57:48
2	P 214.914†	4840.3	4474.4	2357.4 ug/L	2357.4 ppb	15:58:08
2	Pb 220.353†	3860.7	3778.9	490.05 ug/L	490.05 ppb	15:58:08
2	S 181.975 Axial†	836.7	753.8	977.52 ug/L	977.52 ppb	15:58:08
2	Sb 206.836†	1464.0	1383.0	504.05 ug/L	504.05 ppb	15:58:08
2	Se 196.026†	854.7	859.5	508.77 ug/L	508.77 ppb	15:58:08
2	Si 251.611†	79331.3	76656.4	2408.6 ug/L	2408.6 ppb	15:57:48
2	Sn 189.927†	2746.9	2641.7	488.66 ug/L	488.66 ppb	15:58:08
2	Ti 334.940†	296484.6	290579.0	481.80 ug/L	481.80 ppb	15:57:48
2	Tl 190.801†	1557.4	1539.3	499.32 ug/L	499.32 ppb	15:58:08
2	U 409.014†	11817.1	15090.7	483.24 ug/L	483.24 ppb	15:57:48
2	V 292.402†	62664.7	62849.7	494.11 ug/L	494.11 ppb	15:57:48
2	Zn 213.857†	51221.5	49062.5	485.52 ug/L	485.52 ppb	15:57:48
2	SiO2†	79149.3	76553.7	5122.5 ug/L	5122.5 ppb	15:58:49
3	Sc Radial	4045.8	4045.8	102 %		15:56:44
3	Y RADIAL	4219.3	4219.3	102.1 %		15:56:44
3	Al 396.153Radial†	4570.0	4632.9	4770.6 ug/L	4770.6 ppb	15:56:44
3	Ca 317.933Radial†	2580.3	2511.5	4876.9 ug/L	4876.9 ppb	15:57:04
3	Fe 238.204 Radial†	462.1	443.1	4875.2 ug/L	4875.2 ppb	15:57:04
3	K 766.490 Radial†	25799.2	22145.2	4792.0 ug/L	4792.0 ppb	15:56:44
3	Mg 279.077 IEC†	133.9	130.2	5088.9 ug/L	5088.9 ppb	15:57:04
3	Na 589.592 Radial†	27480.7	27109.4	9508.5 ug/L	9508.5 ppb	15:56:44
3	Sr 421.552†	58833.6	57704.8	479.68 ug/L	479.68 ppb	15:56:44
3	Sc 361.383	837514.0	837514.0	105.25 %		15:58:14
3	Y 371.029	668329.3	668329.3	103.94 %		15:58:14
3	Ag 328.068†	97534.5	92485.4	477.39 ug/L	477.39 ppb	15:58:19
3	As 188.979†	1158.9	1128.8	482.10 ug/L	482.10 ppb	15:58:39
3	B 249.677†	20821.9	19725.6	468.45 ug/L	468.45 ppb	15:58:19
3	Ba 233.527†	60079.9	57077.7	480.34 ug/L	480.34 ppb	15:58:19
3	Be 313.107†	1364602.4	1300797.1	488.13 ug/L	488.13 ppb	15:58:14
3	Cd 226.502†	41117.4	39275.8	484.42 ug/L	484.42 ppb	15:58:19
3	Co 228.616†	23958.7	22842.5	481.54 ug/L	481.54 ppb	15:58:19
3	Cr 267.716†	41131.5	38383.4	475.11 ug/L	475.11 ppb	15:58:19
3	Cu 324.752†	166468.2	149848.6	466.23 ug/L	466.23 ppb	15:58:19
3	Mn 257.610†	442016.0	419424.2	487.68 ug/L	487.68 ppb	15:58:14
3	Mo 202.031†	6401.6	6061.3	470.26 ug/L	470.26 ppb	15:58:39
3	Ni 231.604†	19079.0	18036.1	481.79 ug/L	481.79 ppb	15:58:19
3	P 214.914†	4800.1	4317.4	2273.4 ug/L	2273.4 ppb	15:58:39
3	Pb 220.353†	3811.6	3637.5	471.80 ug/L	471.80 ppb	15:58:39
3	S 181.975 Axial†	828.7	725.7	940.92 ug/L	940.92 ppb	15:58:39
3	Sb 206.836†	1443.3	1327.4	483.95 ug/L	483.95 ppb	15:58:39
3	Se 196.026†	861.4	844.9	501.15 ug/L	501.15 ppb	15:58:39
3	Si 251.611†	79549.9	74917.3	2353.9 ug/L	2353.9 ppb	15:58:19
3	Sn 189.927†	2731.3	2559.4	473.45 ug/L	473.45 ppb	15:58:39
3	Ti 334.940†	296967.6	283762.1	470.52 ug/L	470.52 ppb	15:58:19
3	Tl 190.801†	1541.3	1485.8	482.06 ug/L	482.06 ppb	15:58:39
3	U 409.014†	12044.0	15016.3	480.85 ug/L	480.85 ppb	15:58:19
3	V 292.402†	62986.1	61617.2	484.33 ug/L	484.33 ppb	15:58:19
3	Zn 213.857†	51405.3	47980.2	474.75 ug/L	474.75 ppb	15:58:19
3	SiO2†	79081.3	74546.8	4988.3 ug/L	4988.3 ppb	15:58:55

-----  
Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	825803.9	103.78 %	1.349			1.30%
Sc Radial	4155.4	105 %	3.0			2.89%
Y 371.029	659715.9	102.60 %	1.216			1.19%
Y RADIAL	4303.2	104.2 %	2.62			2.51%
Ag 328.068†	93639.5	483.30 ug/L	5.415	483.30 ppb	5.415	1.12%

QC value within limits for Ag 328.068 Recovery = 96.66%							
Al 396.153Radial†	4506.4	4639.4 ug/L	221.77	4639.4 ppb	221.77	4.78%	
QC value within limits for Al 396.153Radial Recovery = 92.79%							
As 188.979†	1146.1	489.43 ug/L	6.415	489.43 ppb	6.415	1.31%	
QC value within limits for As 188.979 Recovery = 97.89%							
B 249.677†	19920.5	473.10 ug/L	4.160	473.10 ppb	4.160	0.88%	
QC value within limits for B 249.677 Recovery = 94.62%							
Ba 233.527†	57751.3	486.00 ug/L	5.488	486.00 ppb	5.488	1.13%	
QC value within limits for Ba 233.527 Recovery = 97.20%							
Be 313.107†	1296836.9	486.66 ug/L	1.404	486.66 ppb	1.404	0.29%	
QC value within limits for Be 313.107 Recovery = 97.33%							
Ca 317.933Radial†	2460.6	4778.1 ug/L	139.68	4778.1 ppb	139.68	2.92%	
QC value within limits for Ca 317.933Radial Recovery = 95.56%							
Cd 226.502†	39685.2	489.48 ug/L	4.965	489.48 ppb	4.965	1.01%	
QC value within limits for Cd 226.502 Recovery = 97.90%							
Co 228.616†	23122.8	487.45 ug/L	5.972	487.45 ppb	5.972	1.23%	
QC value within limits for Co 228.616 Recovery = 97.49%							
Cr 267.716†	38839.6	480.75 ug/L	5.504	480.75 ppb	5.504	1.14%	
QC value within limits for Cr 267.716 Recovery = 96.15%							
Cu 324.752†	151912.6	472.64 ug/L	5.815	472.64 ppb	5.815	1.23%	
QC value within limits for Cu 324.752 Recovery = 94.53%							
Fe 238.204 Radial†	433.9	4774.3 ug/L	147.87	4774.3 ppb	147.87	3.10%	
QC value within limits for Fe 238.204 Radial Recovery = 95.49%							
K 766.490 Radial†	21437.1	4638.7 ug/L	248.99	4638.7 ppb	248.99	5.37%	
QC value within limits for K 766.490 Radial Recovery = 92.77%							
Mg 279.077 IEC†	126.9	4961.0 ug/L	111.71	4961.0 ppb	111.71	2.25%	
QC value within limits for Mg 279.077 IEC Recovery = 99.22%							
Mn 257.610†	419076.1	487.27 ug/L	0.492	487.27 ppb	0.492	0.10%	
QC value within limits for Mn 257.610 Recovery = 97.45%							
Mo 202.031†	6166.0	478.37 ug/L	7.137	478.37 ppb	7.137	1.49%	
QC value within limits for Mo 202.031 Recovery = 95.67%							
Na 589.592 Radial†	26350.9	9242.4 ug/L	455.24	9242.4 ppb	455.24	4.93%	
QC value within limits for Na 589.592 Radial Recovery = 92.42%							
Ni 231.604†	18236.3	487.14 ug/L	5.114	487.14 ppb	5.114	1.05%	
QC value within limits for Ni 231.604 Recovery = 97.43%							
P 214.914†	4405.2	2320.3 ug/L	42.86	2320.3 ppb	42.86	1.85%	
QC value within limits for P 214.914 Recovery = 92.81%							
Pb 220.353†	3715.5	481.88 ug/L	9.274	481.88 ppb	9.274	1.92%	
QC value within limits for Pb 220.353 Recovery = 96.38%							
S 181.975 Axial†	739.2	958.47 ug/L	18.345	958.47 ppb	18.345	1.91%	
QC value within limits for S 181.975 Axial Recovery = 95.85%							
Sb 206.836†	1354.2	493.68 ug/L	10.063	493.68 ppb	10.063	2.04%	
QC value within limits for Sb 206.836 Recovery = 98.74%							
Se 196.026†	852.2	505.03 ug/L	3.809	505.03 ppb	3.809	0.75%	
QC value within limits for Se 196.026 Recovery = 101.01%							
Si 251.611†	75867.2	2383.8 ug/L	27.65	2383.8 ppb	27.65	1.16%	
QC value within limits for Si 251.611 Recovery = 95.35%							
Sn 189.927†	2597.9	480.57 ug/L	7.649	480.57 ppb	7.649	1.59%	
QC value within limits for Sn 189.927 Recovery = 96.11%							
Sr 421.552†	56182.7	467.02 ug/L	23.033	467.02 ppb	23.033	4.93%	
QC value within limits for Sr 421.552 Recovery = 93.40%							
Ti 334.940†	287471.3	476.66 ug/L	5.709	476.66 ppb	5.709	1.20%	
QC value within limits for Ti 334.940 Recovery = 95.33%							
Tl 190.801†	1514.0	491.16 ug/L	8.669	491.16 ppb	8.669	1.76%	
QC value within limits for Tl 190.801 Recovery = 98.23%							
U 409.014†	15076.5	482.78 ug/L	1.748	482.78 ppb	1.748	0.36%	
QC value within limits for U 409.014 Recovery = 96.56%							
V 292.402†	62281.4	489.61 ug/L	4.934	489.61 ppb	4.934	1.01%	
QC value within limits for V 292.402 Recovery = 97.92%							
Zn 213.857†	48554.9	480.47 ug/L	5.415	480.47 ppb	5.415	1.13%	
QC value within limits for Zn 213.857 Recovery = 96.09%							
SiO2†	75778.1	5070.7 ug/L	72.14	5070.7 ppb	72.14	1.42%	
QC value within limits for SiO2 Recovery = 94.82%							

All analyte(s) passed QC.

Sequence No.: 2

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 2/17/2010 16:01:05

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	4140.3	4140.3	104 %		16:02:56
1	Y RADIAL	4293.2	4293.2	103.9 %		16:02:56
1	Al 396.153Radial†	-126.3	20.6	21.246 ug/L	21.246 ppb	16:02:56
1	Ca 317.933Radial†	21.3	-3.8	-7.3127 ug/L	-7.3127 ppb	16:03:16
1	Fe 238.204 Radial†	12.8	1.3	14.037 ug/L	14.037 ppb	16:03:16
1	K 766.490 Radial†	3158.0	-175.5	-38.014 ug/L	-38.014 ppb	16:02:56
1	Mg 279.077 IEC†	1.6	0.2	6.8071 ug/L	6.8071 ppb	16:03:16
1	Na 589.592 Radial†	-143.8	-34.4	-12.076 ug/L	-12.076 ppb	16:02:56
1	Sr 421.552†	41.8	-71.5	-0.5946 ug/L	-0.5946 ppb	16:02:56
1	Sc 361.383	803720.5	803720.5	101.00 %		16:04:13
1	Y 371.029	652264.3	652264.3	101.44 %		16:04:13
1	Ag 328.068†	277.4	89.0	0.4594 ug/L	0.4594 ppb	16:04:13
1	As 188.979†	-28.6	-0.7	-0.2982 ug/L	-0.2982 ppb	16:04:33
1	B 249.677†	77.8	19.0	0.4488 ug/L	0.4488 ppb	16:04:13
1	Ba 233.527†	69.5	62.4	0.5251 ug/L	0.5251 ppb	16:04:33
1	Be 313.107†	-3692.5	582.5	0.2189 ug/L	0.2189 ppb	16:04:13
1	Cd 226.502†	-156.9	53.3	0.6569 ug/L	0.6569 ppb	16:04:33
1	Co 228.616†	-58.4	20.6	0.4409 ug/L	0.4409 ppb	16:04:33
1	Cr 267.716†	425.9	-275.5	-3.4072 ug/L	-3.4072 ppb	16:04:33
1	Cu 324.752†	8394.1	-8.0	-0.0262 ug/L	-0.0262 ppb	16:04:13
1	Mn 257.610†	845.8	286.0	0.3335 ug/L	0.3335 ppb	16:04:33
1	Mo 202.031†	52.0	30.4	2.3593 ug/L	2.3593 ppb	16:04:33
1	Ni 231.604†	115.0	22.3	0.5956 ug/L	0.5956 ppb	16:04:33
1	P 214.914†	253.9	8.1	4.4056 ug/L	4.4056 ppb	16:04:33
1	Pb 220.353†	-23.8	-7.6	-0.9684 ug/L	-0.9684 ppb	16:04:33
1	S 181.975 Axial†	59.1	-3.2	-4.1286 ug/L	-4.1286 ppb	16:04:33
1	Sb 206.836†	52.9	8.4	2.9519 ug/L	2.9519 ppb	16:04:33
1	Se 196.026†	-24.2	2.5	1.4825 ug/L	1.4825 ppb	16:04:33
1	Si 251.611†	575.0	-96.7	-3.0741 ug/L	-3.0741 ppb	16:04:33
1	Sn 189.927†	19.3	-16.6	-3.0726 ug/L	-3.0726 ppb	16:04:33
1	Ti 334.940†	-1410.3	206.0	0.3399 ug/L	0.3399 ppb	16:04:13
1	Tl 190.801†	-15.7	5.8	1.8744 ug/L	1.8744 ppb	16:04:33
1	U 409.014†	-3496.1	111.4	3.5848 ug/L	3.5848 ppb	16:04:13
1	V 292.402†	-1749.7	39.5	0.3460 ug/L	0.3460 ppb	16:04:13
1	Zn 213.857†	968.3	96.8	0.9609 ug/L	0.9609 ppb	16:04:33
1	SiO2†	608.6	11.3	0.6964 ug/L	0.6964 ppb	16:05:29
2	Sc Radial	4099.5	4099.5	103 %		16:03:21
2	Y RADIAL	4270.1	4270.1	103.4 %		16:03:21
2	Al 396.153Radial†	-143.0	3.2	3.3110 ug/L	3.3110 ppb	16:03:21
2	Ca 317.933Radial†	27.3	2.2	4.2668 ug/L	4.2668 ppb	16:03:41
2	Fe 238.204 Radial†	13.9	2.4	26.389 ug/L	26.389 ppb	16:03:41
2	K 766.490 Radial†	3304.6	-3.1	-0.6670 ug/L	-0.6670 ppb	16:03:21
2	Mg 279.077 IEC†	1.6	0.2	9.2561 ug/L	9.2561 ppb	16:03:41
2	Na 589.592 Radial†	-135.3	-27.5	-9.6612 ug/L	-9.6612 ppb	16:03:21
2	Sr 421.552†	44.9	-68.1	-0.5661 ug/L	-0.5661 ppb	16:03:21
2	Sc 361.383	813455.9	813455.9	102.22 %		16:04:39
2	Y 371.029	659478.1	659478.1	102.56 %		16:04:39
2	Ag 328.068†	141.7	-47.0	-0.2289 ug/L	-0.2289 ppb	16:04:39
2	As 188.979†	-33.4	-5.0	-2.1046 ug/L	-2.1046 ppb	16:04:59
2	B 249.677†	-23.3	-80.9	-1.9342 ug/L	-1.9342 ppb	16:04:39
2	Ba 233.527†	81.1	72.9	0.6152 ug/L	0.6152 ppb	16:04:59
2	Be 313.107†	-3611.0	706.0	0.2648 ug/L	0.2648 ppb	16:04:39
2	Cd 226.502†	-175.0	37.5	0.4594 ug/L	0.4594 ppb	16:04:59
2	Co 228.616†	-63.5	16.3	0.3477 ug/L	0.3477 ppb	16:04:59
2	Cr 267.716†	432.2	-274.4	-3.3901 ug/L	-3.3901 ppb	16:04:59
2	Cu 324.752†	8583.4	77.6	0.2426 ug/L	0.2426 ppb	16:04:39
2	Mn 257.610†	806.9	237.9	0.2787 ug/L	0.2787 ppb	16:04:59
2	Mo 202.031†	34.4	12.6	0.9766 ug/L	0.9766 ppb	16:04:59
2	Ni 231.604†	91.4	-2.2	-0.0580 ug/L	-0.0580 ppb	16:04:59

2	P 214.914†	248.1	-0.6	-0.4312 ug/L	-0.4312 ppb	16:04:59
2	Pb 220.353†	-57.6	-40.3	-5.2138 ug/L	-5.2138 ppb	16:04:59
2	S 181.975 Axial†	48.1	-14.6	-18.957 ug/L	-18.957 ppb	16:04:59
2	Sb 206.836†	45.8	0.8	0.2805 ug/L	0.2805 ppb	16:04:59
2	Se 196.026†	-22.8	4.1	2.4524 ug/L	2.4524 ppb	16:04:59
2	Si 251.611†	556.3	-121.7	-3.8459 ug/L	-3.8459 ppb	16:04:59
2	Sn 189.927†	27.8	-8.5	-1.5739 ug/L	-1.5739 ppb	16:04:59
2	Ti 334.940†	-1515.3	120.0	0.1998 ug/L	0.1998 ppb	16:04:39
2	Tl 190.801†	-14.4	7.2	2.3344 ug/L	2.3344 ppb	16:04:59
2	U 409.014†	-3633.3	18.6	0.6029 ug/L	0.6029 ppb	16:04:39
2	V 292.402†	-1653.0	154.8	1.2136 ug/L	1.2136 ppb	16:04:39
2	Zn 213.857†	962.6	79.7	0.7925 ug/L	0.7925 ppb	16:04:59
2	SiO2†	568.4	-35.2	-2.3905 ug/L	-2.3905 ppb	16:05:34
3	Sc Radial	4005.1	4005.1	101 %		16:03:46
3	Y RADIAL	4166.4	4166.4	100.9 %		16:03:46
3	Al 396.153Radial†	-150.7	-7.7	-7.9970 ug/L	-7.9970 ppb	16:03:46
3	Ca 317.933Radial†	18.2	-6.2	-12.106 ug/L	-12.106 ppb	16:04:06
3	Fe 238.204 Radial†	15.4	4.3	46.924 ug/L	46.924 ppb	16:04:06
3	K 766.490 Radial†	3338.3	105.9	22.942 ug/L	22.942 ppb	16:03:46
3	Mg 279.077 IEC†	3.4	2.1	80.686 ug/L	80.686 ppb	16:04:06
3	Na 589.592 Radial†	-84.6	19.7	6.9213 ug/L	6.9213 ppb	16:03:46
3	Sr 421.552†	39.1	-72.8	-0.6052 ug/L	-0.6052 ppb	16:03:46
3	Sc 361.383	821246.6	821246.6	103.20 %		16:05:04
3	Y 371.029	664075.7	664075.7	103.28 %		16:05:04
3	Ag 328.068†	171.0	-20.0	-0.0911 ug/L	-0.0911 ppb	16:05:04
3	As 188.979†	-30.3	-1.7	-0.7138 ug/L	-0.7138 ppb	16:05:24
3	B 249.677†	22.2	-36.5	-0.8794 ug/L	-0.8794 ppb	16:05:04
3	Ba 233.527†	51.7	43.6	0.3678 ug/L	0.3678 ppb	16:05:24
3	Be 313.107†	-3859.5	498.8	0.1869 ug/L	0.1869 ppb	16:05:04
3	Cd 226.502†	-175.2	38.9	0.4753 ug/L	0.4753 ppb	16:05:24
3	Co 228.616†	-57.0	23.2	0.4916 ug/L	0.4916 ppb	16:05:24
3	Cr 267.716†	442.0	-268.9	-3.3248 ug/L	-3.3248 ppb	16:05:24
3	Cu 324.752†	8589.5	3.9	0.0124 ug/L	0.0124 ppb	16:05:04
3	Mn 257.610†	759.3	184.3	0.2155 ug/L	0.2155 ppb	16:05:24
3	Mo 202.031†	26.8	4.9	0.3801 ug/L	0.3801 ppb	16:05:24
3	Ni 231.604†	99.1	4.4	0.1186 ug/L	0.1186 ppb	16:05:24
3	P 214.914†	253.2	2.0	1.0336 ug/L	1.0336 ppb	16:05:24
3	Pb 220.353†	-21.5	-4.9	-0.6378 ug/L	-0.6378 ppb	16:05:24
3	S 181.975 Axial†	52.4	-10.9	-14.174 ug/L	-14.174 ppb	16:05:24
3	Sb 206.836†	49.7	4.2	1.4598 ug/L	1.4598 ppb	16:05:24
3	Se 196.026†	-24.3	3.0	1.8471 ug/L	1.8471 ppb	16:05:24
3	Si 251.611†	569.3	-114.3	-3.6040 ug/L	-3.6040 ppb	16:05:24
3	Sn 189.927†	26.1	-10.4	-1.9245 ug/L	-1.9245 ppb	16:05:24
3	Ti 334.940†	-1609.6	42.7	0.0620 ug/L	0.0620 ppb	16:05:04
3	Tl 190.801†	-20.2	1.8	0.5726 ug/L	0.5726 ppb	16:05:24
3	U 409.014†	-3560.1	123.3	3.9639 ug/L	3.9639 ppb	16:05:04
3	V 292.402†	-1828.4	0.3	0.0110 ug/L	0.0110 ppb	16:05:04
3	Zn 213.857†	960.8	69.1	0.6820 ug/L	0.6820 ppb	16:05:24
3	SiO2†	566.6	-42.2	-2.8444 ug/L	-2.8444 ppb	16:05:39

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	812807.7	102.14 %		1.103			1.08%
Sc Radial	4081.6	103 %		1.7			1.70%
Y 371.029	658606.0	102.43 %		0.926			0.90%
Y RADIAL	4243.3	102.7 %		1.63			1.59%
Ag 328.068†	7.3	0.0465 ug/L		0.36419	0.0465 ppb	0.36419	783.55%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	5.4	5.5200 ug/L		14.74604	5.5200 ppb	14.74604	267.14%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-2.5	-1.0389 ug/L		0.94602	-1.0389 ppb	0.94602	91.06%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	-32.8	-0.7883 ug/L		1.19413	-0.7883 ppb	1.19413	151.48%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	59.6	0.5027 ug/L		0.12522	0.5027 ppb	0.12522	24.91%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	595.8	0.2235 ug/L		0.03915	0.2235 ppb	0.03915	17.51%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	-2.6	-5.0505 ug/L		8.41736	-5.0505 ppb	8.41736	166.66%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated									
Cd 226.502†	43.2	0.5305 ug/L	0.10976	0.5305 ppb	0.10976	20.69%			
QC value within limits for Cd 226.502 Recovery = Not calculated									
Co 228.616†	20.1	0.4267 ug/L	0.07299	0.4267 ppb	0.07299	17.10%			
QC value within limits for Co 228.616 Recovery = Not calculated									
Cr 267.716†	-272.9	-3.3740 ug/L	0.04347	-3.3740 ppb	0.04347	1.29%			
QC value within limits for Cr 267.716 Recovery = Not calculated									
Cu 324.752†	24.5	0.0763 ug/L	0.14533	0.0763 ppb	0.14533	190.52%			
QC value within limits for Cu 324.752 Recovery = Not calculated									
Fe 238.204 Radial†	2.7	29.117 ug/L	16.6123	29.117 ppb	16.6123	57.05%			
QC value within limits for Fe 238.204 Radial Recovery = Not calculated									
K 766.490 Radial†	-24.2	-5.2465 ug/L	30.73519	-5.2465 ppb	30.73519	585.82%			
QC value within limits for K 766.490 Radial Recovery = Not calculated									
Mg 279.077 IEC†	0.8	32.250 ug/L	41.9649	32.250 ppb	41.9649	130.12%			
QC value within limits for Mg 279.077 IEC Recovery = Not calculated									
Mn 257.610†	236.1	0.2759 ug/L	0.05905	0.2759 ppb	0.05905	21.40%			
QC value within limits for Mn 257.610 Recovery = Not calculated									
Mo 202.031†	16.0	1.2386 ug/L	1.01527	1.2386 ppb	1.01527	81.97%			
QC value within limits for Mo 202.031 Recovery = Not calculated									
Na 589.592 Radial†	-14.1	-4.9387 ug/L	10.34174	-4.9387 ppb	10.34174	209.40%			
QC value within limits for Na 589.592 Radial Recovery = Not calculated									
Ni 231.604†	8.2	0.2187 ug/L	0.33811	0.2187 ppb	0.33811	154.57%			
QC value within limits for Ni 231.604 Recovery = Not calculated									
P 214.914†	3.2	1.6693 ug/L	2.48025	1.6693 ppb	2.48025	148.58%			
QC value within limits for P 214.914 Recovery = Not calculated									
Pb 220.353†	-17.6	-2.2733 ug/L	2.55188	-2.2733 ppb	2.55188	112.25%			
QC value within limits for Pb 220.353 Recovery = Not calculated									
S 181.975 Axial†	-9.6	-12.420 ug/L	7.5681	-12.420 ppb	7.5681	60.94%			
QC value within limits for S 181.975 Axial Recovery = Not calculated									
Sb 206.836†	4.5	1.5641 ug/L	1.33873	1.5641 ppb	1.33873	85.59%			
QC value within limits for Sb 206.836 Recovery = Not calculated									
Se 196.026†	3.2	1.9273 ug/L	0.48987	1.9273 ppb	0.48987	25.42%			
QC value within limits for Se 196.026 Recovery = Not calculated									
Si 251.611†	-110.9	-3.5080 ug/L	0.39474	-3.5080 ppb	0.39474	11.25%			
QC value within limits for Si 251.611 Recovery = Not calculated									
Sn 189.927†	-11.8	-2.1903 ug/L	0.78395	-2.1903 ppb	0.78395	35.79%			
QC value within limits for Sn 189.927 Recovery = Not calculated									
Sr 421.552†	-70.8	-0.5886 ug/L	0.02025	-0.5886 ppb	0.02025	3.44%			
QC value within limits for Sr 421.552 Recovery = Not calculated									
Ti 334.940†	122.9	0.2006 ug/L	0.13892	0.2006 ppb	0.13892	69.27%			
QC value within limits for Ti 334.940 Recovery = Not calculated									
Tl 190.801†	4.9	1.5938 ug/L	0.91382	1.5938 ppb	0.91382	57.34%			
QC value within limits for Tl 190.801 Recovery = Not calculated									
U 409.014†	84.4	2.7172 ug/L	1.84082	2.7172 ppb	1.84082	67.75%			
QC value within limits for U 409.014 Recovery = Not calculated									
V 292.402†	64.9	0.5235 ug/L	0.62063	0.5235 ppb	0.62063	118.55%			
QC value within limits for V 292.402 Recovery = Not calculated									
Zn 213.857†	81.9	0.8118 ug/L	0.14048	0.8118 ppb	0.14048	17.30%			
QC value within limits for Zn 213.857 Recovery = Not calculated									
SiO2†	-22.0	-1.5128 ug/L	1.92664	-1.5128 ppb	1.92664	127.35%			
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: 2/17/2010 17:15:51

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	4051.0	4051.0	102 %		17:17:42
1	Y RADIAL	4206.0	4206.0	101.8 %		17:17:42
1	Al 396.153Radial†	4644.4	4700.1	4839.2 ug/L	4839.2 ppb	17:17:42
1	Ca 317.933Radial†	2616.9	2544.1	4940.3 ug/L	4940.3 ppb	17:18:02
1	Fe 238.204 Radial†	470.5	450.7	4958.9 ug/L	4958.9 ppb	17:18:02
1	K 766.490 Radial†	25766.2	22080.1	4777.7 ug/L	4777.7 ppb	17:17:42
1	Mg 279.077 IEC†	129.8	126.0	4926.1 ug/L	4926.1 ppb	17:18:02
1	Na 589.592 Radial†	28630.6	28203.0	9892.0 ug/L	9892.0 ppb	17:17:42
1	Sr 421.552†	60544.4	59309.2	493.01 ug/L	493.01 ppb	17:17:42
1	Sc 361.383	819251.6	819251.6	102.95 %		17:19:01
1	Y 371.029	655585.0	655585.0	101.96 %		17:19:01
1	Ag 328.068†	97281.3	94305.3	486.79 ug/L	486.79 ppb	17:19:01
1	As 188.979†	1165.1	1159.3	495.18 ug/L	495.18 ppb	17:19:21
1	B 249.677†	20104.3	19469.6	462.31 ug/L	462.31 ppb	17:19:01
1	Ba 233.527†	59830.5	58108.0	489.01 ug/L	489.01 ppb	17:19:01
1	Be 313.107†	1331810.1	1297847.6	487.07 ug/L	487.07 ppb	17:19:01
1	Cd 226.502†	40087.2	39146.0	482.81 ug/L	482.81 ppb	17:19:21
1	Co 228.616†	23707.4	23105.8	487.09 ug/L	487.09 ppb	17:19:21
1	Cr 267.716†	40737.1	38871.5	481.16 ug/L	481.16 ppb	17:19:01
1	Cu 324.752†	167661.0	154532.9	480.81 ug/L	480.81 ppb	17:19:01
1	Mn 257.610†	433468.4	420483.6	488.93 ug/L	488.93 ppb	17:19:01
1	Mo 202.031†	6511.7	6303.8	489.07 ug/L	489.07 ppb	17:19:21
1	Ni 231.604†	18840.4	18208.4	486.40 ug/L	486.40 ppb	17:19:21
1	P 214.914†	4836.0	4454.0	2345.3 ug/L	2345.3 ppb	17:19:21
1	Pb 220.353†	3876.9	3781.7	490.48 ug/L	490.48 ppb	17:19:21
1	S 181.975 Axial†	820.7	735.5	953.69 ug/L	953.69 ppb	17:19:21
1	Sb 206.836†	1455.0	1369.3	499.18 ug/L	499.18 ppb	17:19:21
1	Se 196.026†	862.3	864.0	512.42 ug/L	512.42 ppb	17:19:21
1	Si 251.611†	79502.3	76556.0	2405.3 ug/L	2405.3 ppb	17:19:01
1	Sn 189.927†	2724.9	2611.1	483.01 ug/L	483.01 ppb	17:19:21
1	Ti 334.940†	303626.9	296520.2	491.70 ug/L	491.70 ppb	17:19:01
1	Tl 190.801†	1558.7	1535.4	498.18 ug/L	498.18 ppb	17:19:21
1	U 409.014†	11493.1	14736.4	471.83 ug/L	471.83 ppb	17:19:01
1	V 292.402†	62640.2	62615.3	492.29 ug/L	492.29 ppb	17:19:01
1	Zn 213.857†	51261.0	48928.7	484.17 ug/L	484.17 ppb	17:19:01
1	SiO2†	81753.4	78817.2	5274.3 ug/L	5274.3 ppb	17:20:21
2	Sc Radial	4075.1	4075.1	102 %		17:18:07
2	Y RADIAL	4226.2	4226.2	102.3 %		17:18:07
2	Al 396.153Radial†	4665.7	4694.0	4833.1 ug/L	4833.1 ppb	17:18:07
2	Ca 317.933Radial†	2619.5	2531.5	4915.8 ug/L	4915.8 ppb	17:18:27
2	Fe 238.204 Radial†	465.0	442.6	4869.7 ug/L	4869.7 ppb	17:18:27
2	K 766.490 Radial†	25940.5	22100.8	4782.2 ug/L	4782.2 ppb	17:18:07
2	Mg 279.077 IEC†	133.7	129.1	5046.0 ug/L	5046.0 ppb	17:18:27
2	Na 589.592 Radial†	28483.6	27893.7	9783.5 ug/L	9783.5 ppb	17:18:07
2	Sr 421.552†	60638.6	59050.2	490.86 ug/L	490.86 ppb	17:18:07
2	Sc 361.383	825429.4	825429.4	103.73 %		17:19:29
2	Y 371.029	660497.7	660497.7	102.72 %		17:19:29
2	Ag 328.068†	98034.8	94324.5	486.87 ug/L	486.87 ppb	17:19:29
2	As 188.979†	1154.7	1140.8	487.34 ug/L	487.34 ppb	17:19:49
2	B 249.677†	20426.6	19634.2	466.27 ug/L	466.27 ppb	17:19:29
2	Ba 233.527†	60299.2	58124.9	489.15 ug/L	489.15 ppb	17:19:29
2	Be 313.107†	1345628.8	1301487.7	488.44 ug/L	488.44 ppb	17:19:29
2	Cd 226.502†	40100.8	38867.6	479.38 ug/L	479.38 ppb	17:19:49
2	Co 228.616†	23662.0	22889.7	482.52 ug/L	482.52 ppb	17:19:49
2	Cr 267.716†	41127.1	38951.3	482.15 ug/L	482.15 ppb	17:19:29
2	Cu 324.752†	169190.1	154788.2	481.60 ug/L	481.60 ppb	17:19:29
2	Mn 257.610†	436805.2	420549.3	488.99 ug/L	488.99 ppb	17:19:29
2	Mo 202.031†	6505.7	6250.7	484.94 ug/L	484.94 ppb	17:19:49
2	Ni 231.604†	18834.6	18065.9	482.59 ug/L	482.59 ppb	17:19:49

2	P 214.914†	4838.0	4420.7	2327.0 ug/L	2327.0 ppb	17:19:49
2	Pb 220.353†	3889.2	3765.3	488.37 ug/L	488.37 ppb	17:19:49
2	S 181.975 Axial†	819.7	728.6	944.69 ug/L	944.69 ppb	17:19:49
2	Sb 206.836†	1452.8	1356.6	494.61 ug/L	494.61 ppb	17:19:49
2	Se 196.026†	850.7	846.6	502.11 ug/L	502.11 ppb	17:19:49
2	Si 251.611†	80174.1	76625.6	2407.6 ug/L	2407.6 ppb	17:19:29
2	Sn 189.927†	2733.1	2599.1	480.80 ug/L	480.80 ppb	17:19:49
2	Ti 334.940†	306295.8	296885.8	492.30 ug/L	492.30 ppb	17:19:29
2	Tl 190.801†	1535.8	1501.9	487.40 ug/L	487.40 ppb	17:19:49
2	U 409.014†	11499.9	14659.3	469.36 ug/L	469.36 ppb	17:19:29
2	V 292.402†	63392.5	62885.3	494.33 ug/L	494.33 ppb	17:19:29
2	Zn 213.857†	51652.3	48933.3	484.25 ug/L	484.25 ppb	17:19:29
2	SiO2†	80059.4	76589.7	5124.9 ug/L	5124.9 ppb	17:20:27
3	Sc Radial	4154.1	4154.1	104 %		17:18:33
3	Y RADIAL	4310.7	4310.7	104.3 %		17:18:33
3	Al 396.153Radial†	4792.7	4728.9	4869.0 ug/L	4869.0 ppb	17:18:33
3	Ca 317.933Radial†	2614.1	2477.7	4811.3 ug/L	4811.3 ppb	17:18:53
3	Fe 238.204 Radial†	467.0	435.9	4796.3 ug/L	4796.3 ppb	17:18:53
3	K 766.490 Radial†	26217.4	21884.0	4735.3 ug/L	4735.3 ppb	17:18:33
3	Mg 279.077 IEC†	128.7	121.8	4760.9 ug/L	4760.9 ppb	17:18:53
3	Na 589.592 Radial†	29056.0	27912.5	9790.2 ug/L	9790.2 ppb	17:18:33
3	Sr 421.552†	61837.8	59071.9	491.04 ug/L	491.04 ppb	17:18:33
3	Sc 361.383	821974.2	821974.2	103.30 %		17:19:56
3	Y 371.029	658253.2	658253.2	102.37 %		17:19:56
3	Ag 328.068†	97500.4	94204.4	486.22 ug/L	486.22 ppb	17:19:56
3	As 188.979†	1160.4	1151.0	491.62 ug/L	491.62 ppb	17:20:16
3	B 249.677†	20345.6	19638.5	466.37 ug/L	466.37 ppb	17:19:56
3	Ba 233.527†	60018.4	58097.3	488.91 ug/L	488.91 ppb	17:19:56
3	Be 313.107†	1339659.8	1301162.1	488.31 ug/L	488.31 ppb	17:19:56
3	Cd 226.502†	40364.7	39285.7	484.55 ug/L	484.55 ppb	17:20:16
3	Co 228.616†	23835.6	23153.7	488.10 ug/L	488.10 ppb	17:20:16
3	Cr 267.716†	40887.3	38885.8	481.33 ug/L	481.33 ppb	17:19:56
3	Cu 324.752†	168515.1	154820.4	481.70 ug/L	481.70 ppb	17:19:56
3	Mn 257.610†	434507.4	420094.8	488.47 ug/L	488.47 ppb	17:19:56
3	Mo 202.031†	6540.3	6310.5	489.57 ug/L	489.57 ppb	17:20:16
3	Ni 231.604†	19001.1	18303.4	488.93 ug/L	488.93 ppb	17:20:16
3	P 214.914†	4870.0	4471.3	2354.8 ug/L	2354.8 ppb	17:20:16
3	Pb 220.353†	3905.9	3797.3	492.53 ug/L	492.53 ppb	17:20:16
3	S 181.975 Axial†	826.5	738.5	957.50 ug/L	957.50 ppb	17:20:16
3	Sb 206.836†	1462.8	1372.2	500.26 ug/L	500.26 ppb	17:20:16
3	Se 196.026†	861.0	860.0	509.61 ug/L	509.61 ppb	17:20:16
3	Si 251.611†	79761.4	76551.0	2405.2 ug/L	2405.2 ppb	17:19:56
3	Sn 189.927†	2747.2	2623.8	485.37 ug/L	485.37 ppb	17:20:16
3	Ti 334.940†	304730.2	296611.4	491.85 ug/L	491.85 ppb	17:19:56
3	Tl 190.801†	1550.7	1522.6	494.04 ug/L	494.04 ppb	17:20:16
3	U 409.014†	11549.9	14754.3	472.42 ug/L	472.42 ppb	17:19:56
3	V 292.402†	62790.2	62559.1	491.88 ug/L	491.88 ppb	17:19:56
3	Zn 213.857†	51242.7	48746.2	482.35 ug/L	482.35 ppb	17:19:56
3	SiO2†	79663.5	76530.9	5120.9 ug/L	5120.9 ppb	17:20:32

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	822218.4	103.33 %	0.389			0.38%
Sc Radial	4093.4	103 %	1.4			1.32%
Y 371.029	658112.0	102.35 %	0.382			0.37%
Y RADIAL	4247.6	102.8 %	1.34			1.31%
Ag 328.068†	94278.1	486.63 ug/L	0.354	486.63 ppb	0.354	0.07%
QC value within limits for Ag 328.068 Recovery = 97.33%						
Al 396.153Radial†	4707.7	4847.1 ug/L	19.19	4847.1 ppb	19.19	0.40%
QC value within limits for Al 396.153Radial Recovery = 96.94%						
As 188.979†	1150.4	491.38 ug/L	3.925	491.38 ppb	3.925	0.80%
QC value within limits for As 188.979 Recovery = 98.28%						
B 249.677†	19580.8	464.98 ug/L	2.312	464.98 ppb	2.312	0.50%
QC value within limits for B 249.677 Recovery = 93.00%						
Ba 233.527†	58110.1	489.02 ug/L	0.120	489.02 ppb	0.120	0.02%
QC value within limits for Ba 233.527 Recovery = 97.80%						
Be 313.107†	1300165.8	487.94 ug/L	0.755	487.94 ppb	0.755	0.15%
QC value within limits for Be 313.107 Recovery = 97.59%						
Ca 317.933Radial†	2517.7	4889.1 ug/L	68.51	4889.1 ppb	68.51	1.40%

QC value within limits for Ca 317.933 Radial Recovery = 97.78%							
Cd 226.502†	39099.8	482.24 ug/L	2.630	482.24 ppb	2.630	0.55%	
QC value within limits for Cd 226.502 Recovery = 96.45%							
Co 228.616†	23049.7	485.90 ug/L	2.971	485.90 ppb	2.971	0.61%	
QC value within limits for Co 228.616 Recovery = 97.18%							
Cr 267.716†	38902.8	481.55 ug/L	0.528	481.55 ppb	0.528	0.11%	
QC value within limits for Cr 267.716 Recovery = 96.31%							
Cu 324.752†	154713.8	481.37 ug/L	0.486	481.37 ppb	0.486	0.10%	
QC value within limits for Cu 324.752 Recovery = 96.27%							
Fe 238.204 Radial†	443.1	4875.0 ug/L	81.43	4875.0 ppb	81.43	1.67%	
QC value within limits for Fe 238.204 Radial Recovery = 97.50%							
K 766.490 Radial†	22021.6	4765.1 ug/L	25.88	4765.1 ppb	25.88	0.54%	
QC value within limits for K 766.490 Radial Recovery = 95.30%							
Mg 279.077 IEC†	125.6	4911.0 ug/L	143.15	4911.0 ppb	143.15	2.91%	
QC value within limits for Mg 279.077 IEC Recovery = 98.22%							
Mn 257.610†	420375.9	488.79 ug/L	0.286	488.79 ppb	0.286	0.06%	
QC value within limits for Mn 257.610 Recovery = 97.76%							
Mo 202.031†	6288.3	487.86 ug/L	2.542	487.86 ppb	2.542	0.52%	
QC value within limits for Mo 202.031 Recovery = 97.57%							
Na 589.592 Radial†	28003.1	9821.9 ug/L	60.82	9821.9 ppb	60.82	0.62%	
QC value within limits for Na 589.592 Radial Recovery = 98.22%							
Ni 231.604†	18192.6	485.97 ug/L	3.194	485.97 ppb	3.194	0.66%	
QC value within limits for Ni 231.604 Recovery = 97.19%							
P 214.914†	4448.7	2342.3 ug/L	14.13	2342.3 ppb	14.13	0.60%	
QC value within limits for P 214.914 Recovery = 93.69%							
Pb 220.353†	3781.4	490.46 ug/L	2.079	490.46 ppb	2.079	0.42%	
QC value within limits for Pb 220.353 Recovery = 98.09%							
S 181.975 Axial†	734.2	951.96 ug/L	6.579	951.96 ppb	6.579	0.69%	
QC value within limits for S 181.975 Axial Recovery = 95.20%							
Sb 206.836†	1366.0	498.02 ug/L	2.999	498.02 ppb	2.999	0.60%	
QC value within limits for Sb 206.836 Recovery = 99.60%							
Se 196.026†	856.9	508.05 ug/L	5.329	508.05 ppb	5.329	1.05%	
QC value within limits for Se 196.026 Recovery = 101.61%							
Si 251.611†	76577.5	2406.0 ug/L	1.34	2406.0 ppb	1.34	0.06%	
QC value within limits for Si 251.611 Recovery = 96.24%							
Sn 189.927†	2611.3	483.06 ug/L	2.282	483.06 ppb	2.282	0.47%	
QC value within limits for Sn 189.927 Recovery = 96.61%							
Sr 421.552†	59143.8	491.64 ug/L	1.194	491.64 ppb	1.194	0.24%	
QC value within limits for Sr 421.552 Recovery = 98.33%							
Ti 334.940†	296672.5	491.95 ug/L	0.309	491.95 ppb	0.309	0.06%	
QC value within limits for Ti 334.940 Recovery = 98.39%							
Tl 190.801†	1519.9	493.21 ug/L	5.435	493.21 ppb	5.435	1.10%	
QC value within limits for Tl 190.801 Recovery = 98.64%							
U 409.014†	14716.7	471.20 ug/L	1.624	471.20 ppb	1.624	0.34%	
QC value within limits for U 409.014 Recovery = 94.24%							
V 292.402†	62686.6	492.83 ug/L	1.315	492.83 ppb	1.315	0.27%	
QC value within limits for V 292.402 Recovery = 98.57%							
Zn 213.857†	48869.4	483.59 ug/L	1.073	483.59 ppb	1.073	0.22%	
QC value within limits for Zn 213.857 Recovery = 96.72%							
SiO2†	77312.6	5173.3 ug/L	87.41	5173.3 ppb	87.41	1.69%	
QC value within limits for SiO2 Recovery = 96.74%							
All analyte(s) passed QC.							



Sequence No.: 14

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 2/17/2010 17:22:42

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	4054.8	4054.8	102 %		17:24:54
1	Y RADIAL	3824.6	3824.6	92.58 %		17:24:34
1	Al 396.153Radial†	-123.9	20.4	20.964 ug/L	20.964 ppb	17:24:34
1	Ca 317.933Radial†	27.5	2.7	5.3307 ug/L	5.3307 ppb	17:24:54
1	Fe 238.204 Radial†	11.4	0.1	1.6145 ug/L	1.6145 ppb	17:24:54
1	K 766.490 Radial†	3124.8	-144.1	-31.227 ug/L	-31.227 ppb	17:24:34
1	Mg 279.077 IEC†	3.5	2.1	80.942 ug/L	80.942 ppb	17:24:54
1	Na 589.592 Radial†	-80.8	24.5	8.5766 ug/L	8.5766 ppb	17:24:34
1	Sr 421.552†	108.1	-5.7	-0.0475 ug/L	-0.0475 ppb	17:24:34
1	Sc 361.383	814434.0	814434.0	102.35 %		17:25:51
1	Y 371.029	660612.5	660612.5	102.74 %		17:25:51
1	Ag 328.068†	140.7	-48.1	-0.2504 ug/L	-0.2504 ppb	17:25:51
1	As 188.979†	-37.8	-9.3	-3.9425 ug/L	-3.9425 ppb	17:26:11
1	B 249.677†	-181.0	-234.9	-5.6059 ug/L	-5.6059 ppb	17:25:51
1	Ba 233.527†	89.9	81.4	0.6854 ug/L	0.6854 ppb	17:26:11
1	Be 313.107†	-3644.1	677.9	0.2553 ug/L	0.2553 ppb	17:25:51
1	Cd 226.502†	-186.3	26.6	0.3304 ug/L	0.3304 ppb	17:26:11
1	Co 228.616†	-40.5	38.9	0.8258 ug/L	0.8258 ppb	17:26:11
1	Cr 267.716†	313.4	-391.0	-4.8360 ug/L	-4.8360 ppb	17:25:51
1	Cu 324.752†	8560.2	44.9	0.1347 ug/L	0.1347 ppb	17:25:51
1	Mn 257.610†	890.7	318.8	0.3674 ug/L	0.3674 ppb	17:26:11
1	Mo 202.031†	53.8	31.5	2.4394 ug/L	2.4394 ppb	17:26:11
1	Ni 231.604†	99.2	5.4	0.1431 ug/L	0.1431 ppb	17:26:11
1	P 214.914†	257.8	8.6	4.6619 ug/L	4.6619 ppb	17:26:11
1	Pb 220.353†	-45.9	-28.9	-3.7194 ug/L	-3.7194 ppb	17:26:11
1	S 181.975 Axial†	53.3	-9.6	-12.460 ug/L	-12.460 ppb	17:26:11
1	Sb 206.836†	51.6	6.4	2.2537 ug/L	2.2537 ppb	17:26:11
1	Se 196.026†	-16.4	10.4	5.9891 ug/L	5.9891 ppb	17:26:11
1	Si 251.611†	632.5	-48.0	-1.5415 ug/L	-1.5415 ppb	17:26:11
1	Sn 189.927†	21.2	-15.0	-2.7689 ug/L	-2.7689 ppb	17:26:11
1	Ti 334.940†	-1239.5	391.3	0.6409 ug/L	0.6409 ppb	17:25:51
1	Tl 190.801†	-23.8	-1.9	-0.6078 ug/L	-0.6078 ppb	17:26:11
1	U 409.014†	-3366.3	283.8	9.1288 ug/L	9.1288 ppb	17:25:51
1	V 292.402†	-1695.0	115.8	0.9527 ug/L	0.9527 ppb	17:25:51
1	Zn 213.857†	977.4	93.1	0.9284 ug/L	0.9284 ppb	17:26:11
1	SiO2†	594.1	-10.8	-0.7915 ug/L	-0.7915 ppb	17:27:07
2	Sc Radial	3948.7	3948.7	99.3 %		17:25:19
2	Y RADIAL	4200.7	4200.7	101.7 %		17:24:59
2	Al 396.153Radial†	-135.4	5.6	5.7055 ug/L	5.7055 ppb	17:24:59
2	Ca 317.933Radial†	30.0	6.0	11.611 ug/L	11.611 ppb	17:25:19
2	Fe 238.204 Radial†	12.1	1.2	12.767 ug/L	12.767 ppb	17:25:19
2	K 766.490 Radial†	3159.5	-26.9	-5.8205 ug/L	-5.8205 ppb	17:24:59
2	Mg 279.077 IEC†	3.3	1.9	75.308 ug/L	75.308 ppb	17:25:19
2	Na 589.592 Radial†	-124.4	-21.5	-7.5496 ug/L	-7.5496 ppb	17:24:59
2	Sr 421.552†	95.8	-15.2	-0.1266 ug/L	-0.1266 ppb	17:24:59
2	Sc 361.383	812133.9	812133.9	102.06 %		17:26:16
2	Y 371.029	658287.4	658287.4	102.38 %		17:26:16
2	Ag 328.068†	232.1	41.7	0.2103 ug/L	0.2103 ppb	17:26:16
2	As 188.979†	-33.4	-5.1	-2.1372 ug/L	-2.1372 ppb	17:26:36
2	B 249.677†	-255.9	-308.8	-7.3706 ug/L	-7.3706 ppb	17:26:16
2	Ba 233.527†	65.9	58.1	0.4890 ug/L	0.4890 ppb	17:26:36
2	Be 313.107†	-3631.3	680.4	0.2553 ug/L	0.2553 ppb	17:26:16
2	Cd 226.502†	-201.1	11.6	0.1439 ug/L	0.1439 ppb	17:26:36
2	Co 228.616†	-44.8	34.6	0.7329 ug/L	0.7329 ppb	17:26:36
2	Cr 267.716†	278.0	-424.8	-5.2558 ug/L	-5.2558 ppb	17:26:16
2	Cu 324.752†	8515.6	24.9	0.0718 ug/L	0.0718 ppb	17:26:16
2	Mn 257.610†	807.6	239.9	0.2770 ug/L	0.2770 ppb	17:26:36
2	Mo 202.031†	36.6	14.7	1.1418 ug/L	1.1418 ppb	17:26:36
2	Ni 231.604†	106.5	12.8	0.3413 ug/L	0.3413 ppb	17:26:36

2	P 214.914†	242.5	-5.7	-3.1820 ug/L	-3.1820 ppb	17:26:36
2	Pb 220.353†	-35.6	-18.9	-2.4387 ug/L	-2.4387 ppb	17:26:36
2	S 181.975 Axial†	52.0	-10.8	-13.987 ug/L	-13.987 ppb	17:26:36
2	Sb 206.836†	47.3	2.4	0.7883 ug/L	0.7883 ppb	17:26:36
2	Se 196.026†	-32.6	-5.5	-3.1089 ug/L	-3.1089 ppb	17:26:36
2	Si 251.611†	579.2	-98.4	-3.1141 ug/L	-3.1141 ppb	17:26:36
2	Sn 189.927†	10.0	-25.9	-4.7880 ug/L	-4.7880 ppb	17:26:36
2	Ti 334.940†	-1484.0	148.2	0.2381 ug/L	0.2381 ppb	17:26:16
2	Tl 190.801†	-16.6	5.1	1.6280 ug/L	1.6280 ppb	17:26:36
2	U 409.014†	-3280.2	358.9	11.540 ug/L	11.540 ppb	17:26:16
2	V 292.402†	-1751.2	56.0	0.4737 ug/L	0.4737 ppb	17:26:16
2	Zn 213.857†	955.0	73.9	0.7335 ug/L	0.7335 ppb	17:26:36
2	SiO2†	576.5	-26.4	-1.7992 ug/L	-1.7992 ppb	17:27:12
3	Sc Radial	3967.8	3967.8	99.8 %		17:25:44
3	Y RADIAL	4198.1	4198.1	101.6 %		17:25:24
3	Al 396.153Radial†	-132.6	9.0	9.2835 ug/L	9.2835 ppb	17:25:24
3	Ca 317.933Radial†	28.9	4.7	9.1298 ug/L	9.1298 ppb	17:25:44
3	Fe 238.204 Radial†	10.6	-0.5	-4.9988 ug/L	-4.9988 ppb	17:25:44
3	K 766.490 Radial†	3204.2	2.6	0.5665 ug/L	0.5665 ppb	17:25:24
3	Mg 279.077 IEC†	2.1	0.7	27.905 ug/L	27.905 ppb	17:25:44
3	Na 589.592 Radial†	-127.0	-23.6	-8.2838 ug/L	-8.2838 ppb	17:25:24
3	Sr 421.552†	146.9	35.5	0.2954 ug/L	0.2954 ppb	17:25:24
3	Sc 361.383	811842.1	811842.1	102.02 %		17:26:41
3	Y 371.029	657997.1	657997.1	102.33 %		17:26:41
3	Ag 328.068†	159.1	-29.7	-0.1575 ug/L	-0.1575 ppb	17:26:41
3	As 188.979†	-29.2	-0.9	-0.3944 ug/L	-0.3944 ppb	17:27:01
3	B 249.677†	-354.2	-405.2	-9.6688 ug/L	-9.6688 ppb	17:26:41
3	Ba 233.527†	43.0	35.7	0.2999 ug/L	0.2999 ppb	17:27:01
3	Be 313.107†	-3760.5	552.4	0.2076 ug/L	0.2076 ppb	17:26:41
3	Cd 226.502†	-162.7	49.2	0.6086 ug/L	0.6086 ppb	17:27:01
3	Co 228.616†	-58.0	21.6	0.4607 ug/L	0.4607 ppb	17:27:01
3	Cr 267.716†	314.1	-389.3	-4.8152 ug/L	-4.8152 ppb	17:26:41
3	Cu 324.752†	8407.4	-78.1	-0.2465 ug/L	-0.2465 ppb	17:26:41
3	Mn 257.610†	879.0	310.1	0.3587 ug/L	0.3587 ppb	17:27:01
3	Mo 202.031†	41.3	19.4	1.5041 ug/L	1.5041 ppb	17:27:01
3	Ni 231.604†	102.4	8.8	0.2339 ug/L	0.2339 ppb	17:27:01
3	P 214.914†	257.6	9.2	5.0381 ug/L	5.0381 ppb	17:27:01
3	Pb 220.353†	-47.4	-30.5	-3.9303 ug/L	-3.9303 ppb	17:27:01
3	S 181.975 Axial†	50.2	-12.5	-16.199 ug/L	-16.199 ppb	17:27:01
3	Sb 206.836†	50.6	5.6	1.9540 ug/L	1.9540 ppb	17:27:01
3	Se 196.026†	-19.7	7.2	4.1018 ug/L	4.1018 ppb	17:27:01
3	Si 251.611†	530.3	-146.2	-4.6222 ug/L	-4.6222 ppb	17:27:01
3	Sn 189.927†	15.6	-20.4	-3.7672 ug/L	-3.7672 ppb	17:27:01
3	Ti 334.940†	-1425.4	205.2	0.3386 ug/L	0.3386 ppb	17:26:41
3	Tl 190.801†	-24.3	-2.5	-0.7904 ug/L	-0.7904 ppb	17:27:01
3	U 409.014†	-3466.8	174.8	5.6271 ug/L	5.6271 ppb	17:26:41
3	V 292.402†	-1781.4	25.8	0.2350 ug/L	0.2350 ppb	17:26:41
3	Zn 213.857†	968.6	87.6	0.8741 ug/L	0.8741 ppb	17:27:01
3	SiO2†	575.4	-27.3	-1.8730 ug/L	-1.8730 ppb	17:27:17

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	812803.4	102.14 %	0.178			0.17%
Sc Radial	3990.4	100 %	1.4			1.42%
Y 371.029	658965.7	102.48 %	0.223			0.22%
Y RADIAL	4074.4	98.63 %	5.238			5.31%
Ag 328.068†	-12.0	-0.0659 ug/L	0.24362	-0.0659 ppb	0.24362	369.73%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	11.7	11.984 ug/L	7.9796	11.984 ppb	7.9796	66.58%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-5.1	-2.1581 ug/L	1.77411	-2.1581 ppb	1.77411	82.21%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-316.3	-7.5484 ug/L	2.03724	-7.5484 ppb	2.03724	26.99%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	58.4	0.4914 ug/L	0.19278	0.4914 ppb	0.19278	39.23%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	636.9	0.2394 ug/L	0.02753	0.2394 ppb	0.02753	11.50%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	4.5	8.6906 ug/L	3.16325	8.6906 ppb	3.16325	36.40%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	29.1	0.3610 ug/L	0.23388	0.3610 ppb	0.23388	64.79%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	31.7	0.6731 ug/L	0.18972	0.6731 ppb	0.18972	28.18%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-401.7	-4.9690 ug/L	0.24860	-4.9690 ppb	0.24860	5.00%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-2.8	-0.0133 ug/L	0.20434	-0.0133 ppb	0.20434	>999.9%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	0.3	3.1274 ug/L	8.97875	3.1274 ppb	8.97875	287.10%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-56.1	-12.160 ug/L	16.8184	-12.160 ppb	16.8184	138.30%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	1.6	61.385 ug/L	29.1308	61.385 ppb	29.1308	47.46%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	289.6	0.3344 ug/L	0.04990	0.3344 ppb	0.04990	14.92%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	21.9	1.6951 ug/L	0.66958	1.6951 ppb	0.66958	39.50%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-6.9	-2.4189 ug/L	9.52950	-2.4189 ppb	9.52950	393.96%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	9.0	0.2394 ug/L	0.09926	0.2394 ppb	0.09926	41.46%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	4.0	2.1727 ug/L	4.64110	2.1727 ppb	4.64110	213.61%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-26.1	-3.3628 ug/L	0.80722	-3.3628 ppb	0.80722	24.00%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-11.0	-14.215 ug/L	1.8801	-14.215 ppb	1.8801	13.23%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	4.8	1.6654 ug/L	0.77416	1.6654 ppb	0.77416	46.49%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	4.0	2.3274 ug/L	4.80156	2.3274 ppb	4.80156	206.31%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	-97.5	-3.0926 ug/L	1.54048	-3.0926 ppb	1.54048	49.81%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-20.4	-3.7747 ug/L	1.00957	-3.7747 ppb	1.00957	26.75%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	4.9	0.0404 ug/L	0.22429	0.0404 ppb	0.22429	554.81%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	248.2	0.4059 ug/L	0.20965	0.4059 ppb	0.20965	51.66%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	0.2	0.0766 ug/L	1.34665	0.0766 ppb	1.34665	>999.9%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	272.5	8.7653 ug/L	2.97322	8.7653 ppb	2.97322	33.92%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	65.9	0.5538 ug/L	0.36545	0.5538 ppb	0.36545	65.99%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	84.8	0.8453 ug/L	0.10057	0.8453 ppb	0.10057	11.90%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	-21.5	-1.4879 ug/L	0.60425	-1.4879 ppb	0.60425	40.61%	
QC value within limits for SiO2 Recovery = Not calculated							
All analyte(s) passed QC.							

Sequence No.: 21

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 2/17/2010 18:11:21

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	3877.1	3877.1	97.5 %		18:13:33
1	Y RADIAL	4137.3	4137.3	100.2 %		18:13:13
1	Al 396.153Radial†	4650.8	4911.1	5057.4 ug/L	5057.4 ppb	18:13:13
1	Ca 317.933Radial†	2572.5	2613.7	5075.4 ug/L	5075.4 ppb	18:13:33
1	Fe 238.204 Radial†	449.7	450.1	4952.2 ug/L	4952.2 ppb	18:13:33
1	K 766.490 Radial†	25478.0	22918.5	4959.3 ug/L	4959.3 ppb	18:13:13
1	Mg 279.077 IEC†	133.4	135.4	5293.0 ug/L	5293.0 ppb	18:13:33
1	Na 589.592 Radial†	27301.0	28099.6	9855.8 ug/L	9855.8 ppb	18:13:13
1	Sr 421.552†	58447.4	59823.5	497.29 ug/L	497.29 ppb	18:13:13
1	Sc 361.383	820296.2	820296.2	103.08 %		18:14:32
1	Y 371.029	653150.3	653150.3	101.58 %		18:14:32
1	Ag 328.068†	97170.8	94077.8	485.64 ug/L	485.64 ppb	18:14:32
1	As 188.979†	1165.8	1158.6	494.86 ug/L	494.86 ppb	18:14:52
1	B 249.677†	20487.1	19816.1	470.59 ug/L	470.59 ppb	18:14:32
1	Ba 233.527†	59299.6	57518.9	484.07 ug/L	484.07 ppb	18:14:32
1	Be 313.107†	1351307.2	1315113.9	493.53 ug/L	493.53 ppb	18:14:32
1	Cd 226.502†	39824.1	38841.2	479.05 ug/L	479.05 ppb	18:14:52
1	Co 228.616†	23560.3	22933.8	483.47 ug/L	483.47 ppb	18:14:52
1	Cr 267.716†	40871.1	38951.1	482.15 ug/L	482.15 ppb	18:14:32
1	Cu 324.752†	169186.2	155805.1	484.77 ug/L	484.77 ppb	18:14:32
1	Mn 257.610†	432265.0	418780.0	486.93 ug/L	486.93 ppb	18:14:32
1	Mo 202.031†	6552.6	6335.4	491.52 ug/L	491.52 ppb	18:14:52
1	Ni 231.604†	18879.3	18222.8	486.78 ug/L	486.78 ppb	18:14:52
1	P 214.914†	4890.0	4500.4	2369.9 ug/L	2369.9 ppb	18:14:52
1	Pb 220.353†	3851.9	3752.6	486.78 ug/L	486.78 ppb	18:14:52
1	S 181.975 Axial†	1046.6	953.6	1236.6 ug/L	1236.6 ppb	18:14:52
1	Sb 206.836†	1441.4	1354.3	493.86 ug/L	493.86 ppb	18:14:52
1	Se 196.026†	872.5	872.8	517.45 ug/L	517.45 ppb	18:14:52
1	Si 251.611†	80220.0	77153.9	2424.1 ug/L	2424.1 ppb	18:14:32
1	Sn 189.927†	2686.3	2570.2	475.48 ug/L	475.48 ppb	18:14:52
1	Ti 334.940†	303591.3	296110.1	491.01 ug/L	491.01 ppb	18:14:32
1	Tl 190.801†	1511.8	1487.9	482.87 ug/L	482.87 ppb	18:14:52
1	U 409.014†	11587.7	14813.9	474.32 ug/L	474.32 ppb	18:14:32
1	V 292.402†	63401.5	63276.3	497.46 ug/L	497.46 ppb	18:14:32
1	Zn 213.857†	51186.3	48792.9	482.80 ug/L	482.80 ppb	18:14:32
1	SiO2†	80151.2	77161.8	5163.1 ug/L	5163.1 ppb	18:15:52
2	Sc Radial	3875.9	3875.9	97.5 %		18:13:58
2	Y RADIAL	4094.0	4094.0	99.11 %		18:13:38
2	Al 396.153Radial†	4621.9	4883.0	5028.3 ug/L	5028.3 ppb	18:13:38
2	Ca 317.933Radial†	2577.3	2619.5	5086.8 ug/L	5086.8 ppb	18:13:58
2	Fe 238.204 Radial†	455.8	456.6	5023.1 ug/L	5023.1 ppb	18:13:58
2	K 766.490 Radial†	25332.6	22778.0	4928.9 ug/L	4928.9 ppb	18:13:38
2	Mg 279.077 IEC†	134.0	136.1	5320.7 ug/L	5320.7 ppb	18:13:58
2	Na 589.592 Radial†	27061.9	27863.5	9773.0 ug/L	9773.0 ppb	18:13:38
2	Sr 421.552†	57922.7	59304.9	492.98 ug/L	492.98 ppb	18:13:38
2	Sc 361.383	819941.7	819941.7	103.04 %		18:14:59
2	Y 371.029	651810.8	651810.8	101.37 %		18:14:59
2	Ag 328.068†	97016.0	93968.3	485.10 ug/L	485.10 ppb	18:14:59
2	As 188.979†	1162.2	1155.6	493.59 ug/L	493.59 ppb	18:15:19
2	B 249.677†	20469.7	19807.8	470.38 ug/L	470.38 ppb	18:14:59
2	Ba 233.527†	59316.9	57560.6	484.42 ug/L	484.42 ppb	18:14:59
2	Be 313.107†	1353186.0	1317504.3	494.43 ug/L	494.43 ppb	18:14:59
2	Cd 226.502†	40002.9	39031.4	481.39 ug/L	481.39 ppb	18:15:19
2	Co 228.616†	23619.1	23000.7	484.88 ug/L	484.88 ppb	18:15:19
2	Cr 267.716†	40939.3	39034.4	483.18 ug/L	483.18 ppb	18:14:59
2	Cu 324.752†	169454.7	156136.7	485.81 ug/L	485.81 ppb	18:14:59
2	Mn 257.610†	432604.5	419290.9	487.53 ug/L	487.53 ppb	18:14:59
2	Mo 202.031†	6565.8	6351.0	492.73 ug/L	492.73 ppb	18:15:19
2	Ni 231.604†	18934.3	18284.1	488.42 ug/L	488.42 ppb	18:15:19

2	P 214.914†	4919.9	4531.4	2386.6 ug/L	2386.6 ppb	18:15:19
2	Pb 220.353†	3848.6	3751.0	486.57 ug/L	486.57 ppb	18:15:19
2	S 181.975 Axial†	1082.7	989.1	1282.7 ug/L	1282.7 ppb	18:15:19
2	Sb 206.836†	1447.4	1360.7	496.16 ug/L	496.16 ppb	18:15:19
2	Se 196.026†	879.6	880.1	521.87 ug/L	521.87 ppb	18:15:19
2	Si 251.611†	80109.8	77080.6	2421.8 ug/L	2421.8 ppb	18:14:59
2	Sn 189.927†	2689.4	2574.3	476.23 ug/L	476.23 ppb	18:15:19
2	Ti 334.940†	302771.9	295442.2	489.90 ug/L	489.90 ppb	18:14:59
2	Tl 190.801†	1533.8	1509.9	489.94 ug/L	489.94 ppb	18:15:19
2	U 409.014†	11448.4	14683.5	470.12 ug/L	470.12 ppb	18:14:59
2	V 292.402†	63378.2	63280.4	497.49 ug/L	497.49 ppb	18:14:59
2	Zn 213.857†	51252.6	48878.8	483.64 ug/L	483.64 ppb	18:14:59
2	SiO2†	81493.9	78498.5	5252.8 ug/L	5252.8 ppb	18:15:57
3	Sc Radial	3864.7	3864.7	97.2 %		18:14:23
3	Y RADIAL	4110.8	4110.8	99.51 %		18:14:03
3	Al 396.153Radial†	4658.9	4934.7	5082.0 ug/L	5082.0 ppb	18:14:03
3	Ca 317.933Radial†	2568.3	2617.9	5083.6 ug/L	5083.6 ppb	18:14:23
3	Fe 238.204 Radial†	450.5	452.4	4977.0 ug/L	4977.0 ppb	18:14:23
3	K 766.490 Radial†	25240.0	22757.3	4924.4 ug/L	4924.4 ppb	18:14:03
3	Mg 279.077 IEC†	135.7	138.3	5405.6 ug/L	5405.6 ppb	18:14:23
3	Na 589.592 Radial†	27086.0	27968.2	9809.7 ug/L	9809.7 ppb	18:14:03
3	Sr 421.552†	58400.4	59967.2	498.48 ug/L	498.48 ppb	18:14:03
3	Sc 361.383	830458.2	830458.2	104.36 %		18:15:26
3	Y 371.029	658516.1	658516.1	102.41 %		18:15:26
3	Ag 328.068†	98150.6	93863.2	484.55 ug/L	484.55 ppb	18:15:26
3	As 188.979†	1176.2	1154.7	493.24 ug/L	493.24 ppb	18:15:47
3	B 249.677†	20746.7	19821.6	470.72 ug/L	470.72 ppb	18:15:26
3	Ba 233.527†	60173.6	57652.5	485.19 ug/L	485.19 ppb	18:15:26
3	Be 313.107†	1373294.3	1320141.5	495.42 ug/L	495.42 ppb	18:15:26
3	Cd 226.502†	40093.6	38626.6	476.40 ug/L	476.40 ppb	18:15:47
3	Co 228.616†	23733.8	22820.4	481.07 ug/L	481.07 ppb	18:15:47
3	Cr 267.716†	41638.4	39201.1	485.24 ug/L	485.24 ppb	18:15:26
3	Cu 324.752†	171729.7	156234.0	486.11 ug/L	486.11 ppb	18:15:26
3	Mn 257.610†	439600.0	420677.3	489.13 ug/L	489.13 ppb	18:15:26
3	Mo 202.031†	6582.9	6286.6	487.74 ug/L	487.74 ppb	18:15:47
3	Ni 231.604†	19036.8	18149.7	484.83 ug/L	484.83 ppb	18:15:47
3	P 214.914†	4933.5	4484.0	2360.6 ug/L	2360.6 ppb	18:15:47
3	Pb 220.353†	3861.8	3716.4	482.09 ug/L	482.09 ppb	18:15:47
3	S 181.975 Axial†	1158.1	1048.0	1359.2 ug/L	1359.2 ppb	18:15:47
3	Sb 206.836†	1454.0	1349.3	491.97 ug/L	491.97 ppb	18:15:47
3	Se 196.026†	869.6	859.8	510.01 ug/L	510.01 ppb	18:15:47
3	Si 251.611†	81073.5	77019.5	2419.9 ug/L	2419.9 ppb	18:15:26
3	Sn 189.927†	2705.2	2556.5	472.93 ug/L	472.93 ppb	18:15:47
3	Ti 334.940†	306773.9	295555.9	490.08 ug/L	490.08 ppb	18:15:26
3	Tl 190.801†	1530.3	1487.7	482.80 ug/L	482.80 ppb	18:15:47
3	U 409.014†	11730.5	14813.1	474.28 ug/L	474.28 ppb	18:15:26
3	V 292.402†	64255.8	63342.4	497.92 ug/L	497.92 ppb	18:15:26
3	Zn 213.857†	52218.2	49174.0	486.61 ug/L	486.61 ppb	18:15:26
3	SiO2†	78861.8	74974.8	5016.5 ug/L	5016.5 ppb	18:16:02

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	823565.4	103.50 %	0.750			0.73%
Sc Radial	3872.6	97.4 %	0.17			0.18%
Y 371.029	654492.4	101.79 %	0.552			0.54%
Y RADIAL	4114.0	99.59 %	0.528			0.53%
Ag 328.068†	93969.8	485.09 ug/L	0.546	485.09 ppb	0.546	0.11%
QC value within limits for Ag 328.068 Recovery = 97.02%						
Al 396.153Radial†	4909.6	5055.9 ug/L	26.89	5055.9 ppb	26.89	0.53%
QC value within limits for Al 396.153Radial Recovery = 101.12%						
As 188.979†	1156.3	493.89 ug/L	0.851	493.89 ppb	0.851	0.17%
QC value within limits for As 188.979 Recovery = 98.78%						
B 249.677†	19815.2	470.56 ug/L	0.176	470.56 ppb	0.176	0.04%
QC value within limits for B 249.677 Recovery = 94.11%						
Ba 233.527†	57577.3	484.56 ug/L	0.575	484.56 ppb	0.575	0.12%
QC value within limits for Ba 233.527 Recovery = 96.91%						
Be 313.107†	1317586.6	494.46 ug/L	0.941	494.46 ppb	0.941	0.19%
QC value within limits for Be 313.107 Recovery = 98.89%						
Ca 317.933Radial†	2617.0	5081.9 ug/L	5.86	5081.9 ppb	5.86	0.12%

QC value within limits for Ca 317.933 Radial Recovery = 101.64%							
Cd	226.502†	38833.1	478.94 ug/L	2.497	478.94 ppb	2.497	0.52%
QC value within limits for Cd 226.502 Recovery = 95.79%							
Co	228.616†	22918.3	483.14 ug/L	1.927	483.14 ppb	1.927	0.40%
QC value within limits for Co 228.616 Recovery = 96.63%							
Cr	267.716†	39062.2	483.52 ug/L	1.574	483.52 ppb	1.574	0.33%
QC value within limits for Cr 267.716 Recovery = 96.70%							
Cu	324.752†	156058.6	485.56 ug/L	0.701	485.56 ppb	0.701	0.14%
QC value within limits for Cu 324.752 Recovery = 97.11%							
Fe	238.204 Radial†	453.0	4984.1 ug/L	35.94	4984.1 ppb	35.94	0.72%
QC value within limits for Fe 238.204 Radial Recovery = 99.68%							
K	766.490 Radial†	22817.9	4937.6 ug/L	18.99	4937.6 ppb	18.99	0.38%
QC value within limits for K 766.490 Radial Recovery = 98.75%							
Mg	279.077 IEC†	136.6	5339.8 ug/L	58.66	5339.8 ppb	58.66	1.10%
QC value within limits for Mg 279.077 IEC Recovery = 106.80%							
Mn	257.610†	419582.7	487.87 ug/L	1.139	487.87 ppb	1.139	0.23%
QC value within limits for Mn 257.610 Recovery = 97.57%							
Mo	202.031†	6324.4	490.66 ug/L	2.605	490.66 ppb	2.605	0.53%
QC value within limits for Mo 202.031 Recovery = 98.13%							
Na	589.592 Radial†	27977.1	9812.8 ug/L	41.50	9812.8 ppb	41.50	0.42%
QC value within limits for Na 589.592 Radial Recovery = 98.13%							
Ni	231.604†	18218.9	486.68 ug/L	1.799	486.68 ppb	1.799	0.37%
QC value within limits for Ni 231.604 Recovery = 97.34%							
P	214.914†	4505.3	2372.4 ug/L	13.19	2372.4 ppb	13.19	0.56%
QC value within limits for P 214.914 Recovery = 94.90%							
Pb	220.353†	3740.0	485.15 ug/L	2.645	485.15 ppb	2.645	0.55%
QC value within limits for Pb 220.353 Recovery = 97.03%							
S	181.975 Axial†	996.9	1292.9 ug/L	61.91	1292.9 ppb	61.91	4.79%
QC value greater than the upper limit for S 181.975 Axial Recovery = 129.29%							
Sb	206.836†	1354.7	494.00 ug/L	2.095	494.00 ppb	2.095	0.42%
QC value within limits for Sb 206.836 Recovery = 98.80%							
Se	196.026†	870.9	516.44 ug/L	5.996	516.44 ppb	5.996	1.16%
QC value within limits for Se 196.026 Recovery = 103.29%							
Si	251.611†	77084.6	2422.0 ug/L	2.10	2422.0 ppb	2.10	0.09%
QC value within limits for Si 251.611 Recovery = 96.88%							
Sn	189.927†	2567.0	474.88 ug/L	1.726	474.88 ppb	1.726	0.36%
QC value within limits for Sn 189.927 Recovery = 94.98%							
Sr	421.552†	59698.5	496.25 ug/L	2.896	496.25 ppb	2.896	0.58%
QC value within limits for Sr 421.552 Recovery = 99.25%							
Ti	334.940†	295702.7	490.33 ug/L	0.594	490.33 ppb	0.594	0.12%
QC value within limits for Ti 334.940 Recovery = 98.07%							
Tl	190.801†	1495.2	485.20 ug/L	4.100	485.20 ppb	4.100	0.85%
QC value within limits for Tl 190.801 Recovery = 97.04%							
U	409.014†	14770.2	472.91 ug/L	2.414	472.91 ppb	2.414	0.51%
QC value within limits for U 409.014 Recovery = 94.58%							
V	292.402†	63299.7	497.63 ug/L	0.256	497.63 ppb	0.256	0.05%
QC value within limits for V 292.402 Recovery = 99.53%							
Zn	213.857†	48948.6	484.35 ug/L	2.004	484.35 ppb	2.004	0.41%
QC value within limits for Zn 213.857 Recovery = 96.87%							
SiO2†		76878.4	5144.1 ug/L	119.26	5144.1 ppb	119.26	2.32%
QC value within limits for SiO2 Recovery = 96.20%							
QC Failed. Continue with analysis.							

Sequence No.: 22

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 2/17/2010 18:18:12

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	3904.0	3904.0	98.2 %		18:20:24
1	Y RADIAL	4150.7	4150.7	100.5 %		18:20:04
1	Al 396.153Radial†	-118.1	21.6	22.332 ug/L	22.332 ppb	18:20:04
1	Ca 317.933Radial†	38.4	14.9	28.875 ug/L	28.875 ppb	18:20:24
1	Fe 238.204 Radial†	8.9	-2.0	-21.605 ug/L	-21.605 ppb	18:20:24
1	K 766.490 Radial†	3056.0	-95.8	-20.805 ug/L	-20.805 ppb	18:20:04
1	Mg 279.077 IEC†	2.4	1.1	44.651 ug/L	44.651 ppb	18:20:24
1	Na 589.592 Radial†	178.6	285.6	100.16 ug/L	100.16 ppb	18:20:04
1	Sr 421.552†	211.7	104.0	0.8641 ug/L	0.8641 ppb	18:20:04
1	Sc 361.383	806852.3	806852.3	101.39 %		18:21:21
1	Y 371.029	652266.9	652266.9	101.44 %		18:21:21
1	Ag 328.068†	346.8	156.4	0.7965 ug/L	0.7965 ppb	18:21:21
1	As 188.979†	-26.2	1.8	0.7463 ug/L	0.7463 ppb	18:21:41
1	B 249.677†	-237.5	-292.3	-6.9712 ug/L	-6.9712 ppb	18:21:41
1	Ba 233.527†	36.3	29.4	0.2504 ug/L	0.2504 ppb	18:21:41
1	Be 313.107†	-2819.8	1457.5	0.5467 ug/L	0.5467 ppb	18:21:21
1	Cd 226.502†	-191.6	19.7	0.2473 ug/L	0.2473 ppb	18:21:41
1	Co 228.616†	-57.4	21.8	0.4643 ug/L	0.4643 ppb	18:21:41
1	Cr 267.716†	121.5	-577.4	-7.1387 ug/L	-7.1387 ppb	18:21:41
1	Cu 324.752†	8517.8	81.7	0.2486 ug/L	0.2486 ppb	18:21:21
1	Mn 257.610†	815.0	252.4	0.2893 ug/L	0.2893 ppb	18:21:41
1	Mo 202.031†	29.2	7.7	0.5947 ug/L	0.5947 ppb	18:21:41
1	Ni 231.604†	119.5	26.3	0.7020 ug/L	0.7020 ppb	18:21:41
1	P 214.914†	234.4	-12.1	-6.7095 ug/L	-6.7095 ppb	18:21:41
1	Pb 220.353†	-41.0	-24.5	-3.1539 ug/L	-3.1539 ppb	18:21:41
1	S 181.975 Axial†	190.5	126.2	163.78 ug/L	163.78 ppb	18:21:41
1	Sb 206.836†	46.7	2.0	0.6571 ug/L	0.6571 ppb	18:21:41
1	Se 196.026†	-16.2	10.5	5.9535 ug/L	5.9535 ppb	18:21:41
1	Si 251.611†	550.0	-123.5	-3.8982 ug/L	-3.8982 ppb	18:21:41
1	Sn 189.927†	11.1	-24.7	-4.5608 ug/L	-4.5608 ppb	18:21:41
1	Ti 334.940†	-1364.0	257.1	0.4257 ug/L	0.4257 ppb	18:21:21
1	Tl 190.801†	-30.2	-8.4	-2.7212 ug/L	-2.7212 ppb	18:21:41
1	U 409.014†	-3368.7	250.5	8.0678 ug/L	8.0678 ppb	18:21:21
1	V 292.402†	-1543.6	249.5	1.9658 ug/L	1.9658 ppb	18:21:21
1	Zn 213.857†	931.2	56.5	0.5631 ug/L	0.5631 ppb	18:21:41
1	SiO2†	666.0	65.6	4.3833 ug/L	4.3833 ppb	18:22:37
2	Sc Radial	3907.5	3907.5	98.3 %		18:20:49
2	Y RADIAL	4205.8	4205.8	101.8 %		18:20:29
2	Al 396.153Radial†	-138.8	0.7	0.6742 ug/L	0.6742 ppb	18:20:29
2	Ca 317.933Radial†	37.5	13.9	26.945 ug/L	26.945 ppb	18:20:49
2	Fe 238.204 Radial†	9.9	-0.9	-10.130 ug/L	-10.130 ppb	18:20:49
2	K 766.490 Radial†	3020.5	-134.7	-29.226 ug/L	-29.226 ppb	18:20:29
2	Mg 279.077 IEC†	5.5	4.3	167.05 ug/L	167.05 ppb	18:20:49
2	Na 589.592 Radial†	164.7	271.3	95.143 ug/L	95.143 ppb	18:20:29
2	Sr 421.552†	95.1	-14.9	-0.1240 ug/L	-0.1240 ppb	18:20:29
2	Sc 361.383	806205.4	806205.4	101.31 %		18:21:46
2	Y 371.029	651621.0	651621.0	101.34 %		18:21:46
2	Ag 328.068†	153.9	-33.7	-0.1787 ug/L	-0.1787 ppb	18:21:46
2	As 188.979†	-37.6	-9.4	-4.0021 ug/L	-4.0021 ppb	18:22:06
2	B 249.677†	-242.7	-297.5	-7.0984 ug/L	-7.0984 ppb	18:22:06
2	Ba 233.527†	37.7	30.8	0.2612 ug/L	0.2612 ppb	18:22:06
2	Be 313.107†	-3050.8	1227.2	0.4604 ug/L	0.4604 ppb	18:21:46
2	Cd 226.502†	-178.0	32.9	0.4096 ug/L	0.4096 ppb	18:22:06
2	Co 228.616†	-55.0	24.2	0.5142 ug/L	0.5142 ppb	18:22:06
2	Cr 267.716†	120.1	-578.6	-7.1559 ug/L	-7.1559 ppb	18:22:06
2	Cu 324.752†	8483.8	54.9	0.1650 ug/L	0.1650 ppb	18:21:46
2	Mn 257.610†	860.7	298.1	0.3386 ug/L	0.3386 ppb	18:22:06
2	Mo 202.031†	34.8	13.3	1.0295 ug/L	1.0295 ppb	18:22:06
2	Ni 231.604†	105.7	12.8	0.3409 ug/L	0.3409 ppb	18:22:06

2	P 214.914†	247.9	1.3	0.6872 ug/L	0.6872 ppb	18:22:06
2	Pb 220.353†	-44.6	-28.1	-3.6264 ug/L	-3.6264 ppb	18:22:06
2	S 181.975 Axial†	198.2	133.9	173.84 ug/L	173.84 ppb	18:22:06
2	Sb 206.836†	44.8	0.2	0.0630 ug/L	0.0630 ppb	18:22:06
2	Se 196.026†	-28.7	-1.9	-1.1200 ug/L	-1.1200 ppb	18:22:06
2	Si 251.611†	548.1	-125.0	-3.9497 ug/L	-3.9497 ppb	18:22:06
2	Sn 189.927†	21.0	-15.0	-2.7636 ug/L	-2.7636 ppb	18:22:06
2	Ti 334.940†	-1383.7	236.5	0.3807 ug/L	0.3807 ppb	18:21:46
2	Tl 190.801†	-25.9	-4.2	-1.3635 ug/L	-1.3635 ppb	18:22:06
2	U 409.014†	-3320.1	295.9	9.5229 ug/L	9.5229 ppb	18:21:46
2	V 292.402†	-1622.6	170.4	1.3615 ug/L	1.3615 ppb	18:21:46
2	Zn 213.857†	938.5	64.5	0.6429 ug/L	0.6429 ppb	18:22:06
2	SiO2†	571.6	-27.1	-1.8451 ug/L	-1.8451 ppb	18:22:42
3	Sc Radial	3904.3	3904.3	98.2 %		18:21:14
3	Y RADIAL	4103.6	4103.6	99.34 %		18:20:54
3	Al 396.153Radial†	-141.4	-2.1	-2.1827 ug/L	-2.1827 ppb	18:20:54
3	Ca 317.933Radial†	38.0	14.4	27.949 ug/L	27.949 ppb	18:21:14
3	Fe 238.204 Radial†	7.0	-3.9	-43.076 ug/L	-43.076 ppb	18:21:14
3	K 766.490 Radial†	3009.5	-143.5	-31.137 ug/L	-31.137 ppb	18:20:54
3	Mg 279.077 IEC†	3.4	2.1	81.170 ug/L	81.170 ppb	18:21:14
3	Na 589.592 Radial†	194.0	301.2	105.65 ug/L	105.65 ppb	18:20:54
3	Sr 421.552†	289.4	183.0	1.5211 ug/L	1.5211 ppb	18:20:54
3	Sc 361.383	805888.0	805888.0	101.27 %		18:22:11
3	Y 371.029	652332.1	652332.1	101.45 %		18:22:11
3	Ag 328.068†	201.1	13.0	0.0528 ug/L	0.0528 ppb	18:22:11
3	As 188.979†	-26.8	1.2	0.5045 ug/L	0.5045 ppb	18:22:32
3	B 249.677†	-229.1	-284.2	-6.7749 ug/L	-6.7749 ppb	18:22:32
3	Ba 233.527†	58.3	51.1	0.4314 ug/L	0.4314 ppb	18:22:32
3	Be 313.107†	-3276.5	1003.2	0.3766 ug/L	0.3766 ppb	18:22:11
3	Cd 226.502†	-183.3	27.6	0.3472 ug/L	0.3472 ppb	18:22:32
3	Co 228.616†	-55.1	24.1	0.5138 ug/L	0.5138 ppb	18:22:32
3	Cr 267.716†	118.6	-580.1	-7.1732 ug/L	-7.1732 ppb	18:22:32
3	Cu 324.752†	8497.9	72.1	0.2171 ug/L	0.2171 ppb	18:22:11
3	Mn 257.610†	900.2	337.5	0.3846 ug/L	0.3846 ppb	18:22:32
3	Mo 202.031†	37.6	16.0	1.2380 ug/L	1.2380 ppb	18:22:32
3	Ni 231.604†	120.9	27.8	0.7420 ug/L	0.7420 ppb	18:22:32
3	P 214.914†	248.3	1.9	0.9814 ug/L	0.9814 ppb	18:22:32
3	Pb 220.353†	-46.5	-30.0	-3.8669 ug/L	-3.8669 ppb	18:22:32
3	S 181.975 Axial†	208.4	144.1	186.99 ug/L	186.99 ppb	18:22:32
3	Sb 206.836†	42.2	-2.3	-0.8261 ug/L	-0.8261 ppb	18:22:32
3	Se 196.026†	-25.3	1.5	0.7180 ug/L	0.7180 ppb	18:22:32
3	Si 251.611†	582.3	-91.0	-2.8808 ug/L	-2.8808 ppb	18:22:32
3	Sn 189.927†	19.2	-16.8	-3.0934 ug/L	-3.0934 ppb	18:22:32
3	Ti 334.940†	-1345.4	273.9	0.4501 ug/L	0.4501 ppb	18:22:11
3	Tl 190.801†	-44.2	-22.3	-7.1812 ug/L	-7.1812 ppb	18:22:32
3	U 409.014†	-3341.2	273.6	8.8131 ug/L	8.8131 ppb	18:22:11
3	V 292.402†	-1567.9	223.7	1.7801 ug/L	1.7801 ppb	18:22:11
3	Zn 213.857†	936.2	62.5	0.6260 ug/L	0.6260 ppb	18:22:32
3	SiO2†	520.2	-77.6	-5.2401 ug/L	-5.2401 ppb	18:22:47

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	806315.2	101.33 %		0.062			0.06%
Sc Radial	3905.3	98.2 %		0.05			0.05%
Y 371.029	652073.4	101.41 %		0.061			0.06%
Y RADIAL	4153.4	100.5 %		1.24			1.23%
Ag 328.068†	45.2	0.2235 ug/L		0.50952	0.2235 ppb	0.50952	227.95%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	6.8	6.9413 ug/L		13.40534	6.9413 ppb	13.40534	193.12%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-2.2	-0.9171 ug/L		2.67445	-0.9171 ppb	2.67445	291.63%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	-291.3	-6.9482 ug/L		0.16297	-6.9482 ppb	0.16297	2.35%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	37.1	0.3143 ug/L		0.10152	0.3143 ppb	0.10152	32.30%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	1229.3	0.4612 ug/L		0.08502	0.4612 ppb	0.08502	18.43%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	14.4	27.923 ug/L		0.9652	27.923 ppb	0.9652	3.46%



QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	26.8	0.3347 ug/L	0.08183	0.3347 ppb	0.08183	24.45%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	23.4	0.4974 ug/L	0.02867	0.4974 ppb	0.02867	5.76%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-578.7	-7.1559 ug/L	0.01722	-7.1559 ppb	0.01722	0.24%	
QC value less than the lower limit for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	69.6	0.2102 ug/L	0.04225	0.2102 ppb	0.04225	20.10%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-2.3	-24.937 ug/L	16.7237	-24.937 ppb	16.7237	67.06%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-124.6	-27.056 ug/L	5.4970	-27.056 ppb	5.4970	20.32%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	2.5	97.622 ug/L	62.8345	97.622 ppb	62.8345	64.36%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	296.0	0.3375 ug/L	0.04766	0.3375 ppb	0.04766	14.12%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	12.3	0.9541 ug/L	0.32825	0.9541 ppb	0.32825	34.41%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	286.0	100.32 ug/L	5.257	100.32 ppb	5.257	5.24%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	22.3	0.5950 ug/L	0.22090	0.5950 ppb	0.22090	37.13%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-3.0	-1.6803 ug/L	4.35790	-1.6803 ppb	4.35790	259.36%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-27.5	-3.5490 ug/L	0.36274	-3.5490 ppb	0.36274	10.22%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	134.7	174.87 ug/L	11.641	174.87 ppb	11.641	6.66%	
QC value greater than the upper limit for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-0.0	-0.0354 ug/L	0.74650	-0.0354 ppb	0.74650	>999.9%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	3.3	1.8505 ug/L	3.67023	1.8505 ppb	3.67023	198.33%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	-113.2	-3.5763 ug/L	0.60283	-3.5763 ppb	0.60283	16.86%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-18.8	-3.4726 ug/L	0.95671	-3.4726 ppb	0.95671	27.55%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	90.7	0.7537 ug/L	0.82805	0.7537 ppb	0.82805	109.86%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	255.8	0.4188 ug/L	0.03520	0.4188 ppb	0.03520	8.40%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-11.7	-3.7553 ug/L	3.04358	-3.7553 ppb	3.04358	81.05%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	273.3	8.8012 ug/L	0.72763	8.8012 ppb	0.72763	8.27%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	214.5	1.7025 ug/L	0.30953	1.7025 ppb	0.30953	18.18%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	61.2	0.6107 ug/L	0.04203	0.6107 ppb	0.04203	6.88%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	-13.0	-0.9006 ug/L	4.88072	-0.9006 ppb	4.88072	541.92%	
QC value within limits for SiO2 Recovery = Not calculated							
QC Failed. Continue with analysis.							

Sequence No.: 28

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 2/17/2010 18:59:01

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	3980.9	3980.9	100 %		19:01:13
1	Y RADIAL	4166.3	4166.3	100.9 %		19:00:53
1	Al 396.153Radial†	4679.5	4815.4	4958.7 ug/L	4958.7 ppb	19:00:53
1	Ca 317.933Radial†	2629.1	2601.6	5051.8 ug/L	5051.8 ppb	19:01:13
1	Fe 238.204 Radial†	465.8	454.2	4996.5 ug/L	4996.5 ppb	19:01:13
1	K 766.490 Radial†	25519.8	22279.4	4820.9 ug/L	4820.9 ppb	19:00:53
1	Mg 279.077 IEC†	135.6	134.1	5239.9 ug/L	5239.9 ppb	19:01:13
1	Na 589.592 Radial†	27996.6	28064.8	9843.6 ug/L	9843.6 ppb	19:00:53
1	Sr 421.552†	59721.4	59533.9	494.88 ug/L	494.88 ppb	19:00:53
1	Sc 361.383	833668.9	833668.9	104.76 %		19:02:12
1	Y 371.029	663855.4	663855.4	103.24 %		19:02:12
1	Ag 328.068†	98474.7	93810.3	484.27 ug/L	484.27 ppb	19:02:12
1	As 188.979†	1166.9	1141.5	487.62 ug/L	487.62 ppb	19:02:32
1	B 249.677†	20856.7	19850.1	471.42 ug/L	471.42 ppb	19:02:12
1	Ba 233.527†	60207.1	57462.4	483.59 ug/L	483.59 ppb	19:02:12
1	Be 313.107†	1368195.8	1310207.0	491.69 ug/L	491.69 ppb	19:02:12
1	Cd 226.502†	39874.0	38269.1	471.98 ug/L	471.98 ppb	19:02:32
1	Co 228.616†	23557.6	22564.6	475.68 ug/L	475.68 ppb	19:02:32
1	Cr 267.716†	41300.1	38724.5	479.35 ug/L	479.35 ppb	19:02:12
1	Cu 324.752†	171695.2	155567.4	484.04 ug/L	484.04 ppb	19:02:12
1	Mn 257.610†	438508.1	418012.7	486.05 ug/L	486.05 ppb	19:02:12
1	Mo 202.031†	6584.5	6264.0	485.98 ug/L	485.98 ppb	19:02:32
1	Ni 231.604†	18895.7	17944.8	479.35 ug/L	479.35 ppb	19:02:32
1	P 214.914†	4875.2	4410.1	2320.5 ug/L	2320.5 ppb	19:02:32
1	Pb 220.353†	3877.6	3717.3	482.17 ug/L	482.17 ppb	19:02:32
1	S 181.975 Axial†	902.8	800.1	1037.5 ug/L	1037.5 ppb	19:02:32
1	Sb 206.836†	1439.1	1329.6	485.01 ug/L	485.01 ppb	19:02:32
1	Se 196.026†	870.2	857.1	508.53 ug/L	508.53 ppb	19:02:32
1	Si 251.611†	81339.9	76974.5	2418.6 ug/L	2418.6 ppb	19:02:12
1	Sn 189.927†	2714.1	2554.9	472.64 ug/L	472.64 ppb	19:02:32
1	Ti 334.940†	307569.8	295183.5	489.48 ug/L	489.48 ppb	19:02:12
1	Tl 190.801†	1525.9	1477.8	479.64 ug/L	479.64 ppb	19:02:32
1	U 409.014†	11560.5	14607.6	467.69 ug/L	467.69 ppb	19:02:12
1	V 292.402†	63991.9	62853.3	494.08 ug/L	494.08 ppb	19:02:12
1	Zn 213.857†	51886.6	48664.8	481.56 ug/L	481.56 ppb	19:02:12
1	SiO2†	81522.7	77223.7	5167.4 ug/L	5167.4 ppb	19:03:32
2	Sc Radial	3983.1	3983.1	100 %		19:01:38
2	Y RADIAL	4163.9	4163.9	100.8 %		19:01:18
2	Al 396.153Radial†	4685.1	4818.5	4961.8 ug/L	4961.8 ppb	19:01:18
2	Ca 317.933Radial†	2628.9	2599.9	5048.6 ug/L	5048.6 ppb	19:01:38
2	Fe 238.204 Radial†	463.5	451.6	4968.5 ug/L	4968.5 ppb	19:01:38
2	K 766.490 Radial†	25362.7	22108.7	4783.9 ug/L	4783.9 ppb	19:01:18
2	Mg 279.077 IEC†	134.3	132.7	5186.3 ug/L	5186.3 ppb	19:01:38
2	Na 589.592 Radial†	27726.6	27780.0	9743.7 ug/L	9743.7 ppb	19:01:18
2	Sr 421.552†	59269.6	59050.4	490.86 ug/L	490.86 ppb	19:01:18
2	Sc 361.383	829735.9	829735.9	104.27 %		19:02:39
2	Y 371.029	659040.2	659040.2	102.49 %		19:02:39
2	Ag 328.068†	97589.7	93407.1	482.19 ug/L	482.19 ppb	19:02:39
2	As 188.979†	1167.2	1147.0	489.93 ug/L	489.93 ppb	19:02:59
2	B 249.677†	20491.7	19594.4	465.31 ug/L	465.31 ppb	19:02:39
2	Ba 233.527†	59884.8	57425.7	483.28 ug/L	483.28 ppb	19:02:39
2	Be 313.107†	1360455.9	1308974.6	491.23 ug/L	491.23 ppb	19:02:39
2	Cd 226.502†	40012.1	38582.0	475.85 ug/L	475.85 ppb	19:02:59
2	Co 228.616†	23653.3	22763.0	479.87 ug/L	479.87 ppb	19:02:59
2	Cr 267.716†	41133.7	38751.8	479.68 ug/L	479.68 ppb	19:02:39
2	Cu 324.752†	170684.1	155374.5	483.43 ug/L	483.43 ppb	19:02:39
2	Mn 257.610†	435803.7	417403.2	485.34 ug/L	485.34 ppb	19:02:39
2	Mo 202.031†	6590.4	6299.4	488.72 ug/L	488.72 ppb	19:02:59
2	Ni 231.604†	18979.6	18110.6	483.79 ug/L	483.79 ppb	19:02:59

2	P 214.914†	4905.7	4461.4	2348.8 ug/L	2348.8 ppb	19:02:59
2	Pb 220.353†	3840.0	3698.7	479.78 ug/L	479.78 ppb	19:02:59
2	S 181.975 Axial†	911.2	812.2	1053.2 ug/L	1053.2 ppb	19:02:59
2	Sb 206.836†	1437.8	1334.9	486.93 ug/L	486.93 ppb	19:02:59
2	Se 196.026†	879.4	869.9	515.80 ug/L	515.80 ppb	19:02:59
2	Si 251.611†	80168.6	76219.3	2394.7 ug/L	2394.7 ppb	19:02:39
2	Sn 189.927†	2695.2	2549.1	471.56 ug/L	471.56 ppb	19:02:59
2	Ti 334.940†	304518.2	293648.5	486.93 ug/L	486.93 ppb	19:02:39
2	Tl 190.801†	1523.6	1482.5	481.11 ug/L	481.11 ppb	19:02:59
2	U 409.014†	11638.6	14734.8	471.78 ug/L	471.78 ppb	19:02:39
2	V 292.402†	63569.6	62737.8	493.24 ug/L	493.24 ppb	19:02:39
2	Zn 213.857†	51514.0	48542.3	480.32 ug/L	480.32 ppb	19:02:39
2	SiO2†	81717.1	77779.0	5204.6 ug/L	5204.6 ppb	19:03:37
3	Sc Radial	3993.9	3993.9	100 %		19:02:03
3	Y RADIAL	4233.0	4233.0	102.5 %		19:01:43
3	Al 396.153Radial†	4758.4	4878.7	5023.9 ug/L	5023.9 ppb	19:01:43
3	Ca 317.933Radial†	2626.2	2590.1	5029.6 ug/L	5029.6 ppb	19:02:03
3	Fe 238.204 Radial†	459.1	446.0	4906.8 ug/L	4906.8 ppb	19:02:03
3	K 766.490 Radial†	25832.5	22507.4	4870.3 ug/L	4870.3 ppb	19:01:43
3	Mg 279.077 IEC†	134.2	132.3	5169.8 ug/L	5169.8 ppb	19:02:03
3	Na 589.592 Radial†	28326.1	28301.4	9926.6 ug/L	9926.6 ppb	19:01:43
3	Sr 421.552†	60449.2	60063.6	499.28 ug/L	499.28 ppb	19:01:43
3	Sc 361.383	826841.1	826841.1	103.91 %		19:03:07
3	Y 371.029	658542.5	658542.5	102.42 %		19:03:07
3	Ag 328.068†	97430.6	93581.6	483.07 ug/L	483.07 ppb	19:03:07
3	As 188.979†	1183.2	1166.4	498.11 ug/L	498.11 ppb	19:03:27
3	B 249.677†	20510.5	19681.3	467.38 ug/L	467.38 ppb	19:03:07
3	Ba 233.527†	59740.1	57487.5	483.80 ug/L	483.80 ppb	19:03:07
3	Be 313.107†	1359608.3	1312726.8	492.63 ug/L	492.63 ppb	19:03:07
3	Cd 226.502†	40176.4	38874.5	479.46 ug/L	479.46 ppb	19:03:27
3	Co 228.616†	23763.9	22948.9	483.79 ug/L	483.79 ppb	19:03:27
3	Cr 267.716†	41196.0	38949.9	482.13 ug/L	482.13 ppb	19:03:07
3	Cu 324.752†	169903.8	155196.6	482.87 ug/L	482.87 ppb	19:03:07
3	Mn 257.610†	434767.5	417869.3	485.87 ug/L	485.87 ppb	19:03:07
3	Mo 202.031†	6607.2	6337.7	491.69 ug/L	491.69 ppb	19:03:27
3	Ni 231.604†	19024.7	18217.8	486.65 ug/L	486.65 ppb	19:03:27
3	P 214.914†	4933.4	4504.5	2372.6 ug/L	2372.6 ppb	19:03:27
3	Pb 220.353†	3869.7	3740.2	485.17 ug/L	485.17 ppb	19:03:27
3	S 181.975 Axial†	909.3	813.4	1054.7 ug/L	1054.7 ppb	19:03:27
3	Sb 206.836†	1436.2	1338.2	488.24 ug/L	488.24 ppb	19:03:27
3	Se 196.026†	886.0	879.2	520.97 ug/L	520.97 ppb	19:03:27
3	Si 251.611†	80114.9	76436.7	2401.5 ug/L	2401.5 ppb	19:03:07
3	Sn 189.927†	2721.7	2583.7	477.97 ug/L	477.97 ppb	19:03:27
3	Ti 334.940†	303497.0	293688.2	487.00 ug/L	487.00 ppb	19:03:07
3	Tl 190.801†	1546.4	1509.6	489.82 ug/L	489.82 ppb	19:03:27
3	U 409.014†	11627.0	14762.7	472.68 ug/L	472.68 ppb	19:03:07
3	V 292.402†	63574.7	62956.2	494.99 ug/L	494.99 ppb	19:03:07
3	Zn 213.857†	51493.7	48695.7	481.84 ug/L	481.84 ppb	19:03:07
3	SiO2†	81445.4	77791.8	5205.4 ug/L	5205.4 ppb	19:03:42

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	830081.9	104.31 %	0.431			0.41%
Sc Radial	3986.0	100 %	0.2			0.18%
Y 371.029	660479.4	102.72 %	0.456			0.44%
Y RADIAL	4187.7	101.4 %	0.95			0.94%
Ag 328.068†	93599.7	483.18 ug/L	1.046	483.18 ppb	1.046	0.22%
QC value within limits for Ag 328.068 Recovery = 96.64%						
Al 396.153Radial†	4837.5	4981.4 ug/L	36.78	4981.4 ppb	36.78	0.74%
QC value within limits for Al 396.153Radial Recovery = 99.63%						
As 188.979†	1151.6	491.88 ug/L	5.512	491.88 ppb	5.512	1.12%
QC value within limits for As 188.979 Recovery = 98.38%						
B 249.677†	19708.6	468.03 ug/L	3.106	468.03 ppb	3.106	0.66%
QC value within limits for B 249.677 Recovery = 93.61%						
Ba 233.527†	57458.5	483.56 ug/L	0.262	483.56 ppb	0.262	0.05%
QC value within limits for Ba 233.527 Recovery = 96.71%						
Be 313.107†	1310636.1	491.85 ug/L	0.716	491.85 ppb	0.716	0.15%
QC value within limits for Be 313.107 Recovery = 98.37%						
Ca 317.933Radial†	2597.2	5043.3 ug/L	12.03	5043.3 ppb	12.03	0.24%

QC value within limits for Ca 317.933 Radial Recovery = 100.87%							
Cd 226.502†	38575.2	475.76 ug/L	3.742	475.76 ppb	3.742	0.79%	
QC value within limits for Cd 226.502 Recovery = 95.15%							
Co 228.616†	22758.8	479.78 ug/L	4.060	479.78 ppb	4.060	0.85%	
QC value within limits for Co 228.616 Recovery = 95.96%							
Cr 267.716†	38808.7	480.39 ug/L	1.520	480.39 ppb	1.520	0.32%	
QC value within limits for Cr 267.716 Recovery = 96.08%							
Cu 324.752†	155379.5	483.45 ug/L	0.581	483.45 ppb	0.581	0.12%	
QC value within limits for Cu 324.752 Recovery = 96.69%							
Fe 238.204 Radial†	450.6	4957.2 ug/L	45.87	4957.2 ppb	45.87	0.93%	
QC value within limits for Fe 238.204 Radial Recovery = 99.14%							
K 766.490 Radial†	22298.5	4825.0 ug/L	43.31	4825.0 ppb	43.31	0.90%	
QC value within limits for K 766.490 Radial Recovery = 96.50%							
Mg 279.077 IEC†	133.0	5198.7 ug/L	36.66	5198.7 ppb	36.66	0.71%	
QC value within limits for Mg 279.077 IEC Recovery = 103.97%							
Mn 257.610†	417761.7	485.75 ug/L	0.370	485.75 ppb	0.370	0.08%	
QC value within limits for Mn 257.610 Recovery = 97.15%							
Mo 202.031†	6300.3	488.80 ug/L	2.854	488.80 ppb	2.854	0.58%	
QC value within limits for Mo 202.031 Recovery = 97.76%							
Na 589.592 Radial†	28048.7	9837.9 ug/L	91.57	9837.9 ppb	91.57	0.93%	
QC value within limits for Na 589.592 Radial Recovery = 98.38%							
Ni 231.604†	18091.1	483.26 ug/L	3.675	483.26 ppb	3.675	0.76%	
QC value within limits for Ni 231.604 Recovery = 96.65%							
P 214.914†	4458.7	2347.3 ug/L	26.07	2347.3 ppb	26.07	1.11%	
QC value within limits for P 214.914 Recovery = 93.89%							
Pb 220.353†	3718.7	482.38 ug/L	2.702	482.38 ppb	2.702	0.56%	
QC value within limits for Pb 220.353 Recovery = 96.48%							
S 181.975 Axial†	808.6	1048.5 ug/L	9.56	1048.5 ppb	9.56	0.91%	
QC value within limits for S 181.975 Axial Recovery = 104.85%							
Sb 206.836†	1334.2	486.73 ug/L	1.623	486.73 ppb	1.623	0.33%	
QC value within limits for Sb 206.836 Recovery = 97.35%							
Se 196.026†	868.7	515.10 ug/L	6.247	515.10 ppb	6.247	1.21%	
QC value within limits for Se 196.026 Recovery = 103.02%							
Si 251.611†	76543.5	2404.9 ug/L	12.27	2404.9 ppb	12.27	0.51%	
QC value within limits for Si 251.611 Recovery = 96.20%							
Sn 189.927†	2562.6	474.05 ug/L	3.432	474.05 ppb	3.432	0.72%	
QC value within limits for Sn 189.927 Recovery = 94.81%							
Sr 421.552†	59549.3	495.01 ug/L	4.213	495.01 ppb	4.213	0.85%	
QC value within limits for Sr 421.552 Recovery = 99.00%							
Ti 334.940†	294173.4	487.80 ug/L	1.451	487.80 ppb	1.451	0.30%	
QC value within limits for Ti 334.940 Recovery = 97.56%							
Tl 190.801†	1490.0	483.52 ug/L	5.506	483.52 ppb	5.506	1.14%	
QC value within limits for Tl 190.801 Recovery = 96.70%							
U 409.014†	14701.7	470.72 ug/L	2.658	470.72 ppb	2.658	0.56%	
QC value within limits for U 409.014 Recovery = 94.14%							
V 292.402†	62849.1	494.10 ug/L	0.873	494.10 ppb	0.873	0.18%	
QC value within limits for V 292.402 Recovery = 98.82%							
Zn 213.857†	48634.3	481.24 ug/L	0.812	481.24 ppb	0.812	0.17%	
QC value within limits for Zn 213.857 Recovery = 96.25%							
SiO2†	77598.2	5192.5 ug/L	21.69	5192.5 ppb	21.69	0.42%	
QC value within limits for SiO2 Recovery = 97.10%							
All analyte(s) passed QC.							

Sequence No.: 29

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 2/17/2010 19:05:52

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	4233.9	4233.9	106 %		19:07:44
1	Y RADIAL	4389.9	4389.9	106.3 %		19:07:44
1	Al 396.153Radial†	-147.3	3.6	3.6558 ug/L	3.6558 ppb	19:07:44
1	Ca 317.933Radial†	34.1	7.8	15.086 ug/L	15.086 ppb	19:08:04
1	Fe 238.204 Radial†	8.1	-3.4	-37.275 ug/L	-37.275 ppb	19:08:04
1	K 766.490 Radial†	2996.9	-393.7	-85.318 ug/L	-85.318 ppb	19:07:44
1	Mg 279.077 IEC†	4.9	3.3	127.75 ug/L	127.75 ppb	19:08:04
1	Na 589.592 Radial†	-99.1	10.6	3.7296 ug/L	3.7296 ppb	19:07:44
1	Sr 421.552†	98.3	-19.3	-0.1609 ug/L	-0.1609 ppb	19:07:44
1	Sc 361.383	813635.4	813635.4	102.25 %		19:09:01
1	Y 371.029	657644.0	657644.0	102.28 %		19:09:01
1	Ag 328.068†	296.0	103.8	0.5200 ug/L	0.5200 ppb	19:09:01
1	As 188.979†	-29.9	-1.6	-0.6642 ug/L	-0.6642 ppb	19:09:21
1	B 249.677†	-223.8	-276.9	-6.6020 ug/L	-6.6020 ppb	19:09:21
1	Ba 233.527†	44.4	37.0	0.3126 ug/L	0.3126 ppb	19:09:21
1	Be 313.107†	-2632.2	1664.0	0.6245 ug/L	0.6245 ppb	19:09:01
1	Cd 226.502†	-204.3	8.8	0.1147 ug/L	0.1147 ppb	19:09:21
1	Co 228.616†	-64.2	15.6	0.3355 ug/L	0.3355 ppb	19:09:21
1	Cr 267.716†	125.6	-574.4	-7.1029 ug/L	-7.1029 ppb	19:09:21
1	Cu 324.752†	8645.1	136.2	0.4171 ug/L	0.4171 ppb	19:09:01
1	Mn 257.610†	772.8	204.4	0.2286 ug/L	0.2286 ppb	19:09:21
1	Mo 202.031†	42.2	20.1	1.5580 ug/L	1.5580 ppb	19:09:21
1	Ni 231.604†	103.5	9.6	0.2576 ug/L	0.2576 ppb	19:09:21
1	P 214.914†	236.0	-12.6	-6.9519 ug/L	-6.9519 ppb	19:09:21
1	Pb 220.353†	-31.9	-15.3	-1.9665 ug/L	-1.9665 ppb	19:09:21
1	S 181.975 Axial†	120.4	56.0	72.721 ug/L	72.721 ppb	19:09:21
1	Sb 206.836†	43.6	-1.4	-0.4910 ug/L	-0.4910 ppb	19:09:21
1	Se 196.026†	-21.5	5.4	2.9971 ug/L	2.9971 ppb	19:09:21
1	Si 251.611†	570.8	-107.7	-3.4103 ug/L	-3.4103 ppb	19:09:21
1	Sn 189.927†	21.4	-14.7	-2.7201 ug/L	-2.7201 ppb	19:09:21
1	Ti 334.940†	-1245.3	384.4	0.6281 ug/L	0.6281 ppb	19:09:01
1	Tl 190.801†	-31.6	-9.5	-3.0654 ug/L	-3.0654 ppb	19:09:21
1	U 409.014†	-3391.3	256.2	8.2502 ug/L	8.2502 ppb	19:09:01
1	V 292.402†	-1621.6	185.9	1.4901 ug/L	1.4901 ppb	19:09:01
1	Zn 213.857†	899.0	17.3	0.1766 ug/L	0.1766 ppb	19:09:21
1	SiO2†	641.7	36.3	2.3947 ug/L	2.3947 ppb	19:10:17
2	Sc Radial	4072.7	4072.7	102 %		19:08:09
2	Y RADIAL	4183.4	4183.4	101.3 %		19:08:09
2	Al 396.153Radial†	-123.0	21.9	22.552 ug/L	22.552 ppb	19:08:09
2	Ca 317.933Radial†	44.5	19.2	37.229 ug/L	37.229 ppb	19:08:29
2	Fe 238.204 Radial†	12.5	1.1	12.612 ug/L	12.612 ppb	19:08:29
2	K 766.490 Radial†	3120.9	-161.4	-34.992 ug/L	-34.992 ppb	19:08:09
2	Mg 279.077 IEC†	3.1	1.6	63.771 ug/L	63.771 ppb	19:08:29
2	Na 589.592 Radial†	-48.2	56.6	19.864 ug/L	19.864 ppb	19:08:09
2	Sr 421.552†	117.4	2.9	0.0239 ug/L	0.0239 ppb	19:08:09
2	Sc 361.383	819392.7	819392.7	102.97 %		19:09:26
2	Y 371.029	662831.6	662831.6	103.08 %		19:09:26
2	Ag 328.068†	330.9	135.7	0.6991 ug/L	0.6991 ppb	19:09:26
2	As 188.979†	-31.5	-2.9	-1.2282 ug/L	-1.2282 ppb	19:09:46
2	B 249.677†	-252.3	-303.1	-7.2341 ug/L	-7.2341 ppb	19:09:46
2	Ba 233.527†	36.2	28.8	0.2460 ug/L	0.2460 ppb	19:09:46
2	Be 313.107†	-2936.3	1386.8	0.5208 ug/L	0.5208 ppb	19:09:26
2	Cd 226.502†	-183.6	30.3	0.3749 ug/L	0.3749 ppb	19:09:46
2	Co 228.616†	-64.2	16.1	0.3438 ug/L	0.3438 ppb	19:09:46
2	Cr 267.716†	105.3	-594.9	-7.3557 ug/L	-7.3557 ppb	19:09:46
2	Cu 324.752†	8536.9	-28.3	-0.0927 ug/L	-0.0927 ppb	19:09:26
2	Mn 257.610†	800.0	225.4	0.2606 ug/L	0.2606 ppb	19:09:46
2	Mo 202.031†	37.9	15.7	1.2149 ug/L	1.2149 ppb	19:09:46
2	Ni 231.604†	109.4	14.7	0.3922 ug/L	0.3922 ppb	19:09:46

2	P 214.914†	237.0	-13.1	-7.1993 ug/L	-7.1993 ppb	19:09:46
2	Pb 220.353†	-42.5	-25.3	-3.2603 ug/L	-3.2603 ppb	19:09:46
2	S 181.975 Axial†	112.1	47.2	61.243 ug/L	61.243 ppb	19:09:46
2	Sb 206.836†	46.3	1.0	0.3406 ug/L	0.3406 ppb	19:09:46
2	Se 196.026†	-16.7	10.3	5.9463 ug/L	5.9463 ppb	19:09:46
2	Si 251.611†	562.6	-119.5	-3.7799 ug/L	-3.7799 ppb	19:09:46
2	Sn 189.927†	20.7	-15.6	-2.8864 ug/L	-2.8864 ppb	19:09:46
2	Ti 334.940†	-1230.3	407.6	0.6742 ug/L	0.6742 ppb	19:09:26
2	Tl 190.801†	-35.6	-13.2	-4.2615 ug/L	-4.2615 ppb	19:09:46
2	U 409.014†	-3370.6	299.5	9.6383 ug/L	9.6383 ppb	19:09:26
2	V 292.402†	-1577.1	240.3	1.9012 ug/L	1.9012 ppb	19:09:26
2	Zn 213.857†	918.1	29.7	0.2924 ug/L	0.2924 ppb	19:09:46
2	SiO2†	661.5	51.2	3.3997 ug/L	3.3997 ppb	19:10:22
3	Sc Radial	4017.3	4017.3	101 %		19:08:34
3	Y RADIAL	4181.9	4181.9	101.2 %		19:08:34
3	Al 396.153Radial†	-126.1	17.1	17.585 ug/L	17.585 ppb	19:08:34
3	Ca 317.933Radial†	28.3	3.8	7.3643 ug/L	7.3643 ppb	19:08:54
3	Fe 238.204 Radial†	12.5	1.4	14.842 ug/L	14.842 ppb	19:08:54
3	K 766.490 Radial†	3113.9	-126.3	-27.389 ug/L	-27.389 ppb	19:08:34
3	Mg 279.077 IEC†	3.7	2.3	91.752 ug/L	91.752 ppb	19:08:54
3	Na 589.592 Radial†	30.2	133.6	46.844 ug/L	46.844 ppb	19:08:34
3	Sr 421.552†	181.5	67.9	0.5647 ug/L	0.5647 ppb	19:08:34
3	Sc 361.383	813789.0	813789.0	102.27 %		19:09:51
3	Y 371.029	658215.5	658215.5	102.37 %		19:09:51
3	Ag 328.068†	391.4	197.1	1.0113 ug/L	1.0113 ppb	19:09:51
3	As 188.979†	-34.7	-6.3	-2.6531 ug/L	-2.6531 ppb	19:10:12
3	B 249.677†	-245.9	-298.5	-7.1259 ug/L	-7.1259 ppb	19:10:12
3	Ba 233.527†	45.6	38.2	0.3242 ug/L	0.3242 ppb	19:10:12
3	Be 313.107†	-2637.1	1659.7	0.6230 ug/L	0.6230 ppb	19:09:51
3	Cd 226.502†	-166.8	45.6	0.5629 ug/L	0.5629 ppb	19:10:12
3	Co 228.616†	-52.8	26.8	0.5691 ug/L	0.5691 ppb	19:10:12
3	Cr 267.716†	108.8	-590.8	-7.3061 ug/L	-7.3061 ppb	19:10:12
3	Cu 324.752†	8576.7	67.6	0.2045 ug/L	0.2045 ppb	19:09:51
3	Mn 257.610†	917.4	345.6	0.3994 ug/L	0.3994 ppb	19:10:12
3	Mo 202.031†	37.1	15.2	1.1795 ug/L	1.1795 ppb	19:10:12
3	Ni 231.604†	99.6	5.8	0.1537 ug/L	0.1537 ppb	19:10:12
3	P 214.914†	242.5	-6.2	-3.4747 ug/L	-3.4747 ppb	19:10:12
3	Pb 220.353†	-63.0	-45.7	-5.8974 ug/L	-5.8974 ppb	19:10:12
3	S 181.975 Axial†	103.9	39.9	51.744 ug/L	51.744 ppb	19:10:12
3	Sb 206.836†	42.4	-2.5	-0.8964 ug/L	-0.8964 ppb	19:10:12
3	Se 196.026†	-19.6	7.3	4.2254 ug/L	4.2254 ppb	19:10:12
3	Si 251.611†	548.0	-130.1	-4.1131 ug/L	-4.1131 ppb	19:10:12
3	Sn 189.927†	27.2	-9.1	-1.6848 ug/L	-1.6848 ppb	19:10:12
3	Ti 334.940†	-1224.7	404.8	0.6623 ug/L	0.6623 ppb	19:09:51
3	Tl 190.801†	-25.4	-3.5	-1.1124 ug/L	-1.1124 ppb	19:10:12
3	U 409.014†	-3271.5	373.8	12.026 ug/L	12.026 ppb	19:09:51
3	V 292.402†	-1631.8	176.2	1.4085 ug/L	1.4085 ppb	19:09:51
3	Zn 213.857†	935.0	52.4	0.5196 ug/L	0.5196 ppb	19:10:12
3	SiO2†	567.3	-36.5	-2.4820 ug/L	-2.4820 ppb	19:10:27

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	815605.7	102.49 %		0.412			0.40%
Sc Radial	4108.0	103 %		2.8			2.74%
Y 371.029	659563.7	102.58 %		0.442			0.43%
Y RADIAL	4251.7	102.9 %		2.90			2.81%
Ag 328.068†	145.5	0.7435 ug/L		0.24862	0.7435 ppb	0.24862	33.44%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	14.2	14.597 ug/L		9.7958	14.597 ppb	9.7958	67.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-3.6	-1.5152 ug/L		1.02503	-1.5152 ppb	1.02503	67.65%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	-292.8	-6.9873 ug/L		0.33804	-6.9873 ppb	0.33804	4.84%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	34.7	0.2942 ug/L		0.04221	0.2942 ppb	0.04221	14.35%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	1570.2	0.5894 ug/L		0.05944	0.5894 ppb	0.05944	10.08%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	10.2	19.893 ug/L		15.5018	19.893 ppb	15.5018	77.93%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	28.2	0.3508 ug/L	0.22505	0.3508 ppb	0.22505	64.15%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	19.5	0.4161 ug/L	0.13258	0.4161 ppb	0.13258	31.86%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-586.7	-7.2549 ug/L	0.13398	-7.2549 ppb	0.13398	1.85%	
QC value less than the lower limit for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	58.5	0.1763 ug/L	0.25609	0.1763 ppb	0.25609	145.26%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-0.3	-3.2739 ug/L	29.46724	-3.2739 ppb	29.46724	900.07%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-227.1	-49.233 ug/L	31.4807	-49.233 ppb	31.4807	63.94%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	2.4	94.423 ug/L	32.0718	94.423 ppb	32.0718	33.97%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	258.5	0.2962 ug/L	0.09078	0.2962 ppb	0.09078	30.65%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	17.0	1.3175 ug/L	0.20903	1.3175 ppb	0.20903	15.87%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	66.9	23.479 ug/L	21.7834	23.479 ppb	21.7834	92.78%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	10.0	0.2678 ug/L	0.11956	0.2678 ppb	0.11956	44.64%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-10.6	-5.8753 ug/L	2.08261	-5.8753 ppb	2.08261	35.45%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-28.7	-3.7081 ug/L	2.00332	-3.7081 ppb	2.00332	54.03%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	47.7	61.903 ug/L	10.5039	61.903 ppb	10.5039	16.97%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-1.0	-0.3489 ug/L	0.63061	-0.3489 ppb	0.63061	180.72%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	7.7	4.3896 ug/L	1.48146	4.3896 ppb	1.48146	33.75%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	-119.1	-3.7678 ug/L	0.35153	-3.7678 ppb	0.35153	9.33%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-13.2	-2.4304 ug/L	0.65107	-2.4304 ppb	0.65107	26.79%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	17.2	0.1426 ug/L	0.37708	0.1426 ppb	0.37708	264.50%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	398.9	0.6549 ug/L	0.02392	0.6549 ppb	0.02392	3.65%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-8.7	-2.8131 ug/L	1.58962	-2.8131 ppb	1.58962	56.51%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	309.8	9.9715 ug/L	1.90982	9.9715 ppb	1.90982	19.15%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	200.8	1.5999 ug/L	0.26410	1.5999 ppb	0.26410	16.51%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	33.1	0.3295 ug/L	0.17447	0.3295 ppb	0.17447	52.95%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	17.0	1.1042 ug/L	3.14608	1.1042 ppb	3.14608	284.93%	
QC value within limits for SiO2 Recovery = Not calculated							
QC Failed. Continue with analysis.							

Sequence No.: 35

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 2/17/2010 19:46:49

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	3948.2	3948.2	99.3 %		19:49:01
1	Y RADIAL	4199.3	4199.3	101.7 %		19:48:41
1	Al 396.153Radial†	4717.3	4892.2	5038.0 ug/L	5038.0 ppb	19:48:41
1	Ca 317.933Radial†	2624.0	2618.1	5084.0 ug/L	5084.0 ppb	19:49:01
1	Fe 238.204 Radial†	463.6	455.8	5014.6 ug/L	5014.6 ppb	19:49:01
1	K 766.490 Radial†	25403.9	22373.6	4841.4 ug/L	4841.4 ppb	19:48:41
1	Mg 279.077 IEC†	133.3	132.9	5193.4 ug/L	5193.4 ppb	19:49:01
1	Na 589.592 Radial†	26655.6	26945.7	9451.1 ug/L	9451.1 ppb	19:48:41
1	Sr 421.552†	59067.4	59368.9	493.51 ug/L	493.51 ppb	19:48:41
1	Sc 361.383	838740.5	838740.5	105.40 %		19:49:58
1	Y 371.029	676229.9	676229.9	105.17 %		19:49:58
1	Ag 328.068†	99861.7	94557.9	488.11 ug/L	488.11 ppb	19:50:04
1	As 188.979†	1187.9	1154.6	493.12 ug/L	493.12 ppb	19:50:24
1	B 249.677†	21097.1	19957.8	473.96 ug/L	473.96 ppb	19:50:04
1	Ba 233.527†	60446.2	57341.7	482.59 ug/L	482.59 ppb	19:50:04
1	Be 313.107†	1384349.6	1317636.1	494.45 ug/L	494.45 ppb	19:49:58
1	Cd 226.502†	41349.2	39438.5	486.42 ug/L	486.42 ppb	19:50:04
1	Co 228.616†	24159.1	22999.3	484.86 ug/L	484.86 ppb	19:50:04
1	Cr 267.716†	41915.7	39070.2	483.62 ug/L	483.62 ppb	19:50:04
1	Cu 324.752†	173208.1	156011.8	485.40 ug/L	485.40 ppb	19:50:04
1	Mn 257.610†	441017.4	417862.5	485.88 ug/L	485.88 ppb	19:49:58
1	Mo 202.031†	6648.9	6287.0	487.77 ug/L	487.77 ppb	19:50:24
1	Ni 231.604†	19336.1	18253.5	487.60 ug/L	487.60 ppb	19:50:04
1	P 214.914†	4930.1	4434.1	2333.4 ug/L	2333.4 ppb	19:50:24
1	Pb 220.353†	3909.0	3724.6	483.14 ug/L	483.14 ppb	19:50:24
1	S 181.975 Axial†	882.7	775.8	1005.9 ug/L	1005.9 ppb	19:50:24
1	Sb 206.836†	1458.9	1340.1	488.76 ug/L	488.76 ppb	19:50:24
1	Se 196.026†	889.7	870.6	516.36 ug/L	516.36 ppb	19:50:24
1	Si 251.611†	81501.8	76658.7	2408.6 ug/L	2408.6 ppb	19:50:04
1	Sn 189.927†	2719.6	2544.5	470.72 ug/L	470.72 ppb	19:50:24
1	Ti 334.940†	303278.7	289337.1	479.77 ug/L	479.77 ppb	19:50:04
1	Tl 190.801†	1541.1	1483.5	481.33 ug/L	481.33 ppb	19:50:24
1	U 409.014†	12607.7	15534.4	497.46 ug/L	497.46 ppb	19:50:04
1	V 292.402†	65062.9	63500.1	499.19 ug/L	499.19 ppb	19:50:04
1	Zn 213.857†	52548.7	48993.5	484.79 ug/L	484.79 ppb	19:50:04
1	SiO2†	81500.9	76732.5	5134.4 ug/L	5134.4 ppb	19:51:31
2	Sc Radial	3945.8	3945.8	99.2 %		19:49:26
2	Y RADIAL	4171.1	4171.1	101.0 %		19:49:06
2	Al 396.153Radial†	4711.3	4889.1	5035.0 ug/L	5035.0 ppb	19:49:06
2	Ca 317.933Radial†	2612.4	2608.1	5064.5 ug/L	5064.5 ppb	19:49:26
2	Fe 238.204 Radial†	460.1	452.5	4978.7 ug/L	4978.7 ppb	19:49:26
2	K 766.490 Radial†	25262.0	22246.5	4813.9 ug/L	4813.9 ppb	19:49:06
2	Mg 279.077 IEC†	131.1	130.7	5110.5 ug/L	5110.5 ppb	19:49:26
2	Na 589.592 Radial†	26508.7	26814.4	9405.0 ug/L	9405.0 ppb	19:49:06
2	Sr 421.552†	58723.6	59059.4	490.93 ug/L	490.93 ppb	19:49:06
2	Sc 361.383	838576.8	838576.8	105.38 %		19:50:30
2	Y 371.029	673299.3	673299.3	104.71 %		19:50:30
2	Ag 328.068†	99028.3	93785.5	484.13 ug/L	484.13 ppb	19:50:35
2	As 188.979†	1185.9	1153.0	492.40 ug/L	492.40 ppb	19:50:55
2	B 249.677†	20930.3	19803.4	470.28 ug/L	470.28 ppb	19:50:35
2	Ba 233.527†	60201.8	57121.0	480.73 ug/L	480.73 ppb	19:50:35
2	Be 313.107†	1381196.6	1314900.6	493.42 ug/L	493.42 ppb	19:50:30
2	Cd 226.502†	41181.4	39287.0	484.55 ug/L	484.55 ppb	19:50:35
2	Co 228.616†	24117.2	22964.0	484.11 ug/L	484.11 ppb	19:50:35
2	Cr 267.716†	41728.8	38900.6	481.52 ug/L	481.52 ppb	19:50:35
2	Cu 324.752†	171630.5	154546.8	480.85 ug/L	480.85 ppb	19:50:35
2	Mn 257.610†	440508.5	417461.4	485.41 ug/L	485.41 ppb	19:50:30
2	Mo 202.031†	6600.1	6241.9	484.27 ug/L	484.27 ppb	19:50:55
2	Ni 231.604†	19303.6	18226.2	486.87 ug/L	486.87 ppb	19:50:35



2	P 214.914†	4896.7	4403.3	2317.4 ug/L	2317.4 ppb	19:50:55
2	Pb 220.353†	3855.6	3674.7	476.68 ug/L	476.68 ppb	19:50:55
2	S 181.975 Axial†	876.2	769.8	998.11 ug/L	998.11 ppb	19:50:55
2	Sb 206.836†	1453.8	1335.6	487.07 ug/L	487.07 ppb	19:50:55
2	Se 196.026†	868.5	850.7	504.77 ug/L	504.77 ppb	19:50:55
2	Si 251.611†	80993.5	76191.4	2393.9 ug/L	2393.9 ppb	19:50:35
2	Sn 189.927†	2703.1	2529.3	467.91 ug/L	467.91 ppb	19:50:55
2	Ti 334.940†	301209.5	287429.8	476.62 ug/L	476.62 ppb	19:50:35
2	Tl 190.801†	1541.3	1484.0	481.47 ug/L	481.47 ppb	19:50:55
2	U 409.014†	12460.8	15397.3	493.06 ug/L	493.06 ppb	19:50:35
2	V 292.402†	64664.6	63134.2	496.30 ug/L	496.30 ppb	19:50:35
2	Zn 213.857†	52233.6	48704.3	481.92 ug/L	481.92 ppb	19:50:35
2	SiO2†	81030.4	76301.1	5105.6 ug/L	5105.6 ppb	19:51:36
3	Sc Radial	3942.0	3942.0	99.1 %		19:49:51
3	Y RADIAL	4177.2	4177.2	101.1 %		19:49:31
3	Al 396.153Radial†	4714.8	4897.1	5043.3 ug/L	5043.3 ppb	19:49:31
3	Ca 317.933Radial†	2603.2	2601.3	5051.3 ug/L	5051.3 ppb	19:49:51
3	Fe 238.204 Radial†	457.8	450.7	4958.4 ug/L	4958.4 ppb	19:49:51
3	K 766.490 Radial†	25397.1	22407.1	4848.7 ug/L	4848.7 ppb	19:49:31
3	Mg 279.077 IEC†	132.3	132.1	5163.0 ug/L	5163.0 ppb	19:49:51
3	Na 589.592 Radial†	26698.8	27031.7	9481.2 ug/L	9481.2 ppb	19:49:31
3	Sr 421.552†	58737.2	59129.9	491.52 ug/L	491.52 ppb	19:49:31
3	Sc 361.383	840415.5	840415.5	105.61 %		19:51:01
3	Y 371.029	675396.4	675396.4	105.04 %		19:51:01
3	Ag 328.068†	99296.9	93834.2	484.37 ug/L	484.37 ppb	19:51:06
3	As 188.979†	1183.9	1148.7	490.54 ug/L	490.54 ppb	19:51:26
3	B 249.677†	20923.2	19753.3	469.09 ug/L	469.09 ppb	19:51:06
3	Ba 233.527†	60252.2	57043.8	480.08 ug/L	480.08 ppb	19:51:06
3	Be 313.107†	1384612.8	1315267.7	493.56 ug/L	493.56 ppb	19:51:01
3	Cd 226.502†	41257.9	39273.9	484.39 ug/L	484.39 ppb	19:51:06
3	Co 228.616†	24111.4	22908.5	482.95 ug/L	482.95 ppb	19:51:06
3	Cr 267.716†	41746.0	38830.3	480.65 ug/L	480.65 ppb	19:51:06
3	Cu 324.752†	172068.2	154604.9	481.03 ug/L	481.03 ppb	19:51:06
3	Mn 257.610†	441016.8	417028.1	484.90 ug/L	484.90 ppb	19:51:01
3	Mo 202.031†	6620.9	6247.9	484.73 ug/L	484.73 ppb	19:51:26
3	Ni 231.604†	19247.4	18132.9	484.38 ug/L	484.38 ppb	19:51:06
3	P 214.914†	4909.0	4404.8	2318.2 ug/L	2318.2 ppb	19:51:26
3	Pb 220.353†	3878.2	3688.1	478.42 ug/L	478.42 ppb	19:51:26
3	S 181.975 Axial†	874.2	766.1	993.31 ug/L	993.31 ppb	19:51:26
3	Sb 206.836†	1447.2	1326.3	483.79 ug/L	483.79 ppb	19:51:26
3	Se 196.026†	884.3	863.7	512.22 ug/L	512.22 ppb	19:51:26
3	Si 251.611†	81096.7	76121.0	2391.7 ug/L	2391.7 ppb	19:51:06
3	Sn 189.927†	2708.7	2529.0	467.85 ug/L	467.85 ppb	19:51:26
3	Ti 334.940†	301147.2	286745.4	475.48 ug/L	475.48 ppb	19:51:06
3	Tl 190.801†	1537.8	1477.4	479.36 ug/L	479.36 ppb	19:51:26
3	U 409.014†	12484.4	15393.8	492.95 ug/L	492.95 ppb	19:51:06
3	V 292.402†	64681.1	63015.5	495.39 ug/L	495.39 ppb	19:51:06
3	Zn 213.857†	52283.9	48643.4	481.33 ug/L	481.33 ppb	19:51:06
3	SiO2†	81161.3	76256.8	5102.6 ug/L	5102.6 ppb	19:51:41

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	839244.3	105.47 %	0.128			0.12%
Sc Radial	3945.3	99.2 %	0.08			0.08%
Y 371.029	674975.2	104.97 %	0.235			0.22%
Y RADIAL	4182.5	101.2 %	0.36			0.35%
Ag 328.068†	94059.2	485.53 ug/L	2.232	485.53 ppb	2.232	0.46%
QC value within limits for Ag 328.068 Recovery = 97.11%						
Al 396.153Radial†	4892.8	5038.8 ug/L	4.21	5038.8 ppb	4.21	0.08%
QC value within limits for Al 396.153Radial Recovery = 100.78%						
As 188.979†	1152.1	492.02 ug/L	1.331	492.02 ppb	1.331	0.27%
QC value within limits for As 188.979 Recovery = 98.40%						
B 249.677†	19838.2	471.11 ug/L	2.537	471.11 ppb	2.537	0.54%
QC value within limits for B 249.677 Recovery = 94.22%						
Ba 233.527†	57168.8	481.13 ug/L	1.303	481.13 ppb	1.303	0.27%
QC value within limits for Ba 233.527 Recovery = 96.23%						
Be 313.107†	1315934.8	493.81 ug/L	0.561	493.81 ppb	0.561	0.11%
QC value within limits for Be 313.107 Recovery = 98.76%						
Ca 317.933Radial†	2609.2	5066.6 ug/L	16.45	5066.6 ppb	16.45	0.32%

QC value within limits for Ca 317.933 Radial Recovery = 101.33%							
Cd	226.502†	39333.1	485.12 ug/L	1.127	485.12 ppb	1.127	0.23%
QC value within limits for Cd 226.502 Recovery = 97.02%							
Co	228.616†	22957.3	483.97 ug/L	0.964	483.97 ppb	0.964	0.20%
QC value within limits for Co 228.616 Recovery = 96.79%							
Cr	267.716†	38933.7	481.93 ug/L	1.527	481.93 ppb	1.527	0.32%
QC value within limits for Cr 267.716 Recovery = 96.39%							
Cu	324.752†	155054.5	482.42 ug/L	2.581	482.42 ppb	2.581	0.53%
QC value within limits for Cu 324.752 Recovery = 96.48%							
Fe	238.204 Radial†	453.0	4983.9 ug/L	28.46	4983.9 ppb	28.46	0.57%
QC value within limits for Fe 238.204 Radial Recovery = 99.68%							
K	766.490 Radial†	22342.4	4834.7 ug/L	18.34	4834.7 ppb	18.34	0.38%
QC value within limits for K 766.490 Radial Recovery = 96.69%							
Mg	279.077 IEC†	131.9	5155.6 ug/L	41.96	5155.6 ppb	41.96	0.81%
QC value within limits for Mg 279.077 IEC Recovery = 103.11%							
Mn	257.610†	417450.7	485.40 ug/L	0.487	485.40 ppb	0.487	0.10%
QC value within limits for Mn 257.610 Recovery = 97.08%							
Mo	202.031†	6259.0	485.59 ug/L	1.901	485.59 ppb	1.901	0.39%
QC value within limits for Mo 202.031 Recovery = 97.12%							
Na	589.592 Radial†	26930.6	9445.8 ug/L	38.39	9445.8 ppb	38.39	0.41%
QC value within limits for Na 589.592 Radial Recovery = 94.46%							
Ni	231.604†	18204.2	486.28 ug/L	1.690	486.28 ppb	1.690	0.35%
QC value within limits for Ni 231.604 Recovery = 97.26%							
P	214.914†	4414.1	2323.0 ug/L	9.00	2323.0 ppb	9.00	0.39%
QC value within limits for P 214.914 Recovery = 92.92%							
Pb	220.353†	3695.8	479.41 ug/L	3.342	479.41 ppb	3.342	0.70%
QC value within limits for Pb 220.353 Recovery = 95.88%							
S	181.975 Axial†	770.5	999.12 ug/L	6.376	999.12 ppb	6.376	0.64%
QC value within limits for S 181.975 Axial Recovery = 99.91%							
Sb	206.836†	1334.0	486.54 ug/L	2.529	486.54 ppb	2.529	0.52%
QC value within limits for Sb 206.836 Recovery = 97.31%							
Se	196.026†	861.7	511.12 ug/L	5.872	511.12 ppb	5.872	1.15%
QC value within limits for Se 196.026 Recovery = 102.22%							
Si	251.611†	76323.7	2398.1 ug/L	9.18	2398.1 ppb	9.18	0.38%
QC value within limits for Si 251.611 Recovery = 95.92%							
Sn	189.927†	2534.3	468.83 ug/L	1.639	468.83 ppb	1.639	0.35%
QC value within limits for Sn 189.927 Recovery = 93.77%							
Sr	421.552†	59186.1	491.99 ug/L	1.348	491.99 ppb	1.348	0.27%
QC value within limits for Sr 421.552 Recovery = 98.40%							
Ti	334.940†	287837.4	477.29 ug/L	2.226	477.29 ppb	2.226	0.47%
QC value within limits for Ti 334.940 Recovery = 95.46%							
Tl	190.801†	1481.6	480.72 ug/L	1.179	480.72 ppb	1.179	0.25%
QC value within limits for Tl 190.801 Recovery = 96.14%							
U	409.014†	15441.8	494.49 ug/L	2.571	494.49 ppb	2.571	0.52%
QC value within limits for U 409.014 Recovery = 98.90%							
V	292.402†	63216.6	496.96 ug/L	1.983	496.96 ppb	1.983	0.40%
QC value within limits for V 292.402 Recovery = 99.39%							
Zn	213.857†	48780.4	482.68 ug/L	1.852	482.68 ppb	1.852	0.38%
QC value within limits for Zn 213.857 Recovery = 96.54%							
SiO2†		76430.1	5114.2 ug/L	17.58	5114.2 ppb	17.58	0.34%
QC value within limits for SiO2 Recovery = 95.64%							
All analyte(s) passed QC.							

Sequence No.: 36  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 2/17/2010 19:53:52  
 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	3917.8	3917.8	98.5 %		19:56:04
1	Y RADIAL	4196.2	4196.2	101.6 %		19:55:43
1	Al 396.153Radial†	-155.8	-16.2	-16.880 ug/L	-16.880 ppb	19:55:43
1	Ca 317.933Radial†	30.1	6.3	12.281 ug/L	12.281 ppb	19:56:04
1	Fe 238.204 Radial†	10.6	-0.2	-2.4816 ug/L	-2.4816 ppb	19:56:04
1	K 766.490 Radial†	3092.4	-69.8	-15.136 ug/L	-15.136 ppb	19:55:43
1	Mg 279.077 IEC†	2.2	0.9	34.142 ug/L	34.142 ppb	19:56:04
1	Na 589.592 Radial†	-127.9	-26.1	-9.1413 ug/L	-9.1413 ppb	19:55:43
1	Sr 421.552†	126.1	16.3	0.1355 ug/L	0.1355 ppb	19:55:43
1	Sc 361.383	813248.9	813248.9	102.20 %		19:57:00
1	Y 371.029	661200.1	661200.1	102.83 %		19:57:00
1	Ag 328.068†	285.3	93.5	0.4866 ug/L	0.4866 ppb	19:57:00
1	As 188.979†	-33.8	-5.4	-2.2848 ug/L	-2.2848 ppb	19:57:20
1	B 249.677†	-218.3	-271.6	-6.4831 ug/L	-6.4831 ppb	19:57:20
1	Ba 233.527†	55.5	47.9	0.4070 ug/L	0.4070 ppb	19:57:20
1	Be 313.107†	-1945.5	2334.8	0.8758 ug/L	0.8758 ppb	19:57:00
1	Cd 226.502†	-149.4	62.5	0.7715 ug/L	0.7715 ppb	19:57:20
1	Co 228.616†	-34.0	45.2	0.9584 ug/L	0.9584 ppb	19:57:20
1	Cr 267.716†	157.3	-543.2	-6.7135 ug/L	-6.7135 ppb	19:57:20
1	Cu 324.752†	8646.5	141.5	0.4390 ug/L	0.4390 ppb	19:57:00
1	Mn 257.610†	1180.6	603.7	0.7000 ug/L	0.7000 ppb	19:57:20
1	Mo 202.031†	48.4	26.2	2.0323 ug/L	2.0323 ppb	19:57:20
1	Ni 231.604†	115.1	21.0	0.5606 ug/L	0.5606 ppb	19:57:20
1	P 214.914†	255.0	6.2	3.2870 ug/L	3.2870 ppb	19:57:20
1	Pb 220.353†	-48.8	-31.7	-4.1013 ug/L	-4.1013 ppb	19:57:20
1	S 181.975 Axial†	82.3	18.8	24.438 ug/L	24.438 ppb	19:57:20
1	Sb 206.836†	41.4	-3.5	-1.2003 ug/L	-1.2003 ppb	19:57:20
1	Se 196.026†	-19.1	7.8	4.4723 ug/L	4.4723 ppb	19:57:20
1	Si 251.611†	561.3	-116.7	-3.7023 ug/L	-3.7023 ppb	19:57:20
1	Sn 189.927†	33.1	-3.3	-0.6005 ug/L	-0.6005 ppb	19:57:20
1	Ti 334.940†	-1198.9	429.2	0.7123 ug/L	0.7123 ppb	19:57:00
1	Tl 190.801†	-28.4	-6.4	-2.0753 ug/L	-2.0753 ppb	19:57:20
1	U 409.014†	-3584.7	65.3	2.1123 ug/L	2.1123 ppb	19:57:00
1	V 292.402†	-1500.3	303.8	2.3927 ug/L	2.3927 ppb	19:57:00
1	Zn 213.857†	998.1	114.7	1.1417 ug/L	1.1417 ppb	19:57:20
1	SiO2†	673.1	67.3	4.4609 ug/L	4.4609 ppb	19:58:16
2	Sc Radial	3900.0	3900.0	98.1 %		19:56:29
2	Y RADIAL	4204.7	4204.7	101.8 %		19:56:09
2	Al 396.153Radial†	-131.9	7.4	7.5943 ug/L	7.5943 ppb	19:56:09
2	Ca 317.933Radial†	33.8	10.2	19.783 ug/L	19.783 ppb	19:56:29
2	Fe 238.204 Radial†	11.7	0.9	10.368 ug/L	10.368 ppb	19:56:29
2	K 766.490 Radial†	3116.9	-30.5	-6.6035 ug/L	-6.6035 ppb	19:56:09
2	Mg 279.077 IEC†	4.9	3.6	142.30 ug/L	142.30 ppb	19:56:29
2	Na 589.592 Radial†	-141.5	-40.5	-14.218 ug/L	-14.218 ppb	19:56:09
2	Sr 421.552†	183.6	75.5	0.6272 ug/L	0.6272 ppb	19:56:09
2	Sc 361.383	813877.0	813877.0	102.28 %		19:57:26
2	Y 371.029	661110.3	661110.3	102.82 %		19:57:26
2	Ag 328.068†	306.9	114.5	0.5908 ug/L	0.5908 ppb	19:57:26
2	As 188.979†	-23.2	5.0	2.1040 ug/L	2.1040 ppb	19:57:46
2	B 249.677†	-245.0	-297.6	-7.1037 ug/L	-7.1037 ppb	19:57:46
2	Ba 233.527†	48.8	41.2	0.3510 ug/L	0.3510 ppb	19:57:46
2	Be 313.107†	-2086.8	2198.1	0.8244 ug/L	0.8244 ppb	19:57:26
2	Cd 226.502†	-151.6	60.4	0.7461 ug/L	0.7461 ppb	19:57:46
2	Co 228.616†	-45.1	34.3	0.7281 ug/L	0.7281 ppb	19:57:46
2	Cr 267.716†	157.6	-543.1	-6.7148 ug/L	-6.7148 ppb	19:57:46
2	Cu 324.752†	8623.3	112.3	0.3448 ug/L	0.3448 ppb	19:57:26
2	Mn 257.610†	1087.5	511.8	0.5900 ug/L	0.5900 ppb	19:57:46
2	Mo 202.031†	36.7	14.8	1.1452 ug/L	1.1452 ppb	19:57:46
2	Ni 231.604†	109.7	15.7	0.4188 ug/L	0.4188 ppb	19:57:46

2	P 214.914†	242.8	-6.0	-3.3711 ug/L	-3.3711 ppb	19:57:46
2	Pb 220.353†	-50.7	-33.6	-4.3409 ug/L	-4.3409 ppb	19:57:46
2	S 181.975 Axial†	83.1	19.6	25.420 ug/L	25.420 ppb	19:57:46
2	Sb 206.836†	36.1	-8.7	-3.0779 ug/L	-3.0779 ppb	19:57:46
2	Se 196.026†	-19.2	7.7	4.4390 ug/L	4.4390 ppb	19:57:46
2	Si 251.611†	557.6	-120.8	-3.8191 ug/L	-3.8191 ppb	19:57:46
2	Sn 189.927†	22.4	-13.8	-2.5473 ug/L	-2.5473 ppb	19:57:46
2	Ti 334.940†	-1271.2	359.5	0.5856 ug/L	0.5856 ppb	19:57:26
2	Tl 190.801†	-21.7	0.1	0.0456 ug/L	0.0456 ppb	19:57:46
2	U 409.014†	-3358.1	289.6	9.3185 ug/L	9.3185 ppb	19:57:26
2	V 292.402†	-1540.5	265.7	2.0985 ug/L	2.0985 ppb	19:57:26
2	Zn 213.857†	974.2	90.6	0.9003 ug/L	0.9003 ppb	19:57:46
2	SiO2†	582.9	-21.4	-1.4668 ug/L	-1.4668 ppb	19:58:21
3	Sc Radial	3925.5	3925.5	98.7 %		19:56:54
3	Y RADIAL	4175.2	4175.2	101.1 %		19:56:34
3	Al 396.153Radial†	-138.6	1.5	1.5442 ug/L	1.5442 ppb	19:56:34
3	Ca 317.933Radial†	30.1	6.3	12.198 ug/L	12.198 ppb	19:56:54
3	Fe 238.204 Radial†	10.2	-0.7	-8.0416 ug/L	-8.0416 ppb	19:56:54
3	K 766.490 Radial†	3054.7	-114.1	-24.720 ug/L	-24.720 ppb	19:56:34
3	Mg 279.077 IEC†	2.9	1.6	61.866 ug/L	61.866 ppb	19:56:54
3	Na 589.592 Radial†	-154.3	-52.6	-18.435 ug/L	-18.435 ppb	19:56:34
3	Sr 421.552†	155.9	46.3	0.3846 ug/L	0.3846 ppb	19:56:34
3	Sc 361.383	815055.8	815055.8	102.43 %		19:57:51
3	Y 371.029	661880.4	661880.4	102.94 %		19:57:51
3	Ag 328.068†	277.7	85.5	0.4366 ug/L	0.4366 ppb	19:57:51
3	As 188.979†	-29.2	-0.9	-0.3651 ug/L	-0.3651 ppb	19:58:11
3	B 249.677†	-256.8	-308.7	-7.3664 ug/L	-7.3664 ppb	19:58:11
3	Ba 233.527†	61.4	53.5	0.4536 ug/L	0.4536 ppb	19:58:11
3	Be 313.107†	-3285.6	1030.6	0.3870 ug/L	0.3870 ppb	19:57:51
3	Cd 226.502†	-159.1	53.3	0.6609 ug/L	0.6609 ppb	19:58:11
3	Co 228.616†	-47.8	31.8	0.6740 ug/L	0.6740 ppb	19:58:11
3	Cr 267.716†	150.9	-549.8	-6.7984 ug/L	-6.7984 ppb	19:58:11
3	Cu 324.752†	8565.6	43.8	0.1305 ug/L	0.1305 ppb	19:57:51
3	Mn 257.610†	1063.7	487.0	0.5627 ug/L	0.5627 ppb	19:58:11
3	Mo 202.031†	25.6	3.9	0.3007 ug/L	0.3007 ppb	19:58:11
3	Ni 231.604†	104.0	9.9	0.2654 ug/L	0.2654 ppb	19:58:11
3	P 214.914†	231.1	-17.7	-9.7402 ug/L	-9.7402 ppb	19:58:11
3	Pb 220.353†	-43.1	-26.1	-3.3772 ug/L	-3.3772 ppb	19:58:11
3	S 181.975 Axial†	86.9	23.2	30.079 ug/L	30.079 ppb	19:58:11
3	Sb 206.836†	39.8	-5.1	-1.8666 ug/L	-1.8666 ppb	19:58:11
3	Se 196.026†	-9.2	17.4	9.9946 ug/L	9.9946 ppb	19:58:11
3	Si 251.611†	564.9	-114.4	-3.6083 ug/L	-3.6083 ppb	19:58:11
3	Sn 189.927†	10.6	-25.4	-4.6925 ug/L	-4.6925 ppb	19:58:11
3	Ti 334.940†	-1344.7	289.5	0.4750 ug/L	0.4750 ppb	19:57:51
3	Tl 190.801†	-31.8	-9.7	-3.1356 ug/L	-3.1356 ppb	19:58:11
3	U 409.014†	-3352.8	299.5	9.6379 ug/L	9.6379 ppb	19:57:51
3	V 292.402†	-1534.4	273.8	2.1512 ug/L	2.1512 ppb	19:57:51
3	Zn 213.857†	978.1	93.0	0.9284 ug/L	0.9284 ppb	19:58:11
3	SiO2†	588.5	-16.7	-1.1312 ug/L	-1.1312 ppb	19:58:26

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	814060.6	102.30 %	0.115			0.11%
Sc Radial	3914.4	98.5 %	0.33			0.33%
Y 371.029	661396.9	102.86 %	0.065			0.06%
Y RADIAL	4192.1	101.5 %	0.37			0.36%
Ag 328.068†	97.8	0.5047 ug/L	0.07866	0.5047 ppb	0.07866	15.59%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-2.4	-2.5805 ug/L	12.74776	-2.5805 ppb	12.74776	494.01%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-0.4	-0.1819 ug/L	2.20016	-0.1819 ppb	2.20016	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-292.7	-6.9844 ug/L	0.45360	-6.9844 ppb	0.45360	6.49%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	47.5	0.4039 ug/L	0.05137	0.4039 ppb	0.05137	12.72%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	1854.5	0.6957 ug/L	0.26862	0.6957 ppb	0.26862	38.61%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	7.6	14.754 ug/L	4.3559	14.754 ppb	4.3559	29.52%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	58.7	0.7262 ug/L	0.05793	0.7262 ppb	0.05793	7.98%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	37.1	0.7869 ug/L	0.15103	0.7869 ppb	0.15103	19.19%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-545.4	-6.7422 ug/L	0.04864	-6.7422 ppb	0.04864	0.72%	
QC value less than the lower limit for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	99.2	0.3048 ug/L	0.15812	0.3048 ppb	0.15812	51.88%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-0.0	-0.0516 ug/L	9.44245	-0.0516 ppb	9.44245	>999.9%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-71.5	-15.487 ug/L	9.0631	-15.487 ppb	9.0631	58.52%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	2.0	79.436 ug/L	56.1789	79.436 ppb	56.1789	70.72%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	534.2	0.6175 ug/L	0.07268	0.6175 ppb	0.07268	11.77%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	15.0	1.1594 ug/L	0.86589	1.1594 ppb	0.86589	74.68%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-39.7	-13.931 ug/L	4.6534	-13.931 ppb	4.6534	33.40%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	15.5	0.4149 ug/L	0.14761	0.4149 ppb	0.14761	35.58%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-5.8	-3.2748 ug/L	6.51418	-3.2748 ppb	6.51418	198.92%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-30.5	-3.9398 ug/L	0.50175	-3.9398 ppb	0.50175	12.74%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	20.5	26.646 ug/L	3.0136	26.646 ppb	3.0136	11.31%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-5.8	-2.0483 ug/L	0.95190	-2.0483 ppb	0.95190	46.47%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	11.0	6.3020 ug/L	3.19796	6.3020 ppb	3.19796	50.75%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	-117.3	-3.7099 ug/L	0.10560	-3.7099 ppb	0.10560	2.85%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-14.1	-2.6134 ug/L	2.04679	-2.6134 ppb	2.04679	78.32%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	46.0	0.3824 ug/L	0.24582	0.3824 ppb	0.24582	64.28%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	359.4	0.5910 ug/L	0.11872	0.5910 ppb	0.11872	20.09%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-5.3	-1.7218 ug/L	1.61979	-1.7218 ppb	1.61979	94.08%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	218.1	7.0229 ug/L	4.25567	7.0229 ppb	4.25567	60.60%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	281.1	2.2142 ug/L	0.15686	2.2142 ppb	0.15686	7.08%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	99.4	0.9902 ug/L	0.13202	0.9902 ppb	0.13202	13.33%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	9.7	0.6209 ug/L	3.32970	0.6209 ppb	3.32970	536.23%	
QC value within limits for SiO2 Recovery = Not calculated							
QC Failed. Continue with analysis.							

Sequence No.: 44

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 2/17/2010 20:48:32

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	3933.6	3933.6	98.9 %		20:50:44
1	Y RADIAL	4216.4	4216.4	102.1 %		20:50:24
1	Al 396.153Radial†	4764.1	4957.1	5105.3 ug/L	5105.3 ppb	20:50:24
1	Ca 317.933Radial†	2603.3	2607.0	5062.4 ug/L	5062.4 ppb	20:50:44
1	Fe 238.204 Radial†	461.6	455.5	5011.1 ug/L	5011.1 ppb	20:50:44
1	K 766.490 Radial†	25537.6	22603.5	4891.1 ug/L	4891.1 ppb	20:50:24
1	Mg 279.077 IEC†	135.4	135.5	5298.0 ug/L	5298.0 ppb	20:50:44
1	Na 589.592 Radial†	27944.6	28348.0	9942.9 ug/L	9942.9 ppb	20:50:24
1	Sr 421.552†	60470.7	61007.7	507.13 ug/L	507.13 ppb	20:50:24
1	Sc 361.383	837287.4	837287.4	105.22 %		20:51:41
1	Y 371.029	670915.9	670915.9	104.34 %		20:51:41
1	Ag 328.068†	99212.8	94105.6	485.78 ug/L	485.78 ppb	20:51:47
1	As 188.979†	1181.0	1150.1	491.17 ug/L	491.17 ppb	20:52:07
1	B 249.677†	20901.8	19806.9	470.36 ug/L	470.36 ppb	20:51:47
1	Ba 233.527†	60368.4	57367.3	482.80 ug/L	482.80 ppb	20:51:47
1	Be 313.107†	1380645.6	1316395.3	493.99 ug/L	493.99 ppb	20:51:41
1	Cd 226.502†	41170.3	39336.6	485.16 ug/L	485.16 ppb	20:51:47
1	Co 228.616†	23980.7	22869.5	482.12 ug/L	482.12 ppb	20:51:47
1	Cr 267.716†	41598.8	38838.1	480.74 ug/L	480.74 ppb	20:51:47
1	Cu 324.752†	170727.1	153939.0	478.96 ug/L	478.96 ppb	20:51:47
1	Mn 257.610†	440035.2	417655.2	485.63 ug/L	485.63 ppb	20:51:41
1	Mo 202.031†	6605.6	6256.8	485.43 ug/L	485.43 ppb	20:52:07
1	Ni 231.604†	19266.2	18218.9	486.68 ug/L	486.68 ppb	20:51:47
1	P 214.914†	4911.2	4424.2	2329.3 ug/L	2329.3 ppb	20:52:07
1	Pb 220.353†	3855.5	3680.2	477.41 ug/L	477.41 ppb	20:52:07
1	S 181.975 Axial†	854.7	750.6	973.24 ug/L	973.24 ppb	20:52:07
1	Sb 206.836†	1473.5	1356.4	494.53 ug/L	494.53 ppb	20:52:07
1	Se 196.026†	880.0	862.8	511.84 ug/L	511.84 ppb	20:52:07
1	Si 251.611†	81490.6	76782.2	2412.5 ug/L	2412.5 ppb	20:51:47
1	Sn 189.927†	2751.1	2579.0	477.08 ug/L	477.08 ppb	20:52:07
1	Ti 334.940†	302300.6	288906.9	479.05 ug/L	479.05 ppb	20:51:47
1	Tl 190.801†	1543.7	1488.5	482.96 ug/L	482.96 ppb	20:52:07
1	U 409.014†	12390.3	15348.5	491.49 ug/L	491.49 ppb	20:51:47
1	V 292.402†	64611.0	63177.8	496.65 ug/L	496.65 ppb	20:51:47
1	Zn 213.857†	51798.1	48366.7	478.55 ug/L	478.55 ppb	20:51:47
1	SiO2†	80822.9	76222.3	5100.3 ug/L	5100.3 ppb	20:53:14
2	Sc Radial	3970.5	3970.5	99.9 %		20:51:09
2	Y RADIAL	4182.3	4182.3	101.2 %		20:50:49
2	Al 396.153Radial†	4763.9	4912.2	5058.5 ug/L	5058.5 ppb	20:50:49
2	Ca 317.933Radial†	2644.9	2624.2	5095.7 ug/L	5095.7 ppb	20:51:09
2	Fe 238.204 Radial†	463.1	452.6	4980.1 ug/L	4980.1 ppb	20:51:09
2	K 766.490 Radial†	25686.2	22512.5	4871.4 ug/L	4871.4 ppb	20:50:49
2	Mg 279.077 IEC†	132.7	131.5	5140.4 ug/L	5140.4 ppb	20:51:09
2	Na 589.592 Radial†	27695.0	27835.7	9763.2 ug/L	9763.2 ppb	20:50:49
2	Sr 421.552†	60106.6	60075.3	499.38 ug/L	499.38 ppb	20:50:49
2	Sc 361.383	824447.2	824447.2	103.61 %		20:52:12
2	Y 371.029	662058.3	662058.3	102.96 %		20:52:12
2	Ag 328.068†	99314.2	95672.0	493.83 ug/L	493.83 ppb	20:52:18
2	As 188.979†	1187.3	1173.7	501.20 ug/L	501.20 ppb	20:52:38
2	B 249.677†	21025.2	20235.4	480.57 ug/L	480.57 ppb	20:52:18
2	Ba 233.527†	60220.0	58117.6	489.11 ug/L	489.11 ppb	20:52:18
2	Be 313.107†	1361191.6	1318054.3	494.63 ug/L	494.63 ppb	20:52:12
2	Cd 226.502†	41179.9	39955.3	492.80 ug/L	492.80 ppb	20:52:18
2	Co 228.616†	23943.8	23188.9	488.86 ug/L	488.86 ppb	20:52:18
2	Cr 267.716†	41502.7	39361.0	487.22 ug/L	487.22 ppb	20:52:18
2	Cu 324.752†	170633.6	156375.8	486.53 ug/L	486.53 ppb	20:52:18
2	Mn 257.610†	434797.2	419112.8	487.33 ug/L	487.33 ppb	20:52:12
2	Mo 202.031†	6610.2	6359.1	493.35 ug/L	493.35 ppb	20:52:38
2	Ni 231.604†	19204.2	18444.2	492.70 ug/L	492.70 ppb	20:52:18

2	P 214.914†	4919.8	4505.2	2372.2 ug/L	2372.2 ppb	20:52:38
2	Pb 220.353†	3850.5	3732.5	484.18 ug/L	484.18 ppb	20:52:38
2	S 181.975 Axial†	846.5	755.4	979.40 ug/L	979.40 ppb	20:52:38
2	Sb 206.836†	1475.1	1379.8	503.02 ug/L	503.02 ppb	20:52:38
2	Se 196.026†	885.7	881.3	522.41 ug/L	522.41 ppb	20:52:38
2	Si 251.611†	81677.2	78168.5	2456.1 ug/L	2456.1 ppb	20:52:18
2	Sn 189.927†	2741.7	2610.6	482.94 ug/L	482.94 ppb	20:52:38
2	Ti 334.940†	302246.5	293329.3	486.40 ug/L	486.40 ppb	20:52:18
2	Tl 190.801†	1524.9	1493.2	484.50 ug/L	484.50 ppb	20:52:38
2	U 409.014†	12332.1	15475.8	495.57 ug/L	495.57 ppb	20:52:18
2	V 292.402†	64374.2	63905.6	502.41 ug/L	502.41 ppb	20:52:18
2	Zn 213.857†	51824.6	49159.0	486.41 ug/L	486.41 ppb	20:52:18
2	SiO2†	81990.9	78545.9	5255.9 ug/L	5255.9 ppb	20:53:19
3	Sc Radial	3959.8	3959.8	99.6 %		20:51:34
3	Y RADIAL	4234.6	4234.6	102.5 %		20:51:14
3	Al 396.153Radial†	4802.0	4963.3	5111.6 ug/L	5111.6 ppb	20:51:14
3	Ca 317.933Radial†	2627.7	2614.1	5076.2 ug/L	5076.2 ppb	20:51:34
3	Fe 238.204 Radial†	459.8	450.6	4957.3 ug/L	4957.3 ppb	20:51:34
3	K 766.490 Radial†	25761.1	22657.2	4902.7 ug/L	4902.7 ppb	20:51:14
3	Mg 279.077 IEC†	132.0	131.2	5127.6 ug/L	5127.6 ppb	20:51:34
3	Na 589.592 Radial†	27901.4	28117.9	9862.2 ug/L	9862.2 ppb	20:51:14
3	Sr 421.552†	60603.0	60736.3	504.87 ug/L	504.87 ppb	20:51:14
3	Sc 361.383	836249.6	836249.6	105.09 %		20:52:44
3	Y 371.029	669375.5	669375.5	104.10 %		20:52:44
3	Ag 328.068†	98232.9	93290.2	481.56 ug/L	481.56 ppb	20:52:49
3	As 188.979†	1173.5	1144.3	488.67 ug/L	488.67 ppb	20:53:09
3	B 249.677†	20691.6	19631.6	466.20 ug/L	466.20 ppb	20:52:49
3	Ba 233.527†	59642.3	56747.6	477.58 ug/L	477.58 ppb	20:52:49
3	Be 313.107†	1377512.2	1315042.0	493.47 ug/L	493.47 ppb	20:52:44
3	Cd 226.502†	40670.3	38909.4	479.89 ug/L	479.89 ppb	20:52:49
3	Co 228.616†	23728.0	22657.4	477.66 ug/L	477.66 ppb	20:52:49
3	Cr 267.716†	41126.1	38437.3	475.78 ug/L	475.78 ppb	20:52:49
3	Cu 324.752†	168336.7	151865.8	472.50 ug/L	472.50 ppb	20:52:49
3	Mn 257.610†	440554.3	418668.2	486.81 ug/L	486.81 ppb	20:52:44
3	Mo 202.031†	6619.3	6277.6	487.04 ug/L	487.04 ppb	20:53:09
3	Ni 231.604†	18989.6	17978.4	480.25 ug/L	480.25 ppb	20:52:49
3	P 214.914†	4906.7	4425.8	2331.5 ug/L	2331.5 ppb	20:53:09
3	Pb 220.353†	3864.3	3693.1	479.10 ug/L	479.10 ppb	20:53:09
3	S 181.975 Axial†	855.4	752.3	975.45 ug/L	975.45 ppb	20:53:09
3	Sb 206.836†	1474.5	1359.1	495.47 ug/L	495.47 ppb	20:53:09
3	Se 196.026†	874.9	859.0	509.48 ug/L	509.48 ppb	20:53:09
3	Si 251.611†	80635.5	76064.6	2389.9 ug/L	2389.9 ppb	20:52:49
3	Sn 189.927†	2732.1	2564.1	474.34 ug/L	474.34 ppb	20:53:09
3	Ti 334.940†	298678.2	285816.5	473.94 ug/L	473.94 ppb	20:52:49
3	Tl 190.801†	1539.8	1486.6	482.35 ug/L	482.35 ppb	20:53:09
3	U 409.014†	12291.0	15268.7	488.94 ug/L	488.94 ppb	20:52:49
3	V 292.402†	63757.7	62442.0	490.97 ug/L	490.97 ppb	20:52:49
3	Zn 213.857†	51261.1	47916.8	474.11 ug/L	474.11 ppb	20:52:49
3	SiO2†	80992.2	76478.7	5117.4 ug/L	5117.4 ppb	20:53:24

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	832661.4	104.64 %	0.896			0.86%
Sc Radial	3954.7	99.5 %	0.48			0.48%
Y 371.029	667449.9	103.80 %	0.736			0.71%
Y RADIAL	4211.1	101.9 %	0.64			0.63%
Ag 328.068†	94355.9	487.06 ug/L	6.231	487.06 ppb	6.231	1.28%
QC value within limits for Ag 328.068 Recovery = 97.41%						
Al 396.153Radial†	4944.2	5091.8 ug/L	29.04	5091.8 ppb	29.04	0.57%
QC value within limits for Al 396.153Radial Recovery = 101.84%						
As 188.979†	1156.0	493.68 ug/L	6.633	493.68 ppb	6.633	1.34%
QC value within limits for As 188.979 Recovery = 98.74%						
B 249.677†	19891.3	472.38 ug/L	7.394	472.38 ppb	7.394	1.57%
QC value within limits for B 249.677 Recovery = 94.48%						
Ba 233.527†	57410.8	483.16 ug/L	5.772	483.16 ppb	5.772	1.19%
QC value within limits for Ba 233.527 Recovery = 96.63%						
Be 313.107†	1316497.2	494.03 ug/L	0.579	494.03 ppb	0.579	0.12%
QC value within limits for Be 313.107 Recovery = 98.81%						
Ca 317.933Radial†	2615.1	5078.1 ug/L	16.76	5078.1 ppb	16.76	0.33%

Cd	QC value within limits for Cd	226.502	39400.5	485.95 ug/L	6.491	485.95 ppb	6.491	1.34%
	QC value within limits for Cd	226.502		Recovery = 97.19%				
Co	QC value within limits for Co	228.616	22905.3	482.88 ug/L	5.634	482.88 ppb	5.634	1.17%
	QC value within limits for Co	228.616		Recovery = 96.58%				
Cr	QC value within limits for Cr	267.716	38878.8	481.25 ug/L	5.733	481.25 ppb	5.733	1.19%
	QC value within limits for Cr	267.716		Recovery = 96.25%				
Cu	QC value within limits for Cu	324.752	154060.2	479.33 ug/L	7.023	479.33 ppb	7.023	1.47%
	QC value within limits for Cu	324.752		Recovery = 95.87%				
Fe	QC value within limits for Fe	238.204	452.9	4982.8 ug/L	26.99	4982.8 ppb	26.99	0.54%
	QC value within limits for Fe	238.204		Radial Recovery = 99.66%				
K	QC value within limits for K	766.490	22591.1	4888.4 ug/L	15.84	4888.4 ppb	15.84	0.32%
	QC value within limits for K	766.490		Radial Recovery = 97.77%				
Mg	QC value within limits for Mg	279.077	132.7	5188.7 ug/L	94.89	5188.7 ppb	94.89	1.83%
	QC value within limits for Mg	279.077		IEC Recovery = 103.77%				
Mn	QC value within limits for Mn	257.610	418478.7	486.59 ug/L	0.870	486.59 ppb	0.870	0.18%
	QC value within limits for Mn	257.610		Recovery = 97.32%				
Mo	QC value within limits for Mo	202.031	6297.8	488.60 ug/L	4.189	488.60 ppb	4.189	0.86%
	QC value within limits for Mo	202.031		Recovery = 97.72%				
Na	QC value within limits for Na	589.592	28100.5	9856.1 ug/L	90.01	9856.1 ppb	90.01	0.91%
	QC value within limits for Na	589.592		Radial Recovery = 98.56%				
Ni	QC value within limits for Ni	231.604	18213.8	486.54 ug/L	6.223	486.54 ppb	6.223	1.28%
	QC value within limits for Ni	231.604		Recovery = 97.31%				
P	QC value within limits for P	214.914	4451.7	2344.4 ug/L	24.17	2344.4 ppb	24.17	1.03%
	QC value within limits for P	214.914		Recovery = 93.77%				
Pb	QC value within limits for Pb	220.353	3702.0	480.23 ug/L	3.524	480.23 ppb	3.524	0.73%
	QC value within limits for Pb	220.353		Recovery = 96.05%				
S	QC value within limits for S	181.975	752.8	976.03 ug/L	3.123	976.03 ppb	3.123	0.32%
	QC value within limits for S	181.975		Axial Recovery = 97.60%				
Sb	QC value within limits for Sb	206.836	1365.1	497.67 ug/L	4.656	497.67 ppb	4.656	0.94%
	QC value within limits for Sb	206.836		Recovery = 99.53%				
Se	QC value within limits for Se	196.026	867.7	514.58 ug/L	6.885	514.58 ppb	6.885	1.34%
	QC value within limits for Se	196.026		Recovery = 102.92%				
Si	QC value within limits for Si	251.611	77005.1	2419.5 ug/L	33.64	2419.5 ppb	33.64	1.39%
	QC value within limits for Si	251.611		Recovery = 96.78%				
Sn	QC value within limits for Sn	189.927	2584.5	478.12 ug/L	4.395	478.12 ppb	4.395	0.92%
	QC value within limits for Sn	189.927		Recovery = 95.62%				
Sr	QC value within limits for Sr	421.552	60606.4	503.80 ug/L	3.987	503.80 ppb	3.987	0.79%
	QC value within limits for Sr	421.552		Recovery = 100.76%				
Ti	QC value within limits for Ti	334.940	289350.9	479.80 ug/L	6.261	479.80 ppb	6.261	1.30%
	QC value within limits for Ti	334.940		Recovery = 95.96%				
Tl	QC value within limits for Tl	190.801	1489.4	483.27 ug/L	1.112	483.27 ppb	1.112	0.23%
	QC value within limits for Tl	190.801		Recovery = 96.65%				
U	QC value within limits for U	409.014	15364.3	492.00 ug/L	3.342	492.00 ppb	3.342	0.68%
	QC value within limits for U	409.014		Recovery = 98.40%				
V	QC value within limits for V	292.402	63175.1	496.68 ug/L	5.718	496.68 ppb	5.718	1.15%
	QC value within limits for V	292.402		Recovery = 99.34%				
Zn	QC value within limits for Zn	213.857	48480.9	479.69 ug/L	6.232	479.69 ppb	6.232	1.30%
	QC value within limits for Zn	213.857		Recovery = 95.94%				
SiO2	QC value within limits for SiO2		77082.3	5157.9 ug/L	85.35	5157.9 ppb	85.35	1.65%
	QC value within limits for SiO2			Recovery = 96.45%				
All analyte(s) passed QC.								



Sequence No.: 45

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 2/17/2010 20:55:34

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	3920.7	3920.7	98.6 %		20:57:46
1	Y RADIAL	4197.4	4197.4	101.6 %		20:57:26
1	Al 396.153Radial†	-138.8	1.2	1.1692 ug/L	1.1692 ppb	20:57:26
1	Ca 317.933Radial†	28.9	5.0	9.7289 ug/L	9.7289 ppb	20:57:46
1	Fe 238.204 Radial†	12.2	1.4	14.986 ug/L	14.986 ppb	20:57:46
1	K 766.490 Radial†	3056.5	-108.6	-23.518 ug/L	-23.518 ppb	20:57:26
1	Mg 279.077 IEC†	1.4	0.1	3.7052 ug/L	3.7052 ppb	20:57:46
1	Na 589.592 Radial†	-152.1	-50.6	-17.745 ug/L	-17.745 ppb	20:57:26
1	Sr 421.552†	140.4	30.7	0.2553 ug/L	0.2553 ppb	20:57:26
1	Sc 361.383	826184.5	826184.5	103.82 %		20:58:43
1	Y 371.029	669468.3	669468.3	104.12 %		20:58:43
1	Ag 328.068†	213.6	20.1	0.1052 ug/L	0.1052 ppb	20:58:43
1	As 188.979†	-27.4	1.3	0.5556 ug/L	0.5556 ppb	20:59:03
1	B 249.677†	-266.4	-314.6	-7.5119 ug/L	-7.5119 ppb	20:59:03
1	Ba 233.527†	53.7	45.3	0.3844 ug/L	0.3844 ppb	20:59:03
1	Be 313.107†	-2852.8	1490.7	0.5597 ug/L	0.5597 ppb	20:58:43
1	Cd 226.502†	-172.5	42.5	0.5257 ug/L	0.5257 ppb	20:59:03
1	Co 228.616†	-27.7	51.8	1.0961 ug/L	1.0961 ppb	20:59:03
1	Cr 267.716†	172.7	-530.8	-6.5645 ug/L	-6.5645 ppb	20:59:03
1	Cu 324.752†	8586.5	-48.7	-0.1569 ug/L	-0.1569 ppb	20:58:43
1	Mn 257.610†	1222.0	625.6	0.7283 ug/L	0.7283 ppb	20:59:03
1	Mo 202.031†	35.3	12.9	1.0002 ug/L	1.0002 ppb	20:59:03
1	Ni 231.604†	145.2	48.3	1.2904 ug/L	1.2904 ppb	20:59:03
1	P 214.914†	244.9	-7.4	-4.0753 ug/L	-4.0753 ppb	20:59:03
1	Pb 220.353†	-49.0	-31.2	-4.0321 ug/L	-4.0321 ppb	20:59:03
1	S 181.975 Axial†	72.6	8.3	10.715 ug/L	10.715 ppb	20:59:03
1	Sb 206.836†	42.4	-3.1	-1.0970 ug/L	-1.0970 ppb	20:59:03
1	Se 196.026†	-20.2	7.0	4.0662 ug/L	4.0662 ppb	20:59:03
1	Si 251.611†	592.9	-94.8	-2.9997 ug/L	-2.9997 ppb	20:59:03
1	Sn 189.927†	27.1	-9.6	-1.7685 ug/L	-1.7685 ppb	20:59:03
1	Ti 334.940†	-1228.2	419.4	0.6942 ug/L	0.6942 ppb	20:58:43
1	Tl 190.801†	-30.9	-8.5	-2.7236 ug/L	-2.7236 ppb	20:59:03
1	U 409.014†	-3358.4	338.2	10.880 ug/L	10.880 ppb	20:58:43
1	V 292.402†	-1631.2	200.7	1.5919 ug/L	1.5919 ppb	20:58:43
1	Zn 213.857†	966.7	69.3	0.6814 ug/L	0.6814 ppb	20:59:03
1	SiO2†	584.3	-28.5	-1.9364 ug/L	-1.9364 ppb	20:59:59
2	Sc Radial	4023.4	4023.4	101 %		20:58:11
2	Y RADIAL	4263.4	4263.4	103.2 %		20:57:51
2	Al 396.153Radial†	-146.3	-2.7	-2.7920 ug/L	-2.7920 ppb	20:57:51
2	Ca 317.933Radial†	32.5	7.9	15.267 ug/L	15.267 ppb	20:58:11
2	Fe 238.204 Radial†	10.9	-0.3	-3.2915 ug/L	-3.2915 ppb	20:58:11
2	K 766.490 Radial†	3099.4	-145.2	-31.468 ug/L	-31.468 ppb	20:57:51
2	Mg 279.077 IEC†	4.0	2.6	103.18 ug/L	103.18 ppb	20:58:11
2	Na 589.592 Radial†	-157.7	-52.2	-18.303 ug/L	-18.303 ppb	20:57:51
2	Sr 421.552†	105.0	-7.9	-0.0655 ug/L	-0.0655 ppb	20:57:51
2	Sc 361.383	813213.1	813213.1	102.19 %		20:59:08
2	Y 371.029	660741.6	660741.6	102.76 %		20:59:08
2	Ag 328.068†	764.7	562.6	2.8828 ug/L	2.8828 ppb	20:59:08
2	As 188.979†	-25.1	3.1	1.3211 ug/L	1.3211 ppb	20:59:28
2	B 249.677†	-316.5	-367.7	-8.7737 ug/L	-8.7737 ppb	20:59:28
2	Ba 233.527†	29.8	22.7	0.1916 ug/L	0.1916 ppb	20:59:28
2	Be 313.107†	-3868.6	452.9	0.1713 ug/L	0.1713 ppb	20:59:08
2	Cd 226.502†	-179.3	33.1	0.4104 ug/L	0.4104 ppb	20:59:28
2	Co 228.616†	-66.0	13.9	0.2973 ug/L	0.2973 ppb	20:59:28
2	Cr 267.716†	136.0	-564.1	-6.9752 ug/L	-6.9752 ppb	20:59:28
2	Cu 324.752†	8438.9	-61.2	-0.1933 ug/L	-0.1933 ppb	20:59:08
2	Mn 257.610†	724.8	157.8	0.1788 ug/L	0.1788 ppb	20:59:28
2	Mo 202.031†	34.1	12.3	0.9496 ug/L	0.9496 ppb	20:59:28
2	Ni 231.604†	104.2	10.4	0.2774 ug/L	0.2774 ppb	20:59:28

2	P 214.914†	245.9	-2.7	-1.4597 ug/L	-1.4597 ppb	20:59:28
2	Pb 220.353†	-42.1	-25.2	-3.2553 ug/L	-3.2553 ppb	20:59:28
2	S 181.975 Axial†	75.3	12.0	15.516 ug/L	15.516 ppb	20:59:28
2	Sb 206.836†	40.6	-4.3	-1.5333 ug/L	-1.5333 ppb	20:59:28
2	Se 196.026†	-21.2	5.7	3.2904 ug/L	3.2904 ppb	20:59:28
2	Si 251.611†	581.1	-97.3	-3.0771 ug/L	-3.0771 ppb	20:59:28
2	Sn 189.927†	22.9	-13.3	-2.4501 ug/L	-2.4501 ppb	20:59:28
2	Ti 334.940†	-1168.2	459.3	0.7558 ug/L	0.7558 ppb	20:59:08
2	Tl 190.801†	-43.4	-21.1	-6.7982 ug/L	-6.7982 ppb	20:59:28
2	U 409.014†	-3499.0	149.0	4.8042 ug/L	4.8042 ppb	20:59:08
2	V 292.402†	-1752.9	56.6	0.4660 ug/L	0.4660 ppb	20:59:08
2	Zn 213.857†	905.2	23.9	0.2377 ug/L	0.2377 ppb	20:59:28
2	SiO2†	657.4	52.0	3.4655 ug/L	3.4655 ppb	21:00:04
3	Sc Radial	4013.9	4013.9	101 %		20:58:36
3	Y RADIAL	4244.8	4244.8	102.8 %		20:58:16
3	Al 396.153Radial†	-144.5	-1.2	-1.3180 ug/L	-1.3180 ppb	20:58:16
3	Ca 317.933Radial†	28.1	3.5	6.8543 ug/L	6.8543 ppb	20:58:36
3	Fe 238.204 Radial†	12.2	1.0	11.271 ug/L	11.271 ppb	20:58:36
3	K 766.490 Radial†	3005.7	-230.8	-49.998 ug/L	-49.998 ppb	20:58:16
3	Mg 279.077 IEC†	1.1	-0.3	-10.214 ug/L	-10.214 ppb	20:58:36
3	Na 589.592 Radial†	-151.1	-46.0	-16.134 ug/L	-16.134 ppb	20:58:16
3	Sr 421.552†	85.1	-27.4	-0.2279 ug/L	-0.2279 ppb	20:58:16
3	Sc 361.383	819177.6	819177.6	102.94 %		20:59:33
3	Y 371.029	663294.1	663294.1	103.16 %		20:59:33
3	Ag 328.068†	212.2	20.5	0.1093 ug/L	0.1093 ppb	20:59:33
3	As 188.979†	-29.8	-1.3	-0.5315 ug/L	-0.5315 ppb	20:59:54
3	B 249.677†	-352.6	-400.6	-9.5602 ug/L	-9.5602 ppb	20:59:54
3	Ba 233.527†	17.6	10.6	0.0928 ug/L	0.0928 ppb	20:59:54
3	Be 313.107†	-3919.6	430.9	0.1624 ug/L	0.1624 ppb	20:59:33
3	Cd 226.502†	-185.8	28.1	0.3471 ug/L	0.3471 ppb	20:59:54
3	Co 228.616†	-58.3	21.9	0.4647 ug/L	0.4647 ppb	20:59:54
3	Cr 267.716†	128.7	-572.1	-7.0732 ug/L	-7.0732 ppb	20:59:54
3	Cu 324.752†	8516.6	-45.9	-0.1457 ug/L	-0.1457 ppb	20:59:33
3	Mn 257.610†	708.7	137.0	0.1607 ug/L	0.1607 ppb	20:59:54
3	Mo 202.031†	30.5	8.5	0.6607 ug/L	0.6607 ppb	20:59:54
3	Ni 231.604†	106.8	12.2	0.3255 ug/L	0.3255 ppb	20:59:54
3	P 214.914†	243.2	-7.1	-3.8920 ug/L	-3.8920 ppb	20:59:54
3	Pb 220.353†	-51.4	-33.9	-4.3848 ug/L	-4.3848 ppb	20:59:54
3	S 181.975 Axial†	82.2	18.1	23.547 ug/L	23.547 ppb	20:59:54
3	Sb 206.836†	48.6	3.3	1.0976 ug/L	1.0976 ppb	20:59:54
3	Se 196.026†	-18.0	8.9	5.1765 ug/L	5.1765 ppb	20:59:54
3	Si 251.611†	582.5	-100.1	-3.1624 ug/L	-3.1624 ppb	20:59:54
3	Sn 189.927†	13.7	-22.4	-4.1423 ug/L	-4.1423 ppb	20:59:54
3	Ti 334.940†	-1356.5	284.6	0.4736 ug/L	0.4736 ppb	20:59:33
3	Tl 190.801†	-31.6	-9.3	-3.0086 ug/L	-3.0086 ppb	20:59:54
3	U 409.014†	-3478.2	194.1	6.2505 ug/L	6.2505 ppb	20:59:33
3	V 292.402†	-1629.5	189.0	1.4877 ug/L	1.4877 ppb	20:59:33
3	Zn 213.857†	912.7	24.7	0.2433 ug/L	0.2433 ppb	20:59:54
3	SiO2†	819.3	204.6	13.710 ug/L	13.710 ppb	21:00:09

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	819525.1	102.99 %	0.816			0.79%
Sc Radial	3986.0	100 %	1.4			1.42%
Y 371.029	664501.3	103.34 %	0.698			0.68%
Y RADIAL	4235.2	102.5 %	0.82			0.80%
Ag 328.068†	201.1	1.0324 ug/L	1.60245	1.0324 ppb	1.60245	155.21%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-0.9	-0.9803 ug/L	2.00209	-0.9803 ppb	2.00209	204.24%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	1.0	0.4484 ug/L	0.93094	0.4484 ppb	0.93094	207.61%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-361.0	-8.6153 ug/L	1.03333	-8.6153 ppb	1.03333	11.99%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	26.2	0.2229 ug/L	0.14830	0.2229 ppb	0.14830	66.52%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	791.5	0.2978 ug/L	0.22687	0.2978 ppb	0.22687	76.18%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	5.5	10.617 ug/L	4.2761	10.617 ppb	4.2761	40.28%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	34.6	0.4277 ug/L	0.09053	0.4277 ppb	0.09053	21.16%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	29.2	0.6194 ug/L	0.42126	0.6194 ppb	0.42126	68.01%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-555.7	-6.8710 ug/L	0.26992	-6.8710 ppb	0.26992	3.93%	
QC value less than the lower limit for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-52.0	-0.1653 ug/L	0.02489	-0.1653 ppb	0.02489	15.06%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	0.7	7.6550 ug/L	9.66016	7.6550 ppb	9.66016	126.19%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-161.5	-34.995 ug/L	13.5875	-34.995 ppb	13.5875	38.83%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	0.8	32.225 ug/L	61.8453	32.225 ppb	61.8453	191.92%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	306.8	0.3559 ug/L	0.32259	0.3559 ppb	0.32259	90.63%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	11.2	0.8702 ug/L	0.18313	0.8702 ppb	0.18313	21.05%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-49.6	-17.394 ug/L	1.1264	-17.394 ppb	1.1264	6.48%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	23.6	0.6311 ug/L	0.57147	0.6311 ppb	0.57147	90.55%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-5.7	-3.1423 ug/L	1.46010	-3.1423 ppb	1.46010	46.47%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-30.1	-3.8907 ug/L	0.57787	-3.8907 ppb	0.57787	14.85%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	12.8	16.593 ug/L	6.4832	16.593 ppb	6.4832	39.07%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-1.4	-0.5109 ug/L	1.41001	-0.5109 ppb	1.41001	275.99%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	7.2	4.1777 ug/L	0.94797	4.1777 ppb	0.94797	22.69%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	-97.4	-3.0797 ug/L	0.08140	-3.0797 ppb	0.08140	2.64%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-15.1	-2.7869 ug/L	1.22223	-2.7869 ppb	1.22223	43.86%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-1.5	-0.0127 ug/L	0.24587	-0.0127 ppb	0.24587	>999.9%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	387.7	0.6412 ug/L	0.14835	0.6412 ppb	0.14835	23.14%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-13.0	-4.1768 ug/L	2.27466	-4.1768 ppb	2.27466	54.46%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	227.1	7.3114 ug/L	3.17357	7.3114 ppb	3.17357	43.41%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	148.8	1.1819 ug/L	0.62212	1.1819 ppb	0.62212	52.64%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	39.3	0.3875 ug/L	0.25457	0.3875 ppb	0.25457	65.70%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	76.1	5.0797 ug/L	7.94710	5.0797 ppb	7.94710	156.45%	
QC value within limits for SiO2 Recovery = Not calculated							
QC Failed. Continue with analysis.							

Sequence No.: 52  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 1  
 Date Collected: 2/17/2010 21:43:59  
 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	3942.0	3942.0	99.1 %		21:46:11
1	Y RADIAL	4229.2	4229.2	102.4 %		21:45:51
1	Al 396.153Radial†	4784.1	4967.0	5115.1 ug/L	5115.1 ppb	21:45:51
1	Ca 317.933Radial†	2647.4	2645.9	5137.9 ug/L	5137.9 ppb	21:46:11
1	Fe 238.204 Radial†	467.3	460.3	5064.2 ug/L	5064.2 ppb	21:46:11
1	K 766.490 Radial†	26064.2	23080.0	4994.2 ug/L	4994.2 ppb	21:45:51
1	Mg 279.077 IEC†	131.5	131.3	5132.9 ug/L	5132.9 ppb	21:46:11
1	Na 589.592 Radial†	28439.5	28787.5	10097 ug/L	10097 ppb	21:45:51
1	Sr 421.552†	61149.0	61562.5	511.74 ug/L	511.74 ppb	21:45:51
1	Sc 361.383	825696.9	825696.9	103.76 %		21:47:10
1	Y 371.029	665261.3	665261.3	103.46 %		21:47:10
1	Ag 328.068†	98579.2	94818.6	489.49 ug/L	489.49 ppb	21:47:10
1	As 188.979†	1192.1	1176.5	502.49 ug/L	502.49 ppb	21:47:30
1	B 249.677†	20925.2	20108.3	477.54 ug/L	477.54 ppb	21:47:10
1	Ba 233.527†	60771.7	58561.4	492.83 ug/L	492.83 ppb	21:47:10
1	Be 313.107†	1376107.4	1330440.8	499.28 ug/L	499.28 ppb	21:47:10
1	Cd 226.502†	40270.0	39018.2	481.22 ug/L	481.22 ppb	21:47:30
1	Co 228.616†	23680.9	22900.5	482.76 ug/L	482.76 ppb	21:47:30
1	Cr 267.716†	41659.8	39451.9	488.35 ug/L	488.35 ppb	21:47:10
1	Cu 324.752†	170248.6	155755.5	484.62 ug/L	484.62 ppb	21:47:10
1	Mn 257.610†	438535.3	422080.2	490.78 ug/L	490.78 ppb	21:47:10
1	Mo 202.031†	6643.8	6381.8	495.12 ug/L	495.12 ppb	21:47:30
1	Ni 231.604†	19055.1	18272.5	488.11 ug/L	488.11 ppb	21:47:30
1	P 214.914†	4920.1	4498.4	2368.8 ug/L	2368.8 ppb	21:47:30
1	Pb 220.353†	3874.7	3750.2	486.48 ug/L	486.48 ppb	21:47:30
1	S 181.975 Axial†	852.1	759.5	984.75 ug/L	984.75 ppb	21:47:30
1	Sb 206.836†	1457.5	1360.6	496.23 ug/L	496.23 ppb	21:47:30
1	Se 196.026†	880.8	875.3	519.24 ug/L	519.24 ppb	21:47:30
1	Si 251.611†	81422.7	77803.9	2444.6 ug/L	2444.6 ppb	21:47:10
1	Sn 189.927†	2729.9	2595.2	480.09 ug/L	480.09 ppb	21:47:30
1	Ti 334.940†	308084.4	298513.9	495.02 ug/L	495.02 ppb	21:47:10
1	Tl 190.801†	1543.0	1508.4	489.51 ug/L	489.51 ppb	21:47:30
1	U 409.014†	11503.9	14659.6	469.33 ug/L	469.33 ppb	21:47:10
1	V 292.402†	64323.3	63762.5	501.25 ug/L	501.25 ppb	21:47:10
1	Zn 213.857†	51945.9	49200.2	486.84 ug/L	486.84 ppb	21:47:10
1	SiO2†	81795.4	78237.8	5235.2 ug/L	5235.2 ppb	21:48:30
2	Sc Radial	3937.9	3937.9	99.0 %		21:46:36
2	Y RADIAL	4195.0	4195.0	101.5 %		21:46:16
2	Al 396.153Radial†	4780.0	4968.0	5116.3 ug/L	5116.3 ppb	21:46:16
2	Ca 317.933Radial†	2645.3	2646.6	5139.3 ug/L	5139.3 ppb	21:46:36
2	Fe 238.204 Radial†	466.8	460.3	5063.4 ug/L	5063.4 ppb	21:46:36
2	K 766.490 Radial†	25974.4	23016.7	4980.6 ug/L	4980.6 ppb	21:46:16
2	Mg 279.077 IEC†	131.9	131.8	5152.9 ug/L	5152.9 ppb	21:46:36
2	Na 589.592 Radial†	28016.3	28390.0	9957.6 ug/L	9957.6 ppb	21:46:16
2	Sr 421.552†	60481.8	60953.1	506.68 ug/L	506.68 ppb	21:46:16
2	Sc 361.383	830271.2	830271.2	104.34 %		21:47:37
2	Y 371.029	668532.7	668532.7	103.97 %		21:47:37
2	Ag 328.068†	99014.7	94712.5	488.93 ug/L	488.93 ppb	21:47:37
2	As 188.979†	1171.5	1150.5	491.48 ug/L	491.48 ppb	21:47:58
2	B 249.677†	21079.0	20144.6	478.43 ug/L	478.43 ppb	21:47:37
2	Ba 233.527†	60811.8	58277.1	490.44 ug/L	490.44 ppb	21:47:37
2	Be 313.107†	1379725.5	1326601.8	497.85 ug/L	497.85 ppb	21:47:37
2	Cd 226.502†	40091.3	38633.1	476.47 ug/L	476.47 ppb	21:47:58
2	Co 228.616†	23589.5	22687.3	478.26 ug/L	478.26 ppb	21:47:58
2	Cr 267.716†	41667.8	39238.3	485.70 ug/L	485.70 ppb	21:47:37
2	Cu 324.752†	172172.9	156695.8	487.54 ug/L	487.54 ppb	21:47:37
2	Mn 257.610†	439639.1	420809.7	489.31 ug/L	489.31 ppb	21:47:37
2	Mo 202.031†	6629.8	6333.0	491.34 ug/L	491.34 ppb	21:47:58
2	Ni 231.604†	18970.8	18090.5	483.25 ug/L	483.25 ppb	21:47:58

2	P 214.914†	4897.2	4450.2	2341.8 ug/L	2341.8 ppb	21:47:58
2	Pb 220.353†	3858.0	3713.6	481.74 ug/L	481.74 ppb	21:47:58
2	S 181.975 Axial†	856.7	759.4	984.61 ug/L	984.61 ppb	21:47:58
2	Sb 206.836†	1451.2	1346.9	491.23 ug/L	491.23 ppb	21:47:58
2	Se 196.026†	882.5	872.3	517.45 ug/L	517.45 ppb	21:47:58
2	Si 251.611†	81899.3	77828.4	2445.4 ug/L	2445.4 ppb	21:47:37
2	Sn 189.927†	2721.2	2572.4	475.87 ug/L	475.87 ppb	21:47:58
2	Ti 334.940†	310028.0	298740.9	495.39 ug/L	495.39 ppb	21:47:37
2	Tl 190.801†	1534.5	1492.0	484.26 ug/L	484.26 ppb	21:47:58
2	U 409.014†	11880.7	14959.7	478.98 ug/L	478.98 ppb	21:47:37
2	V 292.402†	64423.7	63517.2	499.31 ug/L	499.31 ppb	21:47:37
2	Zn 213.857†	52027.3	49002.4	484.90 ug/L	484.90 ppb	21:47:37
2	SiO2†	81220.0	77252.0	5169.2 ug/L	5169.2 ppb	21:48:35
3	Sc Radial	3958.0	3958.0	99.6 %		21:47:01
3	Y RADIAL	4212.5	4212.5	102.0 %		21:46:41
3	Al 396.153Radial†	4758.8	4922.0	5068.3 ug/L	5068.3 ppb	21:46:41
3	Ca 317.933Radial†	2655.4	2643.1	5132.4 ug/L	5132.4 ppb	21:47:01
3	Fe 238.204 Radial†	463.1	454.1	4996.2 ug/L	4996.2 ppb	21:47:01
3	K 766.490 Radial†	25860.9	22769.1	4926.9 ug/L	4926.9 ppb	21:46:41
3	Mg 279.077 IEC†	132.5	131.7	5149.1 ug/L	5149.1 ppb	21:47:01
3	Na 589.592 Radial†	28037.6	28267.2	9914.6 ug/L	9914.6 ppb	21:46:41
3	Sr 421.552†	60584.6	60745.1	504.95 ug/L	504.95 ppb	21:46:41
3	Sc 361.383	819562.7	819562.7	102.99 %		21:48:05
3	Y 371.029	660415.3	660415.3	102.71 %		21:48:05
3	Ag 328.068†	97795.6	94768.8	489.22 ug/L	489.22 ppb	21:48:05
3	As 188.979†	1201.4	1194.1	509.92 ug/L	509.92 ppb	21:48:25
3	B 249.677†	20902.8	20237.5	480.62 ug/L	480.62 ppb	21:48:05
3	Ba 233.527†	60085.0	58332.9	490.91 ug/L	490.91 ppb	21:48:05
3	Be 313.107†	1365712.7	1330274.3	499.22 ug/L	499.22 ppb	21:48:05
3	Cd 226.502†	40502.8	39534.8	487.60 ug/L	487.60 ppb	21:48:25
3	Co 228.616†	23822.5	23208.9	489.28 ug/L	489.28 ppb	21:48:25
3	Cr 267.716†	41243.1	39347.7	487.06 ug/L	487.06 ppb	21:48:05
3	Cu 324.752†	168987.3	155758.9	484.63 ug/L	484.63 ppb	21:48:05
3	Mn 257.610†	434825.6	421641.5	490.27 ug/L	490.27 ppb	21:48:05
3	Mo 202.031†	6671.7	6456.8	500.93 ug/L	500.93 ppb	21:48:25
3	Ni 231.604†	19160.0	18511.8	494.50 ug/L	494.50 ppb	21:48:25
3	P 214.914†	4962.8	4575.3	2411.1 ug/L	2411.1 ppb	21:48:25
3	Pb 220.353†	3901.6	3804.2	493.47 ug/L	493.47 ppb	21:48:25
3	S 181.975 Axial†	854.2	767.7	995.45 ug/L	995.45 ppb	21:48:25
3	Sb 206.836†	1466.3	1379.7	503.22 ug/L	503.22 ppb	21:48:25
3	Se 196.026†	886.7	887.5	526.01 ug/L	526.01 ppb	21:48:25
3	Si 251.611†	80750.3	77738.4	2442.4 ug/L	2442.4 ppb	21:48:05
3	Sn 189.927†	2763.7	2647.7	489.81 ug/L	489.81 ppb	21:48:25
3	Ti 334.940†	305559.2	298284.4	494.64 ug/L	494.64 ppb	21:48:05
3	Tl 190.801†	1553.3	1529.5	496.30 ug/L	496.30 ppb	21:48:25
3	U 409.014†	11235.2	14481.7	463.63 ug/L	463.63 ppb	21:48:05
3	V 292.402†	63810.8	63728.8	501.07 ug/L	501.07 ppb	21:48:05
3	Zn 213.857†	51521.9	49163.2	486.44 ug/L	486.44 ppb	21:48:05
3	SiO2†	82542.8	79553.4	5323.3 ug/L	5323.3 ppb	21:48:41

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	825176.9	103.70 %	0.675			0.65%
Sc Radial	3946.0	99.2 %	0.27			0.27%
Y 371.029	664736.4	103.38 %	0.635			0.61%
Y RADIAL	4212.2	102.0 %	0.41			0.41%
Ag 328.068†	94766.6	489.21 ug/L	0.280	489.21 ppb	0.280	0.06%
QC value within limits for Ag 328.068 Recovery = 97.84%						
Al 396.153Radial†	4952.4	5099.9 ug/L	27.38	5099.9 ppb	27.38	0.54%
QC value within limits for Al 396.153Radial Recovery = 102.00%						
As 188.979†	1173.7	501.30 ug/L	9.278	501.30 ppb	9.278	1.85%
QC value within limits for As 188.979 Recovery = 100.26%						
B 249.677†	20163.5	478.86 ug/L	1.584	478.86 ppb	1.584	0.33%
QC value within limits for B 249.677 Recovery = 95.77%						
Ba 233.527†	58390.5	491.40 ug/L	1.266	491.40 ppb	1.266	0.26%
QC value within limits for Ba 233.527 Recovery = 98.28%						
Be 313.107†	1329105.6	498.78 ug/L	0.812	498.78 ppb	0.812	0.16%
QC value within limits for Be 313.107 Recovery = 99.76%						
Ca 317.933Radial†	2645.2	5136.5 ug/L	3.61	5136.5 ppb	3.61	0.07%

QC value within limits for Ca 317.933 Radial Recovery = 102.73%							
Cd 226.502†	39062.0	481.76 ug/L	5.587	481.76 ppb	5.587	1.16%	
QC value within limits for Cd 226.502 Recovery = 96.35%							
Co 228.616†	22932.2	483.43 ug/L	5.540	483.43 ppb	5.540	1.15%	
QC value within limits for Co 228.616 Recovery = 96.69%							
Cr 267.716†	39346.0	487.04 ug/L	1.324	487.04 ppb	1.324	0.27%	
QC value within limits for Cr 267.716 Recovery = 97.41%							
Cu 324.752†	156070.1	485.60 ug/L	1.683	485.60 ppb	1.683	0.35%	
QC value within limits for Cu 324.752 Recovery = 97.12%							
Fe 238.204 Radial†	458.2	5041.3 ug/L	39.02	5041.3 ppb	39.02	0.77%	
QC value within limits for Fe 238.204 Radial Recovery = 100.83%							
K 766.490 Radial†	22955.3	4967.2 ug/L	35.58	4967.2 ppb	35.58	0.72%	
QC value within limits for K 766.490 Radial Recovery = 99.34%							
Mg 279.077 IEC†	131.6	5144.9 ug/L	10.62	5144.9 ppb	10.62	0.21%	
QC value within limits for Mg 279.077 IEC Recovery = 102.90%							
Mn 257.610†	421510.5	490.12 ug/L	0.750	490.12 ppb	0.750	0.15%	
QC value within limits for Mn 257.610 Recovery = 98.02%							
Mo 202.031†	6390.5	495.80 ug/L	4.829	495.80 ppb	4.829	0.97%	
QC value within limits for Mo 202.031 Recovery = 99.16%							
Na 589.592 Radial†	28481.6	9989.8 ug/L	95.39	9989.8 ppb	95.39	0.95%	
QC value within limits for Na 589.592 Radial Recovery = 99.90%							
Ni 231.604†	18291.6	488.62 ug/L	5.644	488.62 ppb	5.644	1.16%	
QC value within limits for Ni 231.604 Recovery = 97.72%							
P 214.914†	4508.0	2373.9 ug/L	34.90	2373.9 ppb	34.90	1.47%	
QC value within limits for P 214.914 Recovery = 94.96%							
Pb 220.353†	3756.0	487.23 ug/L	5.903	487.23 ppb	5.903	1.21%	
QC value within limits for Pb 220.353 Recovery = 97.45%							
S 181.975 Axial†	762.2	988.27 ug/L	6.220	988.27 ppb	6.220	0.63%	
QC value within limits for S 181.975 Axial Recovery = 98.83%							
Sb 206.836†	1362.4	496.89 ug/L	6.021	496.89 ppb	6.021	1.21%	
QC value within limits for Sb 206.836 Recovery = 99.38%							
Se 196.026†	878.4	520.90 ug/L	4.514	520.90 ppb	4.514	0.87%	
QC value within limits for Se 196.026 Recovery = 104.18%							
Si 251.611†	77790.2	2444.1 ug/L	1.52	2444.1 ppb	1.52	0.06%	
QC value within limits for Si 251.611 Recovery = 97.76%							
Sn 189.927†	2605.1	481.93 ug/L	7.149	481.93 ppb	7.149	1.48%	
QC value within limits for Sn 189.927 Recovery = 96.39%							
Sr 421.552†	61086.9	507.79 ug/L	3.531	507.79 ppb	3.531	0.70%	
QC value within limits for Sr 421.552 Recovery = 101.56%							
Ti 334.940†	298513.1	495.01 ug/L	0.376	495.01 ppb	0.376	0.08%	
QC value within limits for Ti 334.940 Recovery = 99.00%							
Tl 190.801†	1510.0	490.02 ug/L	6.037	490.02 ppb	6.037	1.23%	
QC value within limits for Tl 190.801 Recovery = 98.00%							
U 409.014†	14700.3	470.65 ug/L	7.761	470.65 ppb	7.761	1.65%	
QC value within limits for U 409.014 Recovery = 94.13%							
V 292.402†	63669.5	500.54 ug/L	1.070	500.54 ppb	1.070	0.21%	
QC value within limits for V 292.402 Recovery = 100.11%							
Zn 213.857†	49121.9	486.06 ug/L	1.029	486.06 ppb	1.029	0.21%	
QC value within limits for Zn 213.857 Recovery = 97.21%							
SiO2†	78347.7	5242.6 ug/L	77.33	5242.6 ppb	77.33	1.48%	
QC value within limits for SiO2 Recovery = 98.04%							
All analyte(s) passed QC.							

Sequence No.: 53

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 2/17/2010 21:50:50

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	3933.7	3933.7	98.9 %		21:53:02
1	Y RADIAL	4178.0	4178.0	101.1 %		21:52:42
1	Al 396.153Radial†	-145.7	-5.3	-5.6501 ug/L	-5.6501 ppb	21:52:42
1	Ca 317.933Radial†	29.6	5.6	10.948 ug/L	10.948 ppb	21:53:02
1	Fe 238.204 Radial†	8.4	-2.6	-28.102 ug/L	-28.102 ppb	21:53:02
1	K 766.490 Radial†	3266.0	92.9	20.122 ug/L	20.122 ppb	21:52:42
1	Mg 279.077 IEC†	2.6	1.3	51.502 ug/L	51.502 ppb	21:53:02
1	Na 589.592 Radial†	-31.8	71.5	25.089 ug/L	25.089 ppb	21:52:42
1	Sr 421.552†	159.4	49.4	0.4110 ug/L	0.4110 ppb	21:52:42
1	Sc 361.383	804102.1	804102.1	101.05 %		21:53:59
1	Y 371.029	652346.8	652346.8	101.45 %		21:53:59
1	Ag 328.068†	203.9	16.1	0.0772 ug/L	0.0772 ppb	21:53:59
1	As 188.979†	-29.5	-1.5	-0.6459 ug/L	-0.6459 ppb	21:54:19
1	B 249.677†	-300.5	-355.4	-8.4750 ug/L	-8.4750 ppb	21:54:19
1	Ba 233.527†	50.8	43.8	0.3697 ug/L	0.3697 ppb	21:54:19
1	Be 313.107†	-3496.3	778.4	0.2919 ug/L	0.2919 ppb	21:53:59
1	Cd 226.502†	-200.6	10.1	0.1281 ug/L	0.1281 ppb	21:54:19
1	Co 228.616†	-64.4	14.7	0.3206 ug/L	0.3206 ppb	21:54:19
1	Cr 267.716†	115.5	-582.9	-7.2061 ug/L	-7.2061 ppb	21:54:19
1	Cu 324.752†	8427.4	20.9	0.0622 ug/L	0.0622 ppb	21:53:59
1	Mn 257.610†	638.0	80.0	0.0881 ug/L	0.0881 ppb	21:54:19
1	Mo 202.031†	59.6	37.9	2.9359 ug/L	2.9359 ppb	21:54:19
1	Ni 231.604†	110.8	18.0	0.4818 ug/L	0.4818 ppb	21:54:19
1	P 214.914†	227.3	-18.4	-10.082 ug/L	-10.082 ppb	21:54:19
1	Pb 220.353†	-53.0	-36.5	-4.7075 ug/L	-4.7075 ppb	21:54:19
1	S 181.975 Axial†	65.7	3.4	4.3608 ug/L	4.3608 ppb	21:54:19
1	Sb 206.836†	37.0	-7.4	-2.5527 ug/L	-2.5527 ppb	21:54:19
1	Se 196.026†	-15.6	11.0	6.2468 ug/L	6.2468 ppb	21:54:19
1	Si 251.611†	665.9	-6.9	-0.2543 ug/L	-0.2543 ppb	21:54:19
1	Sn 189.927†	28.2	-7.8	-1.4410 ug/L	-1.4410 ppb	21:54:19
1	Ti 334.940†	-1499.4	118.5	0.1954 ug/L	0.1954 ppb	21:53:59
1	Tl 190.801†	-29.3	-7.7	-2.4797 ug/L	-2.4797 ppb	21:54:19
1	U 409.014†	-3530.8	78.7	2.5478 ug/L	2.5478 ppb	21:53:59
1	V 292.402†	-1621.9	166.8	1.3483 ug/L	1.3483 ppb	21:53:59
1	Zn 213.857†	905.9	34.6	0.3471 ug/L	0.3471 ppb	21:54:19
1	SiO2†	646.5	48.5	3.1718 ug/L	3.1718 ppb	21:55:15
2	Sc Radial	3945.6	3945.6	99.2 %		21:53:27
2	Y RADIAL	4170.6	4170.6	101.0 %		21:53:07
2	Al 396.153Radial†	-140.7	0.1	-0.0493 ug/L	-0.0493 ppb	21:53:07
2	Ca 317.933Radial†	27.7	3.7	7.1319 ug/L	7.1319 ppb	21:53:27
2	Fe 238.204 Radial†	10.4	-0.6	-6.0312 ug/L	-6.0312 ppb	21:53:27
2	K 766.490 Radial†	3099.8	-84.5	-18.326 ug/L	-18.326 ppb	21:53:07
2	Mg 279.077 IEC†	3.5	2.2	84.780 ug/L	84.780 ppb	21:53:27
2	Na 589.592 Radial†	-67.4	35.8	12.561 ug/L	12.561 ppb	21:53:07
2	Sr 421.552†	158.4	48.0	0.3989 ug/L	0.3989 ppb	21:53:07
2	Sc 361.383	811113.8	811113.8	101.93 %		21:54:24
2	Y 371.029	658816.3	658816.3	102.46 %		21:54:24
2	Ag 328.068†	303.9	112.5	0.5697 ug/L	0.5697 ppb	21:54:24
2	As 188.979†	-30.0	-1.8	-0.7523 ug/L	-0.7523 ppb	21:54:44
2	B 249.677†	-321.8	-373.7	-8.9159 ug/L	-8.9159 ppb	21:54:44
2	Ba 233.527†	45.4	38.1	0.3214 ug/L	0.3214 ppb	21:54:44
2	Be 313.107†	-3878.2	433.6	0.1630 ug/L	0.1630 ppb	21:54:24
2	Cd 226.502†	-191.2	21.0	0.2629 ug/L	0.2629 ppb	21:54:44
2	Co 228.616†	-62.6	17.0	0.3680 ug/L	0.3680 ppb	21:54:44
2	Cr 267.716†	114.9	-584.5	-7.2290 ug/L	-7.2290 ppb	21:54:44
2	Cu 324.752†	8386.1	-91.7	-0.2918 ug/L	-0.2918 ppb	21:54:24
2	Mn 257.610†	625.6	62.4	0.0684 ug/L	0.0684 ppb	21:54:44
2	Mo 202.031†	57.4	35.2	2.7260 ug/L	2.7260 ppb	21:54:44
2	Ni 231.604†	120.0	26.2	0.6994 ug/L	0.6994 ppb	21:54:44

2	P 214.914†	231.4	-16.3	-8.8957 ug/L	-8.8957 ppb	21:54:44
2	Pb 220.353†	-56.5	-39.4	-5.0891 ug/L	-5.0891 ppb	21:54:44
2	S 181.975 Axial†	71.0	8.0	10.401 ug/L	10.401 ppb	21:54:44
2	Sb 206.836†	39.9	-4.9	-1.7110 ug/L	-1.7110 ppb	21:54:44
2	Se 196.026†	-21.2	5.7	3.2381 ug/L	3.2381 ppb	21:54:44
2	Si 251.611†	641.6	-36.5	-1.1834 ug/L	-1.1834 ppb	21:54:44
2	Sn 189.927†	16.2	-19.8	-3.6653 ug/L	-3.6653 ppb	21:54:44
2	Ti 334.940†	-1470.3	159.9	0.2570 ug/L	0.2570 ppb	21:54:24
2	Tl 190.801†	-25.7	-3.9	-1.2441 ug/L	-1.2441 ppb	21:54:44
2	U 409.014†	-3290.4	344.8	11.096 ug/L	11.096 ppb	21:54:24
2	V 292.402†	-1694.4	109.6	0.9150 ug/L	0.9150 ppb	21:54:24
2	Zn 213.857†	924.0	44.6	0.4423 ug/L	0.4423 ppb	21:54:44
2	SiO2†	638.8	35.4	2.3018 ug/L	2.3018 ppb	21:55:20
3	Sc Radial	3943.8	3943.8	99.2 %		21:53:52
3	Y RADIAL	4236.7	4236.7	102.6 %		21:53:32
3	Al 396.153Radial†	-147.6	-6.9	-7.2180 ug/L	-7.2180 ppb	21:53:32
3	Ca 317.933Radial†	32.9	8.9	17.355 ug/L	17.355 ppb	21:53:52
3	Fe 238.204 Radial†	9.9	-1.1	-11.807 ug/L	-11.807 ppb	21:53:52
3	K 766.490 Radial†	3324.5	143.4	31.059 ug/L	31.059 ppb	21:53:32
3	Mg 279.077 IEC†	3.8	2.4	95.338 ug/L	95.338 ppb	21:53:52
3	Na 589.592 Radial†	-34.3	69.1	24.240 ug/L	24.240 ppb	21:53:32
3	Sr 421.552†	211.5	101.6	0.8442 ug/L	0.8442 ppb	21:53:32
3	Sc 361.383	812715.6	812715.6	102.13 %		21:54:49
3	Y 371.029	660955.6	660955.6	102.79 %		21:54:49
3	Ag 328.068†	376.4	182.9	0.9354 ug/L	0.9354 ppb	21:54:49
3	As 188.979†	-31.6	-3.3	-1.3934 ug/L	-1.3934 ppb	21:55:09
3	B 249.677†	-313.7	-365.2	-8.7112 ug/L	-8.7112 ppb	21:55:09
3	Ba 233.527†	52.8	45.3	0.3810 ug/L	0.3810 ppb	21:55:09
3	Be 313.107†	-3526.3	785.7	0.2950 ug/L	0.2950 ppb	21:54:49
3	Cd 226.502†	-201.5	11.3	0.1414 ug/L	0.1414 ppb	21:55:09
3	Co 228.616†	-59.3	20.4	0.4366 ug/L	0.4366 ppb	21:55:09
3	Cr 267.716†	128.5	-571.3	-7.0635 ug/L	-7.0635 ppb	21:55:09
3	Cu 324.752†	8494.2	-2.1	-0.0081 ug/L	-0.0081 ppb	21:54:49
3	Mn 257.610†	614.2	49.9	0.0530 ug/L	0.0530 ppb	21:55:09
3	Mo 202.031†	45.0	23.0	1.7817 ug/L	1.7817 ppb	21:55:09
3	Ni 231.604†	106.4	12.6	0.3367 ug/L	0.3367 ppb	21:55:09
3	P 214.914†	244.6	-3.9	-2.1379 ug/L	-2.1379 ppb	21:55:09
3	Pb 220.353†	-63.4	-46.1	-5.9580 ug/L	-5.9580 ppb	21:55:09
3	S 181.975 Axial†	72.1	8.9	11.608 ug/L	11.608 ppb	21:55:09
3	Sb 206.836†	40.3	-4.5	-1.5775 ug/L	-1.5775 ppb	21:55:09
3	Se 196.026†	-22.6	4.3	2.4499 ug/L	2.4499 ppb	21:55:09
3	Si 251.611†	621.2	-57.7	-1.8383 ug/L	-1.8383 ppb	21:55:09
3	Sn 189.927†	24.0	-12.2	-2.2521 ug/L	-2.2521 ppb	21:55:09
3	Ti 334.940†	-1419.6	212.3	0.3485 ug/L	0.3485 ppb	21:54:49
3	Tl 190.801†	-31.3	-9.3	-3.0099 ug/L	-3.0099 ppb	21:55:09
3	U 409.014†	-3593.5	54.4	1.7640 ug/L	1.7640 ppb	21:54:49
3	V 292.402†	-1735.4	72.7	0.5987 ug/L	0.5987 ppb	21:54:49
3	Zn 213.857†	920.6	39.5	0.3938 ug/L	0.3938 ppb	21:55:09
3	SiO2†	676.6	71.2	4.7313 ug/L	4.7313 ppb	21:55:25

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	809310.5	101.70 %		0.576			0.57%
Sc Radial	3941.0	99.1 %		0.16			0.16%
Y 371.029	657372.9	102.24 %		0.697			0.68%
Y RADIAL	4195.1	101.6 %		0.88			0.86%
Ag 328.068†	103.9	0.5275 ug/L		0.43068	0.5275 ppb	0.43068	81.65%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	-4.0	-4.3058 ug/L		3.76866	-4.3058 ppb	3.76866	87.52%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-2.2	-0.9305 ug/L		0.40437	-0.9305 ppb	0.40437	43.46%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	-364.7	-8.7007 ug/L		0.22062	-8.7007 ppb	0.22062	2.54%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	42.4	0.3574 ug/L		0.03162	0.3574 ppb	0.03162	8.85%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	665.9	0.2500 ug/L		0.07535	0.2500 ppb	0.07535	30.14%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	6.1	11.811 ug/L		5.1658	11.811 ppb	5.1658	43.74%



QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	14.2	0.1775 ug/L	0.07426	0.1775 ppb	0.07426	41.84%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	17.4	0.3751 ug/L	0.05830	0.3751 ppb	0.05830	15.54%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-579.6	-7.1662 ug/L	0.08967	-7.1662 ppb	0.08967	1.25%	
QC value less than the lower limit for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-24.3	-0.0792 ug/L	0.18740	-0.0792 ppb	0.18740	236.60%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-1.4	-15.313 ug/L	11.4457	-15.313 ppb	11.4457	74.74%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	50.6	10.951 ug/L	25.9379	10.951 ppb	25.9379	236.84%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	2.0	77.206 ug/L	22.8782	77.206 ppb	22.8782	29.63%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	64.1	0.0698 ug/L	0.01759	0.0698 ppb	0.01759	25.19%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	32.0	2.4812 ug/L	0.61482	2.4812 ppb	0.61482	24.78%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	58.8	20.630 ug/L	7.0007	20.630 ppb	7.0007	33.93%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	18.9	0.5060 ug/L	0.18254	0.5060 ppb	0.18254	36.08%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-12.9	-7.0386 ug/L	4.28543	-7.0386 ppb	4.28543	60.88%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-40.7	-5.2515 ug/L	0.64090	-5.2515 ppb	0.64090	12.20%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	6.8	8.7900 ug/L	3.88300	8.7900 ppb	3.88300	44.18%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-5.6	-1.9470 ug/L	0.52871	-1.9470 ppb	0.52871	27.15%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	7.0	3.9783 ug/L	2.00376	3.9783 ppb	2.00376	50.37%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	-33.7	-1.0920 ug/L	0.79592	-1.0920 ppb	0.79592	72.89%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-13.3	-2.4528 ug/L	1.12561	-2.4528 ppb	1.12561	45.89%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	66.3	0.5514 ug/L	0.25365	0.5514 ppb	0.25365	46.00%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	163.6	0.2669 ug/L	0.07706	0.2669 ppb	0.07706	28.87%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-7.0	-2.2446 ug/L	0.90605	-2.2446 ppb	0.90605	40.37%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	159.3	5.1359 ug/L	5.17639	5.1359 ppb	5.17639	100.79%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	116.4	0.9540 ug/L	0.37635	0.9540 ppb	0.37635	39.45%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	39.6	0.3944 ug/L	0.04764	0.3944 ppb	0.04764	12.08%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	51.7	3.4016 ug/L	1.23095	3.4016 ppb	1.23095	36.19%	
QC value within limits for SiO2 Recovery = Not calculated							
QC Failed. Continue with analysis.							

Sequence No.: 59  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 2/17/2010 22:34:42  
 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	3897.6	3897.6	98.0 %		22:36:55
1	Y RADIAL	4125.5	4125.5	99.87 %		22:36:35
1	Al 396.153Radial†	4854.7	5094.0	5245.6 ug/L	5245.6 ppb	22:36:35
1	Ca 317.933Radial†	2720.7	2751.1	5342.2 ug/L	5342.2 ppb	22:36:55
1	Fe 238.204 Radial†	493.9	492.8	5421.6 ug/L	5421.6 ppb	22:36:55
1	K 766.490 Radial†	26696.7	24024.4	5198.5 ug/L	5198.5 ppb	22:36:35
1	Mg 279.077 IEC†	143.6	145.1	5673.3 ug/L	5673.3 ppb	22:36:55
1	Na 589.592 Radial†	29822.1	30524.2	10706 ug/L	10706 ppb	22:36:35
1	Sr 421.552†	62900.0	64050.4	532.42 ug/L	532.42 ppb	22:36:35
1	Sc 361.383	815573.2	815573.2	102.49 %		22:37:54
1	Y 371.029	651846.9	651846.9	101.38 %		22:37:54
1	Ag 328.068†	101069.5	98427.7	508.17 ug/L	508.17 ppb	22:37:54
1	As 188.979†	1236.6	1234.2	527.18 ug/L	527.18 ppb	22:38:14
1	B 249.677†	21880.4	21290.6	505.62 ug/L	505.62 ppb	22:37:54
1	Ba 233.527†	62553.8	61027.1	513.58 ug/L	513.58 ppb	22:37:54
1	Be 313.107†	1422624.9	1392289.8	522.49 ug/L	522.49 ppb	22:37:54
1	Cd 226.502†	41896.1	41086.5	506.72 ug/L	506.72 ppb	22:38:14
1	Co 228.616†	24714.4	24192.2	509.98 ug/L	509.98 ppb	22:38:14
1	Cr 267.716†	42633.2	40899.9	506.28 ug/L	506.28 ppb	22:37:54
1	Cu 324.752†	175143.6	162568.2	505.83 ug/L	505.83 ppb	22:37:54
1	Mn 257.610†	453979.1	442394.8	514.41 ug/L	514.41 ppb	22:37:54
1	Mo 202.031†	6810.9	6624.3	513.95 ug/L	513.95 ppb	22:38:14
1	Ni 231.604†	19752.1	19180.5	512.36 ug/L	512.36 ppb	22:38:14
1	P 214.914†	5134.7	4766.6	2511.4 ug/L	2511.4 ppb	22:38:14
1	Pb 220.353†	4052.6	3970.1	514.94 ug/L	514.94 ppb	22:38:14
1	S 181.975 Axial†	900.1	816.5	1058.8 ug/L	1058.8 ppb	22:38:14
1	Sb 206.836†	1517.0	1436.1	523.55 ug/L	523.55 ppb	22:38:14
1	Se 196.026†	911.5	915.8	543.60 ug/L	543.60 ppb	22:38:14
1	Si 251.611†	84133.8	81423.2	2558.3 ug/L	2558.3 ppb	22:37:54
1	Sn 189.927†	2832.3	2727.8	504.60 ug/L	504.60 ppb	22:38:14
1	Ti 334.940†	318079.6	311951.8	517.28 ug/L	517.28 ppb	22:37:54
1	Tl 190.801†	1602.8	1585.2	514.42 ug/L	514.42 ppb	22:38:14
1	U 409.014†	11652.0	14941.7	478.32 ug/L	478.32 ppb	22:37:54
1	V 292.402†	65777.6	65950.9	518.44 ug/L	518.44 ppb	22:37:54
1	Zn 213.857†	53489.5	51327.7	507.86 ug/L	507.86 ppb	22:37:54
1	SiO2†	83743.3	81116.9	5427.9 ug/L	5427.9 ppb	22:39:14
2	Sc Radial	3915.6	3915.6	98.5 %		22:37:20
2	Y RADIAL	4145.6	4145.6	100.4 %		22:37:00
2	Al 396.153Radial†	4869.5	5086.3	5237.4 ug/L	5237.4 ppb	22:37:00
2	Ca 317.933Radial†	2722.5	2740.1	5320.8 ug/L	5320.8 ppb	22:37:20
2	Fe 238.204 Radial†	486.1	482.5	5308.6 ug/L	5308.6 ppb	22:37:20
2	K 766.490 Radial†	26719.7	23922.7	5176.5 ug/L	5176.5 ppb	22:37:00
2	Mg 279.077 IEC†	142.0	142.8	5582.2 ug/L	5582.2 ppb	22:37:20
2	Na 589.592 Radial†	29704.1	30264.7	10615 ug/L	10615 ppb	22:37:00
2	Sr 421.552†	62612.6	63464.0	527.55 ug/L	527.55 ppb	22:37:00
2	Sc 361.383	811858.4	811858.4	102.02 %		22:38:21
2	Y 371.029	648069.5	648069.5	100.79 %		22:38:21
2	Ag 328.068†	100778.5	98593.6	508.99 ug/L	508.99 ppb	22:38:21
2	As 188.979†	1231.8	1235.1	527.49 ug/L	527.49 ppb	22:38:41
2	B 249.677†	21830.3	21339.2	506.80 ug/L	506.80 ppb	22:38:21
2	Ba 233.527†	62726.0	61475.2	517.34 ug/L	517.34 ppb	22:38:21
2	Be 313.107†	1415650.7	1391805.3	522.31 ug/L	522.31 ppb	22:38:21
2	Cd 226.502†	41676.2	41058.1	506.38 ug/L	506.38 ppb	22:38:41
2	Co 228.616†	24606.9	24197.2	510.10 ug/L	510.10 ppb	22:38:41
2	Cr 267.716†	42543.8	41002.6	507.55 ug/L	507.55 ppb	22:38:21
2	Cu 324.752†	174147.5	162373.8	505.22 ug/L	505.22 ppb	22:38:21
2	Mn 257.610†	453716.1	444163.8	516.45 ug/L	516.45 ppb	22:38:21
2	Mo 202.031†	6813.4	6657.1	516.48 ug/L	516.48 ppb	22:38:41
2	Ni 231.604†	19679.8	19197.8	512.83 ug/L	512.83 ppb	22:38:41

2	P 214.914†	5121.2	4776.3	2516.9 ug/L	2516.9 ppb	22:38:41
2	Pb 220.353†	4044.8	3980.5	516.30 ug/L	516.30 ppb	22:38:41
2	S 181.975 Axial†	893.0	813.6	1055.0 ug/L	1055.0 ppb	22:38:41
2	Sb 206.836†	1528.8	1454.5	530.02 ug/L	530.02 ppb	22:38:41
2	Se 196.026†	906.3	914.8	542.67 ug/L	542.67 ppb	22:38:41
2	Si 251.611†	83958.6	81627.0	2564.7 ug/L	2564.7 ppb	22:38:21
2	Sn 189.927†	2800.6	2709.3	501.19 ug/L	501.19 ppb	22:38:41
2	Ti 334.940†	316766.0	312084.3	517.50 ug/L	517.50 ppb	22:38:21
2	Tl 190.801†	1593.1	1582.8	513.66 ug/L	513.66 ppb	22:38:41
2	U 409.014†	11677.3	15018.5	480.79 ug/L	480.79 ppb	22:38:21
2	V 292.402†	65586.7	66057.5	519.32 ug/L	519.32 ppb	22:38:21
2	Zn 213.857†	53521.7	51598.0	510.57 ug/L	510.57 ppb	22:38:21
2	SiO2†	82082.9	79863.3	5343.7 ug/L	5343.7 ppb	22:39:19
3	Sc Radial	3970.8	3970.8	99.9 %		22:37:45
3	Y RADIAL	4243.9	4243.9	102.7 %		22:37:25
3	Al 396.153Radial†	4818.0	4965.9	5112.9 ug/L	5112.9 ppb	22:37:25
3	Ca 317.933Radial†	2736.3	2715.4	5273.0 ug/L	5273.0 ppb	22:37:45
3	Fe 238.204 Radial†	487.4	477.0	5248.0 ug/L	5248.0 ppb	22:37:45
3	K 766.490 Radial†	26374.4	23199.6	5020.0 ug/L	5020.0 ppb	22:37:25
3	Mg 279.077 IEC†	134.9	133.7	5226.2 ug/L	5226.2 ppb	22:37:45
3	Na 589.592 Radial†	29296.4	29437.0	10325 ug/L	10325 ppb	22:37:25
3	Sr 421.552†	61745.6	61711.7	512.98 ug/L	512.98 ppb	22:37:25
3	Sc 361.383	809618.0	809618.0	101.74 %		22:38:49
3	Y 371.029	646686.0	646686.0	100.57 %		22:38:49
3	Ag 328.068†	100404.5	98499.4	508.48 ug/L	508.48 ppb	22:38:49
3	As 188.979†	1229.6	1236.2	527.97 ug/L	527.97 ppb	22:39:09
3	B 249.677†	21599.0	21171.0	502.79 ug/L	502.79 ppb	22:38:49
3	Ba 233.527†	62189.6	61118.2	514.34 ug/L	514.34 ppb	22:38:49
3	Be 313.107†	1407201.2	1387340.3	520.64 ug/L	520.64 ppb	22:38:49
3	Cd 226.502†	41666.9	41162.0	507.67 ug/L	507.67 ppb	22:39:09
3	Co 228.616†	24648.7	24305.0	512.37 ug/L	512.37 ppb	22:39:09
3	Cr 267.716†	42277.4	40856.2	505.73 ug/L	505.73 ppb	22:38:49
3	Cu 324.752†	173709.9	162416.1	505.35 ug/L	505.35 ppb	22:38:49
3	Mn 257.610†	450711.7	442441.5	514.46 ug/L	514.46 ppb	22:38:49
3	Mo 202.031†	6796.6	6659.1	516.63 ug/L	516.63 ppb	22:39:09
3	Ni 231.604†	19638.3	19210.4	513.16 ug/L	513.16 ppb	22:39:09
3	P 214.914†	5117.3	4786.4	2522.5 ug/L	2522.5 ppb	22:39:09
3	Pb 220.353†	4018.5	3965.6	514.36 ug/L	514.36 ppb	22:39:09
3	S 181.975 Axial†	891.1	814.1	1055.7 ug/L	1055.7 ppb	22:39:09
3	Sb 206.836†	1505.6	1435.8	523.49 ug/L	523.49 ppb	22:39:09
3	Se 196.026†	905.1	916.1	543.25 ug/L	543.25 ppb	22:39:09
3	Si 251.611†	83450.3	81355.2	2556.2 ug/L	2556.2 ppb	22:38:49
3	Sn 189.927†	2809.6	2725.8	504.23 ug/L	504.23 ppb	22:39:09
3	Ti 334.940†	315740.3	311935.3	517.27 ug/L	517.27 ppb	22:38:49
3	Tl 190.801†	1597.0	1591.0	516.27 ug/L	516.27 ppb	22:39:09
3	U 409.014†	11813.5	15184.0	486.12 ug/L	486.12 ppb	22:38:49
3	V 292.402†	65278.8	65932.7	518.37 ug/L	518.37 ppb	22:38:49
3	Zn 213.857†	53172.7	51400.2	508.60 ug/L	508.60 ppb	22:38:49
3	SiO2†	83461.6	81441.0	5449.5 ug/L	5449.5 ppb	22:39:24

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	812349.8	102.09 %	0.378			0.37%
Sc Radial	3928.0	98.8 %	0.96			0.97%
Y 371.029	648867.5	100.91 %	0.415			0.41%
Y RADIAL	4171.7	101.0 %	1.53			1.52%
Ag 328.068†	98506.9	508.55 ug/L	0.413	508.55 ppb	0.413	0.08%
QC value within limits for Ag 328.068 Recovery = 101.71%						
Al 396.153Radial†	5048.7	5198.6 ug/L	74.34	5198.6 ppb	74.34	1.43%
QC value within limits for Al 396.153Radial Recovery = 103.97%						
As 188.979†	1235.2	527.55 ug/L	0.397	527.55 ppb	0.397	0.08%
QC value within limits for As 188.979 Recovery = 105.51%						
B 249.677†	21267.0	505.07 ug/L	2.061	505.07 ppb	2.061	0.41%
QC value within limits for B 249.677 Recovery = 101.01%						
Ba 233.527†	61206.8	515.09 ug/L	1.988	515.09 ppb	1.988	0.39%
QC value within limits for Ba 233.527 Recovery = 103.02%						
Be 313.107†	1390478.4	521.81 ug/L	1.022	521.81 ppb	1.022	0.20%
QC value within limits for Be 313.107 Recovery = 104.36%						
Ca 317.933Radial†	2735.5	5312.0 ug/L	35.41	5312.0 ppb	35.41	0.67%

QC value within limits for Ca 317.933 Radial Recovery = 106.24%

Cd 226.502†	41102.2	506.92 ug/L	0.668	506.92 ppb	0.668	0.13%
QC value within limits for Cd 226.502 Recovery = 101.38%						
Co 228.616†	24231.5	510.82 ug/L	1.346	510.82 ppb	1.346	0.26%
QC value within limits for Co 228.616 Recovery = 102.16%						
Cr 267.716†	40919.6	506.52 ug/L	0.931	506.52 ppb	0.931	0.18%
QC value within limits for Cr 267.716 Recovery = 101.30%						
Cu 324.752†	162452.7	505.47 ug/L	0.324	505.47 ppb	0.324	0.06%
QC value within limits for Cu 324.752 Recovery = 101.09%						
Fe 238.204 Radial†	484.1	5326.1 ug/L	88.07	5326.1 ppb	88.07	1.65%
QC value within limits for Fe 238.204 Radial Recovery = 106.52%						
K 766.490 Radial†	23715.6	5131.6 ug/L	97.34	5131.6 ppb	97.34	1.90%
QC value within limits for K 766.490 Radial Recovery = 102.63%						
Mg 279.077 IEC†	140.6	5493.9 ug/L	236.25	5493.9 ppb	236.25	4.30%
QC value within limits for Mg 279.077 IEC Recovery = 109.88%						
Mn 257.610†	443000.0	515.11 ug/L	1.167	515.11 ppb	1.167	0.23%
QC value within limits for Mn 257.610 Recovery = 103.02%						
Mo 202.031†	6646.8	515.69 ug/L	1.507	515.69 ppb	1.507	0.29%
QC value within limits for Mo 202.031 Recovery = 103.14%						
Na 589.592 Radial†	30075.3	10549 ug/L	199.1	10549 ppb	199.1	1.89%
QC value within limits for Na 589.592 Radial Recovery = 105.49%						
Ni 231.604†	19196.2	512.78 ug/L	0.401	512.78 ppb	0.401	0.08%
QC value within limits for Ni 231.604 Recovery = 102.56%						
P 214.914†	4776.4	2517.0 ug/L	5.52	2517.0 ppb	5.52	0.22%
QC value within limits for P 214.914 Recovery = 100.68%						
Pb 220.353†	3972.1	515.20 ug/L	0.998	515.20 ppb	0.998	0.19%
QC value within limits for Pb 220.353 Recovery = 103.04%						
S 181.975 Axial†	814.8	1056.5 ug/L	2.02	1056.5 ppb	2.02	0.19%
QC value within limits for S 181.975 Axial Recovery = 105.65%						
Sb 206.836†	1442.2	525.69 ug/L	3.752	525.69 ppb	3.752	0.71%
QC value within limits for Sb 206.836 Recovery = 105.14%						
Se 196.026†	915.5	543.17 ug/L	0.473	543.17 ppb	0.473	0.09%
QC value within limits for Se 196.026 Recovery = 108.63%						
Si 251.611†	81468.5	2559.7 ug/L	4.45	2559.7 ppb	4.45	0.17%
QC value within limits for Si 251.611 Recovery = 102.39%						
Sn 189.927†	2721.0	503.34 ug/L	1.868	503.34 ppb	1.868	0.37%
QC value within limits for Sn 189.927 Recovery = 100.67%						
Sr 421.552†	63075.4	524.32 ug/L	10.115	524.32 ppb	10.115	1.93%
QC value within limits for Sr 421.552 Recovery = 104.86%						
Ti 334.940†	311990.5	517.35 ug/L	0.130	517.35 ppb	0.130	0.03%
QC value within limits for Ti 334.940 Recovery = 103.47%						
Tl 190.801†	1586.3	514.78 ug/L	1.346	514.78 ppb	1.346	0.26%
QC value within limits for Tl 190.801 Recovery = 102.96%						
U 409.014†	15048.1	481.75 ug/L	3.989	481.75 ppb	3.989	0.83%
QC value within limits for U 409.014 Recovery = 96.35%						
V 292.402†	65980.4	518.71 ug/L	0.531	518.71 ppb	0.531	0.10%
QC value within limits for V 292.402 Recovery = 103.74%						
Zn 213.857†	51442.0	509.01 ug/L	1.402	509.01 ppb	1.402	0.28%
QC value within limits for Zn 213.857 Recovery = 101.80%						
SiO2†	80807.1	5407.0 ug/L	55.91	5407.0 ppb	55.91	1.03%
QC value within limits for SiO2 Recovery = 101.11%						

All analyte(s) passed QC.

Sequence No.: 60  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 2/17/2010 22:41:34  
 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	3810.2	3810.2	95.8 %		22:43:47
1	Y RADIAL	3876.3	3876.3	93.84 %		22:43:47
1	Al 396.153Radial†	-167.0	-32.3	-33.444 ug/L	-33.444 ppb	22:43:27
1	Ca 317.933Radial†	28.0	5.0	9.6942 ug/L	9.6942 ppb	22:43:47
1	Fe 238.204 Radial†	8.8	-1.9	-20.317 ug/L	-20.317 ppb	22:43:47
1	K 766.490 Radial†	3318.5	254.7	55.196 ug/L	55.196 ppb	22:43:27
1	Mg 279.077 IEC†	1.2	-0.1	-4.1623 ug/L	-4.1623 ppb	22:43:47
1	Na 589.592 Radial†	-160.9	-64.2	-22.520 ug/L	-22.520 ppb	22:43:27
1	Sr 421.552†	110.2	3.3	0.0273 ug/L	0.0273 ppb	22:43:27
1	Sc 361.383	798447.4	798447.4	100.34 %		22:44:44
1	Y 371.029	644569.4	644569.4	100.24 %		22:44:44
1	Ag 328.068†	200.8	14.5	0.0690 ug/L	0.0690 ppb	22:44:44
1	As 188.979†	-22.2	5.5	2.3283 ug/L	2.3283 ppb	22:45:04
1	B 249.677†	-401.6	-458.3	-10.932 ug/L	-10.932 ppb	22:45:04
1	Ba 233.527†	16.7	10.3	0.0865 ug/L	0.0865 ppb	22:45:04
1	Be 313.107†	-4060.0	192.1	0.0722 ug/L	0.0722 ppb	22:44:44
1	Cd 226.502†	-227.7	-18.3	-0.2235 ug/L	-0.2235 ppb	22:45:04
1	Co 228.616†	-59.3	19.3	0.4098 ug/L	0.4098 ppb	22:45:04
1	Cr 267.716†	129.3	-568.3	-7.0257 ug/L	-7.0257 ppb	22:44:44
1	Cu 324.752†	8349.3	2.2	0.0051 ug/L	0.0051 ppb	22:44:44
1	Mn 257.610†	567.8	14.4	0.0149 ug/L	0.0149 ppb	22:45:04
1	Mo 202.031†	18.4	-2.7	-0.2139 ug/L	-0.2139 ppb	22:45:04
1	Ni 231.604†	119.4	27.5	0.7338 ug/L	0.7338 ppb	22:45:04
1	P 214.914†	242.6	-1.5	-0.8474 ug/L	-0.8474 ppb	22:45:04
1	Pb 220.353†	-64.8	-48.6	-6.2913 ug/L	-6.2913 ppb	22:45:04
1	S 181.975 Axial†	75.4	13.4	17.435 ug/L	17.435 ppb	22:45:04
1	Sb 206.836†	43.5	-0.6	-0.2639 ug/L	-0.2639 ppb	22:45:04
1	Se 196.026†	-23.3	3.3	1.8295 ug/L	1.8295 ppb	22:45:04
1	Si 251.611†	738.6	70.1	2.2110 ug/L	2.2110 ppb	22:45:04
1	Sn 189.927†	20.7	-15.1	-2.7888 ug/L	-2.7888 ppb	22:45:04
1	Ti 334.940†	-1531.6	75.9	0.1295 ug/L	0.1295 ppb	22:44:44
1	Tl 190.801†	-43.5	-22.0	-7.1041 ug/L	-7.1041 ppb	22:45:04
1	U 409.014†	-3547.2	37.7	1.2283 ug/L	1.2283 ppb	22:44:44
1	V 292.402†	-1719.5	58.2	0.4558 ug/L	0.4558 ppb	22:44:44
1	Zn 213.857†	824.4	-40.2	-0.4036 ug/L	-0.4036 ppb	22:45:04
1	SiO2†	1064.3	469.5	31.500 ug/L	31.500 ppb	22:46:00
2	Sc Radial	3811.8	3811.8	95.9 %		22:44:12
2	Y RADIAL	3867.8	3867.8	93.63 %		22:44:12
2	Al 396.153Radial†	-136.1	-0.1	-0.1167 ug/L	-0.1167 ppb	22:43:52
2	Ca 317.933Radial†	31.0	8.0	15.619 ug/L	15.619 ppb	22:44:12
2	Fe 238.204 Radial†	8.5	-2.2	-23.650 ug/L	-23.650 ppb	22:44:12
2	K 766.490 Radial†	3307.1	241.4	52.292 ug/L	52.292 ppb	22:43:52
2	Mg 279.077 IEC†	1.7	0.4	15.627 ug/L	15.627 ppb	22:44:12
2	Na 589.592 Radial†	-123.2	-24.8	-8.6904 ug/L	-8.6904 ppb	22:43:52
2	Sr 421.552†	119.8	13.3	0.1106 ug/L	0.1106 ppb	22:43:52
2	Sc 361.383	799252.2	799252.2	100.44 %		22:45:09
2	Y 371.029	646400.3	646400.3	100.53 %		22:45:09
2	Ag 328.068†	225.7	39.1	0.1967 ug/L	0.1967 ppb	22:45:09
2	As 188.979†	-29.8	-2.0	-0.8550 ug/L	-0.8550 ppb	22:45:29
2	B 249.677†	-408.8	-465.0	-11.091 ug/L	-11.091 ppb	22:45:29
2	Ba 233.527†	11.4	4.9	0.0406 ug/L	0.0406 ppb	22:45:29
2	Be 313.107†	-4098.5	157.8	0.0593 ug/L	0.0593 ppb	22:45:09
2	Cd 226.502†	-200.3	9.2	0.1155 ug/L	0.1155 ppb	22:45:29
2	Co 228.616†	-70.7	8.1	0.1762 ug/L	0.1762 ppb	22:45:29
2	Cr 267.716†	43.7	-653.7	-8.0799 ug/L	-8.0799 ppb	22:45:09
2	Cu 324.752†	8398.8	43.0	0.1349 ug/L	0.1349 ppb	22:45:09
2	Mn 257.610†	564.7	10.8	0.0096 ug/L	0.0096 ppb	22:45:29
2	Mo 202.031†	32.1	10.8	0.8366 ug/L	0.8366 ppb	22:45:29
2	Ni 231.604†	89.2	-2.8	-0.0745 ug/L	-0.0745 ppb	22:45:29

2	P 214.914†	239.2	-5.1	-2.8349 ug/L	-2.8349 ppb	22:45:29
2	Pb 220.353†	-61.5	-45.2	-5.8403 ug/L	-5.8403 ppb	22:45:29
2	S 181.975 Axial†	65.5	3.6	4.6252 ug/L	4.6252 ppb	22:45:29
2	Sb 206.836†	51.5	7.3	2.5714 ug/L	2.5714 ppb	22:45:29
2	Se 196.026†	-13.8	12.7	7.2383 ug/L	7.2383 ppb	22:45:29
2	Si 251.611†	650.0	-18.8	-0.6037 ug/L	-0.6037 ppb	22:45:29
2	Sn 189.927†	27.9	-8.0	-1.4667 ug/L	-1.4667 ppb	22:45:29
2	Ti 334.940†	-1558.0	51.2	0.0904 ug/L	0.0904 ppb	22:45:09
2	Tl 190.801†	-30.9	-9.4	-3.0403 ug/L	-3.0403 ppb	22:45:29
2	U 409.014†	-3715.9	-126.8	-4.0526 ug/L	-4.0526 ppb	22:45:09
2	V 292.402†	-1774.8	4.9	0.0485 ug/L	0.0485 ppb	22:45:09
2	Zn 213.857†	840.3	-25.3	-0.2486 ug/L	-0.2486 ppb	22:45:29
2	SiO2†	668.5	74.3	4.9617 ug/L	4.9617 ppb	22:46:05
3	Sc Radial	3808.7	3808.7	95.8 %		22:44:37
3	Y RADIAL	3853.8	3853.8	93.29 %		22:44:37
3	Al 396.153Radial†	-144.8	-9.3	-9.6513 ug/L	-9.6513 ppb	22:44:17
3	Ca 317.933Radial†	29.1	6.1	11.827 ug/L	11.827 ppb	22:44:37
3	Fe 238.204 Radial†	9.9	-0.7	-7.1457 ug/L	-7.1457 ppb	22:44:37
3	K 766.490 Radial†	3282.6	218.5	47.352 ug/L	47.352 ppb	22:44:17
3	Mg 279.077 IEC†	1.6	0.3	11.555 ug/L	11.555 ppb	22:44:37
3	Na 589.592 Radial†	-146.2	-48.9	-17.144 ug/L	-17.144 ppb	22:44:17
3	Sr 421.552†	79.3	-28.8	-0.2399 ug/L	-0.2399 ppb	22:44:17
3	Sc 361.383	798877.6	798877.6	100.39 %		22:45:35
3	Y 371.029	645740.5	645740.5	100.43 %		22:45:35
3	Ag 328.068†	259.2	72.5	0.3671 ug/L	0.3671 ppb	22:45:35
3	As 188.979†	-34.1	-6.3	-2.6737 ug/L	-2.6737 ppb	22:45:55
3	B 249.677†	-394.0	-450.5	-10.747 ug/L	-10.747 ppb	22:45:55
3	Ba 233.527†	40.4	33.9	0.2833 ug/L	0.2833 ppb	22:45:55
3	Be 313.107†	-4178.4	76.4	0.0291 ug/L	0.0291 ppb	22:45:35
3	Cd 226.502†	-212.9	-3.4	-0.0413 ug/L	-0.0413 ppb	22:45:55
3	Co 228.616†	-75.0	3.7	0.0828 ug/L	0.0828 ppb	22:45:55
3	Cr 267.716†	113.3	-584.3	-7.2247 ug/L	-7.2247 ppb	22:45:35
3	Cu 324.752†	8386.2	34.5	0.1060 ug/L	0.1060 ppb	22:45:35
3	Mn 257.610†	581.1	27.4	0.0307 ug/L	0.0307 ppb	22:45:55
3	Mo 202.031†	30.4	9.1	0.7079 ug/L	0.7079 ppb	22:45:55
3	Ni 231.604†	97.8	5.9	0.1567 ug/L	0.1567 ppb	22:45:55
3	P 214.914†	240.2	-4.1	-2.2891 ug/L	-2.2891 ppb	22:45:55
3	Pb 220.353†	-68.5	-52.2	-6.7518 ug/L	-6.7518 ppb	22:45:55
3	S 181.975 Axial†	78.5	16.5	21.458 ug/L	21.458 ppb	22:45:55
3	Sb 206.836†	43.5	-0.7	-0.2783 ug/L	-0.2783 ppb	22:45:55
3	Se 196.026†	-18.4	8.1	4.6564 ug/L	4.6564 ppb	22:45:55
3	Si 251.611†	726.1	57.3	1.7961 ug/L	1.7961 ppb	22:45:55
3	Sn 189.927†	19.0	-16.8	-3.1000 ug/L	-3.1000 ppb	22:45:55
3	Ti 334.940†	-1475.1	133.0	0.2231 ug/L	0.2231 ppb	22:45:35
3	Tl 190.801†	-31.3	-9.8	-3.1648 ug/L	-3.1648 ppb	22:45:55
3	U 409.014†	-3531.2	55.5	1.8004 ug/L	1.8004 ppb	22:45:35
3	V 292.402†	-1816.9	-37.9	-0.2770 ug/L	-0.2770 ppb	22:45:35
3	Zn 213.857†	832.8	-32.3	-0.3226 ug/L	-0.3226 ppb	22:45:55
3	SiO2†	751.7	157.5	10.547 ug/L	10.547 ppb	22:46:10

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	798859.1	100.39 %		0.051			0.05%
Sc Radial	3810.3	95.8 %		0.04			0.04%
Y 371.029	645570.1	100.40 %		0.144			0.14%
Y RADIAL	3866.0	93.59 %		0.275			0.29%
Ag 328.068†	42.1	0.2109 ug/L		0.14957	0.2109 ppb	0.14957	70.91%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	-13.9	-14.404 ug/L		17.1645	-14.404 ppb	17.1645	119.16%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-0.9	-0.4001 ug/L		2.53182	-0.4001 ppb	2.53182	632.74%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	-457.9	-10.923 ug/L		0.1720	-10.923 ppb	0.1720	1.57%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	16.3	0.1368 ug/L		0.12893	0.1368 ppb	0.12893	94.25%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	142.1	0.0535 ug/L		0.02212	0.0535 ppb	0.02212	41.32%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	6.4	12.380 ug/L		3.0009	12.380 ppb	3.0009	24.24%

QC value within limits for Ca 317.933 Radial	Recovery = Not calculated		
Cd 226.502†	-4.2 -0.0498 ug/L	0.16967 -0.0498 ppb	0.16967 340.79%
QC value within limits for Cd 226.502	Recovery = Not calculated		
Co 228.616†	10.4 0.2230 ug/L	0.16844 0.2230 ppb	0.16844 75.55%
QC value within limits for Co 228.616	Recovery = Not calculated		
Cr 267.716†	-602.1 -7.4434 ug/L	0.56011 -7.4434 ppb	0.56011 7.52%
QC value less than the lower limit for Cr 267.716	Recovery = Not calculated		
Cu 324.752†	26.6 0.0820 ug/L	0.06813 0.0820 ppb	0.06813 83.07%
QC value within limits for Cu 324.752	Recovery = Not calculated		
Fe 238.204 Radial†	-1.6 -17.037 ug/L	8.7270 -17.037 ppb	8.7270 51.22%
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
K 766.490 Radial†	238.2 51.613 ug/L	3.9661 51.613 ppb	3.9661 7.68%
QC value within limits for K 766.490 Radial	Recovery = Not calculated		
Mg 279.077 IEC†	0.2 7.6735 ug/L	10.45039 7.6735 ppb	10.45039 136.19%
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
Mn 257.610†	17.6 0.0184 ug/L	0.01095 0.0184 ppb	0.01095 59.53%
QC value within limits for Mn 257.610	Recovery = Not calculated		
Mo 202.031†	5.7 0.4435 ug/L	0.57295 0.4435 ppb	0.57295 129.18%
QC value within limits for Mo 202.031	Recovery = Not calculated		
Na 589.592 Radial†	-46.0 -16.118 ug/L	6.9718 -16.118 ppb	6.9718 43.25%
QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
Ni 231.604†	10.2 0.2720 ug/L	0.41627 0.2720 ppb	0.41627 153.04%
QC value within limits for Ni 231.604	Recovery = Not calculated		
P 214.914†	-3.6 -1.9905 ug/L	1.02683 -1.9905 ppb	1.02683 51.59%
QC value within limits for P 214.914	Recovery = Not calculated		
Pb 220.353†	-48.7 -6.2945 ug/L	0.45576 -6.2945 ppb	0.45576 7.24%
QC value within limits for Pb 220.353	Recovery = Not calculated		
S 181.975 Axial†	11.2 14.506 ug/L	8.7901 14.506 ppb	8.7901 60.60%
QC value within limits for S 181.975 Axial	Recovery = Not calculated		
Sb 206.836†	2.0 0.6764 ug/L	1.64114 0.6764 ppb	1.64114 242.61%
QC value within limits for Sb 206.836	Recovery = Not calculated		
Se 196.026†	8.1 4.5747 ug/L	2.70532 4.5747 ppb	2.70532 59.14%
QC value within limits for Se 196.026	Recovery = Not calculated		
Si 251.611†	36.2 1.1344 ug/L	1.51954 1.1344 ppb	1.51954 133.95%
QC value within limits for Si 251.611	Recovery = Not calculated		
Sn 189.927†	-13.3 -2.4519 ug/L	0.86723 -2.4519 ppb	0.86723 35.37%
QC value within limits for Sn 189.927	Recovery = Not calculated		
Sr 421.552†	-4.1 -0.0340 ug/L	0.18307 -0.0340 ppb	0.18307 538.44%
QC value within limits for Sr 421.552	Recovery = Not calculated		
Ti 334.940†	86.7 0.1477 ug/L	0.06818 0.1477 ppb	0.06818 46.16%
QC value within limits for Ti 334.940	Recovery = Not calculated		
Tl 190.801†	-13.8 -4.4364 ug/L	2.31116 -4.4364 ppb	2.31116 52.10%
QC value within limits for Tl 190.801	Recovery = Not calculated		
U 409.014†	-11.2 -0.3413 ug/L	3.22676 -0.3413 ppb	3.22676 945.39%
QC value within limits for U 409.014	Recovery = Not calculated		
V 292.402†	8.4 0.0758 ug/L	0.36720 0.0758 ppb	0.36720 484.61%
QC value within limits for V 292.402	Recovery = Not calculated		
Zn 213.857†	-32.6 -0.3249 ug/L	0.07755 -0.3249 ppb	0.07755 23.87%
QC value within limits for Zn 213.857	Recovery = Not calculated		
SiO2†	233.8 15.669 ug/L	13.9909 15.669 ppb	13.9909 89.29%
QC value within limits for SiO2	Recovery = Not calculated		
QC Failed. Continue with analysis.			

Sequence No.: 61

Sample ID: 1202036425|950319|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 82

Date Collected: 2/17/2010 22:48:21

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202036425|950319|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	3920.6	3920.6	98.6 %			22:50:34
1	Y RADIAL	4287.2	4287.2	103.8 %			22:50:14
1	Al 396.153Radial†	-154.9	-15.2	-15.852 ug/L		-15.852 ppb	22:50:14
1	Ca 317.933Radial†	24.1	0.2	0.3782 ug/L		0.3782 ppb	22:50:34
1	Fe 238.204 Radial†	11.0	0.2	1.7039 ug/L		1.7039 ppb	22:50:34
1	K 766.490 Radial†	3301.6	140.1	30.348 ug/L		30.348 ppb	22:50:14
1	Mg 279.077 IEC†	3.9	2.6	101.25 ug/L		101.25 ppb	22:50:34
1	Na 589.592 Radial†	-126.0	-24.1	-8.4366 ug/L		-8.4366 ppb	22:50:14
1	Sr 421.552†	122.1	12.2	0.1014 ug/L		0.1014 ppb	22:50:14
1	Sc 361.383	808254.2	808254.2	101.57 %			22:51:31
1	Y 371.029	652463.2	652463.2	101.47 %			22:51:31
1	Ag 328.068†	175.0	-13.3	-0.0674 ug/L		-0.0674 ppb	22:51:31
1	As 188.979†	-36.1	-7.9	-3.3473 ug/L		-3.3473 ppb	22:51:51
1	B 249.677†	-425.4	-476.9	-11.378 ug/L		-11.378 ppb	22:51:51
1	Ba 233.527†	31.2	24.3	0.2054 ug/L		0.2054 ppb	22:51:51
1	Be 313.107†	-4119.8	182.3	0.0692 ug/L		0.0692 ppb	22:51:31
1	Cd 226.502†	-202.2	9.6	0.1189 ug/L		0.1189 ppb	22:51:51
1	Co 228.616†	-67.8	11.7	0.2529 ug/L		0.2529 ppb	22:51:51
1	Cr 267.716†	85.1	-613.4	-7.5837 ug/L		-7.5837 ppb	22:51:51
1	Cu 324.752†	8359.6	-88.7	-0.2775 ug/L		-0.2775 ppb	22:51:31
1	Mn 257.610†	660.8	99.1	0.1112 ug/L		0.1112 ppb	22:51:51
1	Mo 202.031†	44.2	22.5	1.7405 ug/L		1.7405 ppb	22:51:51
1	Ni 231.604†	95.1	2.1	0.0557 ug/L		0.0557 ppb	22:51:51
1	P 214.914†	248.6	1.5	0.8115 ug/L		0.8115 ppb	22:51:51
1	Pb 220.353†	-52.8	-36.0	-4.6491 ug/L		-4.6491 ppb	22:51:51
1	S 181.975 Axial†	73.8	10.9	14.195 ug/L		14.195 ppb	22:51:51
1	Sb 206.836†	53.4	8.6	2.9878 ug/L		2.9878 ppb	22:51:51
1	Se 196.026†	-21.4	5.4	3.1099 ug/L		3.1099 ppb	22:51:51
1	Si 251.611†	1012.9	331.3	10.415 ug/L		10.415 ppb	22:51:51
1	Sn 189.927†	15.7	-20.2	-3.7413 ug/L		-3.7413 ppb	22:51:51
1	Ti 334.940†	-1381.9	241.8	0.3941 ug/L		0.3941 ppb	22:51:31
1	Tl 190.801†	-27.0	-5.3	-1.6996 ug/L		-1.6996 ppb	22:51:51
1	U 409.014†	-3528.0	99.5	3.2121 ug/L		3.2121 ppb	22:51:31
1	V 292.402†	-1704.4	93.9	0.7633 ug/L		0.7633 ppb	22:51:31
1	Zn 213.857†	902.0	26.2	0.2611 ug/L		0.2611 ppb	22:51:51
1	SiO2†	1023.4	416.3	27.879 ug/L		27.879 ppb	22:52:47
2	Sc Radial	3993.6	3993.6	100 %			22:50:59
2	Y RADIAL	4209.7	4209.7	101.9 %			22:50:39
2	Al 396.153Radial†	-129.3	13.2	13.573 ug/L		13.573 ppb	22:50:39
2	Ca 317.933Radial†	23.4	-1.0	-1.8573 ug/L		-1.8573 ppb	22:50:59
2	Fe 238.204 Radial†	12.3	1.2	13.571 ug/L		13.571 ppb	22:50:59
2	K 766.490 Radial†	3244.1	21.6	4.6953 ug/L		4.6953 ppb	22:50:39
2	Mg 279.077 IEC†	5.3	4.0	154.59 ug/L		154.59 ppb	22:50:59
2	Na 589.592 Radial†	-164.3	-59.9	-20.994 ug/L		-20.994 ppb	22:50:39
2	Sr 421.552†	70.3	-41.7	-0.3464 ug/L		-0.3464 ppb	22:50:39
2	Sc 361.383	807478.5	807478.5	101.47 %			22:51:56
2	Y 371.029	651697.9	651697.9	101.35 %			22:51:56
2	Ag 328.068†	165.2	-22.8	-0.1133 ug/L		-0.1133 ppb	22:51:56
2	As 188.979†	-37.5	-9.3	-3.9336 ug/L		-3.9336 ppb	22:52:16
2	B 249.677†	-453.2	-504.7	-12.043 ug/L		-12.043 ppb	22:52:16
2	Ba 233.527†	37.5	30.5	0.2581 ug/L		0.2581 ppb	22:52:16
2	Be 313.107†	-4122.7	175.6	0.0663 ug/L		0.0663 ppb	22:51:56
2	Cd 226.502†	-209.2	2.5	0.0296 ug/L		0.0296 ppb	22:52:16
2	Co 228.616†	-81.1	-1.5	-0.0236 ug/L		-0.0236 ppb	22:52:16
2	Cr 267.716†	74.3	-624.0	-7.7145 ug/L		-7.7145 ppb	22:52:16
2	Cu 324.752†	8316.0	-123.7	-0.3858 ug/L		-0.3858 ppb	22:51:56
2	Mn 257.610†	683.2	121.8	0.1366 ug/L		0.1366 ppb	22:52:16
2	Mo 202.031†	46.4	24.6	1.9094 ug/L		1.9094 ppb	22:52:16
2	Ni 231.604†	100.4	7.3	0.1959 ug/L		0.1959 ppb	22:52:16



2	P 214.914†	253.8	6.8	3.7776 ug/L	3.7776 ppb	22:52:16
2	Pb 220.353†	-90.5	-73.2	-9.4626 ug/L	-9.4626 ppb	22:52:16
2	S 181.975 Axial†	74.0	11.2	14.592 ug/L	14.592 ppb	22:52:16
2	Sb 206.836†	40.2	-4.4	-1.5542 ug/L	-1.5542 ppb	22:52:16
2	Se 196.026†	-27.1	-0.2	-0.0800 ug/L	-0.0800 ppb	22:52:16
2	Si 251.611†	978.7	298.6	9.3807 ug/L	9.3807 ppb	22:52:16
2	Sn 189.927†	21.4	-14.6	-2.7065 ug/L	-2.7065 ppb	22:52:16
2	Ti 334.940†	-1479.5	144.4	0.2280 ug/L	0.2280 ppb	22:51:56
2	Tl 190.801†	-34.7	-12.9	-4.1404 ug/L	-4.1404 ppb	22:52:16
2	U 409.014†	-3525.5	98.6	3.1839 ug/L	3.1839 ppb	22:51:56
2	V 292.402†	-1725.5	71.4	0.5908 ug/L	0.5908 ppb	22:51:56
2	Zn 213.857†	902.1	27.1	0.2683 ug/L	0.2683 ppb	22:52:16
2	SiO2†	1002.1	396.3	26.531 ug/L	26.531 ppb	22:52:52
3	Sc Radial	3982.6	3982.6	100 %		22:51:24
3	Y RADIAL	4225.3	4225.3	102.3 %		22:51:04
3	Al 396.153Radial†	-160.3	-18.1	-18.852 ug/L	-18.852 ppb	22:51:04
3	Ca 317.933Radial†	22.8	-1.5	-2.8186 ug/L	-2.8186 ppb	22:51:24
3	Fe 238.204 Radial†	10.1	-0.9	-10.115 ug/L	-10.115 ppb	22:51:24
3	K 766.490 Radial†	3215.6	2.1	0.4763 ug/L	0.4763 ppb	22:51:04
3	Mg 279.077 IEC†	3.4	2.1	81.486 ug/L	81.486 ppb	22:51:24
3	Na 589.592 Radial†	-237.7	-133.6	-46.845 ug/L	-46.845 ppb	22:51:04
3	Sr 421.552†	65.0	-46.8	-0.3887 ug/L	-0.3887 ppb	22:51:04
3	Sc 361.383	811320.9	811320.9	101.96 %		22:52:22
3	Y 371.029	655006.0	655006.0	101.87 %		22:52:22
3	Ag 328.068†	263.5	72.8	0.3727 ug/L	0.3727 ppb	22:52:22
3	As 188.979†	-30.0	-1.8	-0.7569 ug/L	-0.7569 ppb	22:52:42
3	B 249.677†	-452.6	-501.9	-11.974 ug/L	-11.974 ppb	22:52:42
3	Ba 233.527†	34.2	27.1	0.2286 ug/L	0.2286 ppb	22:52:42
3	Be 313.107†	-4156.3	161.8	0.0614 ug/L	0.0614 ppb	22:52:22
3	Cd 226.502†	-217.8	-5.0	-0.0606 ug/L	-0.0606 ppb	22:52:42
3	Co 228.616†	-65.8	13.9	0.2994 ug/L	0.2994 ppb	22:52:42
3	Cr 267.716†	94.8	-604.2	-7.4687 ug/L	-7.4687 ppb	22:52:42
3	Cu 324.752†	8404.9	-75.3	-0.2351 ug/L	-0.2351 ppb	22:52:22
3	Mn 257.610†	674.0	109.6	0.1230 ug/L	0.1230 ppb	22:52:42
3	Mo 202.031†	43.0	21.0	1.6305 ug/L	1.6305 ppb	22:52:42
3	Ni 231.604†	92.0	-1.3	-0.0354 ug/L	-0.0354 ppb	22:52:42
3	P 214.914†	245.0	-3.0	-1.6360 ug/L	-1.6360 ppb	22:52:42
3	Pb 220.353†	-50.5	-33.5	-4.3353 ug/L	-4.3353 ppb	22:52:42
3	S 181.975 Axial†	71.3	8.3	10.746 ug/L	10.746 ppb	22:52:42
3	Sb 206.836†	37.5	-7.2	-2.5442 ug/L	-2.5442 ppb	22:52:42
3	Se 196.026†	-16.8	10.0	5.7106 ug/L	5.7106 ppb	22:52:42
3	Si 251.611†	972.7	288.1	9.0550 ug/L	9.0550 ppb	22:52:42
3	Sn 189.927†	20.4	-15.7	-2.9074 ug/L	-2.9074 ppb	22:52:42
3	Ti 334.940†	-1402.9	226.4	0.3709 ug/L	0.3709 ppb	22:52:22
3	Tl 190.801†	-39.8	-17.7	-5.6900 ug/L	-5.6900 ppb	22:52:42
3	U 409.014†	-3627.3	15.2	0.5059 ug/L	0.5059 ppb	22:52:22
3	V 292.402†	-1717.6	87.2	0.7062 ug/L	0.7062 ppb	22:52:22
3	Zn 213.857†	896.3	17.3	0.1744 ug/L	0.1744 ppb	22:52:42
3	SiO2†	1215.2	600.6	40.250 ug/L	40.250 ppb	22:52:57

Mean Data: 1202036425|950319|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	809017.9	101.67	%	0.255			0.25%
Sc Radial	3965.6	99.7	%	0.99			0.99%
Y 371.029	653055.7	101.56	%	0.269			0.27%
Y RADIAL	4240.7	102.7	%	0.99			0.97%
Ag 328.068†	12.2	0.0640	ug/L	0.26833	0.0640 ppb	0.26833	419.03%
Al 396.153Radial†	-6.7	-7.0434	ug/L	17.91736	-7.0434 ppb	17.91736	254.39%
As 188.979†	-6.3	-2.6793	ug/L	1.69046	-2.6793 ppb	1.69046	63.09%
B 249.677†	-494.5	-11.798	ug/L	0.3653	-11.798 ppb	0.3653	3.10%
Ba 233.527†	27.3	0.2307	ug/L	0.02642	0.2307 ppb	0.02642	11.45%
Be 313.107†	173.2	0.0656	ug/L	0.00390	0.0656 ppb	0.00390	5.95%
Ca 317.933Radial†	-0.7	-1.4326	ug/L	1.64016	-1.4326 ppb	1.64016	114.49%
Cd 226.502†	2.3	0.0293	ug/L	0.08979	0.0293 ppb	0.08979	306.53%
Co 228.616†	8.0	0.1763	ug/L	0.17463	0.1763 ppb	0.17463	99.08%
Cr 267.716†	-613.9	-7.5890	ug/L	0.12297	-7.5890 ppb	0.12297	1.62%
Cu 324.752†	-95.9	-0.2995	ug/L	0.07774	-0.2995 ppb	0.07774	25.96%
Fe 238.204 Radial†	0.2	1.7201	ug/L	11.84265	1.7201 ppb	11.84265	688.50%
K 766.490 Radial†	54.6	11.840	ug/L	16.1668	11.840 ppb	16.1668	136.54%

Mg 279.077 IEC†	2.9	112.44 ug/L	37.818	112.44 ppb	37.818	33.63%
Mn 257.610†	110.2	0.1236 ug/L	0.01271	0.1236 ppb	0.01271	10.28%
Mo 202.031†	22.7	1.7601 ug/L	0.14050	1.7601 ppb	0.14050	7.98%
Na 589.592 Radial†	-72.5	-25.425 ug/L	19.5841	-25.425 ppb	19.5841	77.03%
Ni 231.604†	2.7	0.0721 ug/L	0.11649	0.0721 ppb	0.11649	161.58%
P 214.914†	1.7	0.9844 ug/L	2.71096	0.9844 ppb	2.71096	275.40%
Pb 220.353†	-47.6	-6.1490 ug/L	2.87397	-6.1490 ppb	2.87397	46.74%
S 181.975 Axial†	10.2	13.178 ug/L	2.1154	13.178 ppb	2.1154	16.05%
Sb 206.836†	-1.0	-0.3702 ug/L	2.94994	-0.3702 ppb	2.94994	796.79%
Se 196.026†	5.1	2.9135 ug/L	2.90028	2.9135 ppb	2.90028	99.55%
Si 251.611†	306.0	9.6168 ug/L	0.70986	9.6168 ppb	0.70986	7.38%
Sn 189.927†	-16.9	-3.1184 ug/L	0.54876	-3.1184 ppb	0.54876	17.60%
Sr 421.552†	-25.4	-0.2112 ug/L	0.27154	-0.2112 ppb	0.27154	128.55%
Ti 334.940†	204.2	0.3310 ug/L	0.08998	0.3310 ppb	0.08998	27.19%
Tl 190.801†	-11.9	-3.8433 ug/L	2.01172	-3.8433 ppb	2.01172	52.34%
U 409.014†	71.1	2.3006 ug/L	1.55433	2.3006 ppb	1.55433	67.56%
V 292.402†	84.2	0.6868 ug/L	0.08785	0.6868 ppb	0.08785	12.79%
Zn 213.857†	23.5	0.2346 ug/L	0.05224	0.2346 ppb	0.05224	22.27%
SiO2†	471.1	31.554 ug/L	7.5615	31.554 ppb	7.5615	23.96%

Sequence No.: 62

Sample ID: 1202036426|950319|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 83

Date Collected: 2/17/2010 22:55:09

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202036426|950319|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	3929.9	3929.9	98.8 %		22:57:22
1	Y RADIAL	4159.3	4159.3	100.7 %		22:57:02
1	Al 396.153Radial†	4767.1	4964.8	5112.9 ug/L	5112.9 ppb	22:57:02
1	Ca 317.933Radial†	2638.4	2645.0	5136.2 ug/L	5136.2 ppb	22:57:22
1	Fe 238.204 Radial†	475.3	469.8	5168.1 ug/L	5168.1 ppb	22:57:22
1	K 766.490 Radial†	25927.0	23022.2	4983.6 ug/L	4983.6 ppb	22:57:02
1	Mg 279.077 IEC†	135.7	135.9	5311.7 ug/L	5311.7 ppb	22:57:22
1	Na 589.592 Radial†	14570.6	14844.7	5206.7 ug/L	5206.7 ppb	22:57:02
1	Sr 421.552†	61470.3	62077.6	516.03 ug/L	516.03 ppb	22:57:02
1	Sc 361.383	819859.1	819859.1	103.03 %		22:58:21
1	Y 371.029	655606.1	655606.1	101.96 %		22:58:21
1	Ag 328.068†	97184.9	94141.7	486.03 ug/L	486.03 ppb	22:58:21
1	As 188.979†	1198.2	1190.7	508.56 ug/L	508.56 ppb	22:58:41
1	B 249.677†	21194.6	20513.3	487.19 ug/L	487.19 ppb	22:58:21
1	Ba 233.527†	61219.3	59412.8	499.98 ug/L	499.98 ppb	22:58:21
1	Be 313.107†	1369613.0	1333580.5	500.47 ug/L	500.47 ppb	22:58:21
1	Cd 226.502†	40355.6	39377.6	485.65 ug/L	485.65 ppb	22:58:41
1	Co 228.616†	23613.8	22997.9	484.81 ug/L	484.81 ppb	22:58:41
1	Cr 267.716†	40908.5	39008.5	482.86 ug/L	482.86 ppb	22:58:21
1	Cu 324.752†	170597.5	157262.4	489.31 ug/L	489.31 ppb	22:58:21
1	Mn 257.610†	438371.3	424930.3	494.10 ug/L	494.10 ppb	22:58:21
1	Mo 202.031†	6568.6	6354.4	493.00 ug/L	493.00 ppb	22:58:41
1	Ni 231.604†	19227.2	18570.3	496.07 ug/L	496.07 ppb	22:58:41
1	P 214.914†	1315.4	1033.4	470.57 ug/L	470.57 ppb	22:58:41
1	Pb 220.353†	3918.9	3819.6	495.44 ug/L	495.44 ppb	22:58:41
1	S 181.975 Axial†	4079.8	3898.2	5058.3 ug/L	5058.3 ppb	22:58:41
1	Sb 206.836†	1570.1	1480.0	538.51 ug/L	538.51 ppb	22:58:41
1	Se 196.026†	850.2	851.7	505.97 ug/L	505.97 ppb	22:58:41
1	Si 251.611†	159233.7	153885.8	4841.0 ug/L	4841.0 ppb	22:58:21
1	Sn 189.927†	2834.6	2715.6	502.33 ug/L	502.33 ppb	22:58:41
1	Ti 334.940†	308286.4	300824.2	498.83 ug/L	498.83 ppb	22:58:21
1	Tl 190.801†	1539.0	1515.1	491.71 ug/L	491.71 ppb	22:58:41
1	U 409.014†	11930.1	15152.2	485.16 ug/L	485.16 ppb	22:58:21
1	V 292.402†	63784.5	63680.9	500.60 ug/L	500.60 ppb	22:58:21
1	Zn 213.857†	51009.4	48647.7	481.25 ug/L	481.25 ppb	22:58:21
1	SiO2†	158179.5	152937.3	10247 ug/L	10247 ppb	22:59:41
2	Sc Radial	3926.4	3926.4	98.8 %		22:57:47
2	Y RADIAL	4140.7	4140.7	100.2 %		22:57:27
2	Al 396.153Radial†	4700.0	4901.1	5047.2 ug/L	5047.2 ppb	22:57:27
2	Ca 317.933Radial†	2613.6	2622.3	5092.1 ug/L	5092.1 ppb	22:57:47
2	Fe 238.204 Radial†	473.8	468.7	5155.9 ug/L	5155.9 ppb	22:57:47
2	K 766.490 Radial†	25593.1	22707.3	4915.4 ug/L	4915.4 ppb	22:57:27
2	Mg 279.077 IEC†	129.0	129.3	5054.2 ug/L	5054.2 ppb	22:57:47
2	Na 589.592 Radial†	14227.0	14509.8	5089.2 ug/L	5089.2 ppb	22:57:27
2	Sr 421.552†	60329.4	60977.3	506.88 ug/L	506.88 ppb	22:57:27
2	Sc 361.383	821819.5	821819.5	103.28 %		22:58:48
2	Y 371.029	656762.2	656762.2	102.14 %		22:58:48
2	Ag 328.068†	97663.0	94379.6	487.26 ug/L	487.26 ppb	22:58:48
2	As 188.979†	1186.0	1176.1	502.39 ug/L	502.39 ppb	22:59:08
2	B 249.677†	21445.2	20706.9	491.82 ug/L	491.82 ppb	22:58:48
2	Ba 233.527†	61516.2	59558.5	501.21 ug/L	501.21 ppb	22:58:48
2	Be 313.107†	1377322.0	1337873.8	502.08 ug/L	502.08 ppb	22:58:48
2	Cd 226.502†	40088.4	39025.5	481.31 ug/L	481.31 ppb	22:59:08
2	Co 228.616†	23524.0	22856.4	481.81 ug/L	481.81 ppb	22:59:08
2	Cr 267.716†	41169.7	39166.7	484.82 ug/L	484.82 ppb	22:58:48
2	Cu 324.752†	171400.0	157644.5	490.50 ug/L	490.50 ppb	22:58:48
2	Mn 257.610†	441090.2	426548.1	495.99 ug/L	495.99 ppb	22:58:48
2	Mo 202.031†	6535.1	6306.7	489.30 ug/L	489.30 ppb	22:59:08
2	Ni 231.604†	19146.7	18447.8	492.80 ug/L	492.80 ppb	22:59:08

2	P 214.914†	1323.0	1037.7	472.65 ug/L	472.65 ppb	22:59:08
2	Pb 220.353†	3903.9	3796.0	492.36 ug/L	492.36 ppb	22:59:08
2	S 181.975 Axial†	4045.5	3855.5	5003.0 ug/L	5003.0 ppb	22:59:08
2	Sb 206.836†	1567.0	1473.3	536.05 ug/L	536.05 ppb	22:59:08
2	Se 196.026†	863.4	862.5	512.13 ug/L	512.13 ppb	22:59:08
2	Si 251.611†	160109.6	154365.2	4856.1 ug/L	4856.1 ppb	22:58:48
2	Sn 189.927†	2828.1	2702.7	499.94 ug/L	499.94 ppb	22:59:08
2	Ti 334.940†	310056.7	301824.5	500.50 ug/L	500.50 ppb	22:58:48
2	Tl 190.801†	1530.1	1502.9	487.83 ug/L	487.83 ppb	22:59:08
2	U 409.014†	11959.7	15153.2	485.19 ug/L	485.19 ppb	22:58:48
2	V 292.402†	64166.7	63903.3	502.27 ug/L	502.27 ppb	22:58:48
2	Zn 213.857†	51318.5	48828.9	483.08 ug/L	483.08 ppb	22:58:48
2	SiO2†	160973.4	155276.3	10404 ug/L	10404 ppb	22:59:47
3	Sc Radial	3947.1	3947.1	99.3 %		22:58:12
3	Y RADIAL	4197.3	4197.3	101.6 %		22:57:52
3	Al 396.153Radial†	4737.6	4914.0	5060.0 ug/L	5060.0 ppb	22:57:52
3	Ca 317.933Radial†	2640.2	2635.2	5117.1 ug/L	5117.1 ppb	22:58:12
3	Fe 238.204 Radial†	470.3	462.7	5090.4 ug/L	5090.4 ppb	22:58:12
3	K 766.490 Radial†	25678.5	22657.3	4904.6 ug/L	4904.6 ppb	22:57:52
3	Mg 279.077 IEC†	136.8	136.5	5334.9 ug/L	5334.9 ppb	22:58:12
3	Na 589.592 Radial†	14192.4	14399.4	5050.5 ug/L	5050.5 ppb	22:57:52
3	Sr 421.552†	60922.2	61253.9	509.18 ug/L	509.18 ppb	22:57:52
3	Sc 361.383	812314.1	812314.1	102.08 %		22:59:16
3	Y 371.029	649355.9	649355.9	100.99 %		22:59:16
3	Ag 328.068†	96579.4	94424.7	487.47 ug/L	487.47 ppb	22:59:16
3	As 188.979†	1205.5	1208.6	516.14 ug/L	516.14 ppb	22:59:36
3	B 249.677†	21000.7	20514.5	487.20 ug/L	487.20 ppb	22:59:16
3	Ba 233.527†	60780.5	59534.9	501.01 ug/L	501.01 ppb	22:59:16
3	Be 313.107†	1359305.8	1335830.6	501.31 ug/L	501.31 ppb	22:59:16
3	Cd 226.502†	40485.1	39868.3	491.72 ug/L	491.72 ppb	22:59:36
3	Co 228.616†	23759.4	23353.5	492.32 ug/L	492.32 ppb	22:59:36
3	Cr 267.716†	40760.7	39232.5	485.63 ug/L	485.63 ppb	22:59:16
3	Cu 324.752†	169026.7	157261.7	489.30 ug/L	489.30 ppb	22:59:16
3	Mn 257.610†	435107.8	425685.4	494.97 ug/L	494.97 ppb	22:59:16
3	Mo 202.031†	6599.2	6443.6	499.91 ug/L	499.91 ppb	22:59:36
3	Ni 231.604†	19316.7	18831.2	503.04 ug/L	503.04 ppb	22:59:36
3	P 214.914†	1313.1	1043.0	475.90 ug/L	475.90 ppb	22:59:36
3	Pb 220.353†	3930.2	3866.0	501.45 ug/L	501.45 ppb	22:59:36
3	S 181.975 Axial†	4085.1	3940.1	5112.8 ug/L	5112.8 ppb	22:59:36
3	Sb 206.836†	1585.8	1509.5	549.16 ug/L	549.16 ppb	22:59:36
3	Se 196.026†	867.5	876.3	519.88 ug/L	519.88 ppb	22:59:36
3	Si 251.611†	157887.5	154002.6	4844.6 ug/L	4844.6 ppb	22:59:16
3	Sn 189.927†	2848.5	2754.8	509.59 ug/L	509.59 ppb	22:59:36
3	Ti 334.940†	306230.2	301589.1	500.09 ug/L	500.09 ppb	22:59:16
3	Tl 190.801†	1567.4	1556.8	505.12 ug/L	505.12 ppb	22:59:36
3	U 409.014†	11801.0	15133.3	484.56 ug/L	484.56 ppb	22:59:16
3	V 292.402†	63439.0	63917.5	502.54 ug/L	502.54 ppb	22:59:16
3	Zn 213.857†	50665.1	48770.2	482.44 ug/L	482.44 ppb	22:59:16
3	SiO2†	160358.8	156498.2	10485 ug/L	10485 ppb	22:59:52

Mean Data: 1202036426|950319|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Sc 361.383	817997.6	102.80 %		0.631			0.61%
Sc Radial	3934.5	99.0 %		0.28			0.28%
Y 371.029	653908.1	101.70 %		0.620			0.61%
Y RADIAL	4165.8	100.8 %		0.70			0.69%
Ag 328.068†	94315.4	486.92 ug/L		0.775	486.92 ppb	0.775	0.16%
Al 396.153Radial†	4926.6	5073.3 ug/L		34.84	5073.3 ppb	34.84	0.69%
As 188.979†	1191.8	509.03 ug/L		6.884	509.03 ppb	6.884	1.35%
B 249.677†	20578.3	488.74 ug/L		2.667	488.74 ppb	2.667	0.55%
Ba 233.527†	59502.1	500.73 ug/L		0.658	500.73 ppb	0.658	0.13%
Be 313.107†	1335761.6	501.29 ug/L		0.806	501.29 ppb	0.806	0.16%
Ca 317.933Radial†	2634.1	5115.1 ug/L		22.15	5115.1 ppb	22.15	0.43%
Cd 226.502†	39423.8	486.22 ug/L		5.229	486.22 ppb	5.229	1.08%
Co 228.616†	23069.2	486.31 ug/L		5.411	486.31 ppb	5.411	1.11%
Cr 267.716†	39135.9	484.44 ug/L		1.424	484.44 ppb	1.424	0.29%
Cu 324.752†	157389.5	489.70 ug/L		0.688	489.70 ppb	0.688	0.14%
Fe 238.204 Radial†	467.1	5138.2 ug/L		41.80	5138.2 ppb	41.80	0.81%
K 766.490 Radial†	22795.6	4934.5 ug/L		42.83	4934.5 ppb	42.83	0.87%

Mg 279.077 IEC†	133.9	5233.6 ug/L	155.78	5233.6 ppb	155.78	2.98%
Mn 257.610†	425721.3	495.02 ug/L	0.946	495.02 ppb	0.946	0.19%
Mo 202.031†	6368.2	494.07 ug/L	5.384	494.07 ppb	5.384	1.09%
Na 589.592 Radial†	14584.6	5115.5 ug/L	81.33	5115.5 ppb	81.33	1.59%
Ni 231.604†	18616.4	497.30 ug/L	5.231	497.30 ppb	5.231	1.05%
P 214.914†	1038.0	473.04 ug/L	2.686	473.04 ppb	2.686	0.57%
Pb 220.353†	3827.2	496.42 ug/L	4.623	496.42 ppb	4.623	0.93%
S 181.975 Axial†	3897.9	5058.1 ug/L	54.90	5058.1 ppb	54.90	1.09%
Sb 206.836†	1487.6	541.24 ug/L	6.968	541.24 ppb	6.968	1.29%
Se 196.026†	863.5	512.66 ug/L	6.966	512.66 ppb	6.966	1.36%
Si 251.611†	154084.5	4847.2 ug/L	7.91	4847.2 ppb	7.91	0.16%
Sn 189.927†	2724.3	503.95 ug/L	5.023	503.95 ppb	5.023	1.00%
Sr 421.552†	61436.3	510.69 ug/L	4.758	510.69 ppb	4.758	0.93%
Ti 334.940†	301412.6	499.81 ug/L	0.872	499.81 ppb	0.872	0.17%
Tl 190.801†	1524.9	494.89 ug/L	9.076	494.89 ppb	9.076	1.83%
U 409.014†	15146.2	484.97 ug/L	0.358	484.97 ppb	0.358	0.07%
V 292.402†	63833.9	501.81 ug/L	1.051	501.81 ppb	1.051	0.21%
Zn 213.857†	48748.9	482.26 ug/L	0.929	482.26 ppb	0.929	0.19%
SiO2†	154903.9	10379 ug/L	121.3	10379 ppb	121.3	1.17%

Sequence No.: 64

Sample ID: 246334001|950319|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 85

Date Collected: 2/17/2010 23:08:51

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 246334001|950319|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4002.3	4002.3	101 %		23:11:04
1	Y RADIAL	4222.0	4222.0	102.2 %		23:10:44
1	Al 396.153Radial†	-78.6	63.9	66.060 ug/L	66.060 ppb	23:10:44
1	Ca 317.933Radial†	47.0	22.5	43.614 ug/L	43.614 ppb	23:11:04
1	Fe 238.204 Radial†	17.8	6.6	72.505 ug/L	72.505 ppb	23:11:04
1	K 766.490 Radial†	3833.4	600.0	129.93 ug/L	129.93 ppb	23:10:44
1	Mg 279.077 IEC†	4.1	2.7	104.87 ug/L	104.87 ppb	23:11:04
1	Na 589.592 Radial†	303.8	405.5	142.22 ug/L	142.22 ppb	23:10:44
1	Sr 421.552†	247.2	133.9	1.1132 ug/L	1.1132 ppb	23:10:44
1	Sc 361.383	823063.7	823063.7	103.43 %		23:12:01
1	Y 371.029	663272.3	663272.3	103.15 %		23:12:01
1	Ag 328.068†	200.8	8.5	0.0649 ug/L	0.0649 ppb	23:12:01
1	As 188.979†	-25.8	2.7	1.1661 ug/L	1.1661 ppb	23:12:21
1	B 249.677†	657.9	578.0	13.778 ug/L	13.778 ppb	23:12:01
1	Ba 233.527†	302.1	285.6	2.4014 ug/L	2.4014 ppb	23:12:21
1	Be 313.107†	-4052.1	320.8	0.1258 ug/L	0.1258 ppb	23:12:01
1	Cd 226.502†	-217.6	-1.7	-0.0277 ug/L	-0.0277 ppb	23:12:21
1	Co 228.616†	-72.0	8.9	0.1846 ug/L	0.1846 ppb	23:12:21
1	Cr 267.716†	137.3	-564.4	-6.9772 ug/L	-6.9772 ppb	23:12:21
1	Cu 324.752†	8884.7	270.9	0.8445 ug/L	0.8445 ppb	23:12:01
1	Mn 257.610†	3038.6	2386.3	2.7760 ug/L	2.7760 ppb	23:12:01
1	Mo 202.031†	22.6	0.7	0.0605 ug/L	0.0605 ppb	23:12:21
1	Ni 231.604†	102.2	7.2	0.1922 ug/L	0.1922 ppb	23:12:21
1	P 214.914†	261.1	9.1	4.7175 ug/L	4.7175 ppb	23:12:21
1	Pb 220.353†	-59.3	-41.3	-5.3346 ug/L	-5.3346 ppb	23:12:21
1	S 181.975 Axial†	88.6	23.9	31.062 ug/L	31.062 ppb	23:12:21
1	Sb 206.836†	28.1	-16.8	-5.9929 ug/L	-5.9929 ppb	23:12:21
1	Se 196.026†	-19.1	8.0	4.8149 ug/L	4.8149 ppb	23:12:21
1	Si 251.611†	51308.6	48940.1	1541.5 ug/L	1541.5 ppb	23:12:01
1	Sn 189.927†	12.4	-23.7	-4.3889 ug/L	-4.3889 ppb	23:12:21
1	Ti 334.940†	-86.6	1518.6	2.5168 ug/L	2.5168 ppb	23:12:01
1	Tl 190.801†	-26.8	-4.6	-1.4447 ug/L	-1.4447 ppb	23:12:21
1	U 409.014†	-3563.6	127.6	4.1060 ug/L	4.1060 ppb	23:12:01
1	V 232.402†	-1731.8	97.5	0.7565 ug/L	0.7565 ppb	23:12:01
1	Zn 213.857†	1031.3	135.2	1.3370 ug/L	1.3370 ppb	23:12:21
1	SiO2†	50723.8	48449.4	3250.3 ug/L	3250.3 ppb	23:13:17
2	Sc Radial	4011.0	4011.0	101 %		23:11:29
2	Y RADIAL	4216.9	4216.9	102.1 %		23:11:09
2	Al 396.153Radial†	-76.6	66.0	68.210 ug/L	68.210 ppb	23:11:09
2	Ca 317.933Radial†	43.6	19.0	36.803 ug/L	36.803 ppb	23:11:29
2	Fe 238.204 Radial†	18.3	7.1	78.390 ug/L	78.390 ppb	23:11:29
2	K 766.490 Radial†	3700.5	460.0	99.619 ug/L	99.619 ppb	23:11:09
2	Mg 279.077 IEC†	2.7	1.4	53.286 ug/L	53.286 ppb	23:11:29
2	Na 589.592 Radial†	213.4	315.2	110.56 ug/L	110.56 ppb	23:11:09
2	Sr 421.552†	126.9	14.2	0.1174 ug/L	0.1174 ppb	23:11:09
2	Sc 361.383	820505.2	820505.2	103.11 %		23:12:26
2	Y 371.029	660627.3	660627.3	102.74 %		23:12:26
2	Ag 328.068†	241.3	48.4	0.2724 ug/L	0.2724 ppb	23:12:26
2	As 188.979†	-39.3	-10.4	-4.3859 ug/L	-4.3859 ppb	23:12:47
2	B 249.677†	666.0	587.9	14.012 ug/L	14.012 ppb	23:12:26
2	Ba 233.527†	288.6	273.5	2.3003 ug/L	2.3003 ppb	23:12:47
2	Be 313.107†	-4157.6	206.2	0.0829 ug/L	0.0829 ppb	23:12:26
2	Cd 226.502†	-221.0	-5.7	-0.0769 ug/L	-0.0769 ppb	23:12:47
2	Co 228.616†	-63.2	17.1	0.3609 ug/L	0.3609 ppb	23:12:47
2	Cr 267.716†	139.3	-562.1	-6.9482 ug/L	-6.9482 ppb	23:12:47
2	Cu 324.752†	8776.5	192.8	0.6018 ug/L	0.6018 ppb	23:12:26
2	Mn 257.610†	2999.1	2357.2	2.7449 ug/L	2.7449 ppb	23:12:26
2	Mo 202.031†	30.9	8.8	0.6899 ug/L	0.6899 ppb	23:12:47
2	Ni 231.604†	114.8	19.7	0.5273 ug/L	0.5273 ppb	23:12:47

2	P 214.914†	260.7	9.5	5.0193 ug/L	5.0193 ppb	23:12:47
2	Pb 220.353†	-81.0	-62.6	-8.0790 ug/L	-8.0790 ppb	23:12:47
2	S 181.975 Axial†	101.6	36.9	47.876 ug/L	47.876 ppb	23:12:47
2	Sb 206.836†	37.6	-7.6	-2.7179 ug/L	-2.7179 ppb	23:12:47
2	Se 196.026†	-16.6	10.4	6.1822 ug/L	6.1822 ppb	23:12:47
2	Si 251.611†	51355.3	49140.1	1547.8 ug/L	1547.8 ppb	23:12:26
2	Sn 189.927†	12.8	-23.2	-4.3030 ug/L	-4.3030 ppb	23:12:47
2	Ti 334.940†	-96.8	1508.5	2.5033 ug/L	2.5033 ppb	23:12:26
2	Tl 190.801†	-33.4	-11.0	-3.5250 ug/L	-3.5250 ppb	23:12:47
2	U 409.014†	-3550.1	129.9	4.1788 ug/L	4.1788 ppb	23:12:26
2	V 292.402†	-1705.5	117.9	0.9217 ug/L	0.9217 ppb	23:12:26
2	Zn 213.857†	1020.7	128.0	1.2629 ug/L	1.2629 ppb	23:12:47
2	SiO2†	50590.0	48472.6	3251.8 ug/L	3251.8 ppb	23:13:22
3	Sc Radial	3994.9	3994.9	100 %		23:11:54
3	Y RADIAL	4170.1	4170.1	100.9 %		23:11:34
3	Al 396.153Radial†	-67.2	75.0	77.522 ug/L	77.522 ppb	23:11:34
3	Ca 317.933Radial†	49.4	24.9	48.315 ug/L	48.315 ppb	23:11:54
3	Fe 238.204 Radial†	16.8	5.7	62.758 ug/L	62.758 ppb	23:11:54
3	K 766.490 Radial†	3759.9	533.9	115.60 ug/L	115.60 ppb	23:11:34
3	Mg 279.077 IEC†	1.2	-0.2	-6.5830 ug/L	-6.5830 ppb	23:11:54
3	Na 589.592 Radial†	326.9	429.0	150.46 ug/L	150.46 ppb	23:11:34
3	Sr 421.552†	122.8	10.6	0.0877 ug/L	0.0877 ppb	23:11:34
3	Sc 361.383	823314.0	823314.0	103.46 %		23:12:52
3	Y 371.029	663586.2	663586.2	103.20 %		23:12:52
3	Ag 328.068†	264.7	70.2	0.3817 ug/L	0.3817 ppb	23:12:52
3	As 188.979†	-32.8	-4.0	-1.6754 ug/L	-1.6754 ppb	23:13:12
3	B 249.677†	677.1	596.4	14.217 ug/L	14.217 ppb	23:12:52
3	Ba 233.527†	303.8	287.2	2.4144 ug/L	2.4144 ppb	23:13:12
3	Be 313.107†	-4148.2	229.1	0.0912 ug/L	0.0912 ppb	23:12:52
3	Cd 226.502†	-230.1	-13.7	-0.1755 ug/L	-0.1755 ppb	23:13:12
3	Co 228.616†	-73.4	7.5	0.1599 ug/L	0.1599 ppb	23:13:12
3	Cr 267.716†	119.1	-582.1	-7.1940 ug/L	-7.1940 ppb	23:13:12
3	Cu 324.752†	8860.8	245.2	0.7659 ug/L	0.7659 ppb	23:12:52
3	Mn 257.610†	3062.7	2408.7	2.8056 ug/L	2.8056 ppb	23:12:52
3	Mo 202.031†	37.3	15.0	1.1644 ug/L	1.1644 ppb	23:13:12
3	Ni 231.604†	116.2	20.7	0.5542 ug/L	0.5542 ppb	23:13:12
3	P 214.914†	249.0	-2.6	-1.6433 ug/L	-1.6433 ppb	23:13:12
3	Pb 220.353†	-74.3	-55.9	-7.2108 ug/L	-7.2108 ppb	23:13:12
3	S 181.975 Axial†	83.8	19.3	25.048 ug/L	25.048 ppb	23:13:12
3	Sb 206.836†	49.6	3.9	1.3629 ug/L	1.3629 ppb	23:13:12
3	Se 196.026†	-18.4	8.7	5.1777 ug/L	5.1777 ppb	23:13:12
3	Si 251.611†	51547.7	49156.1	1548.3 ug/L	1548.3 ppb	23:12:52
3	Sn 189.927†	21.9	-14.6	-2.6953 ug/L	-2.6953 ppb	23:13:12
3	Ti 334.940†	-153.5	1454.0	2.4210 ug/L	2.4210 ppb	23:12:52
3	Tl 190.801†	-38.4	-15.8	-5.0572 ug/L	-5.0572 ppb	23:13:12
3	U 409.014†	-3672.7	23.2	0.7532 ug/L	0.7532 ppb	23:12:52
3	V 292.402†	-1718.5	110.9	0.8692 ug/L	0.8692 ppb	23:12:52
3	Zn 213.857†	1015.8	119.9	1.1837 ug/L	1.1837 ppb	23:13:12
3	SiO2†	50787.1	48495.7	3253.4 ug/L	3253.4 ppb	23:13:27

Mean Data: 246334001|950319|1

Analyte	Mean Corrected	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	822294.3	103.34 %		0.195				0.19%
Sc Radial	4002.7	101 %		0.2				0.20%
Y 371.029	662495.3	103.03 %		0.253				0.25%
Y RADIAL	4203.0	101.7 %		0.69				0.68%
Ag 328.068†	42.4	0.2396 ug/L		0.16093	0.2396 ppb		0.16093	67.16%
Al 396.153Radial†	68.3	70.597 ug/L		6.0928	70.597 ppb		6.0928	8.63%
As 188.979†	-3.9	-1.6317 ug/L		2.77624	-1.6317 ppb		2.77624	170.14%
B 249.677†	587.4	14.002 ug/L		0.2199	14.002 ppb		0.2199	1.57%
Ba 233.527†	282.1	2.3720 ug/L		0.06248	2.3720 ppb		0.06248	2.63%
Be 313.107†	252.0	0.1000 ug/L		0.02276	0.1000 ppb		0.02276	22.77%
Ca 317.933Radial†	22.1	42.911 ug/L		5.7884	42.911 ppb		5.7884	13.49%
Cd 226.502†	-7.0	-0.0933 ug/L		0.07526	-0.0933 ppb		0.07526	80.63%
Co 228.616†	11.2	0.2351 ug/L		0.10961	0.2351 ppb		0.10961	46.62%
Cr 267.716†	-569.5	-7.0398 ug/L		0.13431	-7.0398 ppb		0.13431	1.91%
Cu 324.752†	236.3	0.7374 ug/L		0.12385	0.7374 ppb		0.12385	16.80%
Fe 238.204 Radial†	6.5	71.218 ug/L		7.8950	71.218 ppb		7.8950	11.09%
K 766.490 Radial†	531.3	115.05 ug/L		15.161	115.05 ppb		15.161	13.18%

Mg 279.077 IEC†	1.3	50.525 ug/L	55.7781	50.525 ppb	55.7781	110.40%
Mn 257.610†	2384.1	2.7755 ug/L	0.03036	2.7755 ppb	0.03036	1.09%
Mo 202.031†	8.2	0.6383 ug/L	0.55377	0.6383 ppb	0.55377	86.76%
Na 589.592 Radial†	383.2	134.41 ug/L	21.069	134.41 ppb	21.069	15.67%
Ni 231.604†	15.9	0.4246 ug/L	0.20168	0.4246 ppb	0.20168	47.50%
P 214.914†	5.3	2.6978 ug/L	3.76258	2.6978 ppb	3.76258	139.47%
Pb 220.353†	-53.3	-6.8748 ug/L	1.40270	-6.8748 ppb	1.40270	20.40%
S 181.975 Axial†	26.7	34.662 ug/L	11.8317	34.662 ppb	11.8317	34.13%
Sb 206.836†	-6.8	-2.4493 ug/L	3.68523	-2.4493 ppb	3.68523	150.46%
Se 196.026†	9.0	5.3916 ug/L	0.70829	5.3916 ppb	0.70829	13.14%
Si 251.611†	49078.8	1545.9 ug/L	3.78	1545.9 ppb	3.78	0.24%
Sn 189.927†	-20.5	-3.7957 ug/L	0.95398	-3.7957 ppb	0.95398	25.13%
Sr 421.552†	52.9	0.4394 ug/L	0.58367	0.4394 ppb	0.58367	132.83%
Ti 334.940†	1493.7	2.4804 ug/L	0.05189	2.4804 ppb	0.05189	2.09%
Tl 190.801†	-10.5	-3.3423 ug/L	1.81318	-3.3423 ppb	1.81318	54.25%
U 409.014†	93.5	3.0127 ug/L	1.95710	3.0127 ppb	1.95710	64.96%
V 292.402†	108.8	0.8491 ug/L	0.08442	0.8491 ppb	0.08442	9.94%
Zn 213.857†	127.7	1.2612 ug/L	0.07665	1.2612 ppb	0.07665	6.08%
SiO2†	48472.6	3251.8 ug/L	1.54	3251.8 ppb	1.54	0.05%



Sequence No.: 65

Sample ID: 1202036427|950319|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 86

Date Collected: 2/17/2010 23:15:39

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202036427|950319|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	3976.2	3976.2	100 %		23:17:52
1	Y RADIAL	4263.8	4263.8	103.2 %		23:17:32
1	Al 396.153Radial†	-79.0	62.9	65.103 ug/L	65.103 ppb	23:17:32
1	Ca 317.933Radial†	45.4	21.1	41.051 ug/L	41.051 ppb	23:17:52
1	Fe 238.204 Radial†	16.1	5.0	55.121 ug/L	55.121 ppb	23:17:52
1	K 766.490 Radial†	3844.5	636.2	137.78 ug/L	137.78 ppb	23:17:32
1	Mg 279.077 IEC†	3.2	1.8	71.667 ug/L	71.667 ppb	23:17:52
1	Na 589.592 Radial†	242.1	345.8	121.27 ug/L	121.27 ppb	23:17:32
1	Sr 421.552†	83.3	-28.4	-0.2360 ug/L	-0.2360 ppb	23:17:32
1	Sc 361.383	818180.6	818180.6	102.82 %		23:18:49
1	Y 371.029	658830.6	658830.6	102.46 %		23:18:49
1	Ag 328.068†	189.3	-1.5	0.0130 ug/L	0.0130 ppb	23:18:49
1	As 188.979†	-32.1	-3.6	-1.4844 ug/L	-1.4844 ppb	23:19:09
1	B 249.677†	605.4	530.8	12.655 ug/L	12.655 ppb	23:18:49
1	Ba 233.527†	94.1	85.1	0.7173 ug/L	0.7173 ppb	23:19:09
1	Be 313.107†	-4266.6	88.8	0.0384 ug/L	0.0384 ppb	23:18:49
1	Cd 226.502†	-219.4	-4.7	-0.0640 ug/L	-0.0640 ppb	23:19:09
1	Co 228.616†	-79.5	1.1	0.0222 ug/L	0.0222 ppb	23:19:09
1	Cr 267.716†	135.6	-565.3	-6.9853 ug/L	-6.9853 ppb	23:18:49
1	Cu 324.752†	8884.5	322.0	1.0061 ug/L	1.0061 ppb	23:18:49
1	Mn 257.610†	2917.3	2285.9	2.6589 ug/L	2.6589 ppb	23:18:49
1	Mo 202.031†	26.3	4.5	0.3538 ug/L	0.3538 ppb	23:19:09
1	Ni 231.604†	108.2	13.6	0.3639 ug/L	0.3639 ppb	23:19:09
1	P 214.914†	278.0	27.1	14.557 ug/L	14.557 ppb	23:19:09
1	Pb 220.353†	-52.3	-34.9	-4.5058 ug/L	-4.5058 ppb	23:19:09
1	S 181.975 Axial†	83.5	19.5	25.355 ug/L	25.355 ppb	23:19:09
1	Sb 206.836†	37.3	-7.7	-2.7890 ug/L	-2.7890 ppb	23:19:09
1	Se 196.026†	-15.5	11.4	6.7352 ug/L	6.7352 ppb	23:19:09
1	Si 251.611†	50828.1	48768.9	1536.1 ug/L	1536.1 ppb	23:18:49
1	Sn 189.927†	12.1	-24.0	-4.4334 ug/L	-4.4334 ppb	23:19:09
1	Ti 334.940†	-239.1	1369.8	2.2752 ug/L	2.2752 ppb	23:18:49
1	Tl 190.801†	-30.5	-8.3	-2.6428 ug/L	-2.6428 ppb	23:19:09
1	U 409.014†	-3745.1	-69.5	-2.2242 ug/L	-2.2242 ppb	23:18:49
1	V 292.402†	-1732.0	87.4	0.6720 ug/L	0.6720 ppb	23:18:49
1	Zn 213.857†	1025.9	135.9	1.3455 ug/L	1.3455 ppb	23:19:09
1	SiO2†	50657.6	48677.7	3265.6 ug/L	3265.6 ppb	23:20:05
2	Sc Radial	3986.2	3986.2	100 %		23:18:17
2	Y RADIAL	4245.0	4245.0	102.8 %		23:17:57
2	Al 396.153Radial†	-81.7	60.4	62.469 ug/L	62.469 ppb	23:17:57
2	Ca 317.933Radial†	45.3	21.0	40.722 ug/L	40.722 ppb	23:18:17
2	Fe 238.204 Radial†	14.9	3.8	42.183 ug/L	42.183 ppb	23:18:17
2	K 766.490 Radial†	3753.9	536.1	116.10 ug/L	116.10 ppb	23:17:57
2	Mg 279.077 IEC†	4.5	3.2	123.62 ug/L	123.62 ppb	23:18:17
2	Na 589.592 Radial†	158.4	261.7	91.784 ug/L	91.784 ppb	23:17:57
2	Sr 421.552†	106.9	-5.1	-0.0424 ug/L	-0.0424 ppb	23:17:57
2	Sc 361.383	811341.4	811341.4	101.96 %		23:19:15
2	Y 371.029	653604.1	653604.1	101.65 %		23:19:15
2	Ag 328.068†	110.0	-77.8	-0.3843 ug/L	-0.3843 ppb	23:19:15
2	As 188.979†	-32.0	-3.8	-1.5683 ug/L	-1.5683 ppb	23:19:35
2	B 249.677†	574.0	504.9	12.039 ug/L	12.039 ppb	23:19:15
2	Ba 233.527†	108.1	99.6	0.8383 ug/L	0.8383 ppb	23:19:35
2	Be 313.107†	-4103.2	214.1	0.0856 ug/L	0.0856 ppb	23:19:15
2	Cd 226.502†	-213.4	-0.7	-0.0125 ug/L	-0.0125 ppb	23:19:35
2	Co 228.616†	-74.5	5.4	0.1103 ug/L	0.1103 ppb	23:19:35
2	Cr 267.716†	185.6	-515.2	-6.3675 ug/L	-6.3675 ppb	23:19:15
2	Cu 324.752†	8966.5	475.3	1.4814 ug/L	1.4814 ppb	23:19:15
2	Mn 257.610†	2871.0	2264.4	2.6305 ug/L	2.6305 ppb	23:19:15
2	Mo 202.031†	17.3	-4.1	-0.3165 ug/L	-0.3165 ppb	23:19:35
2	Ni 231.604†	110.9	17.2	0.4588 ug/L	0.4588 ppb	23:19:35

2	P 214.914†	262.1	13.7	7.1842 ug/L	7.1842 ppb	23:19:35
2	Pb 220.353†	-61.3	-44.2	-5.7042 ug/L	-5.7042 ppb	23:19:35
2	S 181.975 Axial†	72.0	8.9	11.560 ug/L	11.560 ppb	23:19:35
2	Sb 206.836†	47.4	2.5	0.8298 ug/L	0.8298 ppb	23:19:35
2	Se 196.026†	-24.5	2.5	1.5354 ug/L	1.5354 ppb	23:19:35
2	Si 251.611†	50604.1	48965.9	1542.3 ug/L	1542.3 ppb	23:19:15
2	Sn 189.927†	19.5	-16.6	-3.0597 ug/L	-3.0597 ppb	23:19:35
2	Ti 334.940†	-159.6	1445.8	2.3959 ug/L	2.3959 ppb	23:19:15
2	Tl 190.801†	-34.5	-12.5	-3.9956 ug/L	-3.9956 ppb	23:19:35
2	U 409.014†	-3659.2	-16.0	-0.5041 ug/L	-0.5041 ppb	23:19:15
2	V 292.402†	-1750.4	55.1	0.4180 ug/L	0.4180 ppb	23:19:15
2	Zn 213.857†	1036.2	154.4	1.5309 ug/L	1.5309 ppb	23:19:35
2	SiO2†	50460.0	48899.2	3280.5 ug/L	3280.5 ppb	23:20:10
3	Sc Radial	3959.0	3959.0	99.6 %		23:18:42
3	Y RADIAL	4169.2	4169.2	100.9 %		23:18:22
3	Al 396.153Radial†	-99.8	41.7	43.116 ug/L	43.116 ppb	23:18:22
3	Ca 317.933Radial†	45.7	21.7	42.051 ug/L	42.051 ppb	23:18:42
3	Fe 238.204 Radial†	16.3	5.3	58.055 ug/L	58.055 ppb	23:18:42
3	K 766.490 Radial†	3643.1	450.5	97.561 ug/L	97.561 ppb	23:18:22
3	Mg 279.077 IEC†	4.1	2.8	107.48 ug/L	107.48 ppb	23:18:42
3	Na 589.592 Radial†	174.9	279.3	97.968 ug/L	97.968 ppb	23:18:22
3	Sr 421.552†	71.7	-39.6	-0.3297 ug/L	-0.3297 ppb	23:18:22
3	Sc 361.383	810432.7	810432.7	101.84 %		23:19:40
3	Y 371.029	653147.0	653147.0	101.58 %		23:19:40
3	Ag 328.068†	342.9	151.1	0.7931 ug/L	0.7931 ppb	23:19:40
3	As 188.979†	-36.9	-8.6	-3.6039 ug/L	-3.6039 ppb	23:20:00
3	B 249.677†	576.0	507.6	12.099 ug/L	12.099 ppb	23:19:40
3	Ba 233.527†	105.3	97.0	0.8177 ug/L	0.8177 ppb	23:20:00
3	Be 313.107†	-4158.2	155.5	0.0634 ug/L	0.0634 ppb	23:19:40
3	Cd 226.502†	-223.6	-10.9	-0.1397 ug/L	-0.1397 ppb	23:20:00
3	Co 228.616†	-61.2	18.3	0.3853 ug/L	0.3853 ppb	23:20:00
3	Cr 267.716†	169.0	-531.3	-6.5669 ug/L	-6.5669 ppb	23:19:40
3	Cu 324.752†	8739.4	262.2	0.8167 ug/L	0.8167 ppb	23:19:40
3	Mn 257.610†	2876.1	2272.6	2.6423 ug/L	2.6423 ppb	23:19:40
3	Mo 202.031†	27.6	6.0	0.4691 ug/L	0.4691 ppb	23:20:00
3	Ni 231.604†	122.0	28.2	0.7546 ug/L	0.7546 ppb	23:20:00
3	P 214.914†	247.7	-0.1	-0.2781 ug/L	-0.2781 ppb	23:20:00
3	Pb 220.353†	-73.9	-56.6	-7.3124 ug/L	-7.3124 ppb	23:20:00
3	S 181.975 Axial†	80.9	17.7	23.023 ug/L	23.023 ppb	23:20:00
3	Sb 206.836†	28.2	-16.3	-5.7836 ug/L	-5.7836 ppb	23:20:00
3	Se 196.026†	-19.4	7.5	4.4650 ug/L	4.4650 ppb	23:20:00
3	Si 251.611†	50152.6	48578.2	1530.1 ug/L	1530.1 ppb	23:19:40
3	Sn 189.927†	19.5	-16.6	-3.0625 ug/L	-3.0625 ppb	23:20:00
3	Ti 334.940†	-235.8	1370.8	2.2713 ug/L	2.2713 ppb	23:19:40
3	Tl 190.801†	-32.9	-11.0	-3.5090 ug/L	-3.5090 ppb	23:20:00
3	U 409.014†	-3522.2	114.5	3.6872 ug/L	3.6872 ppb	23:19:40
3	V 292.402†	-1682.3	120.0	0.9386 ug/L	0.9386 ppb	23:19:40
3	Zn 213.857†	1029.4	148.8	1.4718 ug/L	1.4718 ppb	23:20:00
3	SiO2†	50493.9	48988.0	3286.4 ug/L	3286.4 ppb	23:20:16

Mean Data: 1202036427|950319|1

Analyte	Mean Corrected	Calib.	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity	Conc. Units		Conc. Units		
Sc 361.383	813318.2	102.21 %	0.532			0.52%
Sc Radial	3973.8	99.9 %	0.35			0.35%
Y 371.029	655193.9	101.90 %	0.491			0.48%
Y RADIAL	4226.0	102.3 %	1.21			1.19%
Ag 328.068†	23.9	0.1406 ug/L	0.59895	0.1406 ppb	0.59895	425.98%
Al 396.153Radial†	55.0	56.896 ug/L	12.0061	56.896 ppb	12.0061	21.10%
As 188.979†	-5.3	-2.2188 ug/L	1.20020	-2.2188 ppb	1.20020	54.09%
B 249.677†	514.4	12.264 ug/L	0.3394	12.264 ppb	0.3394	2.77%
Ba 233.527†	93.9	0.7911 ug/L	0.06477	0.7911 ppb	0.06477	8.19%
Be 313.107†	152.8	0.0625 ug/L	0.02362	0.0625 ppb	0.02362	37.81%
Ca 317.933Radial†	21.3	41.275 ug/L	0.6920	41.275 ppb	0.6920	1.68%
Cd 226.502†	-5.4	-0.0721 ug/L	0.06399	-0.0721 ppb	0.06399	88.80%
Co 228.616†	8.3	0.1726 ug/L	0.18938	0.1726 ppb	0.18938	109.73%
Cr 267.716†	-537.2	-6.6399 ug/L	0.31533	-6.6399 ppb	0.31533	4.75%
Cu 324.752†	353.2	1.1014 ug/L	0.34243	1.1014 ppb	0.34243	31.09%
Fe 238.204 Radial†	4.7	51.786 ug/L	8.4452	51.786 ppb	8.4452	16.31%
K 766.490 Radial†	540.9	117.15 ug/L	20.129	117.15 ppb	20.129	17.18%

Mg 279.077 IEC†	2.6	100.92 ug/L	26.591	100.92 ppb	26.591	26.35%
Mn 257.610†	2274.3	2.6439 ug/L	0.01426	2.6439 ppb	0.01426	0.54%
Mo 202.031†	2.1	0.1688 ug/L	0.42425	0.1688 ppb	0.42425	251.34%
Na 589.592 Radial†	295.6	103.68 ug/L	15.552	103.68 ppb	15.552	15.00%
Ni 231.604†	19.7	0.5258 ug/L	0.20375	0.5258 ppb	0.20375	38.75%
P 214.914†	13.6	7.1545 ug/L	7.41782	7.1545 ppb	7.41782	103.68%
Pb 220.353†	-45.2	-5.8408 ug/L	1.40826	-5.8408 ppb	1.40826	24.11%
S 181.975 Axial†	15.4	19.979 ug/L	7.3840	19.979 ppb	7.3840	36.96%
Sb 206.836†	-7.2	-2.5809 ug/L	3.31160	-2.5809 ppb	3.31160	128.31%
Se 196.026†	7.1	4.2452 ug/L	2.60687	4.2452 ppb	2.60687	61.41%
Si 251.611†	48771.0	1536.2 ug/L	6.11	1536.2 ppb	6.11	0.40%
Sn 189.927†	-19.0	-3.5186 ug/L	0.79228	-3.5186 ppb	0.79228	22.52%
Sr 421.552†	-24.3	-0.2027 ug/L	0.14652	-0.2027 ppb	0.14652	72.29%
Ti 334.940†	1395.5	2.3141 ug/L	0.07087	2.3141 ppb	0.07087	3.06%
Tl 190.801†	-10.6	-3.3824 ug/L	0.68524	-3.3824 ppb	0.68524	20.26%
U 409.014†	9.7	0.3196 ug/L	3.04059	0.3196 ppb	3.04059	951.25%
V 292.402†	87.5	0.6762 ug/L	0.26036	0.6762 ppb	0.26036	38.50%
Zn 213.857†	146.4	1.4494 ug/L	0.09472	1.4494 ppb	0.09472	6.53%
SiO2†	48855.0	3277.5 ug/L	10.72	3277.5 ppb	10.72	0.33%

Sequence No.: 66

Sample ID: 1202036428|950319|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 87

Date Collected: 2/17/2010 23:22:27

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202036428|950319|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4043.7	4043.7	102 %		23:24:20
1	Y RADIAL	4203.8	4203.8	101.8 %		23:24:20
1	Al 396.153Radial†	4772.4	4834.3	4978.2 ug/L	4978.2 ppb	23:24:20
1	Ca 317.933Radial†	2633.7	2565.3	4981.4 ug/L	4981.4 ppb	23:24:40
1	Fe 238.204 Radial†	475.4	456.4	5020.5 ug/L	5020.5 ppb	23:24:40
1	K 766.490 Radial†	26396.2	22745.4	4923.8 ug/L	4923.8 ppb	23:24:20
1	Mg 279.077 IEC†	133.9	130.3	5094.8 ug/L	5094.8 ppb	23:24:40
1	Na 589.592 Radial†	14425.6	14287.3	5011.2 ug/L	5011.2 ppb	23:24:20
1	Sr 421.552†	60035.7	58916.9	489.75 ug/L	489.75 ppb	23:24:20
1	Sc 361.383	815990.4	815990.4	102.54 %		23:25:39
1	Y 371.029	652844.0	652844.0	101.53 %		23:25:39
1	Ag 328.068†	95398.1	92846.4	479.34 ug/L	479.34 ppb	23:25:39
1	As 188.979†	1155.0	1154.0	492.98 ug/L	492.98 ppb	23:25:59
1	B 249.677†	21878.1	21277.5	505.47 ug/L	505.47 ppb	23:25:39
1	Ba 233.527†	60405.9	58901.3	495.68 ug/L	495.68 ppb	23:25:39
1	Be 313.107†	1347796.4	1318607.4	494.85 ug/L	494.85 ppb	23:25:39
1	Cd 226.502†	39147.3	38385.0	473.41 ug/L	473.41 ppb	23:25:59
1	Co 228.616†	22977.7	22486.3	474.01 ug/L	474.01 ppb	23:25:59
1	Cr 267.716†	40528.8	38826.4	480.61 ug/L	480.61 ppb	23:25:39
1	Cu 324.752†	168549.5	156050.3	485.54 ug/L	485.54 ppb	23:25:39
1	Mn 257.610†	434484.6	423157.3	492.03 ug/L	492.03 ppb	23:25:39
1	Mo 202.031†	6431.2	6250.6	484.95 ug/L	484.95 ppb	23:25:59
1	Ni 231.604†	18772.7	18215.5	486.59 ug/L	486.59 ppb	23:25:59
1	P 214.914†	1283.7	1008.5	457.80 ug/L	457.80 ppb	23:25:59
1	Pb 220.353†	3824.8	3745.9	485.87 ug/L	485.87 ppb	23:25:59
1	S 181.975 Axial†	3933.4	3774.2	4897.5 ug/L	4897.5 ppb	23:25:59
1	Sb 206.836†	1520.4	1438.7	523.89 ug/L	523.89 ppb	23:25:59
1	Se 196.026†	817.2	823.4	489.24 ug/L	489.24 ppb	23:25:59
1	Si 251.611†	208397.9	202563.4	6374.3 ug/L	6374.3 ppb	23:25:39
1	Sn 189.927†	2843.0	2736.8	506.25 ug/L	506.25 ppb	23:25:59
1	Ti 334.940†	304740.3	298784.6	495.45 ug/L	495.45 ppb	23:25:39
1	Tl 190.801†	1482.4	1467.0	476.23 ug/L	476.23 ppb	23:25:59
1	U 409.014†	11567.7	14853.7	475.59 ug/L	475.59 ppb	23:25:39
1	V 292.402†	62998.8	63208.2	496.83 ug/L	496.83 ppb	23:25:39
1	Zn 213.857†	50190.8	48084.1	475.71 ug/L	475.71 ppb	23:25:39
1	SiO2†	209556.1	203767.6	13657 ug/L	13657 ppb	23:26:59
2	Sc Radial	4106.1	4106.1	103 %		23:24:45
2	Y RADIAL	4237.0	4237.0	102.6 %		23:24:45
2	Al 396.153Radial†	4803.1	4792.6	4935.4 ug/L	4935.4 ppb	23:24:45
2	Ca 317.933Radial†	2622.2	2514.7	4883.3 ug/L	4883.3 ppb	23:25:05
2	Fe 238.204 Radial†	469.2	443.2	4876.4 ug/L	4876.4 ppb	23:25:05
2	K 766.490 Radial†	26516.5	22467.0	4863.5 ug/L	4863.5 ppb	23:24:45
2	Mg 279.077 IEC†	137.2	131.5	5141.4 ug/L	5141.4 ppb	23:25:05
2	Na 589.592 Radial†	14498.2	14141.9	4960.2 ug/L	4960.2 ppb	23:24:45
2	Sr 421.552†	60431.8	58402.4	485.47 ug/L	485.47 ppb	23:24:45
2	Sc 361.383	822547.6	822547.6	103.37 %		23:26:06
2	Y 371.029	656649.7	656649.7	102.12 %		23:26:06
2	Ag 328.068†	95540.1	92242.2	476.18 ug/L	476.18 ppb	23:26:06
2	As 188.979†	1158.0	1148.0	490.39 ug/L	490.39 ppb	23:26:26
2	B 249.677†	21845.0	21075.3	500.68 ug/L	500.68 ppb	23:26:06
2	Ba 233.527†	60386.5	58412.9	491.56 ug/L	491.56 ppb	23:26:06
2	Be 313.107†	1342356.8	1302867.1	488.95 ug/L	488.95 ppb	23:26:06
2	Cd 226.502†	39188.8	38120.8	470.17 ug/L	470.17 ppb	23:26:26
2	Co 228.616†	23061.1	22388.3	471.94 ug/L	471.94 ppb	23:26:26
2	Cr 267.716†	40518.6	38501.5	476.58 ug/L	476.58 ppb	23:26:06
2	Cu 324.752†	169465.7	155626.3	484.21 ug/L	484.21 ppb	23:26:06
2	Mn 257.610†	435385.2	420650.8	489.10 ug/L	489.10 ppb	23:26:06
2	Mo 202.031†	6413.9	6183.9	479.76 ug/L	479.76 ppb	23:26:26
2	Ni 231.604†	18772.0	18068.9	482.67 ug/L	482.67 ppb	23:26:26

2	P 214.914†	1290.8	1005.4	456.34 ug/L	456.34 ppb	23:26:26
2	Pb 220.353†	3795.5	3687.8	478.36 ug/L	478.36 ppb	23:26:26
2	S 181.975 Axial†	3962.3	3771.6	4894.1 ug/L	4894.1 ppb	23:26:26
2	Sb 206.836†	1530.6	1436.8	522.91 ug/L	522.91 ppb	23:26:26
2	Se 196.026†	827.6	827.1	490.91 ug/L	490.91 ppb	23:26:26
2	Si 251.611†	208502.1	201044.1	6326.5 ug/L	6326.5 ppb	23:26:06
2	Sn 189.927†	2798.6	2671.8	494.24 ug/L	494.24 ppb	23:26:26
2	Ti 334.940†	305976.6	297611.5	493.49 ug/L	493.49 ppb	23:26:06
2	Tl 190.801†	1500.2	1472.7	478.05 ug/L	478.05 ppb	23:26:26
2	U 409.014†	11730.3	14921.1	477.78 ug/L	477.78 ppb	23:26:06
2	V 292.402†	62986.5	62706.5	492.89 ug/L	492.89 ppb	23:26:06
2	Zn 213.857†	50170.7	47674.5	471.67 ug/L	471.67 ppb	23:26:06
2	SiO2†	208608.0	201221.2	13486 ug/L	13486 ppb	23:27:04
3	Sc Radial	4126.3	4126.3	104 %		23:25:10
3	Y RADIAL	4213.7	4213.7	102.0 %		23:25:10
3	Al 396.153Radial†	4834.0	4799.6	4942.7 ug/L	4942.7 ppb	23:25:10
3	Ca 317.933Radial†	2617.5	2497.8	4850.4 ug/L	4850.4 ppb	23:25:30
3	Fe 238.204 Radial†	466.7	438.7	4826.2 ug/L	4826.2 ppb	23:25:30
3	K 766.490 Radial†	26623.2	22444.1	4858.6 ug/L	4858.6 ppb	23:25:10
3	Mg 279.077 IEC†	130.5	124.4	4861.1 ug/L	4861.1 ppb	23:25:30
3	Na 589.592 Radial†	14523.6	14097.5	4944.6 ug/L	4944.6 ppb	23:25:10
3	Sr 421.552†	60850.1	58519.1	486.44 ug/L	486.44 ppb	23:25:10
3	Sc 361.383	821527.6	821527.6	103.24 %		23:26:33
3	Y 371.029	656191.5	656191.5	102.05 %		23:26:33
3	Ag 328.068†	95630.6	92444.6	477.21 ug/L	477.21 ppb	23:26:33
3	As 188.979†	1152.6	1144.1	488.74 ug/L	488.74 ppb	23:26:53
3	B 249.677†	21943.5	21197.0	503.60 ug/L	503.60 ppb	23:26:33
3	Ba 233.527†	60391.6	58490.4	492.21 ug/L	492.21 ppb	23:26:33
3	Be 313.107†	1347057.9	1309033.2	491.27 ug/L	491.27 ppb	23:26:33
3	Cd 226.502†	38937.4	37924.4	467.75 ug/L	467.75 ppb	23:26:53
3	Co 228.616†	22818.9	22181.4	467.57 ug/L	467.57 ppb	23:26:53
3	Cr 267.716†	40482.3	38515.0	476.75 ug/L	476.75 ppb	23:26:33
3	Cu 324.752†	169866.4	156218.0	486.05 ug/L	486.05 ppb	23:26:33
3	Mn 257.610†	435459.9	421246.2	489.80 ug/L	489.80 ppb	23:26:33
3	Mo 202.031†	6365.3	6144.4	476.70 ug/L	476.70 ppb	23:26:53
3	Ni 231.604†	18620.0	17944.3	479.35 ug/L	479.35 ppb	23:26:53
3	P 214.914†	1269.4	986.2	445.49 ug/L	445.49 ppb	23:26:53
3	Pb 220.353†	3778.4	3675.8	476.80 ug/L	476.80 ppb	23:26:53
3	S 181.975 Axial†	3958.8	3772.9	4895.9 ug/L	4895.9 ppb	23:26:53
3	Sb 206.836†	1522.3	1430.5	520.59 ug/L	520.59 ppb	23:26:53
3	Se 196.026†	823.5	824.2	489.08 ug/L	489.08 ppb	23:26:53
3	Si 251.611†	209050.7	201825.9	6351.2 ug/L	6351.2 ppb	23:26:33
3	Sn 189.927†	2778.0	2655.1	491.16 ug/L	491.16 ppb	23:26:53
3	Ti 334.940†	306062.7	298062.5	494.25 ug/L	494.25 ppb	23:26:33
3	Tl 190.801†	1483.2	1458.0	473.34 ug/L	473.34 ppb	23:26:53
3	U 409.014†	11703.9	14909.5	477.42 ug/L	477.42 ppb	23:26:33
3	V 292.402†	62995.1	62790.6	493.50 ug/L	493.50 ppb	23:26:33
3	Zn 213.857†	50201.8	47764.9	472.60 ug/L	472.60 ppb	23:26:33
3	SiO2†	209289.0	202131.4	13547 ug/L	13547 ppb	23:27:09

Mean Data: 1202036428|950319|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	820021.9	103.05	%	0.443			0.43%
Sc Radial	4092.0	103	%	1.1			1.05%
Y 371.029	655228.4	101.90	%	0.323			0.32%
Y RADIAL	4218.1	102.1	%	0.41			0.40%
Ag 328.068†	92511.1	477.58	ug/L	1.612	477.58 ppb	1.612	0.34%
Al 396.153Radial†	4808.8	4952.1	ug/L	22.93	4952.1 ppb	22.93	0.46%
As 188.979†	1148.7	490.70	ug/L	2.134	490.70 ppb	2.134	0.43%
B 249.677†	21183.3	503.25	ug/L	2.416	503.25 ppb	2.416	0.48%
Ba 233.527†	58601.5	493.15	ug/L	2.211	493.15 ppb	2.211	0.45%
Be 313.107†	1310169.3	491.69	ug/L	2.972	491.69 ppb	2.972	0.60%
Ca 317.933Radial†	2526.0	4905.0	ug/L	68.19	4905.0 ppb	68.19	1.39%
Cd 226.502†	38143.4	470.44	ug/L	2.844	470.44 ppb	2.844	0.60%
Co 228.616†	22352.0	471.18	ug/L	3.288	471.18 ppb	3.288	0.70%
Cr 267.716†	38614.3	477.98	ug/L	2.278	477.98 ppb	2.278	0.48%
Cu 324.752†	155964.8	485.26	ug/L	0.949	485.26 ppb	0.949	0.20%
Fe 238.204 Radial†	446.1	4907.7	ug/L	100.87	4907.7 ppb	100.87	2.06%
K 766.490 Radial†	22552.2	4881.9	ug/L	36.30	4881.9 ppb	36.30	0.74%

Mg 279.077 IEC†	128.7	5032.4 ug/L	150.23	5032.4 ppb	150.23	2.99%
Mn 257.610†	421684.8	490.31 ug/L	1.530	490.31 ppb	1.530	0.31%
Mo 202.031†	6193.0	480.47 ug/L	4.169	480.47 ppb	4.169	0.87%
Na 589.592 Radial†	14175.6	4972.0 ug/L	34.82	4972.0 ppb	34.82	0.70%
Ni 231.604†	18076.2	482.87 ug/L	3.627	482.87 ppb	3.627	0.75%
P 214.914†	1000.0	453.21 ug/L	6.727	453.21 ppb	6.727	1.48%
Pb 220.353†	3703.2	480.34 ug/L	4.850	480.34 ppb	4.850	1.01%
S 181.975 Axial†	3772.9	4895.8 ug/L	1.68	4895.8 ppb	1.68	0.03%
Sb 206.836†	1435.3	522.46 ug/L	1.697	522.46 ppb	1.697	0.32%
Se 196.026†	824.9	489.74 ug/L	1.016	489.74 ppb	1.016	0.21%
Si 251.611†	201811.1	6350.7 ug/L	23.90	6350.7 ppb	23.90	0.38%
Sn 189.927†	2687.9	497.21 ug/L	7.975	497.21 ppb	7.975	1.60%
Sr 421.552†	58612.8	487.22 ug/L	2.242	487.22 ppb	2.242	0.46%
Ti 334.940†	298152.9	494.40 ug/L	0.989	494.40 ppb	0.989	0.20%
Tl 190.801†	1465.9	475.87 ug/L	2.376	475.87 ppb	2.376	0.50%
U 409.014†	14894.8	476.93 ug/L	1.173	476.93 ppb	1.173	0.25%
V 292.402†	62901.8	494.40 ug/L	2.118	494.40 ppb	2.118	0.43%
Zn 213.857†	47841.2	473.33 ug/L	2.118	473.33 ppb	2.118	0.45%
Sio2†	202373.4	13563 ug/L	86.5	13563 ppb	86.5	0.64%

Sequence No.: 67

Sample ID: 1202036429|950319|X5

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 88

Date Collected: 2/17/2010 23:29:21

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202036429|950319|X5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	3962.0	3962.0	99.7 %			23:31:34
1	Y RADIAL	4228.0	4228.0	102.3 %			23:31:14
1	Al 396.153Radial†	-133.9	7.5	7.7131 ug/L		7.7131 ppb	23:31:14
1	Ca 317.933Radial†	33.0	8.9	17.214 ug/L		17.214 ppb	23:31:34
1	Fe 238.204 Radial†	10.7	-0.3	-3.5852 ug/L		-3.5852 ppb	23:31:34
1	K 766.490 Radial†	3261.4	64.8	14.032 ug/L		14.032 ppb	23:31:14
1	Mg 279.077 IEC†	2.9	1.6	62.008 ug/L		62.008 ppb	23:31:34
1	Na 589.592 Radial†	-141.7	-38.5	-13.495 ug/L		-13.495 ppb	23:31:14
1	Sr 421.552†	164.3	53.2	0.4420 ug/L		0.4420 ppb	23:31:14
1	Sc 361.383	811056.7	811056.7	101.92 %			23:32:31
1	Y 371.029	655294.2	655294.2	101.91 %			23:32:31
1	Ag 328.068†	221.8	32.0	0.1620 ug/L		0.1620 ppb	23:32:31
1	As 188.979†	-26.1	2.0	0.8565 ug/L		0.8565 ppb	23:32:51
1	B 249.677†	-232.9	-286.5	-6.8362 ug/L		-6.8362 ppb	23:32:31
1	Ba 233.527†	69.6	61.9	0.5203 ug/L		0.5203 ppb	23:32:51
1	Be 313.107†	-3734.4	574.4	0.2166 ug/L		0.2166 ppb	23:32:31
1	Cd 226.502†	-208.9	3.7	0.0465 ug/L		0.0465 ppb	23:32:51
1	Co 228.616†	-64.1	15.6	0.3326 ug/L		0.3326 ppb	23:32:51
1	Cr 267.716†	126.1	-573.4	-7.0902 ug/L		-7.0902 ppb	23:32:51
1	Cu 324.752†	8570.8	90.1	0.2785 ug/L		0.2785 ppb	23:32:31
1	Mn 257.610†	1098.4	526.2	0.6086 ug/L		0.6086 ppb	23:32:51
1	Mo 202.031†	34.8	13.0	1.0111 ug/L		1.0111 ppb	23:32:51
1	Ni 231.604†	104.2	10.7	0.2850 ug/L		0.2850 ppb	23:32:51
1	P 214.914†	251.3	3.3	1.7036 ug/L		1.7036 ppb	23:32:51
1	Pb 220.353†	-52.8	-35.8	-4.6227 ug/L		-4.6227 ppb	23:32:51
1	S 181.975 Axial†	69.8	6.8	8.7851 ug/L		8.7851 ppb	23:32:51
1	Sb 206.836†	44.6	-0.3	-0.1250 ug/L		-0.1250 ppb	23:32:51
1	Se 196.026†	-22.3	4.6	2.6361 ug/L		2.6361 ppb	23:32:51
1	Si 251.611†	10702.1	9834.2	309.74 ug/L		309.74 ppb	23:32:31
1	Sn 189.927†	19.8	-16.2	-3.0012 ug/L		-3.0012 ppb	23:32:51
1	Ti 334.940†	-1213.8	411.5	0.6810 ug/L		0.6810 ppb	23:32:31
1	Tl 190.801†	-42.4	-20.2	-6.5164 ug/L		-6.5164 ppb	23:32:51
1	U 409.014†	-3548.8	91.0	2.9407 ug/L		2.9407 ppb	23:32:31
1	V 292.402†	-1753.2	51.7	0.4248 ug/L		0.4248 ppb	23:32:31
1	Zn 213.857†	921.8	42.6	0.4234 ug/L		0.4234 ppb	23:32:51
1	SiO2†	10629.2	9837.4	659.93 ug/L		659.93 ppb	23:33:47
2	Sc Radial	3945.4	3945.4	99.2 %			23:31:59
2	Y RADIAL	4210.1	4210.1	101.9 %			23:31:39
2	Al 396.153Radial†	-123.6	17.4	17.952 ug/L		17.952 ppb	23:31:39
2	Ca 317.933Radial†	40.4	16.4	31.862 ug/L		31.862 ppb	23:31:59
2	Fe 238.204 Radial†	12.3	1.4	15.121 ug/L		15.121 ppb	23:31:59
2	K 766.490 Radial†	3207.4	24.1	5.2269 ug/L		5.2269 ppb	23:31:39
2	Mg 279.077 IEC†	3.8	2.4	94.922 ug/L		94.922 ppb	23:31:59
2	Na 589.592 Radial†	-192.0	-89.8	-31.492 ug/L		-31.492 ppb	23:31:39
2	Sr 421.552†	130.0	19.4	0.1608 ug/L		0.1608 ppb	23:31:39
2	Sc 361.383	807303.2	807303.2	101.45 %			23:32:56
2	Y 371.029	651698.9	651698.9	101.35 %			23:32:56
2	Ag 328.068†	278.6	89.0	0.4582 ug/L		0.4582 ppb	23:32:56
2	As 188.979†	-20.6	7.4	3.1316 ug/L		3.1316 ppb	23:33:16
2	B 249.677†	-238.6	-293.2	-6.9977 ug/L		-6.9977 ppb	23:32:56
2	Ba 233.527†	81.2	73.6	0.6202 ug/L		0.6202 ppb	23:33:16
2	Be 313.107†	-4047.8	248.5	0.0943 ug/L		0.0943 ppb	23:32:56
2	Cd 226.502†	-220.1	-8.3	-0.1027 ug/L		-0.1027 ppb	23:33:16
2	Co 228.616†	-69.5	10.0	0.2127 ug/L		0.2127 ppb	23:33:16
2	Cr 267.716†	117.6	-581.3	-7.1874 ug/L		-7.1874 ppb	23:33:16
2	Cu 324.752†	8457.9	17.9	0.0526 ug/L		0.0526 ppb	23:32:56
2	Mn 257.610†	1122.5	555.1	0.6426 ug/L		0.6426 ppb	23:33:16
2	Mo 202.031†	22.0	0.6	0.0494 ug/L		0.0494 ppb	23:33:16
2	Ni 231.604†	105.4	12.3	0.3289 ug/L		0.3289 ppb	23:33:16

2	P 214.914†	252.4	5.4	2.9265 ug/L	2.9265 ppb	23:33:16
2	Pb 220.353†	-62.1	-45.2	-5.8451 ug/L	-5.8451 ppb	23:33:16
2	S 181.975 Axial†	67.4	4.8	6.1843 ug/L	6.1843 ppb	23:33:16
2	Sb 206.836†	33.8	-10.7	-3.8075 ug/L	-3.8075 ppb	23:33:16
2	Se 196.026†	-22.4	4.4	2.5626 ug/L	2.5626 ppb	23:33:16
2	Si 251.611†	10648.2	9829.9	309.62 ug/L	309.62 ppb	23:32:56
2	Sn 189.927†	16.1	-19.8	-3.6568 ug/L	-3.6568 ppb	23:33:16
2	Ti 334.940†	-1289.7	331.1	0.5451 ug/L	0.5451 ppb	23:32:56
2	Tl 190.801†	-33.8	-11.9	-3.8422 ug/L	-3.8422 ppb	23:33:16
2	U 409.014†	-3398.4	223.1	7.1815 ug/L	7.1815 ppb	23:32:56
2	V 292.402†	-1695.0	101.1	0.8007 ug/L	0.8007 ppb	23:32:56
2	Zn 213.857†	915.7	40.7	0.4022 ug/L	0.4022 ppb	23:33:16
2	SiO2†	10747.6	10002.6	671.04 ug/L	671.04 ppb	23:33:52
3	Sc Radial	3961.5	3961.5	99.6 %		23:32:24
3	Y RADIAL	4268.9	4268.9	103.3 %		23:32:04
3	Al 396.153Radial†	-139.3	2.1	2.1479 ug/L	2.1479 ppb	23:32:04
3	Ca 317.933Radial†	28.3	4.1	7.9749 ug/L	7.9749 ppb	23:32:24
3	Fe 238.204 Radial†	11.8	0.8	8.9475 ug/L	8.9475 ppb	23:32:24
3	K 766.490 Radial†	3318.1	122.1	26.475 ug/L	26.475 ppb	23:32:04
3	Mg 279.077 IEC†	0.9	-0.5	-18.580 ug/L	-18.580 ppb	23:32:24
3	Na 589.592 Radial†	-207.3	-104.3	-36.596 ug/L	-36.596 ppb	23:32:04
3	Sr 421.552†	121.6	10.4	0.0863 ug/L	0.0863 ppb	23:32:04
3	Sc 361.383	804402.7	804402.7	101.09 %		23:33:22
3	Y 371.029	649795.2	649795.2	101.06 %		23:33:22
3	Ag 328.068†	210.6	22.7	0.1152 ug/L	0.1152 ppb	23:33:22
3	As 188.979†	-28.1	-0.1	-0.0470 ug/L	-0.0470 ppb	23:33:42
3	B 249.677†	-161.9	-218.2	-5.2082 ug/L	-5.2082 ppb	23:33:22
3	Ba 233.527†	89.1	81.7	0.6859 ug/L	0.6859 ppb	23:33:42
3	Be 313.107†	-3918.7	361.9	0.1367 ug/L	0.1367 ppb	23:33:22
3	Cd 226.502†	-207.3	3.5	0.0438 ug/L	0.0438 ppb	23:33:42
3	Co 228.616†	-61.5	17.7	0.3736 ug/L	0.3736 ppb	23:33:42
3	Cr 267.716†	96.5	-601.7	-7.4404 ug/L	-7.4404 ppb	23:33:42
3	Cu 324.752†	8411.1	1.7	0.0033 ug/L	0.0033 ppb	23:33:22
3	Mn 257.610†	1091.3	528.1	0.6154 ug/L	0.6154 ppb	23:33:42
3	Mo 202.031†	16.0	-5.2	-0.4056 ug/L	-0.4056 ppb	23:33:42
3	Ni 231.604†	102.8	10.1	0.2693 ug/L	0.2693 ppb	23:33:42
3	P 214.914†	251.4	5.4	2.8903 ug/L	2.8903 ppb	23:33:42
3	Pb 220.353†	-57.5	-40.9	-5.2911 ug/L	-5.2911 ppb	23:33:42
3	S 181.975 Axial†	70.6	8.1	10.536 ug/L	10.536 ppb	23:33:42
3	Sb 206.836†	36.5	-7.9	-2.8317 ug/L	-2.8317 ppb	23:33:42
3	Se 196.026†	-20.6	6.1	3.5085 ug/L	3.5085 ppb	23:33:42
3	Si 251.611†	10584.6	9804.9	308.84 ug/L	308.84 ppb	23:33:22
3	Sn 189.927†	16.3	-19.6	-3.6216 ug/L	-3.6216 ppb	23:33:42
3	Ti 334.940†	-1292.4	323.8	0.5404 ug/L	0.5404 ppb	23:33:22
3	Tl 190.801†	-24.7	-3.0	-0.9752 ug/L	-0.9752 ppb	23:33:42
3	U 409.014†	-3467.6	142.5	4.5953 ug/L	4.5953 ppb	23:33:22
3	V 292.402†	-1790.0	1.1	0.0122 ug/L	0.0122 ppb	23:33:22
3	Zn 213.857†	901.4	29.8	0.2950 ug/L	0.2950 ppb	23:33:42
3	SiO2†	10768.0	10060.9	674.96 ug/L	674.96 ppb	23:33:57

Mean Data: 1202036429|950319|5

Analyte	Mean Corrected	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	807587.6	101.49 %		0.419				0.41%
Sc Radial	3956.3	99.5 %		0.24				0.24%
Y 371.029	652262.8	101.44 %		0.434				0.43%
Y RADIAL	4235.7	102.5 %		0.73				0.71%
Ag 328.068†	47.9	0.2451 ug/L		0.18599	0.2451 ppb		0.18599	75.88%
Al 396.153Radial†	9.0	9.2709 ug/L		8.01631	9.2709 ppb		8.01631	86.47%
As 188.979†	3.1	1.3137 ug/L		1.63790	1.3137 ppb		1.63790	124.68%
B 249.677†	-266.0	-6.3474 ug/L		0.98988	-6.3474 ppb		0.98988	15.60%
Ba 233.527†	72.4	0.6088 ug/L		0.08335	0.6088 ppb		0.08335	13.69%
Be 313.107†	394.9	0.1492 ug/L		0.06211	0.1492 ppb		0.06211	41.63%
Ca 317.933Radial†	9.8	19.017 ug/L		12.0452	19.017 ppb		12.0452	63.34%
Cd 226.502†	-0.4	-0.0041 ug/L		0.08538	-0.0041 ppb		0.08538	>999.9%
Co 228.616†	14.4	0.3063 ug/L		0.08356	0.3063 ppb		0.08356	27.28%
Cr 267.716†	-585.5	-7.2393 ug/L		0.18079	-7.2393 ppb		0.18079	2.50%
Cu 324.752†	36.6	0.1115 ug/L		0.14671	0.1115 ppb		0.14671	131.62%
Fe 238.204 Radial†	0.6	6.8276 ug/L		9.53135	6.8276 ppb		9.53135	139.60%
K 766.490 Radial†	70.3	15.245 ug/L		10.6755	15.245 ppb		10.6755	70.03%



Mg 279.077 IEC†	1.2	46.117 ug/L	58.3960	46.117 ppb	58.3960	126.63%
Mn 257.610†	536.5	0.6222 ug/L	0.01802	0.6222 ppb	0.01802	2.90%
Mo 202.031†	2.8	0.2183 ug/L	0.72331	0.2183 ppb	0.72331	331.30%
Na 589.592 Radial†	-77.5	-27.194 ug/L	12.1352	-27.194 ppb	12.1352	44.62%
Ni 231.604†	11.0	0.2944 ug/L	0.03087	0.2944 ppb	0.03087	10.49%
P 214.914†	4.7	2.5068 ug/L	0.69580	2.5068 ppb	0.69580	27.76%
Pb 220.353†	-40.6	-5.2530 ug/L	0.61210	-5.2530 ppb	0.61210	11.65%
S 181.975 Axial†	6.6	8.5018 ug/L	2.18954	8.5018 ppb	2.18954	25.75%
Sb 206.836†	-6.3	-2.2547 ug/L	1.90788	-2.2547 ppb	1.90788	84.62%
Se 196.026†	5.0	2.9024 ug/L	0.52622	2.9024 ppb	0.52622	18.13%
Si 251.611†	9823.0	309.40 ug/L	0.492	309.40 ppb	0.492	0.16%
Sn 189.927†	-18.5	-3.4265 ug/L	0.36874	-3.4265 ppb	0.36874	10.76%
Sr 421.552†	27.6	0.2297 ug/L	0.18758	0.2297 ppb	0.18758	81.66%
Ti 334.940†	355.5	0.5889 ug/L	0.07985	0.5889 ppb	0.07985	13.56%
Tl 190.801†	-11.7	-3.7779 ug/L	2.77116	-3.7779 ppb	2.77116	73.35%
U 409.014†	152.2	4.9058 ug/L	2.13737	4.9058 ppb	2.13737	43.57%
V 292.402†	51.3	0.4126 ug/L	0.39438	0.4126 ppb	0.39438	95.59%
Zn 213.857†	37.7	0.3735 ug/L	0.06884	0.3735 ppb	0.06884	18.43%
SiO2†	9967.0	668.64 ug/L	7.797	668.64 ppb	7.797	1.17%

Sequence No.: 68  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 2/17/2010 23:36:09  
 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	3933.3	3933.3	98.9 %		23:38:21
1	Y RADIAL	4210.7	4210.7	101.9 %		23:38:00
1	Al 396.153Radial†	4891.4	5086.2	5237.6 ug/L	5237.6 ppb	23:38:00
1	Ca 317.933Radial†	2733.8	2739.2	5319.1 ug/L	5319.1 ppb	23:38:21
1	Fe 238.204 Radial†	488.3	482.6	5309.2 ug/L	5309.2 ppb	23:38:21
1	K 766.490 Radial†	26689.5	23770.3	5143.5 ug/L	5143.5 ppb	23:38:00
1	Mg 279.077 IEC†	141.6	141.8	5541.1 ug/L	5541.1 ppb	23:38:21
1	Na 589.592 Radial†	29641.8	30066.2	10546 ug/L	10546 ppb	23:38:00
1	Sr 421.552†	63160.9	63732.6	529.78 ug/L	529.78 ppb	23:38:00
1	Sc 361.383	817218.6	817218.6	102.70 %		23:39:19
1	Y 371.029	653909.6	653909.6	101.70 %		23:39:19
1	Ag 328.068†	101141.9	98299.6	507.47 ug/L	507.47 ppb	23:39:19
1	As 188.979†	1222.9	1218.5	520.46 ug/L	520.46 ppb	23:39:40
1	B 249.677†	21776.7	21146.6	502.21 ug/L	502.21 ppb	23:39:19
1	Ba 233.527†	62517.4	60868.8	512.25 ug/L	512.25 ppb	23:39:19
1	Be 313.107†	1417868.3	1384863.4	519.71 ug/L	519.71 ppb	23:39:19
1	Cd 226.502†	41671.0	40785.0	503.01 ug/L	503.01 ppb	23:39:40
1	Co 228.616†	24586.3	24019.0	506.33 ug/L	506.33 ppb	23:39:40
1	Cr 267.716†	42528.9	40714.6	503.98 ug/L	503.98 ppb	23:39:19
1	Cu 324.752†	175219.0	162297.6	504.98 ug/L	504.98 ppb	23:39:19
1	Mn 257.610†	452822.6	440376.9	512.05 ug/L	512.05 ppb	23:39:19
1	Mo 202.031†	6790.4	6590.9	511.35 ug/L	511.35 ppb	23:39:40
1	Ni 231.604†	19683.9	19075.3	509.55 ug/L	509.55 ppb	23:39:40
1	P 214.914†	5091.4	4714.3	2483.1 ug/L	2483.1 ppb	23:39:40
1	Pb 220.353†	4020.2	3930.6	509.84 ug/L	509.84 ppb	23:39:40
1	S 181.975 Axial†	878.7	793.9	1029.4 ug/L	1029.4 ppb	23:39:40
1	Sb 206.836†	1515.0	1431.2	521.70 ug/L	521.70 ppb	23:39:40
1	Se 196.026†	900.3	903.1	535.95 ug/L	535.95 ppb	23:39:40
1	Si 251.611†	83706.7	80842.0	2540.1 ug/L	2540.1 ppb	23:39:19
1	Sn 189.927†	2813.2	2703.6	500.13 ug/L	500.13 ppb	23:39:40
1	Ti 334.940†	317368.8	310634.8	515.10 ug/L	515.10 ppb	23:39:19
1	Tl 190.801†	1603.3	1582.5	513.54 ug/L	513.54 ppb	23:39:40
1	U 409.014†	11846.1	15107.8	483.67 ug/L	483.67 ppb	23:39:19
1	V 292.402†	65690.2	65736.6	516.77 ug/L	516.77 ppb	23:39:19
1	Zn 213.857†	53339.3	51076.3	505.38 ug/L	505.38 ppb	23:39:19
1	SiO2†	83543.3	80757.6	5403.8 ug/L	5403.8 ppb	23:40:40
2	Sc Radial	3892.7	3892.7	97.9 %		23:38:46
2	Y RADIAL	4181.0	4181.0	101.2 %		23:38:26
2	Al 396.153Radial†	4911.9	5158.7	5312.7 ug/L	5312.7 ppb	23:38:26
2	Ca 317.933Radial†	2703.4	2736.8	5314.5 ug/L	5314.5 ppb	23:38:46
2	Fe 238.204 Radial†	479.3	478.5	5263.8 ug/L	5263.8 ppb	23:38:46
2	K 766.490 Radial†	26715.2	24077.6	5210.1 ug/L	5210.1 ppb	23:38:26
2	Mg 279.077 IEC†	137.6	139.2	5440.7 ug/L	5440.7 ppb	23:38:46
2	Na 589.592 Radial†	29530.2	30264.3	10615 ug/L	10615 ppb	23:38:26
2	Sr 421.552†	63047.7	64282.1	534.35 ug/L	534.35 ppb	23:38:26
2	Sc 361.383	816398.4	816398.4	102.59 %		23:39:47
2	Y 371.029	653020.1	653020.1	101.56 %		23:39:47
2	Ag 328.068†	101196.7	98451.9	508.24 ug/L	508.24 ppb	23:39:47
2	As 188.979†	1218.8	1215.6	519.27 ug/L	519.27 ppb	23:40:07
2	B 249.677†	21858.6	21247.8	504.64 ug/L	504.64 ppb	23:39:47
2	Ba 233.527†	62623.3	61033.2	513.63 ug/L	513.63 ppb	23:39:47
2	Be 313.107†	1416035.7	1384464.1	519.56 ug/L	519.56 ppb	23:39:47
2	Cd 226.502†	41446.2	40606.7	500.81 ug/L	500.81 ppb	23:40:07
2	Co 228.616†	24496.0	23955.0	504.98 ug/L	504.98 ppb	23:40:07
2	Cr 267.716†	42515.9	40743.6	504.34 ug/L	504.34 ppb	23:39:47
2	Cu 324.752†	175559.8	162801.1	506.55 ug/L	506.55 ppb	23:39:47
2	Mn 257.610†	452901.5	440896.7	512.66 ug/L	512.66 ppb	23:39:47
2	Mo 202.031†	6747.9	6556.1	508.65 ug/L	508.65 ppb	23:40:07
2	Ni 231.604†	19601.6	19014.3	507.92 ug/L	507.92 ppb	23:40:07

2	P 214.914†	5059.8	4688.6	2468.7 ug/L	2468.7 ppb	23:40:07
2	Pb 220.353†	4000.2	3915.0	507.84 ug/L	507.84 ppb	23:40:07
2	S 181.975 Axial†	884.5	800.4	1037.9 ug/L	1037.9 ppb	23:40:07
2	Sb 206.836†	1521.2	1438.7	524.27 ug/L	524.27 ppb	23:40:07
2	Se 196.026†	890.0	893.9	530.55 ug/L	530.55 ppb	23:40:07
2	Si 251.611†	83886.5	81099.2	2548.2 ug/L	2548.2 ppb	23:39:47
2	Sn 189.927†	2808.3	2701.6	499.77 ug/L	499.77 ppb	23:40:07
2	Ti 334.940†	318121.7	311679.1	516.84 ug/L	516.84 ppb	23:39:47
2	Tl 190.801†	1598.2	1579.1	512.47 ug/L	512.47 ppb	23:40:07
2	U 409.014†	11905.3	15177.1	485.90 ug/L	485.90 ppb	23:39:47
2	V 292.402†	65744.2	65853.5	517.64 ug/L	517.64 ppb	23:39:47
2	Zn 213.857†	53349.6	51138.6	506.02 ug/L	506.02 ppb	23:39:47
2	SiO2†	83278.0	80580.7	5392.0 ug/L	5392.0 ppb	23:40:45
3	Sc Radial	3918.2	3918.2	98.6 %		23:39:11
3	Y RADIAL	4236.0	4236.0	102.5 %		23:38:51
3	Al 396.153Radial†	4958.9	5173.7	5328.4 ug/L	5328.4 ppb	23:38:51
3	Ca 317.933Radial†	2726.4	2742.3	5325.1 ug/L	5325.1 ppb	23:39:11
3	Fe 238.204 Radial†	485.2	481.3	5294.8 ug/L	5294.8 ppb	23:39:11
3	K 766.490 Radial†	26937.8	24126.1	5220.6 ug/L	5220.6 ppb	23:38:51
3	Mg 279.077 IEC†	139.7	140.4	5489.3 ug/L	5489.3 ppb	23:39:11
3	Na 589.592 Radial†	29482.1	30019.5	10529 ug/L	10529 ppb	23:38:51
3	Sr 421.552†	63625.2	64449.5	535.74 ug/L	535.74 ppb	23:38:51
3	Sc 361.383	815688.1	815688.1	102.51 %		23:40:14
3	Y 371.029	653464.2	653464.2	101.63 %		23:40:14
3	Ag 328.068†	101099.6	98443.1	508.19 ug/L	508.19 ppb	23:40:14
3	As 188.979†	1207.2	1205.4	514.94 ug/L	514.94 ppb	23:40:34
3	B 249.677†	21742.9	21153.5	502.38 ug/L	502.38 ppb	23:40:14
3	Ba 233.527†	62325.3	60795.6	511.63 ug/L	511.63 ppb	23:40:14
3	Be 313.107†	1412569.2	1382284.4	518.74 ug/L	518.74 ppb	23:40:14
3	Cd 226.502†	41318.3	40517.1	499.70 ug/L	499.70 ppb	23:40:34
3	Co 228.616†	24423.5	23905.1	503.92 ug/L	503.92 ppb	23:40:34
3	Cr 267.716†	42290.4	40559.7	502.06 ug/L	502.06 ppb	23:40:14
3	Cu 324.752†	175154.6	162554.9	505.78 ug/L	505.78 ppb	23:40:14
3	Mn 257.610†	451384.2	439801.0	511.39 ug/L	511.39 ppb	23:40:14
3	Mo 202.031†	6733.9	6548.2	508.04 ug/L	508.04 ppb	23:40:34
3	Ni 231.604†	19540.0	18970.9	506.76 ug/L	506.76 ppb	23:40:34
3	P 214.914†	5025.4	4659.3	2452.8 ug/L	2452.8 ppb	23:40:34
3	Pb 220.353†	3967.5	3886.5	504.15 ug/L	504.15 ppb	23:40:34
3	S 181.975 Axial†	861.1	778.4	1009.3 ug/L	1009.3 ppb	23:40:34
3	Sb 206.836†	1513.8	1432.8	522.14 ug/L	522.14 ppb	23:40:34
3	Se 196.026†	898.0	902.5	535.58 ug/L	535.58 ppb	23:40:34
3	Si 251.611†	83484.7	80778.4	2538.1 ug/L	2538.1 ppb	23:40:14
3	Sn 189.927†	2790.9	2687.0	497.07 ug/L	497.07 ppb	23:40:34
3	Ti 334.940†	317364.0	311210.0	516.05 ug/L	516.05 ppb	23:40:14
3	Tl 190.801†	1571.0	1553.9	504.34 ug/L	504.34 ppb	23:40:34
3	U 409.014†	12179.5	15454.8	494.82 ug/L	494.82 ppb	23:40:14
3	V 292.402†	65662.7	65829.8	517.47 ug/L	517.47 ppb	23:40:14
3	Zn 213.857†	53190.7	51028.8	504.93 ug/L	504.93 ppb	23:40:14
3	SiO2†	83238.7	80613.0	5394.2 ug/L	5394.2 ppb	23:40:50

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	816435.0	102.60 %	0.096			0.09%
Sc Radial	3914.7	98.5 %	0.52			0.52%
Y 371.029	653464.6	101.63 %	0.069			0.07%
Y RADIAL	4209.2	101.9 %	0.67			0.65%
Ag 328.068†	98398.2	507.97 ug/L	0.432	507.97 ppb	0.432	0.09%
QC value within limits for Ag 328.068 Recovery = 101.59%						
Al 396.153Radial†	5139.5	5292.9 ug/L	48.51	5292.9 ppb	48.51	0.92%
QC value within limits for Al 396.153Radial Recovery = 105.86%						
As 188.979†	1213.2	518.22 ug/L	2.908	518.22 ppb	2.908	0.56%
QC value within limits for As 188.979 Recovery = 103.64%						
B 249.677†	21182.6	503.08 ug/L	1.353	503.08 ppb	1.353	0.27%
QC value within limits for B 249.677 Recovery = 100.62%						
Ba 233.527†	60899.2	512.50 ug/L	1.021	512.50 ppb	1.021	0.20%
QC value within limits for Ba 233.527 Recovery = 102.50%						
Be 313.107†	1383870.6	519.34 ug/L	0.519	519.34 ppb	0.519	0.10%
QC value within limits for Be 313.107 Recovery = 103.87%						
Ca 317.933Radial†	2739.4	5319.6 ug/L	5.30	5319.6 ppb	5.30	0.10%

QC value within limits for Ca 317.933 Radial Recovery = 106.39%							
Cd 226.502†	40636.3	501.17 ug/L	1.681	501.17 ppb	1.681	0.34%	
QC value within limits for Cd 226.502 Recovery = 100.23%							
Co 228.616†	23959.7	505.08 ug/L	1.208	505.08 ppb	1.208	0.24%	
QC value within limits for Co 228.616 Recovery = 101.02%							
Cr 267.716†	40672.6	503.46 ug/L	1.224	503.46 ppb	1.224	0.24%	
QC value within limits for Cr 267.716 Recovery = 100.69%							
Cu 324.752†	162551.2	505.77 ug/L	0.782	505.77 ppb	0.782	0.15%	
QC value within limits for Cu 324.752 Recovery = 101.15%							
Fe 238.204 Radial†	480.8	5289.2 ug/L	23.18	5289.2 ppb	23.18	0.44%	
QC value within limits for Fe 238.204 Radial Recovery = 105.78%							
K 766.490 Radial†	23991.3	5191.4 ug/L	41.81	5191.4 ppb	41.81	0.81%	
QC value within limits for K 766.490 Radial Recovery = 103.83%							
Mg 279.077 IEC†	140.5	5490.4 ug/L	50.20	5490.4 ppb	50.20	0.91%	
QC value within limits for Mg 279.077 IEC Recovery = 109.81%							
Mn 257.610†	440358.2	512.03 ug/L	0.636	512.03 ppb	0.636	0.12%	
QC value within limits for Mn 257.610 Recovery = 102.41%							
Mo 202.031†	6565.1	509.35 ug/L	1.761	509.35 ppb	1.761	0.35%	
QC value within limits for Mo 202.031 Recovery = 101.87%							
Na 589.592 Radial†	30116.7	10563 ug/L	45.6	10563 ppb	45.6	0.43%	
QC value within limits for Na 589.592 Radial Recovery = 105.63%							
Ni 231.604†	19020.1	508.08 ug/L	1.402	508.08 ppb	1.402	0.28%	
QC value within limits for Ni 231.604 Recovery = 101.62%							
P 214.914†	4687.4	2468.2 ug/L	15.16	2468.2 ppb	15.16	0.61%	
QC value within limits for P 214.914 Recovery = 98.73%							
Pb 220.353†	3910.7	507.28 ug/L	2.887	507.28 ppb	2.887	0.57%	
QC value within limits for Pb 220.353 Recovery = 101.46%							
S 181.975 Axial†	790.9	1025.5 ug/L	14.70	1025.5 ppb	14.70	1.43%	
QC value within limits for S 181.975 Axial Recovery = 102.55%							
Sb 206.836†	1434.3	522.70 ug/L	1.374	522.70 ppb	1.374	0.26%	
QC value within limits for Sb 206.836 Recovery = 104.54%							
Se 196.026†	899.9	534.03 ug/L	3.017	534.03 ppb	3.017	0.56%	
QC value within limits for Se 196.026 Recovery = 106.81%							
Si 251.611†	80906.5	2542.1 ug/L	5.35	2542.1 ppb	5.35	0.21%	
QC value within limits for Si 251.611 Recovery = 101.68%							
Sn 189.927†	2697.4	498.99 ug/L	1.673	498.99 ppb	1.673	0.34%	
QC value within limits for Sn 189.927 Recovery = 99.80%							
Sr 421.552†	64154.7	533.29 ug/L	3.118	533.29 ppb	3.118	0.58%	
QC value within limits for Sr 421.552 Recovery = 106.66%							
Ti 334.940†	311174.6	516.00 ug/L	0.871	516.00 ppb	0.871	0.17%	
QC value within limits for Ti 334.940 Recovery = 103.20%							
Tl 190.801†	1571.9	510.12 ug/L	5.030	510.12 ppb	5.030	0.99%	
QC value within limits for Tl 190.801 Recovery = 102.02%							
U 409.014†	15246.6	488.13 ug/L	5.902	488.13 ppb	5.902	1.21%	
QC value within limits for U 409.014 Recovery = 97.63%							
V 292.402†	65806.6	517.29 ug/L	0.463	517.29 ppb	0.463	0.09%	
QC value within limits for V 292.402 Recovery = 103.46%							
Zn 213.857†	51081.3	505.44 ug/L	0.549	505.44 ppb	0.549	0.11%	
QC value within limits for Zn 213.857 Recovery = 101.09%							
SiO2†	80650.5	5396.7 ug/L	6.27	5396.7 ppb	6.27	0.12%	
QC value within limits for SiO2 Recovery = 100.92%							
All analyte(s) passed QC.							

Sequence No.: 69

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/17/2010 23:43:00

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	3972.3	3972.3	99.9 %		23:44:53
1	Y RADIAL	4148.5	4148.5	100.4 %		23:44:53
1	Al 396.153Radial†	-128.7	13.0	13.501 ug/L	13.501 ppb	23:44:53
1	Ca 317.933Radial†	27.5	3.2	6.2533 ug/L	6.2533 ppb	23:45:13
1	Fe 238.204 Radial†	7.3	-3.7	-40.507 ug/L	-40.507 ppb	23:45:13
1	K 766.490 Radial†	3136.4	-68.8	-14.895 ug/L	-14.895 ppb	23:44:53
1	Mg 279.077 IEC†	1.9	0.5	20.950 ug/L	20.950 ppb	23:45:13
1	Na 589.592 Radial†	-272.2	-168.8	-59.199 ug/L	-59.199 ppb	23:44:53
1	Sr 421.552†	87.8	-23.8	-0.1976 ug/L	-0.1976 ppb	23:44:53
1	Sc 361.383	806168.2	806168.2	101.31 %		23:46:10
1	Y 371.029	653580.8	653580.8	101.65 %		23:46:10
1	Ag 328.068†	357.5	167.3	0.8414 ug/L	0.8414 ppb	23:46:10
1	As 188.979†	-30.0	-2.0	-0.8401 ug/L	-0.8401 ppb	23:46:30
1	B 249.677†	-358.4	-411.8	-9.8196 ug/L	-9.8196 ppb	23:46:30
1	Ba 233.527†	18.1	11.4	0.0965 ug/L	0.0965 ppb	23:46:30
1	Be 313.107†	-3927.7	361.5	0.1358 ug/L	0.1358 ppb	23:46:10
1	Cd 226.502†	-197.3	13.9	0.1774 ug/L	0.1774 ppb	23:46:30
1	Co 228.616†	-66.3	13.0	0.2776 ug/L	0.2776 ppb	23:46:30
1	Cr 267.716†	124.1	-574.6	-7.1074 ug/L	-7.1074 ppb	23:46:10
1	Cu 324.752†	8358.6	-68.4	-0.2198 ug/L	-0.2198 ppb	23:46:10
1	Mn 257.610†	579.6	20.7	0.0192 ug/L	0.0192 ppb	23:46:30
1	Mo 202.031†	21.2	-0.2	-0.0187 ug/L	-0.0187 ppb	23:46:30
1	Ni 231.604†	97.3	4.5	0.1192 ug/L	0.1192 ppb	23:46:30
1	P 214.914†	237.9	-8.5	-4.6305 ug/L	-4.6305 ppb	23:46:30
1	Pb 220.353†	-67.4	-50.5	-6.5229 ug/L	-6.5229 ppb	23:46:30
1	S 181.975 Axial†	59.9	-2.5	-3.2710 ug/L	-3.2710 ppb	23:46:30
1	Sb 206.836†	30.2	-14.2	-5.0390 ug/L	-5.0390 ppb	23:46:30
1	Se 196.026†	-22.3	4.5	2.4548 ug/L	2.4548 ppb	23:46:30
1	Si 251.611†	609.7	-64.1	-2.0186 ug/L	-2.0186 ppb	23:46:30
1	Sn 189.927†	14.2	-21.7	-4.0062 ug/L	-4.0062 ppb	23:46:30
1	Ti 334.940†	-1495.5	126.1	0.2070 ug/L	0.2070 ppb	23:46:10
1	Tl 190.801†	-32.6	-10.8	-3.4918 ug/L	-3.4918 ppb	23:46:30
1	U 409.014†	-3336.6	279.4	8.9980 ug/L	8.9980 ppb	23:46:10
1	V 292.402†	-1687.5	106.2	0.8498 ug/L	0.8498 ppb	23:46:10
1	Zn 213.857†	833.0	-39.7	-0.3905 ug/L	-0.3905 ppb	23:46:30
1	SiO2†	596.3	-2.7	-0.1809 ug/L	-0.1809 ppb	23:47:26
2	Sc Radial	3734.8	3734.8	93.9 %		23:45:18
2	Y RADIAL	3887.3	3887.3	94.10 %		23:45:18
2	Al 396.153Radial†	-161.6	-30.1	-31.161 ug/L	-31.161 ppb	23:45:18
2	Ca 317.933Radial†	24.3	1.6	3.0802 ug/L	3.0802 ppb	23:45:38
2	Fe 238.204 Radial†	8.8	-1.7	-18.384 ug/L	-18.384 ppb	23:45:38
2	K 766.490 Radial†	3144.4	139.3	30.219 ug/L	30.219 ppb	23:45:18
2	Mg 279.077 IEC†	0.4	-1.0	-37.534 ug/L	-37.534 ppb	23:45:38
2	Na 589.592 Radial†	-297.2	-212.7	-74.605 ug/L	-74.605 ppb	23:45:18
2	Sr 421.552†	69.6	-37.6	-0.3125 ug/L	-0.3125 ppb	23:45:18
2	Sc 361.383	790804.2	790804.2	99.378 %		23:46:35
2	Y 371.029	639977.9	639977.9	99.530 %		23:46:35
2	Ag 328.068†	374.3	191.0	0.9775 ug/L	0.9775 ppb	23:46:35
2	As 188.979†	-36.0	-8.6	-3.6437 ug/L	-3.6437 ppb	23:46:56
2	B 249.677†	-368.5	-428.8	-10.228 ug/L	-10.228 ppb	23:46:56
2	Ba 233.527†	26.2	19.9	0.1662 ug/L	0.1662 ppb	23:46:56
2	Be 313.107†	-4009.9	203.4	0.0767 ug/L	0.0767 ppb	23:46:35
2	Cd 226.502†	-209.6	-2.3	-0.0271 ug/L	-0.0271 ppb	23:46:56
2	Co 228.616†	-69.0	9.0	0.1919 ug/L	0.1919 ppb	23:46:56
2	Cr 267.716†	108.3	-588.2	-7.2705 ug/L	-7.2705 ppb	23:46:35
2	Cu 324.752†	8246.9	-20.5	-0.0617 ug/L	-0.0617 ppb	23:46:35
2	Mn 257.610†	596.5	48.8	0.0564 ug/L	0.0564 ppb	23:46:56
2	Mo 202.031†	13.7	-7.3	-0.5690 ug/L	-0.5690 ppb	23:46:56
2	Ni 231.604†	109.8	18.9	0.5050 ug/L	0.5050 ppb	23:46:56

2	P 214.914†	234.4	-7.5	-4.0998 ug/L	-4.0998 ppb	23:46:56
2	Pb 220.353†	-67.6	-52.0	-6.7300 ug/L	-6.7300 ppb	23:46:56
2	S 181.975 Axial†	59.7	-1.6	-2.0944 ug/L	-2.0944 ppb	23:46:56
2	Sb 206.836†	33.3	-10.5	-3.7337 ug/L	-3.7337 ppb	23:46:56
2	Se 196.026†	-26.3	-0.0	-0.0744 ug/L	-0.0744 ppb	23:46:56
2	Si 251.611†	619.2	-42.9	-1.3429 ug/L	-1.3429 ppb	23:46:56
2	Sn 189.927†	25.5	-10.0	-1.8516 ug/L	-1.8516 ppb	23:46:56
2	Ti 334.940†	-1448.7	144.6	0.2483 ug/L	0.2483 ppb	23:46:35
2	Tl 190.801†	-35.9	-14.8	-4.7592 ug/L	-4.7592 ppb	23:46:56
2	U 409.014†	-3715.1	-165.5	-5.2982 ug/L	-5.2982 ppb	23:46:35
2	V 292.402†	-1797.0	-36.4	-0.2961 ug/L	-0.2961 ppb	23:46:35
2	Zn 213.857†	842.6	-14.0	-0.1401 ug/L	-0.1401 ppb	23:46:56
2	SiO2†	638.5	51.2	3.4484 ug/L	3.4484 ppb	23:47:31
3	Sc Radial	4142.2	4142.2	104 %		23:45:43
3	Y RADIAL	4323.5	4323.5	104.7 %		23:45:43
3	Al 396.153Radial†	-132.3	14.9	15.369 ug/L	15.369 ppb	23:45:43
3	Ca 317.933Radial†	23.2	-2.0	-3.8077 ug/L	-3.8077 ppb	23:46:03
3	Fe 238.204 Radial†	11.1	-0.4	-4.3619 ug/L	-4.3619 ppb	23:46:03
3	K 766.490 Radial†	3057.7	-273.1	-59.136 ug/L	-59.136 ppb	23:45:43
3	Mg 279.077 IEC†	-0.6	-1.9	-75.274 ug/L	-75.274 ppb	23:46:03
3	Na 589.592 Radial†	-383.4	-264.3	-92.708 ug/L	-92.708 ppb	23:45:43
3	Sr 421.552†	76.7	-38.0	-0.3159 ug/L	-0.3159 ppb	23:45:43
3	Sc 361.383	801312.3	801312.3	100.70 %		23:47:01
3	Y 371.029	649137.0	649137.0	100.95 %		23:47:01
3	Ag 328.068†	316.9	129.1	0.6603 ug/L	0.6603 ppb	23:47:01
3	As 188.979†	-39.1	-11.2	-4.7441 ug/L	-4.7441 ppb	23:47:21
3	B 249.677†	-370.0	-425.4	-10.150 ug/L	-10.150 ppb	23:47:21
3	Ba 233.527†	15.9	9.4	0.0796 ug/L	0.0796 ppb	23:47:21
3	Be 313.107†	-4027.8	238.6	0.0903 ug/L	0.0903 ppb	23:47:01
3	Cd 226.502†	-204.4	5.7	0.0709 ug/L	0.0709 ppb	23:47:21
3	Co 228.616†	-67.1	11.9	0.2534 ug/L	0.2534 ppb	23:47:21
3	Cr 267.716†	131.6	-566.4	-7.0035 ug/L	-7.0035 ppb	23:47:01
3	Cu 324.752†	8378.9	1.8	0.0040 ug/L	0.0040 ppb	23:47:01
3	Mn 257.610†	601.2	45.6	0.0557 ug/L	0.0557 ppb	23:47:21
3	Mo 202.031†	25.9	4.6	0.3585 ug/L	0.3585 ppb	23:47:21
3	Ni 231.604†	90.1	-2.1	-0.0562 ug/L	-0.0562 ppb	23:47:21
3	P 214.914†	221.8	-23.0	-12.637 ug/L	-12.637 ppb	23:47:21
3	Pb 220.353†	-58.2	-41.9	-5.4064 ug/L	-5.4064 ppb	23:47:21
3	S 181.975 Axial†	63.4	1.3	1.6544 ug/L	1.6544 ppb	23:47:21
3	Sb 206.836†	41.1	-3.1	-1.1454 ug/L	-1.1454 ppb	23:47:21
3	Se 196.026†	-19.7	6.9	3.9347 ug/L	3.9347 ppb	23:47:21
3	Si 251.611†	574.5	-95.4	-3.0088 ug/L	-3.0088 ppb	23:47:21
3	Sn 189.927†	19.6	-16.2	-3.0002 ug/L	-3.0002 ppb	23:47:21
3	Ti 334.940†	-1350.6	261.1	0.4401 ug/L	0.4401 ppb	23:47:01
3	Tl 190.801†	-34.2	-12.6	-4.0485 ug/L	-4.0485 ppb	23:47:21
3	U 409.014†	-3518.1	79.2	2.5602 ug/L	2.5602 ppb	23:47:01
3	V 292.402†	-1738.5	45.5	0.3641 ug/L	0.3641 ppb	23:47:01
3	Zn 213.857†	841.0	-26.7	-0.2654 ug/L	-0.2654 ppb	23:47:21
3	SiO2†	614.8	19.3	1.2851 ug/L	1.2851 ppb	23:47:36

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	799428.2	100.46 %	0.987			0.98%
Sc Radial	3949.8	99.3 %	5.15			5.18%
Y 371.029	647565.2	100.71 %	1.079			1.07%
Y RADIAL	4119.8	99.73 %	5.315			5.33%
Ag 328.068†	162.5	0.8264 ug/L	0.15912	0.8264 ppb	0.15912	19.25%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-0.7	-0.7637 ug/L	26.34148	-0.7637 ppb	26.34148	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-7.3	-3.0760 ug/L	2.01297	-3.0760 ppb	2.01297	65.44%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-422.0	-10.066 ug/L	0.2168	-10.066 ppb	0.2168	2.15%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	13.6	0.1141 ug/L	0.04589	0.1141 ppb	0.04589	40.22%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	267.8	0.1009 ug/L	0.03096	0.1009 ppb	0.03096	30.67%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	0.9	1.8419 ug/L	5.14350	1.8419 ppb	5.14350	279.25%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd 226.502†	5.8	0.0737 ug/L	0.10226	0.0737 ppb	0.10226	138.73%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	11.3	0.2410 ug/L	0.04417	0.2410 ppb	0.04417	18.33%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-576.4	-7.1271 ug/L	0.13456	-7.1271 ppb	0.13456	1.89%
QC value less than the lower limit for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-29.0	-0.0925 ug/L	0.11503	-0.0925 ppb	0.11503	124.35%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-1.9	-21.084 ug/L	18.2233	-21.084 ppb	18.2233	86.43%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	-67.5	-14.604 ug/L	44.6785	-14.604 ppb	44.6785	305.93%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-0.8	-30.619 ug/L	48.4834	-30.619 ppb	48.4834	158.34%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	38.4	0.0438 ug/L	0.02124	0.0438 ppb	0.02124	48.55%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-1.0	-0.0764 ug/L	0.46642	-0.0764 ppb	0.46642	610.52%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-215.3	-75.504 ug/L	16.7726	-75.504 ppb	16.7726	22.21%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	7.1	0.1893 ug/L	0.28708	0.1893 ppb	0.28708	151.64%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-13.0	-7.1225 ug/L	4.78326	-7.1225 ppb	4.78326	67.16%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-48.1	-6.2198 ug/L	0.71196	-6.2198 ppb	0.71196	11.45%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-1.0	-1.2370 ug/L	2.57223	-1.2370 ppb	2.57223	207.94%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	-9.3	-3.3061 ug/L	1.98171	-3.3061 ppb	1.98171	59.94%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	3.8	2.1050 ug/L	2.02732	2.1050 ppb	2.02732	96.31%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	-67.4	-2.1235 ug/L	0.83788	-2.1235 ppb	0.83788	39.46%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	-16.0	-2.9527 ug/L	1.07810	-2.9527 ppb	1.07810	36.51%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-33.1	-0.2753 ug/L	0.06735	-0.2753 ppb	0.06735	24.46%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	177.3	0.2984 ug/L	0.12438	0.2984 ppb	0.12438	41.68%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-12.7	-4.0998 ug/L	0.63526	-4.0998 ppb	0.63526	15.49%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	64.4	2.0867 ug/L	7.15986	2.0867 ppb	7.15986	343.13%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	38.4	0.3059 ug/L	0.57519	0.3059 ppb	0.57519	188.01%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	-26.8	-0.2653 ug/L	0.12517	-0.2653 ppb	0.12517	47.18%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	22.6	1.5175 ug/L	1.82577	1.5175 ppb	1.82577	120.31%
QC value within limits for SiO2 Recovery = Not calculated						
QC Failed. Continue with analysis.						

=====  
Analysis Begun

Start Time: 2/19/2010 16:32:14

Plasma On Time: 2/18/2010 07:51:33

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\021910.sif

Batch ID:

Results Data Set: 021910B

Results Library: C:\pe\Optima3\Results\Results.mdb

=====  
Method Loaded

Method Name: General Eng.2AX

Method Last Saved: 2/19/2010 10:58:48

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: 8

Sample ID: S0

Date Collected: 2/19/2010 16:32:16

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	3551.7	3551.7	100 %		16:34:28
1	Y RADIAL	3974.2	3974.2	99.39 %		16:34:08
1	Al 396.153Radial†	-119.5	-119.0	[0.00] ug/L		16:34:28



1	Ca 317.933Radial†	40.3	40.1	[0.00]	ug/L	16:34:28
1	Fe 238.204 Radial†	9.0	9.0	[0.00]	ug/L	16:34:28
1	K 766.490 Radial†	3092.9	3080.0	[0.00]	ug/L	16:34:08
1	Mg 279.077 IEC†	2.8	2.8	[0.00]	ug/L	16:34:28
1	Na 589.592 Radial†	3852.5	3836.4	[0.00]	ug/L	16:34:08
1	Sr 421.552†	485.0	483.0	[0.00]	ug/L	16:34:08
1	Sc 361.383	752302.7	752302.7	100.13	%	16:35:25
1	Y 371.029	588913.4	588913.4	100.08	%	16:35:25
1	Ag 328.068†	457.6	457.1	[0.00]	ug/L	16:35:25
1	As 188.979†	-18.1	-18.1	[0.00]	ug/L	16:35:45
1	B 249.677†	-458.4	-457.8	[0.00]	ug/L	16:35:45
1	Ba 233.527†	235.1	234.8	[0.00]	ug/L	16:35:45
1	Be 313.107†	-3855.0	-3850.0	[0.00]	ug/L	16:35:25
1	Cd 226.502†	-186.6	-186.4	[0.00]	ug/L	16:35:45
1	Co 228.616†	-62.5	-62.5	[0.00]	ug/L	16:35:45
1	Cr 267.716†	101.3	101.2	[0.00]	ug/L	16:35:45
1	Cu 324.752†	6707.4	6698.7	[0.00]	ug/L	16:35:25
1	Mn 257.610†	486.2	485.5	[0.00]	ug/L	16:35:45
1	Mo 202.031†	10.6	10.6	[0.00]	ug/L	16:35:45
1	Ni 231.604†	65.3	65.2	[0.00]	ug/L	16:35:45
1	P 214.914†	207.2	206.9	[0.00]	ug/L	16:35:45
1	Pb 220.353†	17.6	17.6	[0.00]	ug/L	16:35:45
1	S 181.975 Axial†	34.4	34.4	[0.00]	ug/L	16:35:45
1	Sb 206.836†	34.9	34.8	[0.00]	ug/L	16:35:45
1	Se 196.026†	-31.3	-31.3	[0.00]	ug/L	16:35:45
1	Si 251.611†	486.1	485.4	[0.00]	ug/L	16:35:45
1	Sn 189.927†	11.5	11.5	[0.00]	ug/L	16:35:45
1	Ti 334.940†	-1380.6	-1378.8	[0.00]	ug/L	16:35:25
1	Tl 190.801†	-32.3	-32.2	[0.00]	ug/L	16:35:45
1	U 409.014†	-2895.1	-2891.4	[0.00]	ug/L	16:35:25
1	V 292.402†	-1701.8	-1699.6	[0.00]	ug/L	16:35:25
1	Zn 213.857†	644.3	643.5	[0.00]	ug/L	16:35:45
1	SiO2†	506.3	505.7	[0.00]	ug/L	16:36:41
2	Sc Radial	3504.3	3504.3	99.1	%	16:34:53
2	Y RADIAL	4030.8	4030.8	100.8	%	16:34:33
2	Al 396.153Radial†	-110.4	-111.4	[0.00]	ug/L	16:34:53
2	Ca 317.933Radial†	25.1	25.4	[0.00]	ug/L	16:34:53
2	Fe 238.204 Radial†	8.4	8.5	[0.00]	ug/L	16:34:53
2	K 766.490 Radial†	3201.3	3231.1	[0.00]	ug/L	16:34:33
2	Mg 279.077 IEC†	3.1	3.2	[0.00]	ug/L	16:34:53
2	Na 589.592 Radial†	3836.3	3871.9	[0.00]	ug/L	16:34:33
2	Sr 421.552†	943.2	952.0	[0.00]	ug/L	16:34:33
2	Sc 361.383	746047.7	746047.7	99.297	%	16:35:50
2	Y 371.029	584336.5	584336.5	99.299	%	16:35:50
2	Ag 328.068†	231.7	233.3	[0.00]	ug/L	16:35:50
2	As 188.979†	-22.7	-22.8	[0.00]	ug/L	16:36:10
2	B 249.677†	-425.1	-428.1	[0.00]	ug/L	16:36:10
2	Ba 233.527†	84.0	84.6	[0.00]	ug/L	16:36:10
2	Be 313.107†	-4584.9	-4617.3	[0.00]	ug/L	16:35:50
2	Cd 226.502†	-208.1	-209.6	[0.00]	ug/L	16:36:10
2	Co 228.616†	-66.0	-66.4	[0.00]	ug/L	16:36:10
2	Cr 267.716†	64.3	64.8	[0.00]	ug/L	16:36:10
2	Cu 324.752†	6238.2	6282.3	[0.00]	ug/L	16:35:50
2	Mn 257.610†	453.7	456.9	[0.00]	ug/L	16:36:10
2	Mo 202.031†	9.0	9.1	[0.00]	ug/L	16:36:10
2	Ni 231.604†	86.6	87.2	[0.00]	ug/L	16:36:10
2	P 214.914†	210.2	211.7	[0.00]	ug/L	16:36:10
2	Pb 220.353†	29.1	29.3	[0.00]	ug/L	16:36:10
2	S 181.975 Axial†	38.7	39.0	[0.00]	ug/L	16:36:10
2	Sb 206.836†	36.5	36.7	[0.00]	ug/L	16:36:10
2	Se 196.026†	-30.2	-30.4	[0.00]	ug/L	16:36:10
2	Si 251.611†	496.9	500.4	[0.00]	ug/L	16:36:10
2	Sn 189.927†	19.0	19.1	[0.00]	ug/L	16:36:10
2	Ti 334.940†	-1503.1	-1513.7	[0.00]	ug/L	16:35:50
2	Tl 190.801†	-26.4	-26.6	[0.00]	ug/L	16:36:10
2	U 409.014†	-3153.2	-3175.6	[0.00]	ug/L	16:35:50
2	V 292.402†	-1649.1	-1660.8	[0.00]	ug/L	16:35:50
2	Zn 213.857†	649.0	653.6	[0.00]	ug/L	16:36:10
2	SiO2†	527.4	531.2	[0.00]	ug/L	16:36:46
3	Sc Radial	3554.6	3554.6	101	%	16:35:18
3	Y RADIAL	3991.0	3991.0	99.81	%	16:34:58

3	Al 396.153Radial†	-109.9	-109.4	[0.00]	ug/L	16:35:18
3	Ca 317.933Radial†	28.4	28.3	[0.00]	ug/L	16:35:18
3	Fe 238.204 Radial†	10.0	10.0	[0.00]	ug/L	16:35:18
3	K 766.490 Radial†	3137.0	3121.4	[0.00]	ug/L	16:34:58
3	Mg 279.077 IEC†	2.0	2.0	[0.00]	ug/L	16:35:18
3	Na 589.592 Radial†	4395.7	4373.7	[0.00]	ug/L	16:34:58
3	Sr 421.552†	2903.9	2889.3	[0.00]	ug/L	16:34:58
3	Sc 361.383	755632.3	755632.3	100.57	%	16:36:15
3	Y 371.029	592139.1	592139.1	100.62	%	16:36:15
3	Ag 328.068†	290.4	288.7	[0.00]	ug/L	16:36:15
3	As 188.979†	-21.2	-21.1	[0.00]	ug/L	16:36:36
3	B 249.677†	-442.6	-440.0	[0.00]	ug/L	16:36:36
3	Ba 233.527†	116.4	115.7	[0.00]	ug/L	16:36:36
3	Be 313.107†	-4626.5	-4600.1	[0.00]	ug/L	16:36:15
3	Cd 226.502†	-190.6	-189.5	[0.00]	ug/L	16:36:36
3	Co 228.616†	-82.5	-82.0	[0.00]	ug/L	16:36:36
3	Cr 267.716†	67.8	67.4	[0.00]	ug/L	16:36:36
3	Cu 324.752†	6412.1	6375.6	[0.00]	ug/L	16:36:15
3	Mn 257.610†	474.2	471.5	[0.00]	ug/L	16:36:36
3	Mo 202.031†	10.3	10.3	[0.00]	ug/L	16:36:36
3	Ni 231.604†	85.5	85.0	[0.00]	ug/L	16:36:36
3	P 214.914†	216.0	214.7	[0.00]	ug/L	16:36:36
3	Pb 220.353†	15.8	15.7	[0.00]	ug/L	16:36:36
3	S 181.975 Axial†	39.0	38.8	[0.00]	ug/L	16:36:36
3	Sb 206.836†	37.8	37.5	[0.00]	ug/L	16:36:36
3	Se 196.026†	-26.4	-26.2	[0.00]	ug/L	16:36:36
3	Si 251.611†	506.5	503.7	[0.00]	ug/L	16:36:36
3	Sn 189.927†	15.5	15.4	[0.00]	ug/L	16:36:36
3	Ti 334.940†	-1556.2	-1547.3	[0.00]	ug/L	16:36:15
3	Tl 190.801†	-39.0	-38.8	[0.00]	ug/L	16:36:36
3	U 409.014†	-3140.3	-3122.4	[0.00]	ug/L	16:36:15
3	V 292.402†	-1727.6	-1717.7	[0.00]	ug/L	16:36:15
3	Zn 213.857†	637.9	634.3	[0.00]	ug/L	16:36:36
3	SiO2†	442.3	439.8	[0.00]	ug/L	16:36:51

## Mean Data: S0

Analyte	Mean Corrected			Calib	
	Intensity	Std.Dev.	RSD	Conc.	Units
Sc 361.383	751327.5	4866.15	0.65%	100.00	%
Sc Radial	3536.9	28.26	0.80%	100	%
Y 371.029	588463.0	3920.75	0.67%	100.00	%
Y RADIAL	3998.7	29.06	0.73%	100.0	%
Ag 328.068†	326.4	116.53	35.71%	[0.00]	ug/L
Al 396.153Radial†	-113.2	5.07	4.48%	[0.00]	ug/L
As 188.979†	-20.7	2.40	11.58%	[0.00]	ug/L
B 249.677†	-442.0	14.92	3.38%	[0.00]	ug/L
Ba 233.527†	145.0	79.28	54.66%	[0.00]	ug/L
Be 313.107†	-4355.8	438.14	10.06%	[0.00]	ug/L
Ca 317.933Radial†	31.2	7.81	25.01%	[0.00]	ug/L
Cd 226.502†	-195.1	12.58	6.45%	[0.00]	ug/L
Co 228.616†	-70.3	10.35	14.72%	[0.00]	ug/L
Cr 267.716†	77.8	20.31	26.10%	[0.00]	ug/L
Cu 324.752†	6452.2	218.50	3.39%	[0.00]	ug/L
Fe 238.204 Radial†	9.2	0.74	8.14%	[0.00]	ug/L
K 766.490 Radial†	3144.2	78.04	2.48%	[0.00]	ug/L
Mg 279.077 IEC†	2.7	0.57	21.42%	[0.00]	ug/L
Mn 257.610†	471.3	14.34	3.04%	[0.00]	ug/L
Mo 202.031†	10.0	0.77	7.73%	[0.00]	ug/L
Na 589.592 Radial†	4027.3	300.47	7.46%	[0.00]	ug/L
Ni 231.604†	79.1	12.08	15.27%	[0.00]	ug/L
P 214.914†	211.1	3.95	1.87%	[0.00]	ug/L
Pb 220.353†	20.9	7.35	35.20%	[0.00]	ug/L
S 181.975 Axial†	37.4	2.62	7.00%	[0.00]	ug/L
Sb 206.836†	36.4	1.39	3.83%	[0.00]	ug/L
Se 196.026†	-29.3	2.71	9.25%	[0.00]	ug/L
Si 251.611†	496.5	9.72	1.96%	[0.00]	ug/L
Sn 189.927†	15.3	3.81	24.83%	[0.00]	ug/L
Sr 421.552†	1441.4	1275.66	88.50%	[0.00]	ug/L
Ti 334.940†	-1480.0	89.19	6.03%	[0.00]	ug/L
Tl 190.801†	-32.6	6.11	18.76%	[0.00]	ug/L

U 409.014†	-3063.1	151.08	4.93%	[0.00] ug/L
V 292.402†	-1692.7	29.09	1.72%	[0.00] ug/L
Zn 213.857†	643.8	9.68	1.50%	[0.00] ug/L
SiO2†	492.2	47.14	9.58%	[0.00] ug/L

Sequence No.: 2

Sample ID: S0.1

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 2

Date Collected: 2/19/2010 16:39:02

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	3642.9	3642.9	103 %	16:41:15
1	Y RADIAL	4019.8	4019.8	100.5 %	16:41:15
1	K 766.490 Radial†	8439.0	5049.2	[1000] ug/L	16:40:55
1	Sr 421.552†	13706.7	11866.4	[100] ug/L	16:41:15
1	Sc 361.383	737867.7	737867.7	98.209 %	16:42:12
1	Y 371.029	577908.0	577908.0	98.206 %	16:42:12
1	Ag 328.068†	18772.6	18788.7	[100] ug/L	16:42:12
1	As 188.979†	187.3	211.4	[100] ug/L	16:42:32
1	B 249.677†	3284.8	3786.6	[100] ug/L	16:42:12
1	Ba 233.527†	11486.3	11550.8	[100] ug/L	16:42:12
1	Be 313.107†	239924.1	248656.5	[100] ug/L	16:42:12
1	Cd 226.502†	7111.7	7436.6	[100] ug/L	16:42:12
1	Co 228.616†	4360.9	4510.7	[100] ug/L	16:42:32
1	Cr 267.716†	7454.1	7512.2	[100] ug/L	16:42:12
1	Cu 324.752†	37025.7	31248.9	[100] ug/L	16:42:12
1	Mn 257.610†	83068.9	84112.9	[100] ug/L	16:42:12
1	Mo 202.031†	1199.6	1211.6	[100] ug/L	16:42:32
1	Ni 231.604†	3472.7	3456.9	[100] ug/L	16:42:32
1	P 214.914†	1015.9	823.3	[500] ug/L	16:42:32
1	Pb 220.353†	715.8	708.0	[100] ug/L	16:42:32
1	S 181.975 Axial†	180.5	146.4	[200] ug/L	16:42:32
1	Sb 206.836†	307.0	276.2	[100] ug/L	16:42:32
1	Se 196.026†	131.1	162.8	[100] ug/L	16:42:32
1	Si 251.611†	14711.6	14483.4	[500] ug/L	16:42:12
1	Sn 189.927†	492.0	485.7	[100] ug/L	16:42:32
1	Ti 334.940†	56112.4	58615.9	[100] ug/L	16:42:12
1	Tl 190.801†	262.2	299.5	[100] ug/L	16:42:32
1	U 409.014†	-143.4	2917.1	[100] ug/L	16:42:12
1	V 292.402†	9907.3	11780.7	[100] ug/L	16:42:12
1	Zn 213.857†	9863.2	9399.3	[100] ug/L	16:42:12
1	SiO2†	15030.6	14812.6	[1069.5] ug/L	16:43:28
2	Sc Radial	3631.9	3631.9	103 %	16:41:40
2	Y RADIAL	4004.9	4004.9	100.2 %	16:41:40
2	K 766.490 Radial†	8227.7	4868.3	[1000] ug/L	16:41:20
2	Sr 421.552†	13241.8	11453.8	[100] ug/L	16:41:40
2	Sc 361.383	741944.8	741944.8	98.751 %	16:42:37
2	Y 371.029	581516.6	581516.6	98.820 %	16:42:37
2	Ag 328.068†	18901.6	18814.2	[100] ug/L	16:42:37
2	As 188.979†	184.1	207.1	[100] ug/L	16:42:57
2	B 249.677†	3309.8	3793.7	[100] ug/L	16:42:37
2	Ba 233.527†	11661.6	11664.0	[100] ug/L	16:42:37
2	Be 313.107†	241620.1	249031.5	[100] ug/L	16:42:37
2	Cd 226.502†	7202.1	7488.3	[100] ug/L	16:42:37
2	Co 228.616†	4314.2	4439.1	[100] ug/L	16:42:57
2	Cr 267.716†	7551.5	7569.1	[100] ug/L	16:42:37
2	Cu 324.752†	37127.5	31144.8	[100] ug/L	16:42:37
2	Mn 257.610†	83343.9	83926.6	[100] ug/L	16:42:37
2	Mo 202.031†	1212.0	1217.3	[100] ug/L	16:42:57
2	Ni 231.604†	3435.6	3399.9	[100] ug/L	16:42:57
2	P 214.914†	1005.1	806.7	[500] ug/L	16:42:57
2	Pb 220.353†	714.0	702.2	[100] ug/L	16:42:57
2	S 181.975 Axial†	171.6	136.3	[200] ug/L	16:42:57
2	Sb 206.836†	293.1	260.5	[100] ug/L	16:42:57
2	Se 196.026†	114.2	145.0	[100] ug/L	16:42:57
2	Si 251.611†	14797.2	14487.8	[500] ug/L	16:42:37
2	Sn 189.927†	487.5	478.3	[100] ug/L	16:42:57
2	Ti 334.940†	56462.8	58656.8	[100] ug/L	16:42:37
2	Tl 190.801†	264.8	300.7	[100] ug/L	16:42:57
2	U 409.014†	-282.5	2777.0	[100] ug/L	16:42:37

2	V 292.402†	9986.9	11805.9	[100]	ug/L	16:42:37
2	Zn 213.857†	9934.9	9416.8	[100]	ug/L	16:42:37
2	SiO2†	14885.4	14581.4	[1069.5]	ug/L	16:43:33
3	Sc Radial	3616.1	3616.1	102	%	16:42:05
3	Y RADIAL	3987.1	3987.1	99.71	%	16:42:05
3	K 766.490 Radial†	8272.2	4946.7	[1000]	ug/L	16:41:45
3	Sr 421.552†	13663.1	11922.3	[100]	ug/L	16:42:05
3	Sc 361.383	754008.0	754008.0	100.36	%	16:43:03
3	Y 371.029	590635.0	590635.0	100.37	%	16:43:03
3	Ag 328.068†	19072.5	18678.3	[100]	ug/L	16:43:03
3	As 188.979†	178.9	199.0	[100]	ug/L	16:43:23
3	B 249.677†	3397.2	3827.1	[100]	ug/L	16:43:03
3	Ba 233.527†	11690.9	11504.3	[100]	ug/L	16:43:03
3	Be 313.107†	245333.0	248816.7	[100]	ug/L	16:43:03
3	Cd 226.502†	7190.4	7360.0	[100]	ug/L	16:43:03
3	Co 228.616†	4308.7	4363.7	[100]	ug/L	16:43:23
3	Cr 267.716†	7617.1	7512.2	[100]	ug/L	16:43:03
3	Cu 324.752†	37652.3	31066.2	[100]	ug/L	16:43:03
3	Mn 257.610†	84470.5	83698.9	[100]	ug/L	16:43:03
3	Mo 202.031†	1197.1	1182.9	[100]	ug/L	16:43:23
3	Ni 231.604†	3455.2	3363.8	[100]	ug/L	16:43:23
3	P 214.914†	998.5	783.9	[500]	ug/L	16:43:23
3	Pb 220.353†	700.3	677.0	[100]	ug/L	16:43:23
3	S 181.975 Axial†	169.6	131.6	[200]	ug/L	16:43:23
3	Sb 206.836†	294.3	256.8	[100]	ug/L	16:43:23
3	Se 196.026†	118.6	147.5	[100]	ug/L	16:43:23
3	Si 251.611†	15033.8	14483.9	[500]	ug/L	16:43:03
3	Sn 189.927†	492.8	475.7	[100]	ug/L	16:43:23
3	Ti 334.940†	57375.1	58651.1	[100]	ug/L	16:43:03
3	Tl 190.801†	261.8	293.4	[100]	ug/L	16:43:23
3	U 409.014†	-35.3	3028.0	[100]	ug/L	16:43:03
3	V 292.402†	10181.2	11837.7	[100]	ug/L	16:43:03
3	Zn 213.857†	10054.0	9374.5	[100]	ug/L	16:43:03
3	SiO2†	15054.9	14509.2	[1069.5]	ug/L	16:43:38

## Mean Data: S0.1

Analyte	Mean Corrected			Calib	
	Intensity	Std.Dev.	RSD	Conc.	Units
Sc 361.383	744606.8	8392.95	1.13%	99.105	%
Sc Radial	3630.3	13.45	0.37%	103	%
Y 371.029	583353.2	6559.25	1.12%	99.132	%
Y RADIAL	4003.9	16.35	0.41%	100.1	%
Ag 328.068†	18760.4	72.21	0.38%	[100]	ug/L
As 188.979†	205.8	6.30	3.06%	[100]	ug/L
B 249.677†	3802.5	21.61	0.57%	[100]	ug/L
Ba 233.527†	11573.0	82.15	0.71%	[100]	ug/L
Be 313.107†	248834.9	188.14	0.08%	[100]	ug/L
Cd 226.502†	7428.3	64.53	0.87%	[100]	ug/L
Co 228.616†	4437.9	73.52	1.66%	[100]	ug/L
Cr 267.716†	7531.2	32.88	0.44%	[100]	ug/L
Cu 324.752†	31153.3	91.63	0.29%	[100]	ug/L
K 766.490 Radial†	4954.7	90.76	1.83%	[1000]	ug/L
Mn 257.610†	83912.8	207.35	0.25%	[100]	ug/L
Mo 202.031†	1203.9	18.44	1.53%	[100]	ug/L
Ni 231.604†	3406.9	46.97	1.38%	[100]	ug/L
P 214.914†	804.6	19.79	2.46%	[500]	ug/L
Pb 220.353†	695.7	16.50	2.37%	[100]	ug/L
S 181.975 Axial†	138.1	7.53	5.45%	[200]	ug/L
Sb 206.836†	264.5	10.31	3.90%	[100]	ug/L
Se 196.026†	151.8	9.65	6.36%	[100]	ug/L
Si 251.611†	14485.0	2.41	0.02%	[500]	ug/L
Sn 189.927†	479.9	5.19	1.08%	[100]	ug/L
Sr 421.552†	11747.5	255.88	2.18%	[100]	ug/L
Ti 334.940†	58641.2	22.15	0.04%	[100]	ug/L
Tl 190.801†	297.9	3.89	1.31%	[100]	ug/L
U 409.014†	2907.3	125.76	4.33%	[100]	ug/L
V 292.402†	11808.1	28.57	0.24%	[100]	ug/L
Zn 213.857†	9396.9	21.27	0.23%	[100]	ug/L
SiO2†	14634.4	158.51	1.08%	[1069.5]	ug/L

Sequence No.: 3

Sample ID: S0.5

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 2/19/2010 16:45:49

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Analysis Time
1	Sc Radial	3538.9	3538.9	100 %		16:48:01
1	Y RADIAL	3960.3	3960.3	99.04 %		16:47:41
1	Al 396.153Radial†	4917.1	5027.5	[5000] ug/L		16:47:41
1	Ca 317.933Radial†	2299.9	2267.3	[5000] ug/L		16:48:01
1	K 766.490 Radial†	29059.9	25898.9	[5000] ug/L		16:47:41
1	Mg 279.077 IEC†	100.9	98.2	[5000] ug/L		16:48:01
1	Sr 421.552†	65263.1	63783.8	[500] ug/L		16:47:41
1	Sc 361.383	757659.5	757659.5	100.84 %		16:48:58
1	Y 371.029	587082.9	587082.9	99.765 %		16:48:58
1	Ag 328.068†	95384.5	94261.0	[500] ug/L		16:49:04
1	As 188.979†	1039.9	1051.9	[500] ug/L		16:49:24
1	B 249.677†	19098.8	19381.2	[500] ug/L		16:49:04
1	Ba 233.527†	57828.7	57200.3	[500] ug/L		16:49:04
1	Be 313.107†	1246702.0	1240638.8	[500] ug/L		16:48:58
1	Cd 226.502†	37116.6	37001.6	[500] ug/L		16:49:04
1	Co 228.616†	22473.9	22356.4	[500] ug/L		16:49:04
1	Cr 267.716†	37719.4	37326.4	[500] ug/L		16:49:04
1	Cu 324.752†	162655.3	154843.8	[500] ug/L		16:49:04
1	Mn 257.610†	415102.1	411161.7	[500] ug/L		16:48:58
1	Mo 202.031†	6035.0	5974.6	[500] ug/L		16:49:24
1	Ni 231.604†	17392.5	17168.0	[500] ug/L		16:49:04
1	P 214.914†	4257.1	4010.4	[2500] ug/L		16:49:24
1	Pb 220.353†	3593.6	3542.7	[500] ug/L		16:49:24
1	S 181.975 Axial†	725.4	682.0	[1000] ug/L		16:49:24
1	Sb 206.836†	1363.5	1315.7	[500] ug/L		16:49:24
1	Se 196.026†	712.0	735.3	[500] ug/L		16:49:24
1	Si 251.611†	74465.1	73346.3	[2500] ug/L		16:49:04
1	Sn 189.927†	2470.6	2434.6	[500] ug/L		16:49:24
1	Ti 334.940†	289522.7	288583.0	[500] ug/L		16:49:04
1	Tl 190.801†	1440.5	1461.0	[500] ug/L		16:49:24
1	U 409.014†	10496.7	13472.1	[500] ug/L		16:49:04
1	V 292.402†	58145.1	59351.9	[500] ug/L		16:49:04
1	Zn 213.857†	47794.2	46751.0	[500] ug/L		16:49:04
1	SiO2†	74071.8	72960.6	[5347.5] ug/L		16:50:31
2	Sc Radial	3561.2	3561.2	101 %		16:48:26
2	Y RADIAL	3923.4	3923.4	98.12 %		16:48:06
2	Al 396.153Radial†	4897.9	4977.7	[5000] ug/L		16:48:06
2	Ca 317.933Radial†	2296.0	2249.1	[5000] ug/L		16:48:26
2	K 766.490 Radial†	28869.7	25528.1	[5000] ug/L		16:48:06
2	Mg 279.077 IEC†	99.7	96.4	[5000] ug/L		16:48:26
2	Sr 421.552†	63711.6	61834.4	[500] ug/L		16:48:06
2	Sc 361.383	768279.2	768279.2	102.26 %		16:49:29
2	Y 371.029	594704.3	594704.3	101.06 %		16:49:29
2	Ag 328.068†	94705.5	92289.5	[500] ug/L		16:49:35
2	As 188.979†	1025.3	1023.4	[500] ug/L		16:49:55
2	B 249.677†	18959.1	18982.8	[500] ug/L		16:49:35
2	Ba 233.527†	57286.1	55877.1	[500] ug/L		16:49:35
2	Be 313.107†	1263619.9	1240094.7	[500] ug/L		16:49:29
2	Cd 226.502†	36765.7	36149.6	[500] ug/L		16:49:35
2	Co 228.616†	22305.2	21883.3	[500] ug/L		16:49:35
2	Cr 267.716†	37322.0	36420.7	[500] ug/L		16:49:35
2	Cu 324.752†	161053.4	151047.6	[500] ug/L		16:49:35
2	Mn 257.610†	420436.9	410688.9	[500] ug/L		16:49:29
2	Mo 202.031†	6009.3	5866.8	[500] ug/L		16:49:55
2	Ni 231.604†	17266.5	16806.4	[500] ug/L		16:49:35
2	P 214.914†	4213.9	3909.8	[2500] ug/L		16:49:55
2	Pb 220.353†	3541.0	3442.0	[500] ug/L		16:49:55
2	S 181.975 Axial†	718.3	665.0	[1000] ug/L		16:49:55
2	Sb 206.836†	1364.1	1297.6	[500] ug/L		16:49:55

2	Se 196.026†	699.9	713.7	[500]	ug/L	16:49:55
2	Si 251.611†	73768.3	71644.1	[2500]	ug/L	16:49:35
2	Sn 189.927†	2458.9	2389.3	[500]	ug/L	16:49:55
2	Ti 334.940†	287111.7	282256.7	[500]	ug/L	16:49:35
2	Tl 190.801†	1432.0	1432.9	[500]	ug/L	16:49:55
2	U 409.014†	10337.3	13172.3	[500]	ug/L	16:49:35
2	V 292.402†	57570.0	57992.4	[500]	ug/L	16:49:35
2	Zn 213.857†	47353.7	45665.1	[500]	ug/L	16:49:35
2	SiO2†	74337.8	72205.4	[5347.5]	ug/L	16:50:36
3	Sc Radial	3516.6	3516.6	99.4	%	16:48:51
3	Y RADIAL	4016.7	4016.7	100.5	%	16:48:31
3	Al 396.153Radial†	4959.9	5101.7	[5000]	ug/L	16:48:31
3	Ca 317.933Radial†	2312.2	2294.2	[5000]	ug/L	16:48:51
3	K 766.490 Radial†	29630.6	26656.9	[5000]	ug/L	16:48:31
3	Mg 279.077 IEC†	103.4	101.4	[5000]	ug/L	16:48:51
3	Sr 421.552†	72671.6	71648.2	[500]	ug/L	16:48:31
3	Sc 361.383	757162.3	757162.3	100.78	%	16:50:01
3	Y 371.029	586987.1	586987.1	99.749	%	16:50:01
3	Ag 328.068†	95649.6	94586.2	[500]	ug/L	16:50:06
3	As 188.979†	1032.9	1045.6	[500]	ug/L	16:50:26
3	B 249.677†	19262.0	19555.5	[500]	ug/L	16:50:06
3	Ba 233.527†	57730.7	57140.8	[500]	ug/L	16:50:06
3	Be 313.107†	1244794.0	1239557.4	[500]	ug/L	16:50:01
3	Cd 226.502†	37043.4	36953.1	[500]	ug/L	16:50:06
3	Co 228.616†	22476.0	22373.1	[500]	ug/L	16:50:06
3	Cr 267.716†	37738.2	37369.6	[500]	ug/L	16:50:06
3	Cu 324.752†	162467.7	154763.5	[500]	ug/L	16:50:06
3	Mn 257.610†	413917.9	410256.9	[500]	ug/L	16:50:01
3	Mo 202.031†	5989.3	5933.2	[500]	ug/L	16:50:26
3	Ni 231.604†	17403.7	17190.5	[500]	ug/L	16:50:06
3	P 214.914†	4203.2	3959.7	[2500]	ug/L	16:50:26
3	Pb 220.353†	3526.1	3478.1	[500]	ug/L	16:50:26
3	S 181.975 Axial†	714.9	672.0	[1000]	ug/L	16:50:26
3	Sb 206.836†	1364.3	1317.4	[500]	ug/L	16:50:26
3	Se 196.026†	694.7	718.6	[500]	ug/L	16:50:26
3	Si 251.611†	74460.5	73390.2	[2500]	ug/L	16:50:06
3	Sn 189.927†	2448.8	2414.6	[500]	ug/L	16:50:26
3	Ti 334.940†	289512.2	288761.2	[500]	ug/L	16:50:06
3	Tl 190.801†	1435.2	1456.7	[500]	ug/L	16:50:26
3	U 409.014†	10575.8	13557.4	[500]	ug/L	16:50:06
3	V 292.402†	58102.7	59347.7	[500]	ug/L	16:50:06
3	Zn 213.857†	47770.4	46758.5	[500]	ug/L	16:50:06
3	SiO2†	74046.6	72983.8	[5347.5]	ug/L	16:50:41

-----  
Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	761033.7	6279.74	0.83%	101.29 %
Sc Radial	3538.9	22.29	0.63%	100 %
Y 371.029	589591.4	4428.12	0.75%	100.19 %
Y RADIAL	3966.8	46.97	1.18%	99.20 %
Ag 328.068†	93712.3	1242.79	1.33%	[500] ug/L
Al 396.153Radial†	5035.6	62.42	1.24%	[5000] ug/L
As 188.979†	1040.3	14.99	1.44%	[500] ug/L
B 249.677†	19306.5	293.59	1.52%	[500] ug/L
Ba 233.527†	56739.4	747.37	1.32%	[500] ug/L
Be 313.107†	1240097.0	540.74	0.04%	[500] ug/L
Ca 317.933Radial†	2270.2	22.71	1.00%	[5000] ug/L
Cd 226.502†	36701.4	478.49	1.30%	[500] ug/L
Co 228.616†	22204.3	278.07	1.25%	[500] ug/L
Cr 267.716†	37038.9	535.80	1.45%	[500] ug/L
Cu 324.752†	153551.7	2168.92	1.41%	[500] ug/L
K 766.490 Radial†	26028.0	575.37	2.21%	[5000] ug/L
Mg 279.077 IEC†	98.7	2.53	2.57%	[5000] ug/L
Mn 257.610†	410702.5	452.53	0.11%	[500] ug/L
Mo 202.031†	5924.8	54.40	0.92%	[500] ug/L
Ni 231.604†	17055.0	215.57	1.26%	[500] ug/L
P 214.914†	3960.0	50.27	1.27%	[2500] ug/L
Pb 220.353†	3487.6	51.01	1.46%	[500] ug/L
S 181.975 Axial†	673.0	8.51	1.26%	[1000] ug/L

Sb 206.836†	1310.3	10.96	0.84%	[500]	ug/L
Se 196.026†	722.5	11.32	1.57%	[500]	ug/L
Si 251.611†	72793.5	995.67	1.37%	[2500]	ug/L
Sn 189.927†	2412.8	22.68	0.94%	[500]	ug/L
Sr 421.552†	65755.5	5195.53	7.90%	[500]	ug/L
Ti 334.940†	286533.6	3704.99	1.29%	[500]	ug/L
Tl 190.801†	1450.2	15.10	1.04%	[500]	ug/L
U 409.014†	13400.6	202.25	1.51%	[500]	ug/L
V 292.402†	58897.3	783.66	1.33%	[500]	ug/L
Zn 213.857†	46391.5	629.15	1.36%	[500]	ug/L
SiO2†	72716.6	442.88	0.61%	[5347.5]	ug/L



Sequence No.: 4

Sample ID: SCAL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 2/19/2010 16:52:52

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	3561.0	3561.0	101 %		16:55:05
1	Y RADIAL	3965.2	3965.2	99.16 %		16:54:45
1	Al 396.153Radial†	10278.8	10322.5	[10000] ug/L		16:54:45
1	Ca 317.933Radial†	4790.7	4727.1	[10000] ug/L		16:54:45
1	Fe 238.204 Radial†	729.7	715.6	[10000] ug/L		16:55:05
1	K 766.490 Radial†	56843.5	53314.6	[10000] ug/L		16:54:45
1	Mg 279.077 IEC†	210.2	206.1	[10000] ug/L		16:55:05
1	Na 589.592 Radial†	32959.5	28709.0	[10000] ug/L		16:54:45
1	Sr 421.552†	135674.0	133314.3	[1000] ug/L		16:54:45
1	Sc 361.383	754525.4	754525.4	100.43 %		16:56:04
1	Y 371.029	583294.7	583294.7	99.122 %		16:56:04
1	Ag 328.068†	195467.0	194312.2	[1000] ug/L		16:56:04
1	As 188.979†	2180.0	2191.4	[1000] ug/L		16:56:24
1	B 249.677†	40211.5	40483.0	[1000] ug/L		16:56:04
1	Ba 233.527†	119273.0	118622.4	[1000] ug/L		16:56:04
1	Be 313.107†	2569838.0	2563302.1	[1000] ug/L		16:56:04
1	Cd 226.502†	76465.7	76336.8	[1000] ug/L		16:56:04
1	Co 228.616†	46211.7	46086.1	[1000] ug/L		16:56:04
1	Cr 267.716†	77652.7	77245.8	[1000] ug/L		16:56:04
1	Cu 324.752†	331662.3	323804.4	[1000] ug/L		16:56:04
1	Mn 257.610†	855797.3	851698.8	[1000] ug/L		16:56:04
1	Mo 202.031†	12453.2	12390.5	[1000] ug/L		16:56:24
1	Ni 231.604†	35725.9	35495.4	[1000] ug/L		16:56:04
1	P 214.914†	8537.3	8290.0	[5000] ug/L		16:56:24
1	Pb 220.353†	7345.9	7293.9	[1000] ug/L		16:56:24
1	S 181.975 Axial†	1451.2	1407.7	[2000] ug/L		16:56:24
1	Sb 206.836†	2822.4	2774.1	[1000] ug/L		16:56:24
1	Se 196.026†	1471.3	1494.3	[1000] ug/L		16:56:24
1	Si 251.611†	151356.2	150218.2	[5000] ug/L		16:56:04
1	Sn 189.927†	5066.0	5029.2	[1000] ug/L		16:56:24
1	Ti 334.940†	610729.9	609621.4	[1000] ug/L		16:56:04
1	Tl 190.801†	2995.1	3014.9	[1000] ug/L		16:56:24
1	U 409.014†	24570.2	27529.2	[1000] ug/L		16:56:04
1	V 292.402†	121937.6	123113.5	[1000] ug/L		16:56:04
1	Zn 213.857†	97010.0	95955.1	[1000] ug/L		16:56:04
1	SiO2†	151601.1	150466.4	[10695] ug/L		16:57:25
2	Sc Radial	3546.4	3546.4	100 %		16:55:30
2	Y RADIAL	3955.2	3955.2	98.91 %		16:55:10
2	Al 396.153Radial†	10220.5	10306.2	[10000] ug/L		16:55:10
2	Ca 317.933Radial†	4782.7	4738.5	[10000] ug/L		16:55:10
2	Fe 238.204 Radial†	724.8	713.7	[10000] ug/L		16:55:30
2	K 766.490 Radial†	56528.4	53231.5	[10000] ug/L		16:55:10
2	Mg 279.077 IEC†	209.5	206.3	[10000] ug/L		16:55:30
2	Na 589.592 Radial†	32567.7	28452.4	[10000] ug/L		16:55:10
2	Sr 421.552†	135208.0	133401.3	[1000] ug/L		16:55:10
2	Sc 361.383	761162.0	761162.0	101.31 %		16:56:32
2	Y 371.029	588959.7	588959.7	100.08 %		16:56:32
2	Ag 328.068†	197161.4	194287.7	[1000] ug/L		16:56:32
2	As 188.979†	2176.1	2168.6	[1000] ug/L		16:56:52
2	B 249.677†	40861.6	40775.6	[1000] ug/L		16:56:32
2	Ba 233.527†	120082.5	118386.0	[1000] ug/L		16:56:32
2	Be 313.107†	2593138.8	2563990.5	[1000] ug/L		16:56:32
2	Cd 226.502†	76699.2	75903.4	[1000] ug/L		16:56:32
2	Co 228.616†	46333.4	45805.1	[1000] ug/L		16:56:32
2	Cr 267.716†	77938.1	76853.3	[1000] ug/L		16:56:32
2	Cu 324.752†	335882.0	325090.1	[1000] ug/L		16:56:32
2	Mn 257.610†	860777.1	849184.3	[1000] ug/L		16:56:32
2	Mo 202.031†	12403.7	12233.5	[1000] ug/L		16:56:52
2	Ni 231.604†	35826.5	35284.5	[1000] ug/L		16:56:32

2	P 214.914†	8522.4	8201.2	[5000]	ug/L	16:56:52
2	Pb 220.353†	7330.0	7214.4	[1000]	ug/L	16:56:52
2	S 181.975 Axial†	1450.8	1394.7	[2000]	ug/L	16:56:52
2	Sb 206.836†	2805.9	2733.3	[1000]	ug/L	16:56:52
2	Se 196.026†	1454.0	1464.5	[1000]	ug/L	16:56:52
2	Si 251.611†	152685.1	150215.8	[5000]	ug/L	16:56:32
2	Sn 189.927†	5041.5	4961.0	[1000]	ug/L	16:56:52
2	Ti 334.940†	615834.2	609357.4	[1000]	ug/L	16:56:32
2	Tl 190.801†	2990.1	2984.1	[1000]	ug/L	16:56:52
2	U 409.014†	24913.7	27654.9	[1000]	ug/L	16:56:32
2	V 292.402†	122887.6	122992.5	[1000]	ug/L	16:56:32
2	Zn 213.857†	97663.9	95758.2	[1000]	ug/L	16:56:32
2	SiO2†	153656.5	151179.0	[10695]	ug/L	16:57:31
3	Sc Radial	3527.9	3527.9	99.7	%	16:55:55
3	Y RADIAL	3984.8	3984.8	99.65	%	16:55:35
3	Al 396.153Radial†	10347.8	10487.4	[10000]	ug/L	16:55:35
3	Ca 317.933Radial†	4813.5	4794.5	[10000]	ug/L	16:55:35
3	Fe 238.204 Radial†	721.7	714.4	[10000]	ug/L	16:55:55
3	K 766.490 Radial†	57089.9	54091.0	[10000]	ug/L	16:55:35
3	Mg 279.077 IEC†	209.9	207.8	[10000]	ug/L	16:55:55
3	Na 589.592 Radial†	32855.4	28911.6	[10000]	ug/L	16:55:35
3	Sr 421.552†	136318.1	135223.4	[1000]	ug/L	16:55:35
3	Sc 361.383	755497.3	755497.3	100.55	%	16:57:00
3	Y 371.029	584810.5	584810.5	99.379	%	16:57:00
3	Ag 328.068†	196119.8	194711.0	[1000]	ug/L	16:57:00
3	As 188.979†	2167.1	2175.8	[1000]	ug/L	16:57:20
3	B 249.677†	40673.5	40891.0	[1000]	ug/L	16:57:00
3	Ba 233.527†	119294.9	118491.5	[1000]	ug/L	16:57:00
3	Be 313.107†	2581275.3	2571384.4	[1000]	ug/L	16:57:00
3	Cd 226.502†	76631.8	76404.0	[1000]	ug/L	16:57:00
3	Co 228.616†	46159.7	45975.2	[1000]	ug/L	16:57:00
3	Cr 267.716†	77806.8	77299.6	[1000]	ug/L	16:57:00
3	Cu 324.752†	333093.0	324802.4	[1000]	ug/L	16:57:00
3	Mn 257.610†	857454.6	852250.8	[1000]	ug/L	16:57:00
3	Mo 202.031†	12401.5	12323.1	[1000]	ug/L	16:57:20
3	Ni 231.604†	35752.4	35476.0	[1000]	ug/L	16:57:00
3	P 214.914†	8517.4	8259.3	[5000]	ug/L	16:57:20
3	Pb 220.353†	7327.3	7266.0	[1000]	ug/L	16:57:20
3	S 181.975 Axial†	1448.7	1403.3	[2000]	ug/L	16:57:20
3	Sb 206.836†	2812.1	2760.2	[1000]	ug/L	16:57:20
3	Se 196.026†	1469.5	1490.7	[1000]	ug/L	16:57:20
3	Si 251.611†	151820.3	150485.8	[5000]	ug/L	16:57:00
3	Sn 189.927†	5065.0	5021.8	[1000]	ug/L	16:57:20
3	Ti 334.940†	612392.5	610492.5	[1000]	ug/L	16:57:00
3	Tl 190.801†	2978.8	2995.0	[1000]	ug/L	16:57:20
3	U 409.014†	24772.7	27699.1	[1000]	ug/L	16:57:00
3	V 292.402†	122530.7	123547.1	[1000]	ug/L	16:57:00
3	Zn 213.857†	97256.2	96075.6	[1000]	ug/L	16:57:00
3	SiO2†	153383.2	152044.4	[10695]	ug/L	16:57:36

## Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	757061.6	3584.15	0.47%	100.76 %
Sc Radial	3545.1	16.58	0.47%	100 %
Y 371.029	585688.3	2932.74	0.50%	99.528 %
Y RADIAL	3968.4	15.08	0.38%	99.24 %
Ag 328.068†	194437.0	237.66	0.12%	[1000] ug/L
Al 396.153Radial†	10372.0	100.23	0.97%	[10000] ug/L
As 188.979†	2178.6	11.66	0.54%	[1000] ug/L
B 249.677†	40716.5	210.29	0.52%	[1000] ug/L
Ba 233.527†	118500.0	118.48	0.10%	[1000] ug/L
Be 313.107†	2566225.6	4480.83	0.17%	[1000] ug/L
Ca 317.933Radial†	4753.4	36.09	0.76%	[10000] ug/L
Cd 226.502†	76214.7	271.71	0.36%	[1000] ug/L
Co 228.616†	45955.5	141.56	0.31%	[1000] ug/L
Cr 267.716†	77132.9	243.61	0.32%	[1000] ug/L
Cu 324.752†	324565.6	674.77	0.21%	[1000] ug/L
Fe 238.204 Radial†	714.5	0.97	0.14%	[10000] ug/L
K 766.490 Radial†	53545.7	474.05	0.89%	[10000] ug/L

Mg 279.077 IEC†	206.7	0.92	0.44%	[10000]	ug/L
Mn 257.610†	851044.6	1634.56	0.19%	[1000]	ug/L
Mo 202.031†	12315.7	78.77	0.64%	[1000]	ug/L
Na 589.592 Radial†	28691.0	230.14	0.80%	[10000]	ug/L
Ni 231.604†	35418.6	116.53	0.33%	[1000]	ug/L
P 214.914†	8250.1	45.10	0.55%	[5000]	ug/L
Pb 220.353†	7258.1	40.35	0.56%	[1000]	ug/L
S 181.975 Axial†	1401.9	6.61	0.47%	[2000]	ug/L
Sb 206.836†	2755.9	20.74	0.75%	[1000]	ug/L
Se 196.026†	1483.2	16.26	1.10%	[1000]	ug/L
Si 251.611†	150306.6	155.21	0.10%	[5000]	ug/L
Sn 189.927†	5004.0	37.40	0.75%	[1000]	ug/L
Sr 421.552†	133979.7	1078.00	0.80%	[1000]	ug/L
Ti 334.940†	609823.8	593.97	0.10%	[1000]	ug/L
Tl 190.801†	2998.0	15.66	0.52%	[1000]	ug/L
U 409.014†	27627.7	88.18	0.32%	[1000]	ug/L
V 292.402†	123217.7	291.62	0.24%	[1000]	ug/L
Zn 213.857†	95929.6	160.20	0.17%	[1000]	ug/L
SiO2†	151229.9	790.27	0.52%	[10695]	ug/L

Sequence No.: 5

Sample ID: S10

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 5

Date Collected: 2/19/2010 16:59:46

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	3582.9	3582.9	101 %		17:02:00
1	Y RADIAL	3930.6	3930.6	98.30 %		17:02:00
1	Al 396.153Radial†	51447.7	50900.4	[50000] ug/L		17:01:40
1	Ca 317.933Radial†	22954.1	22628.1	[50000] ug/L		17:01:40
1	Fe 238.204 Radial†	1389.0	1362.0	[20000] ug/L		17:02:00
1	Mg 279.077 IEC†	996.7	981.2	[50000] ug/L		17:02:00
1	Na 589.592 Radial†	62721.2	57888.6	[20000] ug/L		17:01:40
1	Sc 361.383	736582.9	736582.9	98.038 %		17:02:57
1	Y 371.029	569119.1	569119.1	96.713 %		17:02:57
2	Sc Radial	3542.4	3542.4	100 %		17:02:25
2	Y RADIAL	3891.7	3891.7	97.33 %		17:02:25
2	Al 396.153Radial†	51756.1	51787.7	[50000] ug/L		17:02:05
2	Ca 317.933Radial†	23135.6	23067.9	[50000] ug/L		17:02:05
2	Fe 238.204 Radial†	1389.1	1377.7	[20000] ug/L		17:02:25
2	Mg 279.077 IEC†	988.4	984.2	[50000] ug/L		17:02:25
2	Na 589.592 Radial†	63217.9	59090.8	[20000] ug/L		17:02:05
2	Sc 361.383	745382.0	745382.0	99.209 %		17:03:02
2	Y 371.029	575050.9	575050.9	97.721 %		17:03:02
3	Sc Radial	3576.2	3576.2	101 %		17:02:50
3	Y RADIAL	3923.1	3923.1	98.11 %		17:02:50
3	Al 396.153Radial†	52038.0	51578.0	[50000] ug/L		17:02:30
3	Ca 317.933Radial†	23155.7	22869.4	[50000] ug/L		17:02:30
3	Fe 238.204 Radial†	1397.5	1373.0	[20000] ug/L		17:02:50
3	Mg 279.077 IEC†	993.8	980.2	[50000] ug/L		17:02:50
3	Na 589.592 Radial†	63246.5	58522.4	[20000] ug/L		17:02:30
3	Sc 361.383	743877.5	743877.5	99.008 %		17:03:08
3	Y 371.029	574153.7	574153.7	97.568 %		17:03:08

## Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc. Units	Calib
Sc 361.383	741947.4	4706.32	0.63%	98.752 %	
Sc Radial	3567.2	21.68	0.61%	101 %	
Y 371.029	572774.6	3197.34	0.56%	97.334 %	
Y RADIAL	3915.1	20.60	0.53%	97.91 %	
Al 396.153Radial†	51422.0	463.73	0.90%	[50000] ug/L	
Ca 317.933Radial†	22855.1	220.23	0.96%	[50000] ug/L	
Fe 238.204 Radial†	1370.9	8.08	0.59%	[20000] ug/L	
Mg 279.077 IEC†	981.9	2.04	0.21%	[50000] ug/L	
Na 589.592 Radial†	58500.6	601.40	1.03%	[20000] ug/L	

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	193.0	0.00000	0.999892	
Al 396.153Radial	3	Lin Thru 0	0.0	1.029	0.00000	0.999997	
As 188.979	3	Lin Thru 0	0.0	2.158	0.00000	0.999828	
B 249.677	3	Lin Thru 0	0.0	40.28	0.00000	0.999771	
Ba 233.527	3	Lin Thru 0	0.0	117.5	0.00000	0.999854	
Be 313.107	3	Lin Thru 0	0.0	2549	0.00000	0.999907	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.4578	0.00000	0.999971	
Cd 226.502	3	Lin Thru 0	0.0	75.64	0.00000	0.999889	
Co 228.616	3	Lin Thru 0	0.0	45.64	0.00000	0.999906	
Cr 267.716	3	Lin Thru 0	0.0	76.51	0.00000	0.999873	
Cu 324.752	3	Lin Thru 0	0.0	321.0	0.00000	0.999762	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0691	0.00000	0.999858	
K 766.490 Radial	3	Lin Thru 0	0.0	5.322	0.00000	0.999919	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0197	0.00000	0.999949
Mn 257.610	3	Lin Thru 0	0.0	845.1	0.00000	0.999902
Mo 202.031	3	Lin Thru 0	0.0	12.22	0.00000	0.999884
Na 589.592 Radia	2	Lin Thru 0	0.0	2.914	0.00000	0.999971
Ni 231.604	3	Lin Thru 0	0.0	35.15	0.00000	0.999886
P 214.914	3	Lin Thru 0	0.0	1.637	0.00000	0.999870
Pb 220.353	3	Lin Thru 0	0.0	7.200	0.00000	0.999873
S 181.975 Axial	3	Lin Thru 0	0.0	0.6953	0.00000	0.999872
Sb 206.836	3	Lin Thru 0	0.0	2.728	0.00000	0.999801
Se 196.026	3	Lin Thru 0	0.0	1.476	0.00000	0.999944
Si 251.611	3	Lin Thru 0	0.0	29.87	0.00000	0.999917
Sn 189.927	3	Lin Thru 0	0.0	4.967	0.00000	0.999893
Sr 421.552	3	Lin Thru 0	0.0	133.4	0.00000	0.999916
Ti 334.940	3	Lin Thru 0	0.0	602.3	0.00000	0.999702
Tl 190.801	3	Lin Thru 0	0.0	2.978	0.00000	0.999915
U 409.014	3	Lin Thru 0	0.0	27.48	0.00000	0.999915
V 292.402	3	Lin Thru 0	0.0	122.1	0.00000	0.999839
Zn 213.857	3	Lin Thru 0	0.0	95.29	0.00000	0.999913
SiO2	3	Lin Thru 0	0.0	14.03	0.00000	0.999879

Sequence No.: 6

Sample ID: ICV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 9

Date Collected: 2/19/2010 17:05:20

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	3603.4	3603.4	102 %		17:07:33
1	Y RADIAL	4036.8	4036.8	101.0 %		17:07:13
1	Al 396.153Radial†	5089.2	5108.5	4940.6 ug/L	4940.6 ppb	17:07:13
1	Ca 317.933Radial†	2375.6	2300.5	5025.5 ug/L	5025.5 ppb	17:07:33
1	Fe 238.204 Radial†	369.5	353.5	5129.7 ug/L	5129.7 ppb	17:07:33
1	K 766.490 Radial†	16111.7	12670.1	2377.6 ug/L	2377.6 ppb	17:07:13
1	Mg 279.077 IEC†	111.2	106.5	5413.4 ug/L	5413.4 ppb	17:07:33
1	Na 589.592 Radial†	9480.3	5277.9	1811.3 ug/L	1811.3 ppb	17:07:13
1	Sr 421.552†	70547.3	67803.8	508.39 ug/L	508.39 ppb	17:07:13
1	Sc 361.383	758721.1	758721.1	100.98 %		17:08:31
1	Y 371.029	589790.1	589790.1	100.23 %		17:08:31
1	Ag 328.068†	49549.0	48739.8	255.68 ug/L	255.68 ppb	17:08:31
1	As 188.979†	1026.4	1037.0	484.66 ug/L	484.66 ppb	17:08:51
1	B 249.677†	20369.1	20612.6	509.47 ug/L	509.47 ppb	17:08:31
1	Ba 233.527†	60288.0	59555.4	508.20 ug/L	508.20 ppb	17:08:31
1	Be 313.107†	657694.5	655641.2	258.38 ug/L	258.38 ppb	17:08:31
1	Cd 226.502†	37581.2	37410.1	494.46 ug/L	494.46 ppb	17:08:51
1	Co 228.616†	23400.9	23243.2	509.49 ug/L	509.49 ppb	17:08:51
1	Cr 267.716†	37566.1	37122.2	486.18 ug/L	486.18 ppb	17:08:31
1	Cu 324.752†	169559.8	161455.3	502.98 ug/L	502.98 ppb	17:08:31
1	Mn 257.610†	433550.5	428854.3	507.76 ug/L	507.76 ppb	17:08:31
1	Mo 202.031†	6628.2	6553.7	536.72 ug/L	536.72 ppb	17:08:51
1	Ni 231.604†	17849.4	17596.3	500.32 ug/L	500.32 ppb	17:08:51
1	P 214.914†	4406.8	4152.8	2439.7 ug/L	2439.7 ppb	17:08:51
1	Pb 220.353†	3663.9	3607.3	503.25 ug/L	503.25 ppb	17:08:51
1	S 181.975 Axial†	1793.0	1738.2	2498.9 ug/L	2498.9 ppb	17:08:51
1	Sb 206.836†	1420.2	1370.0	521.49 ug/L	521.49 ppb	17:08:51
1	Se 196.026†	3838.8	3830.7	2615.4 ug/L	2615.4 ppb	17:08:51
1	Si 251.611†	146387.8	144464.8	4830.6 ug/L	4830.6 ppb	17:08:31
1	Sn 189.927†	2704.2	2662.5	536.63 ug/L	536.63 ppb	17:08:51
1	Ti 334.940†	297313.3	295896.0	491.08 ug/L	491.08 ppb	17:08:31
1	Tl 190.801†	1576.7	1593.9	538.46 ug/L	538.46 ppb	17:08:51
1	U 409.014†	10697.5	13656.4	495.37 ug/L	495.37 ppb	17:08:31
1	V 292.402†	60241.6	61347.3	509.62 ug/L	509.62 ppb	17:08:31
1	Zn 213.857†	49485.2	48359.2	502.86 ug/L	502.86 ppb	17:08:31
1	SiO2†	145859.2	143945.6	10246 ug/L	10246 ppb	17:09:48
2	Sc Radial	3609.9	3609.9	102 %		17:07:58
2	Y RADIAL	4019.6	4019.6	100.5 %		17:07:38
2	Al 396.153Radial†	5151.7	5160.6	4991.5 ug/L	4991.5 ppb	17:07:38
2	Ca 317.933Radial†	2387.0	2307.4	5040.6 ug/L	5040.6 ppb	17:07:58
2	Fe 238.204 Radial†	367.3	350.7	5088.8 ug/L	5088.8 ppb	17:07:58
2	K 766.490 Radial†	16303.2	12828.9	2407.4 ug/L	2407.4 ppb	17:07:38
2	Mg 279.077 IEC†	107.6	102.8	5222.0 ug/L	5222.0 ppb	17:07:58
2	Na 589.592 Radial†	9518.5	5298.4	1818.4 ug/L	1818.4 ppb	17:07:38
2	Sr 421.552†	70497.1	67628.2	507.08 ug/L	507.08 ppb	17:07:38
2	Sc 361.383	761251.7	761251.7	101.32 %		17:08:57
2	Y 371.029	591889.2	591889.2	100.58 %		17:08:57
2	Ag 328.068†	49823.2	48847.3	256.23 ug/L	256.23 ppb	17:08:57
2	As 188.979†	1030.6	1037.8	485.04 ug/L	485.04 ppb	17:09:17
2	B 249.677†	20600.5	20774.0	513.50 ug/L	513.50 ppb	17:08:57
2	Ba 233.527†	60490.8	59557.2	508.21 ug/L	508.21 ppb	17:08:57
2	Be 313.107†	662824.2	658539.0	259.52 ug/L	259.52 ppb	17:08:57
2	Cd 226.502†	37371.5	37079.4	490.09 ug/L	490.09 ppb	17:09:17
2	Co 228.616†	23284.4	23051.2	505.27 ug/L	505.27 ppb	17:09:17
2	Cr 267.716†	37793.1	37222.6	487.49 ug/L	487.49 ppb	17:08:57
2	Cu 324.752†	170553.6	161878.0	504.29 ug/L	504.29 ppb	17:08:57
2	Mn 257.610†	435718.6	429567.0	508.61 ug/L	508.61 ppb	17:08:57
2	Mo 202.031†	6601.7	6505.6	532.78 ug/L	532.78 ppb	17:09:17
2	Ni 231.604†	17748.4	17437.9	495.82 ug/L	495.82 ppb	17:09:17

2	P 214.914†	4380.3	4112.1	2414.6 ug/L	2414.6 ppb	17:09:17
2	Pb 220.353†	3684.9	3616.0	504.46 ug/L	504.46 ppb	17:09:17
2	S 181.975 Axial†	1780.8	1720.2	2473.0 ug/L	2473.0 ppb	17:09:17
2	Sb 206.836†	1402.4	1347.8	513.20 ug/L	513.20 ppb	17:09:17
2	Se 196.026†	3829.9	3809.3	2600.8 ug/L	2600.8 ppb	17:09:17
2	Si 251.611†	147092.8	144678.7	4837.8 ug/L	4837.8 ppb	17:08:57
2	Sn 189.927†	2692.0	2641.6	532.44 ug/L	532.44 ppb	17:09:17
2	Ti 334.940†	299336.7	296914.3	492.79 ug/L	492.79 ppb	17:08:57
2	Tl 190.801†	1556.1	1568.4	529.93 ug/L	529.93 ppb	17:09:17
2	U 409.014†	10718.3	13641.7	494.84 ug/L	494.84 ppb	17:08:57
2	V 292.402†	60635.2	61537.4	511.12 ug/L	511.12 ppb	17:08:57
2	Zn 213.857†	49834.6	48541.1	504.80 ug/L	504.80 ppb	17:08:57
2	SiO2†	144363.7	141989.5	10107 ug/L	10107 ppb	17:09:53
3	Sc Radial	3611.4	3611.4	102 %		17:08:23
3	Y RADIAL	3995.3	3995.3	99.92 %		17:08:03
3	Al 396.153Radial†	5102.9	5110.7	4942.6 ug/L	4942.6 ppb	17:08:03
3	Ca 317.933Radial†	2379.8	2299.4	5023.2 ug/L	5023.2 ppb	17:08:23
3	Fe 238.204 Radial†	367.9	351.1	5094.8 ug/L	5094.8 ppb	17:08:23
3	K 766.490 Radial†	16235.9	12756.4	2393.8 ug/L	2393.8 ppb	17:08:03
3	Mg 279.077 IEC†	107.2	102.3	5200.5 ug/L	5200.5 ppb	17:08:23
3	Na 589.592 Radial†	9485.5	5262.3	1805.9 ug/L	1805.9 ppb	17:08:03
3	Sr 421.552†	69888.7	67003.7	502.39 ug/L	502.39 ppb	17:08:03
3	Sc 361.383	754848.3	754848.3	100.47 %		17:09:23
3	Y 371.029	587026.2	587026.2	99.756 %		17:09:23
3	Ag 328.068†	49345.3	48788.7	255.92 ug/L	255.92 ppb	17:09:23
3	As 188.979†	1025.7	1041.6	486.75 ug/L	486.75 ppb	17:09:43
3	B 249.677†	20427.0	20773.6	513.47 ug/L	513.47 ppb	17:09:23
3	Ba 233.527†	60162.4	59736.7	509.74 ug/L	509.74 ppb	17:09:23
3	Be 313.107†	655978.5	657274.7	259.02 ug/L	259.02 ppb	17:09:23
3	Cd 226.502†	37587.1	37606.9	497.07 ug/L	497.07 ppb	17:09:43
3	Co 228.616†	23419.0	23380.1	512.50 ug/L	512.50 ppb	17:09:43
3	Cr 267.716†	37509.4	37256.6	487.93 ug/L	487.93 ppb	17:09:23
3	Cu 324.752†	169174.3	161933.1	504.46 ug/L	504.46 ppb	17:09:23
3	Mn 257.610†	432966.1	430475.4	509.69 ug/L	509.69 ppb	17:09:23
3	Mo 202.031†	6648.2	6607.2	541.09 ug/L	541.09 ppb	17:09:43
3	Ni 231.604†	17834.6	17672.3	502.48 ug/L	502.48 ppb	17:09:43
3	P 214.914†	4394.7	4163.1	2445.7 ug/L	2445.7 ppb	17:09:43
3	Pb 220.353†	3675.9	3637.9	507.52 ug/L	507.52 ppb	17:09:43
3	S 181.975 Axial†	1785.0	1739.3	2500.6 ug/L	2500.6 ppb	17:09:43
3	Sb 206.836†	1406.4	1363.5	519.24 ug/L	519.24 ppb	17:09:43
3	Se 196.026†	3839.2	3850.6	2628.8 ug/L	2628.8 ppb	17:09:43
3	Si 251.611†	146082.0	144904.1	4845.3 ug/L	4845.3 ppb	17:09:23
3	Sn 189.927†	2699.2	2671.2	538.40 ug/L	538.40 ppb	17:09:43
3	Ti 334.940†	296643.8	296740.1	492.49 ug/L	492.49 ppb	17:09:23
3	Tl 190.801†	1567.1	1592.3	537.95 ug/L	537.95 ppb	17:09:43
3	U 409.014†	10743.7	13756.7	499.02 ug/L	499.02 ppb	17:09:23
3	V 292.402†	60075.3	61487.8	510.84 ug/L	510.84 ppb	17:09:23
3	Zn 213.857†	49443.5	48569.1	505.05 ug/L	505.05 ppb	17:09:23
3	SiO2†	148122.6	146939.6	10459 ug/L	10459 ppb	17:09:58

## Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	758273.7	100.92 %	0.429			0.43%
Sc Radial	3608.2	102 %	0.1			0.12%
Y 371.029	589568.5	100.19 %	0.414			0.41%
Y RADIAL	4017.2	100.5 %	0.52			0.52%
Ag 328.068†	48792.0	255.94 ug/L	0.276	255.94 ppb	0.276	0.11%
QC value within limits for Ag 328.068 Recovery = 102.38%						
Al 396.153Radial†	5126.6	4958.2 ug/L	28.84	4958.2 ppb	28.84	0.58%
QC value within limits for Al 396.153Radial Recovery = 99.16%						
As 188.979†	1038.8	485.48 ug/L	1.115	485.48 ppb	1.115	0.23%
QC value within limits for As 188.979 Recovery = 97.10%						
B 249.677†	20720.1	512.15 ug/L	2.316	512.15 ppb	2.316	0.45%
QC value within limits for B 249.677 Recovery = 102.43%						
Ba 233.527†	59616.4	508.72 ug/L	0.887	508.72 ppb	0.887	0.17%
QC value within limits for Ba 233.527 Recovery = 101.74%						
Be 313.107†	657151.6	258.97 ug/L	0.572	258.97 ppb	0.572	0.22%
QC value within limits for Be 313.107 Recovery = 103.59%						
Ca 317.933Radial†	2302.5	5029.7 ug/L	9.46	5029.7 ppb	9.46	0.19%

QC value within limits for Ca 317.933 Radial Recovery = 100.59%							
Cd 226.502†	37365.5	493.87 ug/L	3.526	493.87 ppb	3.526	0.71%	
QC value within limits for Cd 226.502 Recovery = 98.77%							
Co 228.616†	23224.8	509.09 ug/L	3.631	509.09 ppb	3.631	0.71%	
QC value within limits for Co 228.616 Recovery = 101.82%							
Cr 267.716†	37200.5	487.20 ug/L	0.912	487.20 ppb	0.912	0.19%	
QC value within limits for Cr 267.716 Recovery = 97.44%							
Cu 324.752†	161755.4	503.91 ug/L	0.813	503.91 ppb	0.813	0.16%	
QC value within limits for Cu 324.752 Recovery = 100.78%							
Fe 238.204 Radial†	351.8	5104.4 ug/L	22.07	5104.4 ppb	22.07	0.43%	
QC value within limits for Fe 238.204 Radial Recovery = 102.09%							
K 766.490 Radial†	12751.8	2392.9 ug/L	14.93	2392.9 ppb	14.93	0.62%	
QC value within limits for K 766.490 Radial Recovery = 95.72%							
Mg 279.077 IEC†	103.9	5278.6 ug/L	117.19	5278.6 ppb	117.19	2.22%	
QC value within limits for Mg 279.077 IEC Recovery = 105.57%							
Mn 257.610†	429632.2	508.69 ug/L	0.964	508.69 ppb	0.964	0.19%	
QC value within limits for Mn 257.610 Recovery = 101.74%							
Mo 202.031†	6555.5	536.87 ug/L	4.157	536.87 ppb	4.157	0.77%	
QC value within limits for Mo 202.031 Recovery = 107.37%							
Na 589.592 Radial†	5279.5	1811.9 ug/L	6.23	1811.9 ppb	6.23	0.34%	
QC value less than the lower limit for Na 589.592 Radial Recovery = 72.48%							
Ni 231.604†	17568.8	499.54 ug/L	3.401	499.54 ppb	3.401	0.68%	
QC value within limits for Ni 231.604 Recovery = 99.91%							
P 214.914†	4142.6	2433.3 ug/L	16.52	2433.3 ppb	16.52	0.68%	
QC value within limits for P 214.914 Recovery = 97.33%							
Pb 220.353†	3620.4	505.08 ug/L	2.196	505.08 ppb	2.196	0.43%	
QC value within limits for Pb 220.353 Recovery = 101.02%							
S 181.975 Axial†	1732.6	2490.8 ug/L	15.47	2490.8 ppb	15.47	0.62%	
QC value within limits for S 181.975 Axial Recovery = 99.63%							
Sb 206.836†	1360.4	517.98 ug/L	4.286	517.98 ppb	4.286	0.83%	
QC value within limits for Sb 206.836 Recovery = 103.60%							
Se 196.026†	3830.2	2615.0 ug/L	14.02	2615.0 ppb	14.02	0.54%	
QC value within limits for Se 196.026 Recovery = 104.60%							
Si 251.611†	144682.5	4837.9 ug/L	7.33	4837.9 ppb	7.33	0.15%	
QC value within limits for Si 251.611 Recovery = 96.76%							
Sn 189.927†	2658.4	535.82 ug/L	3.061	535.82 ppb	3.061	0.57%	
QC value within limits for Sn 189.927 Recovery = 107.16%							
Sr 421.552†	67478.6	505.95 ug/L	3.153	505.95 ppb	3.153	0.62%	
QC value within limits for Sr 421.552 Recovery = 101.19%							
Ti 334.940†	296516.8	492.12 ug/L	0.914	492.12 ppb	0.914	0.19%	
QC value within limits for Ti 334.940 Recovery = 98.42%							
Tl 190.801†	1584.9	535.45 ug/L	4.785	535.45 ppb	4.785	0.89%	
QC value within limits for Tl 190.801 Recovery = 107.09%							
U 409.014†	13684.9	496.41 ug/L	2.277	496.41 ppb	2.277	0.46%	
QC value within limits for U 409.014 Recovery = 99.28%							
V 292.402†	61457.5	510.53 ug/L	0.798	510.53 ppb	0.798	0.16%	
QC value within limits for V 292.402 Recovery = 102.11%							
Zn 213.857†	48489.8	504.24 ug/L	1.200	504.24 ppb	1.200	0.24%	
QC value within limits for Zn 213.857 Recovery = 100.85%							
SiO2†	144291.5	10271 ug/L	177.6	10271 ppb	177.6	1.73%	
QC value within limits for SiO2 Recovery = 96.03%							
QC Failed. Continue with analysis.							



Sequence No.: 7

Sample ID: ICB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 2/19/2010 17:12:09

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	3527.4	3527.4	99.7	%			17:14:22
1	Y RADIAL	4012.0	4012.0	100.3	%			17:14:02
1	Al 396.153Radial†	-119.3	-6.4	-6.2288	ug/L	-6.2288	ppb	17:14:22
1	Ca 317.933Radial†	63.7	32.7	71.382	ug/L	71.382	ppb	17:14:22
1	Fe 238.204 Radial†	7.3	-1.8	-26.094	ug/L	-26.094	ppb	17:14:22
1	K 766.490 Radial†	2934.8	-201.5	-37.655	ug/L	-37.655	ppb	17:14:02
1	Mg 279.077 IEC†	5.0	2.4	120.82	ug/L	120.82	ppb	17:14:22
1	Na 589.592 Radial†	2223.5	-1797.9	-617.02	ug/L	-617.02	ppb	17:14:02
1	Sr 421.552†	926.1	-512.9	-3.8464	ug/L	-3.8464	ppb	17:14:02
1	Sc 361.383	758528.2	758528.2	100.96	%			17:15:19
1	Y 371.029	595620.6	595620.6	101.22	%			17:15:19
1	Ag 328.068†	306.6	-22.7	-0.1246	ug/L	-0.1246	ppb	17:15:19
1	As 188.979†	-21.8	-0.9	-0.4340	ug/L	-0.4340	ppb	17:15:39
1	B 249.677†	-263.3	181.2	4.5017	ug/L	4.5017	ppb	17:15:39
1	Ba 233.527†	501.4	351.6	2.9925	ug/L	2.9925	ppb	17:15:39
1	Be 313.107†	-4654.3	-254.3	-0.0996	ug/L	-0.0996	ppb	17:15:19
1	Cd 226.502†	-193.6	3.4	0.0472	ug/L	0.0472	ppb	17:15:39
1	Co 228.616†	-63.9	7.1	0.1580	ug/L	0.1580	ppb	17:15:39
1	Cr 267.716†	90.3	11.6	0.1496	ug/L	0.1496	ppb	17:15:39
1	Cu 324.752†	6243.1	-268.4	-0.8369	ug/L	-0.8369	ppb	17:15:19
1	Mn 257.610†	441.2	-34.3	-0.0480	ug/L	-0.0480	ppb	17:15:39
1	Mo 202.031†	19.7	9.5	0.7759	ug/L	0.7759	ppb	17:15:39
1	Ni 231.604†	89.9	9.9	0.2806	ug/L	0.2806	ppb	17:15:39
1	P 214.914†	212.5	-0.7	-0.2104	ug/L	-0.2104	ppb	17:15:39
1	Pb 220.353†	-32.2	-52.7	-7.3186	ug/L	-7.3186	ppb	17:15:39
1	S 181.975 Axial†	35.2	-2.6	-3.6854	ug/L	-3.6854	ppb	17:15:39
1	Sb 206.836†	33.0	-3.6	-1.3100	ug/L	-1.3100	ppb	17:15:39
1	Se 196.026†	-26.4	3.1	2.0130	ug/L	2.0130	ppb	17:15:39
1	Si 251.611†	522.4	20.9	0.6908	ug/L	0.6908	ppb	17:15:39
1	Sn 189.927†	16.7	1.2	0.2538	ug/L	0.2538	ppb	17:15:39
1	Ti 334.940†	-1454.6	39.1	0.0651	ug/L	0.0651	ppb	17:15:19
1	Tl 190.801†	-33.3	-0.4	-0.1411	ug/L	-0.1411	ppb	17:15:39
1	U 409.014†	-3120.5	-27.8	-1.0098	ug/L	-1.0098	ppb	17:15:19
1	V 292.402†	-1677.7	30.9	0.2680	ug/L	0.2680	ppb	17:15:19
1	Zn 213.857†	650.3	0.4	0.0072	ug/L	0.0072	ppb	17:15:39
1	SiO2†	549.7	52.3	3.7061	ug/L	3.7061	ppb	17:16:35
2	Sc Radial	3553.2	3553.2	100	%			17:14:47
2	Y RADIAL	4012.0	4012.0	100.3	%			17:14:27
2	Al 396.153Radial†	-112.0	1.8	1.6981	ug/L	1.6981	ppb	17:14:47
2	Ca 317.933Radial†	27.5	-3.9	-8.4964	ug/L	-8.4964	ppb	17:14:47
2	Fe 238.204 Radial†	9.5	0.3	3.7488	ug/L	3.7488	ppb	17:14:47
2	K 766.490 Radial†	3077.6	-80.7	-14.953	ug/L	-14.953	ppb	17:14:27
2	Mg 279.077 IEC†	3.6	0.9	46.595	ug/L	46.595	ppb	17:14:47
2	Na 589.592 Radial†	2513.3	-1525.6	-523.58	ug/L	-523.58	ppb	17:14:27
2	Sr 421.552†	1763.2	313.7	2.3523	ug/L	2.3523	ppb	17:14:27
2	Sc 361.383	746217.7	746217.7	99.320	%			17:15:44
2	Y 371.029	585911.8	585911.8	99.566	%			17:15:44
2	Ag 328.068†	211.5	-113.4	-0.5850	ug/L	-0.5850	ppb	17:15:44
2	As 188.979†	-22.7	-2.2	-1.0111	ug/L	-1.0111	ppb	17:16:04
2	B 249.677†	-270.4	169.7	4.2125	ug/L	4.2125	ppb	17:16:04
2	Ba 233.527†	309.2	166.3	1.4165	ug/L	1.4165	ppb	17:16:04
2	Be 313.107†	-4569.1	-244.6	-0.0959	ug/L	-0.0959	ppb	17:15:44
2	Cd 226.502†	-179.7	14.2	0.1884	ug/L	0.1884	ppb	17:16:04
2	Co 228.616†	-65.8	4.1	0.0903	ug/L	0.0903	ppb	17:16:04
2	Cr 267.716†	90.5	13.3	0.1748	ug/L	0.1748	ppb	17:16:04
2	Cu 324.752†	6145.5	-264.6	-0.8248	ug/L	-0.8248	ppb	17:15:44
2	Mn 257.610†	495.6	27.7	0.0312	ug/L	0.0312	ppb	17:16:04
2	Mo 202.031†	13.2	3.4	0.2746	ug/L	0.2746	ppb	17:16:04
2	Ni 231.604†	96.2	17.7	0.5044	ug/L	0.5044	ppb	17:16:04

2	P 214.914†	205.1	-4.6	-2.6526 ug/L	-2.6526 ppb	17:16:04
2	Pb 220.353†	0.3	-20.5	-2.8497 ug/L	-2.8497 ppb	17:16:04
2	S 181.975 Axial†	39.4	2.3	3.3169 ug/L	3.3169 ppb	17:16:04
2	Sb 206.836†	37.6	1.5	0.5508 ug/L	0.5508 ppb	17:16:04
2	Se 196.026†	-14.7	14.5	9.8571 ug/L	9.8571 ppb	17:16:04
2	Si 251.611†	520.7	27.7	0.9249 ug/L	0.9249 ppb	17:16:04
2	Sn 189.927†	12.6	-2.6	-0.5283 ug/L	-0.5283 ppb	17:16:04
2	Ti 334.940†	-1452.1	18.0	0.0244 ug/L	0.0244 ppb	17:15:44
2	Tl 190.801†	-31.0	1.4	0.4649 ug/L	0.4649 ppb	17:16:04
2	U 409.014†	-3015.6	26.9	0.9769 ug/L	0.9769 ppb	17:15:44
2	V 292.402†	-1614.4	67.3	0.5569 ug/L	0.5569 ppb	17:15:44
2	Zn 213.857†	663.8	24.6	0.2554 ug/L	0.2554 ppb	17:16:04
2	SiO2†	502.9	14.1	1.0007 ug/L	1.0007 ppb	17:16:40
3	Sc Radial	3522.9	3522.9	99.6 %		17:15:12
3	Y RADIAL	3977.2	3977.2	99.46 %		17:14:52
3	Al 396.153Radial†	-113.8	-1.1	-1.0667 ug/L	-1.0667 ppb	17:15:12
3	Ca 317.933Radial†	25.6	-5.6	-12.163 ug/L	-12.163 ppb	17:15:12
3	Fe 238.204 Radial†	6.7	-2.5	-35.720 ug/L	-35.720 ppb	17:15:12
3	K 766.490 Radial†	3063.4	-68.6	-12.632 ug/L	-12.632 ppb	17:14:52
3	Mg 279.077 IEC†	1.0	-1.6	-82.461 ug/L	-82.461 ppb	17:15:12
3	Na 589.592 Radial†	2062.7	-1956.5	-671.44 ug/L	-671.44 ppb	17:14:52
3	Sr 421.552†	117.0	-1323.9	-9.9274 ug/L	-9.9274 ppb	17:14:52
3	Sc 361.383	760577.5	760577.5	101.23 %		17:16:10
3	Y 371.029	597876.8	597876.8	101.60 %		17:16:10
3	Ag 328.068†	272.6	-57.1	-0.3113 ug/L	-0.3113 ppb	17:16:10
3	As 188.979†	-29.4	-8.3	-3.8763 ug/L	-3.8763 ppb	17:16:30
3	B 249.677†	-263.4	181.8	4.5187 ug/L	4.5187 ppb	17:16:30
3	Ba 233.527†	148.8	2.0	0.0154 ug/L	0.0154 ppb	17:16:30
3	Be 313.107†	-4525.5	-114.7	-0.0449 ug/L	-0.0449 ppb	17:16:10
3	Cd 226.502†	-197.5	0.0	0.0047 ug/L	0.0047 ppb	17:16:30
3	Co 228.616†	-66.7	4.4	0.0995 ug/L	0.0995 ppb	17:16:30
3	Cr 267.716†	95.6	16.6	0.2120 ug/L	0.2120 ppb	17:16:30
3	Cu 324.752†	6179.6	-347.7	-1.0878 ug/L	-1.0878 ppb	17:16:10
3	Mn 257.610†	476.7	-0.4	-0.0006 ug/L	-0.0006 ppb	17:16:30
3	Mo 202.031†	21.3	11.1	0.9027 ug/L	0.9027 ppb	17:16:30
3	Ni 231.604†	63.1	-16.8	-0.4770 ug/L	-0.4770 ppb	17:16:30
3	P 214.914†	212.2	-1.5	-0.6878 ug/L	-0.6878 ppb	17:16:30
3	Pb 220.353†	-2.9	-23.7	-3.2875 ug/L	-3.2875 ppb	17:16:30
3	S 181.975 Axial†	38.1	0.3	0.4094 ug/L	0.4094 ppb	17:16:30
3	Sb 206.836†	34.3	-2.5	-0.8733 ug/L	-0.8733 ppb	17:16:30
3	Se 196.026†	-20.7	8.8	5.8425 ug/L	5.8425 ppb	17:16:30
3	Si 251.611†	526.9	23.9	0.7902 ug/L	0.7902 ppb	17:16:30
3	Sn 189.927†	19.6	4.0	0.8095 ug/L	0.8095 ppb	17:16:30
3	Ti 334.940†	-1483.7	14.3	0.0268 ug/L	0.0268 ppb	17:16:10
3	Tl 190.801†	-19.2	13.6	4.5600 ug/L	4.5600 ppb	17:16:30
3	U 409.014†	-2972.6	126.7	4.6150 ug/L	4.6150 ppb	17:16:10
3	V 292.402†	-1736.8	-23.0	-0.1630 ug/L	-0.1630 ppb	17:16:10
3	Zn 213.857†	654.0	2.3	0.0339 ug/L	0.0339 ppb	17:16:30
3	SiO2†	543.7	44.9	3.1726 ug/L	3.1726 ppb	17:16:45

## Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	755107.8	100.50 %	1.034			1.03%
Sc Radial	3534.5	99.9 %	0.46			0.46%
Y 371.029	593136.4	100.79 %	1.080			1.07%
Y RADIAL	4000.4	100.0 %	0.50			0.50%
Ag 328.068†	-64.4	-0.3403 ug/L	0.23158	-0.3403 ppb	0.23158	68.06%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-1.9	-1.8658 ug/L	4.02342	-1.8658 ppb	4.02342	215.64%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-3.8	-1.7738 ug/L	1.84355	-1.7738 ppb	1.84355	103.93%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	177.5	4.4109 ug/L	0.17210	4.4109 ppb	0.17210	3.90%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	173.3	1.4748 ug/L	1.48942	1.4748 ppb	1.48942	100.99%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-204.5	-0.0802 ug/L	0.03055	-0.0802 ppb	0.03055	38.11%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	7.7	16.907 ug/L	47.2121	16.907 ppb	47.2121	279.24%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	5.9	0.0801 ug/L	0.09615	0.0801 ppb	0.09615	120.01%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	5.2	0.1160 ug/L	0.03675	0.1160 ppb	0.03675	31.69%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	13.8	0.1788 ug/L	0.03138	0.1788 ppb	0.03138	17.55%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-293.6	-0.9165 ug/L	0.14846	-0.9165 ppb	0.14846	16.20%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-1.3	-19.355 ug/L	20.5792	-19.355 ppb	20.5792	106.32%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-117.0	-21.746 ug/L	13.8257	-21.746 ppb	13.8257	63.58%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	0.6	28.317 ug/L	102.8648	28.317 ppb	102.8648	363.26%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-2.3	-0.0058 ug/L	0.03988	-0.0058 ppb	0.03988	685.15%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	8.0	0.6511 ug/L	0.33213	0.6511 ppb	0.33213	51.01%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-1760.0	-604.02 ug/L	74.784	-604.02 ppb	74.784	12.38%	
QC value less than the lower limit for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	3.6	0.1027 ug/L	0.51432	0.1027 ppb	0.51432	500.92%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-2.3	-1.1836 ug/L	1.29441	-1.1836 ppb	1.29441	109.36%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-32.3	-4.4853 ug/L	2.46348	-4.4853 ppb	2.46348	54.92%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	0.0	0.0136 ug/L	3.51787	0.0136 ppb	3.51787	>999.9%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-1.5	-0.5442 ug/L	0.97312	-0.5442 ppb	0.97312	178.82%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	8.8	5.9042 ug/L	3.92239	5.9042 ppb	3.92239	66.43%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	24.2	0.8020 ug/L	0.11749	0.8020 ppb	0.11749	14.65%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	0.9	0.1783 ug/L	0.67207	0.1783 ppb	0.67207	376.85%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-507.7	-3.8072 ug/L	6.13998	-3.8072 ppb	6.13998	161.27%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	23.8	0.0387 ug/L	0.02283	0.0387 ppb	0.02283	58.92%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	4.9	1.6279 ug/L	2.55721	1.6279 ppb	2.55721	157.08%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	41.9	1.5274 ug/L	2.85251	1.5274 ppb	2.85251	186.76%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	25.1	0.2206 ug/L	0.36228	0.2206 ppb	0.36228	164.21%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	9.1	0.0988 ug/L	0.13627	0.0988 ppb	0.13627	137.88%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	37.1	2.6265 ug/L	1.43299	2.6265 ppb	1.43299	54.56%	
QC value within limits for SiO2 Recovery = Not calculated							
QC Failed. Continue with analysis.							

Sequence No.: 8

Sample ID: PQL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 11

Date Collected: 2/19/2010 17:18:57

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	3552.6	3552.6	100 %		17:21:11
1	Y RADIAL	4072.2	4072.2	101.8 %		17:20:51
1	Al 396.153Radial†	99.3	212.1	205.76 ug/L	205.76 ppb	17:21:11
1	Ca 317.933Radial†	119.6	87.8	191.76 ug/L	191.76 ppb	17:21:11
1	Fe 238.204 Radial†	18.3	9.1	131.35 ug/L	131.35 ppb	17:21:11
1	K 766.490 Radial†	3881.6	720.3	135.26 ug/L	135.26 ppb	17:20:51
1	Mg 279.077 IEC†	6.7	4.0	203.58 ug/L	203.58 ppb	17:21:11
1	Na 589.592 Radial†	4068.3	22.9	7.8719 ug/L	7.8719 ppb	17:20:51
1	Sr 421.552†	4356.2	2895.5	21.711 ug/L	21.711 ppb	17:20:51
1	Sc 361.383	750747.1	750747.1	99.923 %		17:22:08
1	Y 371.029	589572.6	589572.6	100.19 %		17:22:08
1	Ag 328.068†	1155.2	829.7	4.3098 ug/L	4.3098 ppb	17:22:08
1	As 188.979†	40.9	61.6	28.583 ug/L	28.583 ppb	17:22:28
1	B 249.677†	1580.0	2023.2	50.195 ug/L	50.195 ppb	17:22:08
1	Ba 233.527†	635.0	490.5	4.1889 ug/L	4.1889 ppb	17:22:28
1	Be 313.107†	7947.0	12308.9	4.8409 ug/L	4.8409 ppb	17:22:08
1	Cd 226.502†	186.6	381.9	5.0504 ug/L	5.0504 ppb	17:22:28
1	Co 228.616†	148.8	219.3	4.8161 ug/L	4.8161 ppb	17:22:28
1	Cr 267.716†	434.3	356.8	4.6599 ug/L	4.6599 ppb	17:22:28
1	Cu 324.752†	9285.9	2840.9	8.8259 ug/L	8.8259 ppb	17:22:08
1	Mn 257.610†	9087.9	8623.6	10.209 ug/L	10.209 ppb	17:22:08
1	Mo 202.031†	132.3	122.4	10.031 ug/L	10.031 ppb	17:22:28
1	Ni 231.604†	288.2	209.3	5.9530 ug/L	5.9530 ppb	17:22:28
1	P 214.914†	439.8	229.0	138.18 ug/L	138.18 ppb	17:22:28
1	Pb 220.353†	34.5	13.7	1.9705 ug/L	1.9705 ppb	17:22:28
1	S 181.975 Axial†	107.7	70.4	101.21 ug/L	101.21 ppb	17:22:28
1	Sb 206.836†	58.2	21.9	8.3626 ug/L	8.3626 ppb	17:22:28
1	Se 196.026†	15.0	44.3	30.535 ug/L	30.535 ppb	17:22:28
1	Si 251.611†	3467.9	2974.0	99.458 ug/L	99.458 ppb	17:22:08
1	Sn 189.927†	58.6	43.3	8.7516 ug/L	8.7516 ppb	17:22:28
1	Ti 334.940†	1455.2	2936.3	4.8575 ug/L	4.8575 ppb	17:22:08
1	Tl 190.801†	33.9	66.5	22.380 ug/L	22.380 ppb	17:22:28
1	U 409.014†	-1515.0	1547.0	56.279 ug/L	56.279 ppb	17:22:08
1	V 292.402†	-1126.6	565.2	4.8562 ug/L	4.8562 ppb	17:22:08
1	Zn 213.857†	1638.1	995.6	10.378 ug/L	10.378 ppb	17:22:28
1	SiO2†	3471.6	2982.1	212.29 ug/L	212.29 ppb	17:23:24
2	Sc Radial	3551.9	3551.9	100 %		17:21:36
2	Y RADIAL	4130.6	4130.6	103.3 %		17:21:16
2	Al 396.153Radial†	98.9	211.7	205.31 ug/L	205.31 ppb	17:21:36
2	Ca 317.933Radial†	138.6	106.7	233.16 ug/L	233.16 ppb	17:21:36
2	Fe 238.204 Radial†	15.5	6.3	91.071 ug/L	91.071 ppb	17:21:36
2	K 766.490 Radial†	3875.6	715.1	134.41 ug/L	134.41 ppb	17:21:16
2	Mg 279.077 IEC†	9.9	7.2	366.42 ug/L	366.42 ppb	17:21:36
2	Na 589.592 Radial†	3019.1	-1021.0	-350.41 ug/L	-350.41 ppb	17:21:16
2	Sr 421.552†	1142.3	-303.9	-2.2806 ug/L	-2.2806 ppb	17:21:16
2	Sc 361.383	752373.5	752373.5	100.14 %		17:22:33
2	Y 371.029	591185.9	591185.9	100.46 %		17:22:33
2	Ag 328.068†	1183.1	855.1	4.4335 ug/L	4.4335 ppb	17:22:33
2	As 188.979†	39.8	60.4	28.038 ug/L	28.038 ppb	17:22:53
2	B 249.677†	1508.3	1948.2	48.340 ug/L	48.340 ppb	17:22:33
2	Ba 233.527†	958.5	812.2	6.9262 ug/L	6.9262 ppb	17:22:53
2	Be 313.107†	8099.6	12444.2	4.8941 ug/L	4.8941 ppb	17:22:33
2	Cd 226.502†	181.1	376.0	4.9749 ug/L	4.9749 ppb	17:22:53
2	Co 228.616†	161.1	231.2	5.0795 ug/L	5.0795 ppb	17:22:53
2	Cr 267.716†	431.3	352.9	4.6081 ug/L	4.6081 ppb	17:22:53
2	Cu 324.752†	9268.9	2803.8	8.7117 ug/L	8.7117 ppb	17:22:33
2	Mn 257.610†	9120.7	8636.7	10.214 ug/L	10.214 ppb	17:22:33
2	Mo 202.031†	131.6	121.4	9.9474 ug/L	9.9474 ppb	17:22:53
2	Ni 231.604†	270.5	191.0	5.4306 ug/L	5.4306 ppb	17:22:53

2	P 214.914†	448.5	236.8	143.00 ug/L	143.00 ppb	17:22:53
2	Pb 220.353†	40.9	20.0	2.8455 ug/L	2.8455 ppb	17:22:53
2	S 181.975 Axial†	111.6	74.0	106.45 ug/L	106.45 ppb	17:22:53
2	Sb 206.836†	69.8	33.4	12.590 ug/L	12.590 ppb	17:22:53
2	Se 196.026†	26.6	55.8	38.183 ug/L	38.183 ppb	17:22:53
2	Si 251.611†	3481.2	2979.8	99.653 ug/L	99.653 ppb	17:22:33
2	Sn 189.927†	64.2	48.8	9.8576 ug/L	9.8576 ppb	17:22:53
2	Ti 334.940†	1501.9	2979.7	4.9245 ug/L	4.9245 ppb	17:22:33
2	Tl 190.801†	38.0	70.5	23.735 ug/L	23.735 ppb	17:22:53
2	U 409.014†	-1683.7	1381.8	50.271 ug/L	50.271 ppb	17:22:33
2	V 292.402†	-1123.4	570.9	4.8992 ug/L	4.8992 ppb	17:22:33
2	Zn 213.857†	1655.1	1009.0	10.529 ug/L	10.529 ppb	17:22:53
2	SiO2†	3534.3	3037.2	216.22 ug/L	216.22 ppb	17:23:29
3	Sc Radial	3560.7	3560.7	101 %		17:22:01
3	Y RADIAL	4092.4	4092.4	102.3 %		17:21:41
3	Al 396.153Radial†	90.7	203.4	197.21 ug/L	197.21 ppb	17:22:01
3	Ca 317.933Radial†	123.0	91.0	198.71 ug/L	198.71 ppb	17:22:01
3	Fe 238.204 Radial†	20.6	11.3	163.41 ug/L	163.41 ppb	17:22:01
3	K 766.490 Radial†	3816.5	646.8	121.59 ug/L	121.59 ppb	17:21:41
3	Mg 279.077 IEC†	10.0	7.2	367.40 ug/L	367.40 ppb	17:22:01
3	Na 589.592 Radial†	3003.4	-1044.1	-358.31 ug/L	-358.31 ppb	17:21:41
3	Sr 421.552†	855.6	-591.5	-4.4371 ug/L	-4.4371 ppb	17:21:41
3	Sc 361.383	752316.9	752316.9	100.13 %		17:22:59
3	Y 371.029	590215.2	590215.2	100.30 %		17:22:59
3	Ag 328.068†	1149.0	821.1	4.2798 ug/L	4.2798 ppb	17:22:59
3	As 188.979†	35.0	55.6	25.825 ug/L	25.825 ppb	17:23:19
3	B 249.677†	1553.6	1993.5	49.453 ug/L	49.453 ppb	17:22:59
3	Ba 233.527†	702.8	556.8	4.7547 ug/L	4.7547 ppb	17:23:19
3	Be 313.107†	7885.8	12231.2	4.8102 ug/L	4.8102 ppb	17:22:59
3	Cd 226.502†	191.4	386.3	5.1025 ug/L	5.1025 ppb	17:23:19
3	Co 228.616†	160.2	230.3	5.0587 ug/L	5.0587 ppb	17:23:19
3	Cr 267.716†	452.8	374.4	4.8950 ug/L	4.8950 ppb	17:23:19
3	Cu 324.752†	9371.3	2906.8	9.0365 ug/L	9.0365 ppb	17:22:59
3	Mn 257.610†	9132.0	8648.7	10.235 ug/L	10.235 ppb	17:22:59
3	Mo 202.031†	136.5	126.4	10.355 ug/L	10.355 ppb	17:23:19
3	Ni 231.604†	257.7	178.2	5.0672 ug/L	5.0672 ppb	17:23:19
3	P 214.914†	448.6	236.9	142.93 ug/L	142.93 ppb	17:23:19
3	Pb 220.353†	68.7	47.7	6.6919 ug/L	6.6919 ppb	17:23:19
3	S 181.975 Axial†	108.3	70.8	101.80 ug/L	101.80 ppb	17:23:19
3	Sb 206.836†	65.8	29.4	11.096 ug/L	11.096 ppb	17:23:19
3	Se 196.026†	19.1	48.4	33.382 ug/L	33.382 ppb	17:23:19
3	Si 251.611†	3532.1	3030.9	101.36 ug/L	101.36 ppb	17:22:59
3	Sn 189.927†	54.3	38.9	7.8620 ug/L	7.8620 ppb	17:23:19
3	Ti 334.940†	1401.9	2880.0	4.7541 ug/L	4.7541 ppb	17:22:59
3	Tl 190.801†	38.0	70.5	23.721 ug/L	23.721 ppb	17:23:19
3	U 409.014†	-1686.3	1379.1	50.163 ug/L	50.163 ppb	17:22:59
3	V 292.402†	-1136.3	557.9	4.7877 ug/L	4.7877 ppb	17:22:59
3	Zn 213.857†	1625.3	979.4	10.209 ug/L	10.209 ppb	17:23:19
3	SiO2†	3461.2	2964.5	211.03 ug/L	211.03 ppb	17:23:34

## Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	751812.5	100.06 %	0.123			0.12%
Sc Radial	3555.1	101 %	0.1			0.14%
Y 371.029	590324.6	100.32 %	0.138			0.14%
Y RADIAL	4098.4	102.5 %	0.74			0.72%
Ag 328.068†	835.3	4.3410 ug/L	0.08146	4.3410 ppb	0.08146	1.88%
QC value within limits for Ag 328.068 Recovery = 86.82%						
Al 396.153Radial†	209.1	202.76 ug/L	4.811	202.76 ppb	4.811	2.37%
QC value within limits for Al 396.153Radial Recovery = 101.38%						
As 188.979†	59.2	27.482 ug/L	1.4604	27.482 ppb	1.4604	5.31%
QC value within limits for As 188.979 Recovery = 91.61%						
B 249.677†	1988.3	49.329 ug/L	0.9340	49.329 ppb	0.9340	1.89%
QC value within limits for B 249.677 Recovery = 98.66%						
Ba 233.527†	619.8	5.2899 ug/L	1.44498	5.2899 ppb	1.44498	27.32%
QC value within limits for Ba 233.527 Recovery = 105.80%						
Be 313.107†	12328.1	4.8484 ug/L	0.04247	4.8484 ppb	0.04247	0.88%
QC value within limits for Be 313.107 Recovery = 96.97%						
Ca 317.933Radial†	95.2	207.88 ug/L	22.173	207.88 ppb	22.173	10.67%

QC value within limits for Ca 317.933 Radial Recovery = 103.94%							
Cd 226.502†	381.4	5.0426 ug/L	0.06420	5.0426 ppb	0.06420	1.27%	
QC value within limits for Cd 226.502 Recovery = 100.85%							
Co 228.616†	226.9	4.9847 ug/L	0.14642	4.9847 ppb	0.14642	2.94%	
QC value within limits for Co 228.616 Recovery = 99.69%							
Cr 267.716†	361.4	4.7210 ug/L	0.15294	4.7210 ppb	0.15294	3.24%	
QC value within limits for Cr 267.716 Recovery = 94.42%							
Cu 324.752†	2850.5	8.8580 ug/L	0.16476	8.8580 ppb	0.16476	1.86%	
QC value within limits for Cu 324.752 Recovery = 88.58%							
Fe 238.204 Radial†	8.9	128.61 ug/L	36.248	128.61 ppb	36.248	28.18%	
QC value within limits for Fe 238.204 Radial Recovery = 128.61%							
K 766.490 Radial†	694.0	130.42 ug/L	7.655	130.42 ppb	7.655	5.87%	
QC value within limits for K 766.490 Radial Recovery = 86.95%							
Mg 279.077 IEC†	6.1	312.47 ug/L	94.300	312.47 ppb	94.300	30.18%	
QC value within limits for Mg 279.077 IEC Recovery = 104.16%							
Mn 257.610†	8636.4	10.220 ug/L	0.0139	10.220 ppb	0.0139	0.14%	
QC value within limits for Mn 257.610 Recovery = 102.20%							
Mo 202.031†	123.4	10.111 ug/L	0.2152	10.111 ppb	0.2152	2.13%	
QC value within limits for Mo 202.031 Recovery = 101.11%							
Na 589.592 Radial†	-680.7	-233.62 ug/L	209.172	-233.62 ppb	209.172	89.54%	
QC value less than the lower limit for Na 589.592 Radial Recovery = -77.87%							
Ni 231.604†	192.8	5.4836 ug/L	0.44525	5.4836 ppb	0.44525	8.12%	
QC value within limits for Ni 231.604 Recovery = 109.67%							
P 214.914†	234.2	141.37 ug/L	2.762	141.37 ppb	2.762	1.95%	
QC value within limits for P 214.914 Recovery = 94.25%							
Pb 220.353†	27.1	3.8360 ug/L	2.51173	3.8360 ppb	2.51173	65.48%	
QC value less than the lower limit for Pb 220.353 Recovery = 38.36%							
S 181.975 Axial†	71.8	103.15 ug/L	2.874	103.15 ppb	2.874	2.79%	
QC value within limits for S 181.975 Axial Recovery = 103.15%							
Sb 206.836†	28.2	10.683 ug/L	2.1438	10.683 ppb	2.1438	20.07%	
QC value within limits for Sb 206.836 Recovery = 106.83%							
Se 196.026†	49.5	34.033 ug/L	3.8655	34.033 ppb	3.8655	11.36%	
QC value within limits for Se 196.026 Recovery = 113.44%							
Si 251.611†	2994.9	100.16 ug/L	1.045	100.16 ppb	1.045	1.04%	
QC value within limits for Si 251.611 Recovery = 100.16%							
Sn 189.927†	43.7	8.8237 ug/L	0.99977	8.8237 ppb	0.99977	11.33%	
QC value within limits for Sn 189.927 Recovery = 88.24%							
Sr 421.552†	666.7	4.9977 ug/L	14.51412	4.9977 ppb	14.51412	290.42%	
QC value within limits for Sr 421.552 Recovery = 99.95%							
Ti 334.940†	2932.0	4.8454 ug/L	0.08582	4.8454 ppb	0.08582	1.77%	
QC value within limits for Ti 334.940 Recovery = 96.91%							
Tl 190.801†	69.2	23.279 ug/L	0.7782	23.279 ppb	0.7782	3.34%	
QC value within limits for Tl 190.801 Recovery = 116.39%							
U 409.014†	1435.9	52.238 ug/L	3.5001	52.238 ppb	3.5001	6.70%	
QC value within limits for U 409.014 Recovery = 104.48%							
V 292.402†	564.7	4.8477 ug/L	0.05627	4.8477 ppb	0.05627	1.16%	
QC value within limits for V 292.402 Recovery = 96.95%							
Zn 213.857†	994.7	10.372 ug/L	0.1600	10.372 ppb	0.1600	1.54%	
QC value within limits for Zn 213.857 Recovery = 103.72%							
SiO2†	2994.6	213.18 ug/L	2.709	213.18 ppb	2.709	1.27%	
QC value within limits for SiO2 Recovery = 100.08%							
QC Failed. Continue with analysis.							

Sequence No.: 9

Sample ID: ICSA

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 13

Date Collected: 2/19/2010 17:25:46

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	3362.3	3362.3	95.1 %		17:27:59
1	Y RADIAL	3699.4	3699.4	92.52 %		17:27:59
1	Al 396.153Radial†	486863.2	512245.7	498020 ug/L	498020 ppb	17:27:39
1	Ca 317.933Radial†	201569.5	212000.2	463120 ug/L	463120 ppb	17:27:39
1	Fe 238.204 Radial†	11717.5	12316.5	178170 ug/L	178170 ppb	17:27:59
1	K 766.490 Radial†	2754.2	-247.0	-201.42 ug/L	-201.42 ppb	17:27:39
1	Mg 279.077 IEC†	8835.5	9291.4	471990 ug/L	471990 ppb	17:27:59
1	Na 589.592 Radial†	4529.1	736.9	252.88 ug/L	252.88 ppb	17:27:59
1	Sr 421.552†	760.8	-641.2	-8.2658 ug/L	-8.2658 ppb	17:27:59
1	Sc 361.383	668470.6	668470.6	88.972 %		17:28:56
1	Y 371.029	517606.6	517606.6	87.959 %		17:28:56
1	Ag 328.068†	-8029.2	-9350.8	0.0448 ug/L	0.0448 ppb	17:28:56
1	As 188.979†	-90.7	-81.2	3.9606 ug/L	3.9606 ppb	17:29:16
1	B 249.677†	401.0	892.6	-6.7761 ug/L	-6.7761 ppb	17:28:56
1	Ba 233.527†	216.4	98.2	6.2937 ug/L	6.2937 ppb	17:29:16
1	Be 313.107†	-3489.7	433.5	0.1215 ug/L	0.1215 ppb	17:28:56
1	Cd 226.502†	1150.0	1487.7	1.2770 ug/L	1.2770 ppb	17:29:16
1	Co 228.616†	-12.3	56.5	-1.3276 ug/L	-1.3276 ppb	17:29:16
1	Cr 267.716†	-1205.4	-1432.6	-1.7746 ug/L	-1.7746 ppb	17:29:16
1	Cu 324.752†	4329.0	-1586.6	4.4610 ug/L	4.4610 ppb	17:28:56
1	Mn 257.610†	2145.9	1940.5	0.5877 ug/L	0.5877 ppb	17:28:56
1	Mo 202.031†	-204.6	-239.9	-0.2885 ug/L	-0.2885 ppb	17:29:16
1	Ni 231.604†	224.2	172.8	4.9157 ug/L	4.9157 ppb	17:29:16
1	P 214.914†	197.5	10.9	-12.441 ug/L	-12.441 ppb	17:29:16
1	Pb 220.353†	-683.8	-789.4	18.784 ug/L	18.784 ppb	17:29:16
1	S 181.975 Axial†	55.9	25.4	-56.820 ug/L	-56.820 ppb	17:29:16
1	Sb 206.836†	81.9	55.7	3.5407 ug/L	3.5407 ppb	17:29:16
1	Se 196.026†	-816.5	-888.5	71.521 ug/L	71.521 ppb	17:29:16
1	Si 251.611†	461.4	22.0	0.9791 ug/L	0.9791 ppb	17:29:16
1	Sn 189.927†	-327.4	-383.3	-5.1157 ug/L	-5.1157 ppb	17:29:16
1	Ti 334.940†	-12786.1	-12891.0	2.1338 ug/L	2.1338 ppb	17:28:56
1	Tl 190.801†	-53.4	-27.4	-9.4104 ug/L	-9.4104 ppb	17:29:16
1	U 409.014†	-1536.5	1336.1	28.360 ug/L	28.360 ppb	17:28:56
1	V 292.402†	308.1	2038.9	-0.2862 ug/L	-0.2862 ppb	17:29:16
1	Zn 213.857†	2878.3	2591.3	0.5054 ug/L	0.5054 ppb	17:29:16
1	SiO2†	445.7	8.7	1.1557 ug/L	1.1557 ppb	17:30:13
2	Sc Radial	3333.4	3333.4	94.2 %		17:28:24
2	Y RADIAL	3645.1	3645.1	91.16 %		17:28:24
2	Al 396.153Radial†	486886.7	516716.9	502360 ug/L	502360 ppb	17:28:04
2	Ca 317.933Radial†	201492.6	213759.4	466960 ug/L	466960 ppb	17:28:04
2	Fe 238.204 Radial†	11598.0	12296.7	177890 ug/L	177890 ppb	17:28:24
2	K 766.490 Radial†	2712.1	-266.5	-206.35 ug/L	-206.35 ppb	17:28:04
2	Mg 279.077 IEC†	8731.1	9261.3	470460 ug/L	470460 ppb	17:28:24
2	Na 589.592 Radial†	4474.8	720.6	247.30 ug/L	247.30 ppb	17:28:24
2	Sr 421.552†	614.3	-789.7	-9.4081 ug/L	-9.4081 ppb	17:28:24
2	Sc 361.383	672093.4	672093.4	89.454 %		17:29:22
2	Y 371.029	521324.9	521324.9	88.591 %		17:29:22
2	Ag 328.068†	-8865.2	-10236.7	-4.6824 ug/L	-4.6824 ppb	17:29:22
2	As 188.979†	-84.8	-74.2	7.1649 ug/L	7.1649 ppb	17:29:42
2	B 249.677†	356.9	841.0	-8.0124 ug/L	-8.0124 ppb	17:29:22
2	Ba 233.527†	3464.4	3727.7	37.181 ug/L	37.181 ppb	17:29:42
2	Be 313.107†	-4790.4	-999.4	-0.4411 ug/L	-0.4411 ppb	17:29:22
2	Cd 226.502†	1209.6	1547.3	2.0942 ug/L	2.0942 ppb	17:29:42
2	Co 228.616†	-0.0	70.3	-1.0016 ug/L	-1.0016 ppb	17:29:42
2	Cr 267.716†	-1110.6	-1319.3	-0.3207 ug/L	-0.3207 ppb	17:29:42
2	Cu 324.752†	3283.8	-2781.2	0.7245 ug/L	0.7245 ppb	17:29:22
2	Mn 257.610†	767.2	386.4	-1.2172 ug/L	-1.2172 ppb	17:29:22
2	Mo 202.031†	-183.7	-215.3	1.7473 ug/L	1.7473 ppb	17:29:42
2	Ni 231.604†	219.0	165.7	4.7145 ug/L	4.7145 ppb	17:29:42

2	P 214.914†	173.2	-17.5	-27.656 ug/L	-27.656 ppb	17:29:42
2	Pb 220.353†	-751.9	-861.4	9.9799 ug/L	9.9799 ppb	17:29:42
2	S 181.975 Axial†	64.5	34.8	-44.153 ug/L	-44.153 ppb	17:29:42
2	Sb 206.836†	87.1	61.0	5.4798 ug/L	5.4798 ppb	17:29:42
2	Se 196.026†	-840.6	-910.4	56.146 ug/L	56.146 ppb	17:29:42
2	Si 251.611†	495.3	57.2	2.1322 ug/L	2.1322 ppb	17:29:42
2	Sn 189.927†	-302.9	-353.9	1.4948 ug/L	1.4948 ppb	17:29:42
2	Ti 334.940†	-12953.7	-13000.9	2.5911 ug/L	2.5911 ppb	17:29:22
2	Tl 190.801†	-74.5	-50.7	-17.237 ug/L	-17.237 ppb	17:29:42
2	U 409.014†	-1556.1	1323.6	27.933 ug/L	27.933 ppb	17:29:22
2	V 292.402†	390.7	2129.4	0.4941 ug/L	0.4941 ppb	17:29:42
2	Zn 213.857†	3083.5	2803.2	2.7792 ug/L	2.7792 ppb	17:29:42
2	SiO2†	456.8	18.5	1.7962 ug/L	1.7962 ppb	17:30:18
3	Sc Radial	3331.4	3331.4	94.2 %		17:28:50
3	Y RADIAL	3669.3	3669.3	91.76 %		17:28:50
3	Al 396.153Radial†	482209.1	512066.0	497840 ug/L	497840 ppb	17:28:30
3	Ca 317.933Radial†	199248.4	211507.2	462040 ug/L	462040 ppb	17:28:30
3	Fe 238.204 Radial†	11618.1	12325.6	178300 ug/L	178300 ppb	17:28:50
3	K 766.490 Radial†	2620.6	-361.9	-223.25 ug/L	-223.25 ppb	17:28:30
3	Mg 279.077 IEC†	8743.1	9279.7	471400 ug/L	471400 ppb	17:28:50
3	Na 589.592 Radial†	8848.6	5367.1	1841.9 ug/L	1841.9 ppb	17:28:50
3	Sr 421.552†	6545.6	5507.9	37.852 ug/L	37.852 ppb	17:28:50
3	Sc 361.383	673148.5	673148.5	89.595 %		17:29:47
3	Y 371.029	522165.6	522165.6	88.734 %		17:29:47
3	Ag 328.068†	-8935.1	-10299.2	-4.8242 ug/L	-4.8242 ppb	17:29:47
3	As 188.979†	-92.5	-82.6	3.3579 ug/L	3.3579 ppb	17:30:07
3	B 249.677†	342.7	824.5	-8.4901 ug/L	-8.4901 ppb	17:29:47
3	Ba 233.527†	-412.4	-605.4	0.3097 ug/L	0.3097 ppb	17:30:07
3	Be 313.107†	-4833.2	-1038.7	-0.4586 ug/L	-0.4586 ppb	17:29:47
3	Cd 226.502†	1114.2	1438.7	0.6184 ug/L	0.6184 ppb	17:30:07
3	Co 228.616†	5.9	76.9	-0.8887 ug/L	-0.8887 ppb	17:30:07
3	Cr 267.716†	-1191.3	-1407.4	-1.4389 ug/L	-1.4389 ppb	17:30:07
3	Cu 324.752†	3388.4	-2670.3	1.0837 ug/L	1.0837 ppb	17:29:47
3	Mn 257.610†	716.2	328.0	-1.2831 ug/L	-1.2831 ppb	17:29:47
3	Mo 202.031†	-228.1	-264.6	-2.3134 ug/L	-2.3134 ppb	17:30:07
3	Ni 231.604†	216.5	162.6	4.6238 ug/L	4.6238 ppb	17:30:07
3	P 214.914†	179.0	-11.3	-25.441 ug/L	-25.441 ppb	17:30:07
3	Pb 220.353†	-686.9	-787.6	18.953 ug/L	18.953 ppb	17:30:07
3	S 181.975 Axial†	39.3	6.5	-83.996 ug/L	-83.996 ppb	17:30:07
3	Sb 206.836†	69.9	41.7	-1.6268 ug/L	-1.6268 ppb	17:30:07
3	Se 196.026†	-829.2	-896.3	66.664 ug/L	66.664 ppb	17:30:07
3	Si 251.611†	430.5	-16.0	-0.2687 ug/L	-0.2687 ppb	17:30:07
3	Sn 189.927†	-323.8	-376.7	-3.9949 ug/L	-3.9949 ppb	17:30:07
3	Ti 334.940†	-13452.9	-13535.4	0.9611 ug/L	0.9611 ppb	17:29:47
3	Tl 190.801†	-68.1	-43.4	-14.802 ug/L	-14.802 ppb	17:30:07
3	U 409.014†	-1180.5	1745.5	43.245 ug/L	43.245 ppb	17:29:47
3	V 292.402†	360.1	2094.6	0.1399 ug/L	0.1399 ppb	17:30:07
3	Zn 213.857†	2781.2	2460.4	-0.8810 ug/L	-0.8810 ppb	17:30:07
3	SiO2†	452.7	13.1	1.5210 ug/L	1.5210 ppb	17:30:23

## Mean Data: ICSSA

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	671237.5	89.340 %	0.3266			0.37%
Sc Radial	3342.4	94.5 %	0.49			0.52%
Y 371.029	520365.7	88.428 %	0.4123			0.47%
Y RADIAL	3671.2	91.81 %	0.680			0.74%
Ag 328.068†	-9962.2	-3.1539 ug/L	2.77109	-3.1539 ppb	2.77109	87.86%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	513676.2	499410 ug/L	2561.6	499410 ppb	2561.6	0.51%
QC value within limits for Al 396.153Radial Recovery = 99.88%						
As 188.979†	-79.3	4.8278 ug/L	2.04631	4.8278 ppb	2.04631	42.39%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	852.7	-7.7595 ug/L	0.88451	-7.7595 ppb	0.88451	11.40%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	1073.5	14.595 ug/L	19.7877	14.595 ppb	19.7877	135.58%
QC value greater than the upper limit for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-534.9	-0.2594 ug/L	0.33000	-0.2594 ppb	0.33000	127.22%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	212422.3	464040 ug/L	2586.2	464040 ppb	2586.2	0.56%



QC value within limits for Ca 317.933 Radial Recovery = 92.81%

Cd 226.502†	1491.3	1.3299 ug/L	0.73936	1.3299 ppb	0.73936	55.60%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	67.9	-1.0726 ug/L	0.22792	-1.0726 ppb	0.22792	21.25%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-1386.4	-1.1781 ug/L	0.76127	-1.1781 ppb	0.76127	64.62%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-2346.0	2.0897 ug/L	2.06143	2.0897 ppb	2.06143	98.65%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	12312.9	178120 ug/L	214.0	178120 ppb	214.0	0.12%
QC value within limits for Fe 238.204 Radial Recovery = 89.06%						
K 766.490 Radial†	-291.8	-210.34 ug/L	11.449	-210.34 ppb	11.449	5.44%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	9277.5	471280 ug/L	770.1	471280 ppb	770.1	0.16%
QC value within limits for Mg 279.077 IEC Recovery = 94.26%						
Mn 257.610†	885.0	-0.6375 ug/L	1.06161	-0.6375 ppb	1.06161	166.52%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-239.9	-0.2848 ug/L	2.03034	-0.2848 ppb	2.03034	712.81%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	2274.8	780.70 ug/L	919.044	780.70 ppb	919.044	117.72%
QC value greater than the upper limit for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	167.0	4.7513 ug/L	0.14942	4.7513 ppb	0.14942	3.14%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-6.0	-21.846 ug/L	8.2197	-21.846 ppb	8.2197	37.63%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-812.8	15.906 ug/L	5.1325	15.906 ppb	5.1325	32.27%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	22.2	-61.657 ug/L	20.3571	-61.657 ppb	20.3571	33.02%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	52.8	2.4646 ug/L	3.67349	2.4646 ppb	3.67349	149.05%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-898.4	64.777 ug/L	7.8589	64.777 ppb	7.8589	12.13%
QC value greater than the upper limit for Se 196.026 Recovery = Not calculated						
Si 251.611†	21.1	0.9475 ug/L	1.20073	0.9475 ppb	1.20073	126.72%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	-371.3	-2.5386 ug/L	3.53773	-2.5386 ppb	3.53773	139.36%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	1359.0	6.7259 ug/L	26.96171	6.7259 ppb	26.96171	400.86%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-13142.4	1.8953 ug/L	0.84074	1.8953 ppb	0.84074	44.36%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-40.5	-13.816 ug/L	4.0053	-13.816 ppb	4.0053	28.99%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	1468.4	33.179 ug/L	8.7195	33.179 ppb	8.7195	26.28%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	2087.7	0.1160 ug/L	0.39071	0.1160 ppb	0.39071	336.92%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	2618.3	0.8012 ug/L	1.84794	0.8012 ppb	1.84794	230.65%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	13.4	1.4910 ug/L	0.32126	1.4910 ppb	0.32126	21.55%
QC value within limits for SiO2 Recovery = Not calculated						

QC Failed. Continue with analysis.

Sequence No.: 10

Sample ID: ICSAB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 14

Date Collected: 2/19/2010 17:32:34

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	3448.6	3448.6	97.5 %		17:34:47
1	Y RADIAL	3832.7	3832.7	95.85 %		17:34:47
1	Al 396.153Radial†	500124.4	513039.1	498770 ug/L	498770 ppb	17:34:27
1	Ca 317.933Radial†	206223.8	211471.2	461960 ug/L	461960 ppb	17:34:27
1	Fe 238.204 Radial†	11919.9	12215.8	176730 ug/L	176730 ppb	17:34:47
1	K 766.490 Radial†	29242.8	26847.1	4887.4 ug/L	4887.4 ppb	17:34:27
1	Mg 279.077 IEC†	8896.0	9121.1	463340 ug/L	463340 ppb	17:34:47
1	Na 589.592 Radial†	18600.1	15048.8	5164.6 ug/L	5164.6 ppb	17:34:27
1	Sr 421.552†	63357.0	63537.3	472.99 ug/L	472.99 ppb	17:34:27
1	Sc 361.383	680295.7	680295.7	90.546 %		17:35:45
1	Y 371.029	528651.7	528651.7	89.836 %		17:35:45
1	Ag 328.068†	38180.4	41840.6	266.44 ug/L	266.44 ppb	17:35:45
1	As 188.979†	868.1	979.4	498.19 ug/L	498.19 ppb	17:36:05
1	B 249.677†	18419.3	20784.5	486.12 ug/L	486.12 ppb	17:35:45
1	Ba 233.527†	49985.7	55059.8	475.18 ug/L	475.18 ppb	17:35:45
1	Be 313.107†	545921.2	607278.3	239.35 ug/L	239.35 ppb	17:35:45
1	Cd 226.502†	31942.7	35473.1	451.10 ug/L	451.10 ppb	17:36:05
1	Co 228.616†	17463.8	19357.5	421.71 ug/L	421.71 ppb	17:36:05
1	Cr 267.716†	31465.4	34672.9	470.47 ug/L	470.47 ppb	17:35:45
1	Cu 324.752†	157583.3	167584.9	531.10 ug/L	531.10 ppb	17:35:45
1	Mn 257.610†	352785.1	389149.2	459.00 ug/L	459.00 ppb	17:35:45
1	Mo 202.031†	5021.3	5535.7	472.18 ug/L	472.18 ppb	17:36:05
1	Ni 231.604†	14007.3	15390.8	437.63 ug/L	437.63 ppb	17:36:05
1	P 214.914†	3719.3	3896.5	2262.9 ug/L	2262.9 ppb	17:36:05
1	Pb 220.353†	2253.5	2468.0	472.29 ug/L	472.29 ppb	17:36:05
1	S 181.975 Axial†	1636.5	1770.0	2452.2 ug/L	2452.2 ppb	17:36:05
1	Sb 206.836†	1319.4	1420.8	521.10 ug/L	521.10 ppb	17:36:05
1	Se 196.026†	2413.1	2694.3	2495.6 ug/L	2495.6 ppb	17:36:05
1	Si 251.611†	135291.2	148920.9	4980.8 ug/L	4980.8 ppb	17:35:45
1	Sn 189.927†	1800.2	1972.9	469.12 ug/L	469.12 ppb	17:36:05
1	Ti 334.940†	255115.2	283232.5	493.90 ug/L	493.90 ppb	17:35:45
1	Tl 190.801†	1107.6	1255.8	424.88 ug/L	424.88 ppb	17:36:05
1	U 409.014†	11837.0	16136.1	566.14 ug/L	566.14 ppb	17:35:45
1	V 292.402†	55418.1	62897.2	505.20 ug/L	505.20 ppb	17:35:45
1	Zn 213.857†	44428.4	48423.5	478.23 ug/L	478.23 ppb	17:35:45
1	SiO2†	135851.6	149544.1	10647 ug/L	10647 ppb	17:37:02
2	Sc Radial	3443.5	3443.5	97.4 %		17:35:12
2	Y RADIAL	3843.8	3843.8	96.13 %		17:35:12
2	Al 396.153Radial†	495215.4	508749.3	494600 ug/L	494600 ppb	17:34:52
2	Ca 317.933Radial†	204877.8	210398.9	459620 ug/L	459620 ppb	17:34:52
2	Fe 238.204 Radial†	11943.6	12258.1	177340 ug/L	177340 ppb	17:35:12
2	K 766.490 Radial†	29110.3	26755.1	4871.0 ug/L	4871.0 ppb	17:34:52
2	Mg 279.077 IEC†	8909.0	9147.8	464700 ug/L	464700 ppb	17:35:12
2	Na 589.592 Radial†	18174.9	14640.1	5024.3 ug/L	5024.3 ppb	17:34:52
2	Sr 421.552†	62214.9	62459.5	464.92 ug/L	464.92 ppb	17:34:52
2	Sc 361.383	685097.6	685097.6	91.185 %		17:36:11
2	Y 371.029	532819.7	532819.7	90.544 %		17:36:11
2	Ag 328.068†	38650.3	42060.4	267.79 ug/L	267.79 ppb	17:36:11
2	As 188.979†	878.5	984.1	500.49 ug/L	500.49 ppb	17:36:31
2	B 249.677†	18650.1	20895.0	488.77 ug/L	488.77 ppb	17:36:11
2	Ba 233.527†	49919.8	54600.6	471.28 ug/L	471.28 ppb	17:36:11
2	Be 313.107†	548772.5	606179.4	238.92 ug/L	238.92 ppb	17:36:11
2	Cd 226.502†	31968.9	35254.6	448.15 ug/L	448.15 ppb	17:36:31
2	Co 228.616†	17468.0	19226.9	418.84 ug/L	418.84 ppb	17:36:31
2	Cr 267.716†	31399.2	34356.9	466.39 ug/L	466.39 ppb	17:36:11
2	Cu 324.752†	159552.6	168524.8	534.06 ug/L	534.06 ppb	17:36:11
2	Mn 257.610†	352886.9	386530.0	455.90 ug/L	455.90 ppb	17:36:11
2	Mo 202.031†	5005.6	5479.6	467.61 ug/L	467.61 ppb	17:36:31
2	Ni 231.604†	14005.7	15280.6	434.49 ug/L	434.49 ppb	17:36:31

2	P 214.914†	3723.5	3872.3	2245.9 ug/L	2245.9 ppb	17:36:31
2	Pb 220.353†	2273.6	2472.5	471.81 ug/L	471.81 ppb	17:36:31
2	S 181.975 Axial†	1638.5	1759.5	2437.8 ug/L	2437.8 ppb	17:36:31
2	Sb 206.836†	1352.7	1447.1	530.61 ug/L	530.61 ppb	17:36:31
2	Se 196.026†	2430.2	2694.5	2497.3 ug/L	2497.3 ppb	17:36:31
2	Si 251.611†	135857.4	148494.5	4966.6 ug/L	4966.6 ppb	17:36:11
2	Sn 189.927†	1781.1	1937.9	461.63 ug/L	461.63 ppb	17:36:31
2	Ti 334.940†	255533.3	281716.2	490.95 ug/L	490.95 ppb	17:36:11
2	Tl 190.801†	1104.2	1243.5	420.75 ug/L	420.75 ppb	17:36:31
2	U 409.014†	11962.4	16181.9	567.74 ug/L	567.74 ppb	17:36:11
2	V 292.402†	55541.4	62603.4	502.67 ug/L	502.67 ppb	17:36:11
2	Zn 213.857†	44668.2	48342.6	477.31 ug/L	477.31 ppb	17:36:11
2	SiO2†	137061.4	149819.3	10667 ug/L	10667 ppb	17:37:08
3	Sc Radial	3475.6	3475.6	98.3 %		17:35:37
3	Y RADIAL	3858.3	3858.3	96.49 %		17:35:37
3	Al 396.153Radial†	494912.8	503744.6	489730 ug/L	489730 ppb	17:35:17
3	Ca 317.933Radial†	204283.2	207850.7	454050 ug/L	454050 ppb	17:35:17
3	Fe 238.204 Radial†	11965.1	12166.7	176020 ug/L	176020 ppb	17:35:37
3	K 766.490 Radial†	29124.7	26493.6	4823.7 ug/L	4823.7 ppb	17:35:17
3	Mg 279.077 IEC†	8938.9	9093.7	461950 ug/L	461950 ppb	17:35:37
3	Na 589.592 Radial†	18238.7	14532.7	4987.5 ug/L	4987.5 ppb	17:35:17
3	Sr 421.552†	62320.4	61976.8	461.35 ug/L	461.35 ppb	17:35:17
3	Sc 361.383	675007.2	675007.2	89.842 %		17:36:37
3	Y 371.029	522562.1	522562.1	88.801 %		17:36:37
3	Ag 328.068†	38055.0	42031.3	267.32 ug/L	267.32 ppb	17:36:37
3	As 188.979†	858.3	976.0	496.45 ug/L	496.45 ppb	17:36:57
3	B 249.677†	18474.1	21004.9	491.70 ug/L	491.70 ppb	17:36:37
3	Ba 233.527†	49526.4	54981.1	474.49 ug/L	474.49 ppb	17:36:37
3	Be 313.107†	544954.9	610926.5	240.79 ug/L	240.79 ppb	17:36:37
3	Cd 226.502†	31765.1	35551.8	452.22 ug/L	452.22 ppb	17:36:57
3	Co 228.616†	17418.7	19458.5	423.94 ug/L	423.94 ppb	17:36:57
3	Cr 267.716†	31181.6	34629.4	469.83 ug/L	469.83 ppb	17:36:37
3	Cu 324.752†	157653.6	169026.6	535.56 ug/L	535.56 ppb	17:36:37
3	Mn 257.610†	350841.5	390038.4	460.03 ug/L	460.03 ppb	17:36:37
3	Mo 202.031†	4994.7	5549.5	473.16 ug/L	473.16 ppb	17:36:57
3	Ni 231.604†	13964.7	15464.5	439.72 ug/L	439.72 ppb	17:36:57
3	P 214.914†	3726.4	3936.6	2284.8 ug/L	2284.8 ppb	17:36:57
3	Pb 220.353†	2250.2	2483.7	472.07 ug/L	472.07 ppb	17:36:57
3	S 181.975 Axial†	1652.6	1802.0	2499.9 ug/L	2499.9 ppb	17:36:57
3	Sb 206.836†	1325.2	1438.7	527.92 ug/L	527.92 ppb	17:36:57
3	Se 196.026†	2409.8	2711.5	2503.7 ug/L	2503.7 ppb	17:36:57
3	Si 251.611†	134942.8	149703.7	5007.0 ug/L	5007.0 ppb	17:36:37
3	Sn 189.927†	1788.3	1975.1	468.21 ug/L	468.21 ppb	17:36:57
3	Ti 334.940†	253682.4	283845.1	493.97 ug/L	493.97 ppb	17:36:37
3	Tl 190.801†	1099.0	1255.9	424.93 ug/L	424.93 ppb	17:36:57
3	U 409.014†	11697.6	16083.3	564.30 ug/L	564.30 ppb	17:36:37
3	V 292.402†	54941.0	62845.7	504.86 ug/L	504.86 ppb	17:36:37
3	Zn 213.857†	44293.9	48658.3	480.78 ug/L	480.78 ppb	17:36:37
3	SiO2†	138977.1	154198.4	10979 ug/L	10979 ppb	17:37:13

## Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	680133.5	90.524 %		0.6718			0.74%
Sc Radial	3455.9	97.7 %		0.49			0.50%
Y 371.029	528011.2	89.727 %		0.8766			0.98%
Y RADIAL	3844.9	96.16 %		0.321			0.33%
Ag 328.068†	41977.4	267.18 ug/L		0.684	267.18 ppb	0.684	0.26%
QC value within limits for Ag 328.068 Recovery = 106.87%							
Al 396.153Radial†	508511.0	494360 ug/L		4522.7	494360 ppb	4522.7	0.91%
QC value within limits for Al 396.153Radial Recovery = 98.87%							
As 188.979†	979.9	498.38 ug/L		2.029	498.38 ppb	2.029	0.41%
QC value within limits for As 188.979 Recovery = 99.68%							
B 249.677†	20894.8	488.86 ug/L		2.791	488.86 ppb	2.791	0.57%
QC value within limits for B 249.677 Recovery = 97.77%							
Ba 233.527†	54880.5	473.65 ug/L		2.078	473.65 ppb	2.078	0.44%
QC value within limits for Ba 233.527 Recovery = 94.73%							
Be 313.107†	608128.1	239.68 ug/L		0.979	239.68 ppb	0.979	0.41%
QC value within limits for Be 313.107 Recovery = 95.87%							
Ca 317.933Radial†	209906.9	458540 ug/L		4062.5	458540 ppb	4062.5	0.89%

QC value within limits for Ca 317.933 Radial Recovery = 91.71%							
Cd 226.502†	35426.5	450.49 ug/L	2.103	450.49 ppb	2.103	0.47%	
QC value within limits for Cd 226.502 Recovery = 90.10%							
Co 228.616†	19347.7	421.50 ug/L	2.556	421.50 ppb	2.556	0.61%	
QC value within limits for Co 228.616 Recovery = 84.30%							
Cr 267.716†	34553.1	468.90 ug/L	2.193	468.90 ppb	2.193	0.47%	
QC value within limits for Cr 267.716 Recovery = 93.78%							
Cu 324.752†	168378.8	533.58 ug/L	2.267	533.58 ppb	2.267	0.42%	
QC value within limits for Cu 324.752 Recovery = 106.72%							
Fe 238.204 Radial†	12213.5	176700 ug/L	661.6	176700 ppb	661.6	0.37%	
QC value within limits for Fe 238.204 Radial Recovery = 88.35%							
K 766.490 Radial†	26698.6	4860.7 ug/L	33.07	4860.7 ppb	33.07	0.68%	
QC value within limits for K 766.490 Radial Recovery = 97.21%							
Mg 279.077 IEC†	9120.9	463330 ug/L	1372.0	463330 ppb	1372.0	0.30%	
QC value within limits for Mg 279.077 IEC Recovery = 92.67%							
Mn 257.610†	388572.5	458.31 ug/L	2.150	458.31 ppb	2.150	0.47%	
QC value within limits for Mn 257.610 Recovery = 91.66%							
Mo 202.031†	5521.6	470.98 ug/L	2.962	470.98 ppb	2.962	0.63%	
QC value within limits for Mo 202.031 Recovery = 94.20%							
Na 589.592 Radial†	14740.5	5058.8 ug/L	93.46	5058.8 ppb	93.46	1.85%	
QC value within limits for Na 589.592 Radial Recovery = 101.18%							
Ni 231.604†	15378.6	437.28 ug/L	2.632	437.28 ppb	2.632	0.60%	
QC value within limits for Ni 231.604 Recovery = 87.46%							
P 214.914†	3901.8	2264.6 ug/L	19.49	2264.6 ppb	19.49	0.86%	
QC value within limits for P 214.914 Recovery = 90.58%							
Pb 220.353†	2474.7	472.05 ug/L	0.240	472.05 ppb	0.240	0.05%	
QC value within limits for Pb 220.353 Recovery = 94.41%							
S 181.975 Axial†	1777.2	2463.3 ug/L	32.50	2463.3 ppb	32.50	1.32%	
QC value within limits for S 181.975 Axial Recovery = 98.53%							
Sb 206.836†	1435.5	526.54 ug/L	4.902	526.54 ppb	4.902	0.93%	
QC value within limits for Sb 206.836 Recovery = 105.31%							
Se 196.026†	2700.1	2498.9 ug/L	4.29	2498.9 ppb	4.29	0.17%	
QC value within limits for Se 196.026 Recovery = 99.96%							
Si 251.611†	149039.7	4984.8 ug/L	20.50	4984.8 ppb	20.50	0.41%	
QC value within limits for Si 251.611 Recovery = 99.70%							
Sn 189.927†	1962.0	466.32 ug/L	4.085	466.32 ppb	4.085	0.88%	
QC value within limits for Sn 189.927 Recovery = 93.26%							
Sr 421.552†	62657.9	466.42 ug/L	5.963	466.42 ppb	5.963	1.28%	
QC value within limits for Sr 421.552 Recovery = 93.28%							
Ti 334.940†	282931.3	492.94 ug/L	1.719	492.94 ppb	1.719	0.35%	
QC value within limits for Ti 334.940 Recovery = 98.59%							
Tl 190.801†	1251.7	423.52 ug/L	2.398	423.52 ppb	2.398	0.57%	
QC value within limits for Tl 190.801 Recovery = 84.70%							
U 409.014†	16133.8	566.06 ug/L	1.725	566.06 ppb	1.725	0.30%	
QC value within limits for U 409.014 Recovery = 113.21%							
V 292.402†	62782.1	504.24 ug/L	1.372	504.24 ppb	1.372	0.27%	
QC value within limits for V 292.402 Recovery = 100.85%							
Zn 213.857†	48474.8	478.77 ug/L	1.800	478.77 ppb	1.800	0.38%	
QC value within limits for Zn 213.857 Recovery = 95.75%							
SiO2†	151187.3	10764 ug/L	186.1	10764 ppb	186.1	1.73%	
QC value within limits for SiO2 Recovery = 100.65%							
All analyte(s) passed QC.							

Sequence No.: 11  
 Sample ID: LR1  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 15  
 Date Collected: 2/19/2010 17:39:24  
 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	3382.4	3382.4	95.6 %		17:41:37
1	Y RADIAL	3781.0	3781.0	94.56 %		17:41:37
1	Al 396.153Radial†	486891.8	509241.8	495100 ug/L	495100 ppb	17:41:17
1	Ca 317.933Radial†	200529.4	209656.5	458000 ug/L	458000 ppb	17:41:17
1	Fe 238.204 Radial†	27771.4	29030.6	419960 ug/L	419960 ppb	17:41:37
1	K 766.490 Radial†	2409.9	-624.2	-464.91 ug/L	-464.91 ppb	17:41:17
1	Mg 279.077 IEC†	8666.8	9059.9	459980 ug/L	459980 ppb	17:41:37
1	Na 589.592 Radial†	1393039.5	1452633.2	498530 ug/L	498530 ppb	17:41:17
1	Sr 421.552†	5644.0	4460.4	30.026 ug/L	30.026 ppb	17:41:37
1	Sc 361.383	657567.0	657567.0	87.521 %		17:42:35
1	Y 371.029	512786.6	512786.6	87.140 %		17:42:35
1	Ag 328.068†	-20901.9	-24208.5	-14.816 ug/L	-14.816 ppb	17:42:35
1	As 188.979†	-173.6	-177.7	16.000 ug/L	16.000 ppb	17:42:55
1	B 249.677†	1318.3	1948.3	-19.848 ug/L	-19.848 ppb	17:42:35
1	Ba 233.527†	-1298.7	-1628.9	-1.0150 ug/L	-1.0150 ppb	17:42:55
1	Be 313.107†	-9691.0	-6717.0	-2.6730 ug/L	-2.6730 ppb	17:42:35
1	Cd 226.502†	2908.0	3517.8	6.0812 ug/L	6.0812 ppb	17:42:55
1	Co 228.616†	206.6	306.3	0.5894 ug/L	0.5894 ppb	17:42:55
1	Cr 267.716†	-1187.2	-1434.2	15.233 ug/L	15.233 ppb	17:42:55
1	Cu 324.752†	761.5	-5582.1	-3.5492 ug/L	-3.5492 ppb	17:42:35
1	Mn 257.610†	-19970.8	-23289.7	-4.9067 ug/L	-4.9067 ppb	17:42:35
1	Mo 202.031†	-422.0	-492.2	-2.2220 ug/L	-2.2220 ppb	17:42:55
1	Ni 231.604†	247.8	204.0	5.8000 ug/L	5.8000 ppb	17:42:55
1	P 214.914†	501.7	362.1	9.1177 ug/L	9.1177 ppb	17:42:55
1	Pb 220.353†	-469.0	-556.7	40.789 ug/L	40.789 ppb	17:42:55
1	S 181.975 Axial†	74.1	47.3	-24.827 ug/L	-24.827 ppb	17:42:55
1	Sb 206.836†	74.4	48.6	-2.1656 ug/L	-2.1656 ppb	17:42:55
1	Se 196.026†	-1891.2	-2131.5	65.291 ug/L	65.291 ppb	17:42:55
1	Si 251.611†	-442.4	-1002.0	-33.054 ug/L	-33.054 ppb	17:42:55
1	Sn 189.927†	-346.8	-411.6	-25.605 ug/L	-25.605 ppb	17:42:55
1	Ti 334.940†	-9971.1	-9912.9	0.7194 ug/L	0.7194 ppb	17:42:35
1	Tl 190.801†	-76.2	-54.6	-18.677 ug/L	-18.677 ppb	17:42:55
1	U 409.014†	361666.3	416298.4	15104 ug/L	15104 ppb	17:42:35
1	V 292.402†	2049.0	4033.9	9.2181 ug/L	9.2181 ppb	17:42:55
1	Zn 213.857†	5064.0	5142.3	-8.8958 ug/L	-8.8958 ppb	17:42:55
1	SiO2†	-504.0	-1068.1	-75.039 ug/L	-75.039 ppb	17:43:52
2	Sc Radial	3379.8	3379.8	95.6 %		17:42:02
2	Y RADIAL	3771.1	3771.1	94.31 %		17:42:02
2	Al 396.153Radial†	489027.5	511866.9	497650 ug/L	497650 ppb	17:41:42
2	Ca 317.933Radial†	201695.4	211037.4	461010 ug/L	461010 ppb	17:41:42
2	Fe 238.204 Radial†	27756.8	29037.6	420060 ug/L	420060 ppb	17:42:02
2	K 766.490 Radial†	3839.7	874.0	-185.55 ug/L	-185.55 ppb	17:41:42
2	Mg 279.077 IEC†	8699.6	9101.2	462070 ug/L	462070 ppb	17:42:02
2	Na 589.592 Radial†	1400191.7	1461234.4	501480 ug/L	501480 ppb	17:41:42
2	Sr 421.552†	823.4	-579.8	-7.7899 ug/L	-7.7899 ppb	17:42:02
2	Sc 361.383	660423.7	660423.7	87.901 %		17:43:01
2	Y 371.029	517280.0	517280.0	87.904 %		17:43:01
2	Ag 328.068†	-20802.1	-23991.8	-13.728 ug/L	-13.728 ppb	17:43:01
2	As 188.979†	-184.1	-188.8	10.868 ug/L	10.868 ppb	17:43:21
2	B 249.677†	1261.3	1876.9	-21.636 ug/L	-21.636 ppb	17:43:01
2	Ba 233.527†	1182.8	1200.6	23.072 ug/L	23.072 ppb	17:43:21
2	Be 313.107†	-9598.0	-6563.3	-2.6138 ug/L	-2.6138 ppb	17:43:01
2	Cd 226.502†	3006.7	3615.7	7.3713 ug/L	7.3713 ppb	17:43:21
2	Co 228.616†	210.7	310.0	0.6770 ug/L	0.6770 ppb	17:43:21
2	Cr 267.716†	-1134.9	-1368.9	16.085 ug/L	16.085 ppb	17:43:21
2	Cu 324.752†	644.6	-5718.8	-3.9866 ug/L	-3.9866 ppb	17:43:01
2	Mn 257.610†	-20313.0	-23580.3	-5.3264 ug/L	-5.3264 ppb	17:43:01
2	Mo 202.031†	-437.3	-507.5	-3.4297 ug/L	-3.4297 ppb	17:43:21
2	Ni 231.604†	279.4	238.7	6.7863 ug/L	6.7863 ppb	17:43:21

2	P 214.914†	482.3	337.6	-5.2182 ug/L	-5.2182 ppb	17:43:21
2	Pb 220.353†	-476.0	-562.4	40.715 ug/L	40.715 ppb	17:43:21
2	S 181.975 Axial†	62.7	33.9	-44.494 ug/L	-44.494 ppb	17:43:21
2	Sb 206.836†	65.7	38.4	-5.9961 ug/L	-5.9961 ppb	17:43:21
2	Se 196.026†	-1917.4	-2152.1	52.017 ug/L	52.017 ppb	17:43:21
2	Si 251.611†	-407.0	-959.5	-31.617 ug/L	-31.617 ppb	17:43:21
2	Sn 189.927†	-345.8	-408.7	-24.492 ug/L	-24.492 ppb	17:43:21
2	Ti 334.940†	-10271.7	-10205.6	0.4532 ug/L	0.4532 ppb	17:43:01
2	Tl 190.801†	-95.3	-75.9	-25.848 ug/L	-25.848 ppb	17:43:21
2	U 409.014†	363961.2	417121.7	15134 ug/L	15134 ppb	17:43:01
2	V 292.402†	2048.7	4023.4	9.1981 ug/L	9.1981 ppb	17:43:21
2	Zn 213.857†	5358.3	5452.0	-5.6662 ug/L	-5.6662 ppb	17:43:21
2	SiO2†	-452.7	-1007.3	-70.667 ug/L	-70.667 ppb	17:43:57
3	Sc Radial	3347.6	3347.6	94.6 %		17:42:28
3	Y RADIAL	3732.5	3732.5	93.34 %		17:42:28
3	Al 396.153Radial†	491552.7	519453.7	505030 ug/L	505030 ppb	17:42:08
3	Ca 317.933Radial†	202566.8	213986.8	467460 ug/L	467460 ppb	17:42:08
3	Fe 238.204 Radial†	27496.8	29042.1	420130 ug/L	420130 ppb	17:42:28
3	K 766.490 Radial†	2531.9	-469.2	-442.07 ug/L	-442.07 ppb	17:42:08
3	Mg 279.077 IEC†	8584.8	9067.4	460350 ug/L	460350 ppb	17:42:28
3	Na 589.592 Radial†	1400900.0	1476066.5	506570 ug/L	506570 ppb	17:42:08
3	Sr 421.552†	1794.5	454.5	-0.0826 ug/L	-0.0826 ppb	17:42:28
3	Sc 361.383	650965.7	650965.7	86.642 %		17:43:26
3	Y 371.029	507788.3	507788.3	86.291 %		17:43:26
3	Ag 328.068†	-20533.6	-24025.7	-13.977 ug/L	-13.977 ppb	17:43:26
3	As 188.979†	-196.9	-206.6	2.6807 ug/L	2.6807 ppb	17:43:46
3	B 249.677†	1256.8	1892.6	-21.259 ug/L	-21.259 ppb	17:43:26
3	Ba 233.527†	-1440.3	-1807.4	-2.5277 ug/L	-2.5277 ppb	17:43:46
3	Be 313.107†	-9617.7	-6744.7	-2.6808 ug/L	-2.6808 ppb	17:43:26
3	Cd 226.502†	2944.9	3594.1	7.0827 ug/L	7.0827 ppb	17:43:46
3	Co 228.616†	230.9	336.8	1.2419 ug/L	1.2419 ppb	17:43:46
3	Cr 267.716†	-1204.3	-1467.8	14.796 ug/L	14.796 ppb	17:43:46
3	Cu 324.752†	1047.8	-5242.8	-2.5070 ug/L	-2.5070 ppb	17:43:26
3	Mn 257.610†	-19970.5	-23520.7	-5.1791 ug/L	-5.1791 ppb	17:43:26
3	Mo 202.031†	-460.8	-541.8	-6.1546 ug/L	-6.1546 ppb	17:43:46
3	Ni 231.604†	303.4	271.0	7.7060 ug/L	7.7060 ppb	17:43:46
3	P 214.914†	521.8	391.2	28.991 ug/L	28.991 ppb	17:43:46
3	Pb 220.353†	-455.7	-546.9	44.852 ug/L	44.852 ppb	17:43:46
3	S 181.975 Axial†	81.9	57.2	-12.423 ug/L	-12.423 ppb	17:43:46
3	Sb 206.836†	51.2	22.7	-12.065 ug/L	-12.065 ppb	17:43:46
3	Se 196.026†	-1905.4	-2169.9	41.015 ug/L	41.015 ppb	17:43:46
3	Si 251.611†	-474.8	-1044.5	-34.429 ug/L	-34.429 ppb	17:43:46
3	Sn 189.927†	-354.5	-424.5	-26.531 ug/L	-26.531 ppb	17:43:46
3	Ti 334.940†	-9161.9	-9094.5	3.2974 ug/L	3.2974 ppb	17:43:26
3	Tl 190.801†	-68.7	-46.8	-16.057 ug/L	-16.057 ppb	17:43:46
3	U 409.014†	359040.9	417458.7	15146 ug/L	15146 ppb	17:43:26
3	V 292.402†	2111.6	4129.9	10.010 ug/L	10.010 ppb	17:43:46
3	Zn 213.857†	5088.1	5228.8	-8.0261 ug/L	-8.0261 ppb	17:43:46
3	SiO2†	-424.3	-981.9	-68.782 ug/L	-68.782 ppb	17:44:02

## Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	656318.8	87.355 %	0.6457			0.74%
Sc Radial	3369.9	95.3 %	0.55			0.57%
Y 371.029	512618.3	87.111 %	0.8069			0.93%
Y RADIAL	3761.5	94.07 %	0.641			0.68%
Ag 328.068†	-24075.3	-14.174 ug/L	0.5702	-14.174 ppb	0.5702	4.02%
Al 396.153Radial†	513520.8	499260 ug/L	5155.9	499260 ppb	5155.9	1.03%
QC value within limits for Al 396.153Radial Recovery = 99.85%						
As 188.979†	-191.0	9.8496 ug/L	6.71802	9.8496 ppb	6.71802	68.21%
B 249.677†	1905.9	-20.914 ug/L	0.9426	-20.914 ppb	0.9426	4.51%
Ba 233.527†	-745.2	6.5099 ug/L	14.36346	6.5099 ppb	14.36346	220.64%
Be 313.107†	-6675.0	-2.6559 ug/L	0.03663	-2.6559 ppb	0.03663	1.38%
Ca 317.933Radial†	211560.2	462160 ug/L	4832.2	462160 ppb	4832.2	1.05%
QC value within limits for Ca 317.933Radial Recovery = 92.43%						
Cd 226.502†	3575.9	6.8451 ug/L	0.67706	6.8451 ppb	0.67706	9.89%
Co 228.616†	317.7	0.8361 ug/L	0.35412	0.8361 ppb	0.35412	42.35%
Cr 267.716†	-1423.6	15.371 ug/L	0.6555	15.371 ppb	0.6555	4.26%
Cu 324.752†	-5514.6	-3.3476 ug/L	0.76015	-3.3476 ppb	0.76015	22.71%

Fe 238.204 Radial†	29036.7	420050 ug/L	84.1	420050 ppb	84.1	0.02%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 84.01%						
K 766.490 Radial†	-73.1	-364.18 ug/L	155.118	-364.18 ppb	155.118	42.59%
Mg 279.077 IEC†	9076.2	460800 ug/L	1118.4	460800 ppb	1118.4	0.24%
QC value within limits for Mg 279.077 IEC Recovery = 92.16%						
Mn 257.610†	-23463.6	-5.1374 ug/L	0.21295	-5.1374 ppb	0.21295	4.15%
Mo 202.031†	-513.8	-3.9354 ug/L	2.01444	-3.9354 ppb	2.01444	51.19%
Na 589.592 Radial†	1463311.4	502190 ug/L	4068.1	502190 ppb	4068.1	0.81%
QC value within limits for Na 589.592 Radial Recovery = 100.44%						
Ni 231.604†	237.9	6.7641 ug/L	0.95323	6.7641 ppb	0.95323	14.09%
P 214.914†	363.6	10.964 ug/L	17.1793	10.964 ppb	17.1793	156.69%
Pb 220.353†	-555.3	42.119 ug/L	2.3672	42.119 ppb	2.3672	5.62%
S 181.975 Axial†	46.1	-27.248 ug/L	16.1717	-27.248 ppb	16.1717	59.35%
Sb 206.836†	36.6	-6.7421 ug/L	4.99153	-6.7421 ppb	4.99153	74.04%
Se 196.026†	-2151.1	52.775 ug/L	12.1558	52.775 ppb	12.1558	23.03%
Si 251.611†	-1002.0	-33.033 ug/L	1.4061	-33.033 ppb	1.4061	4.26%
Sn 189.927†	-414.9	-25.543 ug/L	1.0209	-25.543 ppb	1.0209	4.00%
Sr 421.552†	1445.0	7.3846 ug/L	19.98343	7.3846 ppb	19.98343	270.61%
Ti 334.940†	-9737.6	1.4900 ug/L	1.57095	1.4900 ppb	1.57095	105.43%
Tl 190.801†	-59.1	-20.194 ug/L	5.0685	-20.194 ppb	5.0685	25.10%
U 409.014†	416959.6	15128 ug/L	21.7	15128 ppb	21.7	0.14%
QC value within limits for U 409.014 Recovery = 100.85%						
V 292.402†	4062.4	9.4753 ug/L	0.46295	9.4753 ppb	0.46295	4.89%
Zn 213.857†	5274.4	-7.5293 ug/L	1.67114	-7.5293 ppb	1.67114	22.19%
SiO2†	-1019.1	-71.496 ug/L	3.2099	-71.496 ppb	3.2099	4.49%

QC Failed. Continue with analysis.

Sequence No.: 12

Sample ID: LR2

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 16

Date Collected: 2/19/2010 17:46:12

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	3771.5	3771.5	107 %		17:48:30
1	Y RADIAL	4141.9	4141.9	103.6 %		17:48:10
1	Al 396.153Radial†	428.9	515.4	51.484 ug/L	51.484 ppb	17:48:10
1	Ca 317.933Radial†	39.8	6.1	13.337 ug/L	13.337 ppb	17:48:30
1	Fe 238.204 Radial†	-8.6	-17.2	14.482 ug/L	14.482 ppb	17:48:30
1	K 766.490 Radial†	1596652.9	1494160.6	280750 ug/L	280750 ppb	17:48:05
1	Mg 279.077 IEC†	-3.8	-6.2	-218.42 ug/L	-218.42 ppb	17:48:30
1	Na 589.592 Radial†	1222.6	-2880.8	-988.67 ug/L	-988.67 ppb	17:48:10
1	Sr 421.552†	1301440.3	1219019.6	9140.9 ug/L	9140.9 ppb	17:48:05
1	Sc 361.383	781256.6	781256.6	103.98 %		17:49:47
1	Y 371.029	609456.2	609456.2	103.57 %		17:49:47
1	Ag 328.068†	-6905.0	-6966.9	3.2317 ug/L	3.2317 ppb	17:49:52
1	As 188.979†	20497.9	19733.3	9203.4 ug/L	9203.4 ppb	17:49:52
1	B 249.677†	201236.2	193969.0	4790.7 ug/L	4790.7 ppb	17:49:47
1	Ba 233.527†	1532577.3	1473720.9	12566 ug/L	12566 ppb	17:49:47
1	Be 313.107†	7237556.9	6964649.8	2754.4 ug/L	2754.4 ppb	17:49:41
1	Cd 226.502†	719876.5	692494.0	9160.7 ug/L	9160.7 ppb	17:49:47
1	Co 228.616†	418167.0	402217.8	8811.1 ug/L	8811.1 ppb	17:49:52
1	Cr 267.716†	1819503.5	1749722.5	22882 ug/L	22882 ppb	17:49:47
1	Cu 324.752†	6532011.1	6275324.7	19549 ug/L	19549 ppb	17:49:41
1	Mn 257.610†	7828863.8	7528477.3	8908.7 ug/L	8908.7 ppb	17:49:41
1	Mo 202.031†	117837.6	113313.4	9272.0 ug/L	9272.0 ppb	17:49:52
1	Ni 231.604†	331115.9	318352.1	9052.1 ug/L	9052.1 ppb	17:49:52
1	P 214.914†	29265.8	27933.5	13276 ug/L	13276 ppb	17:49:52
1	Pb 220.353†	172105.1	165491.0	22998 ug/L	22998 ppb	17:49:52
1	S 181.975 Axial†	36411.0	34978.8	50307 ug/L	50307 ppb	17:49:52
1	Sb 206.836†	29289.3	28130.9	10656 ug/L	10656 ppb	17:49:52
1	Se 196.026†	14848.2	14308.7	9722.7 ug/L	9722.7 ppb	17:49:52
1	Si 251.611†	1410212.5	1355692.3	45279 ug/L	45279 ppb	17:49:47
1	Sn 189.927†	50217.5	48278.4	9719.8 ug/L	9719.8 ppb	17:49:52
1	Ti 334.940†	5968459.9	5741294.7	9523.3 ug/L	9523.3 ppb	17:49:41
1	Tl 190.801†	28102.2	27058.2	9149.3 ug/L	9149.3 ppb	17:49:52
1	U 409.014†	-1361.5	-1753.8	12.683 ug/L	12.683 ppb	17:49:52
1	V 292.402†	1237117.9	1191418.0	9870.3 ug/L	9870.3 ppb	17:49:47
1	Zn 213.857†	1312390.1	1261470.1	13154 ug/L	13154 ppb	17:49:47
1	SiO2†	1405410.7	1351078.7	96053 ug/L	96053 ppb	17:50:38
2	Sc Radial	3815.9	3815.9	108 %		17:49:00
2	Y RADIAL	4344.1	4344.1	108.6 %		17:48:40
2	Al 396.153Radial†	404.3	488.0	27.049 ug/L	27.049 ppb	17:48:40
2	Ca 317.933Radial†	42.7	8.3	18.111 ug/L	18.111 ppb	17:49:00
2	Fe 238.204 Radial†	-9.7	-18.1	0.2469 ug/L	0.2469 ppb	17:49:00
2	K 766.490 Radial†	1671064.7	1545704.5	290430 ug/L	290430 ppb	17:48:35
2	Mg 279.077 IEC†	-2.1	-4.6	-136.41 ug/L	-136.41 ppb	17:49:00
2	Na 589.592 Radial†	1133.1	-2977.2	-1021.7 ug/L	-1021.7 ppb	17:48:40
2	Sr 421.552†	1376088.9	1274005.0	9553.2 ug/L	9553.2 ppb	17:48:35
2	Sc 361.383	777482.1	777482.1	103.48 %		17:50:07
2	Y 371.029	606914.1	606914.1	103.14 %		17:50:07
2	Ag 328.068†	-6802.3	-6899.8	3.5732 ug/L	3.5732 ppb	17:50:12
2	As 188.979†	20142.8	19485.9	9090.8 ug/L	9090.8 ppb	17:50:12
2	B 249.677†	201019.8	194699.4	4808.9 ug/L	4808.9 ppb	17:50:07
2	Ba 233.527†	1525286.4	1473830.5	12567 ug/L	12567 ppb	17:50:07
2	Be 313.107†	7393157.5	7148806.6	2827.2 ug/L	2827.2 ppb	17:50:00
2	Cd 226.502†	717157.5	693227.4	9170.4 ug/L	9170.4 ppb	17:50:07
2	Co 228.616†	414194.5	400331.3	8769.2 ug/L	8769.2 ppb	17:50:12
2	Cr 267.716†	1812876.5	1751813.3	22910 ug/L	22910 ppb	17:50:07
2	Cu 324.752†	6665988.9	6435292.0	20048 ug/L	20048 ppb	17:50:00
2	Mn 257.610†	7967342.9	7698849.2	9110.3 ug/L	9110.3 ppb	17:50:00
2	Mo 202.031†	116673.6	112738.7	9224.9 ug/L	9224.9 ppb	17:50:12
2	Ni 231.604†	328797.5	317657.5	9032.4 ug/L	9032.4 ppb	17:50:12



2	P 214.914†	28898.1	27714.8	13044 ug/L	13044 ppb	17:50:12
2	Pb 220.353†	171210.2	165429.8	22989 ug/L	22989 ppb	17:50:12
2	S 181.975 Axial†	35721.6	34482.5	49593 ug/L	49593 ppb	17:50:12
2	Sb 206.836†	28776.1	27771.7	10522 ug/L	10522 ppb	17:50:12
2	Se 196.026†	14608.8	14146.6	9612.7 ug/L	9612.7 ppb	17:50:12
2	Si 251.611†	1404667.0	1356917.3	45321 ug/L	45321 ppb	17:50:07
2	Sn 189.927†	49950.8	48255.1	9715.2 ug/L	9715.2 ppb	17:50:12
2	Ti 334.940†	6078194.3	5875203.1	9745.6 ug/L	9745.6 ppb	17:50:00
2	Tl 190.801†	27843.5	26939.4	9112.4 ug/L	9112.4 ppb	17:50:12
2	U 409.014†	-1590.7	1526.0	4.3318 ug/L	4.3318 ppb	17:50:12
2	V 292.402†	1230866.9	1191153.1	9867.2 ug/L	9867.2 ppb	17:50:07
2	Zn 213.857†	1308510.7	1263848.5	13179 ug/L	13179 ppb	17:50:07
2	SiO2†	1382246.6	1335255.5	94926 ug/L	94926 ppb	17:50:44
3	Sc Radial	3826.7	3826.7	108 %		17:49:31
3	Y RADIAL	4311.6	4311.6	107.8 %		17:49:11
3	Al 396.153Radial†	399.8	482.8	13.035 ug/L	13.035 ppb	17:49:11
3	Ca 317.933Radial†	38.5	4.3	9.4936 ug/L	9.4936 ppb	17:49:31
3	Fe 238.204 Radial†	-7.6	-16.2	32.893 ug/L	32.893 ppb	17:49:31
3	K 766.490 Radial†	1626256.2	1499920.7	281830 ug/L	281830 ppb	17:49:06
3	Mg 279.077 IEC†	-5.4	-7.6	-288.76 ug/L	-288.76 ppb	17:49:31
3	Na 589.592 Radial†	1118.4	-2993.7	-1027.4 ug/L	-1027.4 ppb	17:49:11
3	Sr 421.552†	1334201.8	1231692.6	9235.9 ug/L	9235.9 ppb	17:49:06
3	Sc 361.383	770728.9	770728.9	102.58 %		17:50:27
3	Y 371.029	601506.2	601506.2	102.22 %		17:50:27
3	Ag 328.068†	-7004.1	-7154.1	2.3800 ug/L	2.3800 ppb	17:50:32
3	As 188.979†	20375.8	19883.6	9273.9 ug/L	9273.9 ppb	17:50:32
3	B 249.677†	199019.4	194451.5	4802.3 ug/L	4802.3 ppb	17:50:27
3	Ba 233.527†	1518088.7	1479729.2	12617 ug/L	12617 ppb	17:50:27
3	Be 313.107†	7258376.8	7080019.3	2800.0 ug/L	2800.0 ppb	17:50:20
3	Cd 226.502†	715044.8	697240.3	9223.6 ug/L	9223.6 ppb	17:50:27
3	Co 228.616†	418338.1	407877.7	8935.1 ug/L	8935.1 ppb	17:50:32
3	Cr 267.716†	1804915.0	1759402.5	23009 ug/L	23009 ppb	17:50:27
3	Cu 324.752†	6554197.0	6382757.6	19884 ug/L	19884 ppb	17:50:20
3	Mn 257.610†	7840561.7	7642721.9	9043.9 ug/L	9043.9 ppb	17:50:20
3	Mo 202.031†	117983.5	115003.6	9410.3 ug/L	9410.3 ppb	17:50:32
3	Ni 231.604†	332085.9	323647.3	9202.7 ug/L	9202.7 ppb	17:50:32
3	P 214.914†	29340.3	28390.6	13491 ug/L	13491 ppb	17:50:32
3	Pb 220.353†	173096.7	168718.5	23447 ug/L	23447 ppb	17:50:32
3	S 181.975 Axial†	36251.0	35301.1	50770 ug/L	50770 ppb	17:50:32
3	Sb 206.836†	29129.9	28360.3	10745 ug/L	10745 ppb	17:50:32
3	Se 196.026†	14786.6	14443.7	9814.7 ug/L	9814.7 ppb	17:50:32
3	Si 251.611†	1393037.5	1357474.4	45337 ug/L	45337 ppb	17:50:27
3	Sn 189.927†	50545.8	49258.1	9917.1 ug/L	9917.1 ppb	17:50:32
3	Ti 334.940†	5972754.9	5823884.2	9660.4 ug/L	9660.4 ppb	17:50:20
3	Tl 190.801†	28128.2	27452.7	9282.9 ug/L	9282.9 ppb	17:50:32
3	U 409.014†	-1530.7	1571.0	5.7443 ug/L	5.7443 ppb	17:50:32
3	V 292.402†	1223812.0	1194698.0	9898.9 ug/L	9898.9 ppb	17:50:27
3	Zn 213.857†	1303665.6	1270204.9	13244 ug/L	13244 ppb	17:50:27
3	SiO2†	1394138.5	1358551.9	96582 ug/L	96582 ppb	17:50:50

## Mean Data: LR2

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	776489.2	103.35 %		0.710			0.69%
Sc Radial	3804.7	108 %		0.8			0.77%
Y 371.029	605958.9	102.97 %		0.690			0.67%
Y RADIAL	4265.9	106.7 %		2.72			2.54%
Ag 328.068†	-7006.9	3.0616 ug/L		0.61448	3.0616 ppb	0.61448	20.07%
Al 396.153Radial†	495.4	30.523 ug/L		19.4586	30.523 ppb	19.4586	63.75%
As 188.979†	19700.9	9189.4 ug/L		92.35	9189.4 ppb	92.35	1.01%
QC value within limits for As 188.979 Recovery = 91.89%							
B 249.677†	194373.3	4800.6 ug/L		9.24	4800.6 ppb	9.24	0.19%
QC value within limits for B 249.677 Recovery = 96.01%							
Ba 233.527†	1475760.2	12583 ug/L		29.3	12583 ppb	29.3	0.23%
QC value less than the lower limit for Ba 233.527 Recovery = 83.89%							
Be 313.107†	7064491.9	2793.9 ug/L		36.77	2793.9 ppb	36.77	1.32%
QC value within limits for Be 313.107 Recovery = 93.13%							
Ca 317.933Radial†	6.2	13.647 ug/L		4.3169	13.647 ppb	4.3169	31.63%
Cd 226.502†	694320.6	9184.9 ug/L		33.83	9184.9 ppb	33.83	0.37%
QC value within limits for Cd 226.502 Recovery = 91.85%							

Co 228.616†	403475.6	8838.5 ug/L	86.29	8838.5 ppb	86.29	0.98%
QC value less than the lower limit for Co 228.616 Recovery = 88.38%						
Cr 267.716†	1753646.1	22934 ug/L	66.6	22934 ppb	66.6	0.29%
QC value within limits for Cr 267.716 Recovery = 91.73%						
Cu 324.752†	6364458.1	19827 ug/L	254.0	19827 ppb	254.0	1.28%
QC value within limits for Cu 324.752 Recovery = 99.14%						
Fe 238.204 Radial†	-17.2	15.874 ug/L	16.3673	15.874 ppb	16.3673	103.11%
K 766.490 Radial†	1513261.9	284340 ug/L	5307.1	284340 ppb	5307.1	1.87%
QC value within limits for K 766.490 Radial Recovery = 94.78%						
Mg 279.077 IEC†	-6.1	-214.53 ug/L	76.248	-214.53 ppb	76.248	35.54%
Mn 257.610†	7623349.5	9021.0 ug/L	102.74	9021.0 ppb	102.74	1.14%
QC value within limits for Mn 257.610 Recovery = 90.21%						
Mo 202.031†	113685.2	9302.4 ug/L	96.34	9302.4 ppb	96.34	1.04%
QC value within limits for Mo 202.031 Recovery = 93.02%						
Na 589.592 Radial†	-2950.6	-1012.6 ug/L	20.92	-1012.6 ppb	20.92	2.07%
Ni 231.604†	319885.6	9095.7 ug/L	93.16	9095.7 ppb	93.16	1.02%
QC value within limits for Ni 231.604 Recovery = 90.96%						
P 214.914†	28013.0	13270 ug/L	223.7	13270 ppb	223.7	1.69%
QC value less than the lower limit for P 214.914 Recovery = 88.47%						
Pb 220.353†	166546.5	23145 ug/L	261.5	23145 ppb	261.5	1.13%
QC value within limits for Pb 220.353 Recovery = 92.58%						
S 181.975 Axial†	34920.8	50223 ug/L	593.0	50223 ppb	593.0	1.18%
QC value within limits for S 181.975 Axial Recovery = 100.45%						
Sb 206.836†	28087.6	10641 ug/L	112.3	10641 ppb	112.3	1.06%
QC value within limits for Sb 206.836 Recovery = 106.41%						
Se 196.026†	14299.7	9716.7 ug/L	101.09	9716.7 ppb	101.09	1.04%
QC value within limits for Se 196.026 Recovery = 97.17%						
Si 251.611†	1356694.7	45313 ug/L	29.9	45313 ppb	29.9	0.07%
QC value within limits for Si 251.611 Recovery = 90.63%						
Sn 189.927†	48597.2	9784.0 ug/L	115.26	9784.0 ppb	115.26	1.18%
QC value within limits for Sn 189.927 Recovery = 97.84%						
Sr 421.552†	1241572.4	9310.0 ug/L	215.91	9310.0 ppb	215.91	2.32%
QC value within limits for Sr 421.552 Recovery = 93.10%						
Ti 334.940†	5813460.7	9643.1 ug/L	112.15	9643.1 ppb	112.15	1.16%
QC value within limits for Ti 334.940 Recovery = 96.43%						
Tl 190.801†	27150.1	9181.5 ug/L	89.73	9181.5 ppb	89.73	0.98%
QC value within limits for Tl 190.801 Recovery = 91.82%						
U 409.014†	1616.9	7.5864 ug/L	4.47010	7.5864 ppb	4.47010	58.92%
V 292.402†	1192423.0	9878.8 ug/L	17.48	9878.8 ppb	17.48	0.18%
QC value within limits for V 292.402 Recovery = 98.79%						
Zn 213.857†	1265174.5	13192 ug/L	46.7	13192 ppb	46.7	0.35%
QC value less than the lower limit for Zn 213.857 Recovery = 87.95%						
SiO2†	1348295.4	95854 ug/L	845.6	95854 ppb	845.6	0.88%
QC value less than the lower limit for SiO2 Recovery = 89.58%						

QC Failed. Continue with analysis.

Sequence No.: 13

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/19/2010 17:53:00

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	3781.0	3781.0	107	%		17:55:12
1	Y RADIAL	4294.0	4294.0	107.4	%		17:54:52
1	Al 396.153Radial†	5208.6	4985.5	4823.5	ug/L	4823.5 ppb	17:54:52
1	Ca 317.933Radial†	2426.1	2238.2	4889.4	ug/L	4889.4 ppb	17:55:12
1	Fe 238.204 Radial†	372.4	339.2	4921.2	ug/L	4921.2 ppb	17:55:12
1	K 766.490 Radial†	30739.3	25610.5	4806.4	ug/L	4806.4 ppb	17:54:52
1	Mg 279.077 IEC†	105.7	96.2	4888.1	ug/L	4888.1 ppb	17:55:12
1	Na 589.592 Radial†	32709.8	26570.6	9118.7	ug/L	9118.7 ppb	17:54:52
1	Sr 421.552†	70564.1	64566.8	484.12	ug/L	484.12 ppb	17:54:52
1	Sc 361.383	771213.9	771213.9	102.65	%		17:56:10
1	Y 371.029	601917.0	601917.0	102.29	%		17:56:10
1	Ag 328.068†	98748.1	95875.5	499.77	ug/L	499.77 ppb	17:56:15
1	As 188.979†	1095.6	1088.0	508.30	ug/L	508.30 ppb	17:56:35
1	B 249.677†	20889.4	20792.7	514.04	ug/L	514.04 ppb	17:56:15
1	Ba 233.527†	58915.1	57250.9	488.54	ug/L	488.54 ppb	17:56:15
1	Be 313.107†	1246401.3	1218617.7	479.26	ug/L	479.26 ppb	17:56:10
1	Cd 226.502†	37364.5	36596.2	483.72	ug/L	483.72 ppb	17:56:15
1	Co 228.616†	22765.4	22248.7	487.59	ug/L	487.59 ppb	17:56:15
1	Cr 267.716†	38035.1	36976.6	484.22	ug/L	484.22 ppb	17:56:15
1	Cu 324.752†	168704.7	157902.3	491.87	ug/L	491.87 ppb	17:56:15
1	Mn 257.610†	418671.2	407404.1	482.38	ug/L	482.38 ppb	17:56:10
1	Mo 202.031†	6103.8	5936.4	486.19	ug/L	486.19 ppb	17:56:35
1	Ni 231.604†	17501.1	16970.6	482.54	ug/L	482.54 ppb	17:56:15
1	P 214.914†	4188.1	3869.0	2268.1	ug/L	2268.1 ppb	17:56:35
1	Pb 220.353†	3576.4	3463.3	483.11	ug/L	483.11 ppb	17:56:35
1	S 181.975 Axial†	739.0	682.5	980.72	ug/L	980.72 ppb	17:56:35
1	Sb 206.836†	1411.3	1338.5	508.15	ug/L	508.15 ppb	17:56:35
1	Se 196.026†	699.1	710.4	500.36	ug/L	500.36 ppb	17:56:35
1	Si 251.611†	76159.9	73699.6	2461.7	ug/L	2461.7 ppb	17:56:15
1	Sn 189.927†	2503.5	2423.6	488.54	ug/L	488.54 ppb	17:56:35
1	Ti 334.940†	298177.0	291968.2	484.56	ug/L	484.56 ppb	17:56:15
1	Tl 190.801†	1478.6	1473.0	497.83	ug/L	497.83 ppb	17:56:35
1	U 409.014†	12094.4	14845.6	538.69	ug/L	538.69 ppb	17:56:15
1	V 292.402†	59613.1	59768.6	496.09	ug/L	496.09 ppb	17:56:15
1	Zn 213.857†	48621.2	46723.7	485.86	ug/L	485.86 ppb	17:56:15
1	SiO2†	75881.8	73433.0	5221.1	ug/L	5221.1 ppb	17:57:42
2	Sc Radial	3769.5	3769.5	107	%		17:55:37
2	Y RADIAL	4287.8	4287.8	107.2	%		17:55:17
2	Al 396.153Radial†	5223.9	5014.7	4851.8	ug/L	4851.8 ppb	17:55:17
2	Ca 317.933Radial†	2406.8	2227.1	4865.0	ug/L	4865.0 ppb	17:55:37
2	Fe 238.204 Radial†	371.0	339.0	4918.4	ug/L	4918.4 ppb	17:55:37
2	K 766.490 Radial†	30674.7	25637.4	4811.4	ug/L	4811.4 ppb	17:55:17
2	Mg 279.077 IEC†	107.8	98.5	5005.0	ug/L	5005.0 ppb	17:55:37
2	Na 589.592 Radial†	32737.2	26689.5	9159.5	ug/L	9159.5 ppb	17:55:17
2	Sr 421.552†	70707.8	64902.7	486.64	ug/L	486.64 ppb	17:55:17
2	Sc 361.383	770536.3	770536.3	102.56	%		17:56:41
2	Y 371.029	603204.9	603204.9	102.51	%		17:56:41
2	Ag 328.068†	98393.0	95613.8	498.41	ug/L	498.41 ppb	17:56:46
2	As 188.979†	1092.6	1086.1	507.38	ug/L	507.38 ppb	17:57:06
2	B 249.677†	20841.5	20764.0	513.34	ug/L	513.34 ppb	17:56:46
2	Ba 233.527†	58363.3	56763.3	484.39	ug/L	484.39 ppb	17:56:46
2	Be 313.107†	1248383.2	1221618.0	480.44	ug/L	480.44 ppb	17:56:41
2	Cd 226.502†	37169.9	36438.4	481.63	ug/L	481.63 ppb	17:56:46
2	Co 228.616†	22560.0	22067.9	483.63	ug/L	483.63 ppb	17:56:46
2	Cr 267.716†	37902.0	36879.4	482.95	ug/L	482.95 ppb	17:56:46
2	Cu 324.752†	168290.1	157642.6	491.07	ug/L	491.07 ppb	17:56:46
2	Mn 257.610†	417239.0	406366.3	481.15	ug/L	481.15 ppb	17:56:41
2	Mo 202.031†	6120.2	5957.6	487.93	ug/L	487.93 ppb	17:57:06
2	Ni 231.604†	17470.5	16955.8	482.12	ug/L	482.12 ppb	17:56:46

2	P 214.914†	4201.4	3885.5	2278.4 ug/L	2278.4 ppb	17:57:06
2	Pb 220.353†	3556.7	3447.2	480.88 ug/L	480.88 ppb	17:57:06
2	S 181.975 Axial†	733.1	677.4	973.35 ug/L	973.35 ppb	17:57:06
2	Sb 206.836†	1403.1	1331.8	505.72 ug/L	505.72 ppb	17:57:06
2	Se 196.026†	699.8	711.6	501.19 ug/L	501.19 ppb	17:57:06
2	Si 251.611†	75755.4	73370.4	2450.7 ug/L	2450.7 ppb	17:56:46
2	Sn 189.927†	2497.4	2419.8	487.76 ug/L	487.76 ppb	17:57:06
2	Ti 334.940†	297045.5	291120.4	483.15 ug/L	483.15 ppb	17:56:46
2	Tl 190.801†	1479.1	1474.7	498.41 ug/L	498.41 ppb	17:57:06
2	U 409.014†	11930.0	14695.7	533.23 ug/L	533.23 ppb	17:56:46
2	V 292.402†	59357.0	59570.0	494.48 ug/L	494.48 ppb	17:56:46
2	Zn 213.857†	48420.5	46569.6	484.24 ug/L	484.24 ppb	17:56:46
2	SiO2†	75412.6	73040.4	5193.1 ug/L	5193.1 ppb	17:57:48
3	Sc Radial	3770.8	3770.8	107 %		17:56:03
3	Y RADIAL	4242.8	4242.8	106.1 %		17:55:43
3	Al 396.153Radial†	5206.2	4996.3	4834.3 ug/L	4834.3 ppb	17:55:43
3	Ca 317.933Radial†	2421.2	2239.7	4892.8 ug/L	4892.8 ppb	17:56:03
3	Fe 238.204 Radial†	372.1	339.8	4930.4 ug/L	4930.4 ppb	17:56:03
3	K 766.490 Radial†	30951.5	25886.7	4858.3 ug/L	4858.3 ppb	17:55:43
3	Mg 279.077 IEC†	104.8	95.7	4861.1 ug/L	4861.1 ppb	17:56:03
3	Na 589.592 Radial†	32542.5	26495.7	9093.0 ug/L	9093.0 ppb	17:55:43
3	Sr 421.552†	70324.0	64518.7	483.76 ug/L	483.76 ppb	17:55:43
3	Sc 361.383	782993.3	782993.3	104.21 %		17:57:12
3	Y 371.029	612456.6	612456.6	104.08 %		17:57:12
3	Ag 328.068†	98444.7	94137.1	490.73 ug/L	490.73 ppb	17:57:17
3	As 188.979†	1091.3	1067.8	498.87 ug/L	498.87 ppb	17:57:37
3	B 249.677†	20768.3	20370.4	503.59 ug/L	503.59 ppb	17:57:17
3	Ba 233.527†	58442.5	55933.9	477.32 ug/L	477.32 ppb	17:57:17
3	Be 313.107†	1265281.7	1218467.0	479.18 ug/L	479.18 ppb	17:57:12
3	Cd 226.502†	37301.5	35988.1	475.67 ug/L	475.67 ppb	17:57:17
3	Co 228.616†	22622.9	21778.3	477.29 ug/L	477.29 ppb	17:57:17
3	Cr 267.716†	37893.0	36282.7	475.14 ug/L	475.14 ppb	17:57:17
3	Cu 324.752†	168283.0	155025.1	482.91 ug/L	482.91 ppb	17:57:17
3	Mn 257.610†	422059.0	404518.8	478.97 ug/L	478.97 ppb	17:57:12
3	Mo 202.031†	6108.1	5851.1	479.21 ug/L	479.21 ppb	17:57:37
3	Ni 231.604†	17490.1	16703.6	474.94 ug/L	474.94 ppb	17:57:17
3	P 214.914†	4207.6	3826.3	2243.8 ug/L	2243.8 ppb	17:57:37
3	Pb 220.353†	3571.2	3405.9	475.13 ug/L	475.13 ppb	17:57:37
3	S 181.975 Axial†	735.1	667.9	959.73 ug/L	959.73 ppb	17:57:37
3	Sb 206.836†	1407.5	1314.2	498.95 ug/L	498.95 ppb	17:57:37
3	Se 196.026†	709.8	710.3	500.33 ug/L	500.33 ppb	17:57:37
3	Si 251.611†	75792.8	72231.1	2412.7 ug/L	2412.7 ppb	17:57:17
3	Sn 189.927†	2490.7	2374.6	478.67 ug/L	478.67 ppb	17:57:37
3	Ti 334.940†	296604.9	286089.5	474.81 ug/L	474.81 ppb	17:57:17
3	Tl 190.801†	1484.9	1457.4	492.56 ug/L	492.56 ppb	17:57:37
3	U 409.014†	12052.5	14628.2	530.79 ug/L	530.79 ppb	17:57:17
3	V 292.402†	59359.0	58651.1	486.83 ug/L	486.83 ppb	17:57:17
3	Zn 213.857†	48512.9	45907.1	477.35 ug/L	477.35 ppb	17:57:17
3	SiO2†	75525.4	71978.8	5117.6 ug/L	5117.6 ppb	17:57:53

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	774914.5	103.14 %	0.932			0.90%
Sc Radial	3773.8	107 %	0.2			0.17%
Y 371.029	605859.5	102.96 %	0.977			0.95%
Y RADIAL	4274.9	106.9 %	0.70			0.65%
Ag 328.068†	95208.8	496.30 ug/L	4.872	496.30 ppb	4.872	0.98%
QC value within limits for Ag 328.068 Recovery = 99.26%						
Al 396.153Radial†	4998.9	4836.5 ug/L	14.27	4836.5 ppb	14.27	0.30%
QC value within limits for Al 396.153Radial Recovery = 96.73%						
As 188.979†	1080.6	504.85 ug/L	5.200	504.85 ppb	5.200	1.03%
QC value within limits for As 188.979 Recovery = 100.97%						
B 249.677†	20642.3	510.32 ug/L	5.846	510.32 ppb	5.846	1.15%
QC value within limits for B 249.677 Recovery = 102.06%						
Ba 233.527†	56649.4	483.42 ug/L	5.678	483.42 ppb	5.678	1.17%
QC value within limits for Ba 233.527 Recovery = 96.68%						
Be 313.107†	1219567.6	479.63 ug/L	0.702	479.63 ppb	0.702	0.15%
QC value within limits for Be 313.107 Recovery = 95.93%						
Ca 317.933Radial†	2235.0	4882.4 ug/L	15.14	4882.4 ppb	15.14	0.31%

QC value within limits for Ca 317.933 Radial Recovery = 97.65%							
Cd 226.502†	36340.9	480.34 ug/L	4.176	480.34 ppb	4.176	0.87%	
QC value within limits for Cd 226.502 Recovery = 96.07%							
Co 228.616†	22031.6	482.84 ug/L	5.198	482.84 ppb	5.198	1.08%	
QC value within limits for Co 228.616 Recovery = 96.57%							
Cr 267.716†	36712.9	480.77 ug/L	4.915	480.77 ppb	4.915	1.02%	
QC value within limits for Cr 267.716 Recovery = 96.15%							
Cu 324.752†	156856.7	488.62 ug/L	4.956	488.62 ppb	4.956	1.01%	
QC value within limits for Cu 324.752 Recovery = 97.72%							
Fe 238.204 Radial†	339.3	4923.4 ug/L	6.26	4923.4 ppb	6.26	0.13%	
QC value within limits for Fe 238.204 Radial Recovery = 98.47%							
K 766.490 Radial†	25711.5	4825.4 ug/L	28.62	4825.4 ppb	28.62	0.59%	
QC value within limits for K 766.490 Radial Recovery = 96.51%							
Mg 279.077 IEC†	96.8	4918.1 ug/L	76.47	4918.1 ppb	76.47	1.55%	
QC value within limits for Mg 279.077 IEC Recovery = 98.36%							
Mn 257.610†	406096.4	480.83 ug/L	1.728	480.83 ppb	1.728	0.36%	
QC value within limits for Mn 257.610 Recovery = 96.17%							
Mo 202.031†	5915.0	484.44 ug/L	4.614	484.44 ppb	4.614	0.95%	
QC value within limits for Mo 202.031 Recovery = 96.89%							
Na 589.592 Radial†	26585.3	9123.8 ug/L	33.53	9123.8 ppb	33.53	0.37%	
QC value within limits for Na 589.592 Radial Recovery = 91.24%							
Ni 231.604†	16876.7	479.87 ug/L	4.267	479.87 ppb	4.267	0.89%	
QC value within limits for Ni 231.604 Recovery = 95.97%							
P 214.914†	3860.3	2263.4 ug/L	17.80	2263.4 ppb	17.80	0.79%	
QC value within limits for P 214.914 Recovery = 90.54%							
Pb 220.353†	3438.8	479.70 ug/L	4.116	479.70 ppb	4.116	0.86%	
QC value within limits for Pb 220.353 Recovery = 95.94%							
S 181.975 Axial†	676.0	971.27 ug/L	10.649	971.27 ppb	10.649	1.10%	
QC value within limits for S 181.975 Axial Recovery = 97.13%							
Sb 206.836†	1328.2	504.27 ug/L	4.768	504.27 ppb	4.768	0.95%	
QC value within limits for Sb 206.836 Recovery = 100.85%							
Se 196.026†	710.8	500.63 ug/L	0.486	500.63 ppb	0.486	0.10%	
QC value within limits for Se 196.026 Recovery = 100.13%							
Si 251.611†	73100.4	2441.7 ug/L	25.75	2441.7 ppb	25.75	1.05%	
QC value within limits for Si 251.611 Recovery = 97.67%							
Sn 189.927†	2406.0	484.99 ug/L	5.484	484.99 ppb	5.484	1.13%	
QC value within limits for Sn 189.927 Recovery = 97.00%							
Sr 421.552†	64662.7	484.84 ug/L	1.569	484.84 ppb	1.569	0.32%	
QC value within limits for Sr 421.552 Recovery = 96.97%							
Ti 334.940†	289726.1	480.84 ug/L	5.268	480.84 ppb	5.268	1.10%	
QC value within limits for Ti 334.940 Recovery = 96.17%							
Tl 190.801†	1468.4	496.26 ug/L	3.224	496.26 ppb	3.224	0.65%	
QC value within limits for Tl 190.801 Recovery = 99.25%							
U 409.014†	14723.2	534.24 ug/L	4.042	534.24 ppb	4.042	0.76%	
QC value within limits for U 409.014 Recovery = 106.85%							
V 292.402†	59329.9	492.47 ug/L	4.945	492.47 ppb	4.945	1.00%	
QC value within limits for V 292.402 Recovery = 98.49%							
Zn 213.857†	46400.1	482.48 ug/L	4.520	482.48 ppb	4.520	0.94%	
QC value within limits for Zn 213.857 Recovery = 96.50%							
SiO2†	72817.4	5177.3 ug/L	53.51	5177.3 ppb	53.51	1.03%	
QC value within limits for SiO2 Recovery = 96.82%							
All analyte(s) passed QC.							

Sequence No.: 14  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 2/19/2010 18:00:03  
 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	3755.1	3755.1	106 %		18:02:15
1	Y RADIAL	4223.5	4223.5	105.6 %		18:01:55
1	Al 396.153Radial†	-104.5	14.9	14.417 ug/L	14.417 ppb	18:02:15
1	Ca 317.933Radial†	32.2	-0.9	-2.0710 ug/L	-2.0710 ppb	18:02:15
1	Fe 238.204 Radial†	8.6	-1.1	-15.623 ug/L	-15.623 ppb	18:02:15
1	K 766.490 Radial†	3217.0	-114.1	-21.028 ug/L	-21.028 ppb	18:01:55
1	Mg 279.077 IEC†	1.3	-1.4	-70.276 ug/L	-70.276 ppb	18:02:15
1	Na 589.592 Radial†	980.4	-3103.9	-1065.2 ug/L	-1065.2 ppb	18:01:55
1	Sr 421.552†	331.1	-1129.5	-8.4699 ug/L	-8.4699 ppb	18:01:55
1	Sc 361.383	765151.8	765151.8	101.84 %		18:03:12
1	Y 371.029	605284.7	605284.7	102.86 %		18:03:12
1	Ag 328.068†	99.6	-228.5	-1.1928 ug/L	-1.1928 ppb	18:03:12
1	As 188.979†	-7.1	13.7	6.3436 ug/L	6.3436 ppb	18:03:32
1	B 249.677†	501.2	934.1	23.193 ug/L	23.193 ppb	18:03:12
1	Ba 233.527†	70.9	-75.4	-0.6402 ug/L	-0.6402 ppb	18:03:32
1	Be 313.107†	-4638.1	-198.5	-0.0772 ug/L	-0.0772 ppb	18:03:12
1	Cd 226.502†	-125.5	71.9	0.9540 ug/L	0.9540 ppb	18:03:32
1	Co 228.616†	-52.6	18.7	0.4098 ug/L	0.4098 ppb	18:03:32
1	Cr 267.716†	96.0	16.4	0.2106 ug/L	0.2106 ppb	18:03:32
1	Cu 324.752†	6065.6	-496.2	-1.5518 ug/L	-1.5518 ppb	18:03:12
1	Mn 257.610†	464.0	-15.7	-0.0173 ug/L	-0.0173 ppb	18:03:32
1	Mo 202.031†	15.8	5.6	0.4537 ug/L	0.4537 ppb	18:03:32
1	Ni 231.604†	75.6	-4.9	-0.1389 ug/L	-0.1389 ppb	18:03:32
1	P 214.914†	203.4	-11.4	-6.5653 ug/L	-6.5653 ppb	18:03:32
1	Pb 220.353†	-9.9	-30.6	-4.2455 ug/L	-4.2455 ppb	18:03:32
1	S 181.975 Axial†	40.6	2.4	3.5060 ug/L	3.5060 ppb	18:03:32
1	Sb 206.836†	46.7	9.5	3.5724 ug/L	3.5724 ppb	18:03:32
1	Se 196.026†	-24.1	5.6	3.7462 ug/L	3.7462 ppb	18:03:32
1	Si 251.611†	556.0	49.4	1.6487 ug/L	1.6487 ppb	18:03:32
1	Sn 189.927†	44.3	28.2	5.6758 ug/L	5.6758 ppb	18:03:32
1	Ti 334.940†	-1335.0	169.1	0.2819 ug/L	0.2819 ppb	18:03:12
1	Tl 190.801†	-14.3	18.5	6.1985 ug/L	6.1985 ppb	18:03:32
1	U 409.014†	-2851.2	263.4	9.5884 ug/L	9.5884 ppb	18:03:12
1	V 292.402†	-1606.3	115.4	0.9707 ug/L	0.9707 ppb	18:03:12
1	Zn 213.857†	790.6	132.5	1.3958 ug/L	1.3958 ppb	18:03:32
1	SiO2†	597.9	94.9	6.7496 ug/L	6.7496 ppb	18:04:28
2	Sc Radial	3776.5	3776.5	107 %		18:02:40
2	Y RADIAL	4263.2	4263.2	106.6 %		18:02:20
2	Al 396.153Radial†	-107.4	12.7	12.266 ug/L	12.266 ppb	18:02:40
2	Ca 317.933Radial†	26.8	-6.1	-13.400 ug/L	-13.400 ppb	18:02:40
2	Fe 238.204 Radial†	10.3	0.5	7.8111 ug/L	7.8111 ppb	18:02:40
2	K 766.490 Radial†	3131.4	-211.5	-39.320 ug/L	-39.320 ppb	18:02:20
2	Mg 279.077 IEC†	4.5	1.6	81.063 ug/L	81.063 ppb	18:02:40
2	Na 589.592 Radial†	980.5	-3109.1	-1067.0 ug/L	-1067.0 ppb	18:02:20
2	Sr 421.552†	216.9	-1238.3	-9.2851 ug/L	-9.2851 ppb	18:02:20
2	Sc 361.383	760909.3	760909.3	101.28 %		18:03:38
2	Y 371.029	602694.5	602694.5	102.42 %		18:03:38
2	Ag 328.068†	111.7	-216.1	-1.1279 ug/L	-1.1279 ppb	18:03:38
2	As 188.979†	-7.1	13.7	6.3324 ug/L	6.3324 ppb	18:03:58
2	B 249.677†	544.0	979.1	24.307 ug/L	24.307 ppb	18:03:38
2	Ba 233.527†	39.5	-106.0	-0.8997 ug/L	-0.8997 ppb	18:03:58
2	Be 313.107†	-4636.6	-222.4	-0.0861 ug/L	-0.0861 ppb	18:03:38
2	Cd 226.502†	-137.7	59.2	0.7857 ug/L	0.7857 ppb	18:03:58
2	Co 228.616†	-70.7	0.5	0.0137 ug/L	0.0137 ppb	18:03:58
2	Cr 267.716†	97.0	18.0	0.2296 ug/L	0.2296 ppb	18:03:58
2	Cu 324.752†	6047.3	-481.0	-1.5087 ug/L	-1.5087 ppb	18:03:38
2	Mn 257.610†	469.5	-7.7	-0.0116 ug/L	-0.0116 ppb	18:03:58
2	Mo 202.031†	28.7	18.4	1.5064 ug/L	1.5064 ppb	18:03:58
2	Ni 231.604†	88.4	8.2	0.2323 ug/L	0.2323 ppb	18:03:58

2	P 214.914†	218.7	4.9	3.3261 ug/L	3.3261 ppb	18:03:58
2	Pb 220.353†	-20.4	-41.1	-5.6962 ug/L	-5.6962 ppb	18:03:58
2	S 181.975 Axial†	51.2	13.2	18.991 ug/L	18.991 ppb	18:03:58
2	Sb 206.836†	42.3	5.4	2.1027 ug/L	2.1027 ppb	18:03:58
2	Se 196.026†	-22.1	7.4	5.0603 ug/L	5.0603 ppb	18:03:58
2	Si 251.611†	563.8	60.2	1.9963 ug/L	1.9963 ppb	18:03:58
2	Sn 189.927†	41.4	25.6	5.1509 ug/L	5.1509 ppb	18:03:58
2	Ti 334.940†	-1191.3	303.7	0.4872 ug/L	0.4872 ppb	18:03:38
2	Tl 190.801†	-11.4	21.3	7.1464 ug/L	7.1464 ppb	18:03:58
2	U 409.014†	-2568.4	527.1	19.182 ug/L	19.182 ppb	18:03:38
2	V 292.402†	-1565.4	147.0	1.2616 ug/L	1.2616 ppb	18:03:38
2	Zn 213.857†	780.2	126.6	1.3276 ug/L	1.3276 ppb	18:03:58
2	SiO2†	568.9	69.5	4.9144 ug/L	4.9144 ppb	18:04:33
3	Sc Radial	3720.1	3720.1	105 %		18:03:05
3	Y RADIAL	4304.8	4304.8	107.7 %		18:02:45
3	Al 396.153Radial†	-100.1	18.1	17.536 ug/L	17.536 ppb	18:03:05
3	Ca 317.933Radial†	32.0	-0.9	-1.8673 ug/L	-1.8673 ppb	18:03:05
3	Fe 238.204 Radial†	8.9	-0.7	-10.283 ug/L	-10.283 ppb	18:03:05
3	K 766.490 Radial†	3100.5	-196.4	-36.495 ug/L	-36.495 ppb	18:02:45
3	Mg 279.077 IEC†	3.4	0.5	27.310 ug/L	27.310 ppb	18:03:05
3	Na 589.592 Radial†	1038.6	-3039.9	-1043.3 ug/L	-1043.3 ppb	18:02:45
3	Sr 421.552†	195.5	-1255.6	-9.4151 ug/L	-9.4151 ppb	18:02:45
3	Sc 361.383	765805.6	765805.6	101.93 %		18:04:03
3	Y 371.029	607159.7	607159.7	103.18 %		18:04:03
3	Ag 328.068†	190.1	-139.9	-0.7366 ug/L	-0.7366 ppb	18:04:03
3	As 188.979†	-6.7	14.1	6.5289 ug/L	6.5289 ppb	18:04:23
3	B 249.677†	467.0	900.2	22.350 ug/L	22.350 ppb	18:04:03
3	Ba 233.527†	48.5	-97.4	-0.8278 ug/L	-0.8278 ppb	18:04:23
3	Be 313.107†	-4662.8	-218.9	-0.0849 ug/L	-0.0849 ppb	18:04:03
3	Cd 226.502†	-119.1	78.3	1.0385 ug/L	1.0385 ppb	18:04:23
3	Co 228.616†	-59.5	11.9	0.2604 ug/L	0.2604 ppb	18:04:23
3	Cr 267.716†	84.2	4.8	0.0567 ug/L	0.0567 ppb	18:04:23
3	Cu 324.752†	6028.1	-538.0	-1.6850 ug/L	-1.6850 ppb	18:04:03
3	Mn 257.610†	442.3	-37.4	-0.0464 ug/L	-0.0464 ppb	18:04:23
3	Mo 202.031†	13.6	3.4	0.2737 ug/L	0.2737 ppb	18:04:23
3	Ni 231.604†	73.7	-6.8	-0.1947 ug/L	-0.1947 ppb	18:04:23
3	P 214.914†	209.1	-6.0	-3.2294 ug/L	-3.2294 ppb	18:04:23
3	Pb 220.353†	-9.8	-30.5	-4.2323 ug/L	-4.2323 ppb	18:04:23
3	S 181.975 Axial†	51.4	13.1	18.781 ug/L	18.781 ppb	18:04:23
3	Sb 206.836†	45.7	8.4	3.2040 ug/L	3.2040 ppb	18:04:23
3	Se 196.026†	-28.8	1.0	0.6484 ug/L	0.6484 ppb	18:04:23
3	Si 251.611†	552.3	45.3	1.5138 ug/L	1.5138 ppb	18:04:23
3	Sn 189.927†	49.8	33.6	6.7562 ug/L	6.7562 ppb	18:04:23
3	Ti 334.940†	-1235.5	267.8	0.4355 ug/L	0.4355 ppb	18:04:03
3	Tl 190.801†	-18.2	14.7	4.9451 ug/L	4.9451 ppb	18:04:23
3	U 409.014†	-2701.4	412.8	15.026 ug/L	15.026 ppb	18:04:03
3	V 292.402†	-1613.6	109.6	0.9319 ug/L	0.9319 ppb	18:04:03
3	Zn 213.857†	781.7	123.1	1.2973 ug/L	1.2973 ppb	18:04:23
3	SiO2†	585.2	82.0	5.8346 ug/L	5.8346 ppb	18:04:38

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	763955.6	101.68 %		0.354			0.35%
Sc Radial	3750.6	106 %		0.8			0.76%
Y 371.029	605046.3	102.82 %		0.381			0.37%
Y RADIAL	4263.9	106.6 %		1.02			0.95%
Ag 328.068†	-194.8	-1.0191 ug/L		0.24680	-1.0191 ppb	0.24680	24.22%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	15.2	14.740 ug/L		2.6498	14.740 ppb	2.6498	17.98%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	13.8	6.4016 ug/L		0.11033	6.4016 ppb	0.11033	1.72%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	937.8	23.283 ug/L		0.9813	23.283 ppb	0.9813	4.21%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	-93.0	-0.7892 ug/L		0.13395	-0.7892 ppb	0.13395	16.97%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	-213.2	-0.0827 ug/L		0.00481	-0.0827 ppb	0.00481	5.81%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	-2.6	-5.7794 ug/L		6.60029	-5.7794 ppb	6.60029	114.20%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	69.8	0.9261 ug/L	0.12869	0.9261 ppb	0.12869	13.90%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	10.4	0.2280 ug/L	0.20004	0.2280 ppb	0.20004	87.75%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	13.1	0.1657 ug/L	0.09482	0.1657 ppb	0.09482	57.24%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-505.1	-1.5818 ug/L	0.09191	-1.5818 ppb	0.09191	5.81%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-0.4	-6.0316 ug/L	12.28179	-6.0316 ppb	12.28179	203.62%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-174.0	-32.281 ug/L	9.8472	-32.281 ppb	9.8472	30.50%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	0.2	12.699 ug/L	76.7203	12.699 ppb	76.7203	604.15%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-20.3	-0.0251 ug/L	0.01864	-0.0251 ppb	0.01864	74.23%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	9.1	0.7446 ug/L	0.66583	0.7446 ppb	0.66583	89.42%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-3084.3	-1058.5 ug/L	13.21	-1058.5 ppb	13.21	1.25%	
QC value less than the lower limit for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-1.2	-0.0338 ug/L	0.23211	-0.0338 ppb	0.23211	687.14%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-4.1	-2.1562 ug/L	5.03228	-2.1562 ppb	5.03228	233.39%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-34.1	-4.7246 ug/L	0.84138	-4.7246 ppb	0.84138	17.81%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	9.6	13.759 ug/L	8.8803	13.759 ppb	8.8803	64.54%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	7.8	2.9597 ug/L	0.76474	2.9597 ppb	0.76474	25.84%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	4.7	3.1516 ug/L	2.26527	3.1516 ppb	2.26527	71.88%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	51.6	1.7196 ug/L	0.24893	1.7196 ppb	0.24893	14.48%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	29.1	5.8609 ug/L	0.81852	5.8609 ppb	0.81852	13.97%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-1207.8	-9.0567 ug/L	0.51229	-9.0567 ppb	0.51229	5.66%	
QC value less than the lower limit for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	246.9	0.4015 ug/L	0.10680	0.4015 ppb	0.10680	26.60%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	18.2	6.0967 ug/L	1.10419	6.0967 ppb	1.10419	18.11%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	401.1	14.599 ug/L	4.8109	14.599 ppb	4.8109	32.95%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	124.0	1.0547 ug/L	0.18024	1.0547 ppb	0.18024	17.09%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	127.4	1.3403 ug/L	0.05041	1.3403 ppb	0.05041	3.76%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	82.1	5.8329 ug/L	0.91757	5.8329 ppb	0.91757	15.73%	
QC value within limits for SiO2 Recovery = Not calculated							
QC Failed. Continue with analysis.							



Sequence No.: 15  
 Sample ID: LR1  
 Analyst: HSC  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 37  
 Date Collected: 2/19/2010 18:06:52  
 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	3693.4	3693.4	104 %		18:09:05
1	Y RADIAL	4244.8	4244.8	106.2 %		18:08:45
1	Al 396.153Radial†	-122.4	-3.9	-2.6031 ug/L	-2.6031 ppb	18:09:05
1	Ca 317.933Radial†	38.5	5.6	12.207 ug/L	12.207 ppb	18:09:05
1	Fe 238.204 Radial†	26982.2	25829.4	373650 ug/L	373650 ppb	18:08:45
1	K 766.490 Radial†	2760.1	-501.1	-93.704 ug/L	-93.704 ppb	18:08:45
1	Mg 279.077 IEC†	7.8	4.8	-145.46 ug/L	-145.46 ppb	18:09:05
1	Na 589.592 Radial†	1012.9	-3057.3	-1049.2 ug/L	-1049.2 ppb	18:08:45
1	Sr 421.552†	1175.5	-315.8	-2.3680 ug/L	-2.3680 ppb	18:08:45
1	Sc 361.383	761811.4	761811.4	101.40 %		18:10:03
1	Y 371.029	601994.0	601994.0	102.30 %		18:10:03
1	Ag 328.068†	-22271.7	-22291.6	-0.4986 ug/L	-0.4986 ppb	18:10:03
1	As 188.979†	-186.3	-163.0	12.054 ug/L	12.054 ppb	18:10:23
1	B 249.677†	2064.5	2478.1	0.7985 ug/L	0.7985 ppb	18:10:03
1	Ba 233.527†	-1529.8	-1653.8	-2.5792 ug/L	-2.5792 ppb	18:10:03
1	Be 313.107†	-4583.7	-164.8	-0.0640 ug/L	-0.0640 ppb	18:10:03
1	Cd 226.502†	2757.9	2915.1	-0.0364 ug/L	-0.0364 ppb	18:10:03
1	Co 228.616†	683.4	744.3	10.851 ug/L	10.851 ppb	18:10:23
1	Cr 267.716†	-520.7	-591.3	27.850 ug/L	27.850 ppb	18:10:03
1	Cu 324.752†	-329.2	-6776.8	-1.3893 ug/L	-1.3893 ppb	18:10:03
1	Mn 257.610†	-32280.8	-32307.9	-1.3370 ug/L	-1.3370 ppb	18:10:03
1	Mo 202.031†	-301.7	-307.5	3.8476 ug/L	3.8476 ppb	18:10:03
1	Ni 231.604†	167.7	86.3	2.4454 ug/L	2.4454 ppb	18:10:23
1	P 214.914†	661.0	440.8	-27.454 ug/L	-27.454 ppb	18:10:23
1	Pb 220.353†	248.2	223.9	16.555 ug/L	16.555 ppb	18:10:23
1	S 181.975 Axial†	55.8	17.7	25.423 ug/L	25.423 ppb	18:10:23
1	Sb 206.836†	37.0	0.2	-4.4916 ug/L	-4.4916 ppb	18:10:23
1	Se 196.026†	-1668.4	-1616.2	197.44 ug/L	197.44 ppb	18:10:23
1	Si 251.611†	-497.4	-987.1	-32.743 ug/L	-32.743 ppb	18:10:03
1	Sn 189.927†	3.5	-11.8	-23.830 ug/L	-23.830 ppb	18:10:23
1	Ti 334.940†	-1329.6	168.6	0.2207 ug/L	0.2207 ppb	18:10:03
1	Tl 190.801†	-24.1	8.8	2.5858 ug/L	2.5858 ppb	18:10:23
1	U 409.014†	-340.5	2727.3	56.685 ug/L	56.685 ppb	18:10:03
1	V 292.402†	5560.9	7177.1	4.2026 ug/L	4.2026 ppb	18:10:03
1	Zn 213.857†	4095.0	3394.8	-20.278 ug/L	-20.278 ppb	18:10:23
1	SiO2†	-542.9	-1027.7	-72.567 ug/L	-72.567 ppb	18:11:20
2	Sc Radial	3654.4	3654.4	103 %		18:09:30
2	Y RADIAL	4189.6	4189.6	104.8 %		18:09:10
2	Al 396.153Radial†	-132.4	-14.9	-13.278 ug/L	-13.278 ppb	18:09:30
2	Ca 317.933Radial†	28.3	-3.8	-8.3243 ug/L	-8.3243 ppb	18:09:30
2	Fe 238.204 Radial†	26658.6	25791.7	373110 ug/L	373110 ppb	18:09:10
2	K 766.490 Radial†	2719.7	-511.9	-95.712 ug/L	-95.712 ppb	18:09:10
2	Mg 279.077 IEC†	8.6	5.7	-101.02 ug/L	-101.02 ppb	18:09:30
2	Na 589.592 Radial†	821.1	-3232.7	-1109.4 ug/L	-1109.4 ppb	18:09:10
2	Sr 421.552†	262.9	-1187.0	-8.9004 ug/L	-8.9004 ppb	18:09:10
2	Sc 361.383	764943.7	764943.7	101.81 %		18:10:29
2	Y 371.029	605088.6	605088.6	102.83 %		18:10:29
2	Ag 328.068†	-22315.2	-22244.4	-0.4255 ug/L	-0.4255 ppb	18:10:29
2	As 188.979†	-172.5	-148.7	18.542 ug/L	18.542 ppb	18:10:49
2	B 249.677†	2130.5	2534.6	2.2901 ug/L	2.2901 ppb	18:10:29
2	Ba 233.527†	-1538.6	-1656.2	-2.6172 ug/L	-2.6172 ppb	18:10:29
2	Be 313.107†	-4579.2	-141.8	-0.0549 ug/L	-0.0549 ppb	18:10:29
2	Cd 226.502†	2775.8	2921.5	0.1060 ug/L	0.1060 ppb	18:10:29
2	Co 228.616†	681.1	739.3	10.750 ug/L	10.750 ppb	18:10:49
2	Cr 267.716†	-579.5	-647.0	27.069 ug/L	27.069 ppb	18:10:29
2	Cu 324.752†	-338.1	-6784.3	-1.4436 ug/L	-1.4436 ppb	18:10:29
2	Mn 257.610†	-32713.8	-32602.8	-1.7416 ug/L	-1.7416 ppb	18:10:29
2	Mo 202.031†	-293.1	-297.9	4.5916 ug/L	4.5916 ppb	18:10:29
2	Ni 231.604†	175.1	92.8	2.6314 ug/L	2.6314 ppb	18:10:49

2	P 214.914†	655.8	433.0	-31.800 ug/L	-31.800 ppb	18:10:49
2	Pb 220.353†	241.7	216.5	15.544 ug/L	15.544 ppb	18:10:49
2	S 181.975 Axial†	50.3	12.0	17.321 ug/L	17.321 ppb	18:10:49
2	Sb 206.836†	26.4	-10.4	-8.3747 ug/L	-8.3747 ppb	18:10:49
2	Se 196.026†	-1674.0	-1614.9	196.43 ug/L	196.43 ppb	18:10:49
2	Si 251.611†	-577.3	-1063.5	-35.310 ug/L	-35.310 ppb	18:10:29
2	Sn 189.927†	-7.2	-22.4	-25.930 ug/L	-25.930 ppb	18:10:49
2	Ti 334.940†	-1295.4	207.6	0.2777 ug/L	0.2777 ppb	18:10:29
2	Tl 190.801†	-33.6	-0.5	-0.5236 ug/L	-0.5236 ppb	18:10:49
2	U 409.014†	-233.4	2833.9	60.628 ug/L	60.628 ppb	18:10:29
2	V 292.402†	5547.1	7141.1	4.0062 ug/L	4.0062 ppb	18:10:29
2	Zn 213.857†	4127.8	3410.6	-20.032 ug/L	-20.032 ppb	18:10:49
2	SiO2†	-511.1	-994.2	-70.201 ug/L	-70.201 ppb	18:11:25
3	Sc Radial	3659.2	3659.2	103 %		18:09:55
3	Y RADIAL	4170.5	4170.5	104.3 %		18:09:35
3	Al 396.153Radial†	-119.7	-2.4	-1.1847 ug/L	-1.1847 ppb	18:09:55
3	Ca 317.933Radial†	30.3	-1.9	-4.2529 ug/L	-4.2529 ppb	18:09:55
3	Fe 238.204 Radial†	26571.2	25673.7	371400 ug/L	371400 ppb	18:09:35
3	K 766.490 Radial†	2712.4	-522.4	-97.681 ug/L	-97.681 ppb	18:09:35
3	Mg 279.077 IEC†	9.5	6.6	-54.916 ug/L	-54.916 ppb	18:09:55
3	Na 589.592 Radial†	816.0	-3238.6	-1111.5 ug/L	-1111.5 ppb	18:09:35
3	Sr 421.552†	514.4	-944.2	-7.0802 ug/L	-7.0802 ppb	18:09:35
3	Sc 361.383	757647.0	757647.0	100.84 %		18:10:55
3	Y 371.029	599941.3	599941.3	101.95 %		18:10:55
3	Ag 328.068†	-22205.5	-22346.7	-1.4811 ug/L	-1.4811 ppb	18:10:55
3	As 188.979†	-181.0	-158.8	13.500 ug/L	13.500 ppb	18:11:15
3	B 249.677†	2044.9	2469.8	0.9588 ug/L	0.9588 ppb	18:10:55
3	Ba 233.527†	-1488.2	-1620.9	-2.3697 ug/L	-2.3697 ppb	18:10:55
3	Be 313.107†	-4546.2	-152.5	-0.0590 ug/L	-0.0590 ppb	18:10:55
3	Cd 226.502†	2760.8	2932.9	0.4322 ug/L	0.4322 ppb	18:10:55
3	Co 228.616†	692.1	756.6	11.154 ug/L	11.154 ppb	18:11:15
3	Cr 267.716†	-554.8	-628.0	27.155 ug/L	27.155 ppb	18:10:55
3	Cu 324.752†	-367.7	-6816.9	-1.6338 ug/L	-1.6338 ppb	18:10:55
3	Mn 257.610†	-32121.3	-32324.7	-1.5829 ug/L	-1.5829 ppb	18:10:55
3	Mo 202.031†	-293.6	-301.1	4.1942 ug/L	4.1942 ppb	18:10:55
3	Ni 231.604†	195.7	114.9	3.2602 ug/L	3.2602 ppb	18:11:15
3	P 214.914†	656.8	440.2	-25.975 ug/L	-25.975 ppb	18:11:15
3	Pb 220.353†	230.2	207.4	14.346 ug/L	14.346 ppb	18:11:15
3	S 181.975 Axial†	48.1	10.3	14.816 ug/L	14.816 ppb	18:11:15
3	Sb 206.836†	45.8	9.0	-1.2072 ug/L	-1.2072 ppb	18:11:15
3	Se 196.026†	-1682.4	-1639.1	174.15 ug/L	174.15 ppb	18:11:15
3	Si 251.611†	-571.3	-1063.0	-35.290 ug/L	-35.290 ppb	18:10:55
3	Sn 189.927†	1.0	-14.4	-24.214 ug/L	-24.214 ppb	18:11:15
3	Ti 334.940†	-1271.2	219.4	0.2952 ug/L	0.2952 ppb	18:10:55
3	Tl 190.801†	-24.5	8.3	2.4183 ug/L	2.4183 ppb	18:11:15
3	U 409.014†	-307.1	2758.6	58.080 ug/L	58.080 ppb	18:10:55
3	V 292.402†	5405.7	7053.3	3.5279 ug/L	3.5279 ppb	18:10:55
3	Zn 213.857†	4116.9	3438.7	-19.485 ug/L	-19.485 ppb	18:11:15
3	SiO2†	-478.3	-966.5	-68.220 ug/L	-68.220 ppb	18:11:30

## Mean Data: LRL

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	761467.4	101.35 %		0.487			0.48%
Sc Radial	3669.0	104 %		0.6			0.58%
Y 371.029	602341.3	102.36 %		0.440			0.43%
Y RADIAL	4201.6	105.1 %		0.97			0.92%
Ag 328.068†	-22294.2	-0.8017 ug/L		0.58946	-0.8017 ppb	0.58946	73.52%
Al 396.153Radial†	-7.1	-5.6887 ug/L		6.61103	-5.6887 ppb	6.61103	116.21%
As 188.979†	-156.8	14.699 ug/L		3.4064	14.699 ppb	3.4064	23.17%
B 249.677†	2494.1	1.3492 ug/L		0.81884	1.3492 ppb	0.81884	60.69%
Ba 233.527†	-1643.6	-2.5220 ug/L		0.13329	-2.5220 ppb	0.13329	5.28%
Be 313.107†	-153.0	-0.0593 ug/L		0.00458	-0.0593 ppb	0.00458	7.72%
Ca 317.933Radial†	-0.1	-0.1235 ug/L		10.87063	-0.1235 ppb	10.87063	>999.9%
Cd 226.502†	2923.2	0.1673 ug/L		0.24024	0.1673 ppb	0.24024	143.61%
Co 228.616†	746.7	10.918 ug/L		0.2103	10.918 ppb	0.2103	1.93%
Cr 267.716†	-622.1	27.358 ug/L		0.4282	27.358 ppb	0.4282	1.57%
Cu 324.752†	-6792.7	-1.4889 ug/L		0.12843	-1.4889 ppb	0.12843	8.63%
Fe 238.204 Radial†	25764.9	372720 ug/L		1175.0	372720 ppb	1175.0	0.32%
K 766.490 Radial†	-511.8	-95.699 ug/L		1.9885	-95.699 ppb	1.9885	2.08%

Mg 279.077 IEC†	5.7	-100.47 ug/L	45.277	-100.47 ppb	45.277	45.07%
Mn 257.610†	-32411.8	-1.5538 ug/L	0.20385	-1.5538 ppb	0.20385	13.12%
Mo 202.031†	-302.1	4.2111 ug/L	0.37230	4.2111 ppb	0.37230	8.84%
Na 589.592 Radial†	-3176.2	-1090.0 ug/L	35.34	-1090.0 ppb	35.34	3.24%
Ni 231.604†	98.0	2.7790 ug/L	0.42694	2.7790 ppb	0.42694	15.36%
P 214.914†	438.0	-28.410 ug/L	3.0280	-28.410 ppb	3.0280	10.66%
Pb 220.353†	215.9	15.482 ug/L	1.1057	15.482 ppb	1.1057	7.14%
S 181.975 Axial†	13.3	19.187 ug/L	5.5439	19.187 ppb	5.5439	28.89%
Sb 206.836†	-0.4	-4.6912 ug/L	3.58791	-4.6912 ppb	3.58791	76.48%
Se 196.026†	-1623.4	189.34 ug/L	13.165	189.34 ppb	13.165	6.95%
Si 251.611†	-1037.9	-34.448 ug/L	1.4767	-34.448 ppb	1.4767	4.29%
Sn 189.927†	-16.2	-24.658 ug/L	1.1181	-24.658 ppb	1.1181	4.53%
Sr 421.552†	-815.6	-6.1162 ug/L	3.37123	-6.1162 ppb	3.37123	55.12%
Ti 334.940†	198.5	0.2645 ug/L	0.03893	0.2645 ppb	0.03893	14.72%
Tl 190.801†	5.5	1.4935 ug/L	1.74886	1.4935 ppb	1.74886	117.10%
U 409.014†	2773.3	58.464 ug/L	1.9996	58.464 ppb	1.9996	3.42%
V 292.402†	7123.8	3.9122 ug/L	0.34701	3.9122 ppb	0.34701	8.87%
Zn 213.857†	3414.7	-19.931 ug/L	0.4059	-19.931 ppb	0.4059	2.04%
SiO2†	-996.1	-70.329 ug/L	2.1765	-70.329 ppb	2.1765	3.09%

Sequence No.: 16

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/19/2010 18:13:42

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	3772.5	3772.5	107 %		18:15:54
1	Y RADIAL	4296.5	4296.5	107.4 %		18:15:34
1	Al 396.153Radial†	5218.1	5005.4	4843.5 ug/L	4843.5 ppb	18:15:34
1	Ca 317.933Radial†	2388.1	2207.7	4822.9 ug/L	4822.9 ppb	18:15:54
1	Fe 238.204 Radial†	369.0	336.8	4886.4 ug/L	4886.4 ppb	18:15:54
1	K 766.490 Radial†	30388.7	25346.5	4756.9 ug/L	4756.9 ppb	18:15:34
1	Mg 279.077 IEC†	103.9	94.7	4814.9 ug/L	4814.9 ppb	18:15:54
1	Na 589.592 Radial†	31928.8	25907.3	8891.1 ug/L	8891.1 ppb	18:15:34
1	Sr 421.552†	70329.7	64495.7	483.59 ug/L	483.59 ppb	18:15:34
1	Sc 361.383	786339.1	786339.1	104.66 %		18:16:51
1	Y 371.029	614634.8	614634.8	104.45 %		18:16:51
1	Ag 328.068†	99105.5	94366.5	491.91 ug/L	491.91 ppb	18:16:56
1	As 188.979†	1034.6	1009.2	471.72 ug/L	471.72 ppb	18:17:16
1	B 249.677†	19944.6	19498.6	481.96 ug/L	481.96 ppb	18:16:56
1	Ba 233.527†	58535.0	55783.7	476.04 ug/L	476.04 ppb	18:16:56
1	Be 313.107†	1251610.2	1200238.4	472.03 ug/L	472.03 ppb	18:16:51
1	Cd 226.502†	37224.2	35761.9	472.68 ug/L	472.68 ppb	18:16:56
1	Co 228.616†	22591.4	21655.9	474.59 ug/L	474.59 ppb	18:16:56
1	Cr 267.716†	38028.2	36257.2	474.81 ug/L	474.81 ppb	18:16:56
1	Cu 324.752†	169497.9	155498.9	484.39 ug/L	484.39 ppb	18:16:56
1	Mn 257.610†	420570.8	401373.7	475.24 ug/L	475.24 ppb	18:16:51
1	Mo 202.031†	6045.8	5766.7	472.30 ug/L	472.30 ppb	18:17:16
1	Ni 231.604†	17428.0	16572.9	471.23 ug/L	471.23 ppb	18:16:56
1	P 214.914†	4155.5	3759.4	2202.5 ug/L	2202.5 ppb	18:17:16
1	Pb 220.353†	3499.9	3323.2	463.62 ug/L	463.62 ppb	18:17:16
1	S 181.975 Axial†	723.5	653.9	939.58 ug/L	939.58 ppb	18:17:16
1	Sb 206.836†	1364.8	1267.7	481.45 ug/L	481.45 ppb	18:17:16
1	Se 196.026†	704.0	701.9	494.47 ug/L	494.47 ppb	18:17:16
1	Si 251.611†	75887.6	72012.2	2405.4 ug/L	2405.4 ppb	18:16:56
1	Sn 189.927†	2404.0	2281.6	459.93 ug/L	459.93 ppb	18:17:16
1	Ti 334.940†	298109.7	286316.5	475.18 ug/L	475.18 ppb	18:16:56
1	Tl 190.801†	1475.4	1442.3	487.46 ug/L	487.46 ppb	18:17:16
1	U 409.014†	12140.8	14663.3	532.08 ug/L	532.08 ppb	18:16:56
1	V 292.402†	59773.7	58805.0	488.00 ug/L	488.00 ppb	18:16:56
1	Zn 213.857†	48337.1	45541.1	473.53 ug/L	473.53 ppb	18:16:56
1	SiO2†	76348.5	72456.9	5151.9 ug/L	5151.9 ppb	18:18:24
2	Sc Radial	3818.9	3818.9	108 %		18:16:19
2	Y RADIAL	4314.2	4314.2	107.9 %		18:15:59
2	Al 396.153Radial†	5263.5	4987.9	4826.1 ug/L	4826.1 ppb	18:15:59
2	Ca 317.933Radial†	2400.3	2191.8	4788.0 ug/L	4788.0 ppb	18:16:19
2	Fe 238.204 Radial†	372.4	335.8	4871.6 ug/L	4871.6 ppb	18:16:19
2	K 766.490 Radial†	30542.0	25142.0	4718.5 ug/L	4718.5 ppb	18:15:59
2	Mg 279.077 IEC†	103.7	93.4	4744.1 ug/L	4744.1 ppb	18:16:19
2	Na 589.592 Radial†	32032.0	25638.8	8799.0 ug/L	8799.0 ppb	18:15:59
2	Sr 421.552†	70594.0	63938.5	479.41 ug/L	479.41 ppb	18:15:59
2	Sc 361.383	778683.6	778683.6	103.64 %		18:17:22
2	Y 371.029	609945.1	609945.1	103.65 %		18:17:22
2	Ag 328.068†	99334.7	95518.6	497.89 ug/L	497.89 ppb	18:17:27
2	As 188.979†	1048.0	1031.9	482.25 ug/L	482.25 ppb	18:17:47
2	B 249.677†	20150.2	19884.3	491.52 ug/L	491.52 ppb	18:17:27
2	Ba 233.527†	58373.3	56177.6	479.40 ug/L	479.40 ppb	18:17:27
2	Be 313.107†	1240436.6	1201214.4	472.43 ug/L	472.43 ppb	18:17:22
2	Cd 226.502†	37143.6	36033.9	476.28 ug/L	476.28 ppb	18:17:27
2	Co 228.616†	22533.3	21812.0	478.02 ug/L	478.02 ppb	18:17:27
2	Cr 267.716†	38073.5	36658.2	480.05 ug/L	480.05 ppb	18:17:27
2	Cu 324.752†	170345.6	157908.9	491.89 ug/L	491.89 ppb	18:17:27
2	Mn 257.610†	415330.4	400268.1	473.94 ug/L	473.94 ppb	18:17:22
2	Mo 202.031†	6099.6	5875.4	481.19 ug/L	481.19 ppb	18:17:47
2	Ni 231.604†	17386.8	16696.8	474.75 ug/L	474.75 ppb	18:17:27

2	P 214.914†	4166.1	3808.6	2231.1 ug/L	2231.1 ppb	18:17:47
2	Pb 220.353†	3541.6	3396.3	473.78 ug/L	473.78 ppb	18:17:47
2	S 181.975 Axial†	722.5	659.7	947.91 ug/L	947.91 ppb	18:17:47
2	Sb 206.836†	1361.1	1276.9	485.17 ug/L	485.17 ppb	18:17:47
2	Se 196.026†	700.9	705.6	496.92 ug/L	496.92 ppb	18:17:47
2	Si 251.611†	76322.3	73144.5	2443.2 ug/L	2443.2 ppb	18:17:27
2	Sn 189.927†	2430.8	2330.1	469.68 ug/L	469.68 ppb	18:17:47
2	Ti 334.940†	298263.5	289265.1	480.08 ug/L	480.08 ppb	18:17:27
2	Tl 190.801†	1453.5	1435.0	485.04 ug/L	485.04 ppb	18:17:47
2	U 409.014†	12209.7	14843.9	538.64 ug/L	538.64 ppb	18:17:27
2	V 292.402†	59662.5	59259.2	491.86 ug/L	491.86 ppb	18:17:27
2	Zn 213.857†	48280.3	45940.4	477.69 ug/L	477.69 ppb	18:17:27
2	SiO2†	75568.4	72421.4	5149.1 ug/L	5149.1 ppb	18:18:29
3	Sc Radial	3846.0	3846.0	109 %		18:16:44
3	Y RADIAL	4238.3	4238.3	106.0 %		18:16:24
3	Al 396.153Radial†	5178.9	4875.8	4717.2 ug/L	4717.2 ppb	18:16:24
3	Ca 317.933Radial†	2421.4	2195.5	4796.2 ug/L	4796.2 ppb	18:16:44
3	Fe 238.204 Radial†	376.4	337.0	4889.9 ug/L	4889.9 ppb	18:16:44
3	K 766.490 Radial†	30177.7	24607.8	4618.2 ug/L	4618.2 ppb	18:16:24
3	Mg 279.077 IEC†	105.2	94.1	4783.2 ug/L	4783.2 ppb	18:16:44
3	Na 589.592 Radial†	31648.7	25077.4	8606.3 ug/L	8606.3 ppb	18:16:24
3	Sr 421.552†	69597.9	62562.0	469.09 ug/L	469.09 ppb	18:16:24
3	Sc 361.383	783453.6	783453.6	104.28 %		18:17:53
3	Y 371.029	613134.4	613134.4	104.19 %		18:17:53
3	Ag 328.068†	98589.8	94220.7	491.16 ug/L	491.16 ppb	18:17:58
3	As 188.979†	1055.1	1032.5	482.48 ug/L	482.48 ppb	18:18:19
3	B 249.677†	19865.6	19493.0	481.81 ug/L	481.81 ppb	18:17:58
3	Ba 233.527†	58405.7	55865.7	476.73 ug/L	476.73 ppb	18:17:58
3	Be 313.107†	1250016.0	1203114.0	473.16 ug/L	473.16 ppb	18:17:53
3	Cd 226.502†	37284.9	35951.1	475.19 ug/L	475.19 ppb	18:17:58
3	Co 228.616†	22605.5	21748.9	476.64 ug/L	476.64 ppb	18:17:58
3	Cr 267.716†	38446.1	36791.8	481.79 ug/L	481.79 ppb	18:17:58
3	Cu 324.752†	171173.9	157702.6	491.25 ug/L	491.25 ppb	18:17:58
3	Mn 257.610†	419474.7	401802.5	475.75 ug/L	475.75 ppb	18:17:53
3	Mo 202.031†	6109.6	5849.1	479.04 ug/L	479.04 ppb	18:18:19
3	Ni 231.604†	17538.3	16740.0	475.98 ug/L	475.98 ppb	18:17:58
3	P 214.914†	4199.9	3816.6	2236.1 ug/L	2236.1 ppb	18:18:19
3	Pb 220.353†	3566.4	3399.3	474.18 ug/L	474.18 ppb	18:18:19
3	S 181.975 Axial†	727.9	660.7	949.31 ug/L	949.31 ppb	18:18:19
3	Sb 206.836†	1380.7	1287.7	489.10 ug/L	489.10 ppb	18:18:19
3	Se 196.026†	715.1	715.1	503.38 ug/L	503.38 ppb	18:18:19
3	Si 251.611†	76111.5	72494.0	2421.5 ug/L	2421.5 ppb	18:17:58
3	Sn 189.927†	2448.9	2333.1	470.30 ug/L	470.30 ppb	18:18:19
3	Ti 334.940†	296372.4	285699.4	474.16 ug/L	474.16 ppb	18:17:58
3	Tl 190.801†	1465.3	1437.7	485.92 ug/L	485.92 ppb	18:18:19
3	U 409.014†	11949.7	14522.8	526.95 ug/L	526.95 ppb	18:17:58
3	V 292.402†	59427.2	58683.0	487.09 ug/L	487.09 ppb	18:17:58
3	Zn 213.857†	48711.0	46069.8	479.04 ug/L	479.04 ppb	18:17:58
3	SiO2†	76290.2	72669.7	5166.9 ug/L	5166.9 ppb	18:18:34

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	782825.4	104.19 %	0.515			0.49%
Sc Radial	3812.5	108 %	1.1			0.98%
Y 371.029	612571.4	104.10 %	0.407			0.39%
Y RADIAL	4283.0	107.1 %	0.99			0.93%
Ag 328.068†	94701.9	493.65 ug/L	3.687	493.65 ppb	3.687	0.75%
QC value within limits for Ag 328.068 Recovery = 98.73%						
Al 396.153Radial†	4956.4	4795.6 ug/L	68.46	4795.6 ppb	68.46	1.43%
QC value within limits for Al 396.153Radial Recovery = 95.91%						
As 188.979†	1024.5	478.82 ug/L	6.147	478.82 ppb	6.147	1.28%
QC value within limits for As 188.979 Recovery = 95.76%						
B 249.677†	19625.3	485.10 ug/L	5.567	485.10 ppb	5.567	1.15%
QC value within limits for B 249.677 Recovery = 97.02%						
Ba 233.527†	55942.3	477.39 ug/L	1.774	477.39 ppb	1.774	0.37%
QC value within limits for Ba 233.527 Recovery = 95.48%						
Be 313.107†	1201522.3	472.54 ug/L	0.571	472.54 ppb	0.571	0.12%
QC value within limits for Be 313.107 Recovery = 94.51%						
Ca 317.933Radial†	2198.4	4802.4 ug/L	18.22	4802.4 ppb	18.22	0.38%

QC value within limits for Ca 317.933 Radial Recovery = 96.05%							
Cd 226.502†	35915.6	474.72 ug/L	1.845	474.72 ppb	1.845	0.39%	
QC value within limits for Cd 226.502 Recovery = 94.94%							
Co 228.616†	21738.9	476.41 ug/L	1.727	476.41 ppb	1.727	0.36%	
QC value within limits for Co 228.616 Recovery = 95.28%							
Cr 267.716†	36569.0	478.88 ug/L	3.637	478.88 ppb	3.637	0.76%	
QC value within limits for Cr 267.716 Recovery = 95.78%							
Cu 324.752†	157036.8	489.18 ug/L	4.161	489.18 ppb	4.161	0.85%	
QC value within limits for Cu 324.752 Recovery = 97.84%							
Fe 238.204 Radial†	336.5	4882.6 ug/L	9.71	4882.6 ppb	9.71	0.20%	
QC value within limits for Fe 238.204 Radial Recovery = 97.65%							
K 766.490 Radial†	25032.1	4697.9 ug/L	71.62	4697.9 ppb	71.62	1.52%	
QC value within limits for K 766.490 Radial Recovery = 93.96%							
Mg 279.077 IEC†	94.1	4780.7 ug/L	35.46	4780.7 ppb	35.46	0.74%	
QC value within limits for Mg 279.077 IEC Recovery = 95.61%							
Mn 257.610†	401148.1	474.98 ug/L	0.937	474.98 ppb	0.937	0.20%	
QC value within limits for Mn 257.610 Recovery = 95.00%							
Mo 202.031†	5830.4	477.51 ug/L	4.641	477.51 ppb	4.641	0.97%	
QC value within limits for Mo 202.031 Recovery = 95.50%							
Na 589.592 Radial†	25541.1	8765.4 ug/L	145.33	8765.4 ppb	145.33	1.66%	
QC value less than the lower limit for Na 589.592 Radial Recovery = 87.65%							
Ni 231.604†	16669.9	473.99 ug/L	2.467	473.99 ppb	2.467	0.52%	
QC value within limits for Ni 231.604 Recovery = 94.80%							
P 214.914†	3794.9	2223.2 ug/L	18.16	2223.2 ppb	18.16	0.82%	
QC value less than the lower limit for P 214.914 Recovery = 88.93%							
Pb 220.353†	3372.9	470.53 ug/L	5.982	470.53 ppb	5.982	1.27%	
QC value within limits for Pb 220.353 Recovery = 94.11%							
S 181.975 Axial†	658.1	945.60 ug/L	5.260	945.60 ppb	5.260	0.56%	
QC value within limits for S 181.975 Axial Recovery = 94.56%							
Sb 206.836†	1277.4	485.24 ug/L	3.827	485.24 ppb	3.827	0.79%	
QC value within limits for Sb 206.836 Recovery = 97.05%							
Se 196.026†	707.5	498.26 ug/L	4.604	498.26 ppb	4.604	0.92%	
QC value within limits for Se 196.026 Recovery = 99.65%							
Si 251.611†	72550.2	2423.4 ug/L	18.97	2423.4 ppb	18.97	0.78%	
QC value within limits for Si 251.611 Recovery = 96.93%							
Sn 189.927†	2314.9	466.64 ug/L	5.818	466.64 ppb	5.818	1.25%	
QC value within limits for Sn 189.927 Recovery = 93.33%							
Sr 421.552†	63665.4	477.36 ug/L	7.464	477.36 ppb	7.464	1.56%	
QC value within limits for Sr 421.552 Recovery = 95.47%							
Ti 334.940†	287093.7	476.47 ug/L	3.162	476.47 ppb	3.162	0.66%	
QC value within limits for Ti 334.940 Recovery = 95.29%							
Tl 190.801†	1438.3	486.14 ug/L	1.221	486.14 ppb	1.221	0.25%	
QC value within limits for Tl 190.801 Recovery = 97.23%							
U 409.014†	14676.7	532.55 ug/L	5.860	532.55 ppb	5.860	1.10%	
QC value within limits for U 409.014 Recovery = 106.51%							
V 292.402†	58915.8	488.98 ug/L	2.530	488.98 ppb	2.530	0.52%	
QC value within limits for V 292.402 Recovery = 97.80%							
Zn 213.857†	45850.4	476.76 ug/L	2.871	476.76 ppb	2.871	0.60%	
QC value within limits for Zn 213.857 Recovery = 95.35%							
SiO2†	72516.0	5156.0 ug/L	9.55	5156.0 ppb	9.55	0.19%	
QC value within limits for SiO2 Recovery = 96.42%							
QC Failed. Continue with analysis.							

Sequence No.: 17  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 2/19/2010 18:20:45  
 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	3785.6	3785.6	107 %		18:22:58
1	Y RADIAL	4364.7	4364.7	109.2 %		18:22:38
1	Al 396.153Radial†	-103.7	16.3	15.873 ug/L	15.873 ppb	18:22:58
1	Ca 317.933Radial†	33.9	0.5	1.0391 ug/L	1.0391 ppb	18:22:58
1	Fe 238.204 Radial†	11.0	1.1	16.569 ug/L	16.569 ppb	18:22:58
1	K 766.490 Radial†	2835.4	-495.1	-92.589 ug/L	-92.589 ppb	18:22:38
1	Mg 279.077 IEC†	4.5	1.5	76.937 ug/L	76.937 ppb	18:22:58
1	Na 589.592 Radial†	798.9	-3280.9	-1126.0 ug/L	-1126.0 ppb	18:22:38
1	Sr 421.552†	265.0	-1193.8	-8.9517 ug/L	-8.9517 ppb	18:22:38
1	Sc 361.383	768809.8	768809.8	102.33 %		18:23:55
1	Y 371.029	609316.0	609316.0	103.54 %		18:23:55
1	Ag 328.068†	313.6	-19.9	-0.1059 ug/L	-0.1059 ppb	18:23:55
1	As 188.979†	-22.9	-1.7	-0.7591 ug/L	-0.7591 ppb	18:24:15
1	B 249.677†	164.4	602.6	14.959 ug/L	14.959 ppb	18:24:15
1	Ba 233.527†	55.4	-90.9	-0.7698 ug/L	-0.7698 ppb	18:24:15
1	Be 313.107†	-4742.6	-278.9	-0.1087 ug/L	-0.1087 ppb	18:23:55
1	Cd 226.502†	-147.2	51.3	0.6803 ug/L	0.6803 ppb	18:24:15
1	Co 228.616†	-60.4	11.2	0.2454 ug/L	0.2454 ppb	18:24:15
1	Cr 267.716†	89.0	9.2	0.1167 ug/L	0.1167 ppb	18:24:15
1	Cu 324.752†	6041.6	-548.0	-1.7153 ug/L	-1.7153 ppb	18:23:55
1	Mn 257.610†	498.3	15.7	0.0171 ug/L	0.0171 ppb	18:24:15
1	Mo 202.031†	12.5	2.3	0.1862 ug/L	0.1862 ppb	18:24:15
1	Ni 231.604†	115.3	33.5	0.9542 ug/L	0.9542 ppb	18:24:15
1	P 214.914†	214.3	-1.7	-0.6586 ug/L	-0.6586 ppb	18:24:15
1	Pb 220.353†	-19.2	-39.6	-5.4983 ug/L	-5.4983 ppb	18:24:15
1	S 181.975 Axial†	42.3	3.9	5.6142 ug/L	5.6142 ppb	18:24:15
1	Sb 206.836†	43.6	6.2	2.3318 ug/L	2.3318 ppb	18:24:15
1	Se 196.026†	-10.7	18.8	12.796 ug/L	12.796 ppb	18:24:15
1	Si 251.611†	532.8	24.2	0.8082 ug/L	0.8082 ppb	18:24:15
1	Sn 189.927†	27.5	11.5	2.3194 ug/L	2.3194 ppb	18:24:15
1	Ti 334.940†	-1318.3	191.6	0.3047 ug/L	0.3047 ppb	18:23:55
1	Tl 190.801†	-19.4	13.6	4.5558 ug/L	4.5558 ppb	18:24:15
1	U 409.014†	-2670.0	453.8	16.514 ug/L	16.514 ppb	18:23:55
1	V 292.402†	-1556.6	171.5	1.4378 ug/L	1.4378 ppb	18:23:55
1	Zn 213.857†	702.8	43.0	0.4454 ug/L	0.4454 ppb	18:24:15
1	SiO2†	505.3	1.6	0.1057 ug/L	0.1057 ppb	18:25:11
2	Sc Radial	3807.9	3807.9	108 %		18:23:23
2	Y RADIAL	4345.8	4345.8	108.7 %		18:23:03
2	Al 396.153Radial†	-106.0	14.8	14.334 ug/L	14.334 ppb	18:23:23
2	Ca 317.933Radial†	29.6	-3.8	-8.1950 ug/L	-8.1950 ppb	18:23:23
2	Fe 238.204 Radial†	10.2	0.3	4.4953 ug/L	4.4953 ppb	18:23:23
2	K 766.490 Radial†	3014.6	-344.1	-64.219 ug/L	-64.219 ppb	18:23:03
2	Mg 279.077 IEC†	2.3	-0.5	-24.160 ug/L	-24.160 ppb	18:23:23
2	Na 589.592 Radial†	795.5	-3288.5	-1128.6 ug/L	-1128.6 ppb	18:23:03
2	Sr 421.552†	246.6	-1212.4	-9.0909 ug/L	-9.0909 ppb	18:23:03
2	Sc 361.383	776815.9	776815.9	103.39 %		18:24:20
2	Y 371.029	615392.7	615392.7	104.58 %		18:24:20
2	Ag 328.068†	181.0	-151.3	-0.7941 ug/L	-0.7941 ppb	18:24:20
2	As 188.979†	-25.4	-3.9	-1.8164 ug/L	-1.8164 ppb	18:24:40
2	B 249.677†	172.6	608.9	15.117 ug/L	15.117 ppb	18:24:40
2	Ba 233.527†	39.0	-107.4	-0.9112 ug/L	-0.9112 ppb	18:24:40
2	Be 313.107†	-4662.7	-153.9	-0.0593 ug/L	-0.0593 ppb	18:24:20
2	Cd 226.502†	-179.0	22.0	0.2941 ug/L	0.2941 ppb	18:24:40
2	Co 228.616†	-67.6	4.9	0.1071 ug/L	0.1071 ppb	18:24:40
2	Cr 267.716†	99.4	18.3	0.2333 ug/L	0.2333 ppb	18:24:40
2	Cu 324.752†	6083.5	-568.3	-1.7811 ug/L	-1.7811 ppb	18:24:20
2	Mn 257.610†	454.3	-31.9	-0.0364 ug/L	-0.0364 ppb	18:24:40
2	Mo 202.031†	16.4	5.8	0.4787 ug/L	0.4787 ppb	18:24:40
2	Ni 231.604†	87.5	5.5	0.1553 ug/L	0.1553 ppb	18:24:40

2	P 214.914†	221.3	2.9	2.1465 ug/L	2.1465 ppb	18:24:40
2	Pb 220.353†	-11.2	-31.7	-4.3955 ug/L	-4.3955 ppb	18:24:40
2	S 181.975 Axial†	42.6	3.8	5.4584 ug/L	5.4584 ppb	18:24:40
2	Sb 206.836†	48.8	10.8	3.9778 ug/L	3.9778 ppb	18:24:40
2	Se 196.026†	-24.0	6.1	4.1501 ug/L	4.1501 ppb	18:24:40
2	Si 251.611†	524.9	11.1	0.3672 ug/L	0.3672 ppb	18:24:40
2	Sn 189.927†	18.9	3.0	0.5948 ug/L	0.5948 ppb	18:24:40
2	Ti 334.940†	-1230.7	289.6	0.4730 ug/L	0.4730 ppb	18:24:20
2	Tl 190.801†	-22.1	11.2	3.7704 ug/L	3.7704 ppb	18:24:40
2	U 409.014†	-2607.9	540.8	19.681 ug/L	19.681 ppb	18:24:20
2	V 292.402†	-1604.8	140.5	1.1936 ug/L	1.1936 ppb	18:24:20
2	Zn 213.857†	689.4	23.0	0.2423 ug/L	0.2423 ppb	18:24:40
2	SiO2†	517.4	8.2	0.5704 ug/L	0.5704 ppb	18:25:16
3	Sc Radial	3821.7	3821.7	108 %		18:23:48
3	Y RADIAL	4386.6	4386.6	109.7 %		18:23:28
3	Al 396.153Radial†	-113.5	8.2	7.8946 ug/L	7.8946 ppb	18:23:48
3	Ca 317.933Radial†	23.3	-9.6	-21.069 ug/L	-21.069 ppb	18:23:48
3	Fe 238.204 Radial†	10.9	0.9	13.304 ug/L	13.304 ppb	18:23:48
3	K 766.490 Radial†	2916.5	-445.0	-83.172 ug/L	-83.172 ppb	18:23:28
3	Mg 279.077 IEC†	2.1	-0.7	-35.126 ug/L	-35.126 ppb	18:23:48
3	Na 589.592 Radial†	766.6	-3317.9	-1138.7 ug/L	-1138.7 ppb	18:23:28
3	Sr 421.552†	140.5	-1311.4	-9.8337 ug/L	-9.8337 ppb	18:23:28
3	Sc 361.383	774865.8	774865.8	103.13 %		18:24:45
3	Y 371.029	613653.6	613653.6	104.28 %		18:24:45
3	Ag 328.068†	213.7	-119.2	-0.6237 ug/L	-0.6237 ppb	18:24:45
3	As 188.979†	-19.7	1.6	0.7452 ug/L	0.7452 ppb	18:25:05
3	B 249.677†	113.7	552.2	13.708 ug/L	13.708 ppb	18:25:05
3	Ba 233.527†	58.3	-88.5	-0.7504 ug/L	-0.7504 ppb	18:25:05
3	Be 313.107†	-4702.0	-203.4	-0.0787 ug/L	-0.0787 ppb	18:24:45
3	Cd 226.502†	-165.9	34.3	0.4553 ug/L	0.4553 ppb	18:25:05
3	Co 228.616†	-73.4	-0.8	-0.0176 ug/L	-0.0176 ppb	18:25:05
3	Cr 267.716†	89.0	8.5	0.1068 ug/L	0.1068 ppb	18:25:05
3	Cu 324.752†	6077.8	-559.0	-1.7513 ug/L	-1.7513 ppb	18:24:45
3	Mn 257.610†	421.6	-62.6	-0.0713 ug/L	-0.0713 ppb	18:25:05
3	Mo 202.031†	21.7	11.1	0.9067 ug/L	0.9067 ppb	18:25:05
3	Ni 231.604†	81.4	-0.2	-0.0056 ug/L	-0.0056 ppb	18:25:05
3	P 214.914†	210.6	-6.9	-3.8605 ug/L	-3.8605 ppb	18:25:05
3	Pb 220.353†	-29.4	-49.4	-6.8566 ug/L	-6.8566 ppb	18:25:05
3	S 181.975 Axial†	42.6	3.9	5.6416 ug/L	5.6416 ppb	18:25:05
3	Sb 206.836†	46.3	8.5	3.1704 ug/L	3.1704 ppb	18:25:05
3	Se 196.026†	-19.8	10.1	6.8722 ug/L	6.8722 ppb	18:25:05
3	Si 251.611†	530.3	17.7	0.5806 ug/L	0.5806 ppb	18:25:05
3	Sn 189.927†	25.6	9.4	1.8978 ug/L	1.8978 ppb	18:25:05
3	Ti 334.940†	-1225.3	291.8	0.4761 ug/L	0.4761 ppb	18:24:45
3	Tl 190.801†	-25.7	7.6	2.5505 ug/L	2.5505 ppb	18:25:05
3	U 409.014†	-2616.9	525.7	19.131 ug/L	19.131 ppb	18:24:45
3	V 292.402†	-1587.7	153.3	1.3014 ug/L	1.3014 ppb	18:24:45
3	Zn 213.857†	703.3	38.1	0.4004 ug/L	0.4004 ppb	18:25:05
3	SiO2†	556.4	47.3	3.3437 ug/L	3.3437 ppb	18:25:21

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	773497.2	102.95 %	0.556			0.54%
Sc Radial	3805.1	108 %	0.5			0.48%
Y 371.029	612787.4	104.13 %	0.532			0.51%
Y RADIAL	4365.7	109.2 %	0.51			0.47%
Ag 328.068†	-96.8	-0.5079 ug/L	0.35839	-0.5079 ppb	0.35839	70.56%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	13.1	12.701 ug/L	4.2326	12.701 ppb	4.2326	33.33%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-1.3	-0.6101 ug/L	1.28729	-0.6101 ppb	1.28729	210.99%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	587.9	14.595 ug/L	0.7715	14.595 ppb	0.7715	5.29%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-95.6	-0.8105 ug/L	0.08775	-0.8105 ppb	0.08775	10.83%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-212.1	-0.0822 ug/L	0.02490	-0.0822 ppb	0.02490	30.28%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-4.3	-9.4082 ug/L	11.10370	-9.4082 ppb	11.10370	118.02%



QC value within limits for Ca 317.933 Radial Recovery = Not calculated								
Cd	226.502†	35.8	0.4766 ug/L	0.19399	0.4766 ppb	0.19399	40.70%	
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co	228.616†	5.1	0.1116 ug/L	0.13155	0.1116 ppb	0.13155	117.84%	
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr	267.716†	12.0	0.1523 ug/L	0.07036	0.1523 ppb	0.07036	46.21%	
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu	324.752†	-558.4	-1.7492 ug/L	0.03296	-1.7492 ppb	0.03296	1.88%	
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe	238.204 Radial†	0.8	11.456 ug/L	6.2452	11.456 ppb	6.2452	54.52%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated								
K	766.490 Radial†	-428.1	-79.993 ug/L	14.4496	-79.993 ppb	14.4496	18.06%	
QC value within limits for K 766.490 Radial Recovery = Not calculated								
Mg	279.077 IEC†	0.1	5.8839 ug/L	61.77795	5.8839 ppb	61.77795	>999.9%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated								
Mn	257.610†	-26.3	-0.0302 ug/L	0.04450	-0.0302 ppb	0.04450	147.40%	
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo	202.031†	6.4	0.5239 ug/L	0.36237	0.5239 ppb	0.36237	69.17%	
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na	589.592 Radial†	-3295.8	-1131.1 ug/L	6.70	-1131.1 ppb	6.70	0.59%	
QC value less than the lower limit for Na 589.592 Radial Recovery = Not calculated								
Ni	231.604†	12.9	0.3680 ug/L	0.51404	0.3680 ppb	0.51404	139.70%	
QC value within limits for Ni 231.604 Recovery = Not calculated								
P	214.914†	-1.9	-0.7909 ug/L	3.00571	-0.7909 ppb	3.00571	380.05%	
QC value within limits for P 214.914 Recovery = Not calculated								
Pb	220.353†	-40.2	-5.5835 ug/L	1.23277	-5.5835 ppb	1.23277	22.08%	
QC value within limits for Pb 220.353 Recovery = Not calculated								
S	181.975 Axial†	3.9	5.5714 ug/L	0.09882	5.5714 ppb	0.09882	1.77%	
QC value within limits for S 181.975 Axial Recovery = Not calculated								
Sb	206.836†	8.5	3.1600 ug/L	0.82305	3.1600 ppb	0.82305	26.05%	
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se	196.026†	11.7	7.9394 ug/L	4.42055	7.9394 ppb	4.42055	55.68%	
QC value within limits for Se 196.026 Recovery = Not calculated								
Si	251.611†	17.7	0.5853 ug/L	0.22052	0.5853 ppb	0.22052	37.67%	
QC value within limits for Si 251.611 Recovery = Not calculated								
Sn	189.927†	8.0	1.6040 ug/L	0.89903	1.6040 ppb	0.89903	56.05%	
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr	421.552†	-1239.2	-9.2921 ug/L	0.47420	-9.2921 ppb	0.47420	5.10%	
QC value less than the lower limit for Sr 421.552 Recovery = Not calculated								
Ti	334.940†	257.7	0.4179 ug/L	0.09806	0.4179 ppb	0.09806	23.46%	
QC value within limits for Ti 334.940 Recovery = Not calculated								
Tl	190.801†	10.8	3.6256 ug/L	1.01047	3.6256 ppb	1.01047	27.87%	
QC value within limits for Tl 190.801 Recovery = Not calculated								
U	409.014†	506.7	18.442 ug/L	1.6922	18.442 ppb	1.6922	9.18%	
QC value within limits for U 409.014 Recovery = Not calculated								
V	292.402†	155.1	1.3109 ug/L	0.12237	1.3109 ppb	0.12237	9.33%	
QC value within limits for V 292.402 Recovery = Not calculated								
Zn	213.857†	34.7	0.3627 ug/L	0.10665	0.3627 ppb	0.10665	29.40%	
QC value within limits for Zn 213.857 Recovery = Not calculated								
SiO2†	19.0	1.3399 ug/L	1.75078	1.3399 ppb	1.75078	130.66%		
QC value within limits for SiO2 Recovery = Not calculated								
QC Failed. Continue with analysis.								

Sequence No.: 25

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/19/2010 19:15:38

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	3839.8	3839.8	109 %		19:17:50
1	Y RADIAL	4381.7	4381.7	109.6 %		19:17:30
1	Al 396.153Radial†	5360.8	5051.1	4887.5 ug/L	4887.5 ppb	19:17:30
1	Ca 317.933Radial†	2455.3	2230.4	4872.3 ug/L	4872.3 ppb	19:17:50
1	Fe 238.204 Radial†	372.5	334.0	4845.6 ug/L	4845.6 ppb	19:17:50
1	K 766.490 Radial†	31019.3	25428.1	4772.3 ug/L	4772.3 ppb	19:17:30
1	Mg 279.077 IEC†	110.4	99.1	5035.1 ug/L	5035.1 ppb	19:17:50
1	Na 589.592 Radial†	31946.5	25399.0	8716.7 ug/L	8716.7 ppb	19:17:30
1	Sr 421.552†	70910.4	63875.1	478.94 ug/L	478.94 ppb	19:17:30
1	Sc 361.383	806350.2	806350.2	107.32 %		19:18:47
1	Y 371.029	630827.4	630827.4	107.20 %		19:18:47
1	Ag 328.068†	101538.9	94283.9	491.48 ug/L	491.48 ppb	19:18:52
1	As 188.979†	1098.5	1044.2	487.92 ug/L	487.92 ppb	19:19:13
1	B 249.677†	20173.9	19239.2	475.51 ug/L	475.51 ppb	19:18:52
1	Ba 233.527†	60291.4	56032.3	478.15 ug/L	478.15 ppb	19:18:52
1	Be 313.107†	1299464.6	1215149.3	477.88 ug/L	477.88 ppb	19:18:47
1	Cd 226.502†	38603.4	36164.4	478.01 ug/L	478.01 ppb	19:18:52
1	Co 228.616†	23379.1	21854.1	478.95 ug/L	478.95 ppb	19:18:52
1	Cr 267.716†	39215.5	36461.7	477.48 ug/L	477.48 ppb	19:18:52
1	Cu 324.752†	172838.5	154592.4	481.56 ug/L	481.56 ppb	19:18:52
1	Mn 257.610†	434566.7	404441.9	478.86 ug/L	478.86 ppb	19:18:47
1	Mo 202.031†	6325.9	5884.3	481.92 ug/L	481.92 ppb	19:19:13
1	Ni 231.604†	18093.2	16779.5	477.10 ug/L	477.10 ppb	19:18:52
1	P 214.914†	4387.2	3876.7	2274.9 ug/L	2274.9 ppb	19:19:13
1	Pb 220.353†	3676.0	3404.3	474.93 ug/L	474.93 ppb	19:19:13
1	S 181.975 Axial†	756.9	667.9	959.66 ug/L	959.66 ppb	19:19:13
1	Sb 206.836†	1432.9	1298.8	493.40 ug/L	493.40 ppb	19:19:13
1	Se 196.026†	743.0	721.6	507.71 ug/L	507.71 ppb	19:19:13
1	Si 251.611†	78365.2	72521.3	2422.3 ug/L	2422.3 ppb	19:18:52
1	Sn 189.927†	2576.4	2385.3	480.82 ug/L	480.82 ppb	19:19:13
1	Ti 334.940†	305357.6	286000.9	474.65 ug/L	474.65 ppb	19:18:52
1	Tl 190.801†	1522.5	1451.2	490.44 ug/L	490.44 ppb	19:19:13
1	U 409.014†	12296.9	14520.9	526.89 ug/L	526.89 ppb	19:18:52
1	V 292.402†	61399.0	58902.0	488.93 ug/L	488.93 ppb	19:18:52
1	Zn 213.857†	49871.0	45824.2	476.48 ug/L	476.48 ppb	19:18:52
1	SiO2†	78477.6	72630.3	5164.0 ug/L	5164.0 ppb	19:20:20
2	Sc Radial	3848.0	3848.0	109 %		19:18:15
2	Y RADIAL	4334.4	4334.4	108.4 %		19:17:55
2	Al 396.153Radial†	5332.9	5014.9	4851.8 ug/L	4851.8 ppb	19:17:55
2	Ca 317.933Radial†	2474.5	2243.2	4900.3 ug/L	4900.3 ppb	19:18:15
2	Fe 238.204 Radial†	374.3	334.9	4859.4 ug/L	4859.4 ppb	19:18:15
2	K 766.490 Radial†	30801.1	25166.4	4723.1 ug/L	4723.1 ppb	19:17:55
2	Mg 279.077 IEC†	106.9	95.6	4860.2 ug/L	4860.2 ppb	19:18:15
2	Na 589.592 Radial†	31770.6	25174.3	8639.5 ug/L	8639.5 ppb	19:17:55
2	Sr 421.552†	70265.0	63141.9	473.44 ug/L	473.44 ppb	19:17:55
2	Sc 361.383	797398.2	797398.2	106.13 %		19:19:18
2	Y 371.029	623849.1	623849.1	106.01 %		19:19:18
2	Ag 328.068†	101342.6	95161.1	496.04 ug/L	496.04 ppb	19:19:23
2	As 188.979†	1094.9	1052.3	491.69 ug/L	491.69 ppb	19:19:44
2	B 249.677†	20141.5	19419.8	479.97 ug/L	479.97 ppb	19:19:23
2	Ba 233.527†	60347.4	56715.7	483.98 ug/L	483.98 ppb	19:19:23
2	Be 313.107†	1290357.6	1220161.5	479.86 ug/L	479.86 ppb	19:19:18
2	Cd 226.502†	38637.2	36600.0	483.77 ug/L	483.77 ppb	19:19:23
2	Co 228.616†	23462.3	22177.0	486.04 ug/L	486.04 ppb	19:19:23
2	Cr 267.716†	39129.4	36790.8	481.79 ug/L	481.79 ppb	19:19:23
2	Cu 324.752†	172309.7	155902.1	485.64 ug/L	485.64 ppb	19:19:23
2	Mn 257.610†	431450.5	406051.6	480.77 ug/L	480.77 ppb	19:19:18
2	Mo 202.031†	6374.3	5996.1	491.07 ug/L	491.07 ppb	19:19:44
2	Ni 231.604†	18107.8	16982.5	482.87 ug/L	482.87 ppb	19:19:23

2	P 214.914†	4431.4	3964.3	2327.7 ug/L	2327.7 ppb	19:19:44
2	Pb 220.353†	3715.6	3480.0	485.46 ug/L	485.46 ppb	19:19:44
2	S 181.975 Axial†	756.5	675.4	970.46 ug/L	970.46 ppb	19:19:44
2	Sb 206.836†	1444.5	1324.6	503.18 ug/L	503.18 ppb	19:19:44
2	Se 196.026†	745.3	731.5	514.46 ug/L	514.46 ppb	19:19:44
2	Si 251.611†	78024.5	73020.0	2438.9 ug/L	2438.9 ppb	19:19:23
2	Sn 189.927†	2591.0	2426.0	489.02 ug/L	489.02 ppb	19:19:44
2	Ti 334.940†	305186.6	289034.0	479.70 ug/L	479.70 ppb	19:19:23
2	Tl 190.801†	1532.7	1476.7	499.01 ug/L	499.01 ppb	19:19:44
2	U 409.014†	12438.7	14783.2	536.43 ug/L	536.43 ppb	19:19:23
2	V 292.402†	61425.2	59569.0	494.53 ug/L	494.53 ppb	19:19:23
2	Zn 213.857†	49844.4	46320.8	481.65 ug/L	481.65 ppb	19:19:23
2	SiO2†	78243.4	73230.6	5206.6 ug/L	5206.6 ppb	19:20:25
3	Sc Radial	3863.9	3863.9	109 %		19:18:40
3	Y RADIAL	4405.4	4405.4	110.2 %		19:18:20
3	Al 396.153Radial†	5373.7	5032.2	4869.0 ug/L	4869.0 ppb	19:18:20
3	Ca 317.933Radial†	2469.7	2229.4	4870.1 ug/L	4870.1 ppb	19:18:40
3	Fe 238.204 Radial†	373.0	332.3	4821.6 ug/L	4821.6 ppb	19:18:40
3	K 766.490 Radial†	31081.6	25306.9	4749.5 ug/L	4749.5 ppb	19:18:20
3	Mg 279.077 IEC†	106.4	94.7	4813.4 ug/L	4813.4 ppb	19:18:40
3	Na 589.592 Radial†	32046.8	25307.3	8685.2 ug/L	8685.2 ppb	19:18:20
3	Sr 421.552†	71272.1	63798.7	478.36 ug/L	478.36 ppb	19:18:20
3	Sc 361.383	804189.6	804189.6	107.04 %		19:19:49
3	Y 371.029	629097.4	629097.4	106.91 %		19:19:49
3	Ag 328.068†	101830.4	94810.4	494.21 ug/L	494.21 ppb	19:19:55
3	As 188.979†	1088.4	1037.5	484.81 ug/L	484.81 ppb	19:20:15
3	B 249.677†	20390.4	19492.0	481.78 ug/L	481.78 ppb	19:19:55
3	Ba 233.527†	60665.8	56533.0	482.42 ug/L	482.42 ppb	19:19:55
3	Be 313.107†	1302878.6	1221591.8	480.41 ug/L	480.41 ppb	19:19:49
3	Cd 226.502†	39046.4	36674.9	484.77 ug/L	484.77 ppb	19:19:55
3	Co 228.616†	23542.4	22065.2	483.58 ug/L	483.58 ppb	19:19:55
3	Cr 267.716†	39522.6	36846.8	482.51 ug/L	482.51 ppb	19:19:55
3	Cu 324.752†	172889.0	155072.3	483.05 ug/L	483.05 ppb	19:19:55
3	Mn 257.610†	435735.3	406621.7	481.45 ug/L	481.45 ppb	19:19:49
3	Mo 202.031†	6324.5	5898.8	483.11 ug/L	483.11 ppb	19:20:15
3	Ni 231.604†	18216.9	16940.3	481.68 ug/L	481.68 ppb	19:19:55
3	P 214.914†	4385.6	3886.2	2280.5 ug/L	2280.5 ppb	19:20:15
3	Pb 220.353†	3680.7	3417.9	476.82 ug/L	476.82 ppb	19:20:15
3	S 181.975 Axial†	761.8	674.3	968.89 ug/L	968.89 ppb	19:20:15
3	Sb 206.836†	1435.0	1304.3	495.44 ug/L	495.44 ppb	19:20:15
3	Se 196.026†	731.2	712.4	501.38 ug/L	501.38 ppb	19:20:15
3	Si 251.611†	78672.8	73004.8	2438.5 ug/L	2438.5 ppb	19:19:55
3	Sn 189.927†	2570.2	2385.9	480.95 ug/L	480.95 ppb	19:20:15
3	Ti 334.940†	306026.7	287390.5	476.97 ug/L	476.97 ppb	19:19:55
3	Tl 190.801†	1540.7	1472.0	497.44 ug/L	497.44 ppb	19:20:15
3	U 409.014†	12413.6	14660.8	531.97 ug/L	531.97 ppb	19:19:55
3	V 292.402†	61672.5	59311.3	492.31 ug/L	492.31 ppb	19:19:55
3	Zn 213.857†	50251.8	46304.8	481.49 ug/L	481.49 ppb	19:19:55
3	SiO2†	78294.5	72655.8	5165.8 ug/L	5165.8 ppb	19:20:30

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	802646.0	106.83 %	0.622			0.58%
Sc Radial	3850.5	109 %	0.3			0.32%
Y 371.029	627924.6	106.71 %	0.618			0.58%
Y RADIAL	4373.8	109.4 %	0.90			0.83%
Ag 328.068†	94751.8	493.91 ug/L	2.296	493.91 ppb	2.296	0.46%
QC value within limits for Ag 328.068 Recovery = 98.78%						
Al 396.153Radial†	5032.7	4869.4 ug/L	17.84	4869.4 ppb	17.84	0.37%
QC value within limits for Al 396.153Radial Recovery = 97.39%						
As 188.979†	1044.7	488.14 ug/L	3.443	488.14 ppb	3.443	0.71%
QC value within limits for As 188.979 Recovery = 97.63%						
B 249.677†	19383.7	479.09 ug/L	3.226	479.09 ppb	3.226	0.67%
QC value within limits for B 249.677 Recovery = 95.82%						
Ba 233.527†	56427.0	481.52 ug/L	3.018	481.52 ppb	3.018	0.63%
QC value within limits for Ba 233.527 Recovery = 96.30%						
Be 313.107†	1218967.5	479.38 ug/L	1.332	479.38 ppb	1.332	0.28%
QC value within limits for Be 313.107 Recovery = 95.88%						
Ca 317.933Radial†	2234.3	4880.9 ug/L	16.81	4880.9 ppb	16.81	0.34%

QC value within limits for Ca 317.933 Radial Recovery = 97.62%							
Cd	226.502†	36479.7	482.18 ug/L	3.648	482.18 ppb	3.648	0.76%
QC value within limits for Cd 226.502 Recovery = 96.44%							
Co	228.616†	22032.1	482.86 ug/L	3.599	482.86 ppb	3.599	0.75%
QC value within limits for Co 228.616 Recovery = 96.57%							
Cr	267.716†	36699.8	480.59 ug/L	2.721	480.59 ppb	2.721	0.57%
QC value within limits for Cr 267.716 Recovery = 96.12%							
Cu	324.752†	155188.9	483.42 ug/L	2.062	483.42 ppb	2.062	0.43%
QC value within limits for Cu 324.752 Recovery = 96.68%							
Fe	238.204 Radial†	333.7	4842.2 ug/L	19.13	4842.2 ppb	19.13	0.39%
QC value within limits for Fe 238.204 Radial Recovery = 96.84%							
K	766.490 Radial†	25300.5	4748.3 ug/L	24.61	4748.3 ppb	24.61	0.52%
QC value within limits for K 766.490 Radial Recovery = 94.97%							
Mg	279.077 IEC†	96.5	4902.9 ug/L	116.84	4902.9 ppb	116.84	2.38%
QC value within limits for Mg 279.077 IEC Recovery = 98.06%							
Mn	257.610†	405705.1	480.36 ug/L	1.342	480.36 ppb	1.342	0.28%
QC value within limits for Mn 257.610 Recovery = 96.07%							
Mo	202.031†	5926.4	485.37 ug/L	4.976	485.37 ppb	4.976	1.03%
QC value within limits for Mo 202.031 Recovery = 97.07%							
Na	589.592 Radial†	25293.5	8680.5 ug/L	38.78	8680.5 ppb	38.78	0.45%
QC value less than the lower limit for Na 589.592 Radial Recovery = 86.80%							
Ni	231.604†	16900.8	480.55 ug/L	3.045	480.55 ppb	3.045	0.63%
QC value within limits for Ni 231.604 Recovery = 96.11%							
P	214.914†	3909.1	2294.4 ug/L	28.99	2294.4 ppb	28.99	1.26%
QC value within limits for P 214.914 Recovery = 91.77%							
Pb	220.353†	3434.1	479.07 ug/L	5.616	479.07 ppb	5.616	1.17%
QC value within limits for Pb 220.353 Recovery = 95.81%							
S	181.975 Axial†	672.5	966.34 ug/L	5.835	966.34 ppb	5.835	0.60%
QC value within limits for S 181.975 Axial Recovery = 96.63%							
Sb	206.836†	1309.2	497.34 ug/L	5.164	497.34 ppb	5.164	1.04%
QC value within limits for Sb 206.836 Recovery = 99.47%							
Se	196.026†	721.8	507.85 ug/L	6.544	507.85 ppb	6.544	1.29%
QC value within limits for Se 196.026 Recovery = 101.57%							
Si	251.611†	72848.7	2433.3 ug/L	9.46	2433.3 ppb	9.46	0.39%
QC value within limits for Si 251.611 Recovery = 97.33%							
Sn	189.927†	2399.1	483.59 ug/L	4.697	483.59 ppb	4.697	0.97%
QC value within limits for Sn 189.927 Recovery = 96.72%							
Sr	421.552†	63605.2	476.91 ug/L	3.023	476.91 ppb	3.023	0.63%
QC value within limits for Sr 421.552 Recovery = 95.38%							
Ti	334.940†	287475.1	477.11 ug/L	2.527	477.11 ppb	2.527	0.53%
QC value within limits for Ti 334.940 Recovery = 95.42%							
Tl	190.801†	1466.6	495.63 ug/L	4.561	495.63 ppb	4.561	0.92%
QC value within limits for Tl 190.801 Recovery = 99.13%							
U	409.014†	14654.9	531.76 ug/L	4.771	531.76 ppb	4.771	0.90%
QC value within limits for U 409.014 Recovery = 106.35%							
V	292.402†	59260.8	491.92 ug/L	2.818	491.92 ppb	2.818	0.57%
QC value within limits for V 292.402 Recovery = 98.38%							
Zn	213.857†	46150.0	479.87 ug/L	2.941	479.87 ppb	2.941	0.61%
QC value within limits for Zn 213.857 Recovery = 95.97%							
SiO2†		72838.9	5178.8 ug/L	24.06	5178.8 ppb	24.06	0.46%
QC value within limits for SiO2 Recovery = 96.84%							
QC Failed. Continue with analysis.							

Sequence No.: 26

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/19/2010 19:22:41

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	3898.9	3898.9	110 %		19:24:53
1	Y RADIAL	4463.1	4463.1	111.6 %		19:24:33
1	Al 396.153Radial†	-112.9	10.8	10.488 ug/L	10.488 ppb	19:24:53
1	Ca 317.933Radial†	29.9	-4.1	-9.0648 ug/L	-9.0648 ppb	19:24:53
1	Fe 238.204 Radial†	9.0	-1.0	-14.013 ug/L	-14.013 ppb	19:24:53
1	K 766.490 Radial†	2866.8	-543.5	-101.70 ug/L	-101.70 ppb	19:24:33
1	Mg 279.077 IEC†	0.1	-2.6	-131.25 ug/L	-131.25 ppb	19:24:53
1	Na 589.592 Radial†	887.1	-3222.6	-1106.0 ug/L	-1106.0 ppb	19:24:33
1	Sr 421.552†	355.6	-1118.9	-8.3899 ug/L	-8.3899 ppb	19:24:33
1	Sc 361.383	781448.2	781448.2	104.01 %		19:25:50
1	Y 371.029	620728.2	620728.2	105.48 %		19:25:50
1	Ag 328.068†	129.6	-201.8	-1.0580 ug/L	-1.0580 ppb	19:25:50
1	As 188.979†	-22.5	-0.9	-0.4403 ug/L	-0.4403 ppb	19:26:10
1	B 249.677†	-55.8	388.3	9.6419 ug/L	9.6419 ppb	19:26:10
1	Ba 233.527†	56.6	-90.6	-0.7685 ug/L	-0.7685 ppb	19:26:10
1	Be 313.107†	-4525.5	4.7	0.0025 ug/L	0.0025 ppb	19:25:50
1	Cd 226.502†	-190.1	12.4	0.1682 ug/L	0.1682 ppb	19:26:10
1	Co 228.616†	-64.6	8.2	0.1806 ug/L	0.1806 ppb	19:26:10
1	Cr 267.716†	93.1	11.7	0.1465 ug/L	0.1465 ppb	19:26:10
1	Cu 324.752†	5999.3	-684.2	-2.1415 ug/L	-2.1415 ppb	19:25:50
1	Mn 257.610†	442.1	-46.2	-0.0507 ug/L	-0.0507 ppb	19:26:10
1	Mo 202.031†	15.2	4.7	0.3797 ug/L	0.3797 ppb	19:26:10
1	Ni 231.604†	71.7	-10.2	-0.2907 ug/L	-0.2907 ppb	19:26:10
1	P 214.914†	212.3	-7.0	-3.8659 ug/L	-3.8659 ppb	19:26:10
1	Pb 220.353†	-19.1	-39.3	-5.4507 ug/L	-5.4507 ppb	19:26:10
1	S 181.975 Axial†	42.3	3.3	4.7439 ug/L	4.7439 ppb	19:26:10
1	Sb 206.836†	42.5	4.5	1.6361 ug/L	1.6361 ppb	19:26:10
1	Se 196.026†	-24.6	5.6	3.7812 ug/L	3.7812 ppb	19:26:10
1	Si 251.611†	574.5	55.9	1.8654 ug/L	1.8654 ppb	19:26:10
1	Sn 189.927†	13.3	-2.6	-0.5152 ug/L	-0.5152 ppb	19:26:10
1	Ti 334.940†	-1355.3	176.9	0.2956 ug/L	0.2956 ppb	19:25:50
1	Tl 190.801†	-19.1	14.2	4.7709 ug/L	4.7709 ppb	19:26:10
1	U 409.014†	-2699.4	467.8	17.027 ug/L	17.027 ppb	19:25:50
1	V 292.402†	-1581.4	172.3	1.4482 ug/L	1.4482 ppb	19:25:50
1	Zn 213.857†	655.5	-13.5	-0.1348 ug/L	-0.1348 ppb	19:26:10
1	SiO2†	543.3	30.2	2.1399 ug/L	2.1399 ppb	19:27:06
2	Sc Radial	3862.3	3862.3	109 %		19:25:18
2	Y RADIAL	4460.5	4460.5	111.5 %		19:24:58
2	Al 396.153Radial†	-122.9	0.7	0.6588 ug/L	0.6588 ppb	19:25:18
2	Ca 317.933Radial†	32.1	-1.9	-4.0577 ug/L	-4.0577 ppb	19:25:18
2	Fe 238.204 Radial†	8.5	-1.4	-20.428 ug/L	-20.428 ppb	19:25:18
2	K 766.490 Radial†	2927.1	-463.7	-86.709 ug/L	-86.709 ppb	19:24:58
2	Mg 279.077 IEC†	0.7	-2.0	-103.04 ug/L	-103.04 ppb	19:25:18
2	Na 589.592 Radial†	916.7	-3187.9	-1094.1 ug/L	-1094.1 ppb	19:24:58
2	Sr 421.552†	147.6	-1306.3	-9.7950 ug/L	-9.7950 ppb	19:24:58
2	Sc 361.383	783430.4	783430.4	104.27 %		19:26:15
2	Y 371.029	622085.4	622085.4	105.71 %		19:26:15
2	Ag 328.068†	234.3	-101.6	-0.5395 ug/L	-0.5395 ppb	19:26:15
2	As 188.979†	-18.6	2.8	1.2971 ug/L	1.2971 ppb	19:26:35
2	B 249.677†	-98.0	348.0	8.6426 ug/L	8.6426 ppb	19:26:35
2	Ba 233.527†	16.0	-129.7	-1.1019 ug/L	-1.1019 ppb	19:26:35
2	Be 313.107†	-4537.9	3.8	0.0024 ug/L	0.0024 ppb	19:26:15
2	Cd 226.502†	-184.0	18.7	0.2517 ug/L	0.2517 ppb	19:26:35
2	Co 228.616†	-71.0	2.2	0.0484 ug/L	0.0484 ppb	19:26:35
2	Cr 267.716†	94.2	12.5	0.1574 ug/L	0.1574 ppb	19:26:35
2	Cu 324.752†	5872.8	-820.0	-2.5636 ug/L	-2.5636 ppb	19:26:15
2	Mn 257.610†	475.2	-15.6	-0.0162 ug/L	-0.0162 ppb	19:26:35
2	Mo 202.031†	12.6	2.1	0.1738 ug/L	0.1738 ppb	19:26:35
2	Ni 231.604†	92.2	9.3	0.2649 ug/L	0.2649 ppb	19:26:35

2	P 214.914†	203.8	-15.7	-9.0419 ug/L	-9.0419 ppb	19:26:35
2	Pb 220.353†	-27.5	-47.2	-6.5544 ug/L	-6.5544 ppb	19:26:35
2	S 181.975 Axial†	48.2	8.9	12.780 ug/L	12.780 ppb	19:26:35
2	Sb 206.836†	36.7	-1.2	-0.3873 ug/L	-0.3873 ppb	19:26:35
2	Se 196.026†	-28.9	1.6	0.9961 ug/L	0.9961 ppb	19:26:35
2	Si 251.611†	564.8	45.1	1.5092 ug/L	1.5092 ppb	19:26:35
2	Sn 189.927†	26.6	10.2	2.0538 ug/L	2.0538 ppb	19:26:35
2	Ti 334.940†	-1303.7	229.7	0.3830 ug/L	0.3830 ppb	19:26:15
2	Tl 190.801†	-16.8	16.4	5.5156 ug/L	5.5156 ppb	19:26:35
2	U 409.014†	-2788.1	389.3	14.170 ug/L	14.170 ppb	19:26:15
2	V 292.402†	-1611.9	146.8	1.2325 ug/L	1.2325 ppb	19:26:15
2	Zn 213.857†	673.3	1.9	0.0247 ug/L	0.0247 ppb	19:26:35
2	SiO2†	556.2	41.2	2.9349 ug/L	2.9349 ppb	19:27:11
3	Sc Radial	3862.4	3862.4	109 %		19:25:43
3	Y RADIAL	4412.3	4412.3	110.3 %		19:25:23
3	Al 396.153Radial†	-108.7	13.7	13.315 ug/L	13.315 ppb	19:25:43
3	Ca 317.933Radial†	29.3	-4.5	-9.7254 ug/L	-9.7254 ppb	19:25:43
3	Fe 238.204 Radial†	8.6	-1.3	-18.457 ug/L	-18.457 ppb	19:25:43
3	K 766.490 Radial†	2971.8	-422.9	-79.013 ug/L	-79.013 ppb	19:25:23
3	Mg 279.077 IEC†	1.9	-0.9	-46.715 ug/L	-46.715 ppb	19:25:43
3	Na 589.592 Radial†	799.3	-3295.4	-1130.9 ug/L	-1130.9 ppb	19:25:23
3	Sr 421.552†	166.2	-1289.2	-9.6674 ug/L	-9.6674 ppb	19:25:23
3	Sc 361.383	791008.1	791008.1	105.28 %		19:26:41
3	Y 371.029	626968.5	626968.5	106.54 %		19:26:41
3	Ag 328.068†	196.6	-139.6	-0.7412 ug/L	-0.7412 ppb	19:26:41
3	As 188.979†	-16.3	5.2	2.3973 ug/L	2.3973 ppb	19:27:01
3	B 249.677†	-66.2	379.1	9.4154 ug/L	9.4154 ppb	19:27:01
3	Ba 233.527†	52.2	-95.5	-0.8095 ug/L	-0.8095 ppb	19:27:01
3	Be 313.107†	-4600.5	-13.9	-0.0043 ug/L	-0.0043 ppb	19:26:41
3	Cd 226.502†	-168.4	35.2	0.4717 ug/L	0.4717 ppb	19:27:01
3	Co 228.616†	-76.8	-2.6	-0.0572 ug/L	-0.0572 ppb	19:27:01
3	Cr 267.716†	79.9	-2.0	-0.0344 ug/L	-0.0344 ppb	19:27:01
3	Cu 324.752†	5948.3	-802.3	-2.5134 ug/L	-2.5134 ppb	19:26:41
3	Mn 257.610†	460.9	-33.5	-0.0396 ug/L	-0.0396 ppb	19:27:01
3	Mo 202.031†	17.8	6.9	0.5671 ug/L	0.5671 ppb	19:27:01
3	Ni 231.604†	88.9	5.3	0.1518 ug/L	0.1518 ppb	19:27:01
3	P 214.914†	216.2	-5.8	-3.0041 ug/L	-3.0041 ppb	19:27:01
3	Pb 220.353†	-31.7	-51.0	-7.0753 ug/L	-7.0753 ppb	19:27:01
3	S 181.975 Axial†	44.5	4.8	6.9594 ug/L	6.9594 ppb	19:27:01
3	Sb 206.836†	32.0	-6.0	-2.1564 ug/L	-2.1564 ppb	19:27:01
3	Se 196.026†	-18.2	12.0	8.0594 ug/L	8.0594 ppb	19:27:01
3	Si 251.611†	557.0	32.6	1.0838 ug/L	1.0838 ppb	19:27:01
3	Sn 189.927†	20.1	3.7	0.7507 ug/L	0.7507 ppb	19:27:01
3	Ti 334.940†	-1252.1	290.7	0.4746 ug/L	0.4746 ppb	19:26:41
3	Tl 190.801†	-14.5	18.8	6.3214 ug/L	6.3214 ppb	19:27:01
3	U 409.014†	-2538.6	651.9	23.728 ug/L	23.728 ppb	19:26:41
3	V 292.402†	-1562.3	208.8	1.7644 ug/L	1.7644 ppb	19:26:41
3	Zn 213.857†	664.1	-13.0	-0.1310 ug/L	-0.1310 ppb	19:27:01
3	SiO2†	575.3	54.2	3.8478 ug/L	3.8478 ppb	19:27:16

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	785295.6	104.52 %		0.672			0.64%
Sc Radial	3874.5	110 %		0.6			0.54%
Y 371.029	623260.7	105.91 %		0.558			0.53%
Y RADIAL	4445.3	111.2 %		0.72			0.64%
Ag 328.068†	-147.7	-0.7796 ug/L		0.26136	-0.7796 ppb	0.26136	33.53%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	8.4	8.1542 ug/L		6.64335	8.1542 ppb	6.64335	81.47%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	2.3	1.0847 ug/L		1.43066	1.0847 ppb	1.43066	131.89%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	371.8	9.2333 ug/L		0.52393	9.2333 ppb	0.52393	5.67%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	-105.3	-0.8933 ug/L		0.18178	-0.8933 ppb	0.18178	20.35%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	-1.8	0.0002 ug/L		0.00393	0.0002 ppb	0.00393	>999.9%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	-3.5	-7.6160 ug/L		3.09921	-7.6160 ppb	3.09921	40.69%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated									
Cd 226.502†	22.1	0.2972 ug/L	0.15681	0.2972 ppb	0.15681	52.76%			
QC value within limits for Cd 226.502 Recovery = Not calculated									
Co 228.616†	2.6	0.0572 ug/L	0.11916	0.0572 ppb	0.11916	208.19%			
QC value within limits for Co 228.616 Recovery = Not calculated									
Cr 267.716†	7.4	0.0898 ug/L	0.10774	0.0898 ppb	0.10774	119.95%			
QC value within limits for Cr 267.716 Recovery = Not calculated									
Cu 324.752†	-768.8	-2.4062 ug/L	0.23056	-2.4062 ppb	0.23056	9.58%			
QC value within limits for Cu 324.752 Recovery = Not calculated									
Fe 238.204 Radial†	-1.2	-17.633 ug/L	3.2862	-17.633 ppb	3.2862	18.64%			
QC value within limits for Fe 238.204 Radial Recovery = Not calculated									
K 766.490 Radial†	-476.7	-89.141 ug/L	11.5370	-89.141 ppb	11.5370	12.94%			
QC value within limits for K 766.490 Radial Recovery = Not calculated									
Mg 279.077 IEC†	-1.8	-93.667 ug/L	43.0401	-93.667 ppb	43.0401	45.95%			
QC value within limits for Mg 279.077 IEC Recovery = Not calculated									
Mn 257.610†	-31.8	-0.0355 ug/L	0.01761	-0.0355 ppb	0.01761	49.59%			
QC value within limits for Mn 257.610 Recovery = Not calculated									
Mo 202.031†	4.6	0.3735 ug/L	0.19671	0.3735 ppb	0.19671	52.66%			
QC value within limits for Mo 202.031 Recovery = Not calculated									
Na 589.592 Radial†	-3235.3	-1110.3 ug/L	18.82	-1110.3 ppb	18.82	1.70%			
QC value less than the lower limit for Na 589.592 Radial Recovery = Not calculated									
Ni 231.604†	1.5	0.0420 ug/L	0.29361	0.0420 ppb	0.29361	699.03%			
QC value within limits for Ni 231.604 Recovery = Not calculated									
P 214.914†	-9.5	-5.3040 ug/L	3.26568	-5.3040 ppb	3.26568	61.57%			
QC value within limits for P 214.914 Recovery = Not calculated									
Pb 220.353†	-45.8	-6.3601 ug/L	0.82954	-6.3601 ppb	0.82954	13.04%			
QC value within limits for Pb 220.353 Recovery = Not calculated									
S 181.975 Axial†	5.7	8.1610 ug/L	4.15038	8.1610 ppb	4.15038	50.86%			
QC value within limits for S 181.975 Axial Recovery = Not calculated									
Sb 206.836†	-0.9	-0.3026 ug/L	1.89768	-0.3026 ppb	1.89768	627.20%			
QC value within limits for Sb 206.836 Recovery = Not calculated									
Se 196.026†	6.4	4.2789 ug/L	3.55784	4.2789 ppb	3.55784	83.15%			
QC value within limits for Se 196.026 Recovery = Not calculated									
Si 251.611†	44.5	1.4861 ug/L	0.39128	1.4861 ppb	0.39128	26.33%			
QC value within limits for Si 251.611 Recovery = Not calculated									
Sn 189.927†	3.8	0.7631 ug/L	1.28451	0.7631 ppb	1.28451	168.33%			
QC value within limits for Sn 189.927 Recovery = Not calculated									
Sr 421.552†	-1238.1	-9.2841 ug/L	0.77703	-9.2841 ppb	0.77703	8.37%			
QC value less than the lower limit for Sr 421.552 Recovery = Not calculated									
Ti 334.940†	232.4	0.3844 ug/L	0.08952	0.3844 ppb	0.08952	23.29%			
QC value within limits for Ti 334.940 Recovery = Not calculated									
Tl 190.801†	16.5	5.5359 ug/L	0.77546	5.5359 ppb	0.77546	14.01%			
QC value within limits for Tl 190.801 Recovery = Not calculated									
U 409.014†	503.0	18.308 ug/L	4.9062	18.308 ppb	4.9062	26.80%			
QC value within limits for U 409.014 Recovery = Not calculated									
V 292.402†	176.0	1.4817 ug/L	0.26753	1.4817 ppb	0.26753	18.06%			
QC value within limits for V 292.402 Recovery = Not calculated									
Zn 213.857†	-8.2	-0.0804 ug/L	0.09098	-0.0804 ppb	0.09098	113.20%			
QC value within limits for Zn 213.857 Recovery = Not calculated									
SiO2†	41.9	2.9742 ug/L	0.85461	2.9742 ppb	0.85461	28.73%			
QC value within limits for SiO2 Recovery = Not calculated									
QC Failed. Continue with analysis.									

Sequence No.: 34  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 1  
 Date Collected: 2/19/2010 20:17:18  
 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	3885.8	3885.8	110 %		20:19:30
1	Y RADIAL	4396.5	4396.5	110.0 %		20:19:10
1	Al 396.153Radial†	5361.2	4993.0	4829.5 ug/L	4829.5 ppb	20:19:10
1	Ca 317.933Radial†	2514.1	2257.1	4930.6 ug/L	4930.6 ppb	20:19:30
1	Fe 238.204 Radial†	381.8	338.3	4910.1 ug/L	4910.1 ppb	20:19:30
1	K 766.490 Radial†	31019.4	25089.6	4708.7 ug/L	4708.7 ppb	20:19:10
1	Mg 279.077 IEC†	107.7	95.4	4848.5 ug/L	4848.5 ppb	20:19:30
1	Na 589.592 Radial†	31522.7	24664.5	8464.6 ug/L	8464.6 ppb	20:19:10
1	Sr 421.552†	70299.2	62544.6	468.96 ug/L	468.96 ppb	20:19:10
1	Sc 361.383	772420.1	772420.1	102.81 %		20:20:28
1	Y 371.029	604212.2	604212.2	102.68 %		20:20:28
1	Ag 328.068†	104339.2	101163.6	527.27 ug/L	527.27 ppb	20:20:33
1	As 188.979†	1113.2	1103.5	515.72 ug/L	515.72 ppb	20:20:53
1	B 249.677†	20662.4	20540.2	507.69 ug/L	507.69 ppb	20:20:33
1	Ba 233.527†	62557.8	60704.5	518.01 ug/L	518.01 ppb	20:20:33
1	Be 313.107†	1333694.7	1301631.2	511.92 ug/L	511.92 ppb	20:20:28
1	Cd 226.502†	39985.8	39089.0	516.70 ug/L	516.70 ppb	20:20:33
1	Co 228.616†	24184.8	23594.7	517.07 ug/L	517.07 ppb	20:20:33
1	Cr 267.716†	40597.1	39410.7	516.07 ug/L	516.07 ppb	20:20:33
1	Cu 324.752†	177852.4	166543.6	518.78 ug/L	518.78 ppb	20:20:33
1	Mn 257.610†	445036.3	432412.3	511.97 ug/L	511.97 ppb	20:20:28
1	Mo 202.031†	6436.2	6250.5	511.89 ug/L	511.89 ppb	20:20:53
1	Ni 231.604†	18739.8	18148.9	516.04 ug/L	516.04 ppb	20:20:33
1	P 214.914†	4469.2	4136.0	2426.2 ug/L	2426.2 ppb	20:20:53
1	Pb 220.353†	3745.1	3621.9	505.20 ug/L	505.20 ppb	20:20:53
1	S 181.975 Axial†	771.4	712.9	1024.5 ug/L	1024.5 ppb	20:20:53
1	Sb 206.836†	1462.9	1386.6	526.63 ug/L	526.63 ppb	20:20:53
1	Se 196.026†	748.6	757.4	532.26 ug/L	532.26 ppb	20:20:53
1	Si 251.611†	81027.8	78318.6	2616.1 ug/L	2616.1 ppb	20:20:33
1	Sn 189.927†	2618.8	2531.9	510.35 ug/L	510.35 ppb	20:20:53
1	Ti 334.940†	320406.1	313136.7	519.69 ug/L	519.69 ppb	20:20:28
1	Tl 190.801†	1544.8	1535.1	518.92 ug/L	518.92 ppb	20:20:53
1	U 409.014†	12785.7	15499.7	562.42 ug/L	562.42 ppb	20:20:33
1	V 292.402†	63527.5	63485.5	526.89 ug/L	526.89 ppb	20:20:33
1	Zn 213.857†	51686.1	49630.9	516.12 ug/L	516.12 ppb	20:20:33
1	SiO2†	79133.5	76480.4	5437.6 ug/L	5437.6 ppb	20:22:01
2	Sc Radial	3882.1	3882.1	110 %		20:19:55
2	Y RADIAL	4432.4	4432.4	110.8 %		20:19:35
2	Al 396.153Radial†	5438.9	5068.3	4905.7 ug/L	4905.7 ppb	20:19:35
2	Ca 317.933Radial†	2509.5	2255.1	4926.3 ug/L	4926.3 ppb	20:19:55
2	Fe 238.204 Radial†	380.1	337.2	4890.6 ug/L	4890.6 ppb	20:19:55
2	K 766.490 Radial†	31129.4	25216.6	4732.6 ug/L	4732.6 ppb	20:19:35
2	Mg 279.077 IEC†	109.3	96.9	4925.2 ug/L	4925.2 ppb	20:19:55
2	Na 589.592 Radial†	31915.3	25049.4	8596.7 ug/L	8596.7 ppb	20:19:35
2	Sr 421.552†	71213.4	63438.1	475.66 ug/L	475.66 ppb	20:19:35
2	Sc 361.383	864224.9	864224.9	115.03 %		20:20:59
2	Y 371.029	677166.8	677166.8	115.07 %		20:20:59
2	Ag 328.068†	99339.7	86036.2	448.62 ug/L	448.62 ppb	20:21:04
2	As 188.979†	1094.5	972.2	454.42 ug/L	454.42 ppb	20:21:24
2	B 249.677†	19590.3	17473.1	431.77 ug/L	431.77 ppb	20:21:04
2	Ba 233.527†	59227.7	51345.5	438.17 ug/L	438.17 ppb	20:21:04
2	Be 313.107†	1298708.5	1133408.5	445.75 ug/L	445.75 ppb	20:20:59
2	Cd 226.502†	37913.7	33156.1	438.20 ug/L	438.20 ppb	20:21:04
2	Co 228.616†	22905.0	19983.2	437.93 ug/L	437.93 ppb	20:21:04
2	Cr 267.716†	38314.4	33231.4	435.22 ug/L	435.22 ppb	20:21:04
2	Cu 324.752†	167996.1	139597.9	434.87 ug/L	434.87 ppb	20:21:04
2	Mn 257.610†	432114.0	375193.8	444.26 ug/L	444.26 ppb	20:20:59
2	Mo 202.031†	6352.5	5512.6	451.52 ug/L	451.52 ppb	20:21:24
2	Ni 231.604†	17786.8	15384.1	437.43 ug/L	437.43 ppb	20:21:04



2	P 214.914†	4408.6	3621.6	2128.0 ug/L	2128.0 ppb	20:21:24
2	Pb 220.353†	3700.8	3196.5	446.02 ug/L	446.02 ppb	20:21:24
2	S 181.975 Axial†	775.2	636.6	914.60 ug/L	914.60 ppb	20:21:24
2	Sb 206.836†	1429.7	1206.6	458.41 ug/L	458.41 ppb	20:21:24
2	Se 196.026†	738.5	671.3	473.66 ug/L	473.66 ppb	20:21:24
2	Si 251.611†	76731.5	66211.2	2211.4 ug/L	2211.4 ppb	20:21:04
2	Sn 189.927†	2579.2	2226.9	448.94 ug/L	448.94 ppb	20:21:24
2	Ti 334.940†	310711.4	271601.8	450.79 ug/L	450.79 ppb	20:20:59
2	Tl 190.801†	1527.9	1360.8	460.00 ug/L	460.00 ppb	20:21:24
2	U 409.014†	11952.9	13454.6	488.17 ug/L	488.17 ppb	20:21:04
2	V 292.402†	60045.0	53893.7	447.44 ug/L	447.44 ppb	20:21:04
2	Zn 213.857†	48978.9	41936.8	435.99 ug/L	435.99 ppb	20:21:04
2	SiO2†	78998.7	68186.6	4848.1 ug/L	4848.1 ppb	20:22:06
3	Sc Radial	3811.4	3811.4	108 %		20:20:20
3	Y RADIAL	4408.3	4408.3	110.2 %		20:20:00
3	Al 396.153Radial†	5385.9	5111.2	4946.4 ug/L	4946.4 ppb	20:20:00
3	Ca 317.933Radial†	2506.4	2294.6	5012.6 ug/L	5012.6 ppb	20:20:20
3	Fe 238.204 Radial†	377.5	341.2	4949.3 ug/L	4949.3 ppb	20:20:20
3	K 766.490 Radial†	31010.0	25632.4	4810.6 ug/L	4810.6 ppb	20:20:00
3	Mg 279.077 IEC†	107.9	97.5	4953.3 ug/L	4953.3 ppb	20:20:20
3	Na 589.592 Radial†	31793.0	25475.8	8743.0 ug/L	8743.0 ppb	20:20:00
3	Sr 421.552†	70620.7	64092.9	480.57 ug/L	480.57 ppb	20:20:00
3	Sc 361.383	830611.3	830611.3	110.55 %		20:21:30
3	Y 371.029	649766.6	649766.6	110.42 %		20:21:30
3	Ag 328.068†	102522.6	92410.2	481.78 ug/L	481.78 ppb	20:21:35
3	As 188.979†	1109.3	1024.1	478.64 ug/L	478.64 ppb	20:21:55
3	B 249.677†	20304.7	18808.6	464.82 ug/L	464.82 ppb	20:21:35
3	Ba 233.527†	61516.9	55499.9	473.61 ug/L	473.61 ppb	20:21:35
3	Be 313.107†	1316371.5	1195076.6	470.01 ug/L	470.01 ppb	20:21:30
3	Cd 226.502†	39448.5	35878.2	474.21 ug/L	474.21 ppb	20:21:35
3	Co 228.616†	23819.2	21615.9	473.71 ug/L	473.71 ppb	20:21:35
3	Cr 267.716†	39779.4	35904.6	470.20 ug/L	470.20 ppb	20:21:35
3	Cu 324.752†	174049.6	150983.9	470.33 ug/L	470.33 ppb	20:21:35
3	Mn 257.610†	439547.6	397120.4	470.21 ug/L	470.21 ppb	20:21:30
3	Mo 202.031†	6379.6	5760.7	471.82 ug/L	471.82 ppb	20:21:55
3	Ni 231.604†	18431.3	16592.8	471.80 ug/L	471.80 ppb	20:21:35
3	P 214.914†	4423.5	3790.2	2224.2 ug/L	2224.2 ppb	20:21:55
3	Pb 220.353†	3726.7	3350.1	467.40 ug/L	467.40 ppb	20:21:55
3	S 181.975 Axial†	775.2	663.8	953.78 ug/L	953.78 ppb	20:21:55
3	Sb 206.836†	1435.0	1261.7	479.43 ug/L	479.43 ppb	20:21:55
3	Se 196.026†	740.6	699.2	492.81 ug/L	492.81 ppb	20:21:55
3	Si 251.611†	79486.5	71402.8	2385.0 ug/L	2385.0 ppb	20:21:35
3	Sn 189.927†	2609.8	2345.4	472.80 ug/L	472.80 ppb	20:21:55
3	Ti 334.940†	315751.6	287092.4	476.49 ug/L	476.49 ppb	20:21:30
3	Tl 190.801†	1532.0	1418.4	479.43 ug/L	479.43 ppb	20:21:55
3	U 409.014†	12424.4	14301.6	518.91 ug/L	518.91 ppb	20:21:35
3	V 292.402†	62328.5	58071.8	481.96 ug/L	481.96 ppb	20:21:35
3	Zn 213.857†	50746.5	45258.8	470.58 ug/L	470.58 ppb	20:21:35
3	SiO2†	78201.3	70244.6	4994.2 ug/L	4994.2 ppb	20:22:11

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	822418.8	109.46 %	6.182			5.65%
Sc Radial	3859.8	109 %	1.2			1.09%
Y 371.029	643715.2	109.39 %	6.262			5.72%
Y RADIAL	4412.4	110.3 %	0.46			0.41%
Ag 328.068†	93203.3	485.89 ug/L	39.484	485.89 ppb	39.484	8.13%
QC value within limits for Ag 328.068 Recovery = 97.18%						
Al 396.153Radial†	5057.5	4893.8 ug/L	59.32	4893.8 ppb	59.32	1.21%
QC value within limits for Al 396.153Radial Recovery = 97.88%						
As 188.979†	1033.3	482.92 ug/L	30.874	482.92 ppb	30.874	6.39%
QC value within limits for As 188.979 Recovery = 96.58%						
B 249.677†	18940.6	468.09 ug/L	38.065	468.09 ppb	38.065	8.13%
QC value within limits for B 249.677 Recovery = 93.62%						
Ba 233.527†	55850.0	476.60 ug/L	40.002	476.60 ppb	40.002	8.39%
QC value within limits for Ba 233.527 Recovery = 95.32%						
Be 313.107†	1210038.8	475.89 ug/L	33.472	475.89 ppb	33.472	7.03%
QC value within limits for Be 313.107 Recovery = 95.18%						
Ca 317.933Radial†	2268.9	4956.5 ug/L	48.65	4956.5 ppb	48.65	0.98%

QC value within limits for Ca 317.933Radial Recovery = 99.13%							
Cd 226.502†	36041.1	476.37 ug/L	39.294	476.37 ppb	39.294	8.25%	
QC value within limits for Cd 226.502 Recovery = 95.27%							
Co 228.616†	21731.3	476.24 ug/L	39.629	476.24 ppb	39.629	8.32%	
QC value within limits for Co 228.616 Recovery = 95.25%							
Cr 267.716†	36182.2	473.83 ug/L	40.545	473.83 ppb	40.545	8.56%	
QC value within limits for Cr 267.716 Recovery = 94.77%							
Cu 324.752†	152375.1	474.66 ug/L	42.119	474.66 ppb	42.119	8.87%	
QC value within limits for Cu 324.752 Recovery = 94.93%							
Fe 238.204 Radial†	338.9	4916.7 ug/L	29.89	4916.7 ppb	29.89	0.61%	
QC value within limits for Fe 238.204 Radial Recovery = 98.33%							
K 766.490 Radial†	25312.8	4750.6 ug/L	53.30	4750.6 ppb	53.30	1.12%	
QC value within limits for K 766.490 Radial Recovery = 95.01%							
Mg 279.077 IEC†	96.6	4909.0 ug/L	54.26	4909.0 ppb	54.26	1.11%	
QC value within limits for Mg 279.077 IEC Recovery = 98.18%							
Mn 257.610†	401575.5	475.48 ug/L	34.163	475.48 ppb	34.163	7.18%	
QC value within limits for Mn 257.610 Recovery = 95.10%							
Mo 202.031†	5841.3	478.41 ug/L	30.724	478.41 ppb	30.724	6.42%	
QC value within limits for Mo 202.031 Recovery = 95.68%							
Na 589.592 Radial†	25063.2	8601.4 ug/L	139.29	8601.4 ppb	139.29	1.62%	
QC value less than the lower limit for Na 589.592 Radial Recovery = 86.01%							
Ni 231.604†	16708.6	475.09 ug/L	39.409	475.09 ppb	39.409	8.30%	
QC value within limits for Ni 231.604 Recovery = 95.02%							
P 214.914†	3849.3	2259.5 ug/L	152.20	2259.5 ppb	152.20	6.74%	
QC value within limits for P 214.914 Recovery = 90.38%							
Pb 220.353†	3389.5	472.87 ug/L	29.967	472.87 ppb	29.967	6.34%	
QC value within limits for Pb 220.353 Recovery = 94.57%							
S 181.975 Axial†	671.1	964.28 ug/L	55.673	964.28 ppb	55.673	5.77%	
QC value within limits for S 181.975 Axial Recovery = 96.43%							
Sb 206.836†	1285.0	488.16 ug/L	34.935	488.16 ppb	34.935	7.16%	
QC value within limits for Sb 206.836 Recovery = 97.63%							
Se 196.026†	709.3	499.58 ug/L	29.882	499.58 ppb	29.882	5.98%	
QC value within limits for Se 196.026 Recovery = 99.92%							
Si 251.611†	71977.5	2404.2 ug/L	203.01	2404.2 ppb	203.01	8.44%	
QC value within limits for Si 251.611 Recovery = 96.17%							
Sn 189.927†	2368.1	477.36 ug/L	30.959	477.36 ppb	30.959	6.49%	
QC value within limits for Sn 189.927 Recovery = 95.47%							
Sr 421.552†	63358.6	475.06 ug/L	5.828	475.06 ppb	5.828	1.23%	
QC value within limits for Sr 421.552 Recovery = 95.01%							
Ti 334.940†	290610.3	482.33 ug/L	34.819	482.33 ppb	34.819	7.22%	
QC value within limits for Ti 334.940 Recovery = 96.47%							
Tl 190.801†	1438.1	486.12 ug/L	30.024	486.12 ppb	30.024	6.18%	
QC value within limits for Tl 190.801 Recovery = 97.22%							
U 409.014†	14418.6	523.17 ug/L	37.309	523.17 ppb	37.309	7.13%	
QC value within limits for U 409.014 Recovery = 104.63%							
V 292.402†	58483.7	485.43 ug/L	39.836	485.43 ppb	39.836	8.21%	
QC value within limits for V 292.402 Recovery = 97.09%							
Zn 213.857†	45608.9	474.23 ug/L	40.188	474.23 ppb	40.188	8.47%	
QC value within limits for Zn 213.857 Recovery = 94.85%							
SiO2†	71637.2	5093.3 ug/L	307.01	5093.3 ppb	307.01	6.03%	
QC value within limits for SiO2 Recovery = 95.25%							
QC Failed. Continue with analysis.							

Sequence No.: 35  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 2/19/2010 20:24:22  
 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	3913.3	3913.3	111 %		20:26:33
1	Y RADIAL	4361.2	4361.2	109.1 %		20:26:13
1	Al 396.153Radial†	-105.8	17.6	17.087 ug/L	17.087 ppb	20:26:33
1	Ca 317.933Radial†	29.6	-4.5	-9.8403 ug/L	-9.8403 ppb	20:26:33
1	Fe 238.204 Radial†	10.2	0.1	1.5869 ug/L	1.5869 ppb	20:26:33
1	K 766.490 Radial†	2935.5	-491.0	-91.810 ug/L	-91.810 ppb	20:26:13
1	Mg 279.077 IEC†	0.8	-1.9	-96.562 ug/L	-96.562 ppb	20:26:33
1	Na 589.592 Radial†	723.0	-3373.9	-1157.9 ug/L	-1157.9 ppb	20:26:13
1	Sr 421.552†	217.8	-1244.5	-9.3323 ug/L	-9.3323 ppb	20:26:13
1	Sc 361.383	786830.9	786830.9	104.73 %		20:27:30
1	Y 371.029	623577.9	623577.9	105.97 %		20:27:30
1	Ag 328.068†	213.6	-122.4	-0.6435 ug/L	-0.6435 ppb	20:27:30
1	As 188.979†	-19.4	2.1	0.9969 ug/L	0.9969 ppb	20:27:50
1	B 249.677†	-234.9	217.7	5.4042 ug/L	5.4042 ppb	20:27:50
1	Ba 233.527†	31.7	-114.8	-0.9752 ug/L	-0.9752 ppb	20:27:50
1	Be 313.107†	-4627.1	-62.5	-0.0236 ug/L	-0.0236 ppb	20:27:30
1	Cd 226.502†	-205.0	-0.6	-0.0050 ug/L	-0.0050 ppb	20:27:50
1	Co 228.616†	-69.7	3.8	0.0830 ug/L	0.0830 ppb	20:27:50
1	Cr 267.716†	68.9	-12.0	-0.1626 ug/L	-0.1626 ppb	20:27:50
1	Cu 324.752†	5843.3	-872.6	-2.7277 ug/L	-2.7277 ppb	20:27:30
1	Mn 257.610†	445.4	-46.1	-0.0504 ug/L	-0.0504 ppb	20:27:50
1	Mo 202.031†	16.2	5.5	0.4531 ug/L	0.4531 ppb	20:27:50
1	Ni 231.604†	86.6	3.6	0.1022 ug/L	0.1022 ppb	20:27:50
1	P 214.914†	211.1	-9.6	-5.3127 ug/L	-5.3127 ppb	20:27:50
1	Pb 220.353†	-44.5	-63.4	-8.7949 ug/L	-8.7949 ppb	20:27:50
1	S 181.975 Axial†	44.9	5.5	7.9188 ug/L	7.9188 ppb	20:27:50
1	Sb 206.836†	37.5	-0.6	-0.2182 ug/L	-0.2182 ppb	20:27:50
1	Se 196.026†	-22.4	7.9	5.3735 ug/L	5.3735 ppb	20:27:50
1	Si 251.611†	555.2	33.7	1.1220 ug/L	1.1220 ppb	20:27:50
1	Sn 189.927†	12.7	-3.2	-0.6524 ug/L	-0.6524 ppb	20:27:50
1	Ti 334.940†	-1303.4	235.4	0.3899 ug/L	0.3899 ppb	20:27:30
1	Tl 190.801†	-18.2	15.2	5.0951 ug/L	5.0951 ppb	20:27:50
1	U 409.014†	-2720.0	465.8	16.955 ug/L	16.955 ppb	20:27:30
1	V 292.402†	-1656.8	110.7	0.9430 ug/L	0.9430 ppb	20:27:30
1	Zn 213.857†	626.3	-45.8	-0.4774 ug/L	-0.4774 ppb	20:27:50
1	SiO2†	560.3	42.9	3.0425 ug/L	3.0425 ppb	20:28:46
2	Sc Radial	3908.9	3908.9	111 %		20:26:58
2	Y RADIAL	4419.1	4419.1	110.5 %		20:26:38
2	Al 396.153Radial†	-109.4	14.3	13.863 ug/L	13.863 ppb	20:26:58
2	Ca 317.933Radial†	31.3	-2.9	-6.3366 ug/L	-6.3366 ppb	20:26:58
2	Fe 238.204 Radial†	9.4	-0.6	-9.2931 ug/L	-9.2931 ppb	20:26:58
2	K 766.490 Radial†	2886.8	-532.1	-99.537 ug/L	-99.537 ppb	20:26:38
2	Mg 279.077 IEC†	2.9	-0.1	-2.6278 ug/L	-2.6278 ppb	20:26:58
2	Na 589.592 Radial†	783.5	-3318.4	-1138.8 ug/L	-1138.8 ppb	20:26:38
2	Sr 421.552†	401.2	-1078.4	-8.0866 ug/L	-8.0866 ppb	20:26:38
2	Sc 361.383	794234.5	794234.5	105.71 %		20:27:56
2	Y 371.029	630264.5	630264.5	107.10 %		20:27:56
2	Ag 328.068†	277.3	-64.0	-0.3356 ug/L	-0.3356 ppb	20:27:56
2	As 188.979†	-19.0	2.7	1.2578 ug/L	1.2578 ppb	20:28:16
2	B 249.677†	-270.2	186.4	4.6271 ug/L	4.6271 ppb	20:28:16
2	Ba 233.527†	68.3	-80.4	-0.6811 ug/L	-0.6811 ppb	20:28:16
2	Be 313.107†	-4523.0	77.1	0.0313 ug/L	0.0313 ppb	20:27:56
2	Cd 226.502†	-190.9	14.6	0.1956 ug/L	0.1956 ppb	20:28:16
2	Co 228.616†	-52.4	20.8	0.4536 ug/L	0.4536 ppb	20:28:16
2	Cr 267.716†	74.5	-7.4	-0.0987 ug/L	-0.0987 ppb	20:28:16
2	Cu 324.752†	5936.5	-836.4	-2.6114 ug/L	-2.6114 ppb	20:27:56
2	Mn 257.610†	457.1	-38.9	-0.0469 ug/L	-0.0469 ppb	20:28:16
2	Mo 202.031†	10.5	0.0	0.0000 ug/L	0.0000 ppb	20:28:16
2	Ni 231.604†	76.6	-6.6	-0.1889 ug/L	-0.1889 ppb	20:28:16

2	P 214.914†	216.9	-6.0	-3.1215 ug/L	-3.1215 ppb	20:28:16
2	Pb 220.353†	-39.9	-58.7	-8.1434 ug/L	-8.1434 ppb	20:28:16
2	S 181.975 Axial†	39.8	0.2	0.3244 ug/L	0.3244 ppb	20:28:16
2	Sb 206.836†	39.0	0.5	0.1809 ug/L	0.1809 ppb	20:28:16
2	Se 196.026†	-21.0	9.4	6.3440 ug/L	6.3440 ppb	20:28:16
2	Si 251.611†	553.5	27.1	0.9075 ug/L	0.9075 ppb	20:28:16
2	Sn 189.927†	13.7	-2.4	-0.4807 ug/L	-0.4807 ppb	20:28:16
2	Ti 334.940†	-1260.5	287.6	0.4726 ug/L	0.4726 ppb	20:27:56
2	Tl 190.801†	-31.3	2.9	0.9791 ug/L	0.9791 ppb	20:28:16
2	U 409.014†	-2960.7	262.3	9.5497 ug/L	9.5497 ppb	20:27:56
2	V 292.402†	-1572.2	205.5	1.7019 ug/L	1.7019 ppb	20:27:56
2	Zn 213.857†	628.9	-48.9	-0.5067 ug/L	-0.5067 ppb	20:28:16
2	SiO2†	568.6	45.7	3.2546 ug/L	3.2546 ppb	20:28:51
3	Sc Radial	3893.2	3893.2	110 %		20:27:24
3	Y RADIAL	4398.6	4398.6	110.0 %		20:27:04
3	Al 396.153Radial†	-114.4	9.3	9.0631 ug/L	9.0631 ppb	20:27:24
3	Ca 317.933Radial†	27.3	-6.5	-14.147 ug/L	-14.147 ppb	20:27:24
3	Fe 238.204 Radial†	10.6	0.5	6.8679 ug/L	6.8679 ppb	20:27:24
3	K 766.490 Radial†	2853.6	-551.8	-103.23 ug/L	-103.23 ppb	20:27:04
3	Mg 279.077 IEC†	2.1	-0.8	-40.251 ug/L	-40.251 ppb	20:27:24
3	Na 589.592 Radial†	749.8	-3346.2	-1148.4 ug/L	-1148.4 ppb	20:27:04
3	Sr 421.552†	227.0	-1235.2	-9.2622 ug/L	-9.2622 ppb	20:27:04
3	Sc 361.383	785263.5	785263.5	104.52 %		20:28:21
3	Y 371.029	622752.9	622752.9	105.83 %		20:28:21
3	Ag 328.068†	226.5	-109.6	-0.5685 ug/L	-0.5685 ppb	20:28:21
3	As 188.979†	-26.8	-5.0	-2.2977 ug/L	-2.2977 ppb	20:28:41
3	B 249.677†	-260.4	192.8	4.7855 ug/L	4.7855 ppb	20:28:41
3	Ba 233.527†	51.2	-96.1	-0.8152 ug/L	-0.8152 ppb	20:28:41
3	Be 313.107†	-4539.5	12.5	0.0054 ug/L	0.0054 ppb	20:28:21
3	Cd 226.502†	-196.6	7.1	0.0947 ug/L	0.0947 ppb	20:28:41
3	Co 228.616†	-57.7	15.1	0.3301 ug/L	0.3301 ppb	20:28:41
3	Cr 267.716†	78.5	-2.7	-0.0371 ug/L	-0.0371 ppb	20:28:41
3	Cu 324.752†	5927.6	-780.8	-2.4366 ug/L	-2.4366 ppb	20:28:21
3	Mn 257.610†	433.3	-56.7	-0.0648 ug/L	-0.0648 ppb	20:28:41
3	Mo 202.031†	13.5	3.0	0.2446 ug/L	0.2446 ppb	20:28:41
3	Ni 231.604†	96.2	12.9	0.3662 ug/L	0.3662 ppb	20:28:41
3	P 214.914†	211.7	-8.5	-4.7374 ug/L	-4.7374 ppb	20:28:41
3	Pb 220.353†	-47.5	-66.3	-9.2086 ug/L	-9.2086 ppb	20:28:41
3	S 181.975 Axial†	41.0	1.8	2.6199 ug/L	2.6199 ppb	20:28:41
3	Sb 206.836†	44.7	6.4	2.3621 ug/L	2.3621 ppb	20:28:41
3	Se 196.026†	-24.6	5.8	3.9418 ug/L	3.9418 ppb	20:28:41
3	Si 251.611†	539.1	19.3	0.6435 ug/L	0.6435 ppb	20:28:41
3	Sn 189.927†	17.5	1.4	0.2882 ug/L	0.2882 ppb	20:28:41
3	Ti 334.940†	-1419.2	122.1	0.2004 ug/L	0.2004 ppb	20:28:21
3	Tl 190.801†	-26.1	7.6	2.5537 ug/L	2.5537 ppb	20:28:41
3	U 409.014†	-2957.7	233.2	8.4873 ug/L	8.4873 ppb	20:28:21
3	V 292.402†	-1636.9	126.5	1.0540 ug/L	1.0540 ppb	20:28:21
3	Zn 213.857†	627.5	-43.4	-0.4552 ug/L	-0.4552 ppb	20:28:41
3	SiO2†	544.9	29.1	2.0680 ug/L	2.0680 ppb	20:28:56

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	788776.3	104.98 %	0.638			0.61%
Sc Radial	3905.1	110 %	0.3			0.27%
Y 371.029	625531.8	106.30 %	0.700			0.66%
Y RADIAL	4393.0	109.9 %	0.73			0.67%
Ag 328.068†	-98.7	-0.5159 ug/L	0.16056	-0.5159 ppb	0.16056	31.12%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	13.7	13.338 ug/L	4.0376	13.338 ppb	4.0376	30.27%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-0.0	-0.0144 ug/L	1.98175	-0.0144 ppb	1.98175	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	199.0	4.9389 ug/L	0.41061	4.9389 ppb	0.41061	8.31%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-97.1	-0.8238 ug/L	0.14722	-0.8238 ppb	0.14722	17.87%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	9.1	0.0044 ug/L	0.02750	0.0044 ppb	0.02750	630.09%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-4.6	-10.108 ug/L	3.9122	-10.108 ppb	3.9122	38.70%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	7.0	0.0951 ug/L	0.10032	0.0951 ppb	0.10032	105.47%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	13.2	0.2889 ug/L	0.18870	0.2889 ppb	0.18870	65.31%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-7.4	-0.0994 ug/L	0.06274	-0.0994 ppb	0.06274	63.09%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-829.9	-2.5919 ug/L	0.14651	-2.5919 ppb	0.14651	5.65%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-0.0	-0.2794 ug/L	8.24054	-0.2794 ppb	8.24054	>999.9%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-525.0	-98.191 ug/L	5.8269	-98.191 ppb	5.8269	5.93%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-0.9	-46.480 ug/L	47.2761	-46.480 ppb	47.2761	101.71%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-47.2	-0.0540 ug/L	0.00948	-0.0540 ppb	0.00948	17.56%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	2.8	0.2326 ug/L	0.22680	0.2326 ppb	0.22680	97.52%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-3346.2	-1148.4 ug/L	9.52	-1148.4 ppb	9.52	0.83%	
QC value less than the lower limit for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	3.3	0.0932 ug/L	0.27764	0.0932 ppb	0.27764	297.96%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-8.0	-4.3906 ug/L	1.13605	-4.3906 ppb	1.13605	25.87%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-62.8	-8.7156 ug/L	0.53700	-8.7156 ppb	0.53700	6.16%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	2.5	3.6210 ug/L	3.89490	3.6210 ppb	3.89490	107.56%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	2.1	0.7749 ug/L	1.38892	0.7749 ppb	1.38892	179.23%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	7.7	5.2198 ug/L	1.20846	5.2198 ppb	1.20846	23.15%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	26.7	0.8910 ug/L	0.23968	0.8910 ppb	0.23968	26.90%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-1.4	-0.2817 ug/L	0.50092	-0.2817 ppb	0.50092	177.84%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-1186.1	-8.8937 ug/L	0.69981	-8.8937 ppb	0.69981	7.87%	
QC value less than the lower limit for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	215.0	0.3543 ug/L	0.13955	0.3543 ppb	0.13955	39.38%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	8.6	2.8760 ug/L	2.07686	2.8760 ppb	2.07686	72.21%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	320.5	11.664 ug/L	4.6128	11.664 ppb	4.6128	39.55%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	147.6	1.2330 ug/L	0.40990	1.2330 ppb	0.40990	33.24%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-46.0	-0.4798 ug/L	0.02580	-0.4798 ppb	0.02580	5.38%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	39.2	2.7884 ug/L	0.63277	2.7884 ppb	0.63277	22.69%	
QC value within limits for SiO2 Recovery = Not calculated							
QC Failed. Continue with analysis.							

Sequence No.: 42

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 2/19/2010 21:11:49

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	3894.0	3894.0	110 %		21:14:01
1	Y RADIAL	4379.9	4379.9	109.5 %		21:13:41
1	Al 396.153Radial†	5376.9	4997.0	4834.5 ug/L	4834.5 ppb	21:13:41
1	Ca 317.933Radial†	2521.6	2259.1	4935.0 ug/L	4935.0 ppb	21:14:01
1	Fe 238.204 Radial†	378.7	334.8	4857.6 ug/L	4857.6 ppb	21:14:01
1	K 766.490 Radial†	31179.2	25175.4	4724.9 ug/L	4724.9 ppb	21:13:41
1	Mg 279.077 IEC†	110.5	97.7	4966.5 ug/L	4966.5 ppb	21:14:01
1	Na 589.592 Radial†	31483.0	24568.2	8431.5 ug/L	8431.5 ppb	21:13:41
1	Sr 421.552†	70781.3	62848.0	471.23 ug/L	471.23 ppb	21:13:41
1	Sc 361.383	806891.3	806891.3	107.40 %		21:14:59
1	Y 371.029	631107.4	631107.4	107.25 %		21:14:59
1	Ag 328.068†	102633.6	95239.7	496.46 ug/L	496.46 ppb	21:15:04
1	As 188.979†	1115.6	1059.5	495.02 ug/L	495.02 ppb	21:15:24
1	B 249.677†	20176.6	19229.2	475.23 ug/L	475.23 ppb	21:15:04
1	Ba 233.527†	61597.0	57210.3	488.20 ug/L	488.20 ppb	21:15:04
1	Be 313.107†	1330216.7	1242971.8	488.81 ug/L	488.81 ppb	21:14:59
1	Cd 226.502†	39433.4	36913.1	487.91 ug/L	487.91 ppb	21:15:04
1	Co 228.616†	23905.7	22329.8	489.38 ug/L	489.38 ppb	21:15:04
1	Cr 267.716†	39800.1	36981.5	484.28 ug/L	484.28 ppb	21:15:04
1	Cu 324.752†	174473.7	156007.0	485.97 ug/L	485.97 ppb	21:15:04
1	Mn 257.610†	443631.3	412610.9	488.53 ug/L	488.53 ppb	21:14:59
1	Mo 202.031†	6418.6	5966.6	488.66 ug/L	488.66 ppb	21:15:24
1	Ni 231.604†	18464.9	17114.2	486.62 ug/L	486.62 ppb	21:15:04
1	P 214.914†	4463.2	3944.8	2315.7 ug/L	2315.7 ppb	21:15:24
1	Pb 220.353†	3735.0	3456.9	482.24 ug/L	482.24 ppb	21:15:24
1	S 181.975 Axial†	770.5	680.0	977.11 ug/L	977.11 ppb	21:15:24
1	Sb 206.836†	1466.2	1328.9	504.69 ug/L	504.69 ppb	21:15:24
1	Se 196.026†	744.5	722.5	508.37 ug/L	508.37 ppb	21:15:24
1	Si 251.611†	79548.3	73574.0	2457.5 ug/L	2457.5 ppb	21:15:04
1	Sn 189.927†	2620.2	2424.5	488.71 ug/L	488.71 ppb	21:15:24
1	Ti 334.940†	309455.0	289625.4	480.68 ug/L	480.68 ppb	21:15:04
1	Tl 190.801†	1534.5	1461.4	493.92 ug/L	493.92 ppb	21:15:24
1	U 409.014†	12250.2	14469.7	525.01 ug/L	525.01 ppb	21:15:04
1	V 292.402†	62316.0	59717.5	495.69 ug/L	495.69 ppb	21:15:04
1	Zn 213.857†	50857.7	46711.7	485.72 ug/L	485.72 ppb	21:15:04
1	SiO2†	80179.8	74166.3	5273.3 ug/L	5273.3 ppb	21:16:31
2	Sc Radial	3894.3	3894.3	110 %		21:14:26
2	Y RADIAL	4422.9	4422.9	110.6 %		21:14:06
2	Al 396.153Radial†	5502.7	5110.9	4945.1 ug/L	4945.1 ppb	21:14:06
2	Ca 317.933Radial†	2528.5	2265.2	4948.3 ug/L	4948.3 ppb	21:14:26
2	Fe 238.204 Radial†	379.6	335.6	4869.3 ug/L	4869.3 ppb	21:14:26
2	K 766.490 Radial†	31438.6	25408.7	4768.7 ug/L	4768.7 ppb	21:14:06
2	Mg 279.077 IEC†	108.3	95.7	4864.5 ug/L	4864.5 ppb	21:14:26
2	Na 589.592 Radial†	31623.3	24693.2	8474.4 ug/L	8474.4 ppb	21:14:06
2	Sr 421.552†	71524.8	63518.0	476.26 ug/L	476.26 ppb	21:14:06
2	Sc 361.383	803052.7	803052.7	106.88 %		21:15:30
2	Y 371.029	628799.8	628799.8	106.85 %		21:15:30
2	Ag 328.068†	102838.3	95888.0	499.84 ug/L	499.84 ppb	21:15:35
2	As 188.979†	1117.7	1066.4	498.27 ug/L	498.27 ppb	21:15:55
2	B 249.677†	20310.7	19444.4	480.57 ug/L	480.57 ppb	21:15:35
2	Ba 233.527†	61472.2	57367.7	489.55 ug/L	489.55 ppb	21:15:35
2	Be 313.107†	1322320.4	1241504.7	488.24 ug/L	488.24 ppb	21:15:30
2	Cd 226.502†	39514.3	37164.3	491.23 ug/L	491.23 ppb	21:15:35
2	Co 228.616†	23812.7	22349.2	489.80 ug/L	489.80 ppb	21:15:35
2	Cr 267.716†	39839.9	37196.0	487.09 ug/L	487.09 ppb	21:15:35
2	Cu 324.752†	174853.0	157138.4	489.49 ug/L	489.49 ppb	21:15:35
2	Mn 257.610†	440515.7	411670.5	487.42 ug/L	487.42 ppb	21:15:30
2	Mo 202.031†	6406.8	5984.2	490.10 ug/L	490.10 ppb	21:15:55
2	Ni 231.604†	18488.0	17218.0	489.57 ug/L	489.57 ppb	21:15:35

2	P 214.914†	4460.3	3961.9	2325.5 ug/L	2325.5 ppb	21:15:55
2	Pb 220.353†	3739.4	3477.7	485.15 ug/L	485.15 ppb	21:15:55
2	S 181.975 Axial†	778.8	691.2	993.22 ug/L	993.22 ppb	21:15:55
2	Sb 206.836†	1459.4	1329.0	504.84 ug/L	504.84 ppb	21:15:55
2	Se 196.026†	744.0	725.3	510.33 ug/L	510.33 ppb	21:15:55
2	Si 251.611†	79684.4	74055.4	2473.6 ug/L	2473.6 ppb	21:15:35
2	Sn 189.927†	2631.4	2446.6	493.16 ug/L	493.16 ppb	21:15:55
2	Ti 334.940†	309776.8	291303.8	483.47 ug/L	483.47 ppb	21:15:35
2	Tl 190.801†	1524.8	1459.2	493.17 ug/L	493.17 ppb	21:15:55
2	U 409.014†	12311.9	14581.9	529.09 ug/L	529.09 ppb	21:15:35
2	V 292.402†	62580.9	60242.8	500.01 ug/L	500.01 ppb	21:15:35
2	Zn 213.857†	50844.9	46926.1	487.95 ug/L	487.95 ppb	21:15:35
2	SiO2†	80351.5	74683.8	5310.2 ug/L	5310.2 ppb	21:16:37
3	Sc Radial	3865.0	3865.0	109 %		21:14:52
3	Y RADIAL	4357.0	4357.0	109.0 %		21:14:32
3	Al 396.153Radial†	5383.8	5040.0	4876.1 ug/L	4876.1 ppb	21:14:32
3	Ca 317.933Radial†	2516.7	2271.7	4962.7 ug/L	4962.7 ppb	21:14:52
3	Fe 238.204 Radial†	378.6	337.3	4894.7 ug/L	4894.7 ppb	21:14:52
3	K 766.490 Radial†	31131.0	25343.7	4756.5 ug/L	4756.5 ppb	21:14:32
3	Mg 279.077 IEC†	110.4	98.4	4998.9 ug/L	4998.9 ppb	21:14:52
3	Na 589.592 Radial†	31365.0	24674.7	8468.1 ug/L	8468.1 ppb	21:14:32
3	Sr 421.552†	70503.6	63076.2	472.94 ug/L	472.94 ppb	21:14:32
3	Sc 361.383	802941.4	802941.4	106.87 %		21:16:01
3	Y 371.029	628094.7	628094.7	106.73 %		21:16:01
3	Ag 328.068†	103078.0	96125.7	501.08 ug/L	501.08 ppb	21:16:06
3	As 188.979†	1120.7	1069.3	499.63 ug/L	499.63 ppb	21:16:26
3	B 249.677†	20378.7	19510.7	482.20 ug/L	482.20 ppb	21:16:06
3	Ba 233.527†	61819.4	57700.6	492.38 ug/L	492.38 ppb	21:16:06
3	Be 313.107†	1323898.7	1243153.0	488.89 ug/L	488.89 ppb	21:16:01
3	Cd 226.502†	39691.6	37335.3	493.49 ug/L	493.49 ppb	21:16:06
3	Co 228.616†	23995.6	22523.5	493.63 ug/L	493.63 ppb	21:16:06
3	Cr 267.716†	40087.4	37432.7	490.19 ug/L	490.19 ppb	21:16:06
3	Cu 324.752†	175415.6	157687.6	491.21 ug/L	491.21 ppb	21:16:06
3	Mn 257.610†	441249.1	412413.9	488.30 ug/L	488.30 ppb	21:16:01
3	Mo 202.031†	6442.6	6018.4	492.90 ug/L	492.90 ppb	21:16:26
3	Ni 231.604†	18508.4	17239.5	490.18 ug/L	490.18 ppb	21:16:06
3	P 214.914†	4492.0	3992.2	2343.6 ug/L	2343.6 ppb	21:16:26
3	Pb 220.353†	3736.6	3475.5	484.84 ug/L	484.84 ppb	21:16:26
3	S 181.975 Axial†	780.7	693.1	995.91 ug/L	995.91 ppb	21:16:26
3	Sb 206.836†	1472.4	1341.4	509.44 ug/L	509.44 ppb	21:16:26
3	Se 196.026†	753.8	734.6	516.73 ug/L	516.73 ppb	21:16:26
3	Si 251.611†	79882.5	74251.1	2480.1 ug/L	2480.1 ppb	21:16:06
3	Sn 189.927†	2627.7	2443.5	492.55 ug/L	492.55 ppb	21:16:26
3	Ti 334.940†	310896.9	292392.1	485.27 ug/L	485.27 ppb	21:16:06
3	Tl 190.801†	1543.7	1477.0	499.16 ug/L	499.16 ppb	21:16:26
3	U 409.014†	12358.0	14626.7	530.71 ug/L	530.71 ppb	21:16:06
3	V 292.402†	62799.5	60455.4	501.79 ug/L	501.79 ppb	21:16:06
3	Zn 213.857†	51166.5	47233.7	491.17 ug/L	491.17 ppb	21:16:06
3	SiO2†	80424.9	74762.9	5315.7 ug/L	5315.7 ppb	21:16:42

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	804295.1	107.05 %	0.299			0.28%
Sc Radial	3884.4	110 %	0.5			0.43%
Y 371.029	629334.0	106.95 %	0.268			0.25%
Y RADIAL	4386.6	109.7 %	0.84			0.76%
Ag 328.068†	95751.2	499.13 ug/L	2.391	499.13 ppb	2.391	0.48%
QC value within limits for Ag 328.068 Recovery = 99.83%						
Al 396.153Radial†	5049.3	4885.2 ug/L	55.89	4885.2 ppb	55.89	1.14%
QC value within limits for Al 396.153Radial Recovery = 97.70%						
As 188.979†	1065.1	497.64 ug/L	2.370	497.64 ppb	2.370	0.48%
QC value within limits for As 188.979 Recovery = 99.53%						
B 249.677†	19394.8	479.33 ug/L	3.646	479.33 ppb	3.646	0.76%
QC value within limits for B 249.677 Recovery = 95.87%						
Ba 233.527†	57426.2	490.04 ug/L	2.137	490.04 ppb	2.137	0.44%
QC value within limits for Ba 233.527 Recovery = 98.01%						
Be 313.107†	1242543.2	488.65 ug/L	0.355	488.65 ppb	0.355	0.07%
QC value within limits for Be 313.107 Recovery = 97.73%						
Ca 317.933Radial†	2265.3	4948.7 ug/L	13.81	4948.7 ppb	13.81	0.28%

QC value within limits for Ca 317.933 Radial Recovery = 98.97%							
Cd 226.502†	37137.5	490.88 ug/L	2.808	490.88 ppb	2.808	0.57%	
QC value within limits for Cd 226.502 Recovery = 98.18%							
Co 228.616†	22400.8	490.94 ug/L	2.338	490.94 ppb	2.338	0.48%	
QC value within limits for Co 228.616 Recovery = 98.19%							
Cr 267.716†	37203.4	487.19 ug/L	2.954	487.19 ppb	2.954	0.61%	
QC value within limits for Cr 267.716 Recovery = 97.44%							
Cu 324.752†	156944.3	488.89 ug/L	2.669	488.89 ppb	2.669	0.55%	
QC value within limits for Cu 324.752 Recovery = 97.78%							
Fe 238.204 Radial†	335.9	4873.9 ug/L	18.95	4873.9 ppb	18.95	0.39%	
QC value within limits for Fe 238.204 Radial Recovery = 97.48%							
K 766.490 Radial†	25309.3	4750.0 ug/L	22.60	4750.0 ppb	22.60	0.48%	
QC value within limits for K 766.490 Radial Recovery = 95.00%							
Mg 279.077 IEC†	97.3	4943.3 ug/L	70.14	4943.3 ppb	70.14	1.42%	
QC value within limits for Mg 279.077 IEC Recovery = 98.87%							
Mn 257.610†	412231.8	488.09 ug/L	0.584	488.09 ppb	0.584	0.12%	
QC value within limits for Mn 257.610 Recovery = 97.62%							
Mo 202.031†	5989.7	490.55 ug/L	2.159	490.55 ppb	2.159	0.44%	
QC value within limits for Mo 202.031 Recovery = 98.11%							
Na 589.592 Radial†	24645.3	8458.0 ug/L	23.15	8458.0 ppb	23.15	0.27%	
QC value less than the lower limit for Na 589.592 Radial Recovery = 84.58%							
Ni 231.604†	17190.6	488.79 ug/L	1.905	488.79 ppb	1.905	0.39%	
QC value within limits for Ni 231.604 Recovery = 97.76%							
P 214.914†	3966.3	2328.3 ug/L	14.18	2328.3 ppb	14.18	0.61%	
QC value within limits for P 214.914 Recovery = 93.13%							
Pb 220.353†	3470.1	484.08 ug/L	1.601	484.08 ppb	1.601	0.33%	
QC value within limits for Pb 220.353 Recovery = 96.82%							
S 181.975 Axial†	688.1	988.75 ug/L	10.168	988.75 ppb	10.168	1.03%	
QC value within limits for S 181.975 Axial Recovery = 98.87%							
Sb 206.836†	1333.1	506.32 ug/L	2.702	506.32 ppb	2.702	0.53%	
QC value within limits for Sb 206.836 Recovery = 101.26%							
Se 196.026†	727.5	511.81 ug/L	4.370	511.81 ppb	4.370	0.85%	
QC value within limits for Se 196.026 Recovery = 102.36%							
Si 251.611†	73960.1	2470.4 ug/L	11.64	2470.4 ppb	11.64	0.47%	
QC value within limits for Si 251.611 Recovery = 98.82%							
Sn 189.927†	2438.2	491.48 ug/L	2.410	491.48 ppb	2.410	0.49%	
QC value within limits for Sn 189.927 Recovery = 98.30%							
Sr 421.552†	63147.4	473.48 ug/L	2.554	473.48 ppb	2.554	0.54%	
QC value within limits for Sr 421.552 Recovery = 94.70%							
Ti 334.940†	291107.1	483.14 ug/L	2.313	483.14 ppb	2.313	0.48%	
QC value within limits for Ti 334.940 Recovery = 96.63%							
Tl 190.801†	1465.9	495.42 ug/L	3.262	495.42 ppb	3.262	0.66%	
QC value within limits for Tl 190.801 Recovery = 99.08%							
U 409.014†	14559.5	528.27 ug/L	2.935	528.27 ppb	2.935	0.56%	
QC value within limits for U 409.014 Recovery = 105.65%							
V 292.402†	60138.6	499.17 ug/L	3.138	499.17 ppb	3.138	0.63%	
QC value within limits for V 292.402 Recovery = 99.83%							
Zn 213.857†	46957.2	488.28 ug/L	2.736	488.28 ppb	2.736	0.56%	
QC value within limits for Zn 213.857 Recovery = 97.66%							
SiO2†	74537.7	5299.7 ug/L	23.05	5299.7 ppb	23.05	0.43%	
QC value within limits for SiO2 Recovery = 99.11%							
QC Failed. Continue with analysis.							



Sequence No.: 43

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 2/19/2010 21:18:52

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	3907.1	3907.1	110 %			21:21:03
1	Y RADIAL	4369.2	4369.2	109.3 %			21:20:43
1	Al 396.153Radial†	-112.3	11.6	11.222 ug/L		11.222 ppb	21:21:03
1	Ca 317.933Radial†	286.3	227.9	497.95 ug/L		497.95 ppb	21:21:03
1	Fe 238.204 Radial†	10.6	0.5	6.9657 ug/L		6.9657 ppb	21:21:03
1	K 766.490 Radial†	2879.1	-537.9	-100.77 ug/L		-100.77 ppb	21:20:43
1	Mg 279.077 IEC†	0.5	-2.2	-110.38 ug/L		-110.38 ppb	21:21:03
1	Na 589.592 Radial†	528.4	-3549.0	-1218.0 ug/L		-1218.0 ppb	21:20:43
1	Sr 421.552†	180.9	-1277.7	-9.5844 ug/L		-9.5844 ppb	21:20:43
1	Sc 361.383	796350.1	796350.1	105.99 %			21:22:00
1	Y 371.029	629903.4	629903.4	107.04 %			21:22:00
1	Ag 328.068†	119.5	-213.6	-1.1149 ug/L		-1.1149 ppb	21:22:00
1	As 188.979†	-24.5	-2.4	-1.1268 ug/L		-1.1268 ppb	21:22:20
1	B 249.677†	-283.9	174.1	4.3204 ug/L		4.3204 ppb	21:22:20
1	Ba 233.527†	57.2	-91.1	-0.7725 ug/L		-0.7725 ppb	21:22:20
1	Be 313.107†	-4655.5	-36.5	-0.0138 ug/L		-0.0138 ppb	21:22:00
1	Cd 226.502†	-191.5	14.5	0.1930 ug/L		0.1930 ppb	21:22:20
1	Co 228.616†	-61.4	12.4	0.2719 ug/L		0.2719 ppb	21:22:20
1	Cr 267.716†	57.9	-23.2	-0.3052 ug/L		-0.3052 ppb	21:22:20
1	Cu 324.752†	5984.5	-806.1	-2.5165 ug/L		-2.5165 ppb	21:22:00
1	Mn 257.610†	438.3	-57.8	-0.0632 ug/L		-0.0632 ppb	21:22:20
1	Mo 202.031†	20.0	8.9	0.7367 ug/L		0.7367 ppb	21:22:20
1	Ni 231.604†	83.3	-0.5	-0.0155 ug/L		-0.0155 ppb	21:22:20
1	P 214.914†	194.2	-27.9	-16.537 ug/L		-16.537 ppb	21:22:20
1	Pb 220.353†	-40.7	-59.3	-8.2097 ug/L		-8.2097 ppb	21:22:20
1	S 181.975 Axial†	37.3	-2.2	-3.1253 ug/L		-3.1253 ppb	21:22:20
1	Sb 206.836†	44.1	5.2	1.9560 ug/L		1.9560 ppb	21:22:20
1	Se 196.026†	-22.4	8.2	5.5601 ug/L		5.5601 ppb	21:22:20
1	Si 251.611†	524.4	-1.7	-0.0664 ug/L		-0.0664 ppb	21:22:20
1	Sn 189.927†	22.3	5.7	1.2370 ug/L		1.2370 ppb	21:22:20
1	Ti 334.940†	-1413.7	146.2	0.3140 ug/L		0.3140 ppb	21:22:00
1	Tl 190.801†	-27.5	6.6	2.2246 ug/L		2.2246 ppb	21:22:20
1	U 409.014†	-2944.2	285.4	10.387 ug/L		10.387 ppb	21:22:00
1	V 292.402†	-1636.2	149.0	1.2474 ug/L		1.2474 ppb	21:22:00
1	Zn 213.857†	626.8	-52.4	-0.5477 ug/L		-0.5477 ppb	21:22:20
1	SiO2†	526.9	4.9	0.3278 ug/L		0.3278 ppb	21:23:16
2	Sc Radial	3896.5	3896.5	110 %			21:21:28
2	Y RADIAL	4424.1	4424.1	110.6 %			21:21:08
2	Al 396.153Radial†	-112.0	11.6	11.286 ug/L		11.286 ppb	21:21:28
2	Ca 317.933Radial†	24.7	-8.8	-19.292 ug/L		-19.292 ppb	21:21:28
2	Fe 238.204 Radial†	6.3	-3.4	-49.118 ug/L		-49.118 ppb	21:21:28
2	K 766.490 Radial†	2898.4	-513.3	-95.965 ug/L		-95.965 ppb	21:21:08
2	Mg 279.077 IEC†	2.8	-0.1	-7.2268 ug/L		-7.2268 ppb	21:21:28
2	Na 589.592 Radial†	445.6	-3622.8	-1243.3 ug/L		-1243.3 ppb	21:21:08
2	Sr 421.552†	183.6	-1274.8	-9.5588 ug/L		-9.5588 ppb	21:21:08
2	Sc 361.383	793787.6	793787.6	105.65 %			21:22:25
2	Y 371.029	628935.8	628935.8	106.88 %			21:22:25
2	Ag 328.068†	159.4	-175.5	-0.9313 ug/L		-0.9313 ppb	21:22:25
2	As 188.979†	-24.2	-2.2	-1.0463 ug/L		-1.0463 ppb	21:22:45
2	B 249.677†	-301.8	156.3	3.8888 ug/L		3.8888 ppb	21:22:45
2	Ba 233.527†	40.6	-106.6	-0.9068 ug/L		-0.9068 ppb	21:22:45
2	Be 313.107†	-4613.0	-10.4	-0.0032 ug/L		-0.0032 ppb	21:22:25
2	Cd 226.502†	-202.6	3.4	0.0525 ug/L		0.0525 ppb	21:22:45
2	Co 228.616†	-60.8	12.8	0.2788 ug/L		0.2788 ppb	21:22:45
2	Cr 267.716†	78.8	-3.2	-0.0511 ug/L		-0.0511 ppb	21:22:45
2	Cu 324.752†	5963.7	-807.5	-2.5255 ug/L		-2.5255 ppb	21:22:25
2	Mn 257.610†	418.8	-75.0	-0.0933 ug/L		-0.0933 ppb	21:22:45
2	Mo 202.031†	9.6	-0.9	-0.0770 ug/L		-0.0770 ppb	21:22:45
2	Ni 231.604†	86.2	2.5	0.0705 ug/L		0.0705 ppb	21:22:45

2	P 214.914†	205.2	-16.9	-9.8081 ug/L	-9.8081 ppb	21:22:45
2	Pb 220.353†	-57.5	-75.3	-10.453 ug/L	-10.453 ppb	21:22:45
2	S 181.975 Axial†	37.9	-1.5	-2.2145 ug/L	-2.2145 ppb	21:22:45
2	Sb 206.836†	40.5	1.9	0.6862 ug/L	0.6862 ppb	21:22:45
2	Se 196.026†	-25.2	5.5	3.5259 ug/L	3.5259 ppb	21:22:45
2	Si 251.611†	555.5	29.3	0.9825 ug/L	0.9825 ppb	21:22:45
2	Sn 189.927†	7.5	-8.2	-1.6485 ug/L	-1.6485 ppb	21:22:45
2	Ti 334.940†	-1317.2	233.2	0.3794 ug/L	0.3794 ppb	21:22:25
2	Tl 190.801†	-35.8	-1.4	-0.4625 ug/L	-0.4625 ppb	21:22:45
2	U 409.014†	-2849.3	366.2	13.335 ug/L	13.335 ppb	21:22:25
2	V 292.402†	-1670.4	111.7	0.9458 ug/L	0.9458 ppb	21:22:25
2	Zn 213.857†	619.1	-57.8	-0.5961 ug/L	-0.5961 ppb	21:22:45
2	SiO2†	568.1	45.5	3.2483 ug/L	3.2483 ppb	21:23:21
3	Sc Radial	3917.5	3917.5	111 %		21:21:53
3	Y RADIAL	4446.1	4446.1	111.2 %		21:21:33
3	Al 396.153Radial†	-113.7	10.6	10.298 ug/L	10.298 ppb	21:21:53
3	Ca 317.933Radial†	30.9	-3.3	-7.3063 ug/L	-7.3063 ppb	21:21:53
3	Fe 238.204 Radial†	9.4	-0.7	-9.8722 ug/L	-9.8722 ppb	21:21:53
3	K 766.490 Radial†	2787.1	-627.9	-117.50 ug/L	-117.50 ppb	21:21:33
3	Mg 279.077 IEC†	3.6	0.6	28.560 ug/L	28.560 ppb	21:21:53
3	Na 589.592 Radial†	511.8	-3565.2	-1223.6 ug/L	-1223.6 ppb	21:21:33
3	Sr 421.552†	344.2	-1130.7	-8.4785 ug/L	-8.4785 ppb	21:21:33
3	Sc 361.383	801661.5	801661.5	106.70 %		21:22:51
3	Y 371.029	635775.4	635775.4	108.04 %		21:22:51
3	Ag 328.068†	203.5	-135.6	-0.7088 ug/L	-0.7088 ppb	21:22:51
3	As 188.979†	-24.5	-2.2	-1.0348 ug/L	-1.0348 ppb	21:23:11
3	B 249.677†	-330.5	132.2	3.2841 ug/L	3.2841 ppb	21:23:11
3	Ba 233.527†	53.0	-95.4	-0.8090 ug/L	-0.8090 ppb	21:23:11
3	Be 313.107†	-4715.2	-63.3	-0.0241 ug/L	-0.0241 ppb	21:22:51
3	Cd 226.502†	-187.5	19.4	0.2593 ug/L	0.2593 ppb	21:23:11
3	Co 228.616†	-72.0	2.9	0.0629 ug/L	0.0629 ppb	21:23:11
3	Cr 267.716†	58.4	-23.1	-0.3053 ug/L	-0.3053 ppb	21:23:11
3	Cu 324.752†	5933.3	-891.5	-2.7836 ug/L	-2.7836 ppb	21:22:51
3	Mn 257.610†	426.1	-72.0	-0.0874 ug/L	-0.0874 ppb	21:23:11
3	Mo 202.031†	14.6	3.7	0.2998 ug/L	0.2998 ppb	21:23:11
3	Ni 231.604†	80.4	-3.8	-0.1070 ug/L	-0.1070 ppb	21:23:11
3	P 214.914†	220.9	-4.1	-1.9579 ug/L	-1.9579 ppb	21:23:11
3	Pb 220.353†	-55.0	-72.5	-10.059 ug/L	-10.059 ppb	21:23:11
3	S 181.975 Axial†	49.4	8.9	12.802 ug/L	12.802 ppb	21:23:11
3	Sb 206.836†	37.4	-1.3	-0.4735 ug/L	-0.4735 ppb	21:23:11
3	Se 196.026†	-24.9	5.9	3.9717 ug/L	3.9717 ppb	21:23:11
3	Si 251.611†	561.0	29.3	0.9775 ug/L	0.9775 ppb	21:23:11
3	Sn 189.927†	12.5	-3.6	-0.7279 ug/L	-0.7279 ppb	21:23:11
3	Ti 334.940†	-1351.8	213.0	0.3458 ug/L	0.3458 ppb	21:22:51
3	Tl 190.801†	-22.0	11.9	3.9999 ug/L	3.9999 ppb	21:23:11
3	U 409.014†	-2954.1	294.5	10.720 ug/L	10.720 ppb	21:22:51
3	V 292.402†	-1620.8	173.6	1.4484 ug/L	1.4484 ppb	21:22:51
3	Zn 213.857†	629.5	-53.8	-0.5591 ug/L	-0.5591 ppb	21:23:11
3	SiO2†	560.2	32.8	2.3297 ug/L	2.3297 ppb	21:23:26

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	797266.4	106.11 %		0.535				0.50%
Sc Radial	3907.0	110 %		0.3				0.27%
Y 371.029	631538.2	107.32 %		0.629				0.59%
Y RADIAL	4413.1	110.4 %		0.99				0.90%
Ag 328.068†	-174.9	-0.9183 ug/L		0.20336	-0.9183 ppb		0.20336	22.14%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	11.3	10.935 ug/L		0.5527	10.935 ppb		0.5527	5.05%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.3	-1.0693 ug/L		0.05014	-1.0693 ppb		0.05014	4.69%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	154.2	3.8311 ug/L		0.52057	3.8311 ppb		0.52057	13.59%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-97.7	-0.8294 ug/L		0.06947	-0.8294 ppb		0.06947	8.38%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-36.7	-0.0137 ug/L		0.01043	-0.0137 ppb		0.01043	76.26%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	71.9	157.12 ug/L		295.232	157.12 ppb		295.232	187.90%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	12.4	0.1683 ug/L	0.10558	0.1683 ppb	0.10558	62.74%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	9.3	0.2045 ug/L	0.12270	0.2045 ppb	0.12270	59.99%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-16.5	-0.2205 ug/L	0.14675	-0.2205 ppb	0.14675	66.55%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-835.0	-2.6085 ug/L	0.15168	-2.6085 ppb	0.15168	5.81%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-1.2	-17.342 ug/L	28.7784	-17.342 ppb	28.7784	165.95%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-559.7	-104.75 ug/L	11.305	-104.75 ppb	11.305	10.79%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-0.6	-29.682 ug/L	72.1390	-29.682 ppb	72.1390	243.04%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-68.3	-0.0813 ug/L	0.01592	-0.0813 ppb	0.01592	19.59%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	3.9	0.3198 ug/L	0.40719	0.3198 ppb	0.40719	127.32%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-3579.0	-1228.3 ug/L	13.32	-1228.3 ppb	13.32	1.08%	
QC value less than the lower limit for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-0.6	-0.0174 ug/L	0.08876	-0.0174 ppb	0.08876	511.41%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-16.3	-9.4344 ug/L	7.29687	-9.4344 ppb	7.29687	77.34%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-69.0	-9.5739 ug/L	1.19765	-9.5739 ppb	1.19765	12.51%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	1.7	2.4875 ug/L	8.94443	2.4875 ppb	8.94443	359.58%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	2.0	0.7229 ug/L	1.21514	0.7229 ppb	1.21514	168.10%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	6.5	4.3526 ug/L	1.06924	4.3526 ppb	1.06924	24.57%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	19.0	0.6312 ug/L	0.60414	0.6312 ppb	0.60414	95.72%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-2.0	-0.3798 ug/L	1.47391	-0.3798 ppb	1.47391	388.03%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-1227.7	-9.2072 ug/L	0.63124	-9.2072 ppb	0.63124	6.86%	
QC value less than the lower limit for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	197.5	0.3464 ug/L	0.03268	0.3464 ppb	0.03268	9.44%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	5.7	1.9207 ug/L	2.24664	1.9207 ppb	2.24664	116.97%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	315.4	11.481 ug/L	1.6145	11.481 ppb	1.6145	14.06%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	144.8	1.2139 ug/L	0.25301	1.2139 ppb	0.25301	20.84%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-54.7	-0.5676 ug/L	0.02530	-0.5676 ppb	0.02530	4.46%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	27.7	1.9686 ug/L	1.49339	1.9686 ppb	1.49339	75.86%	
QC value within limits for SiO2 Recovery = Not calculated							
QC Failed. Continue with analysis.							

Sequence No.: 52

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 2/19/2010 22:20:14

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	3925.8	3925.8	111 %		22:22:26
1	Y RADIAL	4467.3	4467.3	111.7 %		22:22:06
1	Al 396.153Radial†	5501.7	5069.8	4905.2 ug/L	4905.2 ppb	22:22:06
1	Ca 317.933Radial†	2568.2	2282.5	4986.1 ug/L	4986.1 ppb	22:22:26
1	Fe 238.204 Radial†	394.3	346.1	5021.0 ug/L	5021.0 ppb	22:22:26
1	K 766.490 Radial†	31749.0	25458.9	4778.0 ug/L	4778.0 ppb	22:22:06
1	Mg 279.077 IEC†	114.1	100.2	5089.6 ug/L	5089.6 ppb	22:22:26
1	Na 589.592 Radial†	32987.7	25691.7	8817.1 ug/L	8817.1 ppb	22:22:06
1	Sr 421.552†	73052.1	64372.2	482.66 ug/L	482.66 ppb	22:22:06
1	Sc 361.383	809993.5	809993.5	107.81 %		22:23:23
1	Y 371.029	633660.4	633660.4	107.68 %		22:23:23
1	Ag 328.068†	103212.4	95410.7	497.40 ug/L	497.40 ppb	22:23:29
1	As 188.979†	1129.9	1068.8	499.36 ug/L	499.36 ppb	22:23:49
1	B 249.677†	20332.9	19302.2	477.01 ug/L	477.01 ppb	22:23:29
1	Ba 233.527†	61982.8	57348.5	489.38 ug/L	489.38 ppb	22:23:29
1	Be 313.107†	1336846.4	1244377.6	489.36 ug/L	489.36 ppb	22:23:23
1	Cd 226.502†	39610.0	36936.3	488.20 ug/L	488.20 ppb	22:23:29
1	Co 228.616†	24051.1	22379.4	490.47 ug/L	490.47 ppb	22:23:29
1	Cr 267.716†	40188.9	37200.3	487.16 ug/L	487.16 ppb	22:23:29
1	Cu 324.752†	175110.8	155975.7	485.88 ug/L	485.88 ppb	22:23:29
1	Mn 257.610†	446259.6	413466.8	489.56 ug/L	489.56 ppb	22:23:23
1	Mo 202.031†	6483.6	6004.1	491.74 ug/L	491.74 ppb	22:23:49
1	Ni 231.604†	18571.1	17146.9	487.55 ug/L	487.55 ppb	22:23:29
1	P 214.914†	4504.7	3967.3	2329.4 ug/L	2329.4 ppb	22:23:49
1	Pb 220.353†	3759.5	3466.3	483.57 ug/L	483.57 ppb	22:23:49
1	S 181.975 Axial†	773.3	679.9	976.93 ug/L	976.93 ppb	22:23:49
1	Sb 206.836†	1483.7	1339.9	508.85 ug/L	508.85 ppb	22:23:49
1	Se 196.026†	759.2	733.5	516.40 ug/L	516.40 ppb	22:23:49
1	Si 251.611†	80003.7	73712.7	2462.1 ug/L	2462.1 ppb	22:23:29
1	Sn 189.927†	2652.4	2445.0	492.84 ug/L	492.84 ppb	22:23:49
1	Ti 334.940†	310880.7	289844.3	481.04 ug/L	481.04 ppb	22:23:29
1	Tl 190.801†	1556.6	1476.4	498.95 ug/L	498.95 ppb	22:23:49
1	U 409.014†	12360.0	14527.9	527.11 ug/L	527.11 ppb	22:23:29
1	V 292.402†	62691.3	59843.5	496.75 ug/L	496.75 ppb	22:23:29
1	Zn 213.857†	51025.9	46686.4	485.43 ug/L	485.43 ppb	22:23:29
1	SiO2†	80619.7	74288.4	5281.9 ug/L	5281.9 ppb	22:24:56
2	Sc Radial	3948.4	3948.4	112 %		22:22:51
2	Y RADIAL	4372.5	4372.5	109.3 %		22:22:31
2	Al 396.153Radial†	5412.8	4961.8	4800.2 ug/L	4800.2 ppb	22:22:31
2	Ca 317.933Radial†	2567.9	2269.0	4956.6 ug/L	4956.6 ppb	22:22:51
2	Fe 238.204 Radial†	389.7	339.9	4932.2 ug/L	4932.2 ppb	22:22:51
2	K 766.490 Radial†	31232.5	24832.6	4660.4 ug/L	4660.4 ppb	22:22:31
2	Mg 279.077 IEC†	113.7	99.2	5043.0 ug/L	5043.0 ppb	22:22:51
2	Na 589.592 Radial†	32332.1	24934.4	8557.2 ug/L	8557.2 ppb	22:22:31
2	Sr 421.552†	71693.7	62778.8	470.71 ug/L	470.71 ppb	22:22:31
2	Sc 361.383	815133.7	815133.7	108.49 %		22:23:54
2	Y 371.029	638532.6	638532.6	108.51 %		22:23:54
2	Ag 328.068†	104603.1	96088.7	500.89 ug/L	500.89 ppb	22:24:00
2	As 188.979†	1139.4	1070.9	500.34 ug/L	500.34 ppb	22:24:20
2	B 249.677†	20749.3	19567.1	483.60 ug/L	483.60 ppb	22:24:00
2	Ba 233.527†	62532.5	57492.6	490.61 ug/L	490.61 ppb	22:24:00
2	Be 313.107†	1349154.5	1247902.7	490.75 ug/L	490.75 ppb	22:23:54
2	Cd 226.502†	40176.8	37227.1	492.06 ug/L	492.06 ppb	22:24:00
2	Co 228.616†	24249.5	22421.6	491.39 ug/L	491.39 ppb	22:24:00
2	Cr 267.716†	40565.2	37312.0	488.61 ug/L	488.61 ppb	22:24:00
2	Cu 324.752†	177604.8	157250.3	489.84 ug/L	489.84 ppb	22:24:00
2	Mn 257.610†	448479.4	412902.5	488.88 ug/L	488.88 ppb	22:23:54
2	Mo 202.031†	6516.1	5996.1	491.08 ug/L	491.08 ppb	22:24:20
2	Ni 231.604†	18790.1	17240.1	490.20 ug/L	490.20 ppb	22:24:00

2	P 214.914†	4511.7	3947.4	2316.5 ug/L	2316.5 ppb	22:24:20
2	Pb 220.353†	3799.5	3481.2	485.60 ug/L	485.60 ppb	22:24:20
2	S 181.975 Axial†	780.8	682.3	980.44 ug/L	980.44 ppb	22:24:20
2	Sb 206.836†	1478.3	1326.3	503.84 ug/L	503.84 ppb	22:24:20
2	Se 196.026†	750.8	721.4	507.84 ug/L	507.84 ppb	22:24:20
2	Si 251.611†	81113.1	74267.3	2480.7 ug/L	2480.7 ppb	22:24:00
2	Sn 189.927†	2666.5	2442.4	492.33 ug/L	492.33 ppb	22:24:20
2	Ti 334.940†	314963.2	291788.8	484.26 ug/L	484.26 ppb	22:24:00
2	Tl 190.801†	1575.1	1484.4	501.65 ug/L	501.65 ppb	22:24:20
2	U 409.014†	12724.4	14791.5	536.71 ug/L	536.71 ppb	22:24:00
2	V 292.402†	63587.0	60302.3	500.52 ug/L	500.52 ppb	22:24:00
2	Zn 213.857†	51787.2	47089.7	489.65 ug/L	489.65 ppb	22:24:00
2	SiO2†	81351.5	74491.3	5296.4 ug/L	5296.4 ppb	22:25:01
3	Sc Radial	3913.0	3913.0	111 %		22:23:16
3	Y RADIAL	4417.1	4417.1	110.5 %		22:22:56
3	Al 396.153Radial†	5489.0	5074.6	4909.7 ug/L	4909.7 ppb	22:22:56
3	Ca 317.933Radial†	2563.2	2285.6	4992.8 ug/L	4992.8 ppb	22:23:16
3	Fe 238.204 Radial†	388.2	341.8	4958.8 ug/L	4958.8 ppb	22:23:16
3	K 766.490 Radial†	31623.5	25439.4	4774.3 ug/L	4774.3 ppb	22:22:56
3	Mg 279.077 IEC†	111.2	97.8	4972.6 ug/L	4972.6 ppb	22:23:16
3	Na 589.592 Radial†	32773.3	25595.5	8784.1 ug/L	8784.1 ppb	22:22:56
3	Sr 421.552†	72801.0	64361.3	482.58 ug/L	482.58 ppb	22:22:56
3	Sc 361.383	811195.2	811195.2	107.97 %		22:24:25
3	Y 371.029	635459.8	635459.8	107.99 %		22:24:25
3	Ag 328.068†	104837.5	96774.0	504.47 ug/L	504.47 ppb	22:24:31
3	As 188.979†	1137.1	1073.9	501.77 ug/L	501.77 ppb	22:24:51
3	B 249.677†	20717.8	19630.8	485.16 ug/L	485.16 ppb	22:24:31
3	Ba 233.527†	62975.2	58182.4	496.49 ug/L	496.49 ppb	22:24:31
3	Be 313.107†	1344258.2	1249405.3	491.35 ug/L	491.35 ppb	22:24:25
3	Cd 226.502†	40478.0	37685.8	498.13 ug/L	498.13 ppb	22:24:31
3	Co 228.616†	24405.3	22674.5	496.93 ug/L	496.93 ppb	22:24:31
3	Cr 267.716†	40739.0	37654.6	493.10 ug/L	493.10 ppb	22:24:31
3	Cu 324.752†	178136.1	158537.2	493.85 ug/L	493.85 ppb	22:24:31
3	Mn 257.610†	447519.7	414020.6	490.21 ug/L	490.21 ppb	22:24:25
3	Mo 202.031†	6528.7	6036.9	494.42 ug/L	494.42 ppb	22:24:51
3	Ni 231.604†	18928.5	17452.4	496.24 ug/L	496.24 ppb	22:24:31
3	P 214.914†	4545.9	3999.3	2347.5 ug/L	2347.5 ppb	22:24:51
3	Pb 220.353†	3809.6	3507.6	489.31 ug/L	489.31 ppb	22:24:51
3	S 181.975 Axial†	770.1	675.8	971.08 ug/L	971.08 ppb	22:24:51
3	Sb 206.836†	1483.9	1338.1	508.31 ug/L	508.31 ppb	22:24:51
3	Se 196.026†	762.7	735.7	517.66 ug/L	517.66 ppb	22:24:51
3	Si 251.611†	81399.1	74895.2	2501.7 ug/L	2501.7 ppb	22:24:31
3	Sn 189.927†	2678.1	2465.2	496.91 ug/L	496.91 ppb	22:24:51
3	Ti 334.940†	316375.6	294506.5	488.78 ug/L	488.78 ppb	22:24:31
3	Tl 190.801†	1567.4	1484.3	501.61 ug/L	501.61 ppb	22:24:51
3	U 409.014†	12671.4	14799.3	536.98 ug/L	536.98 ppb	22:24:31
3	V 292.402†	63863.6	60843.1	504.99 ug/L	504.99 ppb	22:24:31
3	Zn 213.857†	52083.7	47596.0	494.92 ug/L	494.92 ppb	22:24:31
3	SiO2†	80770.8	74317.6	5283.9 ug/L	5283.9 ppb	22:25:06

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	812107.4	108.09 %	0.358			0.33%
Sc Radial	3929.1	111 %	0.5			0.46%
Y 371.029	635884.3	108.06 %	0.419			0.39%
Y RADIAL	4419.0	110.5 %	1.19			1.07%
Ag 328.068†	96091.1	500.92 ug/L	3.535	500.92 ppb	3.535	0.71%
QC value within limits for Ag 328.068 Recovery = 100.18%						
Al 396.153Radial†	5035.4	4871.7 ug/L	61.94	4871.7 ppb	61.94	1.27%
QC value within limits for Al 396.153Radial Recovery = 97.43%						
As 188.979†	1071.2	500.49 ug/L	1.210	500.49 ppb	1.210	0.24%
QC value within limits for As 188.979 Recovery = 100.10%						
B 249.677†	19500.0	481.93 ug/L	4.326	481.93 ppb	4.326	0.90%
QC value within limits for B 249.677 Recovery = 96.39%						
Ba 233.527†	57674.5	492.16 ug/L	3.802	492.16 ppb	3.802	0.77%
QC value within limits for Ba 233.527 Recovery = 98.43%						
Be 313.107†	1247228.5	490.49 ug/L	1.021	490.49 ppb	1.021	0.21%
QC value within limits for Be 313.107 Recovery = 98.10%						
Ca 317.933Radial†	2279.0	4978.5 ug/L	19.28	4978.5 ppb	19.28	0.39%

QC value within limits for Ca 317.933 Radial Recovery = 99.57%							
Cd 226.502†	37283.0	492.80 ug/L	5.002	492.80 ppb	5.002	1.02%	
QC value within limits for Cd 226.502 Recovery = 98.56%							
Co 228.616†	22491.8	492.93 ug/L	3.494	492.93 ppb	3.494	0.71%	
QC value within limits for Co 228.616 Recovery = 98.59%							
Cr 267.716†	37389.0	489.62 ug/L	3.095	489.62 ppb	3.095	0.63%	
QC value within limits for Cr 267.716 Recovery = 97.92%							
Cu 324.752†	157254.4	489.86 ug/L	3.985	489.86 ppb	3.985	0.81%	
QC value within limits for Cu 324.752 Recovery = 97.97%							
Fe 238.204 Radial†	342.6	4970.7 ug/L	45.58	4970.7 ppb	45.58	0.92%	
QC value within limits for Fe 238.204 Radial Recovery = 99.41%							
K 766.490 Radial†	25243.7	4737.6 ug/L	66.85	4737.6 ppb	66.85	1.41%	
QC value within limits for K 766.490 Radial Recovery = 94.75%							
Mg 279.077 IEC†	99.1	5035.1 ug/L	58.92	5035.1 ppb	58.92	1.17%	
QC value within limits for Mg 279.077 IEC Recovery = 100.70%							
Mn 257.610†	413463.3	489.55 ug/L	0.664	489.55 ppb	0.664	0.14%	
QC value within limits for Mn 257.610 Recovery = 97.91%							
Mo 202.031†	6012.4	492.41 ug/L	1.771	492.41 ppb	1.771	0.36%	
QC value within limits for Mo 202.031 Recovery = 98.48%							
Na 589.592 Radial†	25407.2	8719.5 ug/L	141.50	8719.5 ppb	141.50	1.62%	
QC value less than the lower limit for Na 589.592 Radial Recovery = 87.19%							
Ni 231.604†	17279.8	491.33 ug/L	4.452	491.33 ppb	4.452	0.91%	
QC value within limits for Ni 231.604 Recovery = 98.27%							
P 214.914†	3971.3	2331.1 ug/L	15.54	2331.1 ppb	15.54	0.67%	
QC value within limits for P 214.914 Recovery = 93.24%							
Pb 220.353†	3485.0	486.16 ug/L	2.909	486.16 ppb	2.909	0.60%	
QC value within limits for Pb 220.353 Recovery = 97.23%							
S 181.975 Axial†	679.4	976.15 ug/L	4.726	976.15 ppb	4.726	0.48%	
QC value within limits for S 181.975 Axial Recovery = 97.62%							
Sb 206.836†	1334.7	507.00 ug/L	2.752	507.00 ppb	2.752	0.54%	
QC value within limits for Sb 206.836 Recovery = 101.40%							
Se 196.026†	730.2	513.97 ug/L	5.342	513.97 ppb	5.342	1.04%	
QC value within limits for Se 196.026 Recovery = 102.79%							
Si 251.611†	74291.7	2481.5 ug/L	19.79	2481.5 ppb	19.79	0.80%	
QC value within limits for Si 251.611 Recovery = 99.26%							
Sn 189.927†	2450.8	494.03 ug/L	2.511	494.03 ppb	2.511	0.51%	
QC value within limits for Sn 189.927 Recovery = 98.81%							
Sr 421.552†	63837.4	478.65 ug/L	6.875	478.65 ppb	6.875	1.44%	
QC value within limits for Sr 421.552 Recovery = 95.73%							
Ti 334.940†	292046.5	484.69 ug/L	3.890	484.69 ppb	3.890	0.80%	
QC value within limits for Ti 334.940 Recovery = 96.94%							
Tl 190.801†	1481.7	500.74 ug/L	1.546	500.74 ppb	1.546	0.31%	
QC value within limits for Tl 190.801 Recovery = 100.15%							
U 409.014†	14706.2	533.60 ug/L	5.622	533.60 ppb	5.622	1.05%	
QC value within limits for U 409.014 Recovery = 106.72%							
V 292.402†	60329.6	500.75 ug/L	4.125	500.75 ppb	4.125	0.82%	
QC value within limits for V 292.402 Recovery = 100.15%							
Zn 213.857†	47124.0	490.00 ug/L	4.754	490.00 ppb	4.754	0.97%	
QC value within limits for Zn 213.857 Recovery = 98.00%							
SiO2†	74365.8	5287.4 ug/L	7.85	5287.4 ppb	7.85	0.15%	
QC value within limits for SiO2 Recovery = 98.88%							
QC Failed. Continue with analysis.							

Sequence No.: 53

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 2/19/2010 22:27:16

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	3947.1	3947.1	112 %		22:29:28
1	Y RADIAL	4486.1	4486.1	112.2 %		22:29:08
1	Al 396.153Radial†	-104.1	19.9	19.334 ug/L	19.334 ppb	22:29:28
1	Ca 317.933Radial†	29.7	-4.7	-10.192 ug/L	-10.192 ppb	22:29:28
1	Fe 238.204 Radial†	7.8	-2.2	-31.749 ug/L	-31.749 ppb	22:29:28
1	K 766.490 Radial†	2958.0	-493.6	-92.290 ug/L	-92.290 ppb	22:29:08
1	Mg 279.077 IEC†	-0.8	-3.3	-169.41 ug/L	-169.41 ppb	22:29:28
1	Na 589.592 Radial†	641.0	-3453.0	-1185.0 ug/L	-1185.0 ppb	22:29:08
1	Sr 421.552†	278.3	-1192.1	-8.9388 ug/L	-8.9388 ppb	22:29:08
1	Sc 361.383	796893.6	796893.6	106.06 %		22:30:25
1	Y 371.029	632114.0	632114.0	107.42 %		22:30:25
1	Ag 328.068†	230.4	-109.1	-0.5757 ug/L	-0.5757 ppb	22:30:25
1	As 188.979†	-28.3	-6.0	-2.7827 ug/L	-2.7827 ppb	22:30:45
1	B 249.677†	-315.0	145.0	3.6034 ug/L	3.6034 ppb	22:30:45
1	Ba 233.527†	41.0	-106.4	-0.9043 ug/L	-0.9043 ppb	22:30:45
1	Be 313.107†	-4624.0	-3.8	-0.0007 ug/L	-0.0007 ppb	22:30:25
1	Cd 226.502†	-191.0	15.1	0.2039 ug/L	0.2039 ppb	22:30:45
1	Co 228.616†	-59.5	14.2	0.3131 ug/L	0.3131 ppb	22:30:45
1	Cr 267.716†	105.7	21.8	0.2813 ug/L	0.2813 ppb	22:30:45
1	Cu 324.752†	5944.5	-847.6	-2.6459 ug/L	-2.6459 ppb	22:30:25
1	Mn 257.610†	421.3	-74.1	-0.0838 ug/L	-0.0838 ppb	22:30:45
1	Mo 202.031†	21.8	10.6	0.8643 ug/L	0.8643 ppb	22:30:45
1	Ni 231.604†	86.2	2.1	0.0607 ug/L	0.0607 ppb	22:30:45
1	P 214.914†	212.9	-10.3	-5.7719 ug/L	-5.7719 ppb	22:30:45
1	Pb 220.353†	-54.5	-72.3	-10.032 ug/L	-10.032 ppb	22:30:45
1	S 181.975 Axial†	43.4	3.5	5.0919 ug/L	5.0919 ppb	22:30:45
1	Sb 206.836†	37.8	-0.8	-0.2663 ug/L	-0.2663 ppb	22:30:45
1	Se 196.026†	-15.5	14.7	9.8272 ug/L	9.8272 ppb	22:30:45
1	Si 251.611†	558.8	30.3	1.0048 ug/L	1.0048 ppb	22:30:45
1	Sn 189.927†	14.3	-1.9	-0.3760 ug/L	-0.3760 ppb	22:30:45
1	Ti 334.940†	-1364.0	194.0	0.3315 ug/L	0.3315 ppb	22:30:25
1	Tl 190.801†	-24.9	9.1	3.0569 ug/L	3.0569 ppb	22:30:45
1	U 409.014†	-3061.4	176.7	6.4352 ug/L	6.4352 ppb	22:30:25
1	V 292.402†	-1652.7	134.5	1.1269 ug/L	1.1269 ppb	22:30:25
1	Zn 213.857†	605.6	-72.8	-0.7560 ug/L	-0.7560 ppb	22:30:45
1	SiO2†	538.1	15.1	1.0548 ug/L	1.0548 ppb	22:31:41
2	Sc Radial	3947.0	3947.0	112 %		22:29:53
2	Y RADIAL	4466.0	4466.0	111.7 %		22:29:33
2	Al 396.153Radial†	-110.1	14.6	14.144 ug/L	14.144 ppb	22:29:53
2	Ca 317.933Radial†	31.0	-3.5	-7.5407 ug/L	-7.5407 ppb	22:29:53
2	Fe 238.204 Radial†	9.3	-0.8	-11.452 ug/L	-11.452 ppb	22:29:53
2	K 766.490 Radial†	2930.2	-518.5	-96.957 ug/L	-96.957 ppb	22:29:33
2	Mg 279.077 IEC†	-0.6	-3.2	-163.38 ug/L	-163.38 ppb	22:29:53
2	Na 589.592 Radial†	579.6	-3508.0	-1203.9 ug/L	-1203.9 ppb	22:29:33
2	Sr 421.552†	293.3	-1178.6	-8.8379 ug/L	-8.8379 ppb	22:29:33
2	Sc 361.383	805486.7	805486.7	107.21 %		22:30:50
2	Y 371.029	639283.1	639283.1	108.64 %		22:30:50
2	Ag 328.068†	185.1	-153.7	-0.8023 ug/L	-0.8023 ppb	22:30:50
2	As 188.979†	-24.6	-2.3	-1.0448 ug/L	-1.0448 ppb	22:31:10
2	B 249.677†	-289.0	172.4	4.2805 ug/L	4.2805 ppb	22:31:10
2	Ba 233.527†	42.0	-105.9	-0.8994 ug/L	-0.8994 ppb	22:31:10
2	Be 313.107†	-4663.4	5.9	0.0030 ug/L	0.0030 ppb	22:30:50
2	Cd 226.502†	-191.1	16.9	0.2259 ug/L	0.2259 ppb	22:31:10
2	Co 228.616†	-66.0	8.7	0.1917 ug/L	0.1917 ppb	22:31:10
2	Cr 267.716†	89.2	5.4	0.0681 ug/L	0.0681 ppb	22:31:10
2	Cu 324.752†	5921.7	-928.7	-2.8985 ug/L	-2.8985 ppb	22:30:50
2	Mn 257.610†	442.3	-58.7	-0.0639 ug/L	-0.0639 ppb	22:31:10
2	Mo 202.031†	17.6	6.5	0.5291 ug/L	0.5291 ppb	22:31:10
2	Ni 231.604†	91.6	6.3	0.1783 ug/L	0.1783 ppb	22:31:10

2	P 214.914†	211.2	-14.1	-8.0070 ug/L	-8.0070 ppb	22:31:10
2	Pb 220.353†	-42.0	-60.0	-8.3319 ug/L	-8.3319 ppb	22:31:10
2	S 181.975 Axial†	35.6	-4.2	-6.0069 ug/L	-6.0069 ppb	22:31:10
2	Sb 206.836†	35.8	-3.0	-1.0779 ug/L	-1.0779 ppb	22:31:10
2	Se 196.026†	-31.8	-0.4	-0.3032 ug/L	-0.3032 ppb	22:31:10
2	Si 251.611†	561.3	27.0	0.8983 ug/L	0.8983 ppb	22:31:10
2	Sn 189.927†	20.1	3.4	0.6874 ug/L	0.6874 ppb	22:31:10
2	Ti 334.940†	-1385.7	187.4	0.3197 ug/L	0.3197 ppb	22:30:50
2	Tl 190.801†	-20.7	13.2	4.4417 ug/L	4.4417 ppb	22:31:10
2	U 409.014†	-3032.7	234.3	8.5279 ug/L	8.5279 ppb	22:30:50
2	V 292.402†	-1668.6	136.3	1.1386 ug/L	1.1386 ppb	22:30:50
2	Zn 213.857†	624.2	-61.6	-0.6415 ug/L	-0.6415 ppb	22:31:10
2	SiO2†	553.5	24.1	1.7004 ug/L	1.7004 ppb	22:31:46
3	Sc Radial	3965.4	3965.4	112 %		22:30:18
3	Y RADIAL	4389.5	4389.5	109.8 %		22:29:58
3	Al 396.153Radial†	-116.9	9.0	8.7164 ug/L	8.7164 ppb	22:30:18
3	Ca 317.933Radial†	24.0	-9.8	-21.469 ug/L	-21.469 ppb	22:30:18
3	Fe 238.204 Radial†	11.0	0.6	9.0580 ug/L	9.0580 ppb	22:30:18
3	K 766.490 Radial†	3002.7	-465.9	-87.077 ug/L	-87.077 ppb	22:29:58
3	Mg 279.077 IEC†	0.7	-2.0	-101.83 ug/L	-101.83 ppb	22:30:18
3	Na 589.592 Radial†	609.2	-3484.0	-1195.7 ug/L	-1195.7 ppb	22:29:58
3	Sr 421.552†	175.4	-1285.0	-9.6356 ug/L	-9.6356 ppb	22:29:58
3	Sc 361.383	793986.3	793986.3	105.68 %		22:31:15
3	Y 371.029	629895.6	629895.6	107.04 %		22:31:15
3	Ag 328.068†	210.9	-126.8	-0.6541 ug/L	-0.6541 ppb	22:31:15
3	As 188.979†	-27.6	-5.5	-2.5265 ug/L	-2.5265 ppb	22:31:35
3	B 249.677†	-325.1	134.4	3.3328 ug/L	3.3328 ppb	22:31:35
3	Ba 233.527†	84.5	-65.1	-0.5505 ug/L	-0.5505 ppb	22:31:35
3	Be 313.107†	-4504.9	92.9	0.0374 ug/L	0.0374 ppb	22:31:15
3	Cd 226.502†	-193.7	11.8	0.1569 ug/L	0.1569 ppb	22:31:35
3	Co 228.616†	-52.4	20.8	0.4555 ug/L	0.4555 ppb	22:31:35
3	Cr 267.716†	72.7	-9.0	-0.1178 ug/L	-0.1178 ppb	22:31:35
3	Cu 324.752†	5908.6	-861.1	-2.6859 ug/L	-2.6859 ppb	22:31:15
3	Mn 257.610†	436.3	-58.4	-0.0641 ug/L	-0.0641 ppb	22:31:35
3	Mo 202.031†	19.0	8.0	0.6581 ug/L	0.6581 ppb	22:31:35
3	Ni 231.604†	85.9	2.2	0.0617 ug/L	0.0617 ppb	22:31:35
3	P 214.914†	212.0	-10.5	-5.9008 ug/L	-5.9008 ppb	22:31:35
3	Pb 220.353†	-44.9	-63.4	-8.7961 ug/L	-8.7961 ppb	22:31:35
3	S 181.975 Axial†	37.2	-2.2	-3.1442 ug/L	-3.1442 ppb	22:31:35
3	Sb 206.836†	31.0	-7.0	-2.5485 ug/L	-2.5485 ppb	22:31:35
3	Se 196.026†	-30.8	0.2	0.1415 ug/L	0.1415 ppb	22:31:35
3	Si 251.611†	536.2	10.9	0.3570 ug/L	0.3570 ppb	22:31:35
3	Sn 189.927†	18.4	2.1	0.4215 ug/L	0.4215 ppb	22:31:35
3	Ti 334.940†	-1308.2	242.0	0.4042 ug/L	0.4042 ppb	22:31:15
3	Tl 190.801†	-21.5	12.2	4.0859 ug/L	4.0859 ppb	22:31:35
3	U 409.014†	-3033.4	192.7	7.0132 ug/L	7.0132 ppb	22:31:15
3	V 292.402†	-1610.2	169.0	1.4030 ug/L	1.4030 ppb	22:31:15
3	Zn 213.857†	625.6	-51.8	-0.5414 ug/L	-0.5414 ppb	22:31:35
3	SiO2†	554.1	32.1	2.2725 ug/L	2.2725 ppb	22:31:51

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	798788.9	106.32 %		0.796			0.75%
Sc Radial	3953.2	112 %		0.3			0.27%
Y 371.029	633764.2	107.70 %		0.834			0.77%
Y RADIAL	4447.2	111.2 %		1.27			1.15%
Ag 328.068†	-129.9	-0.6774 ug/L		0.11509	-0.6774 ppb	0.11509	16.99%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	14.5	14.065 ug/L		5.3091	14.065 ppb	5.3091	37.75%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-4.6	-2.1180 ug/L		0.93825	-2.1180 ppb	0.93825	44.30%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	150.6	3.7389 ug/L		0.48818	3.7389 ppb	0.48818	13.06%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	-92.5	-0.7847 ug/L		0.20283	-0.7847 ppb	0.20283	25.85%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	31.7	0.0132 ug/L		0.02100	0.0132 ppb	0.02100	158.84%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	-6.0	-13.067 ug/L		7.3958	-13.067 ppb	7.3958	56.60%



QC value within limits for Ca 317.933 Radial Recovery = Not calculated									
Cd	226.502†	14.6	0.1956 ug/L	0.03521	0.1956 ppb	0.03521	18.00%		
QC value within limits for Cd 226.502 Recovery = Not calculated									
Co	228.616†	14.6	0.3201 ug/L	0.13204	0.3201 ppb	0.13204	41.24%		
QC value within limits for Co 228.616 Recovery = Not calculated									
Cr	267.716†	6.1	0.0772 ug/L	0.19972	0.0772 ppb	0.19972	258.67%		
QC value within limits for Cr 267.716 Recovery = Not calculated									
Cu	324.752†	-879.1	-2.7434 ug/L	0.13578	-2.7434 ppb	0.13578	4.95%		
QC value within limits for Cu 324.752 Recovery = Not calculated									
Fe	238.204 Radial†	-0.8	-11.381 ug/L	20.4038	-11.381 ppb	20.4038	179.28%		
QC value within limits for Fe 238.204 Radial Recovery = Not calculated									
K	766.490 Radial†	-492.7	-92.108 ug/L	4.9422	-92.108 ppb	4.9422	5.37%		
QC value within limits for K 766.490 Radial Recovery = Not calculated									
Mg	279.077 IEC†	-2.9	-144.87 ug/L	37.396	-144.87 ppb	37.396	25.81%		
QC value within limits for Mg 279.077 IEC Recovery = Not calculated									
Mn	257.610†	-63.7	-0.0706 ug/L	0.01145	-0.0706 ppb	0.01145	16.21%		
QC value within limits for Mn 257.610 Recovery = Not calculated									
Mo	202.031†	8.4	0.6838 ug/L	0.16910	0.6838 ppb	0.16910	24.73%		
QC value within limits for Mo 202.031 Recovery = Not calculated									
Na	589.592 Radial†	-3481.6	-1194.9 ug/L	9.46	-1194.9 ppb	9.46	0.79%		
QC value less than the lower limit for Na 589.592 Radial Recovery = Not calculated									
Ni	231.604†	3.5	0.1002 ug/L	0.06761	0.1002 ppb	0.06761	67.45%		
QC value within limits for Ni 231.604 Recovery = Not calculated									
P	214.914†	-11.7	-6.5599 ug/L	1.25484	-6.5599 ppb	1.25484	19.13%		
QC value within limits for P 214.914 Recovery = Not calculated									
Pb	220.353†	-65.2	-9.0535 ug/L	0.87903	-9.0535 ppb	0.87903	9.71%		
QC value within limits for Pb 220.353 Recovery = Not calculated									
S	181.975 Axial†	-0.9	-1.3530 ug/L	5.76213	-1.3530 ppb	5.76213	425.86%		
QC value within limits for S 181.975 Axial Recovery = Not calculated									
Sb	206.836†	-3.6	-1.2976 ug/L	1.15682	-1.2976 ppb	1.15682	89.15%		
QC value within limits for Sb 206.836 Recovery = Not calculated									
Se	196.026†	4.8	3.2218 ug/L	5.72473	3.2218 ppb	5.72473	177.69%		
QC value within limits for Se 196.026 Recovery = Not calculated									
Si	251.611†	22.8	0.7534 ug/L	0.34740	0.7534 ppb	0.34740	46.11%		
QC value within limits for Si 251.611 Recovery = Not calculated									
Sn	189.927†	1.2	0.2443 ug/L	0.55339	0.2443 ppb	0.55339	226.50%		
QC value within limits for Sn 189.927 Recovery = Not calculated									
Sr	421.552†	-1218.6	-9.1374 ug/L	0.43435	-9.1374 ppb	0.43435	4.75%		
QC value less than the lower limit for Sr 421.552 Recovery = Not calculated									
Ti	334.940†	207.8	0.3518 ug/L	0.04577	0.3518 ppb	0.04577	13.01%		
QC value within limits for Ti 334.940 Recovery = Not calculated									
Tl	190.801†	11.5	3.8615 ug/L	0.71914	3.8615 ppb	0.71914	18.62%		
QC value within limits for Tl 190.801 Recovery = Not calculated									
U	409.014†	201.2	7.3254 ug/L	1.08077	7.3254 ppb	1.08077	14.75%		
QC value within limits for U 409.014 Recovery = Not calculated									
V	292.402†	146.6	1.2228 ug/L	0.15616	1.2228 ppb	0.15616	12.77%		
QC value within limits for V 292.402 Recovery = Not calculated									
Zn	213.857†	-62.0	-0.6463 ug/L	0.10740	-0.6463 ppb	0.10740	16.62%		
QC value within limits for Zn 213.857 Recovery = Not calculated									
SiO2†		23.8	1.6759 ug/L	0.60922	1.6759 ppb	0.60922	36.35%		
QC value within limits for SiO2 Recovery = Not calculated									
QC Failed. Continue with analysis.									

Sequence No.: 62

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 2/19/2010 23:28:44

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	3963.0	3963.0	112 %		23:30:56
1	Y RADIAL	4455.2	4455.2	111.4 %		23:30:36
1	Al 396.153Radial†	5529.0	5047.7	4883.4 ug/L	4883.4 ppb	23:30:36
1	Ca 317.933Radial†	2592.5	2282.5	4986.1 ug/L	4986.1 ppb	23:30:56
1	Fe 238.204 Radial†	390.5	339.4	4924.5 ug/L	4924.5 ppb	23:30:56
1	K 766.490 Radial†	31785.8	25223.4	4733.8 ug/L	4733.8 ppb	23:30:36
1	Mg 279.077 IEC†	115.1	100.1	5085.1 ug/L	5085.1 ppb	23:30:56
1	Na 589.592 Radial†	32571.4	25041.4	8593.9 ug/L	8593.9 ppb	23:30:36
1	Sr 421.552†	73014.2	63720.9	477.78 ug/L	477.78 ppb	23:30:36
1	Sc 361.383	811280.1	811280.1	107.98 %		23:31:53
1	Y 371.029	636127.8	636127.8	108.10 %		23:31:53
1	Ag 328.068†	105417.8	97301.2	507.19 ug/L	507.19 ppb	23:31:58
1	As 188.979†	1144.4	1080.6	504.92 ug/L	504.92 ppb	23:32:19
1	B 249.677†	20701.5	19613.7	484.75 ug/L	484.75 ppb	23:31:58
1	Ba 233.527†	63036.9	58233.5	496.93 ug/L	496.93 ppb	23:31:58
1	Be 313.107†	1342605.4	1247744.5	490.72 ug/L	490.72 ppb	23:31:53
1	Cd 226.502†	40517.9	37718.8	498.57 ug/L	498.57 ppb	23:31:58
1	Co 228.616†	24388.8	22656.8	496.53 ug/L	496.53 ppb	23:31:58
1	Cr 267.716†	40748.4	37659.4	493.16 ug/L	493.16 ppb	23:31:58
1	Cu 324.752†	178648.4	158994.3	495.27 ug/L	495.27 ppb	23:31:58
1	Mn 257.610†	447582.3	414035.2	490.22 ug/L	490.22 ppb	23:31:53
1	Mo 202.031†	6562.3	6067.4	496.91 ug/L	496.91 ppb	23:32:19
1	Ni 231.604†	18934.8	17456.4	496.35 ug/L	496.35 ppb	23:31:58
1	P 214.914†	4557.6	4009.7	2353.6 ug/L	2353.6 ppb	23:32:19
1	Pb 220.353†	3810.0	3507.6	489.30 ug/L	489.30 ppb	23:32:19
1	S 181.975 Axial†	783.0	687.7	988.19 ug/L	988.19 ppb	23:32:19
1	Sb 206.836†	1491.6	1345.0	510.92 ug/L	510.92 ppb	23:32:19
1	Se 196.026†	765.1	737.8	519.00 ug/L	519.00 ppb	23:32:19
1	Si 251.611†	81581.3	75056.0	2507.0 ug/L	2507.0 ppb	23:31:58
1	Sn 189.927†	2694.5	2480.1	499.92 ug/L	499.92 ppb	23:32:19
1	Ti 334.940†	321262.9	299002.0	496.23 ug/L	496.23 ppb	23:31:53
1	Tl 190.801†	1576.9	1493.0	504.60 ug/L	504.60 ppb	23:32:19
1	U 409.014†	12775.8	14894.8	540.46 ug/L	540.46 ppb	23:31:58
1	V 292.402†	63949.2	60916.2	505.63 ug/L	505.63 ppb	23:31:58
1	Zn 213.857†	52060.9	47569.9	494.64 ug/L	494.64 ppb	23:31:58
1	SiO2†	80864.0	74396.1	5289.5 ug/L	5289.5 ppb	23:33:26
2	Sc Radial	3931.8	3931.8	111 %		23:31:21
2	Y RADIAL	4528.6	4528.6	113.3 %		23:31:01
2	Al 396.153Radial†	5590.5	5142.1	4975.4 ug/L	4975.4 ppb	23:31:01
2	Ca 317.933Radial†	2578.0	2287.8	4997.7 ug/L	4997.7 ppb	23:31:21
2	Fe 238.204 Radial†	391.8	343.3	4981.1 ug/L	4981.1 ppb	23:31:21
2	K 766.490 Radial†	32247.9	25864.1	4854.1 ug/L	4854.1 ppb	23:31:01
2	Mg 279.077 IEC†	110.5	96.8	4917.1 ug/L	4917.1 ppb	23:31:21
2	Na 589.592 Radial†	33124.7	25769.6	8843.8 ug/L	8843.8 ppb	23:31:01
2	Sr 421.552†	74235.1	65335.9	489.89 ug/L	489.89 ppb	23:31:01
2	Sc 361.383	820882.8	820882.8	109.26 %		23:32:25
2	Y 371.029	643861.3	643861.3	109.41 %		23:32:25
2	Ag 328.068†	104475.7	95296.9	496.79 ug/L	496.79 ppb	23:32:30
2	As 188.979†	1147.4	1070.9	500.47 ug/L	500.47 ppb	23:32:50
2	B 249.677†	20449.4	19158.6	473.46 ug/L	473.46 ppb	23:32:30
2	Ba 233.527†	62600.1	57150.8	487.70 ug/L	487.70 ppb	23:32:30
2	Be 313.107†	1362152.0	1251089.6	492.03 ug/L	492.03 ppb	23:32:25
2	Cd 226.502†	40280.5	37062.5	489.88 ug/L	489.88 ppb	23:32:30
2	Co 228.616†	24224.4	22242.1	487.43 ug/L	487.43 ppb	23:32:30
2	Cr 267.716†	40752.0	37221.2	487.43 ug/L	487.43 ppb	23:32:30
2	Cu 324.752†	176709.9	155284.7	483.72 ug/L	483.72 ppb	23:32:30
2	Mn 257.610†	452429.4	413622.8	489.74 ug/L	489.74 ppb	23:32:25
2	Mo 202.031†	6580.6	6013.1	492.47 ug/L	492.47 ppb	23:32:50
2	Ni 231.604†	18777.3	17107.2	486.42 ug/L	486.42 ppb	23:32:30

2	P 214.914†	4563.9	3966.0	2329.1 ug/L	2329.1 ppb	23:32:50
2	Pb 220.353†	3853.7	3506.3	489.13 ug/L	489.13 ppb	23:32:50
2	S 181.975 Axial†	794.3	689.6	990.84 ug/L	990.84 ppb	23:32:50
2	Sb 206.836†	1509.6	1345.3	510.84 ug/L	510.84 ppb	23:32:50
2	Se 196.026†	771.6	735.5	517.60 ug/L	517.60 ppb	23:32:50
2	Si 251.611†	80577.1	73253.1	2446.7 ug/L	2446.7 ppb	23:32:30
2	Sn 189.927†	2697.4	2453.5	494.57 ug/L	494.57 ppb	23:32:50
2	Ti 334.940†	325658.6	299544.8	497.15 ug/L	497.15 ppb	23:32:25
2	Tl 190.801†	1589.3	1487.2	502.72 ug/L	502.72 ppb	23:32:50
2	U 409.014†	12826.6	14802.9	537.12 ug/L	537.12 ppb	23:32:30
2	V 292.402†	63647.8	59947.5	497.62 ug/L	497.62 ppb	23:32:30
2	Zn 213.857†	51635.6	46616.6	484.71 ug/L	484.71 ppb	23:32:30
2	SiO2†	80986.6	73632.2	5235.1 ug/L	5235.1 ppb	23:33:32
3	Sc Radial	3956.4	3956.4	112 %		23:31:46
3	Y RADIAL	4419.4	4419.4	110.5 %		23:31:26
3	Al 396.153Radial†	5485.7	5017.2	4853.9 ug/L	4853.9 ppb	23:31:26
3	Ca 317.933Radial†	2584.7	2279.4	4979.3 ug/L	4979.3 ppb	23:31:46
3	Fe 238.204 Radial†	395.0	344.0	4991.0 ug/L	4991.0 ppb	23:31:46
3	K 766.490 Radial†	31751.9	25240.8	4737.1 ug/L	4737.1 ppb	23:31:26
3	Mg 279.077 IEC†	113.6	98.9	5024.7 ug/L	5024.7 ppb	23:31:46
3	Na 589.592 Radial†	32502.2	25028.4	8589.5 ug/L	8589.5 ppb	23:31:26
3	Sr 421.552†	72686.5	63537.7	476.40 ug/L	476.40 ppb	23:31:26
3	Sc 361.383	815129.8	815129.8	108.49 %		23:32:56
3	Y 371.029	638289.2	638289.2	108.47 %		23:32:56
3	Ag 328.068†	105090.2	96538.2	503.25 ug/L	503.25 ppb	23:33:01
3	As 188.979†	1143.0	1074.2	502.02 ug/L	502.02 ppb	23:33:21
3	B 249.677†	20813.0	19625.9	485.05 ug/L	485.05 ppb	23:33:01
3	Ba 233.527†	62983.0	57908.1	494.16 ug/L	494.16 ppb	23:33:01
3	Be 313.107†	1354971.4	1253270.3	492.89 ug/L	492.89 ppb	23:32:56
3	Cd 226.502†	40517.5	37541.3	496.21 ug/L	496.21 ppb	23:33:01
3	Co 228.616†	24359.0	22522.7	493.59 ug/L	493.59 ppb	23:33:01
3	Cr 267.716†	40862.7	37586.5	492.21 ug/L	492.21 ppb	23:33:01
3	Cu 324.752†	178160.9	157763.6	491.44 ug/L	491.44 ppb	23:33:01
3	Mn 257.610†	451180.0	415393.7	491.84 ug/L	491.84 ppb	23:32:56
3	Mo 202.031†	6566.5	6042.6	494.89 ug/L	494.89 ppb	23:33:21
3	Ni 231.604†	18983.4	17418.4	495.27 ug/L	495.27 ppb	23:33:01
3	P 214.914†	4546.6	3979.6	2335.9 ug/L	2335.9 ppb	23:33:21
3	Pb 220.353†	3838.9	3517.5	490.67 ug/L	490.67 ppb	23:33:21
3	S 181.975 Axial†	776.6	678.5	974.87 ug/L	974.87 ppb	23:33:21
3	Sb 206.836†	1507.6	1353.3	513.85 ug/L	513.85 ppb	23:33:21
3	Se 196.026†	756.6	726.7	511.66 ug/L	511.66 ppb	23:33:21
3	Si 251.611†	81368.7	74503.3	2488.6 ug/L	2488.6 ppb	23:33:01
3	Sn 189.927†	2691.5	2465.5	496.98 ug/L	496.98 ppb	23:33:21
3	Ti 334.940†	323709.3	299851.7	497.65 ug/L	497.65 ppb	23:32:56
3	Tl 190.801†	1580.2	1489.0	503.31 ug/L	503.31 ppb	23:33:21
3	U 409.014†	12727.7	14794.6	536.80 ug/L	536.80 ppb	23:33:01
3	V 292.402†	63909.4	60599.8	502.99 ug/L	502.99 ppb	23:33:01
3	Zn 213.857†	52097.0	47375.5	492.61 ug/L	492.61 ppb	23:33:01
3	SiO2†	81065.3	74227.9	5277.5 ug/L	5277.5 ppb	23:33:37

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	815764.2	108.58 %	0.643			0.59%
Sc Radial	3950.4	112 %	0.5			0.42%
Y 371.029	639426.1	108.66 %	0.678			0.62%
Y RADIAL	4467.7	111.7 %	1.39			1.25%
Ag 328.068†	96378.7	502.41 ug/L	5.249	502.41 ppb	5.249	1.04%
QC value within limits for Ag 328.068 Recovery = 100.48%						
Al 396.153Radial†	5069.0	4904.2 ug/L	63.40	4904.2 ppb	63.40	1.29%
QC value within limits for Al 396.153Radial Recovery = 98.08%						
As 188.979†	1075.2	502.47 ug/L	2.258	502.47 ppb	2.258	0.45%
QC value within limits for As 188.979 Recovery = 100.49%						
B 249.677†	19466.1	481.08 ug/L	6.602	481.08 ppb	6.602	1.37%
QC value within limits for B 249.677 Recovery = 96.22%						
Ba 233.527†	57764.2	492.93 ug/L	4.737	492.93 ppb	4.737	0.96%
QC value within limits for Ba 233.527 Recovery = 98.59%						
Be 313.107†	1250701.5	491.88 ug/L	1.094	491.88 ppb	1.094	0.22%
QC value within limits for Be 313.107 Recovery = 98.38%						
Ca 317.933Radial†	2283.2	4987.7 ug/L	9.32	4987.7 ppb	9.32	0.19%

QC value within limits for Ca 317.933 Radial Recovery = 99.75%							
Cd 226.502†	37440.9	494.89 ug/L	4.494	494.89 ppb	4.494	0.91%	
QC value within limits for Cd 226.502 Recovery = 98.98%							
Co 228.616†	22473.9	492.52 ug/L	4.644	492.52 ppb	4.644	0.94%	
QC value within limits for Co 228.616 Recovery = 98.50%							
Cr 267.716†	37489.0	490.93 ug/L	3.072	490.93 ppb	3.072	0.63%	
QC value within limits for Cr 267.716 Recovery = 98.19%							
Cu 324.752†	157347.5	490.15 ug/L	5.884	490.15 ppb	5.884	1.20%	
QC value within limits for Cu 324.752 Recovery = 98.03%							
Fe 238.204 Radial†	342.2	4965.5 ug/L	35.88	4965.5 ppb	35.88	0.72%	
QC value within limits for Fe 238.204 Radial Recovery = 99.31%							
K 766.490 Radial†	25442.8	4775.0 ug/L	68.52	4775.0 ppb	68.52	1.43%	
QC value within limits for K 766.490 Radial Recovery = 95.50%							
Mg 279.077 IEC†	98.6	5009.0 ug/L	85.09	5009.0 ppb	85.09	1.70%	
QC value within limits for Mg 279.077 IEC Recovery = 100.18%							
Mn 257.610†	414350.6	490.60 ug/L	1.097	490.60 ppb	1.097	0.22%	
QC value within limits for Mn 257.610 Recovery = 98.12%							
Mo 202.031†	6041.0	494.76 ug/L	2.224	494.76 ppb	2.224	0.45%	
QC value within limits for Mo 202.031 Recovery = 98.95%							
Na 589.592 Radial†	25279.8	8675.8 ug/L	145.58	8675.8 ppb	145.58	1.68%	
QC value less than the lower limit for Na 589.592 Radial Recovery = 86.76%							
Ni 231.604†	17327.3	492.68 ug/L	5.449	492.68 ppb	5.449	1.11%	
QC value within limits for Ni 231.604 Recovery = 98.54%							
P 214.914†	3985.1	2339.5 ug/L	12.63	2339.5 ppb	12.63	0.54%	
QC value within limits for P 214.914 Recovery = 93.58%							
Pb 220.353†	3510.4	489.70 ug/L	0.843	489.70 ppb	0.843	0.17%	
QC value within limits for Pb 220.353 Recovery = 97.94%							
S 181.975 Axial†	685.3	984.63 ug/L	8.557	984.63 ppb	8.557	0.87%	
QC value within limits for S 181.975 Axial Recovery = 98.46%							
Sb 206.836†	1347.9	511.87 ug/L	1.715	511.87 ppb	1.715	0.34%	
QC value within limits for Sb 206.836 Recovery = 102.37%							
Se 196.026†	733.3	516.09 ug/L	3.897	516.09 ppb	3.897	0.76%	
QC value within limits for Se 196.026 Recovery = 103.22%							
Si 251.611†	74270.8	2480.8 ug/L	30.90	2480.8 ppb	30.90	1.25%	
QC value within limits for Si 251.611 Recovery = 99.23%							
Sn 189.927†	2466.4	497.16 ug/L	2.680	497.16 ppb	2.680	0.54%	
QC value within limits for Sn 189.927 Recovery = 99.43%							
Sr 421.552†	64198.2	481.36 ug/L	7.420	481.36 ppb	7.420	1.54%	
QC value within limits for Sr 421.552 Recovery = 96.27%							
Ti 334.940†	299466.2	497.01 ug/L	0.719	497.01 ppb	0.719	0.14%	
QC value within limits for Ti 334.940 Recovery = 99.40%							
Tl 190.801†	1489.7	503.54 ug/L	0.962	503.54 ppb	0.962	0.19%	
QC value within limits for Tl 190.801 Recovery = 100.71%							
U 409.014†	14830.8	538.13 ug/L	2.024	538.13 ppb	2.024	0.38%	
QC value within limits for U 409.014 Recovery = 107.63%							
V 292.402†	60487.8	502.08 ug/L	4.084	502.08 ppb	4.084	0.81%	
QC value within limits for V 292.402 Recovery = 100.42%							
Zn 213.857†	47187.3	490.65 ug/L	5.247	490.65 ppb	5.247	1.07%	
QC value within limits for Zn 213.857 Recovery = 98.13%							
SiO2†	74085.4	5267.4 ug/L	28.55	5267.4 ppb	28.55	0.54%	
QC value within limits for SiO2 Recovery = 98.50%							
QC Failed. Continue with analysis.							

Sequence No.: 63  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 2/19/2010 23:35:46  
 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	3953.4	3953.4	112 %		23:37:58
1	Y RADIAL	4542.7	4542.7	113.6 %		23:37:38
1	Al 396.153Radial†	-114.1	11.2	10.825 ug/L	10.825 ppb	23:37:58
1	Ca 317.933Radial†	32.7	-2.0	-4.4350 ug/L	-4.4350 ppb	23:37:58
1	Fe 238.204 Radial†	9.4	-0.7	-10.137 ug/L	-10.137 ppb	23:37:58
1	K 766.490 Radial†	2867.2	-579.0	-108.30 ug/L	-108.30 ppb	23:37:38
1	Mg 279.077 IEC†	-0.4	-3.0	-153.90 ug/L	-153.90 ppb	23:37:58
1	Na 589.592 Radial†	338.7	-3724.3	-1278.1 ug/L	-1278.1 ppb	23:37:38
1	Sr 421.552†	309.3	-1164.8	-8.7339 ug/L	-8.7339 ppb	23:37:38
1	Sc 361.383	798406.5	798406.5	106.27 %		23:38:55
1	Y 371.029	633826.6	633826.6	107.71 %		23:38:55
1	Ag 328.068†	155.2	-180.3	-0.9443 ug/L	-0.9443 ppb	23:38:55
1	As 188.979†	-22.8	-0.7	-0.3420 ug/L	-0.3420 ppb	23:39:15
1	B 249.677†	-333.3	128.3	3.1862 ug/L	3.1862 ppb	23:39:15
1	Ba 233.527†	61.6	-87.1	-0.7377 ug/L	-0.7377 ppb	23:39:15
1	Be 313.107†	-4542.1	81.5	0.0330 ug/L	0.0330 ppb	23:38:55
1	Cd 226.502†	-186.9	19.3	0.2597 ug/L	0.2597 ppb	23:39:15
1	Co 228.616†	-53.2	20.3	0.4441 ug/L	0.4441 ppb	23:39:15
1	Cr 267.716†	84.5	1.7	0.0167 ug/L	0.0167 ppb	23:39:15
1	Cu 324.752†	5880.3	-918.6	-2.8717 ug/L	-2.8717 ppb	23:38:55
1	Mn 257.610†	439.7	-57.5	-0.0628 ug/L	-0.0628 ppb	23:39:15
1	Mo 202.031†	18.5	7.4	0.6068 ug/L	0.6068 ppb	23:39:15
1	Ni 231.604†	94.1	9.4	0.2678 ug/L	0.2678 ppb	23:39:15
1	P 214.914†	199.2	-23.7	-13.881 ug/L	-13.881 ppb	23:39:15
1	Pb 220.353†	-67.9	-84.8	-11.775 ug/L	-11.775 ppb	23:39:15
1	S 181.975 Axial†	39.5	-0.2	-0.3435 ug/L	-0.3435 ppb	23:39:15
1	Sb 206.836†	34.3	-4.0	-1.4615 ug/L	-1.4615 ppb	23:39:15
1	Se 196.026†	-24.3	6.4	4.3366 ug/L	4.3366 ppb	23:39:15
1	Si 251.611†	550.5	21.5	0.7128 ug/L	0.7128 ppb	23:39:15
1	Sn 189.927†	17.7	1.3	0.2582 ug/L	0.2582 ppb	23:39:15
1	Ti 334.940†	-1281.3	274.2	0.4597 ug/L	0.4597 ppb	23:38:55
1	Tl 190.801†	-32.6	1.9	0.6408 ug/L	0.6408 ppb	23:39:15
1	U 409.014†	-2756.1	469.6	17.092 ug/L	17.092 ppb	23:38:55
1	V 292.402†	-1578.2	207.6	1.7396 ug/L	1.7396 ppb	23:38:55
1	Zn 213.857†	628.4	-52.4	-0.5463 ug/L	-0.5463 ppb	23:39:15
1	SiO2†	606.8	78.8	5.5981 ug/L	5.5981 ppb	23:40:11
2	Sc Radial	3981.8	3981.8	113 %		23:38:23
2	Y RADIAL	4541.7	4541.7	113.6 %		23:38:03
2	Al 396.153Radial†	-120.8	5.9	5.7252 ug/L	5.7252 ppb	23:38:23
2	Ca 317.933Radial†	25.5	-8.6	-18.770 ug/L	-18.770 ppb	23:38:23
2	Fe 238.204 Radial†	10.1	-0.2	-2.7758 ug/L	-2.7758 ppb	23:38:23
2	K 766.490 Radial†	2874.4	-591.0	-110.54 ug/L	-110.54 ppb	23:38:03
2	Mg 279.077 IEC†	1.5	-1.3	-65.080 ug/L	-65.080 ppb	23:38:23
2	Na 589.592 Radial†	288.7	-3770.9	-1294.1 ug/L	-1294.1 ppb	23:38:03
2	Sr 421.552†	243.4	-1225.2	-9.1869 ug/L	-9.1869 ppb	23:38:03
2	Sc 361.383	810524.7	810524.7	107.88 %		23:39:20
2	Y 371.029	643694.2	643694.2	109.39 %		23:39:20
2	Ag 328.068†	281.2	-65.7	-0.3473 ug/L	-0.3473 ppb	23:39:20
2	As 188.979†	-25.7	-3.1	-1.4551 ug/L	-1.4551 ppb	23:39:40
2	B 249.677†	-338.9	127.8	3.1725 ug/L	3.1725 ppb	23:39:40
2	Ba 233.527†	37.8	-110.0	-0.9335 ug/L	-0.9335 ppb	23:39:40
2	Be 313.107†	-4572.1	117.6	0.0472 ug/L	0.0472 ppb	23:39:20
2	Cd 226.502†	-199.5	10.3	0.1388 ug/L	0.1388 ppb	23:39:40
2	Co 228.616†	-63.6	11.3	0.2494 ug/L	0.2494 ppb	23:39:40
2	Cr 267.716†	66.8	-15.9	-0.2117 ug/L	-0.2117 ppb	23:39:40
2	Cu 324.752†	5888.6	-993.7	-3.1041 ug/L	-3.1041 ppb	23:39:20
2	Mn 257.610†	439.0	-64.4	-0.0738 ug/L	-0.0738 ppb	23:39:40
2	Mo 202.031†	23.1	11.4	0.9349 ug/L	0.9349 ppb	23:39:40
2	Ni 231.604†	91.1	5.3	0.1503 ug/L	0.1503 ppb	23:39:40

2	P 214.914†	214.2	-12.5	-7.0503 ug/L	-7.0503 ppb	23:39:40
2	Pb 220.353†	-62.8	-79.1	-10.979 ug/L	-10.979 ppb	23:39:40
2	S 181.975 Axial†	41.8	1.4	1.9843 ug/L	1.9843 ppb	23:39:40
2	Sb 206.836†	41.9	2.5	0.9128 ug/L	0.9128 ppb	23:39:40
2	Se 196.026†	-26.9	4.4	2.9654 ug/L	2.9654 ppb	23:39:40
2	Si 251.611†	542.5	6.4	0.2016 ug/L	0.2016 ppb	23:39:40
2	Sn 189.927†	11.0	-5.1	-1.0320 ug/L	-1.0320 ppb	23:39:40
2	Ti 334.940†	-1305.6	269.7	0.4440 ug/L	0.4440 ppb	23:39:20
2	Tl 190.801†	-27.9	6.7	2.2585 ug/L	2.2585 ppb	23:39:40
2	U 409.014†	-2858.9	413.0	15.032 ug/L	15.032 ppb	23:39:20
2	V 292.402†	-1632.8	179.2	1.5083 ug/L	1.5083 ppb	23:39:20
2	Zn 213.857†	632.9	-57.1	-0.5953 ug/L	-0.5953 ppb	23:39:40
2	SiO2†	570.4	36.6	2.5808 ug/L	2.5808 ppb	23:40:16
3	Sc Radial	3971.9	3971.9	112 %		23:38:48
3	Y RADIAL	4496.5	4496.5	112.5 %		23:38:28
3	Al 396.153Radial†	-111.3	14.1	13.753 ug/L	13.753 ppb	23:38:48
3	Ca 317.933Radial†	102.7	60.2	131.46 ug/L	131.46 ppb	23:38:48
3	Fe 238.204 Radial†	10.4	0.1	2.0930 ug/L	2.0930 ppb	23:38:48
3	K 766.490 Radial†	2946.2	-520.6	-97.369 ug/L	-97.369 ppb	23:38:28
3	Mg 279.077 IEC†	1.3	-1.5	-75.337 ug/L	-75.337 ppb	23:38:48
3	Na 589.592 Radial†	283.1	-3775.2	-1295.6 ug/L	-1295.6 ppb	23:38:28
3	Sr 421.552†	195.8	-1267.0	-9.5019 ug/L	-9.5019 ppb	23:38:28
3	Sc 361.383	800230.2	800230.2	106.51 %		23:39:45
3	Y 371.029	635868.1	635868.1	108.06 %		23:39:45
3	Ag 328.068†	176.3	-160.8	-0.8351 ug/L	-0.8351 ppb	23:39:45
3	As 188.979†	-28.4	-6.0	-2.7806 ug/L	-2.7806 ppb	23:40:05
3	B 249.677†	-364.5	99.8	2.4760 ug/L	2.4760 ppb	23:40:05
3	Ba 233.527†	58.4	-90.2	-0.7626 ug/L	-0.7626 ppb	23:40:05
3	Be 313.107†	-4464.3	164.3	0.0654 ug/L	0.0654 ppb	23:39:45
3	Cd 226.502†	-189.7	17.0	0.2271 ug/L	0.2271 ppb	23:40:05
3	Co 228.616†	-59.4	14.5	0.3164 ug/L	0.3164 ppb	23:40:05
3	Cr 267.716†	93.6	10.0	0.1296 ug/L	0.1296 ppb	23:40:05
3	Cu 324.752†	5910.2	-903.2	-2.8204 ug/L	-2.8204 ppb	23:39:45
3	Mn 257.610†	464.4	-35.3	-0.0385 ug/L	-0.0385 ppb	23:40:05
3	Mo 202.031†	6.7	-3.6	-0.2964 ug/L	-0.2964 ppb	23:40:05
3	Ni 231.604†	79.8	-4.2	-0.1205 ug/L	-0.1205 ppb	23:40:05
3	P 214.914†	208.8	-15.1	-8.6674 ug/L	-8.6674 ppb	23:40:05
3	Pb 220.353†	-49.5	-67.3	-9.3390 ug/L	-9.3390 ppb	23:40:05
3	S 181.975 Axial†	35.6	-3.9	-5.6626 ug/L	-5.6626 ppb	23:40:05
3	Sb 206.836†	47.6	8.4	3.0604 ug/L	3.0604 ppb	23:40:05
3	Se 196.026†	-21.6	9.0	6.1066 ug/L	6.1066 ppb	23:40:05
3	Si 251.611†	566.3	35.2	1.1812 ug/L	1.1812 ppb	23:40:05
3	Sn 189.927†	14.9	-1.3	-0.2387 ug/L	-0.2387 ppb	23:40:05
3	Ti 334.940†	-1303.6	256.0	0.4433 ug/L	0.4433 ppb	23:39:45
3	Tl 190.801†	-25.6	8.6	2.8723 ug/L	2.8723 ppb	23:40:05
3	U 409.014†	-2902.5	338.0	12.300 ug/L	12.300 ppb	23:39:45
3	V 292.402†	-1498.1	286.1	2.3604 ug/L	2.3604 ppb	23:39:45
3	Zn 213.857†	642.1	-40.9	-0.4254 ug/L	-0.4254 ppb	23:40:05
3	SiO2†	576.7	49.3	3.5201 ug/L	3.5201 ppb	23:40:21

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	803053.8	106.88 %		0.870			0.81%
Sc Radial	3969.0	112 %		0.4			0.36%
Y 371.029	637796.3	108.38 %		0.885			0.82%
Y RADIAL	4527.0	113.2 %		0.66			0.58%
Ag 328.068†	-135.6	-0.7089 ug/L		0.31791	-0.7089 ppb	0.31791	44.85%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	10.4	10.101 ug/L		4.0627	10.101 ppb	4.0627	40.22%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-3.3	-1.5259 ug/L		1.22086	-1.5259 ppb	1.22086	80.01%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	118.6	2.9449 ug/L		0.40612	2.9449 ppb	0.40612	13.79%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	-95.8	-0.8113 ug/L		0.10658	-0.8113 ppb	0.10658	13.14%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	121.2	0.0485 ug/L		0.01626	0.0485 ppb	0.01626	33.49%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	16.5	36.085 ug/L		82.9079	36.085 ppb	82.9079	229.76%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated

Cd 226.502† 15.5 0.2086 ug/L 0.06252 0.2086 ppb 0.06252 29.98%

QC value within limits for Cd 226.502 Recovery = Not calculated

Co 228.616† 15.4 0.3367 ug/L 0.09895 0.3367 ppb 0.09895 29.39%

QC value within limits for Co 228.616 Recovery = Not calculated

Cr 267.716† -1.4 -0.0218 ug/L 0.17385 -0.0218 ppb 0.17385 797.72%

QC value within limits for Cr 267.716 Recovery = Not calculated

Cu 324.752† -938.5 -2.9321 ug/L 0.15118 -2.9321 ppb 0.15118 5.16%

QC value within limits for Cu 324.752 Recovery = Not calculated

Fe 238.204 Radial† -0.3 -3.6065 ug/L 6.15702 -3.6065 ppb 6.15702 170.72%

QC value within limits for Fe 238.204 Radial Recovery = Not calculated

K 766.490 Radial† -563.6 -105.40 ug/L 7.048 -105.40 ppb 7.048 6.69%

QC value within limits for K 766.490 Radial Recovery = Not calculated

Mg 279.077 IEC† -1.9 -98.105 ug/L 48.5902 -98.105 ppb 48.5902 49.53%

QC value within limits for Mg 279.077 IEC Recovery = Not calculated

Mn 257.610† -52.4 -0.0584 ug/L 0.01807 -0.0584 ppb 0.01807 30.95%

QC value within limits for Mn 257.610 Recovery = Not calculated

Mo 202.031† 5.1 0.4151 ug/L 0.63764 0.4151 ppb 0.63764 153.60%

QC value within limits for Mo 202.031 Recovery = Not calculated

Na 589.592 Radial† -3756.8 -1289.3 ug/L 9.69 -1289.3 ppb 9.69 0.75%

QC value less than the lower limit for Na 589.592 Radial Recovery = Not calculated

Ni 231.604† 3.5 0.0992 ug/L 0.19915 0.0992 ppb 0.19915 200.80%

QC value within limits for Ni 231.604 Recovery = Not calculated

P 214.914† -17.1 -9.8663 ug/L 3.56983 -9.8663 ppb 3.56983 36.18%

QC value within limits for P 214.914 Recovery = Not calculated

Pb 220.353† -77.1 -10.697 ug/L 1.2420 -10.697 ppb 1.2420 11.61%

QC value less than the lower limit for Pb 220.353 Recovery = Not calculated

S 181.975 Axial† -0.9 -1.3406 ug/L 3.91975 -1.3406 ppb 3.91975 292.38%

QC value within limits for S 181.975 Axial Recovery = Not calculated

Sb 206.836† 2.3 0.8372 ug/L 2.26188 0.8372 ppb 2.26188 270.16%

QC value within limits for Sb 206.836 Recovery = Not calculated

Se 196.026† 6.6 4.4695 ug/L 1.57479 4.4695 ppb 1.57479 35.23%

QC value within limits for Se 196.026 Recovery = Not calculated

Si 251.611† 21.0 0.6985 ug/L 0.48996 0.6985 ppb 0.48996 70.14%

QC value within limits for Si 251.611 Recovery = Not calculated

Sn 189.927† -1.7 -0.3375 ug/L 0.65075 -0.3375 ppb 0.65075 192.81%

QC value within limits for Sn 189.927 Recovery = Not calculated

Sr 421.552† -1219.0 -9.1409 ug/L 0.38606 -9.1409 ppb 0.38606 4.22%

QC value less than the lower limit for Sr 421.552 Recovery = Not calculated

Ti 334.940† 266.6 0.4490 ug/L 0.00928 0.4490 ppb 0.00928 2.07%

QC value within limits for Ti 334.940 Recovery = Not calculated

Tl 190.801† 5.7 1.9238 ug/L 1.15279 1.9238 ppb 1.15279 59.92%

QC value within limits for Tl 190.801 Recovery = Not calculated

U 409.014† 406.8 14.808 ug/L 2.4037 14.808 ppb 2.4037 16.23%

QC value within limits for U 409.014 Recovery = Not calculated

V 292.402† 224.3 1.8694 ug/L 0.44064 1.8694 ppb 0.44064 23.57%

QC value within limits for V 292.402 Recovery = Not calculated

Zn 213.857† -50.1 -0.5223 ug/L 0.08741 -0.5223 ppb 0.08741 16.73%

QC value within limits for Zn 213.857 Recovery = Not calculated

SiO2† 54.9 3.8996 ug/L 1.54406 3.8996 ppb 1.54406 39.60%

QC value within limits for SiO2 Recovery = Not calculated

QC Failed. Continue with analysis.

Sequence No.: 74  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 1  
 Date Collected: 2/20/2010 00:50:38  
 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	3944.0	3944.0	112 %		00:52:49
1	Y RADIAL	4438.9	4438.9	111.0 %		00:52:29
1	Al 396.153Radial†	5532.3	5074.5	4909.7 ug/L	4909.7 ppb	00:52:29
1	Ca 317.933Radial†	2582.5	2284.7	4990.9 ug/L	4990.9 ppb	00:52:49
1	Fe 238.204 Radial†	389.6	340.2	4936.4 ug/L	4936.4 ppb	00:52:49
1	K 766.490 Radial†	31568.7	25165.8	4723.0 ug/L	4723.0 ppb	00:52:29
1	Mg 279.077 IEC†	113.0	98.7	5016.9 ug/L	5016.9 ppb	00:52:49
1	Na 589.592 Radial†	32504.6	25121.9	8621.6 ug/L	8621.6 ppb	00:52:29
1	Sr 421.552†	73140.2	64148.7	480.99 ug/L	480.99 ppb	00:52:29
1	Sc 361.383	811959.5	811959.5	108.07 %		00:53:47
1	Y 371.029	636828.7	636828.7	108.22 %		00:53:47
1	Ag 328.068†	104798.2	96646.1	503.78 ug/L	503.78 ppb	00:53:52
1	As 188.979†	1128.7	1065.1	497.78 ug/L	497.78 ppb	00:54:12
1	B 249.677†	20656.0	19555.5	483.32 ug/L	483.32 ppb	00:53:52
1	Ba 233.527†	62353.9	57552.6	491.13 ug/L	491.13 ppb	00:53:52
1	Be 313.107†	1346567.1	1250369.9	491.75 ug/L	491.75 ppb	00:53:47
1	Cd 226.502†	39920.8	37134.9	490.84 ug/L	490.84 ppb	00:53:52
1	Co 228.616†	24053.9	22328.0	489.31 ug/L	489.31 ppb	00:53:52
1	Cr 267.716†	40496.1	37394.3	489.69 ug/L	489.69 ppb	00:53:52
1	Cu 324.752†	177800.7	158071.5	492.40 ug/L	492.40 ppb	00:53:52
1	Mn 257.610†	447707.0	413803.8	489.95 ug/L	489.95 ppb	00:53:47
1	Mo 202.031†	6498.0	6002.8	491.63 ug/L	491.63 ppb	00:54:12
1	Ni 231.604†	18649.5	17177.8	488.43 ug/L	488.43 ppb	00:53:52
1	P 214.914†	4490.6	3944.1	2314.0 ug/L	2314.0 ppb	00:54:12
1	Pb 220.353†	3795.8	3491.5	487.06 ug/L	487.06 ppb	00:54:12
1	S 181.975 Axial†	772.9	677.8	973.88 ug/L	973.88 ppb	00:54:12
1	Sb 206.836†	1484.3	1337.1	507.82 ug/L	507.82 ppb	00:54:12
1	Se 196.026†	752.6	725.7	510.81 ug/L	510.81 ppb	00:54:12
1	Si 251.611†	80627.4	74110.1	2475.4 ug/L	2475.4 ppb	00:53:52
1	Sn 189.927†	2669.6	2455.0	494.86 ug/L	494.86 ppb	00:54:12
1	Ti 334.940†	322547.6	299941.8	497.80 ug/L	497.80 ppb	00:53:47
1	Tl 190.801†	1563.8	1479.5	500.14 ug/L	500.14 ppb	00:54:12
1	U 409.014†	12935.5	15032.7	545.48 ug/L	545.48 ppb	00:53:52
1	V 292.402†	63562.7	60509.0	502.23 ug/L	502.23 ppb	00:53:52
1	Zn 213.857†	51406.2	46923.8	487.92 ug/L	487.92 ppb	00:53:52
1	SiO2†	80657.4	74142.2	5271.5 ug/L	5271.5 ppb	00:55:20
2	Sc Radial	3927.6	3927.6	111 %		00:53:15
2	Y RADIAL	4468.0	4468.0	111.7 %		00:52:54
2	Al 396.153Radial†	5548.2	5109.5	4943.8 ug/L	4943.8 ppb	00:52:54
2	Ca 317.933Radial†	2595.0	2305.6	5036.6 ug/L	5036.6 ppb	00:53:15
2	Fe 238.204 Radial†	395.0	346.6	5028.3 ug/L	5028.3 ppb	00:53:15
2	K 766.490 Radial†	31868.1	25553.5	4795.8 ug/L	4795.8 ppb	00:52:54
2	Mg 279.077 IEC†	111.6	97.8	4971.7 ug/L	4971.7 ppb	00:53:15
2	Na 589.592 Radial†	32375.2	25127.0	8623.3 ug/L	8623.3 ppb	00:52:54
2	Sr 421.552†	73582.2	64820.4	486.02 ug/L	486.02 ppb	00:52:54
2	Sc 361.383	809313.8	809313.8	107.72 %		00:54:18
2	Y 371.029	635723.4	635723.4	108.03 %		00:54:18
2	Ag 328.068†	103125.7	95410.5	497.39 ug/L	497.39 ppb	00:54:23
2	As 188.979†	1120.0	1060.4	495.65 ug/L	495.65 ppb	00:54:44
2	B 249.677†	20350.8	19334.6	477.83 ug/L	477.83 ppb	00:54:23
2	Ba 233.527†	61426.2	56880.1	485.39 ug/L	485.39 ppb	00:54:23
2	Be 313.107†	1344992.3	1252981.2	492.78 ug/L	492.78 ppb	00:54:18
2	Cd 226.502†	39366.1	36740.7	485.62 ug/L	485.62 ppb	00:54:23
2	Co 228.616†	23749.9	22118.6	484.72 ug/L	484.72 ppb	00:54:23
2	Cr 267.716†	40000.6	37056.8	485.28 ug/L	485.28 ppb	00:54:23
2	Cu 324.752†	174917.0	155932.2	485.74 ug/L	485.74 ppb	00:54:23
2	Mn 257.610†	445784.9	413373.7	489.45 ug/L	489.45 ppb	00:54:18
2	Mo 202.031†	6457.0	5984.4	490.13 ug/L	490.13 ppb	00:54:44
2	Ni 231.604†	18450.3	17049.2	484.77 ug/L	484.77 ppb	00:54:23



2	P 214.914†	4471.7	3940.2	2312.8 ug/L	2312.8 ppb	00:54:44
2	Pb 220.353†	3763.0	3472.5	484.44 ug/L	484.44 ppb	00:54:44
2	S 181.975 Axial†	771.7	679.0	975.58 ug/L	975.58 ppb	00:54:44
2	Sb 206.836†	1461.9	1320.8	501.70 ug/L	501.70 ppb	00:54:44
2	Se 196.026†	744.3	720.2	507.42 ug/L	507.42 ppb	00:54:44
2	Si 251.611†	79390.0	73205.3	2445.1 ug/L	2445.1 ppb	00:54:23
2	Sn 189.927†	2633.2	2429.2	489.67 ug/L	489.67 ppb	00:54:44
2	Ti 334.940†	321699.7	300130.3	498.13 ug/L	498.13 ppb	00:54:18
2	Tl 190.801†	1562.4	1483.0	501.34 ug/L	501.34 ppb	00:54:44
2	U 409.014†	12623.1	14781.8	536.35 ug/L	536.35 ppb	00:54:23
2	V 292.402†	62698.0	59898.5	497.17 ug/L	497.17 ppb	00:54:23
2	Zn 213.857†	50730.3	46451.8	482.98 ug/L	482.98 ppb	00:54:23
2	SiO2†	80308.9	74062.7	5265.9 ug/L	5265.9 ppb	00:55:25
3	Sc Radial	3895.9	3895.9	110 %		00:53:40
3	Y RADIAL	4416.7	4416.7	110.5 %		00:53:20
3	Al 396.153Radial†	5522.9	5127.1	4960.6 ug/L	4960.6 ppb	00:53:20
3	Ca 317.933Radial†	2543.3	2277.7	4975.6 ug/L	4975.6 ppb	00:53:40
3	Fe 238.204 Radial†	388.4	343.4	4982.9 ug/L	4982.9 ppb	00:53:40
3	K 766.490 Radial†	31698.2	25632.6	4810.7 ug/L	4810.7 ppb	00:53:20
3	Mg 279.077 IEC†	112.7	99.7	5065.5 ug/L	5065.5 ppb	00:53:40
3	Na 589.592 Radial†	32317.8	25311.9	8686.8 ug/L	8686.8 ppb	00:53:20
3	Sr 421.552†	73247.3	65055.1	487.78 ug/L	487.78 ppb	00:53:20
3	Sc 361.383	804662.9	804662.9	107.10 %		00:54:49
3	Y 371.029	632179.5	632179.5	107.43 %		00:54:49
3	Ag 328.068†	105453.9	98137.8	511.56 ug/L	511.56 ppb	00:54:55
3	As 188.979†	1130.4	1076.1	502.90 ug/L	502.90 ppb	00:55:15
3	B 249.677†	21082.0	20126.6	497.46 ug/L	497.46 ppb	00:54:55
3	Ba 233.527†	62954.5	58636.7	500.38 ug/L	500.38 ppb	00:54:55
3	Be 313.107†	1338722.9	1254344.3	493.31 ug/L	493.31 ppb	00:54:49
3	Cd 226.502†	40247.3	37774.8	499.30 ug/L	499.30 ppb	00:54:55
3	Co 228.616†	24279.1	22740.1	498.35 ug/L	498.35 ppb	00:54:55
3	Cr 267.716†	40752.8	37973.8	497.28 ug/L	497.28 ppb	00:54:55
3	Cu 324.752†	179765.1	161397.5	502.76 ug/L	502.76 ppb	00:54:55
3	Mn 257.610†	444598.3	414657.7	490.96 ug/L	490.96 ppb	00:54:49
3	Mo 202.031†	6497.1	6056.5	496.03 ug/L	496.03 ppb	00:55:15
3	Ni 231.604†	18877.9	17547.5	498.94 ug/L	498.94 ppb	00:54:55
3	P 214.914†	4483.4	3975.1	2330.9 ug/L	2330.9 ppb	00:55:15
3	Pb 220.353†	3773.0	3502.0	488.54 ug/L	488.54 ppb	00:55:15
3	S 181.975 Axial†	783.6	694.3	997.59 ug/L	997.59 ppb	00:55:15
3	Sb 206.836†	1496.8	1361.2	516.82 ug/L	516.82 ppb	00:55:15
3	Se 196.026†	754.3	733.6	516.36 ug/L	516.36 ppb	00:55:15
3	Si 251.611†	81493.3	75595.2	2525.1 ug/L	2525.1 ppb	00:54:55
3	Sn 189.927†	2655.9	2464.6	496.79 ug/L	496.79 ppb	00:55:15
3	Ti 334.940†	319679.0	299969.7	497.84 ug/L	497.84 ppb	00:54:49
3	Tl 190.801†	1562.7	1491.7	504.16 ug/L	504.16 ppb	00:55:15
3	U 409.014†	12922.2	15128.8	548.96 ug/L	548.96 ppb	00:54:55
3	V 292.402†	64190.0	61628.0	511.45 ug/L	511.45 ppb	00:54:55
3	Zn 213.857†	51950.5	47863.3	497.69 ug/L	497.69 ppb	00:54:55
3	SiO2†	79423.9	73667.3	5237.5 ug/L	5237.5 ppb	00:55:30

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	808645.4	107.63 %	0.492			0.46%
Sc Radial	3922.5	111 %	0.7			0.62%
Y 371.029	634910.5	107.89 %	0.413			0.38%
Y RADIAL	4441.2	111.1 %	0.64			0.58%
Ag 328.068†	96731.5	504.25 ug/L	7.094	504.25 ppb	7.094	1.41%
QC value within limits for Ag 328.068 Recovery = 100.85%						
Al 396.153Radial†	5103.7	4938.1 ug/L	25.97	4938.1 ppb	25.97	0.53%
QC value within limits for Al 396.153Radial Recovery = 98.76%						
As 188.979†	1067.2	498.78 ug/L	3.724	498.78 ppb	3.724	0.75%
QC value within limits for As 188.979 Recovery = 99.76%						
B 249.677†	19672.2	486.21 ug/L	10.129	486.21 ppb	10.129	2.08%
QC value within limits for B 249.677 Recovery = 97.24%						
Ba 233.527†	57689.8	492.30 ug/L	7.559	492.30 ppb	7.559	1.54%
QC value within limits for Ba 233.527 Recovery = 98.46%						
Be 313.107†	1252565.1	492.61 ug/L	0.793	492.61 ppb	0.793	0.16%
QC value within limits for Be 313.107 Recovery = 98.52%						
Ca 317.933Radial†	2289.3	5001.0 ug/L	31.72	5001.0 ppb	31.72	0.63%

QC value within limits for Ca 317.933Radial Recovery = 100.02%							
Cd 226.502†	37216.8	491.92 ug/L	6.907	491.92 ppb	6.907	1.40%	
QC value within limits for Cd 226.502 Recovery = 98.38%							
Co 228.616†	22395.6	490.79 ug/L	6.937	490.79 ppb	6.937	1.41%	
QC value within limits for Co 228.616 Recovery = 98.16%							
Cr 267.716†	37475.0	490.75 ug/L	6.068	490.75 ppb	6.068	1.24%	
QC value within limits for Cr 267.716 Recovery = 98.15%							
Cu 324.752†	158467.1	493.63 ug/L	8.575	493.63 ppb	8.575	1.74%	
QC value within limits for Cu 324.752 Recovery = 98.73%							
Fe 238.204 Radial†	343.4	4982.5 ug/L	45.96	4982.5 ppb	45.96	0.92%	
QC value within limits for Fe 238.204 Radial Recovery = 99.65%							
K 766.490 Radial†	25450.6	4776.5 ug/L	46.93	4776.5 ppb	46.93	0.98%	
QC value within limits for K 766.490 Radial Recovery = 95.53%							
Mg 279.077 IEC†	98.7	5018.1 ug/L	46.89	5018.1 ppb	46.89	0.93%	
QC value within limits for Mg 279.077 IEC Recovery = 100.36%							
Mn 257.610†	413945.1	490.12 ug/L	0.770	490.12 ppb	0.770	0.16%	
QC value within limits for Mn 257.610 Recovery = 98.02%							
Mo 202.031†	6014.6	492.60 ug/L	3.064	492.60 ppb	3.064	0.62%	
QC value within limits for Mo 202.031 Recovery = 98.52%							
Na 589.592 Radial†	25187.0	8643.9 ug/L	37.15	8643.9 ppb	37.15	0.43%	
QC value less than the lower limit for Na 589.592 Radial Recovery = 86.44%							
Ni 231.604†	17258.2	490.71 ug/L	7.356	490.71 ppb	7.356	1.50%	
QC value within limits for Ni 231.604 Recovery = 98.14%							
P 214.914†	3953.1	2319.3 ug/L	10.10	2319.3 ppb	10.10	0.44%	
QC value within limits for P 214.914 Recovery = 92.77%							
Pb 220.353†	3488.7	486.68 ug/L	2.077	486.68 ppb	2.077	0.43%	
QC value within limits for Pb 220.353 Recovery = 97.34%							
S 181.975 Axial†	683.7	982.35 ug/L	13.226	982.35 ppb	13.226	1.35%	
QC value within limits for S 181.975 Axial Recovery = 98.24%							
Sb 206.836†	1339.7	508.78 ug/L	7.604	508.78 ppb	7.604	1.49%	
QC value within limits for Sb 206.836 Recovery = 101.76%							
Se 196.026†	726.5	511.53 ug/L	4.515	511.53 ppb	4.515	0.88%	
QC value within limits for Se 196.026 Recovery = 102.31%							
Si 251.611†	74303.5	2481.9 ug/L	40.37	2481.9 ppb	40.37	1.63%	
QC value within limits for Si 251.611 Recovery = 99.28%							
Sn 189.927†	2449.6	493.77 ug/L	3.683	493.77 ppb	3.683	0.75%	
QC value within limits for Sn 189.927 Recovery = 98.75%							
Sr 421.552†	64674.7	484.93 ug/L	3.527	484.93 ppb	3.527	0.73%	
QC value within limits for Sr 421.552 Recovery = 96.99%							
Ti 334.940†	300013.9	497.92 ug/L	0.180	497.92 ppb	0.180	0.04%	
QC value within limits for Ti 334.940 Recovery = 99.58%							
Tl 190.801†	1484.7	501.88 ug/L	2.065	501.88 ppb	2.065	0.41%	
QC value within limits for Tl 190.801 Recovery = 100.38%							
U 409.014†	14981.1	543.60 ug/L	6.513	543.60 ppb	6.513	1.20%	
QC value within limits for U 409.014 Recovery = 108.72%							
V 292.402†	60678.5	503.62 ug/L	7.239	503.62 ppb	7.239	1.44%	
QC value within limits for V 292.402 Recovery = 100.72%							
Zn 213.857†	47079.6	489.53 ug/L	7.485	489.53 ppb	7.485	1.53%	
QC value within limits for Zn 213.857 Recovery = 97.91%							
SiO2†	73957.4	5258.3 ug/L	18.21	5258.3 ppb	18.21	0.35%	
QC value within limits for SiO2 Recovery = 98.33%							
QC Failed. Continue with analysis.							

Sequence No.: 75

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 2/20/2010 00:57:40

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	3940.4	3940.4	111 %		00:59:52
1	Y RADIAL	4441.8	4441.8	111.1 %		00:59:32
1	Al 396.153Radial†	-107.8	16.4	15.960 ug/L	15.960 ppb	00:59:52
1	Ca 317.933Radial†	37.6	2.5	5.4426 ug/L	5.4426 ppb	00:59:52
1	Fe 238.204 Radial†	9.5	-0.6	-8.7852 ug/L	-8.7852 ppb	00:59:52
1	K 766.490 Radial†	2863.2	-574.2	-107.36 ug/L	-107.36 ppb	00:59:32
1	Mg 279.077 IEC†	3.2	0.2	10.699 ug/L	10.699 ppb	00:59:52
1	Na 589.592 Radial†	10.8	-4017.6	-1378.8 ug/L	-1378.8 ppb	00:59:32
1	Sr 421.552†	374.1	-1105.6	-8.2907 ug/L	-8.2907 ppb	00:59:32
1	Sc 361.383	794304.1	794304.1	105.72 %		01:00:49
1	Y 371.029	631341.2	631341.2	107.29 %		01:00:49
1	Ag 328.068†	257.3	-83.0	-0.4368 ug/L	-0.4368 ppb	01:00:49
1	As 188.979†	-29.0	-6.7	-3.1172 ug/L	-3.1172 ppb	01:01:09
1	B 249.677†	-244.1	211.0	5.2399 ug/L	5.2399 ppb	01:01:09
1	Ba 233.527†	54.0	-93.9	-0.7963 ug/L	-0.7963 ppb	01:01:09
1	Be 313.107†	-4535.6	65.6	0.0267 ug/L	0.0267 ppb	01:00:49
1	Cd 226.502†	-187.4	17.9	0.2400 ug/L	0.2400 ppb	01:01:09
1	Co 228.616†	-56.9	16.5	0.3611 ug/L	0.3611 ppb	01:01:09
1	Cr 267.716†	93.7	10.8	0.1373 ug/L	0.1373 ppb	01:01:09
1	Cu 324.752†	5908.5	-863.4	-2.6973 ug/L	-2.6973 ppb	01:00:49
1	Mn 257.610†	450.5	-45.2	-0.0548 ug/L	-0.0548 ppb	01:01:09
1	Mo 202.031†	15.9	5.1	0.4180 ug/L	0.4180 ppb	01:01:09
1	Ni 231.604†	84.6	0.8	0.0239 ug/L	0.0239 ppb	01:01:09
1	P 214.914†	204.6	-17.6	-10.215 ug/L	-10.215 ppb	01:01:09
1	Pb 220.353†	-56.1	-73.9	-10.258 ug/L	-10.258 ppb	01:01:09
1	S 181.975 Axial†	40.9	1.3	1.8207 ug/L	1.8207 ppb	01:01:09
1	Sb 206.836†	36.1	-2.2	-0.8165 ug/L	-0.8165 ppb	01:01:09
1	Se 196.026†	-25.6	5.1	3.4146 ug/L	3.4146 ppb	01:01:09
1	Si 251.611†	530.6	5.4	0.1743 ug/L	0.1743 ppb	01:01:09
1	Sn 189.927†	13.1	-3.0	-0.5929 ug/L	-0.5929 ppb	01:01:09
1	Ti 334.940†	-1290.4	259.3	0.4247 ug/L	0.4247 ppb	01:00:49
1	Tl 190.801†	-23.5	10.3	3.4545 ug/L	3.4545 ppb	01:01:09
1	U 409.014†	-2866.9	351.3	12.786 ug/L	12.786 ppb	01:00:49
1	V 292.402†	-1589.2	189.5	1.5832 ug/L	1.5832 ppb	01:00:49
1	Zn 213.857†	621.6	-55.8	-0.5807 ug/L	-0.5807 ppb	01:01:09
1	SiO2†	552.4	30.3	2.1499 ug/L	2.1499 ppb	01:02:05
2	Sc Radial	3953.9	3953.9	112 %		01:00:17
2	Y RADIAL	4501.1	4501.1	112.6 %		00:59:57
2	Al 396.153Radial†	-110.8	14.1	13.677 ug/L	13.677 ppb	01:00:17
2	Ca 317.933Radial†	32.6	-2.1	-4.6232 ug/L	-4.6232 ppb	01:00:17
2	Fe 238.204 Radial†	7.8	-2.2	-31.438 ug/L	-31.438 ppb	01:00:17
2	K 766.490 Radial†	2874.0	-573.3	-107.20 ug/L	-107.20 ppb	00:59:57
2	Mg 279.077 IEC†	1.0	-1.8	-90.217 ug/L	-90.217 ppb	01:00:17
2	Na 589.592 Radial†	33.2	-3997.6	-1371.9 ug/L	-1371.9 ppb	00:59:57
2	Sr 421.552†	241.6	-1225.3	-9.1877 ug/L	-9.1877 ppb	00:59:57
2	Sc 361.383	796509.9	796509.9	106.01 %		01:01:14
2	Y 371.029	634263.4	634263.4	107.78 %		01:01:14
2	Ag 328.068†	241.3	-98.7	-0.5289 ug/L	-0.5289 ppb	01:01:14
2	As 188.979†	-9.7	11.5	5.3297 ug/L	5.3297 ppb	01:01:34
2	B 249.677†	-297.4	161.5	4.0124 ug/L	4.0124 ppb	01:01:34
2	Ba 233.527†	74.8	-74.5	-0.6324 ug/L	-0.6324 ppb	01:01:34
2	Be 313.107†	-4480.5	129.4	0.0516 ug/L	0.0516 ppb	01:01:14
2	Cd 226.502†	-182.1	23.4	0.3154 ug/L	0.3154 ppb	01:01:34
2	Co 228.616†	-49.9	23.3	0.5098 ug/L	0.5098 ppb	01:01:34
2	Cr 267.716†	76.5	-5.6	-0.0808 ug/L	-0.0808 ppb	01:01:34
2	Cu 324.752†	5938.8	-850.3	-2.6594 ug/L	-2.6594 ppb	01:01:14
2	Mn 257.610†	451.9	-45.0	-0.0527 ug/L	-0.0527 ppb	01:01:34
2	Mo 202.031†	15.6	4.7	0.3861 ug/L	0.3861 ppb	01:01:34
2	Ni 231.604†	99.0	14.3	0.4058 ug/L	0.4058 ppb	01:01:34

2	P 214.914†	224.4	0.6	0.9306 ug/L	0.9306 ppb	01:01:34
2	Pb 220.353†	-52.8	-70.7	-9.8162 ug/L	-9.8162 ppb	01:01:34
2	S 181.975 Axial†	43.2	3.3	4.7752 ug/L	4.7752 ppb	01:01:34
2	Sb 206.836†	47.2	8.2	3.0217 ug/L	3.0217 ppb	01:01:34
2	Se 196.026†	-20.6	9.9	6.5799 ug/L	6.5799 ppb	01:01:34
2	Si 251.611†	557.5	29.3	0.9775 ug/L	0.9775 ppb	01:01:34
2	Sn 189.927†	19.6	3.1	0.6284 ug/L	0.6284 ppb	01:01:34
2	Ti 334.940†	-1342.3	213.8	0.3549 ug/L	0.3549 ppb	01:01:14
2	Tl 190.801†	-32.0	2.3	0.7856 ug/L	0.7856 ppb	01:01:34
2	U 409.014†	-2786.5	434.7	15.825 ug/L	15.825 ppb	01:01:14
2	V 292.402†	-1625.1	159.8	1.3469 ug/L	1.3469 ppb	01:01:14
2	Zn 213.857†	633.0	-46.7	-0.4846 ug/L	-0.4846 ppb	01:01:34
2	SiO2†	556.2	32.4	2.3003 ug/L	2.3003 ppb	01:02:10
3	Sc Radial	3921.0	3921.0	111 %		01:00:42
3	Y RADIAL	4506.3	4506.3	112.7 %		01:00:22
3	Al 396.153Radial†	-116.8	7.8	7.6164 ug/L	7.6164 ppb	01:00:42
3	Ca 317.933Radial†	34.1	-0.5	-1.0344 ug/L	-1.0344 ppb	01:00:42
3	Fe 238.204 Radial†	9.2	-0.9	-12.472 ug/L	-12.472 ppb	01:00:42
3	K 766.490 Radial†	2822.7	-598.1	-111.86 ug/L	-111.86 ppb	01:00:22
3	Mg 279.077 IEC†	1.4	-1.3	-68.478 ug/L	-68.478 ppb	01:00:42
3	Na 589.592 Radial†	148.5	-3893.4	-1336.2 ug/L	-1336.2 ppb	01:00:22
3	Sr 421.552†	604.0	-896.6	-6.7233 ug/L	-6.7233 ppb	01:00:22
3	Sc 361.383	796303.9	796303.9	105.99 %		01:01:39
3	Y 371.029	633570.9	633570.9	107.67 %		01:01:39
3	Ag 328.068†	329.4	-15.5	-0.0927 ug/L	-0.0927 ppb	01:01:39
3	As 188.979†	-22.5	-0.6	-0.2572 ug/L	-0.2572 ppb	01:01:59
3	B 249.677†	-296.7	162.0	4.0247 ug/L	4.0247 ppb	01:01:59
3	Ba 233.527†	61.9	-86.7	-0.7340 ug/L	-0.7340 ppb	01:01:59
3	Be 313.107†	-4641.4	-23.4	-0.0083 ug/L	-0.0083 ppb	01:01:39
3	Cd 226.502†	-189.7	16.2	0.2191 ug/L	0.2191 ppb	01:01:59
3	Co 228.616†	-69.0	5.2	0.1138 ug/L	0.1138 ppb	01:01:59
3	Cr 267.716†	63.0	-18.4	-0.2465 ug/L	-0.2465 ppb	01:01:59
3	Cu 324.752†	5988.7	-801.8	-2.5091 ug/L	-2.5091 ppb	01:01:39
3	Mn 257.610†	451.5	-45.3	-0.0521 ug/L	-0.0521 ppb	01:01:59
3	Mo 202.031†	12.8	2.1	0.1741 ug/L	0.1741 ppb	01:01:59
3	Ni 231.604†	96.8	12.2	0.3458 ug/L	0.3458 ppb	01:01:59
3	P 214.914†	204.9	-17.8	-10.387 ug/L	-10.387 ppb	01:01:59
3	Pb 220.353†	-36.6	-55.4	-7.6872 ug/L	-7.6872 ppb	01:01:59
3	S 181.975 Axial†	46.1	6.1	8.7213 ug/L	8.7213 ppb	01:01:59
3	Sb 206.836†	36.4	-2.0	-0.7399 ug/L	-0.7399 ppb	01:01:59
3	Se 196.026†	-25.7	5.0	3.3761 ug/L	3.3761 ppb	01:01:59
3	Si 251.611†	541.8	14.7	0.4889 ug/L	0.4889 ppb	01:01:59
3	Sn 189.927†	12.8	-3.3	-0.6541 ug/L	-0.6541 ppb	01:01:59
3	Ti 334.940†	-1311.6	242.4	0.3995 ug/L	0.3995 ppb	01:01:39
3	Tl 190.801†	-28.2	5.9	1.9919 ug/L	1.9919 ppb	01:01:59
3	U 409.014†	-2683.7	531.0	19.329 ug/L	19.329 ppb	01:01:39
3	V 292.402†	-1560.1	220.8	1.8476 ug/L	1.8476 ppb	01:01:39
3	Zn 213.857†	652.8	-27.9	-0.2894 ug/L	-0.2894 ppb	01:01:59
3	SiO2†	549.5	26.2	1.8650 ug/L	1.8650 ppb	01:02:15

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	795705.9	105.91 %		0.162			0.15%
Sc Radial	3938.5	111 %		0.5			0.42%
Y 371.029	633058.5	107.58 %		0.259			0.24%
Y RADIAL	4483.0	112.1 %		0.90			0.80%
Ag 328.068†	-65.7	-0.3528 ug/L		0.22989	-0.3528 ppb	0.22989	65.17%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	12.8	12.418 ug/L		4.3119	12.418 ppb	4.3119	34.72%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	1.4	0.6518 ug/L		4.29617	0.6518 ppb	4.29617	659.15%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	178.2	4.4257 ug/L		0.70516	4.4257 ppb	0.70516	15.93%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	-85.0	-0.7209 ug/L		0.08275	-0.7209 ppb	0.08275	11.48%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	57.2	0.0233 ug/L		0.03007	0.0233 ppb	0.03007	128.80%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	-0.0	-0.0717 ug/L		5.10150	-0.0717 ppb	5.10150	>999.9%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	19.1	0.2582 ug/L	0.05066	0.2582 ppb	0.05066	19.62%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	15.0	0.3283 ug/L	0.20005	0.3283 ppb	0.20005	60.94%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-4.4	-0.0633 ug/L	0.19252	-0.0633 ppb	0.19252	304.08%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-838.5	-2.6219 ug/L	0.09951	-2.6219 ppb	0.09951	3.80%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-1.2	-17.565 ug/L	12.1546	-17.565 ppb	12.1546	69.20%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-581.9	-108.81 ug/L	2.646	-108.81 ppb	2.646	2.43%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-1.0	-49.332 ug/L	53.1122	-49.332 ppb	53.1122	107.66%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-45.2	-0.0532 ug/L	0.00145	-0.0532 ppb	0.00145	2.73%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	4.0	0.3261 ug/L	0.13258	0.3261 ppb	0.13258	40.66%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-3969.6	-1362.3 ug/L	22.89	-1362.3 ppb	22.89	1.68%	
QC value less than the lower limit for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	9.1	0.2585 ug/L	0.20535	0.2585 ppb	0.20535	79.44%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-11.6	-6.5570 ug/L	6.48502	-6.5570 ppb	6.48502	98.90%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-66.7	-9.2539 ug/L	1.37472	-9.2539 ppb	1.37472	14.86%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	3.6	5.1057 ug/L	3.46214	5.1057 ppb	3.46214	67.81%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	1.3	0.4884 ug/L	2.19422	0.4884 ppb	2.19422	449.24%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	6.7	4.4569 ug/L	1.83868	4.4569 ppb	1.83868	41.25%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	16.5	0.5469 ug/L	0.40474	0.5469 ppb	0.40474	74.01%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-1.0	-0.2062 ug/L	0.72344	-0.2062 ppb	0.72344	350.89%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-1075.8	-8.0673 ug/L	1.24730	-8.0673 ppb	1.24730	15.46%	
QC value less than the lower limit for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	238.5	0.3930 ug/L	0.03539	0.3930 ppb	0.03539	9.00%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	6.2	2.0773 ug/L	1.33647	2.0773 ppb	1.33647	64.34%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	439.0	15.980 ug/L	3.2742	15.980 ppb	3.2742	20.49%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	190.0	1.5925 ug/L	0.25048	1.5925 ppb	0.25048	15.73%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-43.5	-0.4516 ug/L	0.14846	-0.4516 ppb	0.14846	32.88%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	29.7	2.1051 ug/L	0.22108	2.1051 ppb	0.22108	10.50%	
QC value within limits for SiO2 Recovery = Not calculated							
QC Failed. Continue with analysis.							

Sequence No.: 81

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 2/20/2010 01:38:37

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	3925.4	3925.4	111 %		01:40:49
1	Y RADIAL	4386.1	4386.1	109.7 %		01:40:29
1	Al 396.153Radial†	5468.9	5040.8	4877.0 ug/L	4877.0 ppb	01:40:29
1	Ca 317.933Radial†	2558.6	2274.1	4967.8 ug/L	4967.8 ppb	01:40:49
1	Fe 238.204 Radial†	383.7	336.6	4883.5 ug/L	4883.5 ppb	01:40:49
1	K 766.490 Radial†	31489.6	25228.5	4734.9 ug/L	4734.9 ppb	01:40:29
1	Mg 279.077 IEC†	111.8	98.1	4983.8 ug/L	4983.8 ppb	01:40:49
1	Na 589.592 Radial†	31090.3	23985.5	8231.6 ug/L	8231.6 ppb	01:40:29
1	Sr 421.552†	71623.8	63092.8	473.07 ug/L	473.07 ppb	01:40:29
1	Sc 361.383	810022.9	810022.9	107.81 %		01:41:46
1	Y 371.029	635882.4	635882.4	108.06 %		01:41:46
1	Ag 328.068†	104327.7	96441.6	502.71 ug/L	502.71 ppb	01:41:52
1	As 188.979†	1130.6	1069.3	499.62 ug/L	499.62 ppb	01:42:12
1	B 249.677†	20670.3	19614.4	484.78 ug/L	484.78 ppb	01:41:52
1	Ba 233.527†	62342.9	57680.4	492.21 ug/L	492.21 ppb	01:41:52
1	Be 313.107†	1340337.9	1247570.9	490.63 ug/L	490.63 ppb	01:41:46
1	Cd 226.502†	40020.9	37316.1	493.24 ug/L	493.24 ppb	01:41:52
1	Co 228.616†	24106.4	22430.0	491.57 ug/L	491.57 ppb	01:41:52
1	Cr 267.716†	40439.7	37431.6	490.17 ug/L	490.17 ppb	01:41:52
1	Cu 324.752†	177200.5	157908.2	491.89 ug/L	491.89 ppb	01:41:52
1	Mn 257.610†	446040.4	413248.4	489.29 ug/L	489.29 ppb	01:41:46
1	Mo 202.031†	6477.1	5997.8	491.22 ug/L	491.22 ppb	01:42:12
1	Ni 231.604†	18749.5	17311.7	492.24 ug/L	492.24 ppb	01:41:52
1	P 214.914†	4478.7	3943.1	2313.5 ug/L	2313.5 ppb	01:42:12
1	Pb 220.353†	3769.5	3475.5	484.83 ug/L	484.83 ppb	01:42:12
1	S 181.975 Axial†	762.5	669.8	962.42 ug/L	962.42 ppb	01:42:12
1	Sb 206.836†	1470.8	1327.9	504.49 ug/L	504.49 ppb	01:42:12
1	Se 196.026†	747.0	722.2	508.24 ug/L	508.24 ppb	01:42:12
1	Si 251.611†	80529.9	74198.1	2478.4 ug/L	2478.4 ppb	01:41:52
1	Sn 189.927†	2663.7	2455.3	494.93 ug/L	494.93 ppb	01:42:12
1	Ti 334.940†	313947.6	292678.4	485.74 ug/L	485.74 ppb	01:41:52
1	Tl 190.801†	1560.1	1479.6	500.05 ug/L	500.05 ppb	01:42:12
1	U 409.014†	12628.0	14776.1	536.15 ug/L	536.15 ppb	01:41:52
1	V 292.402†	63433.5	60529.7	502.39 ug/L	502.39 ppb	01:41:52
1	Zn 213.857†	51412.1	47042.9	489.15 ug/L	489.15 ppb	01:41:52
1	SiO2†	80521.1	74194.2	5275.2 ug/L	5275.2 ppb	01:43:19
2	Sc Radial	3899.1	3899.1	110 %		01:41:14
2	Y RADIAL	4389.3	4389.3	109.8 %		01:40:54
2	Al 396.153Radial†	5530.7	5130.2	4963.8 ug/L	4963.8 ppb	01:40:54
2	Ca 317.933Radial†	2546.2	2278.4	4977.2 ug/L	4977.2 ppb	01:41:14
2	Fe 238.204 Radial†	384.0	339.2	4921.6 ug/L	4921.6 ppb	01:41:14
2	K 766.490 Radial†	31548.3	25473.4	4780.9 ug/L	4780.9 ppb	01:40:54
2	Mg 279.077 IEC†	112.4	99.3	5044.2 ug/L	5044.2 ppb	01:41:14
2	Na 589.592 Radial†	31330.1	24392.3	8371.2 ug/L	8371.2 ppb	01:40:54
2	Sr 421.552†	71773.8	63664.9	477.36 ug/L	477.36 ppb	01:40:54
2	Sc 361.383	809317.1	809317.1	107.72 %		01:42:17
2	Y 371.029	635798.4	635798.4	108.04 %		01:42:17
2	Ag 328.068†	103452.3	95713.4	498.94 ug/L	498.94 ppb	01:42:23
2	As 188.979†	1116.8	1057.5	494.12 ug/L	494.12 ppb	01:42:43
2	B 249.677†	20481.1	19455.5	480.84 ug/L	480.84 ppb	01:42:23
2	Ba 233.527†	61858.9	57281.5	488.81 ug/L	488.81 ppb	01:42:23
2	Be 313.107†	1346092.6	1253997.6	493.14 ug/L	493.14 ppb	01:42:17
2	Cd 226.502†	39674.2	37026.6	489.41 ug/L	489.41 ppb	01:42:23
2	Co 228.616†	23914.6	22271.3	488.10 ug/L	488.10 ppb	01:42:23
2	Cr 267.716†	40193.4	37235.6	487.61 ug/L	487.61 ppb	01:42:23
2	Cu 324.752†	175638.2	156601.2	487.82 ug/L	487.82 ppb	01:42:23
2	Mn 257.610†	446727.4	414247.0	490.47 ug/L	490.47 ppb	01:42:17
2	Mo 202.031†	6489.2	6014.3	492.57 ug/L	492.57 ppb	01:42:43
2	Ni 231.604†	18571.5	17161.7	487.97 ug/L	487.97 ppb	01:42:23

2	P 214.914†	4475.5	3943.7	2314.7 ug/L	2314.7 ppb	01:42:43
2	Pb 220.353†	3762.0	3471.5	484.31 ug/L	484.31 ppb	01:42:43
2	S 181.975 Axial†	768.1	675.7	970.83 ug/L	970.83 ppb	01:42:43
2	Sb 206.836†	1468.7	1327.1	504.17 ug/L	504.17 ppb	01:42:43
2	Se 196.026†	764.5	739.0	519.77 ug/L	519.77 ppb	01:42:43
2	Si 251.611†	79726.4	73517.3	2455.6 ug/L	2455.6 ppb	01:42:23
2	Sn 189.927†	2642.6	2437.9	491.42 ug/L	491.42 ppb	01:42:43
2	Ti 334.940†	311332.9	290505.1	482.13 ug/L	482.13 ppb	01:42:23
2	Tl 190.801†	1564.2	1484.7	501.76 ug/L	501.76 ppb	01:42:43
2	U 409.014†	12863.1	15004.6	544.46 ug/L	544.46 ppb	01:42:23
2	V 292.402†	63037.3	60213.3	499.83 ug/L	499.83 ppb	01:42:23
2	Zn 213.857†	51083.5	46779.4	486.41 ug/L	486.41 ppb	01:42:23
2	SiO2†	79519.4	73329.4	5213.6 ug/L	5213.6 ppb	01:43:24
3	Sc Radial	3863.3	3863.3	109 %		01:41:39
3	Y RADIAL	4427.2	4427.2	110.7 %		01:41:19
3	Al 396.153Radial†	5551.8	5196.0	5027.6 ug/L	5027.6 ppb	01:41:19
3	Ca 317.933Radial†	2533.4	2288.1	4998.4 ug/L	4998.4 ppb	01:41:39
3	Fe 238.204 Radial†	376.7	335.7	4871.2 ug/L	4871.2 ppb	01:41:39
3	K 766.490 Radial†	31569.0	25757.5	4834.2 ug/L	4834.2 ppb	01:41:19
3	Mg 279.077 IEC†	112.1	100.0	5081.0 ug/L	5081.0 ppb	01:41:39
3	Na 589.592 Radial†	31302.0	24629.9	8452.7 ug/L	8452.7 ppb	01:41:19
3	Sr 421.552†	72556.2	64984.2	487.25 ug/L	487.25 ppb	01:41:19
3	Sc 361.383	805428.8	805428.8	107.20 %		01:42:48
3	Y 371.029	632831.0	632831.0	107.54 %		01:42:48
3	Ag 328.068†	104456.5	97113.7	506.20 ug/L	506.20 ppb	01:42:54
3	As 188.979†	1129.7	1074.5	502.06 ug/L	502.06 ppb	01:43:14
3	B 249.677†	20765.4	19812.6	489.70 ug/L	489.70 ppb	01:42:54
3	Ba 233.527†	62462.5	58121.8	495.98 ug/L	495.98 ppb	01:42:54
3	Be 313.107†	1341675.4	1255909.9	493.91 ug/L	493.91 ppb	01:42:48
3	Cd 226.502†	40061.2	37565.4	496.54 ug/L	496.54 ppb	01:42:54
3	Co 228.616†	24102.9	22554.2	494.30 ug/L	494.30 ppb	01:42:54
3	Cr 267.716†	40476.1	37679.4	493.41 ug/L	493.41 ppb	01:42:54
3	Cu 324.752†	176925.7	158589.3	494.01 ug/L	494.01 ppb	01:42:54
3	Mn 257.610†	446572.6	416104.7	492.66 ug/L	492.66 ppb	01:42:48
3	Mo 202.031†	6495.4	6049.1	495.41 ug/L	495.41 ppb	01:43:14
3	Ni 231.604†	18757.5	17418.4	495.27 ug/L	495.27 ppb	01:42:54
3	P 214.914†	4508.2	3994.2	2344.5 ug/L	2344.5 ppb	01:43:14
3	Pb 220.353†	3791.3	3515.8	490.48 ug/L	490.48 ppb	01:43:14
3	S 181.975 Axial†	766.1	677.3	973.15 ug/L	973.15 ppb	01:43:14
3	Sb 206.836†	1473.3	1338.0	508.33 ug/L	508.33 ppb	01:43:14
3	Se 196.026†	761.0	739.2	519.74 ug/L	519.74 ppb	01:43:14
3	Si 251.611†	80497.6	74594.0	2491.6 ug/L	2491.6 ppb	01:42:54
3	Sn 189.927†	2672.5	2477.6	499.43 ug/L	499.43 ppb	01:43:14
3	Ti 334.940†	314085.5	294468.1	488.71 ug/L	488.71 ppb	01:42:54
3	Tl 190.801†	1570.1	1497.2	505.98 ug/L	505.98 ppb	01:43:14
3	U 409.014†	12704.6	14914.3	541.17 ug/L	541.17 ppb	01:42:54
3	V 292.402†	63547.1	60971.3	506.08 ug/L	506.08 ppb	01:42:54
3	Zn 213.857†	51575.0	47466.9	493.58 ug/L	493.58 ppb	01:42:54
3	SiO2†	79443.7	73615.2	5233.8 ug/L	5233.8 ppb	01:43:29

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	808256.3	107.58 %	0.329			0.31%
Sc Radial	3895.9	110 %	0.9			0.80%
Y 371.029	634837.2	107.88 %	0.295			0.27%
Y RADIAL	4400.8	110.1 %	0.57			0.52%
Ag 328.068†	96422.9	502.62 ug/L	3.635	502.62 ppb	3.635	0.72%
QC value within limits for Ag 328.068 Recovery = 100.52%						
Al 396.153Radial†	5122.3	4956.1 ug/L	75.61	4956.1 ppb	75.61	1.53%
QC value within limits for Al 396.153Radial Recovery = 99.12%						
As 188.979†	1067.1	498.60 ug/L	4.068	498.60 ppb	4.068	0.82%
QC value within limits for As 188.979 Recovery = 99.72%						
B 249.677†	19627.5	485.11 ug/L	4.436	485.11 ppb	4.436	0.91%
QC value within limits for B 249.677 Recovery = 97.02%						
Ba 233.527†	57694.6	492.34 ug/L	3.584	492.34 ppb	3.584	0.73%
QC value within limits for Ba 233.527 Recovery = 98.47%						
Be 313.107†	1252492.8	492.56 ug/L	1.715	492.56 ppb	1.715	0.35%
QC value within limits for Be 313.107 Recovery = 98.51%						
Ca 317.933Radial†	2280.2	4981.1 ug/L	15.64	4981.1 ppb	15.64	0.31%

QC value within limits for Ca 317.933 Radial Recovery = 99.62%							
Cd	226.502†	37302.7	493.07 ug/L	3.570	493.07 ppb	3.570	0.72%
QC value within limits for Cd 226.502 Recovery = 98.61%							
Co	228.616†	22418.5	491.32 ug/L	3.104	491.32 ppb	3.104	0.63%
QC value within limits for Co 228.616 Recovery = 98.26%							
Cr	267.716†	37448.9	490.40 ug/L	2.909	490.40 ppb	2.909	0.59%
QC value within limits for Cr 267.716 Recovery = 98.08%							
Cu	324.752†	157699.5	491.24 ug/L	3.147	491.24 ppb	3.147	0.64%
QC value within limits for Cu 324.752 Recovery = 98.25%							
Fe	238.204 Radial†	337.2	4892.1 ug/L	26.27	4892.1 ppb	26.27	0.54%
QC value within limits for Fe 238.204 Radial Recovery = 97.84%							
K	766.490 Radial†	25486.5	4783.3 ug/L	49.69	4783.3 ppb	49.69	1.04%
QC value within limits for K 766.490 Radial Recovery = 95.67%							
Mg	279.077 IEC†	99.1	5036.3 ug/L	49.09	5036.3 ppb	49.09	0.97%
QC value within limits for Mg 279.077 IEC Recovery = 100.73%							
Mn	257.610†	414533.4	490.81 ug/L	1.712	490.81 ppb	1.712	0.35%
QC value within limits for Mn 257.610 Recovery = 98.16%							
Mo	202.031†	6020.4	493.06 ug/L	2.141	493.06 ppb	2.141	0.43%
QC value within limits for Mo 202.031 Recovery = 98.61%							
Na	589.592 Radial†	24335.9	8351.8 ug/L	111.83	8351.8 ppb	111.83	1.34%
QC value less than the lower limit for Na 589.592 Radial Recovery = 83.52%							
Ni	231.604†	17297.3	491.83 ug/L	3.667	491.83 ppb	3.667	0.75%
QC value within limits for Ni 231.604 Recovery = 98.37%							
P	214.914†	3960.3	2324.2 ug/L	17.53	2324.2 ppb	17.53	0.75%
QC value within limits for P 214.914 Recovery = 92.97%							
Pb	220.353†	3487.6	486.54 ug/L	3.420	486.54 ppb	3.420	0.70%
QC value within limits for Pb 220.353 Recovery = 97.31%							
S	181.975 Axial†	674.3	968.80 ug/L	5.642	968.80 ppb	5.642	0.58%
QC value within limits for S 181.975 Axial Recovery = 96.88%							
Sb	206.836†	1331.0	505.66 ug/L	2.317	505.66 ppb	2.317	0.46%
QC value within limits for Sb 206.836 Recovery = 101.13%							
Se	196.026†	733.5	515.92 ug/L	6.650	515.92 ppb	6.650	1.29%
QC value within limits for Se 196.026 Recovery = 103.18%							
Si	251.611†	74103.1	2475.2 ug/L	18.22	2475.2 ppb	18.22	0.74%
QC value within limits for Si 251.611 Recovery = 99.01%							
Sn	189.927†	2456.9	495.26 ug/L	4.014	495.26 ppb	4.014	0.81%
QC value within limits for Sn 189.927 Recovery = 99.05%							
Sr	421.552†	63914.0	479.23 ug/L	7.273	479.23 ppb	7.273	1.52%
QC value within limits for Sr 421.552 Recovery = 95.85%							
Ti	334.940†	292550.5	485.53 ug/L	3.295	485.53 ppb	3.295	0.68%
QC value within limits for Ti 334.940 Recovery = 97.11%							
Tl	190.801†	1487.2	502.60 ug/L	3.053	502.60 ppb	3.053	0.61%
QC value within limits for Tl 190.801 Recovery = 100.52%							
U	409.014†	14898.3	540.59 ug/L	4.189	540.59 ppb	4.189	0.77%
QC value within limits for U 409.014 Recovery = 108.12%							
V	292.402†	60571.4	502.77 ug/L	3.137	502.77 ppb	3.137	0.62%
QC value within limits for V 292.402 Recovery = 100.55%							
Zn	213.857†	47096.4	489.71 ug/L	3.617	489.71 ppb	3.617	0.74%
QC value within limits for Zn 213.857 Recovery = 97.94%							
SiO2†		73712.9	5240.9 ug/L	31.43	5240.9 ppb	31.43	0.60%
QC value within limits for SiO2 Recovery = 98.01%							
QC Failed. Continue with analysis.							



Sequence No.: 82

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 2/20/2010 01:45:39

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	3939.6	3939.6	111 %		01:47:51
1	Y RADIAL	4476.9	4476.9	112.0 %		01:47:31
1	Al 396.153Radial†	-105.4	18.6	18.025 ug/L	18.025 ppb	01:47:51
1	Ca 317.933Radial†	31.5	-3.0	-6.4510 ug/L	-6.4510 ppb	01:47:51
1	Fe 238.204 Radial†	10.9	0.7	9.6960 ug/L	9.6960 ppb	01:47:51
1	K 766.490 Radial†	2747.4	-677.7	-126.78 ug/L	-126.78 ppb	01:47:31
1	Mg 279.077 IEC†	-0.1	-2.7	-138.66 ug/L	-138.66 ppb	01:47:51
1	Na 589.592 Radial†	-110.0	-4126.1	-1416.0 ug/L	-1416.0 ppb	01:47:31
1	Sr 421.552†	291.8	-1179.4	-8.8441 ug/L	-8.8441 ppb	01:47:31
1	Sc 361.383	794938.4	794938.4	105.80 %		01:48:48
1	Y 371.029	632098.8	632098.8	107.42 %		01:48:48
1	Ag 328.068†	253.6	-86.7	-0.4530 ug/L	-0.4530 ppb	01:48:48
1	As 188.979†	-19.6	2.2	1.0223 ug/L	1.0223 ppb	01:49:08
1	B 249.677†	-208.0	245.4	6.0894 ug/L	6.0894 ppb	01:49:08
1	Ba 233.527†	54.9	-93.2	-0.7893 ug/L	-0.7893 ppb	01:49:08
1	Be 313.107†	-4508.6	94.5	0.0381 ug/L	0.0381 ppb	01:48:48
1	Cd 226.502†	-186.9	18.5	0.2470 ug/L	0.2470 ppb	01:49:08
1	Co 228.616†	-53.2	20.0	0.4381 ug/L	0.4381 ppb	01:49:08
1	Cr 267.716†	89.5	6.8	0.0850 ug/L	0.0850 ppb	01:49:08
1	Cu 324.752†	6028.5	-754.5	-2.3588 ug/L	-2.3588 ppb	01:48:48
1	Mn 257.610†	447.7	-48.1	-0.0503 ug/L	-0.0503 ppb	01:49:08
1	Mo 202.031†	18.8	7.8	0.6359 ug/L	0.6359 ppb	01:49:08
1	Ni 231.604†	82.4	-1.3	-0.0371 ug/L	-0.0371 ppb	01:49:08
1	P 214.914†	215.4	-7.5	-4.1133 ug/L	-4.1133 ppb	01:49:08
1	Pb 220.353†	-39.6	-58.3	-8.0911 ug/L	-8.0911 ppb	01:49:08
1	S 181.975 Axial†	40.6	1.0	1.4577 ug/L	1.4577 ppb	01:49:08
1	Sb 206.836†	36.1	-2.2	-0.7872 ug/L	-0.7872 ppb	01:49:08
1	Se 196.026†	-26.5	4.2	2.8972 ug/L	2.8972 ppb	01:49:08
1	Si 251.611†	548.7	22.1	0.7312 ug/L	0.7312 ppb	01:49:08
1	Sn 189.927†	21.8	5.3	1.0583 ug/L	1.0583 ppb	01:49:08
1	Ti 334.940†	-1278.8	271.3	0.4537 ug/L	0.4537 ppb	01:48:48
1	Tl 190.801†	-27.1	6.9	2.3198 ug/L	2.3198 ppb	01:49:08
1	U 409.014†	-2770.2	444.9	16.191 ug/L	16.191 ppb	01:48:48
1	V 292.402†	-1588.8	191.0	1.6000 ug/L	1.6000 ppb	01:48:48
1	Zn 213.857†	619.4	-58.3	-0.6103 ug/L	-0.6103 ppb	01:49:08
1	SiO2†	561.1	38.1	2.6998 ug/L	2.6998 ppb	01:50:04
2	Sc Radial	3919.7	3919.7	111 %		01:48:16
2	Y RADIAL	4425.2	4425.2	110.7 %		01:47:56
2	Al 396.153Radial†	-106.3	17.3	16.846 ug/L	16.846 ppb	01:48:16
2	Ca 317.933Radial†	23.1	-10.4	-22.709 ug/L	-22.709 ppb	01:48:16
2	Fe 238.204 Radial†	8.6	-1.4	-20.536 ug/L	-20.536 ppb	01:48:16
2	K 766.490 Radial†	2814.9	-604.3	-112.99 ug/L	-112.99 ppb	01:47:56
2	Mg 279.077 IEC†	0.6	-2.1	-108.04 ug/L	-108.04 ppb	01:48:16
2	Na 589.592 Radial†	-29.2	-4053.7	-1391.2 ug/L	-1391.2 ppb	01:47:56
2	Sr 421.552†	195.7	-1264.8	-9.4840 ug/L	-9.4840 ppb	01:47:56
2	Sc 361.383	794026.7	794026.7	105.68 %		01:49:13
2	Y 371.029	631932.8	631932.8	107.39 %		01:49:13
2	Ag 328.068†	256.4	-83.8	-0.4477 ug/L	-0.4477 ppb	01:49:13
2	As 188.979†	-29.6	-7.3	-3.3850 ug/L	-3.3850 ppb	01:49:33
2	B 249.677†	-229.4	224.9	5.5870 ug/L	5.5870 ppb	01:49:33
2	Ba 233.527†	53.1	-94.8	-0.8042 ug/L	-0.8042 ppb	01:49:33
2	Be 313.107†	-4546.1	54.1	0.0220 ug/L	0.0220 ppb	01:49:13
2	Cd 226.502†	-192.4	13.1	0.1787 ug/L	0.1787 ppb	01:49:33
2	Co 228.616†	-58.1	15.3	0.3353 ug/L	0.3353 ppb	01:49:33
2	Cr 267.716†	84.8	2.4	0.0248 ug/L	0.0248 ppb	01:49:33
2	Cu 324.752†	5893.5	-875.6	-2.7389 ug/L	-2.7389 ppb	01:49:13
2	Mn 257.610†	460.7	-35.4	-0.0395 ug/L	-0.0395 ppb	01:49:33
2	Mo 202.031†	14.5	3.7	0.3040 ug/L	0.3040 ppb	01:49:33
2	Ni 231.604†	90.3	6.3	0.1798 ug/L	0.1798 ppb	01:49:33

2	P 214.914†	208.2	-14.1	-8.0445 ug/L	-8.0445 ppb	01:49:33
2	Pb 220.353†	-46.2	-64.6	-8.9598 ug/L	-8.9598 ppb	01:49:33
2	S 181.975 Axial†	34.4	-4.8	-6.8910 ug/L	-6.8910 ppb	01:49:33
2	Sb 206.836†	52.3	13.1	4.8313 ug/L	4.8313 ppb	01:49:33
2	Se 196.026†	-29.2	1.7	1.0611 ug/L	1.0611 ppb	01:49:33
2	Si 251.611†	542.7	17.0	0.5648 ug/L	0.5648 ppb	01:49:33
2	Sn 189.927†	19.8	3.4	0.6760 ug/L	0.6760 ppb	01:49:33
2	Ti 334.940†	-1343.3	208.9	0.3447 ug/L	0.3447 ppb	01:49:13
2	Tl 190.801†	-18.0	15.5	5.1947 ug/L	5.1947 ppb	01:49:33
2	U 409.014†	-2718.2	491.1	17.877 ug/L	17.877 ppb	01:49:13
2	V 292.402†	-1570.6	206.5	1.7304 ug/L	1.7304 ppb	01:49:13
2	Zn 213.857†	625.3	-52.1	-0.5409 ug/L	-0.5409 ppb	01:49:33
2	SiO2†	531.3	10.5	0.7413 ug/L	0.7413 ppb	01:50:09
3	Sc Radial	3903.5	3903.5	110 %		01:48:41
3	Y RADIAL	4487.6	4487.6	112.2 %		01:48:21
3	Al 396.153Radial†	-94.3	27.8	26.981 ug/L	26.981 ppb	01:48:41
3	Ca 317.933Radial†	293.7	234.9	513.06 ug/L	513.06 ppb	01:48:41
3	Fe 238.204 Radial†	7.9	-2.0	-28.995 ug/L	-28.995 ppb	01:48:41
3	K 766.490 Radial†	2822.2	-587.0	-109.92 ug/L	-109.92 ppb	01:48:21
3	Mg 279.077 IEC†	2.0	-0.9	-44.957 ug/L	-44.957 ppb	01:48:41
3	Na 589.592 Radial†	-85.8	-4105.1	-1408.8 ug/L	-1408.8 ppb	01:48:21
3	Sr 421.552†	312.2	-1158.5	-8.6911 ug/L	-8.6911 ppb	01:48:21
3	Sc 361.383	798790.2	798790.2	106.32 %		01:49:38
3	Y 371.029	636527.2	636527.2	108.17 %		01:49:38
3	Ag 328.068†	234.4	-105.9	-0.5704 ug/L	-0.5704 ppb	01:49:38
3	As 188.979†	-22.1	-0.1	-0.0392 ug/L	-0.0392 ppb	01:49:58
3	B 249.677†	-226.2	229.2	5.6955 ug/L	5.6955 ppb	01:49:58
3	Ba 233.527†	82.7	-67.2	-0.5689 ug/L	-0.5689 ppb	01:49:58
3	Be 313.107†	-4532.3	92.8	0.0374 ug/L	0.0374 ppb	01:49:38
3	Cd 226.502†	-185.8	20.4	0.2753 ug/L	0.2753 ppb	01:49:58
3	Co 228.616†	-60.9	13.0	0.2850 ug/L	0.2850 ppb	01:49:58
3	Cr 267.716†	52.2	-28.8	-0.3825 ug/L	-0.3825 ppb	01:49:58
3	Cu 324.752†	5867.0	-933.8	-2.9198 ug/L	-2.9198 ppb	01:49:38
3	Mn 257.610†	449.9	-48.2	-0.0580 ug/L	-0.0580 ppb	01:49:58
3	Mo 202.031†	10.2	-0.3	-0.0243 ug/L	-0.0243 ppb	01:49:58
3	Ni 231.604†	80.9	-3.0	-0.0861 ug/L	-0.0861 ppb	01:49:58
3	P 214.914†	203.0	-20.2	-11.712 ug/L	-11.712 ppb	01:49:58
3	Pb 220.353†	-51.7	-69.5	-9.6190 ug/L	-9.6190 ppb	01:49:58
3	S 181.975 Axial†	39.8	0.0	0.0392 ug/L	0.0392 ppb	01:49:58
3	Sb 206.836†	33.5	-4.9	-1.7580 ug/L	-1.7580 ppb	01:49:58
3	Se 196.026†	-17.7	12.6	8.4478 ug/L	8.4478 ppb	01:49:58
3	Si 251.611†	527.9	0.0	0.0012 ug/L	0.0012 ppb	01:49:58
3	Sn 189.927†	22.1	5.5	1.1965 ug/L	1.1965 ppb	01:49:58
3	Ti 334.940†	-1303.5	253.9	0.4868 ug/L	0.4868 ppb	01:49:38
3	Tl 190.801†	-28.1	6.1	2.0448 ug/L	2.0448 ppb	01:49:58
3	U 409.014†	-2767.1	460.4	16.761 ug/L	16.761 ppb	01:49:38
3	V 292.402†	-1547.4	237.3	1.9780 ug/L	1.9780 ppb	01:49:38
3	Zn 213.857†	621.9	-58.9	-0.6088 ug/L	-0.6088 ppb	01:49:58
3	SiO2†	502.5	-19.5	-1.3920 ug/L	-1.3920 ppb	01:50:14

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	795918.4	105.93 %	0.337			0.32%
Sc Radial	3920.9	111 %	0.5			0.46%
Y 371.029	633519.6	107.66 %	0.443			0.41%
Y RADIAL	4463.2	111.6 %	0.83			0.75%
Ag 328.068†	-92.1	-0.4904 ug/L	0.06935	-0.4904 ppb	0.06935	14.14%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	21.2	20.617 ug/L	5.5424	20.617 ppb	5.5424	26.88%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-1.7	-0.8006 ug/L	2.30019	-0.8006 ppb	2.30019	287.31%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	233.2	5.7906 ug/L	0.26434	5.7906 ppb	0.26434	4.56%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-85.1	-0.7208 ug/L	0.13174	-0.7208 ppb	0.13174	18.28%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	80.5	0.0325 ug/L	0.00908	0.0325 ppb	0.00908	27.93%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	73.8	161.30 ug/L	304.740	161.30 ppb	304.740	188.93%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	17.3	0.2337 ug/L	0.04965	0.2337 ppb	0.04965	21.25%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	16.1	0.3528 ug/L	0.07800	0.3528 ppb	0.07800	22.11%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-6.5	-0.0909 ug/L	0.25431	-0.0909 ppb	0.25431	279.74%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-854.6	-2.6725 ug/L	0.28632	-2.6725 ppb	0.28632	10.71%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-0.9	-13.278 ug/L	20.3409	-13.278 ppb	20.3409	153.19%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-623.0	-116.56 ug/L	8.980	-116.56 ppb	8.980	7.70%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-1.9	-97.220 ug/L	47.7805	-97.220 ppb	47.7805	49.15%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-43.9	-0.0493 ug/L	0.00929	-0.0493 ppb	0.00929	18.84%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	3.7	0.3052 ug/L	0.33009	0.3052 ppb	0.33009	108.15%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-4095.0	-1405.3 ug/L	12.78	-1405.3 ppb	12.78	0.91%	
QC value less than the lower limit for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	0.7	0.0189 ug/L	0.14149	0.0189 ppb	0.14149	748.55%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-13.9	-7.9565 ug/L	3.80004	-7.9565 ppb	3.80004	47.76%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-64.1	-8.8900 ug/L	0.76635	-8.8900 ppb	0.76635	8.62%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-1.2	-1.7980 ug/L	4.46733	-1.7980 ppb	4.46733	248.46%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	2.0	0.7620 ug/L	3.55734	0.7620 ppb	3.55734	466.82%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	6.2	4.1354 ug/L	3.84586	4.1354 ppb	3.84586	93.00%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	13.0	0.4324 ug/L	0.38258	0.4324 ppb	0.38258	88.47%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	4.7	0.9769 ug/L	0.26961	0.9769 ppb	0.26961	27.60%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-1200.9	-9.0064 ug/L	0.42059	-9.0064 ppb	0.42059	4.67%	
QC value less than the lower limit for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	244.7	0.4284 ug/L	0.07434	0.4284 ppb	0.07434	17.35%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	9.5	3.1864 ug/L	1.74466	3.1864 ppb	1.74466	54.75%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	465.5	16.943 ug/L	0.8576	16.943 ppb	0.8576	5.06%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	211.6	1.7695 ug/L	0.19200	1.7695 ppb	0.19200	10.85%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-56.4	-0.5867 ug/L	0.03963	-0.5867 ppb	0.03963	6.76%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	9.7	0.6830 ug/L	2.04651	0.6830 ppb	2.04651	299.63%	
QC value within limits for SiO2 Recovery = Not calculated							
QC Failed. Continue with analysis.							

Sequence No.: 90

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 2/20/2010 02:40:23

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	3963.1	3963.1	112 %		02:42:35
1	Y RADIAL	4484.3	4484.3	112.1 %		02:42:15
1	Al 396.153Radial†	5654.2	5159.3	4991.8 ug/L	4991.8 ppb	02:42:15
1	Ca 317.933Radial†	2609.3	2297.4	5018.7 ug/L	5018.7 ppb	02:42:35
1	Fe 238.204 Radial†	398.3	346.4	5025.4 ug/L	5025.4 ppb	02:42:35
1	K 766.490 Radial†	32273.5	25658.2	4815.4 ug/L	4815.4 ppb	02:42:15
1	Mg 279.077 IEC†	114.5	99.5	5057.8 ug/L	5057.8 ppb	02:42:35
1	Na 589.592 Radial†	33440.6	25816.6	8860.0 ug/L	8860.0 ppb	02:42:15
1	Sr 421.552†	75475.8	65916.6	494.24 ug/L	494.24 ppb	02:42:15
1	Sc 361.383	804877.9	804877.9	107.13 %		02:43:32
1	Y 371.029	633251.5	633251.5	107.61 %		02:43:32
1	Ag 328.068†	105430.5	98089.6	511.32 ug/L	511.32 ppb	02:43:37
1	As 188.979†	1137.0	1082.0	505.60 ug/L	505.60 ppb	02:43:57
1	B 249.677†	20840.3	19895.7	491.72 ug/L	491.72 ppb	02:43:37
1	Ba 233.527†	63110.1	58766.2	501.48 ug/L	501.48 ppb	02:43:37
1	Be 313.107†	1339121.3	1254382.3	493.32 ug/L	493.32 ppb	02:43:32
1	Cd 226.502†	40493.5	37994.5	502.20 ug/L	502.20 ppb	02:43:37
1	Co 228.616†	24377.3	22825.7	500.24 ug/L	500.24 ppb	02:43:37
1	Cr 267.716†	40910.6	38110.9	499.07 ug/L	499.07 ppb	02:43:37
1	Cu 324.752†	179036.0	160672.1	500.50 ug/L	500.50 ppb	02:43:37
1	Mn 257.610†	445498.9	415387.5	491.83 ug/L	491.83 ppb	02:43:32
1	Mo 202.031†	6541.2	6096.0	499.26 ug/L	499.26 ppb	02:43:57
1	Ni 231.604†	18853.7	17520.1	498.16 ug/L	498.16 ppb	02:43:37
1	P 214.914†	4496.8	3986.5	2338.4 ug/L	2338.4 ppb	02:43:57
1	Pb 220.353†	3782.1	3509.6	489.61 ug/L	489.61 ppb	02:43:57
1	S 181.975 Axial†	783.3	693.8	996.91 ug/L	996.91 ppb	02:43:57
1	Sb 206.836†	1492.0	1356.4	515.20 ug/L	515.20 ppb	02:43:57
1	Se 196.026†	756.4	735.3	517.67 ug/L	517.67 ppb	02:43:57
1	Si 251.611†	81494.7	75576.1	2524.4 ug/L	2524.4 ppb	02:43:37
1	Sn 189.927†	2683.6	2489.7	501.86 ug/L	501.86 ppb	02:43:57
1	Ti 334.940†	317309.1	297677.7	494.04 ug/L	494.04 ppb	02:43:37
1	Tl 190.801†	1575.6	1503.3	508.03 ug/L	508.03 ppb	02:43:57
1	U 409.014†	13005.6	15203.5	551.67 ug/L	551.67 ppb	02:43:37
1	V 292.402†	64162.9	61586.7	511.16 ug/L	511.16 ppb	02:43:37
1	Zn 213.857†	51987.1	47884.6	497.91 ug/L	497.91 ppb	02:43:37
1	SiO2†	80812.8	74944.0	5328.5 ug/L	5328.5 ppb	02:45:05
2	Sc Radial	3955.9	3955.9	112 %		02:43:00
2	Y RADIAL	4467.2	4467.2	111.7 %		02:42:40
2	Al 396.153Radial†	5529.5	5057.0	4892.7 ug/L	4892.7 ppb	02:42:40
2	Ca 317.933Radial†	2601.2	2294.4	5012.2 ug/L	5012.2 ppb	02:43:00
2	Fe 238.204 Radial†	396.9	345.7	5016.1 ug/L	5016.1 ppb	02:43:00
2	K 766.490 Radial†	31694.6	25192.8	4728.0 ug/L	4728.0 ppb	02:42:40
2	Mg 279.077 IEC†	116.4	101.4	5153.5 ug/L	5153.5 ppb	02:43:00
2	Na 589.592 Radial†	32815.7	25311.9	8686.8 ug/L	8686.8 ppb	02:42:40
2	Sr 421.552†	73842.2	64577.9	484.20 ug/L	484.20 ppb	02:42:40
2	Sc 361.383	811460.9	811460.9	108.00 %		02:44:03
2	Y 371.029	637636.9	637636.9	108.36 %		02:44:03
2	Ag 328.068†	104605.3	96527.2	503.19 ug/L	503.19 ppb	02:44:08
2	As 188.979†	1121.5	1059.0	494.89 ug/L	494.89 ppb	02:44:28
2	B 249.677†	20757.8	19661.5	485.93 ug/L	485.93 ppb	02:44:08
2	Ba 233.527†	62644.5	57857.2	493.72 ug/L	493.72 ppb	02:44:08
2	Be 313.107†	1354419.6	1258406.2	494.88 ug/L	494.88 ppb	02:44:03
2	Cd 226.502†	40213.3	37428.4	494.72 ug/L	494.72 ppb	02:44:08
2	Co 228.616†	24173.0	22452.0	492.05 ug/L	492.05 ppb	02:44:08
2	Cr 267.716†	40712.2	37617.4	492.61 ug/L	492.61 ppb	02:44:08
2	Cu 324.752†	177062.6	157489.2	490.59 ug/L	490.59 ppb	02:44:08
2	Mn 257.610†	451194.0	417287.0	494.07 ug/L	494.07 ppb	02:44:03
2	Mo 202.031†	6501.5	6009.7	492.20 ug/L	492.20 ppb	02:44:28
2	Ni 231.604†	18804.8	17332.2	492.82 ug/L	492.82 ppb	02:44:08

2	P 214.914†	4495.2	3950.9	2318.5 ug/L	2318.5 ppb	02:44:28
2	Pb 220.353†	3773.8	3473.3	484.53 ug/L	484.53 ppb	02:44:28
2	S 181.975 Axial†	771.0	676.5	971.96 ug/L	971.96 ppb	02:44:28
2	Sb 206.836†	1484.5	1338.2	508.31 ug/L	508.31 ppb	02:44:28
2	Se 196.026†	749.6	723.3	509.47 ug/L	509.47 ppb	02:44:28
2	Si 251.611†	80706.8	74229.6	2479.4 ug/L	2479.4 ppb	02:44:08
2	Sn 189.927†	2683.5	2469.3	497.74 ug/L	497.74 ppb	02:44:28
2	Ti 334.940†	314556.1	292725.9	485.81 ug/L	485.81 ppb	02:44:08
2	Tl 190.801†	1572.0	1488.0	502.90 ug/L	502.90 ppb	02:44:28
2	U 409.014†	12904.1	15010.9	544.67 ug/L	544.67 ppb	02:44:08
2	V 292.402†	63553.1	60536.2	502.46 ug/L	502.46 ppb	02:44:08
2	Zn 213.857†	51671.6	47198.7	490.76 ug/L	490.76 ppb	02:44:08
2	SiO2†	79766.6	73363.3	5216.0 ug/L	5216.0 ppb	02:45:10
3	Sc Radial	3942.2	3942.2	111 %		02:43:25
3	Y RADIAL	4458.7	4458.7	111.5 %		02:43:05
3	Al 396.153Radial†	5568.5	5109.1	4943.0 ug/L	4943.0 ppb	02:43:05
3	Ca 317.933Radial†	2602.2	2303.4	5031.7 ug/L	5031.7 ppb	02:43:25
3	Fe 238.204 Radial†	395.8	345.9	5018.9 ug/L	5018.9 ppb	02:43:25
3	K 766.490 Radial†	32039.9	25601.2	4804.7 ug/L	4804.7 ppb	02:43:05
3	Mg 279.077 IEC†	112.6	98.4	5000.5 ug/L	5000.5 ppb	02:43:25
3	Na 589.592 Radial†	32910.9	25499.4	8751.1 ug/L	8751.1 ppb	02:43:05
3	Sr 421.552†	74563.2	65454.7	490.78 ug/L	490.78 ppb	02:43:05
3	Sc 361.383	805738.5	805738.5	107.24 %		02:44:34
3	Y 371.029	633583.4	633583.4	107.67 %		02:44:34
3	Ag 328.068†	105632.4	98172.8	511.75 ug/L	511.75 ppb	02:44:39
3	As 188.979†	1139.8	1083.5	506.27 ug/L	506.27 ppb	02:44:59
3	B 249.677†	20923.4	19952.4	493.13 ug/L	493.13 ppb	02:44:39
3	Ba 233.527†	63063.8	58660.1	500.58 ug/L	500.58 ppb	02:44:39
3	Be 313.107†	1347181.8	1260563.4	495.74 ug/L	495.74 ppb	02:44:34
3	Cd 226.502†	40407.0	37873.5	500.61 ug/L	500.61 ppb	02:44:39
3	Co 228.616†	24405.7	22827.9	500.29 ug/L	500.29 ppb	02:44:39
3	Cr 267.716†	40835.8	38000.4	497.62 ug/L	497.62 ppb	02:44:39
3	Cu 324.752†	179062.1	160517.9	500.02 ug/L	500.02 ppb	02:44:39
3	Mn 257.610†	449319.5	418505.9	495.52 ug/L	495.52 ppb	02:44:34
3	Mo 202.031†	6557.3	6104.5	499.96 ug/L	499.96 ppb	02:44:59
3	Ni 231.604†	18892.6	17537.7	498.66 ug/L	498.66 ppb	02:44:39
3	P 214.914†	4543.6	4025.7	2362.4 ug/L	2362.4 ppb	02:44:59
3	Pb 220.353†	3824.9	3545.8	494.62 ug/L	494.62 ppb	02:44:59
3	S 181.975 Axial†	784.2	693.9	997.04 ug/L	997.04 ppb	02:44:59
3	Sb 206.836†	1500.7	1363.0	517.69 ug/L	517.69 ppb	02:44:59
3	Se 196.026†	770.8	748.0	526.24 ug/L	526.24 ppb	02:44:59
3	Si 251.611†	81558.1	75554.0	2523.7 ug/L	2523.7 ppb	02:44:39
3	Sn 189.927†	2706.8	2508.7	505.68 ug/L	505.68 ppb	02:44:59
3	Ti 334.940†	317372.0	297420.1	493.61 ug/L	493.61 ppb	02:44:39
3	Tl 190.801†	1593.8	1518.7	513.21 ug/L	513.21 ppb	02:44:59
3	U 409.014†	13122.5	15299.4	555.16 ug/L	555.16 ppb	02:44:39
3	V 292.402†	64247.1	61601.2	511.30 ug/L	511.30 ppb	02:44:39
3	Zn 213.857†	52043.3	47885.1	497.92 ug/L	497.92 ppb	02:44:39
3	SiO2†	81103.3	75134.2	5342.0 ug/L	5342.0 ppb	02:45:15

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	807359.1	107.46 %	0.476			0.44%
Sc Radial	3953.8	112 %	0.3			0.27%
Y 371.029	634824.0	107.88 %	0.415			0.38%
Y RADIAL	4470.0	111.8 %	0.33			0.29%
Ag 328.068†	97596.5	508.75 ug/L	4.820	508.75 ppb	4.820	0.95%
QC value within limits for Ag 328.068 Recovery = 101.75%						
Al 396.153Radial†	5108.5	4942.5 ug/L	49.59	4942.5 ppb	49.59	1.00%
QC value within limits for Al 396.153Radial Recovery = 98.85%						
As 188.979†	1074.9	502.25 ug/L	6.389	502.25 ppb	6.389	1.27%
QC value within limits for As 188.979 Recovery = 100.45%						
B 249.677†	19836.5	490.26 ug/L	3.816	490.26 ppb	3.816	0.78%
QC value within limits for B 249.677 Recovery = 98.05%						
Ba 233.527†	58427.9	498.59 ug/L	4.242	498.59 ppb	4.242	0.85%
QC value within limits for Ba 233.527 Recovery = 99.72%						
Be 313.107†	1257784.0	494.65 ug/L	1.229	494.65 ppb	1.229	0.25%
QC value within limits for Be 313.107 Recovery = 98.93%						
Ca 317.933Radial†	2298.4	5020.8 ug/L	9.96	5020.8 ppb	9.96	0.20%

QC value within limits for Ca 317.933 Radial Recovery = 100.42%							
Cd 226.502†	37765.5	499.18 ug/L	3.943	499.18 ppb	3.943	0.79%	
QC value within limits for Cd 226.502 Recovery = 99.84%							
Co 228.616†	22701.9	497.53 ug/L	4.743	497.53 ppb	4.743	0.95%	
QC value within limits for Co 228.616 Recovery = 99.51%							
Cr 267.716†	37909.5	496.44 ug/L	3.391	496.44 ppb	3.391	0.68%	
QC value within limits for Cr 267.716 Recovery = 99.29%							
Cu 324.752†	159559.8	497.03 ug/L	5.589	497.03 ppb	5.589	1.12%	
QC value within limits for Cu 324.752 Recovery = 99.41%							
Fe 238.204 Radial†	346.0	5020.1 ug/L	4.75	5020.1 ppb	4.75	0.09%	
QC value within limits for Fe 238.204 Radial Recovery = 100.40%							
K 766.490 Radial†	25484.1	4782.7 ug/L	47.67	4782.7 ppb	47.67	1.00%	
QC value within limits for K 766.490 Radial Recovery = 95.65%							
Mg 279.077 IEC†	99.8	5070.6 ug/L	77.31	5070.6 ppb	77.31	1.52%	
QC value within limits for Mg 279.077 IEC Recovery = 101.41%							
Mn 257.610†	417060.1	493.81 ug/L	1.860	493.81 ppb	1.860	0.38%	
QC value within limits for Mn 257.610 Recovery = 98.76%							
Mo 202.031†	6070.1	497.14 ug/L	4.292	497.14 ppb	4.292	0.86%	
QC value within limits for Mo 202.031 Recovery = 99.43%							
Na 589.592 Radial†	25542.6	8766.0 ug/L	87.56	8766.0 ppb	87.56	1.00%	
QC value less than the lower limit for Na 589.592 Radial Recovery = 87.66%							
Ni 231.604†	17463.3	496.55 ug/L	3.239	496.55 ppb	3.239	0.65%	
QC value within limits for Ni 231.604 Recovery = 99.31%							
P 214.914†	3987.7	2339.8 ug/L	21.98	2339.8 ppb	21.98	0.94%	
QC value within limits for P 214.914 Recovery = 93.59%							
Pb 220.353†	3509.5	489.59 ug/L	5.047	489.59 ppb	5.047	1.03%	
QC value within limits for Pb 220.353 Recovery = 97.92%							
S 181.975 Axial†	688.1	988.63 ug/L	14.442	988.63 ppb	14.442	1.46%	
QC value within limits for S 181.975 Axial Recovery = 98.86%							
Sb 206.836†	1352.5	513.73 ug/L	4.858	513.73 ppb	4.858	0.95%	
QC value within limits for Sb 206.836 Recovery = 102.75%							
Se 196.026†	735.5	517.79 ug/L	8.386	517.79 ppb	8.386	1.62%	
QC value within limits for Se 196.026 Recovery = 103.56%							
Si 251.611†	75119.9	2509.2 ug/L	25.77	2509.2 ppb	25.77	1.03%	
QC value within limits for Si 251.611 Recovery = 100.37%							
Sn 189.927†	2489.2	501.76 ug/L	3.970	501.76 ppb	3.970	0.79%	
QC value within limits for Sn 189.927 Recovery = 100.35%							
Sr 421.552†	65316.4	489.74 ug/L	5.099	489.74 ppb	5.099	1.04%	
QC value within limits for Sr 421.552 Recovery = 97.95%							
Ti 334.940†	295941.2	491.15 ug/L	4.631	491.15 ppb	4.631	0.94%	
QC value within limits for Ti 334.940 Recovery = 98.23%							
Tl 190.801†	1503.3	508.05 ug/L	5.158	508.05 ppb	5.158	1.02%	
QC value within limits for Tl 190.801 Recovery = 101.61%							
U 409.014†	15171.3	550.50 ug/L	5.340	550.50 ppb	5.340	0.97%	
QC value greater than the upper limit for U 409.014 Recovery = 110.10%							
V 292.402†	61241.4	508.30 ug/L	5.064	508.30 ppb	5.064	1.00%	
QC value within limits for V 292.402 Recovery = 101.66%							
Zn 213.857†	47656.1	495.53 ug/L	4.129	495.53 ppb	4.129	0.83%	
QC value within limits for Zn 213.857 Recovery = 99.11%							
SiO2†	74480.5	5295.5 ug/L	69.18	5295.5 ppb	69.18	1.31%	
QC value within limits for SiO2 Recovery = 99.03%							
QC Failed. Continue with analysis.							

Sequence No.: 91  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 6  
 Date Collected: 2/20/2010 02:47:25  
 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	3884.2	3884.2	110 %		02:49:37
1	Y RADIAL	4424.1	4424.1	110.6 %		02:49:17
1	Al 396.153Radial†	-95.2	26.6	25.773 ug/L	25.773 ppb	02:49:37
1	Ca 317.933Radial†	29.3	-4.6	-10.043 ug/L	-10.043 ppb	02:49:37
1	Fe 238.204 Radial†	8.5	-1.5	-20.977 ug/L	-20.977 ppb	02:49:37
1	K 766.490 Radial†	2769.9	-621.9	-116.31 ug/L	-116.31 ppb	02:49:17
1	Mg 279.077 IEC†	3.1	0.2	10.868 ug/L	10.868 ppb	02:49:37
1	Na 589.592 Radial†	-152.0	-4165.7	-1429.6 ug/L	-1429.6 ppb	02:49:17
1	Sr 421.552†	379.5	-1095.9	-8.2173 ug/L	-8.2173 ppb	02:49:17
1	Sc 361.383	794157.4	794157.4	105.70 %		02:50:34
1	Y 371.029	632539.6	632539.6	107.49 %		02:50:34
1	Ag 328.068†	178.8	-157.2	-0.8291 ug/L	-0.8291 ppb	02:50:34
1	As 188.979†	-21.9	-0.1	-0.0416 ug/L	-0.0416 ppb	02:50:54
1	B 249.677†	-221.1	232.8	5.7823 ug/L	5.7823 ppb	02:50:54
1	Ba 233.527†	33.6	-113.2	-0.9610 ug/L	-0.9610 ppb	02:50:54
1	Be 313.107†	-4562.1	39.8	0.0166 ug/L	0.0166 ppb	02:50:34
1	Cd 226.502†	-181.9	23.0	0.3099 ug/L	0.3099 ppb	02:50:54
1	Co 228.616†	-69.5	4.5	0.1001 ug/L	0.1001 ppb	02:50:54
1	Cr 267.716†	84.9	2.5	0.0261 ug/L	0.0261 ppb	02:50:54
1	Cu 324.752†	5919.1	-852.4	-2.6664 ug/L	-2.6664 ppb	02:50:34
1	Mn 257.610†	451.6	-44.1	-0.0547 ug/L	-0.0547 ppb	02:50:54
1	Mo 202.031†	22.6	11.4	0.9342 ug/L	0.9342 ppb	02:50:54
1	Ni 231.604†	73.4	-9.7	-0.2762 ug/L	-0.2762 ppb	02:50:54
1	P 214.914†	215.9	-6.9	-3.6413 ug/L	-3.6413 ppb	02:50:54
1	Pb 220.353†	-54.5	-72.5	-10.054 ug/L	-10.054 ppb	02:50:54
1	S 181.975 Axial†	41.8	2.1	3.0656 ug/L	3.0656 ppb	02:50:54
1	Sb 206.836†	40.9	2.4	0.9037 ug/L	0.9037 ppb	02:50:54
1	Se 196.026†	-28.1	2.7	1.7460 ug/L	1.7460 ppb	02:50:54
1	Si 251.611†	557.4	30.8	1.0199 ug/L	1.0199 ppb	02:50:54
1	Sn 189.927†	20.1	3.7	0.7420 ug/L	0.7420 ppb	02:50:54
1	Ti 334.940†	-1285.8	263.5	0.4272 ug/L	0.4272 ppb	02:50:34
1	Tl 190.801†	-18.1	15.5	5.1940 ug/L	5.1940 ppb	02:50:54
1	U 409.014†	-2713.7	495.8	18.047 ug/L	18.047 ppb	02:50:34
1	V 292.402†	-1584.0	194.2	1.6406 ug/L	1.6406 ppb	02:50:34
1	Zn 213.857†	636.9	-41.3	-0.4244 ug/L	-0.4244 ppb	02:50:54
1	SiO2†	606.1	81.2	5.7636 ug/L	5.7636 ppb	02:51:50
2	Sc Radial	3883.8	3883.8	110 %		02:50:02
2	Y RADIAL	4247.6	4247.6	106.2 %		02:49:42
2	Al 396.153Radial†	-115.1	8.4	8.1588 ug/L	8.1588 ppb	02:50:02
2	Ca 317.933Radial†	30.7	-3.3	-7.2536 ug/L	-7.2536 ppb	02:50:02
2	Fe 238.204 Radial†	7.6	-2.2	-31.870 ug/L	-31.870 ppb	02:50:02
2	K 766.490 Radial†	2854.9	-544.3	-101.71 ug/L	-101.71 ppb	02:49:42
2	Mg 279.077 IEC†	2.3	-0.6	-28.412 ug/L	-28.412 ppb	02:50:02
2	Na 589.592 Radial†	-224.3	-4231.6	-1452.3 ug/L	-1452.3 ppb	02:49:42
2	Sr 421.552†	263.6	-1201.4	-9.0085 ug/L	-9.0085 ppb	02:49:42
2	Sc 361.383	789481.2	789481.2	105.08 %		02:50:59
2	Y 371.029	627498.0	627498.0	106.63 %		02:50:59
2	Ag 328.068†	192.8	-142.9	-0.7537 ug/L	-0.7537 ppb	02:50:59
2	As 188.979†	-20.4	1.3	0.5871 ug/L	0.5871 ppb	02:51:19
2	B 249.677†	-253.0	201.2	4.9977 ug/L	4.9977 ppb	02:51:19
2	Ba 233.527†	77.5	-71.3	-0.6052 ug/L	-0.6052 ppb	02:51:19
2	Be 313.107†	-4508.9	64.8	0.0265 ug/L	0.0265 ppb	02:50:59
2	Cd 226.502†	-191.1	13.3	0.1812 ug/L	0.1812 ppb	02:51:19
2	Co 228.616†	-45.0	27.4	0.6011 ug/L	0.6011 ppb	02:51:19
2	Cr 267.716†	66.8	-14.2	-0.1911 ug/L	-0.1911 ppb	02:51:19
2	Cu 324.752†	5922.7	-815.8	-2.5488 ug/L	-2.5488 ppb	02:50:59
2	Mn 257.610†	477.9	-16.6	-0.0216 ug/L	-0.0216 ppb	02:51:19
2	Mo 202.031†	12.7	2.1	0.1677 ug/L	0.1677 ppb	02:51:19
2	Ni 231.604†	75.1	-7.7	-0.2189 ug/L	-0.2189 ppb	02:51:19

2	P 214.914†	216.4	-5.2	-2.6202 ug/L	-2.6202 ppb	02:51:19
2	Pb 220.353†	-41.9	-60.7	-8.4289 ug/L	-8.4289 ppb	02:51:19
2	S 181.975 Axial†	38.9	-0.4	-0.5393 ug/L	-0.5393 ppb	02:51:19
2	Sb 206.836†	47.6	8.9	3.2746 ug/L	3.2746 ppb	02:51:19
2	Se 196.026†	-20.5	9.8	6.5176 ug/L	6.5176 ppb	02:51:19
2	Si 251.611†	559.7	36.2	1.2093 ug/L	1.2093 ppb	02:51:19
2	Sn 189.927†	17.1	1.0	0.1935 ug/L	0.1935 ppb	02:51:19
2	Ti 334.940†	-1258.0	282.8	0.4663 ug/L	0.4663 ppb	02:50:59
2	Tl 190.801†	-20.8	12.8	4.2908 ug/L	4.2908 ppb	02:51:19
2	U 409.014†	-2919.5	284.7	10.367 ug/L	10.367 ppb	02:50:59
2	V 292.402†	-1628.5	142.9	1.1966 ug/L	1.1966 ppb	02:50:59
2	Zn 213.857†	621.6	-52.2	-0.5381 ug/L	-0.5381 ppb	02:51:19
2	SiO2†	569.2	49.5	3.5210 ug/L	3.5210 ppb	02:51:55
3	Sc Radial	3871.0	3871.0	109 %		02:50:27
3	Y RADIAL	4397.1	4397.1	110.0 %		02:50:07
3	Al 396.153Radial†	-105.6	16.7	16.226 ug/L	16.226 ppb	02:50:27
3	Ca 317.933Radial†	30.2	-3.6	-7.9558 ug/L	-7.9558 ppb	02:50:27
3	Fe 238.204 Radial†	8.5	-1.4	-20.074 ug/L	-20.074 ppb	02:50:27
3	K 766.490 Radial†	2856.1	-534.6	-99.882 ug/L	-99.882 ppb	02:50:07
3	Mg 279.077 IEC†	0.7	-2.0	-102.00 ug/L	-102.00 ppb	02:50:27
3	Na 589.592 Radial†	-211.1	-4220.2	-1448.3 ug/L	-1448.3 ppb	02:50:07
3	Sr 421.552†	229.5	-1231.7	-9.2363 ug/L	-9.2363 ppb	02:50:07
3	Sc 361.383	799106.7	799106.7	106.36 %		02:51:24
3	Y 371.029	635735.1	635735.1	108.03 %		02:51:24
3	Ag 328.068†	276.1	-66.7	-0.3564 ug/L	-0.3564 ppb	02:51:24
3	As 188.979†	-22.2	-0.2	-0.0757 ug/L	-0.0757 ppb	02:51:44
3	B 249.677†	-227.1	228.4	5.6739 ug/L	5.6739 ppb	02:51:44
3	Ba 233.527†	56.3	-92.1	-0.7810 ug/L	-0.7810 ppb	02:51:44
3	Be 313.107†	-4595.7	34.9	0.0146 ug/L	0.0146 ppb	02:51:24
3	Cd 226.502†	-195.6	11.2	0.1532 ug/L	0.1532 ppb	02:51:44
3	Co 228.616†	-64.1	10.0	0.2202 ug/L	0.2202 ppb	02:51:44
3	Cr 267.716†	86.5	3.5	0.0409 ug/L	0.0409 ppb	02:51:44
3	Cu 324.752†	5813.0	-986.7	-3.0826 ug/L	-3.0826 ppb	02:51:24
3	Mn 257.610†	444.2	-53.7	-0.0614 ug/L	-0.0614 ppb	02:51:44
3	Mo 202.031†	18.2	7.1	0.5818 ug/L	0.5818 ppb	02:51:44
3	Ni 231.604†	82.1	-2.0	-0.0562 ug/L	-0.0562 ppb	02:51:44
3	P 214.914†	218.5	-5.7	-2.8247 ug/L	-2.8247 ppb	02:51:44
3	Pb 220.353†	-47.4	-65.4	-9.0806 ug/L	-9.0806 ppb	02:51:44
3	S 181.975 Axial†	41.7	1.9	2.6796 ug/L	2.6796 ppb	02:51:44
3	Sb 206.836†	39.5	0.8	0.3042 ug/L	0.3042 ppb	02:51:44
3	Se 196.026†	-25.8	5.1	3.3623 ug/L	3.3623 ppb	02:51:44
3	Si 251.611†	560.4	30.4	1.0107 ug/L	1.0107 ppb	02:51:44
3	Sn 189.927†	16.6	0.3	0.0554 ug/L	0.0554 ppb	02:51:44
3	Ti 334.940†	-1312.7	245.8	0.4093 ug/L	0.4093 ppb	02:51:24
3	Tl 190.801†	-23.8	10.1	3.4064 ug/L	3.4064 ppb	02:51:44
3	U 409.014†	-2856.3	377.5	13.744 ug/L	13.744 ppb	02:51:24
3	V 292.402†	-1589.7	198.0	1.6569 ug/L	1.6569 ppb	02:51:24
3	Zn 213.857†	629.0	-52.4	-0.5422 ug/L	-0.5422 ppb	02:51:44
3	SiO2†	590.4	62.9	4.4703 ug/L	4.4703 ppb	02:52:00

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	794248.4	105.71 %		0.641			0.61%
Sc Radial	3879.7	110 %		0.2			0.19%
Y 371.029	631924.2	107.39 %		0.706			0.66%
Y RADIAL	4356.3	108.9 %		2.38			2.18%
Ag 328.068†	-122.3	-0.6464 ug/L		0.25396	-0.6464 ppb	0.25396	39.29%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	17.2	16.719 ug/L		8.8174	16.719 ppb	8.8174	52.74%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	0.3	0.1566 ug/L		0.37324	0.1566 ppb	0.37324	238.35%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	220.8	5.4846 ug/L		0.42520	5.4846 ppb	0.42520	7.75%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	-92.2	-0.7824 ug/L		0.17789	-0.7824 ppb	0.17789	22.74%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	46.5	0.0192 ug/L		0.00635	0.0192 ppb	0.00635	33.04%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	-3.9	-8.4173 ug/L		1.45065	-8.4173 ppb	1.45065	17.23%



QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	15.9	0.2147 ug/L	0.08356	0.2147 ppb	0.08356	38.91%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	14.0	0.3072 ug/L	0.26157	0.3072 ppb	0.26157	85.16%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-2.7	-0.0414 ug/L	0.12989	-0.0414 ppb	0.12989	314.02%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-884.9	-2.7659 ug/L	0.28049	-2.7659 ppb	0.28049	10.14%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-1.7	-24.307 ug/L	6.5655	-24.307 ppb	6.5655	27.01%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-566.9	-105.96 ug/L	9.002	-105.96 ppb	9.002	8.50%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-0.8	-39.848 ug/L	57.2961	-39.848 ppb	57.2961	143.79%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-38.1	-0.0459 ug/L	0.02130	-0.0459 ppb	0.02130	46.45%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	6.9	0.5612 ug/L	0.38369	0.5612 ppb	0.38369	68.37%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-4205.9	-1443.4 ug/L	12.08	-1443.4 ppb	12.08	0.84%	
QC value less than the lower limit for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-6.5	-0.1838 ug/L	0.11414	-0.1838 ppb	0.11414	62.11%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-5.9	-3.0287 ug/L	0.54031	-3.0287 ppb	0.54031	17.84%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-66.2	-9.1879 ug/L	0.81789	-9.1879 ppb	0.81789	8.90%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	1.2	1.7353 ug/L	1.97927	1.7353 ppb	1.97927	114.06%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	4.0	1.4942 ug/L	1.57077	1.4942 ppb	1.57077	105.13%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	5.8	3.8753 ug/L	2.42680	3.8753 ppb	2.42680	62.62%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	32.5	1.0800 ug/L	0.11209	1.0800 ppb	0.11209	10.38%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	1.6	0.3303 ug/L	0.36321	0.3303 ppb	0.36321	109.96%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-1176.3	-8.8207 ug/L	0.53484	-8.8207 ppb	0.53484	6.06%	
QC value less than the lower limit for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	264.0	0.4343 ug/L	0.02917	0.4343 ppb	0.02917	6.72%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	12.8	4.2971 ug/L	0.89380	4.2971 ppb	0.89380	20.80%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	386.0	14.052 ug/L	3.8492	14.052 ppb	3.8492	27.39%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	178.4	1.4980 ug/L	0.26123	1.4980 ppb	0.26123	17.44%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-48.6	-0.5016 ug/L	0.06687	-0.5016 ppb	0.06687	13.33%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	64.5	4.5850 ug/L	1.12572	4.5850 ppb	1.12572	24.55%	
QC value within limits for SiO2 Recovery = Not calculated							
QC Failed. Continue with analysis.							

Sequence No.: 98  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 2/20/2010 03:36:10  
 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	3936.9	3936.9	111 %		03:38:23
1	Y RADIAL	4476.2	4476.2	111.9 %		03:38:03
1	Al 396.153Radial†	5533.1	5084.1	4919.2 ug/L	4919.2 ppb	03:38:03
1	Ca 317.933Radial†	2564.7	2272.9	4965.2 ug/L	4965.2 ppb	03:38:23
1	Fe 238.204 Radial†	387.2	338.7	4914.8 ug/L	4914.8 ppb	03:38:23
1	K 766.490 Radial†	31617.4	25260.8	4740.8 ug/L	4740.8 ppb	03:38:03
1	Mg 279.077 IEC†	111.4	97.4	4951.2 ug/L	4951.2 ppb	03:38:23
1	Na 589.592 Radial†	32324.1	25012.5	8584.0 ug/L	8584.0 ppb	03:38:03
1	Sr 421.552†	73557.3	64642.1	484.69 ug/L	484.69 ppb	03:38:03
1	Sc 361.383	810318.6	810318.6	107.85 %		03:39:20
1	Y 371.029	636699.6	636699.6	108.20 %		03:39:20
1	Ag 328.068†	105349.2	97353.4	507.44 ug/L	507.44 ppb	03:39:26
1	As 188.979†	1103.8	1044.1	488.04 ug/L	488.04 ppb	03:39:46
1	B 249.677†	21068.3	19976.5	493.76 ug/L	493.76 ppb	03:39:26
1	Ba 233.527†	62748.0	58034.9	495.24 ug/L	495.24 ppb	03:39:26
1	Be 313.107†	1333110.0	1240415.6	487.84 ug/L	487.84 ppb	03:39:20
1	Cd 226.502†	40060.1	37338.9	493.54 ug/L	493.54 ppb	03:39:26
1	Co 228.616†	24219.9	22527.0	493.67 ug/L	493.67 ppb	03:39:26
1	Cr 267.716†	40574.6	37542.9	491.63 ug/L	491.63 ppb	03:39:26
1	Cu 324.752†	179487.0	159968.2	498.30 ug/L	498.30 ppb	03:39:26
1	Mn 257.610†	444675.1	411831.5	487.62 ug/L	487.62 ppb	03:39:20
1	Mo 202.031†	6446.8	5967.5	488.74 ug/L	488.74 ppb	03:39:46
1	Ni 231.604†	18688.4	17248.8	490.45 ug/L	490.45 ppb	03:39:26
1	P 214.914†	4440.5	3906.1	2289.6 ug/L	2289.6 ppb	03:39:46
1	Pb 220.353†	3743.5	3450.1	481.31 ug/L	481.31 ppb	03:39:46
1	S 181.975 Axial†	765.9	672.7	966.59 ug/L	966.59 ppb	03:39:46
1	Sb 206.836†	1487.4	1342.8	509.76 ug/L	509.76 ppb	03:39:46
1	Se 196.026†	742.4	717.7	505.28 ug/L	505.28 ppb	03:39:46
1	Si 251.611†	81366.4	74946.4	2503.5 ug/L	2503.5 ppb	03:39:26
1	Sn 189.927†	2631.2	2424.3	488.68 ug/L	488.68 ppb	03:39:46
1	Ti 334.940†	320867.0	298987.9	496.21 ug/L	496.21 ppb	03:39:20
1	Tl 190.801†	1552.5	1472.0	497.57 ug/L	497.57 ppb	03:39:46
1	U 409.014†	13294.2	15389.5	558.47 ug/L	558.47 ppb	03:39:26
1	V 292.402†	63779.5	60829.0	504.83 ug/L	504.83 ppb	03:39:26
1	Zn 213.857†	51628.6	47226.3	491.07 ug/L	491.07 ppb	03:39:26
1	SiO2†	80334.4	73993.8	5261.0 ug/L	5261.0 ppb	03:40:53
2	Sc Radial	3941.0	3941.0	111 %		03:38:48
2	Y RADIAL	4361.7	4361.7	109.1 %		03:38:28
2	Al 396.153Radial†	5411.0	4969.3	4807.4 ug/L	4807.4 ppb	03:38:28
2	Ca 317.933Radial†	2568.5	2273.8	4967.2 ug/L	4967.2 ppb	03:38:48
2	Fe 238.204 Radial†	390.6	341.4	4953.1 ug/L	4953.1 ppb	03:38:48
2	K 766.490 Radial†	30896.2	24583.6	4613.7 ug/L	4613.7 ppb	03:38:28
2	Mg 279.077 IEC†	111.3	97.3	4943.4 ug/L	4943.4 ppb	03:38:48
2	Na 589.592 Radial†	31457.8	24204.4	8306.7 ug/L	8306.7 ppb	03:38:28
2	Sr 421.552†	71395.1	62632.0	469.61 ug/L	469.61 ppb	03:38:28
2	Sc 361.383	807367.3	807367.3	107.46 %		03:39:52
2	Y 371.029	634850.1	634850.1	107.88 %		03:39:52
2	Ag 328.068†	104973.6	97361.0	507.51 ug/L	507.51 ppb	03:39:57
2	As 188.979†	1107.9	1051.6	491.54 ug/L	491.54 ppb	03:40:17
2	B 249.677†	20926.8	19916.3	492.26 ug/L	492.26 ppb	03:39:57
2	Ba 233.527†	62716.7	58218.4	496.81 ug/L	496.81 ppb	03:39:57
2	Be 313.107†	1333245.6	1245060.1	489.67 ug/L	489.67 ppb	03:39:52
2	Cd 226.502†	40153.7	37561.8	496.49 ug/L	496.49 ppb	03:39:57
2	Co 228.616†	24181.8	22573.7	494.70 ug/L	494.70 ppb	03:39:57
2	Cr 267.716†	40677.5	37776.2	494.69 ug/L	494.69 ppb	03:39:57
2	Cu 324.752†	177981.4	159175.4	495.84 ug/L	495.84 ppb	03:39:57
2	Mn 257.610†	443259.8	412021.6	487.85 ug/L	487.85 ppb	03:39:52
2	Mo 202.031†	6483.1	6023.2	493.30 ug/L	493.30 ppb	03:40:17
2	Ni 231.604†	18770.8	17388.8	494.43 ug/L	494.43 ppb	03:39:57

2	P 214.914†	4488.3	3965.6	2326.5 ug/L	2326.5 ppb	03:40:17
2	Pb 220.353†	3779.5	3496.3	487.71 ug/L	487.71 ppb	03:40:17
2	S 181.975 Axial†	780.9	689.3	990.44 ug/L	990.44 ppb	03:40:17
2	Sb 206.836†	1477.3	1338.4	508.39 ug/L	508.39 ppb	03:40:17
2	Se 196.026†	744.1	721.8	508.19 ug/L	508.19 ppb	03:40:17
2	Si 251.611†	80956.9	74841.2	2499.9 ug/L	2499.9 ppb	03:39:57
2	Sn 189.927†	2665.5	2465.2	496.91 ug/L	496.91 ppb	03:40:17
2	Ti 334.940†	320092.7	299354.8	496.83 ug/L	496.83 ppb	03:39:52
2	Tl 190.801†	1559.5	1483.8	501.51 ug/L	501.51 ppb	03:40:17
2	U 409.014†	12888.5	15057.0	546.35 ug/L	546.35 ppb	03:39:57
2	V 292.402†	63958.9	61212.2	508.00 ug/L	508.00 ppb	03:39:57
2	Zn 213.857†	51594.9	47369.9	492.55 ug/L	492.55 ppb	03:39:57
2	SiO2†	80424.2	74349.7	5286.3 ug/L	5286.3 ppb	03:40:59
3	Sc Radial	3921.9	3921.9	111 %		03:39:13
3	Y RADIAL	4365.6	4365.6	109.2 %		03:38:53
3	Al 396.153Radial†	5414.9	4996.5	4833.8 ug/L	4833.8 ppb	03:38:53
3	Ca 317.933Radial†	2572.9	2289.1	5000.5 ug/L	5000.5 ppb	03:39:13
3	Fe 238.204 Radial†	388.0	340.8	4943.9 ug/L	4943.9 ppb	03:39:13
3	K 766.490 Radial†	31096.1	24899.2	4672.9 ug/L	4672.9 ppb	03:38:53
3	Mg 279.077 IEC†	108.0	94.7	4813.2 ug/L	4813.2 ppb	03:39:13
3	Na 589.592 Radial†	31887.3	24729.6	8486.9 ug/L	8486.9 ppb	03:38:53
3	Sr 421.552†	72034.8	63521.6	476.28 ug/L	476.28 ppb	03:38:53
3	Sc 361.383	807781.6	807781.6	107.51 %		03:40:23
3	Y 371.029	634907.9	634907.9	107.89 %		03:40:23
3	Ag 328.068†	103460.6	95903.6	499.94 ug/L	499.94 ppb	03:40:28
3	As 188.979†	1119.5	1062.0	496.33 ug/L	496.33 ppb	03:40:48
3	B 249.677†	20494.9	19504.5	482.05 ug/L	482.05 ppb	03:40:28
3	Ba 233.527†	61917.1	57444.8	490.20 ug/L	490.20 ppb	03:40:28
3	Be 313.107†	1337233.9	1248133.5	490.88 ug/L	490.88 ppb	03:40:23
3	Cd 226.502†	39640.6	37065.4	489.92 ug/L	489.92 ppb	03:40:28
3	Co 228.616†	23877.9	22279.4	488.25 ug/L	488.25 ppb	03:40:28
3	Cr 267.716†	40093.8	37213.9	487.33 ug/L	487.33 ppb	03:40:28
3	Cu 324.752†	175129.7	156438.1	487.31 ug/L	487.31 ppb	03:40:28
3	Mn 257.610†	445743.3	414120.0	490.33 ug/L	490.33 ppb	03:40:23
3	Mo 202.031†	6506.0	6041.3	494.78 ug/L	494.78 ppb	03:40:48
3	Ni 231.604†	18536.2	17161.6	487.97 ug/L	487.97 ppb	03:40:28
3	P 214.914†	4482.9	3958.5	2323.9 ug/L	2323.9 ppb	03:40:48
3	Pb 220.353†	3789.4	3503.7	488.75 ug/L	488.75 ppb	03:40:48
3	S 181.975 Axial†	779.5	687.7	988.12 ug/L	988.12 ppb	03:40:48
3	Sb 206.836†	1488.1	1347.8	511.87 ug/L	511.87 ppb	03:40:48
3	Se 196.026†	746.2	723.3	509.24 ug/L	509.24 ppb	03:40:48
3	Si 251.611†	79658.7	73595.0	2458.1 ug/L	2458.1 ppb	03:40:28
3	Sn 189.927†	2687.5	2484.3	500.78 ug/L	500.78 ppb	03:40:48
3	Ti 334.940†	321103.1	300141.9	498.16 ug/L	498.16 ppb	03:40:23
3	Tl 190.801†	1575.1	1497.5	506.20 ug/L	506.20 ppb	03:40:48
3	U 409.014†	12514.5	14703.0	533.49 ug/L	533.49 ppb	03:40:28
3	V 292.402†	62956.6	60249.4	500.12 ug/L	500.12 ppb	03:40:28
3	Zn 213.857†	50885.1	46685.1	485.42 ug/L	485.42 ppb	03:40:28
3	SiO2†	79961.4	73880.9	5252.8 ug/L	5252.8 ppb	03:41:04

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	808489.2	107.61 %	0.213			0.20%
Sc Radial	3933.2	111 %	0.3			0.26%
Y 371.029	635485.9	107.99 %	0.179			0.17%
Y RADIAL	4401.2	110.1 %	1.63			1.48%
Ag 328.068†	96872.7	504.96 ug/L	4.353	504.96 ppb	4.353	0.86%
QC value within limits for Ag 328.068 Recovery = 100.99%						
Al 396.153Radial†	5016.7	4853.5 ug/L	58.46	4853.5 ppb	58.46	1.20%
QC value within limits for Al 396.153Radial Recovery = 97.07%						
As 188.979†	1052.6	491.97 ug/L	4.160	491.97 ppb	4.160	0.85%
QC value within limits for As 188.979 Recovery = 98.39%						
B 249.677†	19799.1	489.36 ug/L	6.369	489.36 ppb	6.369	1.30%
QC value within limits for B 249.677 Recovery = 97.87%						
Ba 233.527†	57899.4	494.08 ug/L	3.449	494.08 ppb	3.449	0.70%
QC value within limits for Ba 233.527 Recovery = 98.82%						
Be 313.107†	1244536.4	489.46 ug/L	1.527	489.46 ppb	1.527	0.31%
QC value within limits for Be 313.107 Recovery = 97.89%						
Ca 317.933Radial†	2278.6	4977.6 ug/L	19.86	4977.6 ppb	19.86	0.40%

QC value within limits for Ca 317.933 Radial Recovery = 99.55%							
Cd 226.502†	37322.0	493.32 ug/L	3.290	493.32 ppb	3.290	0.67%	
QC value within limits for Cd 226.502 Recovery = 98.66%							
Co 228.616†	22460.0	492.21 ug/L	3.463	492.21 ppb	3.463	0.70%	
QC value within limits for Co 228.616 Recovery = 98.44%							
Cr 267.716†	37511.0	491.22 ug/L	3.695	491.22 ppb	3.695	0.75%	
QC value within limits for Cr 267.716 Recovery = 98.24%							
Cu 324.752†	158527.2	493.82 ug/L	5.763	493.82 ppb	5.763	1.17%	
QC value within limits for Cu 324.752 Recovery = 98.76%							
Fe 238.204 Radial†	340.3	4937.3 ug/L	20.03	4937.3 ppb	20.03	0.41%	
QC value within limits for Fe 238.204 Radial Recovery = 98.75%							
K 766.490 Radial†	24914.5	4675.8 ug/L	63.62	4675.8 ppb	63.62	1.36%	
QC value within limits for K 766.490 Radial Recovery = 93.52%							
Mg 279.077 IEC†	96.5	4902.6 ug/L	77.55	4902.6 ppb	77.55	1.58%	
QC value within limits for Mg 279.077 IEC Recovery = 98.05%							
Mn 257.610†	412657.7	488.60 ug/L	1.507	488.60 ppb	1.507	0.31%	
QC value within limits for Mn 257.610 Recovery = 97.72%							
Mo 202.031†	6010.7	492.27 ug/L	3.149	492.27 ppb	3.149	0.64%	
QC value within limits for Mo 202.031 Recovery = 98.45%							
Na 589.592 Radial†	24648.8	8459.2 ug/L	140.72	8459.2 ppb	140.72	1.66%	
QC value less than the lower limit for Na 589.592 Radial Recovery = 84.59%							
Ni 231.604†	17266.4	490.95 ug/L	3.259	490.95 ppb	3.259	0.66%	
QC value within limits for Ni 231.604 Recovery = 98.19%							
P 214.914†	3943.4	2313.3 ug/L	20.57	2313.3 ppb	20.57	0.89%	
QC value within limits for P 214.914 Recovery = 92.53%							
Pb 220.353†	3483.4	485.92 ug/L	4.030	485.92 ppb	4.030	0.83%	
QC value within limits for Pb 220.353 Recovery = 97.18%							
S 181.975 Axial†	683.2	981.72 ug/L	13.152	981.72 ppb	13.152	1.34%	
QC value within limits for S 181.975 Axial Recovery = 98.17%							
Sb 206.836†	1343.0	510.01 ug/L	1.755	510.01 ppb	1.755	0.34%	
QC value within limits for Sb 206.836 Recovery = 102.00%							
Se 196.026†	720.9	507.57 ug/L	2.052	507.57 ppb	2.052	0.40%	
QC value within limits for Se 196.026 Recovery = 101.51%							
Si 251.611†	74460.9	2487.2 ug/L	25.20	2487.2 ppb	25.20	1.01%	
QC value within limits for Si 251.611 Recovery = 99.49%							
Sn 189.927†	2457.9	495.46 ug/L	6.175	495.46 ppb	6.175	1.25%	
QC value within limits for Sn 189.927 Recovery = 99.09%							
Sr 421.552†	63598.6	476.86 ug/L	7.553	476.86 ppb	7.553	1.58%	
QC value within limits for Sr 421.552 Recovery = 95.37%							
Ti 334.940†	299494.9	497.06 ug/L	0.994	497.06 ppb	0.994	0.20%	
QC value within limits for Ti 334.940 Recovery = 99.41%							
Tl 190.801†	1484.5	501.76 ug/L	4.320	501.76 ppb	4.320	0.86%	
QC value within limits for Tl 190.801 Recovery = 100.35%							
U 409.014†	15049.8	546.10 ug/L	12.492	546.10 ppb	12.492	2.29%	
QC value within limits for U 409.014 Recovery = 109.22%							
V 292.402†	60763.5	504.32 ug/L	3.969	504.32 ppb	3.969	0.79%	
QC value within limits for V 292.402 Recovery = 100.86%							
Zn 213.857†	47093.8	489.68 ug/L	3.764	489.68 ppb	3.764	0.77%	
QC value within limits for Zn 213.857 Recovery = 97.94%							
SiO2†	74074.8	5266.7 ug/L	17.44	5266.7 ppb	17.44	0.33%	
QC value within limits for SiO2 Recovery = 98.49%							
QC Failed. Continue with analysis.							

Sequence No.: 99

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/20/2010 03:43:13

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	3935.0	3935.0	111 %		03:45:26
1	Y RADIAL	4486.7	4486.7	112.2 %		03:45:06
1	Al 396.153Radial†	-109.6	14.7	14.299 ug/L	14.299 ppb	03:45:26
1	Ca 317.933Radial†	37.3	2.3	5.0699 ug/L	5.0699 ppb	03:45:26
1	Fe 238.204 Radial†	10.0	-0.1	-2.0374 ug/L	-2.0374 ppb	03:45:26
1	K 766.490 Radial†	2842.7	-589.1	-110.15 ug/L	-110.15 ppb	03:45:06
1	Mg 279.077 IEC†	0.9	-1.9	-95.539 ug/L	-95.539 ppb	03:45:26
1	Na 589.592 Radial†	-20.9	-4046.1	-1388.6 ug/L	-1388.6 ppb	03:45:06
1	Sr 421.552†	369.2	-1109.6	-8.3205 ug/L	-8.3205 ppb	03:45:06
1	Sc 361.383	796832.9	796832.9	106.06 %		03:46:23
1	Y 371.029	634286.6	634286.6	107.79 %		03:46:23
1	Ag 328.068†	126.6	-207.0	-1.0777 ug/L	-1.0777 ppb	03:46:23
1	As 188.979†	-21.8	0.1	0.0446 ug/L	0.0446 ppb	03:46:43
1	B 249.677†	-162.8	288.4	7.1598 ug/L	7.1598 ppb	03:46:43
1	Ba 233.527†	54.0	-94.1	-0.7981 ug/L	-0.7981 ppb	03:46:43
1	Be 313.107†	-4644.6	-23.5	-0.0080 ug/L	-0.0080 ppb	03:46:23
1	Cd 226.502†	-180.5	25.0	0.3327 ug/L	0.3327 ppb	03:46:43
1	Co 228.616†	-53.7	19.7	0.4308 ug/L	0.4308 ppb	03:46:43
1	Cr 267.716†	89.1	6.2	0.0780 ug/L	0.0780 ppb	03:46:43
1	Cu 324.752†	5983.0	-810.8	-2.5329 ug/L	-2.5329 ppb	03:46:23
1	Mn 257.610†	465.2	-32.7	-0.0350 ug/L	-0.0350 ppb	03:46:43
1	Mo 202.031†	16.9	6.0	0.4906 ug/L	0.4906 ppb	03:46:43
1	Ni 231.604†	97.6	12.9	0.3667 ug/L	0.3667 ppb	03:46:43
1	P 214.914†	208.7	-14.4	-8.2492 ug/L	-8.2492 ppb	03:46:43
1	Pb 220.353†	-52.5	-70.4	-9.7696 ug/L	-9.7696 ppb	03:46:43
1	S 181.975 Axial†	43.3	3.4	4.9455 ug/L	4.9455 ppb	03:46:43
1	Sb 206.836†	32.1	-6.1	-2.1890 ug/L	-2.1890 ppb	03:46:43
1	Se 196.026†	-22.2	8.3	5.6461 ug/L	5.6461 ppb	03:46:43
1	Si 251.611†	569.0	40.0	1.3334 ug/L	1.3334 ppb	03:46:43
1	Sn 189.927†	25.9	9.1	1.8284 ug/L	1.8284 ppb	03:46:43
1	Ti 334.940†	-1228.1	322.0	0.5376 ug/L	0.5376 ppb	03:46:23
1	Tl 190.801†	-24.6	9.3	3.1311 ug/L	3.1311 ppb	03:46:43
1	U 409.014†	-2890.9	337.3	12.276 ug/L	12.276 ppb	03:46:23
1	V 292.402†	-1621.7	163.6	1.3684 ug/L	1.3684 ppb	03:46:23
1	Zn 213.857†	678.1	-4.4	-0.0447 ug/L	-0.0447 ppb	03:46:43
1	SiO2†	544.7	21.4	1.5138 ug/L	1.5138 ppb	03:47:39
2	Sc Radial	3914.6	3914.6	111 %		03:45:51
2	Y RADIAL	4436.2	4436.2	110.9 %		03:45:31
2	Al 396.153Radial†	-110.1	13.7	13.319 ug/L	13.319 ppb	03:45:51
2	Ca 317.933Radial†	34.0	-0.6	-1.2368 ug/L	-1.2368 ppb	03:45:51
2	Fe 238.204 Radial†	9.2	-0.9	-12.530 ug/L	-12.530 ppb	03:45:51
2	K 766.490 Radial†	2894.8	-528.7	-98.781 ug/L	-98.781 ppb	03:45:31
2	Mg 279.077 IEC†	-1.4	-4.0	-201.29 ug/L	-201.29 ppb	03:45:51
2	Na 589.592 Radial†	-134.1	-4148.5	-1423.7 ug/L	-1423.7 ppb	03:45:31
2	Sr 421.552†	267.7	-1199.6	-8.9950 ug/L	-8.9950 ppb	03:45:31
2	Sc 361.383	792103.5	792103.5	105.43 %		03:46:48
2	Y 371.029	631336.5	631336.5	107.29 %		03:46:48
2	Ag 328.068†	277.2	-63.5	-0.3383 ug/L	-0.3383 ppb	03:46:48
2	As 188.979†	-28.4	-6.2	-2.8801 ug/L	-2.8801 ppb	03:47:08
2	B 249.677†	-204.4	248.1	6.1615 ug/L	6.1615 ppb	03:47:08
2	Ba 233.527†	50.3	-97.4	-0.8259 ug/L	-0.8259 ppb	03:47:08
2	Be 313.107†	-4515.0	73.2	0.0295 ug/L	0.0295 ppb	03:46:48
2	Cd 226.502†	-180.0	24.5	0.3271 ug/L	0.3271 ppb	03:47:08
2	Co 228.616†	-54.4	18.7	0.4095 ug/L	0.4095 ppb	03:47:08
2	Cr 267.716†	85.8	3.6	0.0417 ug/L	0.0417 ppb	03:47:08
2	Cu 324.752†	6004.1	-757.2	-2.3674 ug/L	-2.3674 ppb	03:46:48
2	Mn 257.610†	466.0	-29.3	-0.0277 ug/L	-0.0277 ppb	03:47:08
2	Mo 202.031†	17.7	6.9	0.5603 ug/L	0.5603 ppb	03:47:08
2	Ni 231.604†	66.0	-16.5	-0.4706 ug/L	-0.4706 ppb	03:47:08

2	P 214.914†	215.1	-7.1	-3.8255 ug/L	-3.8255 ppb	03:47:08
2	Pb 220.353†	-53.8	-71.9	-9.9850 ug/L	-9.9850 ppb	03:47:08
2	S 181.975 Axial†	44.0	4.4	6.2539 ug/L	6.2539 ppb	03:47:08
2	Sb 206.836†	26.4	-11.3	-4.1139 ug/L	-4.1139 ppb	03:47:08
2	Se 196.026†	-23.7	6.8	4.5578 ug/L	4.5578 ppb	03:47:08
2	Si 251.611†	565.8	40.2	1.3390 ug/L	1.3390 ppb	03:47:08
2	Sn 189.927†	21.2	4.7	0.9538 ug/L	0.9538 ppb	03:47:08
2	Ti 334.940†	-1336.5	212.3	0.3625 ug/L	0.3625 ppb	03:46:48
2	Tl 190.801†	-24.2	9.6	3.2221 ug/L	3.2221 ppb	03:47:08
2	U 409.014†	-2822.3	386.0	14.052 ug/L	14.052 ppb	03:46:48
2	V 292.402†	-1600.7	174.4	1.4610 ug/L	1.4610 ppb	03:46:48
2	Zn 213.857†	659.3	-18.4	-0.1848 ug/L	-0.1848 ppb	03:47:08
2	SiO2†	549.4	28.9	2.0427 ug/L	2.0427 ppb	03:47:44
3	Sc Radial	3948.3	3948.3	112 %		03:46:16
3	Y RADIAL	4457.8	4457.8	111.5 %		03:45:56
3	Al 396.153Radial†	-112.7	12.3	11.863 ug/L	11.863 ppb	03:46:16
3	Ca 317.933Radial†	36.9	1.8	3.8650 ug/L	3.8650 ppb	03:46:16
3	Fe 238.204 Radial†	8.1	-1.9	-26.892 ug/L	-26.892 ppb	03:46:16
3	K 766.490 Radial†	2940.3	-510.2	-95.327 ug/L	-95.327 ppb	03:45:56
3	Mg 279.077 IEC†	0.2	-2.5	-125.66 ug/L	-125.66 ppb	03:46:16
3	Na 589.592 Radial†	-121.7	-4136.4	-1419.6 ug/L	-1419.6 ppb	03:45:56
3	Sr 421.552†	258.2	-1210.1	-9.0739 ug/L	-9.0739 ppb	03:45:56
3	Sc 361.383	796102.9	796102.9	105.96 %		03:47:14
3	Y 371.029	632995.2	632995.2	107.57 %		03:47:14
3	Ag 328.068†	276.5	-65.4	-0.3582 ug/L	-0.3582 ppb	03:47:14
3	As 188.979†	-24.8	-2.7	-1.2540 ug/L	-1.2540 ppb	03:47:34
3	B 249.677†	-223.6	231.0	5.7384 ug/L	5.7384 ppb	03:47:34
3	Ba 233.527†	56.1	-92.1	-0.7815 ug/L	-0.7815 ppb	03:47:34
3	Be 313.107†	-4588.8	25.1	0.0108 ug/L	0.0108 ppb	03:47:14
3	Cd 226.502†	-195.1	11.0	0.1516 ug/L	0.1516 ppb	03:47:34
3	Co 228.616†	-60.4	13.3	0.2935 ug/L	0.2935 ppb	03:47:34
3	Cr 267.716†	72.7	-9.2	-0.1295 ug/L	-0.1295 ppb	03:47:34
3	Cu 324.752†	6016.9	-773.7	-2.4229 ug/L	-2.4229 ppb	03:47:14
3	Mn 257.610†	475.5	-22.6	-0.0242 ug/L	-0.0242 ppb	03:47:34
3	Mo 202.031†	27.1	15.6	1.2777 ug/L	1.2777 ppb	03:47:34
3	Ni 231.604†	73.5	-9.8	-0.2794 ug/L	-0.2794 ppb	03:47:34
3	P 214.914†	210.6	-12.4	-7.0537 ug/L	-7.0537 ppb	03:47:34
3	Pb 220.353†	-50.1	-68.2	-9.4575 ug/L	-9.4575 ppb	03:47:34
3	S 181.975 Axial†	43.8	4.0	5.7294 ug/L	5.7294 ppb	03:47:34
3	Sb 206.836†	35.8	-2.6	-0.8969 ug/L	-0.8969 ppb	03:47:34
3	Se 196.026†	-18.9	11.5	7.6899 ug/L	7.6899 ppb	03:47:34
3	Si 251.611†	560.8	32.7	1.0807 ug/L	1.0807 ppb	03:47:34
3	Sn 189.927†	21.6	5.0	1.0158 ug/L	1.0158 ppb	03:47:34
3	Ti 334.940†	-1289.8	262.7	0.4381 ug/L	0.4381 ppb	03:47:14
3	Tl 190.801†	-27.9	6.2	2.0845 ug/L	2.0845 ppb	03:47:34
3	U 409.014†	-2656.4	556.1	20.244 ug/L	20.244 ppb	03:47:14
3	V 292.402†	-1622.5	161.5	1.3804 ug/L	1.3804 ppb	03:47:14
3	Zn 213.857†	669.5	-11.9	-0.1158 ug/L	-0.1158 ppb	03:47:34
3	SiO2†	584.6	59.5	4.2044 ug/L	4.2044 ppb	03:47:49

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	795013.1	105.81 %		0.339			0.32%
Sc Radial	3932.6	111 %		0.5			0.43%
Y 371.029	632872.8	107.55 %		0.251			0.23%
Y RADIAL	4460.2	111.5 %		0.63			0.57%
Ag 328.068†	-111.9	-0.5914 ug/L		0.42125	-0.5914 ppb	0.42125	71.23%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	13.6	13.160 ug/L		1.2259	13.160 ppb	1.2259	9.32%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-2.9	-1.3632 ug/L		1.46536	-1.3632 ppb	1.46536	107.50%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	255.8	6.3533 ug/L		0.72985	6.3533 ppb	0.72985	11.49%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	-94.5	-0.8018 ug/L		0.02245	-0.8018 ppb	0.02245	2.80%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	24.9	0.0108 ug/L		0.01878	0.0108 ppb	0.01878	174.14%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	1.2	2.5661 ug/L		3.34798	2.5661 ppb	3.34798	130.47%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	20.1	0.2705 ug/L	0.10299	0.2705 ppb	0.10299	38.08%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	17.2	0.3779 ug/L	0.07387	0.3779 ppb	0.07387	19.55%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	0.2	-0.0033 ug/L	0.11080	-0.0033 ppb	0.11080	>999.9%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-780.6	-2.4410 ug/L	0.08422	-2.4410 ppb	0.08422	3.45%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-1.0	-13.820 ug/L	12.4774	-13.820 ppb	12.4774	90.29%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-542.7	-101.42 ug/L	7.756	-101.42 ppb	7.756	7.65%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-2.8	-140.83 ug/L	54.481	-140.83 ppb	54.481	38.69%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-28.2	-0.0290 ug/L	0.00552	-0.0290 ppb	0.00552	19.07%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	9.5	0.7762 ug/L	0.43572	0.7762 ppb	0.43572	56.14%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-4110.3	-1410.6 ug/L	19.20	-1410.6 ppb	19.20	1.36%	
QC value less than the lower limit for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-4.5	-0.1278 ug/L	0.43876	-0.1278 ppb	0.43876	343.42%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-11.3	-6.3762 ug/L	2.28835	-6.3762 ppb	2.28835	35.89%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-70.2	-9.7374 ug/L	0.26523	-9.7374 ppb	0.26523	2.72%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	3.9	5.6429 ug/L	0.65849	5.6429 ppb	0.65849	11.67%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-6.6	-2.4000 ug/L	1.61885	-2.4000 ppb	1.61885	67.45%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	8.9	5.9646 ug/L	1.59018	5.9646 ppb	1.59018	26.66%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	37.6	1.2510 ug/L	0.14757	1.2510 ppb	0.14757	11.80%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	6.3	1.2660 ug/L	0.48803	1.2660 ppb	0.48803	38.55%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-1173.1	-8.7965 ug/L	0.41407	-8.7965 ppb	0.41407	4.71%	
QC value less than the lower limit for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	265.7	0.4461 ug/L	0.08779	0.4461 ppb	0.08779	19.68%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	8.4	2.8126 ug/L	0.63217	2.8126 ppb	0.63217	22.48%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	426.5	15.524 ug/L	4.1827	15.524 ppb	4.1827	26.94%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	166.5	1.4033 ug/L	0.05035	1.4033 ppb	0.05035	3.59%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-11.6	-0.1151 ug/L	0.07010	-0.1151 ppb	0.07010	60.90%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	36.6	2.5870 ug/L	1.42546	2.5870 ppb	1.42546	55.10%	
QC value within limits for SiO2 Recovery = Not calculated							
QC Failed. Continue with analysis.							

Sequence No.: 105  
 Sample ID: CCV  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 7  
 Date Collected: 2/20/2010 04:27:14  
 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	3883.6	3883.6	110 %		04:29:26
1	Y RADIAL	4393.5	4393.5	109.9 %		04:29:06
1	Al 396.153Radial†	5443.3	5070.5	4905.9 ug/L	4905.9 ppb	04:29:06
1	Ca 317.933Radial†	2533.3	2275.9	4971.7 ug/L	4971.7 ppb	04:29:26
1	Fe 238.204 Radial†	382.8	339.5	4925.5 ug/L	4925.5 ppb	04:29:26
1	K 766.490 Radial†	31389.9	25443.1	4775.1 ug/L	4775.1 ppb	04:29:06
1	Mg 279.077 IEC†	108.8	96.5	4902.5 ug/L	4902.5 ppb	04:29:26
1	Na 589.592 Radial†	31587.1	24739.5	8490.3 ug/L	8490.3 ppb	04:29:06
1	Sr 421.552†	72534.2	64616.4	484.49 ug/L	484.49 ppb	04:29:06
1	Sc 361.383	796285.2	796285.2	105.98 %		04:30:23
1	Y 371.029	624503.9	624503.9	106.12 %		04:30:23
1	Ag 328.068†	103110.5	96962.6	505.42 ug/L	505.42 ppb	04:30:28
1	As 188.979†	1107.5	1065.6	497.94 ug/L	497.94 ppb	04:30:48
1	B 249.677†	20273.9	19571.2	483.70 ug/L	483.70 ppb	04:30:28
1	Ba 233.527†	61336.9	57728.8	492.63 ug/L	492.63 ppb	04:30:28
1	Be 313.107†	1311790.1	1242083.3	488.48 ug/L	488.48 ppb	04:30:23
1	Cd 226.502†	39101.8	37089.3	490.24 ug/L	490.24 ppb	04:30:28
1	Co 228.616†	23719.5	22450.7	492.02 ug/L	492.02 ppb	04:30:28
1	Cr 267.716†	39777.1	37453.5	490.46 ug/L	490.46 ppb	04:30:28
1	Cu 324.752†	175345.0	158993.0	495.27 ug/L	495.27 ppb	04:30:28
1	Mn 257.610†	437635.6	412455.7	488.36 ug/L	488.36 ppb	04:30:23
1	Mo 202.031†	6352.6	5984.0	490.09 ug/L	490.09 ppb	04:30:48
1	Ni 231.604†	18348.8	17233.7	490.02 ug/L	490.02 ppb	04:30:28
1	P 214.914†	4392.0	3932.9	2306.6 ug/L	2306.6 ppb	04:30:48
1	Pb 220.353†	3686.3	3457.3	482.31 ug/L	482.31 ppb	04:30:48
1	S 181.975 Axial†	772.7	691.7	993.84 ug/L	993.84 ppb	04:30:48
1	Sb 206.836†	1478.9	1359.0	515.81 ug/L	515.81 ppb	04:30:48
1	Se 196.026†	737.7	725.3	510.52 ug/L	510.52 ppb	04:30:48
1	Si 251.611†	79725.6	74727.8	2496.1 ug/L	2496.1 ppb	04:30:28
1	Sn 189.927†	2604.1	2441.7	492.19 ug/L	492.19 ppb	04:30:48
1	Ti 334.940†	309559.7	293562.2	487.22 ug/L	487.22 ppb	04:30:28
1	Tl 190.801†	1539.8	1485.4	502.01 ug/L	502.01 ppb	04:30:48
1	U 409.014†	12611.5	14962.6	542.93 ug/L	542.93 ppb	04:30:28
1	V 292.402†	62466.9	60632.7	503.22 ug/L	503.22 ppb	04:30:28
1	Zn 213.857†	50434.2	46942.9	488.11 ug/L	488.11 ppb	04:30:28
1	SiO2†	79829.3	74830.0	5320.6 ug/L	5320.6 ppb	04:31:56
2	Sc Radial	3883.9	3883.9	110 %		04:29:51
2	Y RADIAL	4400.9	4400.9	110.1 %		04:29:31
2	Al 396.153Radial†	5464.9	5089.8	4924.6 ug/L	4924.6 ppb	04:29:31
2	Ca 317.933Radial†	2544.8	2286.1	4994.1 ug/L	4994.1 ppb	04:29:51
2	Fe 238.204 Radial†	386.6	342.9	4974.6 ug/L	4974.6 ppb	04:29:51
2	K 766.490 Radial†	31689.3	25713.2	4825.9 ug/L	4825.9 ppb	04:29:31
2	Mg 279.077 IEC†	110.6	98.1	4983.3 ug/L	4983.3 ppb	04:29:51
2	Na 589.592 Radial†	31854.3	24980.3	8573.0 ug/L	8573.0 ppb	04:29:31
2	Sr 421.552†	72879.2	64925.0	486.81 ug/L	486.81 ppb	04:29:31
2	Sc 361.383	797924.3	797924.3	106.20 %		04:30:54
2	Y 371.029	627116.2	627116.2	106.57 %		04:30:54
2	Ag 328.068†	103358.5	96996.3	505.61 ug/L	505.61 ppb	04:30:59
2	As 188.979†	1112.1	1067.8	498.95 ug/L	498.95 ppb	04:31:19
2	B 249.677†	20437.0	19685.5	486.54 ug/L	486.54 ppb	04:30:59
2	Ba 233.527†	61523.5	57785.7	493.11 ug/L	493.11 ppb	04:30:59
2	Be 313.107†	1316482.5	1243959.1	489.21 ug/L	489.21 ppb	04:30:54
2	Cd 226.502†	39230.8	37135.0	490.84 ug/L	490.84 ppb	04:30:59
2	Co 228.616†	23705.3	22391.3	490.72 ug/L	490.72 ppb	04:30:59
2	Cr 267.716†	39833.2	37429.2	490.15 ug/L	490.15 ppb	04:30:59
2	Cu 324.752†	176001.8	159271.5	496.14 ug/L	496.14 ppb	04:30:59
2	Mn 257.610†	437894.6	411851.3	487.64 ug/L	487.64 ppb	04:30:54
2	Mo 202.031†	6397.1	6013.5	492.51 ug/L	492.51 ppb	04:31:19
2	Ni 231.604†	18400.2	17246.5	490.38 ug/L	490.38 ppb	04:30:59



2	P 214.914†	4422.7	3953.3	2318.9 ug/L	2318.9 ppb	04:31:19
2	Pb 220.353†	3706.4	3469.1	483.95 ug/L	483.95 ppb	04:31:19
2	S 181.975 Axial†	778.4	695.6	999.45 ug/L	999.45 ppb	04:31:19
2	Sb 206.836†	1469.4	1347.2	511.56 ug/L	511.56 ppb	04:31:19
2	Se 196.026†	753.1	738.4	519.58 ug/L	519.58 ppb	04:31:19
2	Si 251.611†	79837.8	74679.0	2494.5 ug/L	2494.5 ppb	04:30:59
2	Sn 189.927†	2616.5	2448.4	493.53 ug/L	493.53 ppb	04:31:19
2	Ti 334.940†	310158.5	293526.0	487.15 ug/L	487.15 ppb	04:30:59
2	Tl 190.801†	1542.4	1484.8	501.81 ug/L	501.81 ppb	04:31:19
2	U 409.014†	12685.1	15007.4	544.56 ug/L	544.56 ppb	04:30:59
2	V 292.402†	62577.6	60615.9	503.12 ug/L	503.12 ppb	04:30:59
2	Zn 213.857†	50624.2	47024.1	488.95 ug/L	488.95 ppb	04:30:59
2	SiO2†	79958.8	74797.2	5318.2 ug/L	5318.2 ppb	04:32:01
3	Sc Radial	3856.1	3856.1	109 %		04:30:16
3	Y RADIAL	4231.3	4231.3	105.8 %		04:29:56
3	Al 396.153Radial†	5286.5	4962.1	4800.4 ug/L	4800.4 ppb	04:29:56
3	Ca 317.933Radial†	2512.9	2273.7	4966.8 ug/L	4966.8 ppb	04:30:16
3	Fe 238.204 Radial†	381.8	341.1	4948.7 ug/L	4948.7 ppb	04:30:16
3	K 766.490 Radial†	30659.4	24977.1	4687.7 ug/L	4687.7 ppb	04:29:56
3	Mg 279.077 IEC†	108.5	96.9	4922.1 ug/L	4922.1 ppb	04:30:16
3	Na 589.592 Radial†	30627.5	24064.6	8258.7 ug/L	8258.7 ppb	04:29:56
3	Sr 421.552†	69818.4	62596.9	469.35 ug/L	469.35 ppb	04:29:56
3	Sc 361.383	799600.4	799600.4	106.43 %		04:31:25
3	Y 371.029	627815.5	627815.5	106.69 %		04:31:25
3	Ag 328.068†	103577.6	96998.2	505.61 ug/L	505.61 ppb	04:31:30
3	As 188.979†	1108.3	1062.0	496.27 ug/L	496.27 ppb	04:31:50
3	B 249.677†	20551.7	19752.9	488.21 ug/L	488.21 ppb	04:31:30
3	Ba 233.527†	61590.2	57726.9	492.61 ug/L	492.61 ppb	04:31:30
3	Be 313.107†	1321971.8	1246518.6	490.22 ug/L	490.22 ppb	04:31:25
3	Cd 226.502†	39408.1	37224.1	492.02 ug/L	492.02 ppb	04:31:30
3	Co 228.616†	23850.0	22480.5	492.68 ug/L	492.68 ppb	04:31:30
3	Cr 267.716†	40003.2	37510.3	491.21 ug/L	491.21 ppb	04:31:30
3	Cu 324.752†	176107.9	159023.9	495.36 ug/L	495.36 ppb	04:31:30
3	Mn 257.610†	440029.0	412992.6	488.99 ug/L	488.99 ppb	04:31:25
3	Mo 202.031†	6411.2	6014.2	492.56 ug/L	492.56 ppb	04:31:50
3	Ni 231.604†	18470.7	17276.5	491.24 ug/L	491.24 ppb	04:31:30
3	P 214.914†	4403.0	3926.1	2302.4 ug/L	2302.4 ppb	04:31:50
3	Pb 220.353†	3737.0	3490.5	486.90 ug/L	486.90 ppb	04:31:50
3	S 181.975 Axial†	773.9	689.8	991.17 ug/L	991.17 ppb	04:31:50
3	Sb 206.836†	1475.9	1350.4	512.70 ug/L	512.70 ppb	04:31:50
3	Se 196.026†	749.5	733.6	516.18 ug/L	516.18 ppb	04:31:50
3	Si 251.611†	79806.8	74492.2	2488.2 ug/L	2488.2 ppb	04:31:30
3	Sn 189.927†	2608.2	2435.4	490.91 ug/L	490.91 ppb	04:31:50
3	Ti 334.940†	310923.5	293632.7	487.33 ug/L	487.33 ppb	04:31:30
3	Tl 190.801†	1527.8	1468.1	496.19 ug/L	496.19 ppb	04:31:50
3	U 409.014†	12749.5	15042.9	545.85 ug/L	545.85 ppb	04:31:30
3	V 292.402†	62749.2	60653.7	503.43 ug/L	503.43 ppb	04:31:30
3	Zn 213.857†	50770.6	47061.8	489.34 ug/L	489.34 ppb	04:31:30
3	SiO2†	80461.4	75111.6	5340.6 ug/L	5340.6 ppb	04:32:06

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	797936.6	106.20 %	0.221			0.21%
Sc Radial	3874.5	110 %	0.5			0.41%
Y 371.029	626478.5	106.46 %	0.297			0.28%
Y RADIAL	4341.9	108.6 %	2.40			2.21%
Ag 328.068†	96985.7	505.55 ug/L	0.109	505.55 ppb	0.109	0.02%
QC value within limits for Ag 328.068 Recovery = 101.11%						
Al 396.153Radial†	5040.8	4877.0 ug/L	66.94	4877.0 ppb	66.94	1.37%
QC value within limits for Al 396.153Radial Recovery = 97.54%						
As 188.979†	1065.2	497.72 ug/L	1.353	497.72 ppb	1.353	0.27%
QC value within limits for As 188.979 Recovery = 99.54%						
B 249.677†	19669.9	486.15 ug/L	2.277	486.15 ppb	2.277	0.47%
QC value within limits for B 249.677 Recovery = 97.23%						
Ba 233.527†	57747.1	492.79 ug/L	0.285	492.79 ppb	0.285	0.06%
QC value within limits for Ba 233.527 Recovery = 98.56%						
Be 313.107†	1244187.0	489.30 ug/L	0.874	489.30 ppb	0.874	0.18%
QC value within limits for Be 313.107 Recovery = 97.86%						
Ca 317.933Radial†	2278.6	4977.5 ug/L	14.56	4977.5 ppb	14.56	0.29%

QC value within limits for Ca 317.933 Radial Recovery = 99.55%							
Cd 226.502†	37149.5	491.03 ug/L	0.906	491.03 ppb	0.906	0.18%	
QC value within limits for Cd 226.502 Recovery = 98.21%							
Co 228.616†	22440.8	491.81 ug/L	0.994	491.81 ppb	0.994	0.20%	
QC value within limits for Co 228.616 Recovery = 98.36%							
Cr 267.716†	37464.3	490.61 ug/L	0.543	490.61 ppb	0.543	0.11%	
QC value within limits for Cr 267.716 Recovery = 98.12%							
Cu 324.752†	159096.1	495.59 ug/L	0.477	495.59 ppb	0.477	0.10%	
QC value within limits for Cu 324.752 Recovery = 99.12%							
Fe 238.204 Radial†	341.1	4949.6 ug/L	24.60	4949.6 ppb	24.60	0.50%	
QC value within limits for Fe 238.204 Radial Recovery = 98.99%							
K 766.490 Radial†	25377.8	4762.9 ug/L	69.91	4762.9 ppb	69.91	1.47%	
QC value within limits for K 766.490 Radial Recovery = 95.26%							
Mg 279.077 IEC†	97.1	4936.0 ug/L	42.16	4936.0 ppb	42.16	0.85%	
QC value within limits for Mg 279.077 IEC Recovery = 98.72%							
Mn 257.610†	412433.2	488.33 ug/L	0.676	488.33 ppb	0.676	0.14%	
QC value within limits for Mn 257.610 Recovery = 97.67%							
Mo 202.031†	6003.9	491.72 ug/L	1.412	491.72 ppb	1.412	0.29%	
QC value within limits for Mo 202.031 Recovery = 98.34%							
Na 589.592 Radial†	24594.8	8440.7 ug/L	162.92	8440.7 ppb	162.92	1.93%	
QC value less than the lower limit for Na 589.592 Radial Recovery = 84.41%							
Ni 231.604†	17252.2	490.55 ug/L	0.625	490.55 ppb	0.625	0.13%	
QC value within limits for Ni 231.604 Recovery = 98.11%							
P 214.914†	3937.4	2309.3 ug/L	8.56	2309.3 ppb	8.56	0.37%	
QC value within limits for P 214.914 Recovery = 92.37%							
Pb 220.353†	3472.3	484.39 ug/L	2.324	484.39 ppb	2.324	0.48%	
QC value within limits for Pb 220.353 Recovery = 96.88%							
S 181.975 Axial†	692.3	994.82 ug/L	4.230	994.82 ppb	4.230	0.43%	
QC value within limits for S 181.975 Axial Recovery = 99.48%							
Sb 206.836†	1352.2	513.36 ug/L	2.200	513.36 ppb	2.200	0.43%	
QC value within limits for Sb 206.836 Recovery = 102.67%							
Se 196.026†	732.5	515.43 ug/L	4.574	515.43 ppb	4.574	0.89%	
QC value within limits for Se 196.026 Recovery = 103.09%							
Si 251.611†	74633.0	2492.9 ug/L	4.17	2492.9 ppb	4.17	0.17%	
QC value within limits for Si 251.611 Recovery = 99.72%							
Sn 189.927†	2441.8	492.21 ug/L	1.308	492.21 ppb	1.308	0.27%	
QC value within limits for Sn 189.927 Recovery = 98.44%							
Sr 421.552†	64046.1	480.22 ug/L	9.482	480.22 ppb	9.482	1.97%	
QC value within limits for Sr 421.552 Recovery = 96.04%							
Ti 334.940†	293573.6	487.23 ug/L	0.090	487.23 ppb	0.090	0.02%	
QC value within limits for Ti 334.940 Recovery = 97.45%							
Tl 190.801†	1479.5	500.00 ug/L	3.305	500.00 ppb	3.305	0.66%	
QC value within limits for Tl 190.801 Recovery = 100.00%							
U 409.014†	15004.3	544.44 ug/L	1.463	544.44 ppb	1.463	0.27%	
QC value within limits for U 409.014 Recovery = 108.89%							
V 292.402†	60634.1	503.26 ug/L	0.160	503.26 ppb	0.160	0.03%	
QC value within limits for V 292.402 Recovery = 100.65%							
Zn 213.857†	47009.6	488.80 ug/L	0.631	488.80 ppb	0.631	0.13%	
QC value within limits for Zn 213.857 Recovery = 97.76%							
SiO2†	74912.9	5326.5 ug/L	12.30	5326.5 ppb	12.30	0.23%	
QC value within limits for SiO2 Recovery = 99.61%							
QC Failed. Continue with analysis.							

Sequence No.: 106

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/20/2010 04:34:16

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	3875.0	3875.0	110 %		04:36:29
1	Y RADIAL	4340.0	4340.0	108.5 %		04:36:09
1	Al 396.153Radial†	-103.4	18.9	18.324 ug/L	18.324 ppb	04:36:29
1	Ca 317.933Radial†	52.5	16.7	36.529 ug/L	36.529 ppb	04:36:29
1	Fe 238.204 Radial†	9.0	-1.0	-13.982 ug/L	-13.982 ppb	04:36:29
1	K 766.490 Radial†	2928.3	-471.3	-88.030 ug/L	-88.030 ppb	04:36:09
1	Mg 279.077 IEC†	3.2	0.3	12.791 ug/L	12.791 ppb	04:36:29
1	Na 589.592 Radial†	-101.7	-4120.2	-1414.0 ug/L	-1414.0 ppb	04:36:09
1	Sr 421.552†	362.4	-1110.6	-8.3283 ug/L	-8.3283 ppb	04:36:09
1	Sc 361.383	783260.9	783260.9	104.25 %		04:37:26
1	Y 371.029	622984.3	622984.3	105.87 %		04:37:26
1	Ag 328.068†	302.9	-35.8	-0.1990 ug/L	-0.1990 ppb	04:37:26
1	As 188.979†	-23.5	-1.8	-0.8494 ug/L	-0.8494 ppb	04:37:46
1	B 249.677†	-241.3	210.5	5.2285 ug/L	5.2285 ppb	04:37:46
1	Ba 233.527†	76.8	-71.4	-0.6054 ug/L	-0.6054 ppb	04:37:46
1	Be 313.107†	-4570.5	-28.3	-0.0100 ug/L	-0.0100 ppb	04:37:26
1	Cd 226.502†	-175.4	26.9	0.3597 ug/L	0.3597 ppb	04:37:46
1	Co 228.616†	-67.4	5.6	0.1242 ug/L	0.1242 ppb	04:37:46
1	Cr 267.716†	79.1	-1.9	-0.0312 ug/L	-0.0312 ppb	04:37:46
1	Cu 324.752†	6136.1	-566.2	-1.7736 ug/L	-1.7736 ppb	04:37:26
1	Mn 257.610†	499.2	7.6	0.0071 ug/L	0.0071 ppb	04:37:46
1	Mo 202.031†	21.9	11.0	0.9001 ug/L	0.9001 ppb	04:37:46
1	Ni 231.604†	70.6	-11.4	-0.3258 ug/L	-0.3258 ppb	04:37:46
1	P 214.914†	209.4	-10.3	-5.9044 ug/L	-5.9044 ppb	04:37:46
1	Pb 220.353†	-35.4	-54.8	-7.6061 ug/L	-7.6061 ppb	04:37:46
1	S 181.975 Axial†	44.0	4.8	6.8793 ug/L	6.8793 ppb	04:37:46
1	Sb 206.836†	36.4	-1.4	-0.4922 ug/L	-0.4922 ppb	04:37:46
1	Se 196.026†	-30.6	-0.0	-0.0720 ug/L	-0.0720 ppb	04:37:46
1	Si 251.611†	640.3	117.7	3.9295 ug/L	3.9295 ppb	04:37:46
1	Sn 189.927†	22.1	5.8	1.1828 ug/L	1.1828 ppb	04:37:46
1	Ti 334.940†	-1226.4	303.6	0.5008 ug/L	0.5008 ppb	04:37:26
1	Tl 190.801†	-30.1	3.7	1.2284 ug/L	1.2284 ppb	04:37:46
1	U 409.014†	-2731.8	442.7	16.114 ug/L	16.114 ppb	04:37:26
1	V 292.402†	-1620.8	138.0	1.1757 ug/L	1.1757 ppb	04:37:26
1	Zn 213.857†	685.7	14.0	0.1536 ug/L	0.1536 ppb	04:37:46
1	SiO2†	578.9	63.1	4.4759 ug/L	4.4759 ppb	04:38:42
2	Sc Radial	3906.9	3906.9	110 %		04:36:54
2	Y RADIAL	4434.3	4434.3	110.9 %		04:36:34
2	Al 396.153Radial†	-101.5	21.4	20.775 ug/L	20.775 ppb	04:36:54
2	Ca 317.933Radial†	44.2	8.7	19.094 ug/L	19.094 ppb	04:36:54
2	Fe 238.204 Radial†	8.6	-1.4	-20.110 ug/L	-20.110 ppb	04:36:54
2	K 766.490 Radial†	3016.6	-413.3	-77.124 ug/L	-77.124 ppb	04:36:34
2	Mg 279.077 IEC†	1.3	-1.5	-73.909 ug/L	-73.909 ppb	04:36:54
2	Na 589.592 Radial†	-22.4	-4047.7	-1389.1 ug/L	-1389.1 ppb	04:36:34
2	Sr 421.552†	369.5	-1106.9	-8.3002 ug/L	-8.3002 ppb	04:36:34
2	Sc 361.383	781828.8	781828.8	104.06 %		04:37:51
2	Y 371.029	621522.5	621522.5	105.62 %		04:37:51
2	Ag 328.068†	142.1	-189.8	-0.9928 ug/L	-0.9928 ppb	04:37:51
2	As 188.979†	-26.6	-4.9	-2.2595 ug/L	-2.2595 ppb	04:38:11
2	B 249.677†	-270.4	182.1	4.5237 ug/L	4.5237 ppb	04:38:11
2	Ba 233.527†	147.6	-3.2	-0.0245 ug/L	-0.0245 ppb	04:38:11
2	Be 313.107†	-4465.4	64.6	0.0267 ug/L	0.0267 ppb	04:37:51
2	Cd 226.502†	-194.3	8.4	0.1152 ug/L	0.1152 ppb	04:38:11
2	Co 228.616†	-68.8	4.2	0.0918 ug/L	0.0918 ppb	04:38:11
2	Cr 267.716†	73.4	-7.3	-0.0990 ug/L	-0.0990 ppb	04:38:11
2	Cu 324.752†	6144.1	-547.7	-1.7135 ug/L	-1.7135 ppb	04:37:51
2	Mn 257.610†	500.8	9.9	0.0128 ug/L	0.0128 ppb	04:38:11
2	Mo 202.031†	17.5	6.8	0.5581 ug/L	0.5581 ppb	04:38:11
2	Ni 231.604†	92.3	9.5	0.2709 ug/L	0.2709 ppb	04:38:11

2	P 214.914†	206.1	-13.0	-7.5858 ug/L	-7.5858 ppb	04:38:11
2	Pb 220.353†	-51.0	-69.9	-9.7014 ug/L	-9.7014 ppb	04:38:11
2	S 181.975 Axial†	48.8	9.5	13.646 ug/L	13.646 ppb	04:38:11
2	Sb 206.836†	34.4	-3.3	-1.1765 ug/L	-1.1765 ppb	04:38:11
2	Se 196.026†	-20.7	9.4	6.3003 ug/L	6.3003 ppb	04:38:11
2	Si 251.611†	621.6	100.9	3.3705 ug/L	3.3705 ppb	04:38:11
2	Sn 189.927†	18.3	2.3	0.4677 ug/L	0.4677 ppb	04:38:11
2	Ti 334.940†	-1164.7	360.7	0.6026 ug/L	0.6026 ppb	04:37:51
2	Tl 190.801†	-21.5	11.9	3.9823 ug/L	3.9823 ppb	04:38:11
2	U 409.014†	-2873.3	301.9	10.990 ug/L	10.990 ppb	04:37:51
2	V 292.402†	-1563.4	190.3	1.5881 ug/L	1.5881 ppb	04:37:51
2	Zn 213.857†	665.6	-4.2	-0.0403 ug/L	-0.0403 ppb	04:38:11
2	SiO2†	1434.5	886.4	63.166 ug/L	63.166 ppb	04:38:47
3	Sc Radial	3891.1	3891.1	110 %		04:37:19
3	Y RADIAL	4371.7	4371.7	109.3 %		04:36:59
3	Al 396.153Radial†	-118.4	5.6	5.3895 ug/L	5.3895 ppb	04:37:19
3	Ca 317.933Radial†	36.3	1.8	3.9180 ug/L	3.9180 ppb	04:37:19
3	Fe 238.204 Radial†	8.8	-1.1	-16.081 ug/L	-16.081 ppb	04:37:19
3	K 766.490 Radial†	3021.9	-397.3	-74.111 ug/L	-74.111 ppb	04:36:59
3	Mg 279.077 IEC†	1.4	-1.4	-71.596 ug/L	-71.596 ppb	04:37:19
3	Na 589.592 Radial†	-104.5	-4122.4	-1414.7 ug/L	-1414.7 ppb	04:36:59
3	Sr 421.552†	308.7	-1160.9	-8.7048 ug/L	-8.7048 ppb	04:36:59
3	Sc 361.383	778620.4	778620.4	103.63 %		04:38:16
3	Y 371.029	619455.4	619455.4	105.27 %		04:38:16
3	Ag 328.068†	259.9	-75.5	-0.4032 ug/L	-0.4032 ppb	04:38:16
3	As 188.979†	-25.1	-3.5	-1.6309 ug/L	-1.6309 ppb	04:38:36
3	B 249.677†	-302.2	150.4	3.7364 ug/L	3.7364 ppb	04:38:36
3	Ba 233.527†	49.7	-97.0	-0.8232 ug/L	-0.8232 ppb	04:38:36
3	Be 313.107†	-4578.1	-61.8	-0.0234 ug/L	-0.0234 ppb	04:38:16
3	Cd 226.502†	-183.5	18.0	0.2434 ug/L	0.2434 ppb	04:38:36
3	Co 228.616†	-70.8	2.0	0.0439 ug/L	0.0439 ppb	04:38:36
3	Cr 267.716†	71.9	-8.4	-0.1157 ug/L	-0.1157 ppb	04:38:36
3	Cu 324.752†	5977.0	-684.7	-2.1426 ug/L	-2.1426 ppb	04:38:16
3	Mn 257.610†	514.4	25.0	0.0309 ug/L	0.0309 ppb	04:38:36
3	Mo 202.031†	21.6	10.9	0.8897 ug/L	0.8897 ppb	04:38:36
3	Ni 231.604†	98.3	15.7	0.4472 ug/L	0.4472 ppb	04:38:36
3	P 214.914†	222.3	3.4	2.5511 ug/L	2.5511 ppb	04:38:36
3	Pb 220.353†	-54.1	-73.1	-10.144 ug/L	-10.144 ppb	04:38:36
3	S 181.975 Axial†	47.5	8.4	12.135 ug/L	12.135 ppb	04:38:36
3	Sb 206.836†	43.4	5.5	2.0525 ug/L	2.0525 ppb	04:38:36
3	Se 196.026†	-18.1	11.9	7.9913 ug/L	7.9913 ppb	04:38:36
3	Si 251.611†	677.9	157.6	5.2675 ug/L	5.2675 ppb	04:38:36
3	Sn 189.927†	21.2	5.1	1.0342 ug/L	1.0342 ppb	04:38:36
3	Ti 334.940†	-1301.2	224.4	0.3720 ug/L	0.3720 ppb	04:38:16
3	Tl 190.801†	-22.0	11.3	3.8026 ug/L	3.8026 ppb	04:38:36
3	U 409.014†	-2726.0	432.6	15.748 ug/L	15.748 ppb	04:38:16
3	V 292.402†	-1566.6	181.0	1.5255 ug/L	1.5255 ppb	04:38:16
3	Zn 213.857†	660.4	-6.5	-0.0660 ug/L	-0.0660 ppb	04:38:36
3	SiO2†	561.5	49.6	3.5099 ug/L	3.5099 ppb	04:38:52

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	781236.7	103.98 %	0.316			0.30%
Sc Radial	3891.0	110 %	0.5			0.41%
Y 371.029	621320.7	105.58 %	0.301			0.29%
Y RADIAL	4382.0	109.6 %	1.20			1.10%
Ag 328.068†	-100.4	-0.5317 ug/L	0.41215	-0.5317 ppb	0.41215	77.52%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	15.3	14.829 ug/L	8.2666	14.829 ppb	8.2666	55.74%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-3.4	-1.5799 ug/L	0.70642	-1.5799 ppb	0.70642	44.71%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	181.0	4.4962 ug/L	0.74642	4.4962 ppb	0.74642	16.60%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-57.2	-0.4844 ug/L	0.41290	-0.4844 ppb	0.41290	85.24%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-8.5	-0.0022 ug/L	0.02595	-0.0022 ppb	0.02595	>999.9%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	9.1	19.847 ug/L	16.3184	19.847 ppb	16.3184	82.22%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	17.8	0.2394 ug/L	0.12229	0.2394 ppb	0.12229	51.08%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	3.9	0.0867 ug/L	0.04040	0.0867 ppb	0.04040	46.62%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-5.9	-0.0820 ug/L	0.04478	-0.0820 ppb	0.04478	54.62%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-599.6	-1.8766 ug/L	0.23233	-1.8766 ppb	0.23233	12.38%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-1.2	-16.724 ug/L	3.1147	-16.724 ppb	3.1147	18.62%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-427.3	-79.755 ug/L	7.3227	-79.755 ppb	7.3227	9.18%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-0.9	-44.238 ug/L	49.4022	-44.238 ppb	49.4022	111.67%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	14.2	0.0169 ug/L	0.01247	0.0169 ppb	0.01247	73.67%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	9.6	0.7826 ug/L	0.19450	0.7826 ppb	0.19450	24.85%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-4096.7	-1406.0 ug/L	14.59	-1406.0 ppb	14.59	1.04%	
QC value less than the lower limit for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	4.6	0.1308 ug/L	0.40509	0.1308 ppb	0.40509	309.70%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-6.6	-3.6463 ug/L	5.43260	-3.6463 ppb	5.43260	148.99%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-65.9	-9.1505 ug/L	1.35571	-9.1505 ppb	1.35571	14.82%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	7.6	10.887 ug/L	3.5519	10.887 ppb	3.5519	32.63%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	0.3	0.1279 ug/L	1.70147	0.1279 ppb	1.70147	>999.9%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	7.1	4.7399 ug/L	4.25210	4.7399 ppb	4.25210	89.71%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	125.4	4.1891 ug/L	0.97478	4.1891 ppb	0.97478	23.27%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	4.4	0.8949 ug/L	0.37738	0.8949 ppb	0.37738	42.17%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-1126.1	-8.4444 ug/L	0.22591	-8.4444 ppb	0.22591	2.68%	
QC value less than the lower limit for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	296.2	0.4918 ug/L	0.11557	0.4918 ppb	0.11557	23.50%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	8.9	3.0044 ug/L	1.54070	3.0044 ppb	1.54070	51.28%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	392.4	14.284 ug/L	2.8587	14.284 ppb	2.8587	20.01%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	169.8	1.4298 ug/L	0.22228	1.4298 ppb	0.22228	15.55%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	1.1	0.0158 ug/L	0.12007	0.0158 ppb	0.12007	761.90%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	333.0	23.717 ug/L	34.1668	23.717 ppb	34.1668	144.06%	
QC value within limits for SiO2 Recovery = Not calculated							
QC Failed. Continue with analysis.							

Sequence No.: 107

Sample ID: 1202036425|950319|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 107

Date Collected: 2/20/2010 04:41:02

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202036425|950319|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4031.7	4031.7	114 %		04:43:16
1	Y RADIAL	4566.6	4566.6	114.2 %		04:42:56
1	Al 396.153Radial†	-100.4	25.2	24.420 ug/L	24.420 ppb	04:43:16
1	Ca 317.933Radial†	42.4	6.0	13.010 ug/L	13.010 ppb	04:43:16
1	Fe 238.204 Radial†	12.1	1.4	20.885 ug/L	20.885 ppb	04:43:16
1	K 766.490 Radial†	3020.2	-494.7	-92.409 ug/L	-92.409 ppb	04:42:56
1	Mg 279.077 IEC†	1.5	-1.4	-69.366 ug/L	-69.366 ppb	04:43:16
1	Na 589.592 Radial†	-101.1	-4116.1	-1412.6 ug/L	-1412.6 ppb	04:42:56
1	Sr 421.552†	365.9	-1120.4	-8.4018 ug/L	-8.4018 ppb	04:42:56
1	Sc 361.383	798814.1	798814.1	106.32 %		04:44:13
1	Y 371.029	633938.7	633938.7	107.73 %		04:44:13
1	Ag 328.068†	225.4	-114.3	-0.5995 ug/L	-0.5995 ppb	04:44:13
1	As 188.979†	-25.3	-3.1	-1.4305 ug/L	-1.4305 ppb	04:44:33
1	B 249.677†	-323.7	137.5	3.4096 ug/L	3.4096 ppb	04:44:33
1	Ba 233.527†	117.6	-34.5	-0.2882 ug/L	-0.2882 ppb	04:44:33
1	Be 313.107†	-4540.9	84.8	0.0345 ug/L	0.0345 ppb	04:44:13
1	Cd 226.502†	-207.2	0.2	0.0060 ug/L	0.0060 ppb	04:44:33
1	Co 228.616†	-54.8	18.7	0.4108 ug/L	0.4108 ppb	04:44:33
1	Cr 267.716†	94.0	10.6	0.1326 ug/L	0.1326 ppb	04:44:33
1	Cu 324.752†	6052.3	-759.7	-2.3803 ug/L	-2.3803 ppb	04:44:13
1	Mn 257.610†	616.9	108.9	0.1338 ug/L	0.1338 ppb	04:44:33
1	Mo 202.031†	21.9	10.6	0.8699 ug/L	0.8699 ppb	04:44:33
1	Ni 231.604†	85.9	1.7	0.0472 ug/L	0.0472 ppb	04:44:33
1	P 214.914†	230.6	5.7	3.9877 ug/L	3.9877 ppb	04:44:33
1	Pb 220.353†	-50.4	-68.3	-9.4712 ug/L	-9.4712 ppb	04:44:33
1	S 181.975 Axial†	41.2	1.4	2.0001 ug/L	2.0001 ppb	04:44:33
1	Sb 206.836†	42.9	4.0	1.4978 ug/L	1.4978 ppb	04:44:33
1	Se 196.026†	-18.9	11.5	7.8784 ug/L	7.8784 ppb	04:44:33
1	Si 251.611†	921.5	370.2	12.386 ug/L	12.386 ppb	04:44:33
1	Sn 189.927†	25.8	9.0	1.8071 ug/L	1.8071 ppb	04:44:33
1	Ti 334.940†	-1229.3	323.7	0.5331 ug/L	0.5331 ppb	04:44:13
1	Tl 190.801†	-29.6	4.8	1.5961 ug/L	1.5961 ppb	04:44:33
1	U 409.014†	-2480.2	730.3	26.579 ug/L	26.579 ppb	04:44:13
1	V 292.402†	-1533.2	250.7	2.1110 ug/L	2.1110 ppb	04:44:13
1	Zn 213.857†	739.1	51.4	0.5389 ug/L	0.5389 ppb	04:44:33
1	SiO2†	887.8	342.8	24.415 ug/L	24.415 ppb	04:45:29
2	Sc Radial	3968.7	3968.7	112 %		04:43:41
2	Y RADIAL	4467.4	4467.4	111.7 %		04:43:21
2	Al 396.153Radial†	-110.6	14.7	14.246 ug/L	14.246 ppb	04:43:41
2	Ca 317.933Radial†	39.8	4.2	9.2273 ug/L	9.2273 ppb	04:43:41
2	Fe 238.204 Radial†	8.2	-1.9	-27.097 ug/L	-27.097 ppb	04:43:41
2	K 766.490 Radial†	3044.5	-431.0	-80.434 ug/L	-80.434 ppb	04:43:21
2	Mg 279.077 IEC†	-0.4	-3.0	-154.18 ug/L	-154.18 ppb	04:43:41
2	Na 589.592 Radial†	-123.1	-4137.0	-1419.8 ug/L	-1419.8 ppb	04:43:21
2	Sr 421.552†	318.2	-1157.9	-8.6824 ug/L	-8.6824 ppb	04:43:21
2	Sc 361.383	800976.7	800976.7	106.61 %		04:44:38
2	Y 371.029	635547.6	635547.6	108.00 %		04:44:38
2	Ag 328.068†	185.3	-152.6	-0.8069 ug/L	-0.8069 ppb	04:44:38
2	As 188.979†	-14.4	7.2	3.3436 ug/L	3.3436 ppb	04:44:58
2	B 249.677†	-356.4	107.7	2.6766 ug/L	2.6766 ppb	04:44:58
2	Ba 233.527†	121.4	-31.2	-0.2616 ug/L	-0.2616 ppb	04:44:58
2	Be 313.107†	-4619.7	22.5	0.0102 ug/L	0.0102 ppb	04:44:38
2	Cd 226.502†	-200.1	7.4	0.1052 ug/L	0.1052 ppb	04:44:58
2	Co 228.616†	-59.7	14.4	0.3147 ug/L	0.3147 ppb	04:44:58
2	Cr 267.716†	78.5	-4.2	-0.0623 ug/L	-0.0623 ppb	04:44:58
2	Cu 324.752†	6067.2	-761.1	-2.3839 ug/L	-2.3839 ppb	04:44:38
2	Mn 257.610†	634.9	124.2	0.1506 ug/L	0.1506 ppb	04:44:58
2	Mo 202.031†	17.3	6.2	0.5093 ug/L	0.5093 ppb	04:44:58
2	Ni 231.604†	102.9	17.4	0.4944 ug/L	0.4944 ppb	04:44:58

2	P 214.914†	224.9	-0.2	0.3918 ug/L	0.3918 ppb	04:44:58
2	Pb 220.353†	-43.8	-62.0	-8.6042 ug/L	-8.6042 ppb	04:44:58
2	S 181.975 Axial†	48.6	8.2	11.849 ug/L	11.849 ppb	04:44:58
2	Sb 206.836†	33.7	-4.7	-1.6912 ug/L	-1.6912 ppb	04:44:58
2	Se 196.026†	-10.7	19.2	12.941 ug/L	12.941 ppb	04:44:58
2	Si 251.611†	954.5	398.9	13.349 ug/L	13.349 ppb	04:44:58
2	Sn 189.927†	25.4	8.5	1.7129 ug/L	1.7129 ppb	04:44:58
2	Ti 334.940†	-1176.5	376.4	0.6295 ug/L	0.6295 ppb	04:44:38
2	Tl 190.801†	-30.6	3.9	1.3017 ug/L	1.3017 ppb	04:44:58
2	U 409.014†	-2653.0	574.5	20.914 ug/L	20.914 ppb	04:44:38
2	V 292.402†	-1511.3	275.1	2.3008 ug/L	2.3008 ppb	04:44:38
2	Zn 213.857†	735.6	46.2	0.4893 ug/L	0.4893 ppb	04:44:58
2	SiO2†	919.2	370.0	26.362 ug/L	26.362 ppb	04:45:34
3	Sc Radial	3949.0	3949.0	112 %		04:44:06
3	Y RADIAL	4558.3	4558.3	114.0 %		04:43:46
3	Al 396.153Radial†	-105.0	19.2	18.608 ug/L	18.608 ppb	04:44:06
3	Ca 317.933Radial†	42.7	7.0	15.238 ug/L	15.238 ppb	04:44:06
3	Fe 238.204 Radial†	9.6	-0.6	-8.2613 ug/L	-8.2613 ppb	04:44:06
3	K 766.490 Radial†	2843.1	-597.8	-111.78 ug/L	-111.78 ppb	04:43:46
3	Mg 279.077 IEC†	2.2	-0.6	-32.543 ug/L	-32.543 ppb	04:44:06
3	Na 589.592 Radial†	-35.6	-4059.2	-1393.1 ug/L	-1393.1 ppb	04:43:46
3	Sr 421.552†	555.8	-943.6	-7.0759 ug/L	-7.0759 ppb	04:43:46
3	Sc 361.383	795625.9	795625.9	105.90 %		04:45:03
3	Y 371.029	631127.6	631127.6	107.25 %		04:45:03
3	Ag 328.068†	169.2	-166.5	-0.8701 ug/L	-0.8701 ppb	04:45:03
3	As 188.979†	-24.4	-2.3	-1.0785 ug/L	-1.0785 ppb	04:45:23
3	B 249.677†	-364.6	97.6	2.4256 ug/L	2.4256 ppb	04:45:23
3	Ba 233.527†	115.7	-35.8	-0.3025 ug/L	-0.3025 ppb	04:45:23
3	Be 313.107†	-4455.5	148.3	0.0595 ug/L	0.0595 ppb	04:45:03
3	Cd 226.502†	-187.0	18.6	0.2491 ug/L	0.2491 ppb	04:45:23
3	Co 228.616†	-76.2	-1.7	-0.0361 ug/L	-0.0361 ppb	04:45:23
3	Cr 267.716†	70.7	-11.1	-0.1483 ug/L	-0.1483 ppb	04:45:23
3	Cu 324.752†	5972.8	-811.9	-2.5361 ug/L	-2.5361 ppb	04:45:03
3	Mn 257.610†	628.7	122.4	0.1453 ug/L	0.1453 ppb	04:45:23
3	Mo 202.031†	19.5	8.4	0.6904 ug/L	0.6904 ppb	04:45:23
3	Ni 231.604†	96.8	12.2	0.3483 ug/L	0.3483 ppb	04:45:23
3	P 214.914†	229.1	5.2	3.7011 ug/L	3.7011 ppb	04:45:23
3	Pb 220.353†	-52.3	-70.3	-9.7507 ug/L	-9.7507 ppb	04:45:23
3	S 181.975 Axial†	51.1	10.9	15.675 ug/L	15.675 ppb	04:45:23
3	Sb 206.836†	38.7	0.2	0.0780 ug/L	0.0780 ppb	04:45:23
3	Se 196.026†	-22.3	8.2	5.5301 ug/L	5.5301 ppb	04:45:23
3	Si 251.611†	882.4	336.8	11.268 ug/L	11.268 ppb	04:45:23
3	Sn 189.927†	18.7	2.3	0.4630 ug/L	0.4630 ppb	04:45:23
3	Ti 334.940†	-1191.3	355.0	0.5891 ug/L	0.5891 ppb	04:45:03
3	Tl 190.801†	-14.9	18.5	6.2100 ug/L	6.2100 ppb	04:45:23
3	U 409.014†	-2910.2	314.9	11.464 ug/L	11.464 ppb	04:45:03
3	V 292.402†	-1633.4	150.3	1.2626 ug/L	1.2626 ppb	04:45:03
3	Zn 213.857†	747.1	61.7	0.6502 ug/L	0.6502 ppb	04:45:23
3	SiO2†	920.1	376.7	26.833 ug/L	26.833 ppb	04:45:39

Mean Data: 1202036425|950319|1

Analyte	Mean Corrected	Conc.	Calib.	Std.Dev.	Conc.	Sample	Std.Dev.	RSD
Sc 361.383	798472.2	106.27 %		0.358				0.34%
Sc Radial	3983.1	113 %		1.2				1.08%
Y 371.029	633538.0	107.66 %		0.380				0.35%
Y RADIAL	4530.8	113.3 %		1.38				1.22%
Ag 328.068†	-144.5	-0.7588 ug/L		0.14158	-0.7588 ppb		0.14158	18.66%
Al 396.153Radial†	19.7	19.091 ug/L		5.1040	19.091 ppb		5.1040	26.73%
As 188.979†	0.6	0.2782 ug/L		2.66050	0.2782 ppb		2.66050	956.27%
B 249.677†	114.3	2.8373 ug/L		0.51131	2.8373 ppb		0.51131	18.02%
Ba 233.527†	-33.8	-0.2841 ug/L		0.02077	-0.2841 ppb		0.02077	7.31%
Be 313.107†	85.2	0.0348 ug/L		0.02466	0.0348 ppb		0.02466	70.93%
Ca 317.933Radial†	5.7	12.492 ug/L		3.0388	12.492 ppb		3.0388	24.33%
Cd 226.502†	8.7	0.1201 ug/L		0.12220	0.1201 ppb		0.12220	101.77%
Co 228.616†	10.5	0.2298 ug/L		0.23524	0.2298 ppb		0.23524	102.36%
Cr 267.716†	-1.6	-0.0260 ug/L		0.14389	-0.0260 ppb		0.14389	553.28%
Cu 324.752†	-777.6	-2.4334 ug/L		0.08892	-2.4334 ppb		0.08892	3.65%
Fe 238.204 Radial†	-0.3	-4.8243 ug/L		24.17496	-4.8243 ppb		24.17496	501.10%
K 766.490 Radial†	-507.8	-94.876 ug/L		15.8194	-94.876 ppb		15.8194	16.67%

Mg 279.077 IEC†	-1.7	-85.363 ug/L	62.3764	-85.363 ppb	62.3764	73.07%
Mn 257.610†	118.5	0.1432 ug/L	0.00859	0.1432 ppb	0.00859	6.00%
Mo 202.031†	8.4	0.6899 ug/L	0.18029	0.6899 ppb	0.18029	26.13%
Na 589.592 Radial†	-4104.1	-1408.5 ug/L	13.82	-1408.5 ppb	13.82	0.98%
Ni 231.604†	10.4	0.2966 ug/L	0.22805	0.2966 ppb	0.22805	76.88%
P 214.914†	3.6	2.6935 ug/L	1.99849	2.6935 ppb	1.99849	74.20%
Pb 220.353†	-66.8	-9.2754 ug/L	0.59783	-9.2754 ppb	0.59783	6.45%
S 181.975 Axial†	6.8	9.8413 ug/L	7.05493	9.8413 ppb	7.05493	71.69%
Sb 206.836†	-0.2	-0.0385 ug/L	1.59766	-0.0385 ppb	1.59766	>999.9%
Se 196.026†	13.0	8.7833 ug/L	3.78752	8.7833 ppb	3.78752	43.12%
Si 251.611†	368.6	12.335 ug/L	1.0412	12.335 ppb	1.0412	8.44%
Sn 189.927†	6.6	1.3277 ug/L	0.75030	1.3277 ppb	0.75030	56.51%
Sr 421.552†	-1074.0	-8.0534 ug/L	0.85805	-8.0534 ppb	0.85805	10.65%
Ti 334.940†	351.7	0.5839 ug/L	0.04842	0.5839 ppb	0.04842	8.29%
Tl 190.801†	9.0	3.0359 ug/L	2.75276	3.0359 ppb	2.75276	90.67%
U 409.014†	539.9	19.652 ug/L	7.6358	19.652 ppb	7.6358	38.85%
V 292.402†	225.4	1.8915 ug/L	0.55284	1.8915 ppb	0.55284	29.23%
Zn 213.857†	53.1	0.5594 ug/L	0.08239	0.5594 ppb	0.08239	14.73%
SiO2†	363.2	25.870 ug/L	1.2821	25.870 ppb	1.2821	4.96%



Sequence No.: 108

Sample ID: 1202036426|950319|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 108

Date Collected: 2/20/2010 04:47:50

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202036426|950319|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	3969.4	3969.4	112 %		04:50:04
1	Y RADIAL	4503.4	4503.4	112.6 %		04:49:44
1	Al 396.153Radial†	5584.9	5089.6	4924.7 ug/L	4924.7 ppb	04:49:44
1	Ca 317.933Radial†	2590.8	2277.2	4974.7 ug/L	4974.7 ppb	04:50:04
1	Fe 238.204 Radial†	403.3	350.2	5080.3 ug/L	5080.3 ppb	04:50:04
1	K 766.490 Radial†	31751.1	25147.2	4721.4 ug/L	4721.4 ppb	04:49:44
1	Mg 279.077 IEC†	114.1	99.0	5032.5 ug/L	5032.5 ppb	04:50:04
1	Na 589.592 Radial†	16638.8	10798.4	3705.9 ug/L	3705.9 ppb	04:49:44
1	Sr 421.552†	75476.3	65810.6	493.45 ug/L	493.45 ppb	04:49:44
1	Sc 361.383	807930.4	807930.4	107.53 %		04:51:03
1	Y 371.029	634808.5	634808.5	107.88 %		04:51:03
1	Ag 328.068†	102505.5	94997.7	495.29 ug/L	495.29 ppb	04:51:03
1	As 188.979†	1122.7	1064.7	497.62 ug/L	497.62 ppb	04:51:23
1	B 249.677†	20543.9	19546.6	483.11 ug/L	483.11 ppb	04:51:03
1	Ba 233.527†	63030.2	58469.3	498.94 ug/L	498.94 ppb	04:51:03
1	Be 313.107†	1336628.9	1247341.7	490.56 ug/L	490.56 ppb	04:51:03
1	Cd 226.502†	38500.0	35997.8	475.79 ug/L	475.79 ppb	04:51:23
1	Co 228.616†	23284.8	21723.8	476.06 ug/L	476.06 ppb	04:51:23
1	Cr 267.716†	40039.3	37156.4	486.59 ug/L	486.59 ppb	04:51:03
1	Cu 324.752†	179478.7	160452.4	499.82 ug/L	499.82 ppb	04:51:03
1	Mn 257.610†	444190.5	412599.6	488.54 ug/L	488.54 ppb	04:51:03
1	Mo 202.031†	6369.2	5913.0	484.29 ug/L	484.29 ppb	04:51:23
1	Ni 231.604†	18400.7	17032.5	484.30 ug/L	484.30 ppb	04:51:23
1	P 214.914†	1183.8	889.7	446.27 ug/L	446.27 ppb	04:51:23
1	Pb 220.353†	3770.6	3485.5	486.21 ug/L	486.21 ppb	04:51:23
1	S 181.975 Axial†	3688.2	3392.5	4878.1 ug/L	4878.1 ppb	04:51:23
1	Sb 206.836†	1523.9	1380.8	523.89 ug/L	523.89 ppb	04:51:23
1	Se 196.026†	732.5	710.4	500.94 ug/L	500.94 ppb	04:51:23
1	Si 251.611†	155398.6	144015.0	4816.2 ug/L	4816.2 ppb	04:51:03
1	Sn 189.927†	2721.3	2515.3	506.99 ug/L	506.99 ppb	04:51:23
1	Ti 334.940†	318670.8	297825.0	494.28 ug/L	494.28 ppb	04:51:03
1	Tl 190.801†	1535.9	1460.9	493.89 ug/L	493.89 ppb	04:51:23
1	U 409.014†	12892.6	15052.4	546.19 ug/L	546.19 ppb	04:51:03
1	V 292.402†	63465.4	60711.8	503.77 ug/L	503.77 ppb	04:51:03
1	Zn 213.857†	50339.8	46169.3	479.99 ug/L	479.99 ppb	04:51:03
1	SiO2†	156328.9	144884.4	10314 ug/L	10314 ppb	04:52:23
2	Sc Radial	3960.8	3960.8	112 %		04:50:29
2	Y RADIAL	4391.6	4391.6	109.8 %		04:50:09
2	Al 396.153Radial†	5479.2	5005.9	4843.4 ug/L	4843.4 ppb	04:50:09
2	Ca 317.933Radial†	2576.5	2269.5	4957.7 ug/L	4957.7 ppb	04:50:29
2	Fe 238.204 Radial†	400.3	348.3	5052.3 ug/L	5052.3 ppb	04:50:29
2	K 766.490 Radial†	31454.9	24943.7	4683.2 ug/L	4683.2 ppb	04:50:09
2	Mg 279.077 IEC†	113.7	98.9	5024.4 ug/L	5024.4 ppb	04:50:29
2	Na 589.592 Radial†	16421.7	10636.5	3650.3 ug/L	3650.3 ppb	04:50:09
2	Sr 421.552†	74330.2	64932.1	486.86 ug/L	486.86 ppb	04:50:09
2	Sc 361.383	810401.6	810401.6	107.86 %		04:51:30
2	Y 371.029	636254.2	636254.2	108.12 %		04:51:30
2	Ag 328.068†	103084.6	95243.9	496.56 ug/L	496.56 ppb	04:51:30
2	As 188.979†	1124.0	1062.7	496.72 ug/L	496.72 ppb	04:51:50
2	B 249.677†	20756.4	19685.4	486.56 ug/L	486.56 ppb	04:51:30
2	Ba 233.527†	63165.4	58415.9	498.48 ug/L	498.48 ppb	04:51:30
2	Be 313.107†	1343374.6	1249805.3	491.53 ug/L	491.53 ppb	04:51:30
2	Cd 226.502†	38599.6	35981.0	475.57 ug/L	475.57 ppb	04:51:50
2	Co 228.616†	23340.1	21709.0	475.74 ug/L	475.74 ppb	04:51:50
2	Cr 267.716†	40186.0	37178.9	486.89 ug/L	486.89 ppb	04:51:30
2	Cu 324.752†	181165.7	161507.5	503.11 ug/L	503.11 ppb	04:51:30
2	Mn 257.610†	445626.3	412671.1	488.62 ug/L	488.62 ppb	04:51:30
2	Mo 202.031†	6378.1	5903.2	483.48 ug/L	483.48 ppb	04:51:50
2	Ni 231.604†	18494.5	17067.2	485.29 ug/L	485.29 ppb	04:51:50

2	P 214.914†	1197.6	899.2	451.42 ug/L	451.42 ppb	04:51:50
2	Pb 220.353†	3802.6	3504.5	488.82 ug/L	488.82 ppb	04:51:50
2	S 181.975 Axial†	3698.0	3391.1	4876.1 ug/L	4876.1 ppb	04:51:50
2	Sb 206.836†	1522.4	1375.1	521.80 ug/L	521.80 ppb	04:51:50
2	Se 196.026†	719.8	696.7	491.50 ug/L	491.50 ppb	04:51:50
2	Si 251.611†	156278.7	144390.3	4828.8 ug/L	4828.8 ppb	04:51:30
2	Sn 189.927†	2739.7	2524.7	508.88 ug/L	508.88 ppb	04:51:50
2	Ti 334.940†	320366.5	298493.4	495.39 ug/L	495.39 ppb	04:51:30
2	Tl 190.801†	1558.1	1477.0	499.33 ug/L	499.33 ppb	04:51:50
2	U 409.014†	12874.1	14998.7	544.24 ug/L	544.24 ppb	04:51:30
2	V 292.402†	63738.6	60785.1	504.36 ug/L	504.36 ppb	04:51:30
2	Zn 213.857†	50570.0	46240.0	480.73 ug/L	480.73 ppb	04:51:30
2	SiO2†	155271.5	143460.8	10213 ug/L	10213 ppb	04:52:29
3	Sc Radial	3925.3	3925.3	111 %		04:50:54
3	Y RADIAL	4593.6	4593.6	114.9 %		04:50:34
3	Al 396.153Radial†	5755.3	5299.0	5128.2 ug/L	5128.2 ppb	04:50:34
3	Ca 317.933Radial†	2573.8	2287.8	4997.8 ug/L	4997.8 ppb	04:50:54
3	Fe 238.204 Radial†	397.8	349.3	5067.3 ug/L	5067.3 ppb	04:50:54
3	K 766.490 Radial†	32657.8	26282.2	4934.6 ug/L	4934.6 ppb	04:50:34
3	Mg 279.077 IEC†	111.5	97.8	4970.7 ug/L	4970.7 ppb	04:50:54
3	Na 589.592 Radial†	17179.0	11451.8	3930.1 ug/L	3930.1 ppb	04:50:34
3	Sr 421.552†	77993.1	68834.3	516.12 ug/L	516.12 ppb	04:50:34
3	Sc 361.383	804036.4	804036.4	107.02 %		04:51:58
3	Y 371.029	630583.8	630583.8	107.16 %		04:51:58
3	Ag 328.068†	102150.8	95127.9	495.96 ug/L	495.96 ppb	04:51:58
3	As 188.979†	1125.9	1072.8	501.35 ug/L	501.35 ppb	04:52:18
3	B 249.677†	20565.9	19659.6	485.90 ug/L	485.90 ppb	04:51:58
3	Ba 233.527†	62849.5	58584.3	499.92 ug/L	499.92 ppb	04:51:58
3	Be 313.107†	1331572.8	1248637.0	491.07 ug/L	491.07 ppb	04:51:58
3	Cd 226.502†	38774.6	36427.9	481.48 ug/L	481.48 ppb	04:52:18
3	Co 228.616†	23442.0	21975.6	481.59 ug/L	481.59 ppb	04:52:18
3	Cr 267.716†	39866.4	37175.2	486.84 ug/L	486.84 ppb	04:51:58
3	Cu 324.752†	179509.0	161289.1	502.42 ug/L	502.42 ppb	04:51:58
3	Mn 257.610†	443304.9	413772.6	489.93 ug/L	489.93 ppb	04:51:58
3	Mo 202.031†	6392.7	5963.6	488.43 ug/L	488.43 ppb	04:52:18
3	Ni 231.604†	18570.4	17273.9	491.17 ug/L	491.17 ppb	04:52:18
3	P 214.914†	1215.6	924.8	467.30 ug/L	467.30 ppb	04:52:18
3	Pb 220.353†	3787.8	3518.6	490.86 ug/L	490.86 ppb	04:52:18
3	S 181.975 Axial†	3730.5	3448.6	4958.8 ug/L	4958.8 ppb	04:52:18
3	Sb 206.836†	1543.2	1405.7	533.21 ug/L	533.21 ppb	04:52:18
3	Se 196.026†	743.0	723.6	509.87 ug/L	509.87 ppb	04:52:18
3	Si 251.611†	154957.7	144302.9	4825.8 ug/L	4825.8 ppb	04:51:58
3	Sn 189.927†	2747.6	2552.2	514.42 ug/L	514.42 ppb	04:52:18
3	Ti 334.940†	317863.1	298505.5	495.42 ug/L	495.42 ppb	04:51:58
3	Tl 190.801†	1552.0	1482.8	501.24 ug/L	501.24 ppb	04:52:18
3	U 409.014†	12899.4	15116.9	548.54 ug/L	548.54 ppb	04:51:58
3	V 292.402†	63310.7	60853.1	504.99 ug/L	504.99 ppb	04:51:58
3	Zn 213.857†	50324.0	46381.2	482.17 ug/L	482.17 ppb	04:51:58
3	SiO2†	154949.2	144299.2	10272 ug/L	10272 ppb	04:52:34

Mean Data: 1202036426|950319|1

Analyte	Mean Corrected	Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	807456.1	107.47 %	0.427			0.40%
Sc Radial	3951.8	112 %	0.7			0.59%
Y 371.029	633882.1	107.72 %	0.501			0.46%
Y RADIAL	4496.2	112.4 %	2.53			2.25%
Ag 328.068†	95123.1	495.94 ug/L	0.636	495.94 ppb	0.636	0.13%
Al 396.153Radial†	5131.5	4965.4 ug/L	146.67	4965.4 ppb	146.67	2.95%
As 188.979†	1066.7	498.56 ug/L	2.457	498.56 ppb	2.457	0.49%
B 249.677†	19630.5	485.19 ug/L	1.832	485.19 ppb	1.832	0.38%
Ba 233.527†	58489.9	499.11 ug/L	0.734	499.11 ppb	0.734	0.15%
Be 313.107†	1248594.7	491.05 ug/L	0.485	491.05 ppb	0.485	0.10%
Ca 317.933Radial†	2278.2	4976.7 ug/L	20.14	4976.7 ppb	20.14	0.40%
Cd 226.502†	36135.6	477.62 ug/L	3.351	477.62 ppb	3.351	0.70%
Co 228.616†	21802.8	477.80 ug/L	3.289	477.80 ppb	3.289	0.69%
Cr 267.716†	37170.1	486.77 ug/L	0.157	486.77 ppb	0.157	0.03%
Cu 324.752†	161083.0	501.78 ug/L	1.734	501.78 ppb	1.734	0.35%
Fe 238.204 Radial†	349.3	5066.6 ug/L	14.00	5066.6 ppb	14.00	0.28%
K 766.490 Radial†	25457.7	4779.7 ug/L	135.46	4779.7 ppb	135.46	2.83%

Mg 279.077 IEC†	98.6	5009.2 ug/L	33.61	5009.2 ppb	33.61	0.67%
Mn 257.610†	413014.5	489.03 ug/L	0.779	489.03 ppb	0.779	0.16%
Mo 202.031†	5926.6	485.40 ug/L	2.654	485.40 ppb	2.654	0.55%
Na 589.592 Radial†	10962.2	3762.1 ug/L	148.14	3762.1 ppb	148.14	3.94%
Ni 231.604†	17124.5	486.92 ug/L	3.712	486.92 ppb	3.712	0.76%
P 214.914†	904.6	455.00 ug/L	10.962	455.00 ppb	10.962	2.41%
Pb 220.353†	3502.9	488.63 ug/L	2.333	488.63 ppb	2.333	0.48%
S 181.975 Axial†	3410.7	4904.3 ug/L	47.14	4904.3 ppb	47.14	0.96%
Sb 206.836†	1387.2	526.30 ug/L	6.078	526.30 ppb	6.078	1.15%
Se 196.026†	710.2	500.77 ug/L	9.187	500.77 ppb	9.187	1.83%
Si 251.611†	144236.1	4823.6 ug/L	6.57	4823.6 ppb	6.57	0.14%
Sn 189.927†	2530.7	510.10 ug/L	3.860	510.10 ppb	3.860	0.76%
Sr 421.552†	66525.7	498.81 ug/L	15.350	498.81 ppb	15.350	3.08%
Ti 334.940†	298274.6	495.03 ug/L	0.648	495.03 ppb	0.648	0.13%
Tl 190.801†	1473.6	498.15 ug/L	3.815	498.15 ppb	3.815	0.77%
U 409.014†	15056.0	546.32 ug/L	2.152	546.32 ppb	2.152	0.39%
V 292.402†	60783.3	504.37 ug/L	0.610	504.37 ppb	0.610	0.12%
Zn 213.857†	46263.5	480.96 ug/L	1.108	480.96 ppb	1.108	0.23%
SiO2†	144214.8	10266 ug/L	51.0	10266 ppb	51.0	0.50%

Sequence No.: 110

Sample ID: 246334001|950319|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 110

Date Collected: 2/20/2010 05:01:35

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 246334001|950319|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	3979.6	3979.6	113 %		05:03:49
1	Y RADIAL	4563.8	4563.8	114.1 %		05:03:28
1	Al 396.153Radial†	-29.5	87.0	84.512 ug/L	84.512 ppb	05:03:49
1	Ca 317.933Radial†	57.3	19.7	42.962 ug/L	42.962 ppb	05:03:49
1	Fe 238.204 Radial†	15.8	4.9	71.393 ug/L	71.393 ppb	05:03:49
1	K 766.490 Radial†	3708.8	152.0	29.035 ug/L	29.035 ppb	05:03:28
1	Mg 279.077 IEC†	2.7	-0.3	-13.756 ug/L	-13.756 ppb	05:03:49
1	Na 589.592 Radial†	362.7	-3705.0	-1271.5 ug/L	-1271.5 ppb	05:03:28
1	Sr 421.552†	518.7	-980.4	-7.3519 ug/L	-7.3519 ppb	05:03:28
1	Sc 361.383	802741.6	802741.6	106.84 %		05:04:45
1	Y 371.029	636068.2	636068.2	108.09 %		05:04:45
1	Ag 328.068†	181.9	-156.1	-0.7938 ug/L	-0.7938 ppb	05:04:45
1	As 188.979†	-30.7	-8.1	-3.6925 ug/L	-3.6925 ppb	05:05:05
1	B 249.677†	757.2	1150.6	28.555 ug/L	28.555 ppb	05:04:45
1	Ba 233.527†	342.0	175.0	1.4965 ug/L	1.4965 ppb	05:05:05
1	Be 313.107†	-4605.2	45.5	0.0241 ug/L	0.0241 ppb	05:04:45
1	Cd 226.502†	-174.7	31.6	0.4142 ug/L	0.4142 ppb	05:05:05
1	Co 228.616†	-59.3	14.8	0.3203 ug/L	0.3203 ppb	05:05:05
1	Cr 267.716†	124.6	38.8	0.5096 ug/L	0.5096 ppb	05:05:05
1	Cu 324.752†	6630.6	-246.2	-0.7732 ug/L	-0.7732 ppb	05:04:45
1	Mn 257.610†	2936.5	2277.1	2.7022 ug/L	2.7022 ppb	05:04:45
1	Mo 202.031†	25.4	13.8	1.1338 ug/L	1.1338 ppb	05:05:05
1	Ni 231.604†	80.2	-4.1	-0.1157 ug/L	-0.1157 ppb	05:05:05
1	P 214.914†	245.7	18.9	11.684 ug/L	11.684 ppb	05:05:05
1	Pb 220.353†	-38.2	-56.6	-7.8440 ug/L	-7.8440 ppb	05:05:05
1	S 181.975 Axial†	56.1	15.1	21.668 ug/L	21.668 ppb	05:05:05
1	Sb 206.836†	31.9	-6.5	-2.3342 ug/L	-2.3342 ppb	05:05:05
1	Se 196.026†	-22.4	8.4	5.9221 ug/L	5.9221 ppb	05:05:05
1	Si 251.611†	49965.9	46269.1	1549.2 ug/L	1549.2 ppb	05:04:45
1	Sn 189.927†	31.0	13.7	2.7666 ug/L	2.7666 ppb	05:05:05
1	Ti 334.940†	192.8	1660.4	2.7555 ug/L	2.7555 ppb	05:04:45
1	Tl 190.801†	-24.8	9.4	3.1715 ug/L	3.1715 ppb	05:05:05
1	U 409.014†	-2750.6	488.7	17.776 ug/L	17.776 ppb	05:04:45
1	V 292.402†	-1548.3	243.6	2.0309 ug/L	2.0309 ppb	05:04:45
1	Zn 213.857†	832.2	135.1	1.4092 ug/L	1.4092 ppb	05:05:05
1	SiO2†	49366.9	45712.8	3258.4 ug/L	3258.4 ppb	05:06:02
2	Sc Radial	3969.4	3969.4	112 %		05:04:14
2	Y RADIAL	4447.4	4447.4	111.2 %		05:03:54
2	Al 396.153Radial†	-39.7	77.9	75.671 ug/L	75.671 ppb	05:04:14
2	Ca 317.933Radial†	60.3	22.5	49.051 ug/L	49.051 ppb	05:04:14
2	Fe 238.204 Radial†	15.2	4.4	63.571 ug/L	63.571 ppb	05:04:14
2	K 766.490 Radial†	3819.5	259.2	49.183 ug/L	49.183 ppb	05:03:54
2	Mg 279.077 IEC†	1.6	-1.3	-63.643 ug/L	-63.643 ppb	05:04:14
2	Na 589.592 Radial†	307.0	-3753.8	-1288.2 ug/L	-1288.2 ppb	05:03:54
2	Sr 421.552†	360.5	-1120.2	-8.4000 ug/L	-8.4000 ppb	05:03:54
2	Sc 361.383	798334.0	798334.0	106.26 %		05:05:11
2	Y 371.029	633935.2	633935.2	107.73 %		05:05:11
2	Ag 328.068†	219.3	-120.0	-0.6104 ug/L	-0.6104 ppb	05:05:11
2	As 188.979†	-23.7	-1.6	-0.7245 ug/L	-0.7245 ppb	05:05:31
2	B 249.677†	728.8	1127.8	27.990 ug/L	27.990 ppb	05:05:11
2	Ba 233.527†	379.7	212.3	1.8138 ug/L	1.8138 ppb	05:05:31
2	Be 313.107†	-4512.8	108.7	0.0486 ug/L	0.0486 ppb	05:05:11
2	Cd 226.502†	-192.2	14.3	0.1862 ug/L	0.1862 ppb	05:05:31
2	Co 228.616†	-52.2	21.2	0.4607 ug/L	0.4607 ppb	05:05:31
2	Cr 267.716†	133.2	47.5	0.6221 ug/L	0.6221 ppb	05:05:31
2	Cu 324.752†	6570.2	-268.9	-0.8455 ug/L	-0.8455 ppb	05:05:11
2	Mn 257.610†	2961.7	2316.0	2.7494 ug/L	2.7494 ppb	05:05:11
2	Mo 202.031†	19.5	8.4	0.6908 ug/L	0.6908 ppb	05:05:31
2	Ni 231.604†	104.4	19.1	0.5440 ug/L	0.5440 ppb	05:05:31

2	P 214.914†	234.2	9.3	5.8168 ug/L	5.8168 ppb	05:05:31
2	Pb 220.353†	-33.9	-52.7	-7.3073 ug/L	-7.3073 ppb	05:05:31
2	S 181.975 Axial†	65.8	24.5	35.276 ug/L	35.276 ppb	05:05:31
2	Sb 206.836†	34.3	-4.1	-1.4460 ug/L	-1.4460 ppb	05:05:31
2	Se 196.026†	-26.7	4.2	3.0595 ug/L	3.0595 ppb	05:05:31
2	Si 251.611†	49874.5	46441.3	1555.0 ug/L	1555.0 ppb	05:05:11
2	Sn 189.927†	31.2	14.1	2.8379 ug/L	2.8379 ppb	05:05:31
2	Ti 334.940†	115.8	1589.0	2.6406 ug/L	2.6406 ppb	05:05:11
2	Tl 190.801†	-33.2	1.3	0.4617 ug/L	0.4617 ppb	05:05:31
2	U 409.014†	-2666.7	553.4	20.135 ug/L	20.135 ppb	05:05:11
2	V 292.402†	-1518.1	264.0	2.1967 ug/L	2.1967 ppb	05:05:11
2	Zn 213.857†	834.2	141.3	1.4712 ug/L	1.4712 ppb	05:05:31
2	SiO2†	49282.7	45888.7	3270.9 ug/L	3270.9 ppb	05:06:07
3	Sc Radial	4010.6	4010.6	113 %		05:04:39
3	Y RADIAL	4450.3	4450.3	111.3 %		05:04:19
3	Al 396.153Radial†	-38.0	79.8	77.544 ug/L	77.544 ppb	05:04:39
3	Ca 317.933Radial†	60.8	22.4	48.849 ug/L	48.849 ppb	05:04:39
3	Fe 238.204 Radial†	12.3	1.7	24.397 ug/L	24.397 ppb	05:04:39
3	K 766.490 Radial†	3803.5	210.0	39.946 ug/L	39.946 ppb	05:04:19
3	Mg 279.077 IEC†	0.4	-2.3	-116.58 ug/L	-116.58 ppb	05:04:39
3	Na 589.592 Radial†	283.4	-3777.4	-1296.4 ug/L	-1296.4 ppb	05:04:19
3	Sr 421.552†	555.4	-951.7	-7.1364 ug/L	-7.1364 ppb	05:04:19
3	Sc 361.383	800282.0	800282.0	106.52 %		05:05:36
3	Y 371.029	633936.4	633936.4	107.73 %		05:05:36
3	Ag 328.068†	78.7	-252.5	-1.3085 ug/L	-1.3085 ppb	05:05:36
3	As 188.979†	-27.9	-5.5	-2.5155 ug/L	-2.5155 ppb	05:05:56
3	B 249.677†	720.8	1118.7	27.769 ug/L	27.769 ppb	05:05:36
3	Ba 233.527†	354.4	187.6	1.6030 ug/L	1.6030 ppb	05:05:56
3	Be 313.107†	-4570.8	64.6	0.0313 ug/L	0.0313 ppb	05:05:36
3	Cd 226.502†	-190.7	16.1	0.2144 ug/L	0.2144 ppb	05:05:56
3	Co 228.616†	-52.5	21.1	0.4563 ug/L	0.4563 ppb	05:05:56
3	Cr 267.716†	137.9	51.6	0.6727 ug/L	0.6727 ppb	05:05:56
3	Cu 324.752†	6638.5	-219.8	-0.6945 ug/L	-0.6945 ppb	05:05:36
3	Mn 257.610†	2928.4	2278.0	2.7028 ug/L	2.7028 ppb	05:05:36
3	Mo 202.031†	11.3	0.6	0.0523 ug/L	0.0523 ppb	05:05:56
3	Ni 231.604†	98.5	13.3	0.3788 ug/L	0.3788 ppb	05:05:56
3	P 214.914†	233.9	8.5	5.3614 ug/L	5.3614 ppb	05:05:56
3	Pb 220.353†	-35.8	-54.5	-7.5500 ug/L	-7.5500 ppb	05:05:56
3	S 181.975 Axial†	62.7	21.5	30.872 ug/L	30.872 ppb	05:05:56
3	Sb 206.836†	33.8	-4.7	-1.6841 ug/L	-1.6841 ppb	05:05:56
3	Se 196.026†	-13.0	17.1	11.693 ug/L	11.693 ppb	05:05:56
3	Si 251.611†	50123.8	46561.1	1559.0 ug/L	1559.0 ppb	05:05:36
3	Sn 189.927†	25.8	8.9	1.7915 ug/L	1.7915 ppb	05:05:56
3	Ti 334.940†	108.3	1581.6	2.6328 ug/L	2.6328 ppb	05:05:36
3	Tl 190.801†	-17.0	16.6	5.5923 ug/L	5.5923 ppb	05:05:56
3	U 409.014†	-2677.8	549.1	19.980 ug/L	19.980 ppb	05:05:36
3	V 292.402†	-1503.0	281.7	2.3370 ug/L	2.3370 ppb	05:05:36
3	Zn 213.857†	831.0	136.4	1.4262 ug/L	1.4262 ppb	05:05:56
3	SiO2†	49577.8	46052.8	3282.7 ug/L	3282.7 ppb	05:06:12

Mean Data: 246334001|950319|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Sc 361.383	800452.6	106.54 %		0.294			0.28%
Sc Radial	3986.6	113 %		0.6			0.54%
Y 371.029	634646.6	107.85 %		0.209			0.19%
Y RADIAL	4487.2	112.2 %		1.66			1.48%
Ag 328.068†	-176.2	-0.9043 ug/L		0.36191	-0.9043 ppb	0.36191	40.02%
Al 396.153Radial†	81.5	79.242 ug/L		4.6590	79.242 ppb	4.6590	5.88%
As 188.979†	-5.1	-2.3108 ug/L		1.49455	-2.3108 ppb	1.49455	64.68%
B 249.677†	1132.4	28.105 ug/L		0.4054	28.105 ppb	0.4054	1.44%
Ba 233.527†	191.7	1.6378 ug/L		0.16148	1.6378 ppb	0.16148	9.86%
Be 313.107†	72.9	0.0347 ug/L		0.01260	0.0347 ppb	0.01260	36.32%
Ca 317.933Radial†	21.5	46.954 ug/L		3.4588	46.954 ppb	3.4588	7.37%
Cd 226.502†	20.7	0.2716 ug/L		0.12428	0.2716 ppb	0.12428	45.75%
Co 228.616†	19.0	0.4124 ug/L		0.07979	0.4124 ppb	0.07979	19.35%
Cr 267.716†	46.0	0.6015 ug/L		0.08346	0.6015 ppb	0.08346	13.88%
Cu 324.752†	-245.0	-0.7711 ug/L		0.07548	-0.7711 ppb	0.07548	9.79%
Fe 238.204 Radial†	3.7	53.121 ug/L		25.1810	53.121 ppb	25.1810	47.40%
K 766.490 Radial†	207.0	39.388 ug/L		10.0857	39.388 ppb	10.0857	25.61%

Mg 279.077 IEC†	-1.3	-64.661 ug/L	51.4211	-64.661 ppb	51.4211	79.52%
Mn 257.610†	2290.4	2.7181 ug/L	0.02711	2.7181 ppb	0.02711	1.00%
Mo 202.031†	7.6	0.6256 ug/L	0.54372	0.6256 ppb	0.54372	86.91%
Na 589.592 Radial†	-3745.4	-1285.4 ug/L	12.67	-1285.4 ppb	12.67	0.99%
Ni 231.604†	9.5	0.2690 ug/L	0.34324	0.2690 ppb	0.34324	127.58%
P 214.914†	12.2	7.6208 ug/L	3.52636	7.6208 ppb	3.52636	46.27%
Pb 220.353†	-54.6	-7.5671 ug/L	0.26877	-7.5671 ppb	0.26877	3.55%
S 181.975 Axial†	20.4	29.272 ug/L	6.9437	29.272 ppb	6.9437	23.72%
Sb 206.836†	-5.1	-1.8214 ug/L	0.45973	-1.8214 ppb	0.45973	25.24%
Se 196.026†	9.9	6.8916 ug/L	4.39784	6.8916 ppb	4.39784	63.81%
Si 251.611†	46423.9	1554.4 ug/L	4.92	1554.4 ppb	4.92	0.32%
Sn 189.927†	12.2	2.4653 ug/L	0.58467	2.4653 ppb	0.58467	23.72%
Sr 421.552†	-1017.4	-7.6294 ug/L	0.67598	-7.6294 ppb	0.67598	8.86%
Ti 334.940†	1610.3	2.6763 ug/L	0.06869	2.6763 ppb	0.06869	2.57%
Tl 190.801†	9.1	3.0752 ug/L	2.56667	3.0752 ppb	2.56667	83.46%
U 409.014†	530.4	19.297 ug/L	1.3192	19.297 ppb	1.3192	6.84%
V 292.402†	263.1	2.1882 ug/L	0.15323	2.1882 ppb	0.15323	7.00%
Zn 213.857†	137.6	1.4355 ug/L	0.03205	1.4355 ppb	0.03205	2.23%
SiO2†	45884.8	3270.7 ug/L	12.13	3270.7 ppb	12.13	0.37%

Sequence No.: 111

Sample ID: 1202036427|950319|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 111

Date Collected: 2/20/2010 05:08:23

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202036427|950319|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4012.0	4012.0	113 %		05:10:37
1	Y RADIAL	4523.2	4523.2	113.1 %		05:10:17
1	Al 396.153Radial†	-36.1	81.4	79.059 ug/L	79.059 ppb	05:10:37
1	Ca 317.933Radial†	67.2	28.0	61.121 ug/L	61.121 ppb	05:10:37
1	Fe 238.204 Radial†	14.4	3.5	51.190 ug/L	51.190 ppb	05:10:37
1	K 766.490 Radial†	3605.5	34.3	6.9085 ug/L	6.9085 ppb	05:10:17
1	Mg 279.077 IEC†	4.5	1.3	65.576 ug/L	65.576 ppb	05:10:37
1	Na 589.592 Radial†	389.3	-3684.1	-1264.3 ug/L	-1264.3 ppb	05:10:17
1	Sr 421.552†	802.6	-733.9	-5.5037 ug/L	-5.5037 ppb	05:10:17
1	Sc 361.383	797509.2	797509.2	106.15 %		05:11:34
1	Y 371.029	631930.8	631930.8	107.39 %		05:11:34
1	Ag 328.068†	77.0	-253.9	-1.3107 ug/L	-1.3107 ppb	05:11:34
1	As 188.979†	-35.9	-13.1	-6.0461 ug/L	-6.0461 ppb	05:11:54
1	B 249.677†	635.8	1041.0	25.836 ug/L	25.836 ppb	05:11:34
1	Ba 233.527†	177.8	22.5	0.1974 ug/L	0.1974 ppb	05:11:54
1	Be 313.107†	-4534.7	83.7	0.0387 ug/L	0.0387 ppb	05:11:34
1	Cd 226.502†	-195.7	10.8	0.1417 ug/L	0.1417 ppb	05:11:54
1	Co 228.616†	-61.2	12.7	0.2753 ug/L	0.2753 ppb	05:11:54
1	Cr 267.716†	133.8	48.2	0.6287 ug/L	0.6287 ppb	05:11:54
1	Cu 324.752†	6486.6	-341.2	-1.0725 ug/L	-1.0725 ppb	05:11:34
1	Mn 257.610†	2860.8	2223.8	2.6339 ug/L	2.6339 ppb	05:11:34
1	Mo 202.031†	29.2	17.5	1.4384 ug/L	1.4384 ppb	05:11:54
1	Ni 231.604†	91.4	7.0	0.1986 ug/L	0.1986 ppb	05:11:54
1	P 214.914†	228.2	3.9	2.5633 ug/L	2.5633 ppb	05:11:54
1	Pb 220.353†	-50.2	-68.1	-9.4411 ug/L	-9.4411 ppb	05:11:54
1	S 181.975 Axial†	56.8	16.1	23.132 ug/L	23.132 ppb	05:11:54
1	Sb 206.836†	26.5	-11.4	-4.1566 ug/L	-4.1566 ppb	05:11:54
1	Se 196.026†	-16.5	13.7	9.5006 ug/L	9.5006 ppb	05:11:54
1	Si 251.611†	48700.2	45383.6	1519.6 ug/L	1519.6 ppb	05:11:34
1	Sn 189.927†	18.4	2.0	0.4061 ug/L	0.4061 ppb	05:11:54
1	Ti 334.940†	68.9	1544.8	2.5576 ug/L	2.5576 ppb	05:11:34
1	Tl 190.801†	-27.4	6.7	2.2871 ug/L	2.2871 ppb	05:11:54
1	U 409.014†	-2603.2	610.6	22.218 ug/L	22.218 ppb	05:11:34
1	V 292.402†	-1542.5	239.6	2.0156 ug/L	2.0156 ppb	05:11:34
1	Zn 213.857†	839.1	146.7	1.5322 ug/L	1.5322 ppb	05:11:54
1	SiO2†	49068.2	45734.6	3259.9 ug/L	3259.9 ppb	05:12:50
2	Sc Radial	4056.8	4056.8	115 %		05:11:02
2	Y RADIAL	4566.8	4566.8	114.2 %		05:10:42
2	Al 396.153Radial†	-34.5	83.2	80.880 ug/L	80.880 ppb	05:11:02
2	Ca 317.933Radial†	67.1	27.2	59.475 ug/L	59.475 ppb	05:11:02
2	Fe 238.204 Radial†	14.3	3.3	47.616 ug/L	47.616 ppb	05:11:02
2	K 766.490 Radial†	3633.2	23.4	4.8670 ug/L	4.8670 ppb	05:10:42
2	Mg 279.077 IEC†	2.8	-0.3	-12.792 ug/L	-12.792 ppb	05:11:02
2	Na 589.592 Radial†	410.8	-3669.2	-1259.2 ug/L	-1259.2 ppb	05:10:42
2	Sr 421.552†	448.2	-1050.7	-7.8790 ug/L	-7.8790 ppb	05:10:42
2	Sc 361.383	805942.3	805942.3	107.27 %		05:11:59
2	Y 371.029	639212.7	639212.7	108.62 %		05:11:59
2	Ag 328.068†	207.1	-133.3	-0.6802 ug/L	-0.6802 ppb	05:11:59
2	As 188.979†	-28.6	-6.0	-2.7568 ug/L	-2.7568 ppb	05:12:19
2	B 249.677†	642.8	1041.2	25.842 ug/L	25.842 ppb	05:11:59
2	Ba 233.527†	162.2	6.2	0.0580 ug/L	0.0580 ppb	05:12:19
2	Be 313.107†	-4507.0	154.2	0.0663 ug/L	0.0663 ppb	05:11:59
2	Cd 226.502†	-187.2	20.6	0.2704 ug/L	0.2704 ppb	05:12:19
2	Co 228.616†	-55.1	18.9	0.4079 ug/L	0.4079 ppb	05:12:19
2	Cr 267.716†	125.3	39.0	0.5113 ug/L	0.5113 ppb	05:12:19
2	Cu 324.752†	6653.2	-249.9	-0.7832 ug/L	-0.7832 ppb	05:11:59
2	Mn 257.610†	2925.1	2255.5	2.6743 ug/L	2.6743 ppb	05:11:59
2	Mo 202.031†	7.3	-3.2	-0.2547 ug/L	-0.2547 ppb	05:12:19
2	Ni 231.604†	91.9	6.6	0.1868 ug/L	0.1868 ppb	05:12:19

2	P 214.914†	236.9	9.7	6.0873 ug/L	6.0873 ppb	05:12:19
2	Pb 220.353†	-44.6	-62.5	-8.6586 ug/L	-8.6586 ppb	05:12:19
2	S 181.975 Axial†	56.9	15.7	22.503 ug/L	22.503 ppb	05:12:19
2	Sb 206.836†	36.4	-2.5	-0.9076 ug/L	-0.9076 ppb	05:12:19
2	Se 196.026†	-24.4	6.5	4.6084 ug/L	4.6084 ppb	05:12:19
2	Si 251.611†	49391.0	45547.5	1525.1 ug/L	1525.1 ppb	05:11:59
2	Sn 189.927†	18.8	2.2	0.4429 ug/L	0.4429 ppb	05:12:19
2	Ti 334.940†	75.2	1550.0	2.5763 ug/L	2.5763 ppb	05:11:59
2	Tl 190.801†	-21.1	12.9	4.3460 ug/L	4.3460 ppb	05:12:19
2	U 409.014†	-2895.9	363.4	13.220 ug/L	13.220 ppb	05:11:59
2	V 292.402†	-1576.4	223.2	1.8393 ug/L	1.8393 ppb	05:11:59
2	Zn 213.857†	830.2	130.2	1.3591 ug/L	1.3591 ppb	05:12:19
2	SiO2†	49119.5	45298.7	3228.9 ug/L	3228.9 ppb	05:12:55
3	Sc Radial	4050.8	4050.8	115 %		05:11:27
3	Y RADIAL	4552.0	4552.0	113.8 %		05:11:07
3	Al 396.153Radial†	-36.9	81.0	78.763 ug/L	78.763 ppb	05:11:27
3	Ca 317.933Radial†	64.2	24.8	54.215 ug/L	54.215 ppb	05:11:27
3	Fe 238.204 Radial†	15.7	4.5	65.523 ug/L	65.523 ppb	05:11:27
3	K 766.490 Radial†	3711.9	96.7	18.653 ug/L	18.653 ppb	05:11:07
3	Mg 279.077 IEC†	2.2	-0.7	-35.884 ug/L	-35.884 ppb	05:11:27
3	Na 589.592 Radial†	366.9	-3707.0	-1272.2 ug/L	-1272.2 ppb	05:11:07
3	Sr 421.552†	669.1	-857.2	-6.4280 ug/L	-6.4280 ppb	05:11:07
3	Sc 361.383	801452.5	801452.5	106.67 %		05:12:24
3	Y 371.029	635507.1	635507.1	107.99 %		05:12:24
3	Ag 328.068†	249.5	-92.5	-0.4714 ug/L	-0.4714 ppb	05:12:24
3	As 188.979†	-28.6	-6.1	-2.7818 ug/L	-2.7818 ppb	05:12:44
3	B 249.677†	645.6	1047.2	25.988 ug/L	25.988 ppb	05:12:24
3	Ba 233.527†	185.6	28.9	0.2522 ug/L	0.2522 ppb	05:12:44
3	Be 313.107†	-4529.6	109.5	0.0490 ug/L	0.0490 ppb	05:12:24
3	Cd 226.502†	-167.4	38.2	0.5034 ug/L	0.5034 ppb	05:12:44
3	Co 228.616†	-68.7	5.9	0.1237 ug/L	0.1237 ppb	05:12:44
3	Cr 267.716†	118.8	33.6	0.4387 ug/L	0.4387 ppb	05:12:44
3	Cu 324.752†	6566.9	-296.0	-0.9313 ug/L	-0.9313 ppb	05:12:24
3	Mn 257.610†	2898.4	2245.8	2.6655 ug/L	2.6655 ppb	05:12:24
3	Mo 202.031†	19.4	8.2	0.6799 ug/L	0.6799 ppb	05:12:44
3	Ni 231.604†	98.0	12.8	0.3633 ug/L	0.3633 ppb	05:12:44
3	P 214.914†	238.3	12.3	7.6917 ug/L	7.6917 ppb	05:12:44
3	Pb 220.353†	-48.6	-66.5	-9.2123 ug/L	-9.2123 ppb	05:12:44
3	S 181.975 Axial†	55.8	14.9	21.450 ug/L	21.450 ppb	05:12:44
3	Sb 206.836†	38.0	-0.8	-0.2239 ug/L	-0.2239 ppb	05:12:44
3	Se 196.026†	-17.2	13.2	9.1791 ug/L	9.1791 ppb	05:12:44
3	Si 251.611†	49110.2	45542.2	1524.9 ug/L	1524.9 ppb	05:12:24
3	Sn 189.927†	33.4	16.0	3.2274 ug/L	3.2274 ppb	05:12:44
3	Ti 334.940†	126.2	1598.3	2.6535 ug/L	2.6535 ppb	05:12:24
3	Tl 190.801†	-33.2	1.5	0.5239 ug/L	0.5239 ppb	05:12:44
3	U 409.014†	-2598.5	627.1	22.816 ug/L	22.816 ppb	05:12:24
3	V 292.402†	-1580.4	211.1	1.7693 ug/L	1.7693 ppb	05:12:24
3	Zn 213.857†	834.3	138.4	1.4413 ug/L	1.4413 ppb	05:12:44
3	SiO2†	49578.4	45985.4	3277.8 ug/L	3277.8 ppb	05:13:00

Mean Data: 1202036427|950319|1

Analyte	Mean Corrected	Conc.	Calib.	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity	Units			Conc. Units		
Sc 361.383	801634.7	106.70 %		0.562			0.53%
Sc Radial	4039.9	114 %		0.7			0.60%
Y 371.029	635550.2	108.00 %		0.619			0.57%
Y RADIAL	4547.4	113.7 %		0.55			0.49%
Ag 328.068†	-159.9	-0.8207 ug/L		0.43696	-0.8207 ppb	0.43696	53.24%
Al 396.153Radial†	81.9	79.567 ug/L		1.1466	79.567 ppb	1.1466	1.44%
As 188.979†	-8.4	-3.8615 ug/L		1.89189	-3.8615 ppb	1.89189	48.99%
B 249.677†	1043.1	25.889 ug/L		0.0859	25.889 ppb	0.0859	0.33%
Ba 233.527†	19.2	0.1692 ug/L		0.10010	0.1692 ppb	0.10010	59.17%
Be 313.107†	115.8	0.0513 ug/L		0.01399	0.0513 ppb	0.01399	27.25%
Ca 317.933Radial†	26.7	58.270 ug/L		3.6070	58.270 ppb	3.6070	6.19%
Cd 226.502†	23.2	0.3052 ug/L		0.18331	0.3052 ppb	0.18331	60.07%
Co 228.616†	12.5	0.2690 ug/L		0.14222	0.2690 ppb	0.14222	52.87%
Cr 267.716†	40.3	0.5262 ug/L		0.09590	0.5262 ppb	0.09590	18.22%
Cu 324.752†	-295.7	-0.9290 ug/L		0.14467	-0.9290 ppb	0.14467	15.57%
Fe 238.204 Radial†	3.8	54.776 ug/L		9.4767	54.776 ppb	9.4767	17.30%
K 766.490 Radial†	51.5	10.143 ug/L		7.4404	10.143 ppb	7.4404	73.36%



Mg 279.077 IEC†	0.1	5.6332 ug/L	53.18023	5.6332 ppb	53.18023	944.05%
Mn 257.610†	2241.7	2.6579 ug/L	0.02123	2.6579 ppb	0.02123	0.80%
Mo 202.031†	7.5	0.6212 ug/L	0.84805	0.6212 ppb	0.84805	136.52%
Na 589.592 Radial†	-3686.8	-1265.3 ug/L	6.53	-1265.3 ppb	6.53	0.52%
Ni 231.604†	8.8	0.2496 ug/L	0.09864	0.2496 ppb	0.09864	39.53%
P 214.914†	8.6	5.4474 ug/L	2.62341	5.4474 ppb	2.62341	48.16%
Pb 220.353†	-65.7	-9.1040 ug/L	0.40234	-9.1040 ppb	0.40234	4.42%
S 181.975 Axial†	15.6	22.361 ug/L	0.8498	22.361 ppb	0.8498	3.80%
Sb 206.836†	-4.9	-1.7627 ug/L	2.10120	-1.7627 ppb	2.10120	119.20%
Se 196.026†	11.2	7.7627 ug/L	2.73645	7.7627 ppb	2.73645	35.25%
Si 251.611†	45491.1	1523.2 ug/L	3.13	1523.2 ppb	3.13	0.21%
Sn 189.927†	6.7	1.3588 ug/L	1.61836	1.3588 ppb	1.61836	119.10%
Sr 421.552†	-880.6	-6.6036 ug/L	1.19736	-6.6036 ppb	1.19736	18.13%
Ti 334.940†	1564.4	2.5958 ug/L	0.05082	2.5958 ppb	0.05082	1.96%
Tl 190.801†	7.0	2.3857 ug/L	1.91295	2.3857 ppb	1.91295	80.18%
U 409.014†	533.7	19.418 ug/L	5.3759	19.418 ppb	5.3759	27.68%
V 292.402†	224.6	1.8747 ug/L	0.12692	1.8747 ppb	0.12692	6.77%
Zn 213.857†	138.4	1.4442 ug/L	0.08656	1.4442 ppb	0.08656	5.99%
SiO2†	45672.9	3255.6 ug/L	24.75	3255.6 ppb	24.75	0.76%

Sequence No.: 112

Sample ID: 1202036428|950319|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 112

Date Collected: 2/20/2010 05:15:12

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202036428|950319|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4000.3	4000.3	113 %			05:17:26
1	Y RADIAL	4512.0	4512.0	112.8 %			05:17:06
1	Al 396.153Radial†	5614.3	5077.2	4913.4 ug/L		4913.4 ppb	05:17:06
1	Ca 317.933Radial†	2598.1	2265.9	4949.9 ug/L		4949.9 ppb	05:17:26
1	Fe 238.204 Radial†	405.5	349.4	5068.0 ug/L		5068.0 ppb	05:17:26
1	K 766.490 Radial†	32491.8	25583.6	4803.4 ug/L		4803.4 ppb	05:17:06
1	Mg 279.077 IEC†	113.5	97.7	4963.7 ug/L		4963.7 ppb	05:17:26
1	Na 589.592 Radial†	17277.6	11248.8	3860.5 ug/L		3860.5 ppb	05:17:06
1	Sr 421.552†	75221.0	65065.6	487.86 ug/L		487.86 ppb	05:17:06
1	Sc 361.383	821801.8	821801.8	109.38 %			05:18:24
1	Y 371.029	644598.4	644598.4	109.54 %			05:18:24
1	Ag 328.068†	102351.4	93247.8	486.19 ug/L		486.19 ppb	05:18:24
1	As 188.979†	1108.1	1033.8	483.28 ug/L		483.28 ppb	05:18:44
1	B 249.677†	21746.3	20323.4	502.44 ug/L		502.44 ppb	05:18:24
1	Ba 233.527†	62882.2	57344.7	489.35 ug/L		489.35 ppb	05:18:24
1	Be 313.107†	1332468.8	1222557.8	480.82 ug/L		480.82 ppb	05:18:24
1	Cd 226.502†	38026.1	34960.3	462.07 ug/L		462.07 ppb	05:18:44
1	Co 228.616†	23063.8	21156.3	463.61 ug/L		463.61 ppb	05:18:44
1	Cr 267.716†	39981.1	36474.6	477.67 ug/L		477.67 ppb	05:18:24
1	Cu 324.752†	181234.1	159240.1	496.05 ug/L		496.05 ppb	05:18:24
1	Mn 257.610†	446614.7	407843.6	482.91 ug/L		482.91 ppb	05:18:24
1	Mo 202.031†	6293.2	5743.5	470.42 ug/L		470.42 ppb	05:18:44
1	Ni 231.604†	18244.9	16601.2	472.04 ug/L		472.04 ppb	05:18:44
1	P 214.914†	1180.5	868.1	433.70 ug/L		433.70 ppb	05:18:44
1	Pb 220.353†	3733.2	3392.1	473.20 ug/L		473.20 ppb	05:18:44
1	S 181.975 Axial†	3669.7	3317.6	4770.5 ug/L		4770.5 ppb	05:18:44
1	Sb 206.836†	1518.4	1351.9	512.78 ug/L		512.78 ppb	05:18:44
1	Se 196.026†	722.8	690.1	487.10 ug/L		487.10 ppb	05:18:44
1	Si 251.611†	207097.5	188841.2	6317.3 ug/L		6317.3 ppb	05:18:24
1	Sn 189.927†	2700.7	2453.7	494.60 ug/L		494.60 ppb	05:18:44
1	Ti 334.940†	320552.2	294543.0	488.84 ug/L		488.84 ppb	05:18:24
1	Tl 190.801†	1529.5	1430.9	483.83 ug/L		483.83 ppb	05:18:44
1	U 409.014†	12897.1	14854.2	539.00 ug/L		539.00 ppb	05:18:24
1	V 292.402†	63426.2	59679.8	495.12 ug/L		495.12 ppb	05:18:24
1	Zn 213.857†	50365.5	45402.6	472.03 ug/L		472.03 ppb	05:18:24
1	SiO2†	206927.4	188690.0	13437 ug/L		13437 ppb	05:19:45
2	Sc Radial	3956.2	3956.2	112 %			05:17:51
2	Y RADIAL	4540.0	4540.0	113.5 %			05:17:31
2	Al 396.153Radial†	5639.0	5154.5	4988.4 ug/L		4988.4 ppb	05:17:31
2	Ca 317.933Radial†	2570.7	2266.9	4952.2 ug/L		4952.2 ppb	05:17:51
2	Fe 238.204 Radial†	399.0	347.6	5042.0 ug/L		5042.0 ppb	05:17:51
2	K 766.490 Radial†	32633.0	26029.9	4887.2 ug/L		4887.2 ppb	05:17:31
2	Mg 279.077 IEC†	112.0	97.4	4951.3 ug/L		4951.3 ppb	05:17:51
2	Na 589.592 Radial†	17272.3	11414.2	3917.2 ug/L		3917.2 ppb	05:17:31
2	Sr 421.552†	75846.4	66365.7	497.61 ug/L		497.61 ppb	05:17:31
2	Sc 361.383	815819.1	815819.1	108.58 %			05:18:52
2	Y 371.029	641122.1	641122.1	108.95 %			05:18:52
2	Ag 328.068†	101658.8	93296.2	486.44 ug/L		486.44 ppb	05:18:52
2	As 188.979†	1108.4	1041.5	486.83 ug/L		486.83 ppb	05:19:12
2	B 249.677†	21599.7	20334.1	502.70 ug/L		502.70 ppb	05:18:52
2	Ba 233.527†	62452.8	57370.8	489.57 ug/L		489.57 ppb	05:18:52
2	Be 313.107†	1325858.5	1225403.5	481.94 ug/L		481.94 ppb	05:18:52
2	Cd 226.502†	38092.5	35276.4	466.25 ug/L		466.25 ppb	05:19:12
2	Co 228.616†	23030.9	21280.6	466.34 ug/L		466.34 ppb	05:19:12
2	Cr 267.716†	39914.4	36681.3	480.37 ug/L		480.37 ppb	05:18:52
2	Cu 324.752†	179959.1	159280.9	496.17 ug/L		496.17 ppb	05:18:52
2	Mn 257.610†	443922.3	408358.4	483.52 ug/L		483.52 ppb	05:18:52
2	Mo 202.031†	6296.2	5788.5	474.10 ug/L		474.10 ppb	05:19:12
2	Ni 231.604†	18269.2	16745.9	476.15 ug/L		476.15 ppb	05:19:12

2	P 214.914†	1198.2	892.4	448.61 ug/L	448.61 ppb	05:19:12
2	Pb 220.353†	3748.0	3430.9	478.61 ug/L	478.61 ppb	05:19:12
2	S 181.975 Axial†	3681.5	3353.1	4821.5 ug/L	4821.5 ppb	05:19:12
2	Sb 206.836†	1518.7	1362.3	516.78 ug/L	516.78 ppb	05:19:12
2	Se 196.026†	729.5	701.2	494.51 ug/L	494.51 ppb	05:19:12
2	Si 251.611†	205775.6	189012.3	6323.0 ug/L	6323.0 ppb	05:18:52
2	Sn 189.927†	2716.8	2486.7	501.24 ug/L	501.24 ppb	05:19:12
2	Ti 334.940†	318142.7	294473.1	488.73 ug/L	488.73 ppb	05:18:52
2	Tl 190.801†	1522.9	1435.1	485.23 ug/L	485.23 ppb	05:19:12
2	U 409.014†	12879.8	14924.7	541.56 ug/L	541.56 ppb	05:18:52
2	V 292.402†	63088.2	59793.7	496.11 ug/L	496.11 ppb	05:18:52
2	Zn 213.857†	50008.7	45411.7	472.11 ug/L	472.11 ppb	05:18:52
2	SiO2†	205758.0	189000.4	13459 ug/L	13459 ppb	05:19:50
3	Sc Radial	4017.0	4017.0	114 %		05:18:16
3	Y RADIAL	4400.2	4400.2	110.0 %		05:17:56
3	Al 396.153Radial†	5474.1	4933.1	4773.1 ug/L	4773.1 ppb	05:17:56
3	Ca 317.933Radial†	2595.9	2254.4	4924.8 ug/L	4924.8 ppb	05:18:16
3	Fe 238.204 Radial†	401.4	344.3	4994.8 ug/L	4994.8 ppb	05:18:16
3	K 766.490 Radial†	31754.6	24815.1	4659.1 ug/L	4659.1 ppb	05:17:56
3	Mg 279.077 IEC†	109.0	93.3	4740.7 ug/L	4740.7 ppb	05:18:16
3	Na 589.592 Radial†	16667.0	10647.6	3654.1 ug/L	3654.1 ppb	05:17:56
3	Sr 421.552†	72873.9	62722.6	470.29 ug/L	470.29 ppb	05:17:56
3	Sc 361.383	816902.7	816902.7	108.73 %		05:19:19
3	Y 371.029	640745.8	640745.8	108.88 %		05:19:19
3	Ag 328.068†	101837.3	93336.2	486.64 ug/L	486.64 ppb	05:19:19
3	As 188.979†	1109.5	1041.1	486.66 ug/L	486.66 ppb	05:19:39
3	B 249.677†	21620.7	20327.1	502.53 ug/L	502.53 ppb	05:19:19
3	Ba 233.527†	62711.9	57532.8	490.95 ug/L	490.95 ppb	05:19:19
3	Be 313.107†	1326628.4	1224491.9	481.58 ug/L	481.58 ppb	05:19:19
3	Cd 226.502†	38246.5	35371.5	467.51 ug/L	467.51 ppb	05:19:39
3	Co 228.616†	23112.5	21327.5	467.37 ug/L	467.37 ppb	05:19:39
3	Cr 267.716†	39911.6	36630.0	479.70 ug/L	479.70 ppb	05:19:19
3	Cu 324.752†	180143.6	159230.7	496.02 ug/L	496.02 ppb	05:19:19
3	Mn 257.610†	445646.5	409401.9	484.76 ug/L	484.76 ppb	05:19:19
3	Mo 202.031†	6317.1	5800.1	475.04 ug/L	475.04 ppb	05:19:39
3	Ni 231.604†	18302.5	16754.2	476.39 ug/L	476.39 ppb	05:19:39
3	P 214.914†	1195.5	888.4	446.20 ug/L	446.20 ppb	05:19:39
3	Pb 220.353†	3743.6	3422.2	477.36 ug/L	477.36 ppb	05:19:39
3	S 181.975 Axial†	3683.5	3350.5	4817.7 ug/L	4817.7 ppb	05:19:39
3	Sb 206.836†	1518.5	1360.2	516.04 ug/L	516.04 ppb	05:19:39
3	Se 196.026†	708.4	680.8	480.55 ug/L	480.55 ppb	05:19:39
3	Si 251.611†	206433.4	189365.9	6334.8 ug/L	6334.8 ppb	05:19:19
3	Sn 189.927†	2716.6	2483.2	500.53 ug/L	500.53 ppb	05:19:39
3	Ti 334.940†	319281.1	295131.4	489.84 ug/L	489.84 ppb	05:19:19
3	Tl 190.801†	1524.5	1434.7	485.10 ug/L	485.10 ppb	05:19:39
3	U 409.014†	12722.8	14764.6	535.74 ug/L	535.74 ppb	05:19:19
3	V 292.402†	63257.4	59872.2	496.76 ug/L	496.76 ppb	05:19:19
3	Zn 213.857†	50231.8	45555.8	473.62 ug/L	473.62 ppb	05:19:19
3	SiO2†	205347.2	188371.2	13414 ug/L	13414 ppb	05:19:55

Mean Data: 1202036428|950319|1

Analyte	Mean Corrected	Conc. Units	Calib.	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity		Units		Conc. Units		
Sc 361.383	818174.5	108.90	%	0.424			0.39%
Sc Radial	3991.1	113	%	0.9			0.79%
Y 371.029	642155.4	109.12	%	0.361			0.33%
Y RADIAL	4484.1	112.1	%	1.85			1.65%
Ag 328.068†	93293.4	486.42	ug/L	0.223	486.42 ppb	0.223	0.05%
Al 396.153Radial†	5054.9	4891.6	ug/L	109.30	4891.6 ppb	109.30	2.23%
As 188.979†	1038.8	485.59	ug/L	2.004	485.59 ppb	2.004	0.41%
B 249.677†	20328.2	502.55	ug/L	0.134	502.55 ppb	0.134	0.03%
Ba 233.527†	57416.1	489.95	ug/L	0.868	489.95 ppb	0.868	0.18%
Be 313.107†	1224151.1	481.45	ug/L	0.570	481.45 ppb	0.570	0.12%
Ca 317.933Radial†	2262.4	4942.3	ug/L	15.19	4942.3 ppb	15.19	0.31%
Cd 226.502†	35202.7	465.28	ug/L	2.851	465.28 ppb	2.851	0.61%
Co 228.616†	21254.8	465.77	ug/L	1.944	465.77 ppb	1.944	0.42%
Cr 267.716†	36595.3	479.25	ug/L	1.405	479.25 ppb	1.405	0.29%
Cu 324.752†	159250.6	496.08	ug/L	0.082	496.08 ppb	0.082	0.02%
Fe 238.204 Radial†	347.1	5035.0	ug/L	37.10	5035.0 ppb	37.10	0.74%
K 766.490 Radial†	25476.2	4783.2	ug/L	115.41	4783.2 ppb	115.41	2.41%

Mg 279.077 IEC†	96.1	4885.2 ug/L	125.34	4885.2 ppb	125.34	2.57%
Mn 257.610†	408534.6	483.73 ug/L	0.941	483.73 ppb	0.941	0.19%
Mo 202.031†	5777.4	473.19 ug/L	2.441	473.19 ppb	2.441	0.52%
Na 589.592 Radial†	11103.5	3810.6 ug/L	138.45	3810.6 ppb	138.45	3.63%
Ni 231.604†	16700.4	474.86 ug/L	2.447	474.86 ppb	2.447	0.52%
P 214.914†	883.0	442.83 ug/L	8.002	442.83 ppb	8.002	1.81%
Pb 220.353†	3415.1	476.39 ug/L	2.831	476.39 ppb	2.831	0.59%
S 181.975 Axial†	3340.4	4803.2 ug/L	28.43	4803.2 ppb	28.43	0.59%
Sb 206.836†	1358.1	515.20 ug/L	2.128	515.20 ppb	2.128	0.41%
Se 196.026†	690.7	487.39 ug/L	6.981	487.39 ppb	6.981	1.43%
Si 251.611†	189073.1	6325.0 ug/L	8.93	6325.0 ppb	8.93	0.14%
Sn 189.927†	2474.6	498.79 ug/L	3.649	498.79 ppb	3.649	0.73%
Sr 421.552†	64718.0	485.25 ug/L	13.844	485.25 ppb	13.844	2.85%
Ti 334.940†	294715.8	489.13 ug/L	0.610	489.13 ppb	0.610	0.12%
Tl 190.801†	1433.6	484.72 ug/L	0.773	484.72 ppb	0.773	0.16%
U 409.014†	14847.8	538.77 ug/L	2.918	538.77 ppb	2.918	0.54%
V 292.402†	59781.9	495.99 ug/L	0.826	495.99 ppb	0.826	0.17%
Zn 213.857†	45456.7	472.59 ug/L	0.898	472.59 ppb	0.898	0.19%
SiO2†	188687.2	13437 ug/L	22.4	13437 ppb	22.4	0.17%

Sequence No.: 113

Sample ID: 1202036429|950319|5

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 113

Date Collected: 2/20/2010 05:22:07

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202036429|950319|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	3961.0	3961.0	112 %		05:24:21
1	Y RADIAL	4511.3	4511.3	112.8 %		05:24:01
1	Al 396.153Radial†	-97.4	26.3	25.549 ug/L	25.549 ppb	05:24:21
1	Ca 317.933Radial†	55.6	18.4	40.235 ug/L	40.235 ppb	05:24:21
1	Fe 238.204 Radial†	12.1	1.7	24.530 ug/L	24.530 ppb	05:24:21
1	K 766.490 Radial†	3054.2	-417.0	-77.826 ug/L	-77.826 ppb	05:24:01
1	Mg 279.077 IEC†	1.7	-1.1	-55.733 ug/L	-55.733 ppb	05:24:21
1	Na 589.592 Radial†	-56.8	-4078.0	-1399.5 ug/L	-1399.5 ppb	05:24:01
1	Sr 421.552†	585.6	-918.6	-6.8882 ug/L	-6.8882 ppb	05:24:01
1	Sc 361.383	791457.9	791457.9	105.34 %		05:25:17
1	Y 371.029	628583.3	628583.3	106.82 %		05:25:17
1	Ag 328.068†	226.6	-111.2	-0.5780 ug/L	-0.5780 ppb	05:25:17
1	As 188.979†	-28.3	-6.2	-2.8555 ug/L	-2.8555 ppb	05:25:37
1	B 249.677†	-44.2	400.0	9.9254 ug/L	9.9254 ppb	05:25:37
1	Ba 233.527†	135.1	-16.8	-0.1393 ug/L	-0.1393 ppb	05:25:37
1	Be 313.107†	-4572.0	15.6	0.0083 ug/L	0.0083 ppb	05:25:17
1	Cd 226.502†	-201.5	3.9	0.0522 ug/L	0.0522 ppb	05:25:37
1	Co 228.616†	-59.0	14.3	0.3123 ug/L	0.3123 ppb	05:25:37
1	Cr 267.716†	85.4	3.3	0.0405 ug/L	0.0405 ppb	05:25:37
1	Cu 324.752†	6132.6	-630.5	-1.9724 ug/L	-1.9724 ppb	05:25:17
1	Mn 257.610†	1026.9	503.6	0.6006 ug/L	0.6006 ppb	05:25:37
1	Mo 202.031†	14.5	3.8	0.3153 ug/L	0.3153 ppb	05:25:37
1	Ni 231.604†	94.7	10.7	0.3053 ug/L	0.3053 ppb	05:25:37
1	P 214.914†	218.6	-3.6	-1.8447 ug/L	-1.8447 ppb	05:25:37
1	Pb 220.353†	-62.4	-80.1	-11.116 ug/L	-11.116 ppb	05:25:37
1	S 181.975 Axial†	38.9	-0.5	-0.6756 ug/L	-0.6756 ppb	05:25:37
1	Sb 206.836†	30.5	-7.4	-2.7237 ug/L	-2.7237 ppb	05:25:37
1	Se 196.026†	-22.9	7.5	5.1987 ug/L	5.1987 ppb	05:25:37
1	Si 251.611†	10411.7	9387.2	314.31 ug/L	314.31 ppb	05:25:17
1	Sn 189.927†	16.2	0.0	0.0132 ug/L	0.0132 ppb	05:25:37
1	Ti 334.940†	-939.9	587.7	0.9781 ug/L	0.9781 ppb	05:25:17
1	Tl 190.801†	-17.7	15.7	5.2813 ug/L	5.2813 ppb	05:25:37
1	U 409.014†	-2732.2	469.4	17.083 ug/L	17.083 ppb	05:25:17
1	V 292.402†	-1616.1	158.6	1.3301 ug/L	1.3301 ppb	05:25:17
1	Zn 213.857†	792.7	108.8	1.1383 ug/L	1.1383 ppb	05:25:37
1	SiO2†	10476.3	9452.9	673.80 ug/L	673.80 ppb	05:26:33
2	Sc Radial	4002.7	4002.7	113 %		05:24:46
2	Y RADIAL	4470.2	4470.2	111.8 %		05:24:26
2	Al 396.153Radial†	-103.4	21.9	21.252 ug/L	21.252 ppb	05:24:46
2	Ca 317.933Radial†	52.4	15.1	32.953 ug/L	32.953 ppb	05:24:46
2	Fe 238.204 Radial†	10.0	-0.3	-4.7257 ug/L	-4.7257 ppb	05:24:46
2	K 766.490 Radial†	3028.8	-467.9	-87.379 ug/L	-87.379 ppb	05:24:26
2	Mg 279.077 IEC†	1.2	-1.6	-82.582 ug/L	-82.582 ppb	05:24:46
2	Na 589.592 Radial†	-111.0	-4125.4	-1415.8 ug/L	-1415.8 ppb	05:24:26
2	Sr 421.552†	500.1	-999.5	-7.4952 ug/L	-7.4952 ppb	05:24:26
2	Sc 361.383	794606.2	794606.2	105.76 %		05:25:43
2	Y 371.029	631273.0	631273.0	107.27 %		05:25:43
2	Ag 328.068†	214.6	-123.4	-0.6483 ug/L	-0.6483 ppb	05:25:43
2	As 188.979†	-24.3	-2.3	-1.0707 ug/L	-1.0707 ppb	05:26:03
2	B 249.677†	-73.9	372.1	9.2369 ug/L	9.2369 ppb	05:26:03
2	Ba 233.527†	138.2	-14.4	-0.1192 ug/L	-0.1192 ppb	05:26:03
2	Be 313.107†	-4543.7	59.6	0.0254 ug/L	0.0254 ppb	05:25:43
2	Cd 226.502†	-189.7	15.8	0.2120 ug/L	0.2120 ppb	05:26:03
2	Co 228.616†	-54.7	18.6	0.4084 ug/L	0.4084 ppb	05:26:03
2	Cr 267.716†	91.6	8.8	0.1098 ug/L	0.1098 ppb	05:26:03
2	Cu 324.752†	6186.6	-602.5	-1.8864 ug/L	-1.8864 ppb	05:25:43
2	Mn 257.610†	1038.5	510.6	0.6071 ug/L	0.6071 ppb	05:26:03
2	Mo 202.031†	21.7	10.5	0.8617 ug/L	0.8617 ppb	05:26:03
2	Ni 231.604†	89.6	5.6	0.1582 ug/L	0.1582 ppb	05:26:03

2	P 214.914†	231.8	8.1	5.3472 ug/L	5.3472 ppb	05:26:03
2	Pb 220.353†	-55.9	-73.7	-10.234 ug/L	-10.234 ppb	05:26:03
2	S 181.975 Axial†	47.9	7.9	11.375 ug/L	11.375 ppb	05:26:03
2	Sb 206.836†	24.2	-13.5	-4.8967 ug/L	-4.8967 ppb	05:26:03
2	Se 196.026†	-24.7	6.0	4.0283 ug/L	4.0283 ppb	05:26:03
2	Si 251.611†	10442.8	9377.6	313.98 ug/L	313.98 ppb	05:25:43
2	Sn 189.927†	22.1	5.5	1.1182 ug/L	1.1182 ppb	05:26:03
2	Ti 334.940†	-1005.1	529.6	0.8830 ug/L	0.8830 ppb	05:25:43
2	Tl 190.801†	-28.2	5.8	1.9672 ug/L	1.9672 ppb	05:26:03
2	U 409.014†	-2758.9	454.5	16.541 ug/L	16.541 ppb	05:25:43
2	V 292.402†	-1575.3	203.2	1.7064 ug/L	1.7064 ppb	05:25:43
2	Zn 213.857†	794.9	107.9	1.1342 ug/L	1.1342 ppb	05:26:03
2	SiO2†	10428.0	9367.8	667.72 ug/L	667.72 ppb	05:26:39
3	Sc Radial	3996.2	3996.2	113 %		05:25:11
3	Y RADIAL	4487.0	4487.0	112.2 %		05:24:51
3	Al 396.153Radial†	-75.7	46.3	44.988 ug/L	44.988 ppb	05:25:11
3	Ca 317.933Radial†	50.2	13.2	28.830 ug/L	28.830 ppb	05:25:11
3	Fe 238.204 Radial†	13.1	2.4	35.120 ug/L	35.120 ppb	05:25:11
3	K 766.490 Radial†	3055.2	-440.2	-82.168 ug/L	-82.168 ppb	05:24:51
3	Mg 279.077 IEC†	-0.1	-2.8	-141.22 ug/L	-141.22 ppb	05:25:11
3	Na 589.592 Radial†	-135.0	-4146.8	-1423.1 ug/L	-1423.1 ppb	05:24:51
3	Sr 421.552†	245.7	-1224.0	-9.1784 ug/L	-9.1784 ppb	05:24:51
3	Sc 361.383	790169.4	790169.4	105.17 %		05:26:08
3	Y 371.029	626845.8	626845.8	106.52 %		05:26:08
3	Ag 328.068†	134.7	-198.2	-1.0258 ug/L	-1.0258 ppb	05:26:08
3	As 188.979†	-28.6	-6.5	-2.9905 ug/L	-2.9905 ppb	05:26:28
3	B 249.677†	-88.4	357.9	8.8792 ug/L	8.8792 ppb	05:26:28
3	Ba 233.527†	137.2	-14.5	-0.1200 ug/L	-0.1200 ppb	05:26:28
3	Be 313.107†	-4574.1	6.5	0.0046 ug/L	0.0046 ppb	05:26:08
3	Cd 226.502†	-184.5	19.8	0.2609 ug/L	0.2609 ppb	05:26:28
3	Co 228.616†	-63.6	9.8	0.2130 ug/L	0.2130 ppb	05:26:28
3	Cr 267.716†	106.6	23.5	0.3055 ug/L	0.3055 ppb	05:26:28
3	Cu 324.752†	6257.0	-502.8	-1.5740 ug/L	-1.5740 ppb	05:26:08
3	Mn 257.610†	1028.2	506.4	0.6085 ug/L	0.6085 ppb	05:26:28
3	Mo 202.031†	12.6	2.0	0.1660 ug/L	0.1660 ppb	05:26:28
3	Ni 231.604†	81.6	-1.6	-0.0447 ug/L	-0.0447 ppb	05:26:28
3	P 214.914†	217.9	-3.9	-2.1152 ug/L	-2.1152 ppb	05:26:28
3	Pb 220.353†	-45.3	-64.0	-8.8723 ug/L	-8.8723 ppb	05:26:28
3	S 181.975 Axial†	48.0	8.2	11.838 ug/L	11.838 ppb	05:26:28
3	Sb 206.836†	31.6	-6.3	-2.3213 ug/L	-2.3213 ppb	05:26:28
3	Se 196.026†	-26.1	4.5	3.1620 ug/L	3.1620 ppb	05:26:28
3	Si 251.611†	10404.2	9396.3	314.62 ug/L	314.62 ppb	05:26:08
3	Sn 189.927†	15.8	-0.3	-0.0511 ug/L	-0.0511 ppb	05:26:28
3	Ti 334.940†	-978.8	549.3	0.9197 ug/L	0.9197 ppb	05:26:08
3	Tl 190.801†	-24.9	8.9	2.9901 ug/L	2.9901 ppb	05:26:28
3	U 409.014†	-2725.9	471.2	17.147 ug/L	17.147 ppb	05:26:08
3	V 292.402†	-1621.3	151.1	1.2634 ug/L	1.2634 ppb	05:26:08
3	Zn 213.857†	778.9	96.9	1.0139 ug/L	1.0139 ppb	05:26:28
3	SiO2†	10478.4	9471.1	675.10 ug/L	675.10 ppb	05:26:44

Mean Data: 1202036429|950319|5

Analyte	Mean Corrected	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	792077.8	105.42 %		0.304				0.29%
Sc Radial	3986.7	113 %		0.6				0.56%
Y 371.029	628900.7	106.87 %		0.379				0.35%
Y RADIAL	4489.5	112.3 %		0.52				0.46%
Ag 328.068†	-144.3	-0.7507 ug/L		0.24083	-0.7507 ppb		0.24083	32.08%
Al 396.153Radial†	31.5	30.597 ug/L		12.6474	30.597 ppb		12.6474	41.34%
As 188.979†	-5.0	-2.3056 ug/L		1.07155	-2.3056 ppb		1.07155	46.48%
B 249.677†	376.6	9.3472 ug/L		0.53174	9.3472 ppb		0.53174	5.69%
Ba 233.527†	-15.3	-0.1262 ug/L		0.01135	-0.1262 ppb		0.01135	9.00%
Be 313.107†	27.2	0.0128 ug/L		0.01106	0.0128 ppb		0.01106	86.53%
Ca 317.933Radial†	15.6	34.006 ug/L		5.7747	34.006 ppb		5.7747	16.98%
Cd 226.502†	13.1	0.1750 ug/L		0.10914	0.1750 ppb		0.10914	62.35%
Co 228.616†	14.3	0.3112 ug/L		0.09771	0.3112 ppb		0.09771	31.40%
Cr 267.716†	11.9	0.1519 ug/L		0.13742	0.1519 ppb		0.13742	90.44%
Cu 324.752†	-578.6	-1.8109 ug/L		0.20965	-1.8109 ppb		0.20965	11.58%
Fe 238.204 Radial†	1.3	18.308 ug/L		20.6386	18.308 ppb		20.6386	112.73%
K 766.490 Radial†	-441.7	-82.458 ug/L		4.7826	-82.458 ppb		4.7826	5.80%

Mg 279.077 IEC†	-1.8	-93.179 ug/L	43.7197	-93.179 ppb	43.7197	46.92%
Mn 257.610†	506.9	0.6054 ug/L	0.00422	0.6054 ppb	0.00422	0.70%
Mo 202.031†	5.4	0.4477 ug/L	0.36624	0.4477 ppb	0.36624	81.81%
Na 589.592 Radial†	-4116.8	-1412.8 ug/L	12.08	-1412.8 ppb	12.08	0.86%
Ni 231.604†	4.9	0.1396 ug/L	0.17571	0.1396 ppb	0.17571	125.86%
P 214.914†	0.2	0.4624 ug/L	4.23247	0.4624 ppb	4.23247	915.29%
Pb 220.353†	-72.6	-10.074 ug/L	1.1305	-10.074 ppb	1.1305	11.22%
S 181.975 Axial†	5.2	7.5123 ug/L	7.09467	7.5123 ppb	7.09467	94.44%
Sb 206.836†	-9.1	-3.3139 ug/L	1.38543	-3.3139 ppb	1.38543	41.81%
Se 196.026†	6.0	4.1297 ug/L	1.02210	4.1297 ppb	1.02210	24.75%
Si 251.611†	9387.0	314.31 ug/L	0.318	314.31 ppb	0.318	0.10%
Sn 189.927†	1.8	0.3601 ug/L	0.65734	0.3601 ppb	0.65734	182.54%
Sr 421.552†	-1047.4	-7.8539 ug/L	1.18650	-7.8539 ppb	1.18650	15.11%
Ti 334.940†	555.5	0.9269 ug/L	0.04794	0.9269 ppb	0.04794	5.17%
Tl 190.801†	10.1	3.4129 ug/L	1.69700	3.4129 ppb	1.69700	49.72%
U 409.014†	465.0	16.924 ug/L	0.3327	16.924 ppb	0.3327	1.97%
V 292.402†	171.0	1.4333 ug/L	0.23888	1.4333 ppb	0.23888	16.67%
Zn 213.857†	104.5	1.0955 ug/L	0.07071	1.0955 ppb	0.07071	6.46%
SiO2†	9430.6	672.21 ug/L	3.942	672.21 ppb	3.942	0.59%

Sequence No.: 114

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/20/2010 05:28:55

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	3922.5	3922.5	111 %		05:31:07
1	Y RADIAL	4532.1	4532.1	113.3 %		05:30:47
1	Al 396.153Radial†	5505.1	5077.1	4912.0 ug/L	4912.0 ppb	05:30:47
1	Ca 317.933Radial†	2555.2	2272.7	4964.8 ug/L	4964.8 ppb	05:31:07
1	Fe 238.204 Radial†	380.7	334.1	4848.2 ug/L	4848.2 ppb	05:31:07
1	K 766.490 Radial†	31369.9	25141.7	4718.7 ug/L	4718.7 ppb	05:30:47
1	Mg 279.077 IEC†	109.6	96.2	4889.1 ug/L	4889.1 ppb	05:31:07
1	Na 589.592 Radial†	30419.1	23401.1	8031.0 ug/L	8031.0 ppb	05:30:47
1	Sr 421.552†	71423.6	62960.2	472.07 ug/L	472.07 ppb	05:30:47
1	Sc 361.383	802879.2	802879.2	106.86 %		05:32:04
1	Y 371.029	630497.2	630497.2	107.14 %		05:32:04
1	Ag 328.068†	103257.5	96301.2	501.97 ug/L	501.97 ppb	05:32:10
1	As 188.979†	1123.0	1071.6	500.64 ug/L	500.64 ppb	05:32:30
1	B 249.677†	20483.1	19609.9	484.69 ug/L	484.69 ppb	05:32:10
1	Ba 233.527†	61385.4	57298.9	488.96 ug/L	488.96 ppb	05:32:10
1	Be 313.107†	1330381.0	1249315.0	491.30 ug/L	491.30 ppb	05:32:04
1	Cd 226.502†	39132.5	36815.0	486.62 ug/L	486.62 ppb	05:32:10
1	Co 228.616†	23644.9	22197.0	486.48 ug/L	486.48 ppb	05:32:10
1	Cr 267.716†	39870.3	37232.4	487.57 ug/L	487.57 ppb	05:32:10
1	Cu 324.752†	175590.0	157863.4	491.75 ug/L	491.75 ppb	05:32:10
1	Mn 257.610†	442338.1	413464.9	489.55 ug/L	489.55 ppb	05:32:04
1	Mo 202.031†	6485.5	6059.1	496.22 ug/L	496.22 ppb	05:32:30
1	Ni 231.604†	18366.7	17108.3	486.45 ug/L	486.45 ppb	05:32:10
1	P 214.914†	4456.2	3958.9	2323.3 ug/L	2323.3 ppb	05:32:30
1	Pb 220.353†	3748.5	3486.9	486.44 ug/L	486.44 ppb	05:32:30
1	S 181.975 Axial†	771.8	684.8	983.99 ug/L	983.99 ppb	05:32:30
1	Sb 206.836†	1487.1	1355.3	514.60 ug/L	514.60 ppb	05:32:30
1	Se 196.026†	747.2	728.5	512.41 ug/L	512.41 ppb	05:32:30
1	Si 251.611†	79404.2	73809.3	2465.3 ug/L	2465.3 ppb	05:32:10
1	Sn 189.927†	2637.6	2452.9	494.44 ug/L	494.44 ppb	05:32:30
1	Ti 334.940†	309218.0	290843.5	482.71 ug/L	482.71 ppb	05:32:10
1	Tl 190.801†	1546.0	1479.2	499.93 ug/L	499.93 ppb	05:32:30
1	U 409.014†	12339.4	14610.2	530.12 ug/L	530.12 ppb	05:32:10
1	V 292.402†	62607.7	60280.5	500.42 ug/L	500.42 ppb	05:32:10
1	Zn 213.857†	50551.9	46662.3	485.20 ug/L	485.20 ppb	05:32:10
1	SiO2†	79351.6	73764.4	5244.5 ug/L	5244.5 ppb	05:33:37
2	Sc Radial	3896.1	3896.1	110 %		05:31:32
2	Y RADIAL	4393.7	4393.7	109.9 %		05:31:12
2	Al 396.153Radial†	5437.3	5049.1	4884.9 ug/L	4884.9 ppb	05:31:12
2	Ca 317.933Radial†	2548.7	2282.4	4985.9 ug/L	4985.9 ppb	05:31:32
2	Fe 238.204 Radial†	379.5	335.3	4865.5 ug/L	4865.5 ppb	05:31:32
2	K 766.490 Radial†	31034.7	25028.8	4697.5 ug/L	4697.5 ppb	05:31:12
2	Mg 279.077 IEC†	112.6	99.6	5060.3 ug/L	5060.3 ppb	05:31:32
2	Na 589.592 Radial†	30156.9	23348.7	8013.0 ug/L	8013.0 ppb	05:31:12
2	Sr 421.552†	70853.3	62878.4	471.46 ug/L	471.46 ppb	05:31:12
2	Sc 361.383	803281.3	803281.3	106.91 %		05:32:35
2	Y 371.029	630502.0	630502.0	107.14 %		05:32:35
2	Ag 328.068†	104730.6	97630.6	508.88 ug/L	508.88 ppb	05:32:41
2	As 188.979†	1122.8	1070.8	500.36 ug/L	500.36 ppb	05:33:01
2	B 249.677†	20932.4	20020.5	494.86 ug/L	494.86 ppb	05:32:41
2	Ba 233.527†	62343.2	58166.0	496.36 ug/L	496.36 ppb	05:32:41
2	Be 313.107†	1332674.2	1250836.8	491.92 ug/L	491.92 ppb	05:32:35
2	Cd 226.502†	39769.5	37392.4	494.26 ug/L	494.26 ppb	05:32:41
2	Co 228.616†	24053.4	22568.0	494.60 ug/L	494.60 ppb	05:32:41
2	Cr 267.716†	40365.5	37676.9	493.38 ug/L	493.38 ppb	05:32:41
2	Cu 324.752†	178576.1	160574.2	500.19 ug/L	500.19 ppb	05:32:41
2	Mn 257.610†	443154.5	414021.3	490.20 ug/L	490.20 ppb	05:32:35
2	Mo 202.031†	6469.4	6041.0	494.74 ug/L	494.74 ppb	05:33:01
2	Ni 231.604†	18647.2	17362.0	493.67 ug/L	493.67 ppb	05:32:41



2	P 214.914†	4483.1	3982.1	2335.7 ug/L	2335.7 ppb	05:33:01
2	Pb 220.353†	3763.0	3498.8	488.07 ug/L	488.07 ppb	05:33:01
2	S 181.975 Axial†	792.2	703.6	1011.0 ug/L	1011.0 ppb	05:33:01
2	Sb 206.836†	1483.3	1351.0	513.03 ug/L	513.03 ppb	05:33:01
2	Se 196.026†	755.4	735.9	517.46 ug/L	517.46 ppb	05:33:01
2	Si 251.611†	80934.6	75203.5	2512.0 ug/L	2512.0 ppb	05:32:41
2	Sn 189.927†	2650.3	2463.5	496.59 ug/L	496.59 ppb	05:33:01
2	Ti 334.940†	314322.4	295473.0	490.37 ug/L	490.37 ppb	05:32:41
2	Tl 190.801†	1570.7	1501.7	507.48 ug/L	507.48 ppb	05:33:01
2	U 409.014†	12906.1	15134.5	549.19 ug/L	549.19 ppb	05:32:41
2	V 292.402†	63551.4	61133.8	507.41 ug/L	507.41 ppb	05:32:41
2	Zn 213.857†	51396.6	47428.6	493.18 ug/L	493.18 ppb	05:32:41
2	SiO2†	79457.8	73826.6	5248.9 ug/L	5248.9 ppb	05:33:42
3	Sc Radial	3862.7	3862.7	109 %		05:31:57
3	Y RADIAL	4281.0	4281.0	107.1 %		05:31:37
3	Al 396.153Radial†	5397.6	5055.5	4891.0 ug/L	4891.0 ppb	05:31:37
3	Ca 317.933Radial†	2507.0	2264.3	4946.3 ug/L	4946.3 ppb	05:31:57
3	Fe 238.204 Radial†	373.9	333.2	4835.0 ug/L	4835.0 ppb	05:31:57
3	K 766.490 Radial†	30988.4	25230.2	4735.3 ug/L	4735.3 ppb	05:31:37
3	Mg 279.077 IEC†	108.6	96.8	4919.6 ug/L	4919.6 ppb	05:31:57
3	Na 589.592 Radial†	29935.9	23383.3	8024.9 ug/L	8024.9 ppb	05:31:37
3	Sr 421.552†	70289.5	62918.8	471.76 ug/L	471.76 ppb	05:31:37
3	Sc 361.383	797966.7	797966.7	106.21 %		05:33:06
3	Y 371.029	626089.1	626089.1	106.39 %		05:33:06
3	Ag 328.068†	105591.1	99093.2	516.47 ug/L	516.47 ppb	05:33:12
3	As 188.979†	1122.4	1077.5	503.48 ug/L	503.48 ppb	05:33:32
3	B 249.677†	21223.8	20425.3	504.90 ug/L	504.90 ppb	05:33:12
3	Ba 233.527†	62685.4	58876.6	502.42 ug/L	502.42 ppb	05:33:12
3	Be 313.107†	1320537.1	1247710.7	490.71 ug/L	490.71 ppb	05:33:06
3	Cd 226.502†	40060.6	37914.3	501.16 ug/L	501.16 ppb	05:33:12
3	Co 228.616†	24211.5	22866.7	501.13 ug/L	501.13 ppb	05:33:12
3	Cr 267.716†	40618.1	38166.3	499.78 ug/L	499.78 ppb	05:33:12
3	Cu 324.752†	180267.3	163279.0	508.61 ug/L	508.61 ppb	05:33:12
3	Mn 257.610†	440531.6	414312.3	490.55 ug/L	490.55 ppb	05:33:06
3	Mo 202.031†	6447.6	6060.7	496.36 ug/L	496.36 ppb	05:33:32
3	Ni 231.604†	18722.7	17549.3	498.99 ug/L	498.99 ppb	05:33:12
3	P 214.914†	4444.8	3973.9	2329.1 ug/L	2329.1 ppb	05:33:32
3	Pb 220.353†	3720.9	3482.5	485.82 ug/L	485.82 ppb	05:33:32
3	S 181.975 Axial†	759.6	677.8	973.87 ug/L	973.87 ppb	05:33:32
3	Sb 206.836†	1481.6	1358.7	515.91 ug/L	515.91 ppb	05:33:32
3	Se 196.026†	756.6	741.7	521.31 ug/L	521.31 ppb	05:33:32
3	Si 251.611†	81530.5	76268.8	2547.6 ug/L	2547.6 ppb	05:33:12
3	Sn 189.927†	2640.1	2470.5	497.98 ug/L	497.98 ppb	05:33:32
3	Ti 334.940†	316790.7	299755.0	497.48 ug/L	497.48 ppb	05:33:12
3	Tl 190.801†	1545.4	1487.6	502.79 ug/L	502.79 ppb	05:33:32
3	U 409.014†	13009.5	15312.3	555.65 ug/L	555.65 ppb	05:33:12
3	V 292.402†	63873.5	61832.9	513.16 ug/L	513.16 ppb	05:33:12
3	Zn 213.857†	51683.4	48018.8	499.33 ug/L	499.33 ppb	05:33:12
3	SiO2†	80204.0	75024.1	5334.2 ug/L	5334.2 ppb	05:33:47

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	801375.8	106.66 %	0.394			0.37%
Sc Radial	3893.8	110 %	0.8			0.77%
Y 371.029	629029.5	106.89 %	0.433			0.40%
Y RADIAL	4402.3	110.1 %	3.15			2.86%
Ag 328.068†	97675.0	509.11 ug/L	7.250	509.11 ppb	7.250	1.42%
QC value within limits for Ag 328.068 Recovery = 101.82%						
Al 396.153Radial†	5060.6	4896.0 ug/L	14.23	4896.0 ppb	14.23	0.29%
QC value within limits for Al 396.153Radial Recovery = 97.92%						
As 188.979†	1073.3	501.49 ug/L	1.728	501.49 ppb	1.728	0.34%
QC value within limits for As 188.979 Recovery = 100.30%						
B 249.677†	20018.6	494.82 ug/L	10.103	494.82 ppb	10.103	2.04%
QC value within limits for B 249.677 Recovery = 98.96%						
Ba 233.527†	58113.8	495.91 ug/L	6.739	495.91 ppb	6.739	1.36%
QC value within limits for Ba 233.527 Recovery = 99.18%						
Be 313.107†	1249287.5	491.31 ug/L	0.605	491.31 ppb	0.605	0.12%
QC value within limits for Be 313.107 Recovery = 98.26%						
Ca 317.933Radial†	2273.1	4965.7 ug/L	19.81	4965.7 ppb	19.81	0.40%

QC value within limits for Ca 317.933 Radial Recovery = 99.31%							
Cd 226.502†	37373.9	494.01 ug/L	7.277	494.01 ppb	7.277	1.47%	
QC value within limits for Cd 226.502 Recovery = 98.80%							
Co 228.616†	22543.9	494.07 ug/L	7.337	494.07 ppb	7.337	1.48%	
QC value within limits for Co 228.616 Recovery = 98.81%							
Cr 267.716†	37691.9	493.57 ug/L	6.108	493.57 ppb	6.108	1.24%	
QC value within limits for Cr 267.716 Recovery = 98.71%							
Cu 324.752†	160572.2	500.18 ug/L	8.428	500.18 ppb	8.428	1.68%	
QC value within limits for Cu 324.752 Recovery = 100.04%							
Fe 238.204 Radial†	334.2	4849.6 ug/L	15.32	4849.6 ppb	15.32	0.32%	
QC value within limits for Fe 238.204 Radial Recovery = 96.99%							
K 766.490 Radial†	25133.6	4717.2 ug/L	18.98	4717.2 ppb	18.98	0.40%	
QC value within limits for K 766.490 Radial Recovery = 94.34%							
Mg 279.077 IEC†	97.5	4956.4 ug/L	91.32	4956.4 ppb	91.32	1.84%	
QC value within limits for Mg 279.077 IEC Recovery = 99.13%							
Mn 257.610†	413932.8	490.10 ug/L	0.508	490.10 ppb	0.508	0.10%	
QC value within limits for Mn 257.610 Recovery = 98.02%							
Mo 202.031†	6053.6	495.78 ug/L	0.896	495.78 ppb	0.896	0.18%	
QC value within limits for Mo 202.031 Recovery = 99.16%							
Na 589.592 Radial†	23377.7	8023.0 ug/L	9.14	8023.0 ppb	9.14	0.11%	
QC value less than the lower limit for Na 589.592 Radial Recovery = 80.23%							
Ni 231.604†	17339.9	493.04 ug/L	6.293	493.04 ppb	6.293	1.28%	
QC value within limits for Ni 231.604 Recovery = 98.61%							
P 214.914†	3971.6	2329.4 ug/L	6.23	2329.4 ppb	6.23	0.27%	
QC value within limits for P 214.914 Recovery = 93.18%							
Pb 220.353†	3489.4	486.78 ug/L	1.163	486.78 ppb	1.163	0.24%	
QC value within limits for Pb 220.353 Recovery = 97.36%							
S 181.975 Axial†	688.7	989.61 ug/L	19.168	989.61 ppb	19.168	1.94%	
QC value within limits for S 181.975 Axial Recovery = 98.96%							
Sb 206.836†	1355.0	514.51 ug/L	1.438	514.51 ppb	1.438	0.28%	
QC value within limits for Sb 206.836 Recovery = 102.90%							
Se 196.026†	735.4	517.06 ug/L	4.460	517.06 ppb	4.460	0.86%	
QC value within limits for Se 196.026 Recovery = 103.41%							
Si 251.611†	75093.9	2508.3 ug/L	41.30	2508.3 ppb	41.30	1.65%	
QC value within limits for Si 251.611 Recovery = 100.33%							
Sn 189.927†	2462.3	496.33 ug/L	1.781	496.33 ppb	1.781	0.36%	
QC value within limits for Sn 189.927 Recovery = 99.27%							
Sr 421.552†	62919.2	471.77 ug/L	0.307	471.77 ppb	0.307	0.06%	
QC value within limits for Sr 421.552 Recovery = 94.35%							
Ti 334.940†	295357.2	490.19 ug/L	7.389	490.19 ppb	7.389	1.51%	
QC value within limits for Ti 334.940 Recovery = 98.04%							
Tl 190.801†	1489.5	503.40 ug/L	3.812	503.40 ppb	3.812	0.76%	
QC value within limits for Tl 190.801 Recovery = 100.68%							
U 409.014†	15019.0	544.98 ug/L	13.272	544.98 ppb	13.272	2.44%	
QC value within limits for U 409.014 Recovery = 109.00%							
V 292.402†	61082.4	507.00 ug/L	6.384	507.00 ppb	6.384	1.26%	
QC value within limits for V 292.402 Recovery = 101.40%							
Zn 213.857†	47369.9	492.57 ug/L	7.087	492.57 ppb	7.087	1.44%	
QC value within limits for Zn 213.857 Recovery = 98.51%							
SiO2†	74205.0	5275.9 ug/L	50.60	5275.9 ppb	50.60	0.96%	
QC value within limits for SiO2 Recovery = 98.66%							
QC Failed. Continue with analysis.							

Sequence No.: 115

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/20/2010 05:35:57

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	3982.3	3982.3	113 %		05:38:10
1	Y RADIAL	4489.1	4489.1	112.3 %		05:37:50
1	Al 396.153Radial†	-110.5	15.1	14.696 ug/L	14.696 ppb	05:37:50
1	Ca 317.933Radial†	42.0	6.0	13.156 ug/L	13.156 ppb	05:38:10
1	Fe 238.204 Radial†	8.7	-1.4	-20.077 ug/L	-20.077 ppb	05:38:10
1	K 766.490 Radial†	2974.2	-502.6	-93.893 ug/L	-93.893 ppb	05:37:50
1	Mg 279.077 IEC†	1.0	-1.8	-89.602 ug/L	-89.602 ppb	05:38:10
1	Na 589.592 Radial†	-175.3	-4183.1	-1435.6 ug/L	-1435.6 ppb	05:37:50
1	Sr 421.552†	375.0	-1108.3	-8.3110 ug/L	-8.3110 ppb	05:37:50
1	Sc 361.383	800025.9	800025.9	106.48 %		05:39:07
1	Y 371.029	636462.4	636462.4	108.16 %		05:39:07
1	Ag 328.068†	217.5	-122.0	-0.6487 ug/L	-0.6487 ppb	05:39:07
1	As 188.979†	-24.4	-2.2	-1.0293 ug/L	-1.0293 ppb	05:39:27
1	B 249.677†	-181.9	271.1	6.7336 ug/L	6.7336 ppb	05:39:27
1	Ba 233.527†	62.4	-86.5	-0.7327 ug/L	-0.7327 ppb	05:39:27
1	Be 313.107†	-4628.9	8.7	0.0048 ug/L	0.0048 ppb	05:39:07
1	Cd 226.502†	-199.5	7.8	0.1096 ug/L	0.1096 ppb	05:39:27
1	Co 228.616†	-68.6	5.9	0.1292 ug/L	0.1292 ppb	05:39:27
1	Cr 267.716†	91.1	7.7	0.0935 ug/L	0.0935 ppb	05:39:27
1	Cu 324.752†	6188.1	-640.7	-2.0087 ug/L	-2.0087 ppb	05:39:07
1	Mn 257.610†	469.2	-30.7	-0.0346 ug/L	-0.0346 ppb	05:39:27
1	Mo 202.031†	16.2	5.3	0.4299 ug/L	0.4299 ppb	05:39:27
1	Ni 231.604†	88.9	4.4	0.1247 ug/L	0.1247 ppb	05:39:27
1	P 214.914†	202.3	-21.1	-12.481 ug/L	-12.481 ppb	05:39:27
1	Pb 220.353†	-58.5	-75.8	-10.519 ug/L	-10.519 ppb	05:39:27
1	S 181.975 Axial†	47.6	7.3	10.488 ug/L	10.488 ppb	05:39:27
1	Sb 206.836†	38.0	-0.7	-0.2255 ug/L	-0.2255 ppb	05:39:27
1	Se 196.026†	-26.6	4.3	2.8287 ug/L	2.8287 ppb	05:39:27
1	Si 251.611†	564.5	33.6	1.1191 ug/L	1.1191 ppb	05:39:27
1	Sn 189.927†	22.2	5.5	1.1191 ug/L	1.1191 ppb	05:39:27
1	Ti 334.940†	-1188.9	363.4	0.6032 ug/L	0.6032 ppb	05:39:07
1	Tl 190.801†	-19.7	14.0	4.7039 ug/L	4.7039 ppb	05:39:27
1	U 409.014†	-2653.1	571.5	20.803 ug/L	20.803 ppb	05:39:07
1	V 292.402†	-1576.5	212.2	1.7843 ug/L	1.7843 ppb	05:39:07
1	Zn 213.857†	671.6	-13.1	-0.1321 ug/L	-0.1321 ppb	05:39:27
1	SiO2†	563.1	36.6	2.5985 ug/L	2.5985 ppb	05:40:23
2	Sc Radial	3956.2	3956.2	112 %		05:38:35
2	Y RADIAL	4494.9	4494.9	112.4 %		05:38:15
2	Al 396.153Radial†	-104.3	20.0	19.346 ug/L	19.346 ppb	05:38:15
2	Ca 317.933Radial†	28.6	-5.6	-12.321 ug/L	-12.321 ppb	05:38:35
2	Fe 238.204 Radial†	9.3	-0.8	-11.464 ug/L	-11.464 ppb	05:38:35
2	K 766.490 Radial†	2922.4	-531.6	-99.311 ug/L	-99.311 ppb	05:38:15
2	Mg 279.077 IEC†	1.8	-1.0	-52.914 ug/L	-52.914 ppb	05:38:35
2	Na 589.592 Radial†	-245.0	-4246.4	-1457.3 ug/L	-1457.3 ppb	05:38:15
2	Sr 421.552†	489.6	-1003.7	-7.5261 ug/L	-7.5261 ppb	05:38:15
2	Sc 361.383	800068.2	800068.2	106.49 %		05:39:32
2	Y 371.029	636370.1	636370.1	108.14 %		05:39:32
2	Ag 328.068†	212.7	-126.6	-0.6673 ug/L	-0.6673 ppb	05:39:32
2	As 188.979†	-23.9	-1.8	-0.8135 ug/L	-0.8135 ppb	05:39:52
2	B 249.677†	-222.6	232.9	5.7844 ug/L	5.7844 ppb	05:39:52
2	Ba 233.527†	47.2	-100.7	-0.8542 ug/L	-0.8542 ppb	05:39:52
2	Be 313.107†	-4587.3	47.9	0.0199 ug/L	0.0199 ppb	05:39:32
2	Cd 226.502†	-199.0	8.3	0.1140 ug/L	0.1140 ppb	05:39:52
2	Co 228.616†	-65.4	8.9	0.1970 ug/L	0.1970 ppb	05:39:52
2	Cr 267.716†	76.7	-5.8	-0.0816 ug/L	-0.0816 ppb	05:39:52
2	Cu 324.752†	6206.8	-623.5	-1.9525 ug/L	-1.9525 ppb	05:39:32
2	Mn 257.610†	475.1	-25.2	-0.0287 ug/L	-0.0287 ppb	05:39:52
2	Mo 202.031†	26.9	15.2	1.2465 ug/L	1.2465 ppb	05:39:52
2	Ni 231.604†	83.1	-1.1	-0.0305 ug/L	-0.0305 ppb	05:39:52

2	P 214.914†	221.8	-2.8	-1.2980 ug/L	-1.2980 ppb	05:39:52
2	Pb 220.353†	-43.0	-61.3	-8.5035 ug/L	-8.5035 ppb	05:39:52
2	S 181.975 Axial†	41.3	1.4	1.9870 ug/L	1.9870 ppb	05:39:52
2	Sb 206.836†	38.7	-0.1	0.0330 ug/L	0.0330 ppb	05:39:52
2	Se 196.026†	-25.4	5.4	3.6494 ug/L	3.6494 ppb	05:39:52
2	Si 251.611†	536.0	6.8	0.2120 ug/L	0.2120 ppb	05:39:52
2	Sn 189.927†	24.9	8.1	1.6252 ug/L	1.6252 ppb	05:39:52
2	Ti 334.940†	-1269.2	288.1	0.4734 ug/L	0.4734 ppb	05:39:32
2	Tl 190.801†	-32.0	2.5	0.8307 ug/L	0.8307 ppb	05:39:52
2	U 409.014†	-2757.0	474.0	17.255 ug/L	17.255 ppb	05:39:32
2	V 292.402†	-1606.5	184.1	1.5586 ug/L	1.5586 ppb	05:39:32
2	Zn 213.857†	673.4	-11.4	-0.1152 ug/L	-0.1152 ppb	05:39:52
2	SiO2†	546.2	20.7	1.4426 ug/L	1.4426 ppb	05:40:28
3	Sc Radial	3938.1	3938.1	111 %		05:39:00
3	Y RADIAL	4484.3	4484.3	112.1 %		05:38:40
3	Al 396.153Radial†	-98.1	25.1	24.369 ug/L	24.369 ppb	05:38:40
3	Ca 317.933Radial†	38.3	3.2	6.9412 ug/L	6.9412 ppb	05:39:00
3	Fe 238.204 Radial†	9.3	-0.8	-11.133 ug/L	-11.133 ppb	05:39:00
3	K 766.490 Radial†	2946.9	-497.5	-92.926 ug/L	-92.926 ppb	05:38:40
3	Mg 279.077 IEC†	3.7	0.7	35.989 ug/L	35.989 ppb	05:39:00
3	Na 589.592 Radial†	-254.2	-4255.6	-1460.5 ug/L	-1460.5 ppb	05:38:40
3	Sr 421.552†	510.5	-982.9	-7.3704 ug/L	-7.3704 ppb	05:38:40
3	Sc 361.383	781097.3	781097.3	103.96 %		05:39:58
3	Y 371.029	621268.0	621268.0	105.57 %		05:39:58
3	Ag 328.068†	232.7	-102.5	-0.5411 ug/L	-0.5411 ppb	05:39:58
3	As 188.979†	-25.0	-3.3	-1.5496 ug/L	-1.5496 ppb	05:40:18
3	B 249.677†	-250.1	201.4	5.0016 ug/L	5.0016 ppb	05:40:18
3	Ba 233.527†	50.8	-96.2	-0.8168 ug/L	-0.8168 ppb	05:40:18
3	Be 313.107†	-4537.6	-8.9	-0.0026 ug/L	-0.0026 ppb	05:39:58
3	Cd 226.502†	-186.5	15.7	0.2118 ug/L	0.2118 ppb	05:40:18
3	Co 228.616†	-75.1	-1.9	-0.0409 ug/L	-0.0409 ppb	05:40:18
3	Cr 267.716†	81.1	0.2	-0.0017 ug/L	-0.0017 ppb	05:40:18
3	Cu 324.752†	6038.1	-644.2	-2.0149 ug/L	-2.0149 ppb	05:39:58
3	Mn 257.610†	453.6	-35.0	-0.0440 ug/L	-0.0440 ppb	05:40:18
3	Mo 202.031†	25.4	14.4	1.1798 ug/L	1.1798 ppb	05:40:18
3	Ni 231.604†	91.1	8.5	0.2406 ug/L	0.2406 ppb	05:40:18
3	P 214.914†	207.4	-11.6	-6.7122 ug/L	-6.7122 ppb	05:40:18
3	Pb 220.353†	-43.1	-62.3	-8.6490 ug/L	-8.6490 ppb	05:40:18
3	S 181.975 Axial†	40.7	1.8	2.5862 ug/L	2.5862 ppb	05:40:18
3	Sb 206.836†	28.5	-9.0	-3.2738 ug/L	-3.2738 ppb	05:40:18
3	Se 196.026†	-15.0	14.9	10.047 ug/L	10.047 ppb	05:40:18
3	Si 251.611†	587.8	68.9	2.2933 ug/L	2.2933 ppb	05:40:18
3	Sn 189.927†	10.1	-5.6	-1.1293 ug/L	-1.1293 ppb	05:40:18
3	Ti 334.940†	-1301.0	228.6	0.3716 ug/L	0.3716 ppb	05:39:58
3	Tl 190.801†	-26.9	6.7	2.2358 ug/L	2.2358 ppb	05:40:18
3	U 409.014†	-2804.4	365.6	13.307 ug/L	13.307 ppb	05:39:58
3	V 292.402†	-1623.6	131.0	1.1169 ug/L	1.1169 ppb	05:39:58
3	Zn 213.857†	680.9	11.2	0.1203 ug/L	0.1203 ppb	05:40:18
3	SiO2†	555.8	42.5	2.9938 ug/L	2.9938 ppb	05:40:33

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	793730.4	105.64 %		1.456			1.38%
Sc Radial	3958.9	112 %		0.6			0.56%
Y 371.029	631366.8	107.29 %		1.486			1.39%
Y RADIAL	4489.4	112.3 %		0.13			0.12%
Ag 328.068†	-117.0	-0.6190 ug/L		0.06811	-0.6190 ppb	0.06811	11.00%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	20.1	19.470 ug/L		4.8377	19.470 ppb	4.8377	24.85%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-2.4	-1.1308 ug/L		0.37841	-1.1308 ppb	0.37841	33.46%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	235.1	5.8399 ug/L		0.86734	5.8399 ppb	0.86734	14.85%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	-94.4	-0.8012 ug/L		0.06220	-0.8012 ppb	0.06220	7.76%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	15.9	0.0074 ug/L		0.01148	0.0074 ppb	0.01148	156.10%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	1.2	2.5920 ug/L		13.28405	2.5920 ppb	13.28405	512.49%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	10.6	0.1451 ug/L	0.05775	0.1451 ppb	0.05775	39.79%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	4.3	0.0951 ug/L	0.12255	0.0951 ppb	0.12255	128.82%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	0.7	0.0034 ug/L	0.08770	0.0034 ppb	0.08770	>999.9%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-636.1	-1.9920 ug/L	0.03433	-1.9920 ppb	0.03433	1.72%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-1.0	-14.224 ug/L	5.0709	-14.224 ppb	5.0709	35.65%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-510.6	-95.376 ug/L	3.4412	-95.376 ppb	3.4412	3.61%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-0.7	-35.509 ug/L	64.5794	-35.509 ppb	64.5794	181.87%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-30.3	-0.0358 ug/L	0.00771	-0.0358 ppb	0.00771	21.55%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	11.6	0.9521 ug/L	0.45339	0.9521 ppb	0.45339	47.62%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-4228.3	-1451.1 ug/L	13.55	-1451.1 ppb	13.55	0.93%	
QC value less than the lower limit for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	3.9	0.1116 ug/L	0.13602	0.1116 ppb	0.13602	121.90%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-11.9	-6.8303 ug/L	5.59229	-6.8303 ppb	5.59229	81.87%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-66.5	-9.2239 ug/L	1.12419	-9.2239 ppb	1.12419	12.19%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	3.5	5.0203 ug/L	4.74442	5.0203 ppb	4.74442	94.50%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-3.2	-1.1554 ug/L	1.83913	-1.1554 ppb	1.83913	159.17%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	8.2	5.5084 ug/L	3.95197	5.5084 ppb	3.95197	71.74%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	36.4	1.2081 ug/L	1.04350	1.2081 ppb	1.04350	86.37%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	2.7	0.5384 ug/L	1.46624	0.5384 ppb	1.46624	272.36%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-1031.6	-7.7358 ug/L	0.50414	-7.7358 ppb	0.50414	6.52%	
QC value less than the lower limit for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	293.4	0.4828 ug/L	0.11607	0.4828 ppb	0.11607	24.04%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	7.7	2.5902 ug/L	1.96076	2.5902 ppb	1.96076	75.70%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	470.4	17.122 ug/L	3.7497	17.122 ppb	3.7497	21.90%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	175.8	1.4866 ug/L	0.33950	1.4866 ppb	0.33950	22.84%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-4.4	-0.0423 ug/L	0.14108	-0.0423 ppb	0.14108	333.24%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	33.3	2.3450 ug/L	0.80610	2.3450 ppb	0.80610	34.38%	
QC value within limits for SiO2 Recovery = Not calculated							
QC Failed. Continue with analysis.							

## ICPMS#3 Daily Performance Report

### Sample ID: Sample

Sample Date/Time: Thursday, March 04, 2010 11:34:46

### Sample Description:

Method File: c:\elandata\Method\daily2.mth

Dataset File: c:\elandata\Dataset\default\Sample.6369

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		353.6		353.604		15.869		4.5
Mg	24.0		4655.0		4654.958		70.505		1.5
Co	58.9		13717.8		13717.784		159.539		1.2
Rh	102.9		34903.6		34903.588		172.026		0.5
In	114.9		49603.6		49603.571		286.405		0.6
Pb	208.0		37951.9		37951.946		141.883		0.4
[> Ba	137.9		44041.0		44041.038		381.017		0.9
[ Ba++	69.0		1038.7		0.024		0.001		2.3
[> Ce	139.9		57359.5		57359.525		265.657		0.5
[ CeO	155.9		1141.2		0.020		0.000		1.5
Bkgd	220.0		1.7		1.700		1.304		76.7

### Current Optimization File Data

Current Value	Description
1.01	Nebulizer Gas Flow
7.20	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	21	7.0	460.7
Co	59	21	8.0	14339.2
In	115	21	9.0	66134.1

Sample ID: Sample

Report Date/Time: Thursday, March 04, 2010 11:36:05

Page 1

## ICPMS#3 Instrument Tuning Report

File Name: 100304.tun  
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	584	2060	0.633
Be	9.0	9.0	2071	2040	0.711
Mg	24.0	24.0	5712	2110	0.642
Mg	25.0	25.0	5902	2020	0.664
Mg	26.0	25.9	6224	2140	0.631
Co	58.9	58.9	14204	2115	0.651
Rh	102.9	102.9	24902	2165	0.663
In	114.9	114.9	27832	2180	0.650
Ce	139.9	140.0	33927	2220	0.624
Pb	206.0	206.0	49992	2280	0.635
Pb	207.0	206.9	50272	2310	0.643
Pb	208.0	208.0	50486	2300	0.641
U	238.1	238.1	57842	2340	0.673

## ICPMS#3 - Summary Report

Sample ID: Blank

Sample Date/Time: Thursday, March 04, 2010 11:39:12

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100304\Blank.001

### 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		249037	
[> Ge 74		ug/L		86399	
Se 77		ug/L		703	
Se 82		ug/L		40	
[ Kr 83		ug/L		19	
[> In 115		ug/L		60149	
Sb 121		ug/L		1527	
[ Sb 123		ug/L		1224	
[> Lu 175		ug/L		110980	
[ Tl 205		ug/L		150	

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Simple Linear	
Sc	45Simple Linear	
Ge	74Simple Linear	
Se	77Simple Linear	
Se	82Simple Linear	
Kr	83Simple Linear	
In	115Simple Linear	
Sb	121Simple Linear	
Sb	123Simple Linear	
Lu	175Simple Linear	
Tl	205Simple Linear	

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be 9					
[> Sc 45					
[> Ge 74					
Se 77					
Se 82					
[ Kr 83					
[> In 115					
Sb 121					
[ Sb 123					
[> Lu 175					
[ Tl 205					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
------------------	---------	---------------------------

Sample ID: Blank

Report Date/Time: Thursday, March 04, 2010 11:39:59

Page 1



## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Thursday, March 04, 2010 11:41:58

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100304\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	9.644	285	0.001
[> Sc	45		ug/L		250228	250228.370
[> Ge	74		ug/L		87821	87820.670
Se	77		ug/L		901	0.002
Se	82	10.000	ug/L	11.072	210	0.002
[ Kr	83		ug/L		26	0.000
[> In	115		ug/L		62214	62213.758
Sb	121	10.000	ug/L	1.713	10175	0.138
[ Sb	123		ug/L		7808	0.105
[> Lu	175		ug/L		111335	111334.621
[ Tl	205	10.000	ug/L	0.418	55262	0.495

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ge	74Linear Thru Zero	
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear 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					
[> Ge	74					
Se	77					
Se	82					
[ Kr	83					
[> In	115					
Sb	121					
[ Sb	123					
[> Lu	175					
[ Tl	205					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: Standard 1

Report Date/Time: Thursday, March 04, 2010 11:42:42

Page 1

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Thursday, March 04, 2010 11:44:41

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100304\Standard 2.003

### Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be 9	100.007	ug/L	1.803	2849	0.011
[> Sc 45		ug/L		249741	249741.024
[> Ge 74		ug/L		88992	88991.888
Se 77		ug/L		2666	0.022
Se 82	100.212	ug/L	3.607	2223	0.025
[ Kr 83		ug/L		19	-0.000
[> In 115		ug/L		61330	61330.192
Sb 121	100.192	ug/L	3.422	106609	1.713
[ Sb 123		ug/L		83286	1.337
[> Lu 175		ug/L		114421	114421.224
[ Tl 205	99.984	ug/L	1.346	557445	4.870

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ge	74Linear Thru Zero	
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9998
Kr	83Linear Thru Zero	
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear 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					
[> Ge 74					
Se 77					
Se 82					
[ Kr 83					
[> In 115					
Sb 121					
[ Sb 123					
[> Lu 175					
[ Tl 205					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: Standard 2

Report Date/Time: Thursday, March 04, 2010 11:45:25

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: Thursday, March 04, 2010 11:47:24

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 1.004

### Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be 9	54.618	ug/L	3.435	1562	0.006
[> Sc 45		ug/L		250662	250661.896
[> Ge 74		ug/L		89053	89052.591
Se 77		ug/L		1857	0.013
Se 82	52.000	ug/L	4.401	1174	0.013
Kr 83		ug/L		19	-0.000
[> In 115		ug/L		61573	61573.284
Sb 121	49.922	ug/L	3.630	54098	0.853
Sb 123		ug/L		42400	0.668
[> Lu 175		ug/L		113815	113815.392
Tl 205	51.247	ug/L	1.934	284256	2.496

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ge	74Linear Thru Zero	
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9998
Kr	83Linear Thru Zero	
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be 9	109.236				
[> Sc 45		100.7			
[> Ge 74		103.1			
Se 77					
Se 82	104.000				
Kr 83					
[> In 115		102.4			
Sb 121	99.844				
Sb 123					
[> Lu 175		102.6			
Tl 205	102.494				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: QC Std 1

Report Date/Time: Thursday, March 04, 2010 11:48:09

Page 1

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Thursday, March 04, 2010 11:50:10

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 2.005

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	-0.001	ug/L	6368.082	1	-0.000
[> Sc	45		ug/L		251455	251454.892
[> Ge	74		ug/L		89284	89283.705
Se	77		ug/L		945	0.002
Se	82	1.137	ug/L	92.460	66	0.000
Kr	83		ug/L		26	0.000
[> In	115		ug/L		62261	62260.991
Sb	121	3.586	ug/L	2.921	5398	0.061
Sb	123		ug/L		4165	0.047
[> Lu	175		ug/L		112616	112615.605
Tl	205	0.161	ug/L	4.320	1038	0.008

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ge	74Linear Thru Zero	
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9998
Kr	83Linear Thru Zero	
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear 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		101.0			
[> Ge	74		103.3			
Se	77					
Se	82					
Kr	83					
[> In	115		103.5			
Sb	121					
Sb	123					
[> Lu	175		101.5			
Tl	205					

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 2	Sb	121ICB is out of limits (+/- PQL)

Sample ID: QC Std 2

Report Date/Time: Thursday, March 04, 2010 11:50:57

Page 1



## QC Action

QC Action Line: Continue

## ICPMS#3 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Thursday, March 04, 2010 11:52:57

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 3.006

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9	0.739	ug/L	16.850	22	0.000
[> Sc	45		ug/L		252579	252578.672
[> Ge	74		ug/L		89241	89241.100
Se	77		ug/L		1119	0.004
Se	82	4.079	ug/L	9.988	130	0.001
Kr	83		ug/L		20	-0.000
[> In	115		ug/L		62102	62101.729
Sb	121	4.596	ug/L	2.055	6455	0.079
Sb	123		ug/L		5058	0.061
[> Lu	175		ug/L		112084	112084.101
Tl	205	1.192	ug/L	1.257	6658	0.058

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ge	74Linear Thru Zero	
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9998
Kr	83Linear Thru Zero	
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be	9	147.768				
[> Sc	45		101.4			
[> Ge	74		103.3			
Se	77					
Se	82	81.578				
Kr	83					
[> In	115		103.2			
Sb	121	153.187				
Sb	123					
[> Lu	175		101.0			
Tl	205	119.172				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 3	Be	9CRDL is out of limits
QC Std 3	Sb	121CRDL is out of limits

Sample ID: QC Std 3

Report Date/Time: Thursday, March 04, 2010 11:53:42

Page 1

## QC Action

QC Action Line: Continue

## ICPMS#3 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Thursday, March 04, 2010 11:55:41

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 4.007

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9	0.092	ug/L	79.708	3	0.000
[> Sc	45		ug/L		206959	206958.874
[> Ge	74		ug/L		75237	75236.683
Se	77		ug/L		1323	0.009
Se	82	2.423	ug/L	37.490	80	0.001
[ Kr	83		ug/L		49	0.000
[> In	115		ug/L		52593	52592.513
Sb	121	3.409	ug/L	1.368	4400	0.058
[ Sb	123		ug/L		3365	0.044
[> Lu	175		ug/L		97960	97960.372
[ Tl	205	0.055	ug/L	4.310	393	0.003

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9998
Kr	83	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	0.9998
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	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		83.1			
[> Ge	74		87.1			
Se	77					
Se	82					
[ Kr	83					
[> In	115		87.4			
Sb	121					
[ Sb	123					
[> Lu	175		88.3			
[ Tl	205					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: QC Std 4

Report Date/Time: Thursday, March 04, 2010 11:56:26

Page 1

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Thursday, March 04, 2010 11:58:27

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 5.008

### Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be 9	18.509	ug/L	5.084	444	0.002
[> Sc 45		ug/L		209871	209871.171
[> Ge 74		ug/L		76880	76879.747
Se 77		ug/L		1702	0.014
Se 82	24.376	ug/L	6.047	494	0.006
[ Kr 83		ug/L		57	0.001
[> In 115		ug/L		52177	52176.674
Sb 121	23.768	ug/L	0.485	22522	0.406
[ Sb 123		ug/L		17499	0.315
[> Lu 175		ug/L		98310	98309.763
[ Tl 205	19.626	ug/L	1.349	94115	0.956

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ge	74Linear Thru Zero	
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9998
Kr	83Linear Thru Zero	
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be 9	92.543				
[> Sc 45		84.3			
[> Ge 74		89.0			
Se 77					
Se 82	121.882				
[ Kr 83					
[> In 115		86.7			
Sb 121	118.840				
[ Sb 123					
[> Lu 175		88.6			
[ Tl 205	98.130				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 5	Se	82ICSAB is out of limits

Sample ID: QC Std 5

Report Date/Time: Thursday, March 04, 2010 11:59:12

Page 1

## QC Action

QC Action Line: Continue

## ICPMS#3 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, March 04, 2010 12:01:12

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 6.009

### Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be 9	54.526	ug/L	3.592	1586	0.006
[> Sc 45		ug/L		255031	255031.479
[> Ge 74		ug/L		90114	90113.564
Se 77		ug/L		1932	0.013
Se 82	47.054	ug/L	3.889	1079	0.012
Kr 83		ug/L		21	0.000
[> In 115		ug/L		61609	61608.991
Sb 121	44.880	ug/L	4.266	48826	0.767
Sb 123		ug/L		38266	0.601
[> Lu 175		ug/L		113759	113758.640
Tl 205	50.625	ug/L	1.465	280695	2.466

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ge	74Linear Thru Zero	
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9998
Kr	83Linear Thru Zero	
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be 9	109.052				
[> Sc 45		102.4			
[> Ge 74		104.3			
Se 77					
Se 82	94.107				
Kr 83					
[> In 115		102.4			
Sb 121	89.760				
Sb 123					
[> Lu 175		102.5			
Tl 205	101.250				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Sb	121CCV is out of limits ( +/- 10%)

Sample ID: QC Std 6

Report Date/Time: Thursday, March 04, 2010 12:01:58

Page 1



## QC Action

QC Action Line: Continue

## ICPMS#3 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, March 04, 2010 12:04:00

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 7.010

### Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be 9	0.077	ug/L	92.290	3	0.000
[> Sc 45		ug/L		262023	262023.255
[> Ge 74		ug/L		92200	92200.183
Se 77		ug/L		1077	0.004
Se 82	0.223	ug/L	302.096	48	0.000
Kr 83		ug/L		14	-0.000
[> In 115		ug/L		61680	61680.018
Sb 121	1.702	ug/L	4.415	3360	0.029
Sb 123		ug/L		2620	0.022
[> Lu 175		ug/L		115853	115853.369
Tl 205	0.158	ug/L	6.283	1051	0.008

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ge	74Linear Thru Zero	
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9998
Kr	83Linear Thru Zero	
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear 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		105.2			
[> Ge 74		106.7			
Se 77					
Se 82					
Kr 83					
[> In 115		102.5			
Sb 121					
Sb 123					
[> Lu 175		104.4			
Tl 205					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: QC Std 7

Report Date/Time: Thursday, March 04, 2010 12:04:47

Page 1

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, March 04, 2010 12:26:13

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 6.018

### Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be 9	52.686	ug/L	2.370	1575	0.006
[> Sc 45		ug/L		262006	262006.109
[> Ge 74		ug/L		93409	93409.339
[ Se 77		ug/L		1957	0.013
[ Se 82	43.437	ug/L	1.044	1036	0.011
[ Kr 83		ug/L		23	0.000
[> In 115		ug/L		62909	62908.617
[ Sb 121	48.422	ug/L	1.528	53670	0.828
[ Sb 123		ug/L		42054	0.648
[> Lu 175		ug/L		117220	117219.932
[ Tl 205	50.294	ug/L	0.541	287307	2.450

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ge	74Linear Thru Zero	
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9998
Kr	83Linear Thru Zero	
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be 9	105.372				
[> Sc 45		105.2			
[> Ge 74		108.1			
[ Se 77					
[ Se 82	86.874				
[ Kr 83					
[> In 115		104.6			
[ Sb 121	96.844				
[ Sb 123					
[> Lu 175		105.6			
[ Tl 205	100.588				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Se	82CCV is out of limits ( +/- 10%)

Sample ID: QC Std 6

Report Date/Time: Thursday, March 04, 2010 12:26:59

Page 1

## QC Action

QC Action Line: Continue

## ICPMS#3 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, March 04, 2010 12:29:01

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 7.019

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	-0.001	ug/L	3093.332	1	-0.000
Sc	45		ug/L		256693	256693.332
Ge	74		ug/L		91610	91610.071
Se	77		ug/L		1067	0.004
Se	82	-0.331	ug/L	102.849	35	-0.000
Kr	83		ug/L		20	-0.000
In	115		ug/L		62227	62226.787
Sb	121	0.420	ug/L	9.223	2026	0.007
Sb	123		ug/L		1570	0.005
Lu	175		ug/L		114646	114646.017
Tl	205	0.192	ug/L	3.140	1224	0.009

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9998
Kr	83	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	0.9998
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	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		103.1			
Ge	74		106.0			
Se	77					
Se	82					
Kr	83					
In	115		103.5			
Sb	121					
Sb	123					
Lu	175		103.3			
Tl	205					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

Sample ID: QC Std 7

Report Date/Time: Thursday, March 04, 2010 12:29:48

Page 1

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, March 04, 2010 12:48:35

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\Misc.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 6.026

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	55.460	ug/L	4.353	1576	0.006
Sc	45		ug/L		249022	249022.443
Ge	74		ug/L		88841	88840.610
Se	77		ug/L		1763	0.012
Se	82	44.804	ug/L	2.417	1015	0.011
Kr	83		ug/L		23	0.000
In	115		ug/L		60245	60244.668
Sb	121	48.436	ug/L	0.656	51407	0.828
Sb	123		ug/L		40080	0.645
Lu	175		ug/L		112879	112878.690
Tl	205	50.684	ug/L	1.006	278842	2.469

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9998
Kr	83	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	0.9998
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	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	110.920				
Sc	45		100.0			
Ge	74		102.8			
Se	77					
Se	82	89.608				
Kr	83					
In	115		100.2			
Sb	121	96.871				
Sb	123					
Lu	175		101.7			
Tl	205	101.368				

### QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits ( +/- 10%)
QC Std 6	Se	82	CCV is out of limits ( +/- 10%)

Sample ID: QC Std 6

Report Date/Time: Thursday, March 04, 2010 12:49:21

Page 1



## QC Action

QC Action Line: Continue

## ICPMS#3 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, March 04, 2010 12:51:23

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 7.027

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9	0.035	ug/L	202.656	2	0.000
[> Sc	45		ug/L		251069	251068.904
[> Ge	74		ug/L		89279	89278.692
Se	77		ug/L		1019	0.003
Se	82	-0.213	ug/L	165.551	37	-0.000
Kr	83		ug/L		20	-0.000
[> In	115		ug/L		60332	60332.485
Sb	121	0.265	ug/L	16.549	1804	0.005
Sb	123		ug/L		1414	0.003
[> Lu	175		ug/L		114462	114462.277
Tl	205	0.161	ug/L	4.061	1052	0.008

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ge	74Linear Thru Zero	
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9998
Kr	83Linear Thru Zero	
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear 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			
[> Ge	74		103.3			
Se	77					
Se	82					
Kr	83					
[> In	115		100.3			
Sb	121					
Sb	123					
[> Lu	175		103.1			
Tl	205					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: QC Std 7

Report Date/Time: Thursday, March 04, 2010 12:52:10

Page 1

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: 1202036451

Sample Date/Time: Thursday, March 04, 2010 12:54:11

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 950326|1|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100304\1202036451.028

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9	0.047	ug/L	114.448	2	0.000
[> Sc	45		ug/L		248316	248315.884
[> Ge	74		ug/L		91018	91017.960
Se	77		ug/L		3223	0.027
Se	82	0.298	ug/L	232.056	49	0.000
[ Kr	83		ug/L		20	-0.000
[> In	115		ug/L		60125	60125.248
Sb	121	0.340	ug/L	10.724	1876	0.006
[ Sb	123		ug/L		1484	0.004
[> Lu	175		ug/L		110640	110640.263
[ Tl	205	0.046	ug/L	8.046	396	0.002

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ge	74Linear Thru Zero	
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9998
Kr	83Linear Thru Zero	
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear 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		99.7			
[> Ge	74		105.3			
Se	77					
Se	82					
[ Kr	83					
[> In	115		100.0			
Sb	121					
[ Sb	123					
[> Lu	175		99.7			
[ Tl	205					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: 1202036451

Report Date/Time: Thursday, March 04, 2010 12:54:58

Page 1

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: 1202036452

Sample Date/Time: Thursday, March 04, 2010 12:56:59

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 950326|1|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100304\1202036452.029

### Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be 9	61.745	ug/L	4.695	1807	0.007
[> Sc 45		ug/L		256488	256488.135
[> Ge 74		ug/L		94114	94113.601
Se 77		ug/L		3643	0.031
Se 82	48.742	ug/L	2.605	1166	0.012
Kr 83		ug/L		25	0.000
[> In 115		ug/L		61490	61490.071
Sb 121	62.152	ug/L	0.159	66887	1.062
Sb 123		ug/L		52014	0.826
[> Lu 175		ug/L		114798	114797.666
Tl 205	48.181	ug/L	1.423	269532	2.347

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ge	74Linear Thru Zero	
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9998
Kr	83Linear Thru Zero	
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear 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		103.0			
[> Ge 74		108.9			
Se 77					
Se 82					
Kr 83					
[> In 115		102.2			
Sb 121					
Sb 123					
[> Lu 175		103.4			
Tl 205					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: 1202036452

Report Date/Time: Thursday, March 04, 2010 12:57:47

Page 1

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: 246334001

Sample Date/Time: Thursday, March 04, 2010 13:02:33

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950326|1|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100304\246334001.031

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	0.023	ug/L	234.201	2	0.000
[>	Sc 45		ug/L		249862	249862.193
[>	Ge 74		ug/L		92418	92418.257
	Se 77		ug/L		3228	0.027
	Se 82	-0.731	ug/L	59.814	26	-0.000
	Kr 83		ug/L		24	0.000
[>	In 115		ug/L		59352	59352.270
	Sb 121	-0.879	ug/L	3.966	616	-0.015
	Sb 123		ug/L		491	-0.012
[>	Lu 175		ug/L		112561	112561.174
	Tl 205	0.134	ug/L	5.326	890	0.007

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ge	74Linear Thru Zero	
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9998
Kr	83Linear Thru Zero	
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear 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		100.3		
[>	Ge 74		107.0		
	Se 77				
	Se 82				
	Kr 83				
[>	In 115		98.7		
	Sb 121				
	Sb 123				
[>	Lu 175		101.4		
	Tl 205				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: 246334001

Report Date/Time: Thursday, March 04, 2010 13:03:19

Page 1



## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: 1202036453

Sample Date/Time: Thursday, March 04, 2010 13:05:20

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 950326|1|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100304\1202036453.032

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.023	ug/L	85.905	2	0.000
Sc	45		ug/L		250804	250803.633
Ge	74		ug/L		93112	93112.394
Se	77		ug/L		3433	0.029
Se	82	-0.560	ug/L	93.521	31	-0.000
Kr	83		ug/L		18	-0.000
In	115		ug/L		60212	60211.964
Sb	121	-0.976	ug/L	3.718	524	-0.017
Sb	123		ug/L		403	-0.014
Lu	175		ug/L		113237	113237.289
Tl	205	0.081	ug/L	6.147	599	0.004

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9998
Kr	83	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	0.9998
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	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		100.7			
Ge	74		107.8			
Se	77					
Se	82					
Kr	83					
In	115		100.1			
Sb	121					
Sb	123					
Lu	175		102.0			
Tl	205					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

Sample ID: 1202036453

Report Date/Time: Thursday, March 04, 2010 13:06:06

Page 1

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: 1202036454

Sample Date/Time: Thursday, March 04, 2010 13:08:17

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 950326|1|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100304\1202036454.033

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9	67.247	ug/L	5.949	1962	0.008
[> Sc	45		ug/L		255681	255680.922
[> Ge	74		ug/L		95964	95963.929
Se	77		ug/L		3847	0.032
Se	82	18.721	ug/L	4.701	484	0.005
Kr	83		ug/L		18	-0.000
[> In	115		ug/L		61607	61606.521
Sb	121	247.342	ug/L	1.451	261999	4.228
Sb	123		ug/L		203388	3.281
[> Lu	175		ug/L		116772	116771.622
Tl	205	94.104	ug/L	1.056	535445	4.584

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ge	74Linear Thru Zero	
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9998
Kr	83Linear Thru Zero	
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear 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			
[> Ge	74		111.1			
Se	77					
Se	82					
Kr	83					
[> In	115		102.4			
Sb	121					
Sb	123					
[> Lu	175		105.2			
Tl	205					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: 1202036454

Report Date/Time: Thursday, March 04, 2010 13:09:04

Page 1

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: 1202036455

Sample Date/Time: Thursday, March 04, 2010 13:11:05

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 950326|5|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100304\1202036455.034

### Concentration Results

Analyte	Mass	Conc.	Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.034		ug/L	175.629	2	0.000
Sc	45			ug/L		252700	252700.212
Ge	74			ug/L		92223	92222.661
Se	77			ug/L		1781	0.011
Se	82	-1.062		ug/L	47.423	19	-0.000
Kr	83			ug/L		19	-0.000
In	115			ug/L		61464	61464.425
Sb	121	-1.108		ug/L	3.927	396	-0.019
Sb	123			ug/L		295	-0.016
Lu	175			ug/L		114139	114138.966
Tl	205	1.090		ug/L	4.396	6214	0.053

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9998
Kr	83	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	0.9998
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	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		101.5			
Ge	74		106.7			
Se	77					
Se	82					
Kr	83					
In	115		102.2			
Sb	121					
Sb	123					
Lu	175		102.8			
Tl	205					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: 1202036455

Report Date/Time: Thursday, March 04, 2010 13:11:52

Page 1

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, March 04, 2010 13:16:39

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 6.036

### Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be 9	55.242	ug/L	1.386	1614	0.006
[> Sc 45		ug/L		256199	256198.631
[> Ge 74		ug/L		93043	93043.287
Se 77		ug/L		2140	0.015
Se 82	44.064	ug/L	4.666	1046	0.011
[ Kr 83		ug/L		24	0.000
[> In 115		ug/L		62588	62588.338
Sb 121	48.252	ug/L	0.553	53212	0.825
[ Sb 123		ug/L		41291	0.639
[> Lu 175		ug/L		116746	116746.358
[ Tl 205	50.093	ug/L	0.800	285041	2.440

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ge	74Linear Thru Zero	
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9998
Kr	83Linear Thru Zero	
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000

### QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[ Be 9	110.484				
[> Sc 45		102.9			
[> Ge 74		107.7			
Se 77					
Se 82	88.128				
[ Kr 83					
[> In 115		104.1			
Sb 121	96.505				
[ Sb 123					
[> Lu 175		105.2			
[ Tl 205	100.185				

### QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Be	9CCV is out of limits ( +/- 10%)
QC Std 6	Se	82CCV is out of limits ( +/- 10%)

Sample ID: QC Std 6

Report Date/Time: Thursday, March 04, 2010 13:17:25

Page 1



## QC Action

QC Action Line: Continue

## ICPMS#3 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, March 04, 2010 13:19:27

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 7.037

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.034	ug/L	205.099	2	0.000
[> Sc	45		ug/L		256708	256708.396
[> Ge	74		ug/L		91075	91075.031
Se	77		ug/L		1196	0.005
Se	82	-0.583	ug/L	67.291	29	-0.000
[ Kr	83		ug/L		25	0.000
[> In	115		ug/L		61291	61290.739
Sb	121	0.248	ug/L	16.912	1816	0.004
[ Sb	123		ug/L		1370	0.002
[> Lu	175		ug/L		114730	114730.020
[ Ti	205	0.443	ug/L	2.052	2632	0.022

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9998
Kr	83	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	0.9998
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Ti	205	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			103.1							
[> Ge	74			105.4							
Se	77										
Se	82										
[ Kr	83										
[> In	115			101.9							
Sb	121										
[ Sb	123										
[> Lu	175			103.4							
[ Ti	205										

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

Sample ID: QC Std 7

Report Date/Time: Thursday, March 04, 2010 13:20:14

Page 1

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: Blank

Sample Date/Time: Thursday, March 04, 2010 13:22:15

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc 6.mth

Dataset File: C:\elandata\Dataset\100304\Blank.038

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc	45	ug/L		298787	
	V	51	ug/L		297	
	Cr	52	ug/L		1783	
	Cr	53	ug/L		27059	
[>	Lu	175	ug/L		127117	
	U	238	ug/L		42	

---

Sample ID: Blank

Report Date/Time: Thursday, March 04, 2010 13:22:43

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
V	51Simple Linear	
Cr	52Simple Linear	
Cr	53Simple Linear	
Lu	175Linear Thru Zero	
U	238Simple Linear	

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc		45				
	V		51				
	Cr		52				
	Cr		53				
[>	Lu		175				
	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#3 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Thursday, March 04, 2010 13:24:12

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc 6.mth

Dataset File: C:\elandata\Dataset\100304\Standard 1.039

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		300158	300157.978
	V 51	10.000	ug/L	7.079	14754	0.048
	Cr 52	10.000	ug/L	3.740	17988	0.054
	Cr 53		ug/L		28875	0.006
[>	Lu 175		ug/L		128542	128541.925
	U 238	10.000	ug/L	1.252	93282	0.725

Sample ID: Standard 1

Report Date/Time: Thursday, March 04, 2010 13:24:37

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000



### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45					
	V	51					
	Cr	52					
	Cr	53					
[>	Lu	175					
	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#3 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Thursday, March 04, 2010 13:26:06

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc 6.mth

Dataset File: C:\elandata\Dataset\100304\Standard 2.040

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		306023	306022.965
	V 51	100.034	ug/L	1.647	152439	0.497
	Cr 52	99.955	ug/L	1.969	159881	0.517
	Cr 53		ug/L		45622	0.059
[>	Lu 175		ug/L		130463	130462.639
	U 238	99.961	ug/L	0.641	910570	6.979

---

Sample ID: Standard 2

Report Date/Time: Thursday, March 04, 2010 13:26:32

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45				
	V	51				
	Cr	52				
	Cr	53				
[>	Lu	175				
	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#3 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Thursday, March 04, 2010 13:28:01

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc 6.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 1.041

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		307605	307604.703
	V 51	50.201	ug/L	3.363	77007	0.249
	Cr 52	52.189	ug/L	3.546	84673	0.270
	Cr 53		ug/L		36750	0.029
[>	Lu 175		ug/L		132114	132113.708
	U 238	54.320	ug/L	1.190	500898	3.792

---

Sample ID: QC Std 1

Report Date/Time: Thursday, March 04, 2010 13:28:27

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45			103.0		
	V	51	100.402				
	Cr	52	104.378				
	Cr	53					
[>	Lu	175			103.9		
	U	238	108.641				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Thursday, March 04, 2010 13:29:58

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc 6.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 2.042

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		303550	303549.535
	V 51	-0.178	ug/L	811.911	152	-0.001
	Cr 52	0.056	ug/L	31.070	1901	0.000
	Cr 53		ug/L		27581	0.001
[>	Lu 175		ug/L		130020	130020.296
	U 238	0.012	ug/L	17.181	149	0.001

Sample ID: QC Std 2

Report Date/Time: Thursday, March 04, 2010 13:30:26

Page 1



## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45			101.6		
	V	51					
	Cr	52					
	Cr	53					
[>	Lu	175			102.3		
	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#3 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Thursday, March 04, 2010 13:31:56

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc 6.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 3.043

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Sc	45		ug/L		308528	308528.165
V	51	10.569	ug/L	16.285	16622	0.053
Cr	52	11.417	ug/L	3.634	20032	0.059
Cr	53		ug/L		31312	0.011
[> Lu	175		ug/L		130969	130968.603
U	238	0.243	ug/L	4.469	2267	0.017

Sample ID: QC Std 3

Report Date/Time: Thursday, March 04, 2010 13:32:22

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45			103.3		
	V	51	105.695				
	Cr	52	114.172				
	Cr	53					
[>	Lu	175			103.0		
	U	238	121.736				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Thursday, March 04, 2010 13:33:52

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc 6.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 4.044

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		260414	260414.422
	V 51	-1.893	ug/L	76.937	-2078	-0.009
	Cr 52	2.708	ug/L	4.793	5189	0.014
	Cr 53		ug/L		22063	-0.005
[>	Lu 175		ug/L		114962	114961.566
	U 238	0.001	ug/L	106.937	46	0.000

Sample ID: QC Std 4

Report Date/Time: Thursday, March 04, 2010 13:34:18

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45			87.2		
	V	51					
	Cr	52	82.048				
	Cr	53					
[>	Lu	175			90.4		
	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#3 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Thursday, March 04, 2010 13:35:48

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc 6.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 5.045

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		262201	262201.272
	V 51	19.160	ug/L	5.943	25321	0.095
	Cr 52	23.437	ug/L	4.703	33240	0.121
	Cr 53		ug/L		25850	0.009
[>	Lu 175		ug/L		115867	115867.262
	U 238	22.212	ug/L	1.364	179687	1.551

Sample ID: QC Std 5

Report Date/Time: Thursday, March 04, 2010 13:36:15

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45			87.8		
	V	51	95.802				
	Cr	52	100.587				
	Cr	53					
[>	Lu	175			91.1		
	U	238	111.062				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, March 04, 2010 13:37:46

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc 6.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 6.046

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Sc	45		ug/L		306571	306570.669
V	51	49.032	ug/L	0.160	74975	0.244
Cr	52	48.616	ug/L	3.316	78752	0.251
Cr	53		ug/L		35527	0.026
[> Lu	175		ug/L		131423	131423.409
U	238	50.180	ug/L	0.428	460408	3.503

Sample ID: QC Std 6

Report Date/Time: Thursday, March 04, 2010 13:38:14

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45			102.6		
	V	51	98.065				
	Cr	52	97.232				
	Cr	53					
[>	Lu	175			103.4		
	U	238	100.359				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

## ICPMS#3 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, March 04, 2010 13:39:46

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc 6.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 7.047

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		309884	309883.878
	V 51	-1.096	ug/L	116.152	-1271	-0.005
	Cr 52	-0.159	ug/L	22.513	1594	-0.001
	Cr 53		ug/L		27987	0.000
[>	Lu 175		ug/L		129508	129507.588
	U 238	0.009	ug/L	12.726	121	0.001

Sample ID: QC Std 7

Report Date/Time: Thursday, March 04, 2010 13:40:14

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000



### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45			103.7		
	V	51					
	Cr	52					
	Cr	53					
[>	Lu	175			101.9		
	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#3 - Summary Report

Sample ID: 1202036451

Sample Date/Time: Thursday, March 04, 2010 13:42:44

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 950326|1|prb

Method File: c:\elandata\Method\misc 6.mth

Dataset File: C:\elandata\Dataset\100304\1202036451.048

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		298896	298895.621
	V 51	-4.954	ug/L	62.012	-6873	-0.025
	Cr 52	1.748	ug/L	6.091	4481	0.009
	Cr 53		ug/L		69443	0.142
[>	Lu 175		ug/L		127919	127919.405
	U 238	0.009	ug/L	5.301	126	0.001

Sample ID: 1202036451

Report Date/Time: Thursday, March 04, 2010 13:43:12

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		100.0		
	V	51				
	Cr	52				
	Cr	53				
[>	Lu	175		100.6		
	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#3 - Summary Report

Sample ID: 1202036452

Sample Date/Time: Thursday, March 04, 2010 13:44:44

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 950326|1|prb

Method File: c:\elandata\Method\misc 6.mth

Dataset File: C:\elandata\Dataset\100304\1202036452.049

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Sc	45		ug/L		307126	307125.527
V	51	48.404	ug/L	5.099	74307	0.240
Cr	52	52.529	ug/L	2.790	85164	0.272
Cr	53		ug/L		68130	0.132
[> Lu	175		ug/L		130876	130876.183
U	238	52.351	ug/L	2.096	478607	3.655

Sample ID: 1202036452

Report Date/Time: Thursday, March 04, 2010 13:45:12

Page 1

## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		102.8		
	V	51				
	Cr	52				
	Cr	53				
[>	Lu	175		103.0		
	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#3 - Summary Report

Sample ID: 246334001

Sample Date/Time: Thursday, March 04, 2010 13:49:10

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950326|1|prb

Method File: c:\elandata\Method\misc 6.mth

Dataset File: C:\elandata\Dataset\100304\246334001.051

#### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Sc	45		ug/L		301587	301586.671
V	51	-5.428	ug/L	54.664	-7680	-0.027
Cr	52	4.348	ug/L	0.457	8579	0.022
Cr	53		ug/L		80738	0.178
[> Lu	175		ug/L		126155	126155.446
U	238	0.157	ug/L	1.805	1421	0.011

Sample ID: 246334001

Report Date/Time: Thursday, March 04, 2010 13:49:37

Page 1



## Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc	45		100.9			
	V	51					
	Cr	52					
	Cr	53					
[>	Lu	175		99.2			
	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#3 - Summary Report

Sample ID: 1202036453

Sample Date/Time: Thursday, March 04, 2010 13:51:08

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 950326|1|prb

Method File: c:\elandata\Method\Misc 6.mth

Dataset File: C:\elandata\Dataset\100304\1202036453.052

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		304089	304089.410
	V 51	-7.907	ug/L	58.972	-11362	-0.039
	Cr 52	4.517	ug/L	4.778	8905	0.023
	Cr 53		ug/L		85140	0.190
[>	Lu 175		ug/L		127089	127089.151
	U 238	0.035	ug/L	2.236	355	0.002

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc 45		101.8			
	V 51					
	Cr 52					
	Cr 53					
[>	Lu 175		100.0			
	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: 1202036453

Report Date/Time: Thursday, March 04, 2010 13:51:36

Page 1

## ICPMS#3 - Summary Report

Sample ID: 1202036454

Sample Date/Time: Thursday, March 04, 2010 13:53:07

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 950326|1|prb

Method File: c:\elandata\Method\misc 6.mth

Dataset File: C:\elandata\Dataset\100304\1202036454.053

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		301190	301190.024
	V 51	46.056	ug/L	4.652	69319	0.229
	Cr 52	56.179	ug/L	2.753	89189	0.291
	Cr 53		ug/L		86616	0.198
[>	Lu 175		ug/L		128884	128884.151
	U 238	52.804	ug/L	1.498	475112	3.687

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc 45		100.8			
	V 51					
	Cr 52					
	Cr 53					
[>	Lu 175		101.4			
	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: 1202036454

Report Date/Time: Thursday, March 04, 2010 13:53:35

Page 1

## ICPMS#3 - Summary Report

Sample ID: 1202036455

Sample Date/Time: Thursday, March 04, 2010 13:55:06

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 950326[5]prb

Method File: c:\elandata\Method\misc 6.mth

Dataset File: C:\elandata\Dataset\100304\1202036455.054

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		307177	307176.783
	V 51	-2.645	ug/L	105.955	-3529	-0.013
	Cr 52	1.649	ug/L	2.613	4456	0.009
	Cr 53		ug/L		47795	0.065
[>	Lu 175		ug/L		129612	129611.810
	U 238	0.042	ug/L	0.240	422	0.003

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc 45			102.8		
	V 51					
	Cr 52					
	Cr 53					
[>	Lu 175			102.0		
	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: 1202036455

Report Date/Time: Thursday, March 04, 2010 13:55:34

Page 1

## ICPMS#3 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, March 04, 2010 13:57:05

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc 6.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 6.055

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Sc	45		ug/L		307610	307609.827
V	51	47.189	ug/L	2.960	72522	0.234
Cr	52	49.209	ug/L	3.834	79942	0.254
Cr	53		ug/L		42508	0.048
[> Lu	175		ug/L		131390	131389.527
U	238	49.972	ug/L	2.737	458001	3.489

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Lu	175	Linear Thru Zero	
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
[> Sc	45					103.0					
V	51		94.378								
Cr	52		98.418								
Cr	53										
[> Lu	175					103.4					
U	238		99.943								

### 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, March 04, 2010 13:57:33

Page 1

## ICPMS#3 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, March 04, 2010 13:59:04

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc 6.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 7.056

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Sc 45		ug/L		308776	308776.031
	V 51	-1.203	ug/L	96.484	-1447	-0.006
	Cr 52	0.093	ug/L	126.135	1981	0.000
	Cr 53		ug/L		31723	0.013
[>	Lu 175		ug/L		128976	128976.063
	U 238	0.011	ug/L	5.975	141	0.001

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Sc 45		103.3			
	V 51					
	Cr 52					
	Cr 53					
[>	Lu 175		101.5			
	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, March 04, 2010 13:59:32

Page 1

## ICPMS #5 Daily Performance Report

### Sample ID: Sample

Sample Date/Time: Wednesday, March 03, 2010 12:04:40

Sample Description:

Method File: c:\elandata\Method\Daily2.mth

Dataset File: c:\elandata\Dataset\default\Sample.636

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	6025.9	6025.871	118.104	2.0
Mg	24.0	55283.2	55283.165	371.214	0.7
Co	58.9	95810.4	95810.420	471.561	0.5
Rh	102.9	189365.5	189365.471	1478.717	0.8
In	114.9	270547.8	270547.787	2382.775	0.9
Pb	208.0	292457.1	292457.148	1806.253	0.6
[> Ba	137.9	263351.1	263351.108	2083.681	0.8
[ Ba++	69.0	3503.3	0.013	0.000	0.8
[> Ce	139.9	326855.2	326855.202	1857.344	0.6
[ CeO	155.9	8109.5	0.025	0.000	2.0
Bkgd	220.0	14.8	14.800	1.525	10.3

### Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
6.00	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	6.3	6153.0
Co	59	11	6.8	101263.0
In	115	11	7.5	285997.8



## 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	586	2050	0.706
Be	9.0	9.0	2053	2075	0.657
Mg	24.0	24.0	5685	2080	0.640
Mg	25.0	25.0	5925	2080	0.636
Mg	26.0	26.0	6179	2080	0.648
Co	58.9	59.0	14191	2110	0.629
Rh	102.9	102.9	24867	2160	0.640
In	114.9	114.9	27794	2180	0.645
Ce	139.9	139.9	33865	2200	0.640
Pb	206.0	206.0	49948	2295	0.633
Pb	207.0	207.0	50159	2240	0.639
Pb	208.0	208.0	50451	2265	0.710
U	238.1	238.1	57731	2275	0.735

## ICPMS#5 - Summary Report

Sample ID: Blank

Sample Date/Time: Thursday, March 04, 2010 02:41:32

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\Blank.232

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7		ug/L		67	
Be	9		ug/L		7	
B	11		ug/L		397	
Na	23		ug/L		7335	
Mg	24		ug/L		1000	
Al	27		ug/L		2667	
P	31		ug/L		4285	
K	39		ug/L		306274	
Ca	43		ug/L		109	
> Sc	45		ug/L		1478074	
Ti	47		ug/L		182	
V	51		ug/L		253	
Cr	52		ug/L		2305	
Cr	53		ug/L		41926	
Mn	55		ug/L		746	
Fe	57		ug/L		2477	
Co	59		ug/L		33	
Ni	60		ug/L		75	
Cu	63		ug/L		115	
Cu	65		ug/L		51	
Zn	66		ug/L		439	
Zn	67		ug/L		6312	
Zn	68		ug/L		1073	
> Ge	74		ug/L		328466	
As	75		ug/L		-108	
Se	77		ug/L		2060	
Se	82		ug/L		10	
Kr	83		ug/L		67	
Sr	88		ug/L		96	
Y	89		ug/L		47	
Mo	98		ug/L		48	
Ag	107		ug/L		20	
Cd	111		ug/L		12	
Cd	114		ug/L		29	
> In	115		ug/L		275709	
Sn	120		ug/L		177	
Sb	121		ug/L		85	
Sb	123		ug/L		69	
Ba	135		ug/L		19	
Ba	137		ug/L		35	
Ho	165		ug/L		15	
> Lu	175		ug/L		657600	
Tl	205		ug/L		5652	
Pb	208		ug/L		319	
Bi	209		ug/L		567	
Th	232		ug/L		392	
U	238		ug/L		197	

Sample ID: Blank

Report Date/Time: Thursday, March 04, 2010 02:44:16

Page 1

## 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	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	0.9999
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	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

Sample ID: Blank

Report Date/Time: Thursday, March 04, 2010 02:44:16

Page 2

## 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: Standard 1

Sample Date/Time: Thursday, March 04, 2010 02:47:38

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\Standard 1.233

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	10.000	ug/L	1.077	22874	0.017
Be	9	10.000	ug/L	0.499	4424	0.003
B	11	20.000	ug/L	2.062	9411	0.007
Na	23	1000.000	ug/L	8.167	2836041	2.067
Mg	24	1000.000	ug/L	3.031	2165965	1.581
Al	27	1000.000	ug/L	5.129	2651021	1.934
P	31	1000.000	ug/L	1.674	156424	0.111
K	39	1000.000	ug/L	6.830	3708036	2.499
Ca	43	1000.000	ug/L	2.638	9419	0.007
> Sc	45		ug/L		1369500	1369499.663
Ti	47	10.000	ug/L	2.088	4798	0.003
V	51	10.000	ug/L	10.834	47283	0.034
Cr	52	10.000	ug/L	2.860	43550	0.030
Cr	53		ug/L		75848	0.027
Mn	55	10.000	ug/L	1.580	74035	0.054
Fe	57	1000.000	ug/L	2.106	147184	0.106
Co	59	10.000	ug/L	1.180	54002	0.039
Ni	60	10.000	ug/L	1.341	11326	0.008
Cu	63		ug/L		25952	0.019
Cu	65	10.000	ug/L	0.519	12808	0.009
Zn	66	10.000	ug/L	2.401	9625	0.031
Zn	67		ug/L		11846	0.020
Zn	68		ug/L		7741	0.023
> Ge	74		ug/L		298834	298834.183
As	75	10.000	ug/L	2.344	8158	0.028
Se	77		ug/L		4647	0.009
Se	82	10.000	ug/L	0.416	1013	0.003
Kr	83		ug/L		58	-0.000
Sr	88	10.000	ug/L	2.252	124940	0.476
Y	89		ug/L		50	0.000
Mo	98	10.000	ug/L	1.782	29100	0.111
Ag	107	10.000	ug/L	1.744	55089	0.210
Cd	111	10.000	ug/L	1.985	15231	0.058
Cd	114		ug/L		36990	0.141
> In	115		ug/L		262160	262159.761
Sn	120	10.000	ug/L	1.807	65858	0.251
Sb	121	10.000	ug/L	2.317	55336	0.211
Sb	123		ug/L		43880	0.167
Ba	135		ug/L		16029	0.025
Ba	137	10.000	ug/L	2.118	28505	0.045
Ho	165		ug/L		10	-0.000
> Lu	175		ug/L		631809	631809.085
Tl	205	10.000	ug/L	1.840	276884	0.430
Pb	208	10.000	ug/L	0.598	472153	0.747
Bi	209		ug/L		499	-0.000
Th	232	10.000	ug/L	0.376	584529	0.925
U	238	10.000	ug/L	1.915	635713	1.006

Sample ID: Standard 1

Report Date/Time: Thursday, March 04, 2010 02:50:20

Page 1

## 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, March 04, 2010 02:50:20

Page 2

## QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	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: Standard 2

Sample Date/Time: Thursday, March 04, 2010 02:53:43

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\Standard 2.234

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	99.966	ug/L	0.729	235285	0.161
Be	9	99.979	ug/L	2.623	46125	0.032
B	11	200.000	ug/L	2.395	96825	0.066
Na	23	10015.640	ug/L	1.461	35833928	24.535
Mg	24	9999.110	ug/L	6.277	22902723	15.670
Al	27	10008.029	ug/L	6.521	30718357	21.049
P	31	9992.094	ug/L	0.715	1509637	1.031
K	39	9995.906	ug/L	0.321	35356948	24.002
Ca	43	10001.016	ug/L	1.005	100521	0.069
> Sc	45		ug/L		1460562	1460561.846
Ti	47	99.995	ug/L	0.933	49268	0.034
V	51	100.051	ug/L	0.782	529065	0.362
Cr	52	99.932	ug/L	0.856	415675	0.283
Cr	53		ug/L		126684	0.058
Mn	55	99.945	ug/L	2.688	741518	0.507
Fe	57	9989.344	ug/L	0.234	1397415	0.955
Co	59	99.944	ug/L	1.816	544690	0.373
Ni	60	99.953	ug/L	1.068	114676	0.078
Cu	63		ug/L		266267	0.182
Cu	65	99.952	ug/L	1.965	129862	0.089
Zn	66	99.984	ug/L	1.485	97559	0.304
Zn	67		ug/L		27214	0.066
Zn	68		ug/L		70646	0.218
> Ge	74		ug/L		319754	319753.655
As	75	100.027	ug/L	2.056	90689	0.284
Se	77		ug/L		12220	0.032
Se	82	99.945	ug/L	1.347	10188	0.032
Kr	83		ug/L		85	0.000
Sr	88	99.967	ug/L	0.546	1230495	4.608
Y	89		ug/L		149	0.000
Mo	98	100.038	ug/L	2.104	307657	1.152
Ag	107	99.970	ug/L	0.918	544238	2.038
Cd	111	100.022	ug/L	1.242	158627	0.594
Cd	114		ug/L		376927	1.411
> In	115		ug/L		267019	267019.296
Sn	120	99.990	ug/L	2.493	662804	2.482
Sb	121	99.988	ug/L	2.293	556162	2.083
Sb	123		ug/L		442029	1.655
Ba	135		ug/L		163862	0.260
Ba	137	100.027	ug/L	1.186	292498	0.463
Ho	165		ug/L		18	0.000
> Lu	175		ug/L		631034	631033.732
Tl	205	99.797	ug/L	0.614	2254036	3.563
Pb	208	99.851	ug/L	0.495	4096510	6.491
Bi	209		ug/L		1147	0.001
Th	232	99.822	ug/L	1.196	4945594	7.837
U	238	99.824	ug/L	0.168	5387457	8.537

Sample ID: Standard 2

Report Date/Time: Thursday, March 04, 2010 02:56:24

Page 1



## 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	0.9999
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	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

Sample ID: Standard 2

Report Date/Time: Thursday, March 04, 2010 02:56:24

Page 2

## 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

## ICPMS#5 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Thursday, March 04, 2010 02:59:47

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 1.235

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	51.978	ug/L	0.902	125343	0.084
Be	9	52.419	ug/L	1.802	24781	0.017
B	11	107.156	ug/L	2.506	53327	0.035
Na	23	4806.450	ug/L	10.290	17610233	11.774
Mg	24	5177.546	ug/L	7.731	12148237	8.114
Al	27	4754.781	ug/L	3.299	14968502	10.000
P	31	5283.042	ug/L	1.761	819610	0.545
K	39	5045.000	ug/L	4.545	18432091	12.114
Ca	43	5001.049	ug/L	1.042	51539	0.034
> Sc	45		ug/L		1496124	1496123.634
Ti	47	50.998	ug/L	0.636	25832	0.017
V	51	50.536	ug/L	4.226	273806	0.183
Cr	52	52.922	ug/L	1.903	226582	0.150
Cr	53		ug/L		108321	0.044
Mn	55	52.576	ug/L	2.821	400007	0.267
Fe	57	5337.436	ug/L	1.738	765924	0.510
Co	59	51.195	ug/L	1.799	285840	0.191
Ni	60	52.384	ug/L	1.555	61598	0.041
Cu	63		ug/L		143259	0.096
Cu	65	52.199	ug/L	0.252	69514	0.046
Zn	66	51.783	ug/L	1.501	51572	0.157
Zn	67		ug/L		20225	0.043
Zn	68		ug/L		37958	0.114
> Ge	74		ug/L		324991	324990.770
As	75	50.666	ug/L	0.706	46650	0.144
Se	77		ug/L		8603	0.020
Se	82	53.672	ug/L	1.215	5566	0.017
Kr	83		ug/L		68	0.000
Sr	88	55.299	ug/L	2.014	682389	2.549
Y	89		ug/L		83	0.000
Mo	98	50.765	ug/L	4.445	156449	0.585
Ag	107	52.523	ug/L	2.208	286635	1.071
Cd	111	51.880	ug/L	3.117	82469	0.308
Cd	114		ug/L		196480	0.734
> In	115		ug/L		267781	267780.744
Sn	120	52.392	ug/L	3.632	348109	1.300
Sb	121	52.431	ug/L	3.748	292285	1.092
Sb	123		ug/L		232084	0.867
Ba	135		ug/L		85574	0.134
Ba	137	51.579	ug/L	1.713	152328	0.239
Ho	165		ug/L		44	0.000
> Lu	175		ug/L		637292	637292.148
Tl	205	55.682	ug/L	0.405	1272548	1.988
Pb	208	55.200	ug/L	1.441	2287020	3.588
Bi	209		ug/L		840	0.000
Th	232	52.069	ug/L	1.073	2605589	4.088
U	238	53.633	ug/L	1.364	2923153	4.587

Sample ID: QC Std 1

Report Date/Time: Thursday, March 04, 2010 03:02:29

Page 1

## 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	0.9999
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	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	103.956				
Be	9	104.838				
B	11	107.156				
Na	23	96.129				
Mg	24	103.551				
Al	27	94.154				
P	31	105.661				
K	39	100.900				
Ca	43	100.021				
> Sc	45		101.2			
Ti	47	101.996				
V	51	101.071				
Cr	52	105.844				
Cr	53					
Mn	55	105.152				
Fe	57	106.749				
Co	59	102.389				
Ni	60	104.768				
Cu	63					
Cu	65	104.397				
Zn	66	103.565				
Zn	67					
Zn	68					
> Ge	74		98.9			
As	75	101.333				
Se	77					
Se	82	107.343				
Kr	83					
Sr	88	110.598				
Y	89					
Mo	98	101.530				
Ag	107	105.047				
Cd	111	103.760				
Cd	114					
> In	115		97.1			
Sn	120	104.784				
Sb	121	104.863				
Sb	123					
Ba	135					
Ba	137	103.159				
Ho	165					
> Lu	175		96.9			
Tl	205	111.365				
Pb	208	110.400				
Bi	209					
Th	232	104.138				
U	238	107.267				

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Sr	88	ICV is out of limits (+/- 10%)
QC Std 1	Tl	205	ICV is out of limits (+/- 10%)
QC Std 1	Pb	208	ICV is out of limits (+/- 10%)

## QC Action

Sample ID: QC Std 1  
 Report Date/Time: Thursday, March 04, 2010 03:02:29  
 Page 3

QC Action Line: Continue

## ICPMS#5 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Thursday, March 04, 2010 03:05:54

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 2.236

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.024	ug/L	31.758	131	0.000
Be	9	0.005	ug/L	177.415	10	0.000
B	11	3.948	ug/L	17.531	2458	0.001
Na	23	2.159	ug/L	85.800	16010	0.005
Mg	24	1.745	ug/L	71.684	5335	0.003
Al	27	0.565	ug/L	165.983	4668	0.001
P	31	0.542	ug/L	285.420	4622	0.000
K	39	0.247	ug/L	1226.724	324991	0.001
Ca	43	1.522	ug/L	108.063	132	0.000
> Sc	45		ug/L		1564058	1564057.904
Ti	47	-0.052	ug/L	51.092	166	-0.000
V	51	-0.226	ug/L	45.906	-1011	-0.001
Cr	52	0.162	ug/L	15.373	3159	0.000
Cr	53		ug/L		47778	0.002
Mn	55	0.010	ug/L	8.481	867	0.000
Fe	57	1.271	ug/L	28.336	2811	0.000
Co	59	0.010	ug/L	40.434	92	0.000
Ni	60	0.023	ug/L	44.404	107	0.000
Cu	63		ug/L		143	0.000
Cu	65	0.017	ug/L	37.794	77	0.000
Zn	66	-0.036	ug/L	43.949	429	-0.000
Zn	67		ug/L		6737	0.000
Zn	68		ug/L		1084	-0.000
> Ge	74		ug/L		349750	349750.460
As	75	-0.001	ug/L	7242.163	-115	-0.000
Se	77		ug/L		2438	0.001
Se	82	0.036	ug/L	394.826	15	0.000
Kr	83		ug/L		58	-0.000
Sr	88	0.010	ug/L	38.008	229	0.000
Y	89		ug/L		35	-0.000
Mo	98	0.032	ug/L	20.849	155	0.000
Ag	107	0.011	ug/L	43.329	83	0.000
Cd	111	0.011	ug/L	28.905	32	0.000
Cd	114		ug/L		71	0.000
> In	115		ug/L		285399	285399.047
Sn	120	0.019	ug/L	26.361	320	0.000
Sb	121	0.110	ug/L	14.253	743	0.002
Sb	123		ug/L		567	0.002
Ba	135		ug/L		39	0.000
Ba	137	0.008	ug/L	28.803	60	0.000
Ho	165		ug/L		9	-0.000
> Lu	175		ug/L		664211	664210.565
Tl	205	0.477	ug/L	27.575	17001	0.017
Pb	208	0.012	ug/L	35.091	833	0.001
Bi	209		ug/L		512	-0.000
Th	232	0.024	ug/L	5.368	1624	0.002
U	238	0.013	ug/L	24.434	966	0.001

Sample ID: QC Std 2

Report Date/Time: Thursday, March 04, 2010 03:08:39

Page 1

## 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	0.9999
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	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		105.8			
	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		106.5			
	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		101.0			
	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, March 04, 2010 03:12:01

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 3.237

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	11.340	ug/L	1.569	26673	0.018
Be	9	0.572	ug/L	5.429	270	0.000
B	11	17.440	ug/L	4.282	8776	0.006
Na	23	249.511	ug/L	9.384	896719	0.611
Mg	24	23.683	ug/L	15.687	55108	0.037
Al	27	42.139	ug/L	14.554	131610	0.089
P	31	77.671	ug/L	4.564	15892	0.008
K	39	355.305	ug/L	1.957	1544552	0.853
Ca	43	216.422	ug/L	0.795	2275	0.001
> Sc	45		ug/L		1456890	1456890.285
Ti	47	8.654	ug/L	2.507	4418	0.003
V	51	9.439	ug/L	8.706	49977	0.034
Cr	52	11.617	ug/L	2.881	50204	0.033
Cr	53		ug/L		80729	0.027
Mn	55	5.902	ug/L	2.233	44380	0.030
Fe	57	124.603	ug/L	1.365	19797	0.012
Co	59	1.136	ug/L	1.380	6209	0.004
Ni	60	2.331	ug/L	6.421	2739	0.002
Cu	63		ug/L		3297	0.002
Cu	65	1.194	ug/L	2.181	1597	0.001
Zn	66	11.514	ug/L	2.172	11580	0.035
Zn	67		ug/L		12115	0.019
Zn	68		ug/L		9208	0.026
> Ge	74		ug/L		318828	318827.711
As	75	5.459	ug/L	3.933	4838	0.016
Se	77		ug/L		4562	0.008
Se	82	6.375	ug/L	5.264	657	0.002
Kr	83		ug/L		52	-0.000
Sr	88	11.793	ug/L	3.098	146667	0.544
Y	89		ug/L		48	0.000
Mo	98	0.557	ug/L	5.223	1776	0.006
Ag	107	1.050	ug/L	0.897	5791	0.021
Cd	111	1.133	ug/L	6.547	1825	0.007
Cd	114		ug/L		4288	0.016
> In	115		ug/L		269663	269662.869
Sn	120	5.524	ug/L	2.252	37140	0.137
Sb	121	3.409	ug/L	3.079	19226	0.071
Sb	123		ug/L		15176	0.056
Ba	135		ug/L		3600	0.006
Ba	137	2.158	ug/L	2.728	6402	0.010
Ho	165		ug/L		16	0.000
> Lu	175		ug/L		636914	636913.868
Tl	205	1.402	ug/L	0.409	37364	0.050
Pb	208	2.520	ug/L	1.725	104621	0.164
Bi	209		ug/L		492	-0.000
Th	232	1.373	ug/L	0.309	69054	0.108
U	238	0.300	ug/L	2.755	16517	0.026

Sample ID: QC Std 3

Report Date/Time: Thursday, March 04, 2010 03:14:43

Page 1

## 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	0.9999
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	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	113.397				
Be	9	114.355				
B	11	116.270				
Na	23	99.804				
Mg	24	157.886				
Al	27	140.464				
P	31	155.343				
K	39	118.435				
Ca	43	108.211				
> Sc	45		98.6			
Ti	47	86.544				
V	51	94.394				
Cr	52	116.173				
Cr	53					
Mn	55	118.049				
Fe	57	124.603				
Co	59	113.598				
Ni	60	116.560				
Cu	63					
Cu	65	119.413				
Zn	66	115.137				
Zn	67					
Zn	68					
> Ge	74		97.1			
As	75	109.186				
Se	77					
Se	82	127.497				
Kr	83					
Sr	88	117.931				
Y	89					
Mo	98	111.355				
Ag	107	104.975				
Cd	111	113.251				
Cd	114					
> In	115		97.8			
Sn	120	110.484				
Sb	121	113.627				
Sb	123					
Ba	135					
Ba	137	107.920				
Ho	165					
> Lu	175		96.9			
Tl	205	140.219				
Pb	208	125.975				
Bi	209					
Th	232	137.334				
U	238	149.887				

### 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	P	31	CRDL is out of limits
QC Std 3	Ti	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

## QC Action

QC Action Line: Continue

## ICPMS#5 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Thursday, March 04, 2010 03:18:06

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 4.238

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.101	ug/L	3.010	288	0.000
Be	9	0.080	ug/L	13.781	42	0.000
B	11	1.751	ug/L	10.920	1177	0.001
Na	23	91066.358	ug/L	4.534	310197177	223.079
Mg	24	97199.602	ug/L	3.603	211807135	152.328
Al	27	92756.490	ug/L	3.651	271285957	195.090
P	31	91011.566	ug/L	0.860	13059408	9.389
K	39	100158.588	ug/L	2.104	334738061	240.496
Ca	43	91286.964	ug/L	1.314	872622	0.627
> Sc	45		ug/L		1390586	1390586.420
Ti	47	1590.960	ug/L	0.640	743837	0.535
V	51	0.449	ug/L	279.347	2451	0.002
Cr	52	2.025	ug/L	3.747	10141	0.006
Cr	53		ug/L		64775	0.018
Mn	55	5.687	ug/L	1.288	40847	0.029
Fe	57	104493.896	ug/L	3.203	13893157	9.991
Co	59	0.418	ug/L	4.365	2202	0.002
Ni	60	4.482	ug/L	2.713	4964	0.004
Cu	63		ug/L		5969	0.004
Cu	65	3.788	ug/L	2.610	4733	0.003
Zn	66	4.235	ug/L	3.831	4280	0.013
Zn	67		ug/L		11115	0.018
Zn	68		ug/L		2012	0.003
> Ge	74		ug/L		301362	301362.076
As	75	0.125	ug/L	184.348	10	0.000
Se	77		ug/L		5626	0.012
Se	82	-1.639	ug/L	27.101	-148	-0.001
Kr	83		ug/L		338	0.001
Sr	88	3.198	ug/L	1.030	36513	0.147
Y	89		ug/L		435	0.002
Mo	98	1774.206	ug/L	1.403	5048149	20.431
Ag	107	0.114	ug/L	10.542	595	0.002
Cd	111	0.661	ug/L	6.478	981	0.004
Cd	114		ug/L		10257	0.041
> In	115		ug/L		247099	247098.685
Sn	120	0.262	ug/L	1.521	1764	0.006
Sb	121	0.066	ug/L	12.010	416	0.001
Sb	123		ug/L		318	0.001
Ba	135		ug/L		1180	0.002
Ba	137	0.750	ug/L	1.422	1992	0.003
Ho	165		ug/L		11111	0.020
> Lu	175		ug/L		564690	564690.202
Tl	205	0.037	ug/L	27.469	5591	0.001
Pb	208	0.237	ug/L	1.307	8970	0.015
Bi	209		ug/L		6610	0.011
Th	232	0.053	ug/L	31.950	2676	0.004
U	238	0.017	ug/L	5.829	974	0.001

Sample ID: QC Std 4

Report Date/Time: Thursday, March 04, 2010 03:20:49

Page 1

# 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	0.9999
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	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	91.066				
Mg	24	97.200				
Al	27	92.756				
P	31	91.012				
K	39	100.159				
Ca	43	91.287				
> Sc	45		94.1			
Ti	47	79.548				
V	51					
Cr	52	61.349				
Cr	53					
Mn	55	98.055				
Fe	57	104.494				
Co	59	178.031				
Ni	60	135.419				
Cu	63					
Cu	65	113.408				
Zn	66	112.629				
Zn	67					
Zn	68					
> Ge	74		91.7			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88	108.052				
Y	89					
Mo	98	88.710				
Ag	107					
Cd	111	148.922				
Cd	114					
> In	115		89.6			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137	93.992				
Ho	165					
> Lu	175		85.9			
Tl	205					
Pb	208	125.326				
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	Ti	47	ICSA is out of limits

## QC Action

QC Action Line: Continue



## ICPMS#5 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Thursday, March 04, 2010 03:24:13

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 5.239

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	18.437	ug/L	0.572	39941	0.030
Be	9	18.001	ug/L	0.883	7643	0.006
B	11	18.170	ug/L	1.446	8416	0.006
Na	23	87157.002	ug/L	4.066	286671424	213.503
Mg	24	95019.667	ug/L	5.973	199925272	148.911
Al	27	90051.073	ug/L	0.945	254319422	189.400
P	31	91530.086	ug/L	0.973	12682634	9.442
K	39	101754.003	ug/L	4.667	328396870	244.327
Ca	43	91787.441	ug/L	1.592	847175	0.631
> Sc	45		ug/L		1342807	1342806.923
Ti	47	1600.143	ug/L	0.750	722420	0.538
V	51	20.681	ug/L	6.334	100697	0.075
Cr	52	22.184	ug/L	0.373	86472	0.063
Cr	53		ug/L		69439	0.023
Mn	55	26.022	ug/L	0.427	178065	0.132
Fe	57	105856.796	ug/L	2.233	13591557	10.121
Co	59	19.810	ug/L	0.465	99305	0.074
Ni	60	22.287	ug/L	0.565	23564	0.017
Cu	63		ug/L		50244	0.037
Cu	65	22.340	ug/L	0.086	26729	0.020
Zn	66	22.452	ug/L	1.826	20563	0.068
Zn	67		ug/L		13234	0.026
Zn	68		ug/L		13673	0.043
> Ge	74		ug/L		295610	295610.472
As	75	20.632	ug/L	3.424	17221	0.059
Se	77		ug/L		6692	0.016
Se	82	19.649	ug/L	6.606	1859	0.006
Kr	83		ug/L		303	0.001
Sr	88	26.057	ug/L	0.905	292274	1.201
Y	89		ug/L		430	0.002
Mo	98	1781.546	ug/L	0.766	4991036	20.516
Ag	107	18.880	ug/L	0.488	93656	0.385
Cd	111	19.154	ug/L	1.080	27686	0.114
Cd	114		ug/L		75243	0.309
> In	115		ug/L		243274	243274.121
Sn	120	20.583	ug/L	1.712	124427	0.511
Sb	121	20.744	ug/L	0.862	105187	0.432
Sb	123		ug/L		81725	0.336
Ba	135		ug/L		31051	0.056
Ba	137	21.594	ug/L	1.616	55465	0.100
Ho	165		ug/L		11024	0.020
> Lu	175		ug/L		554111	554110.792
Tl	205	22.437	ug/L	0.262	448709	0.801
Pb	208	21.732	ug/L	0.594	783112	1.413
Bi	209		ug/L		7134	0.012
Th	232	23.652	ug/L	1.484	1029243	1.857
U	238	24.204	ug/L	1.863	1147164	2.070

Sample ID: QC Std 5

Report Date/Time: Thursday, March 04, 2010 03:26:55

Page 1

## 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	0.9999
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	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	92.183				
Be	9	90.007				
B	11	90.851				
Na	23	87.157				
Mg	24	95.020				
Al	27	90.051				
P	31	91.530				
K	39	101.754				
Ca	43	91.787				
> Sc	45		90.8			
Ti	47	80.007				
V	51	103.405				
Cr	52	95.208				
Cr	53					
Mn	55	100.860				
Fe	57	105.857				
Co	59	97.901				
Ni	60	95.610				
Cu	63					
Cu	65	95.717				
Zn	66	94.493				
Zn	67					
Zn	68					
> Ge	74		90.0			
As	75	103.158				
Se	77					
Se	82	98.243				
Kr	83					
Sr	88	113.487				
Y	89					
Mo	98	89.077				
Ag	107	94.398				
Cd	111	93.690				
Cd	114					
> In	115		88.2			
Sn	120	102.915				
Sb	121	103.722				
Sb	123					
Ba	135					
Ba	137	103.827				
Ho	165					
> Lu	175		84.3			
Tl	205	112.187				
Pb	208	107.645				
Bi	209					
Th	232	118.260				
U	238	121.022				

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	U	238	ICSAB is out of limits

## QC Action

QC Action Line: Continue

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, March 04, 2010 03:30:20

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 6.240

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	50.355	ug/L	1.846	112800	0.081
Be	9	50.103	ug/L	3.217	22003	0.016
B	11	97.868	ug/L	1.552	45282	0.032
Na	23	4436.877	ug/L	3.856	15122307	10.869
Mg	24	4996.407	ug/L	2.317	10883636	7.830
Al	27	4654.453	ug/L	3.321	13606714	9.789
P	31	5140.373	ug/L	2.046	741030	0.530
K	39	5036.407	ug/L	2.862	17099000	12.093
Ca	43	4839.403	ug/L	2.079	46333	0.033
> Sc	45		ug/L		1390168	1390167.942
Ti	47	51.411	ug/L	1.731	24196	0.017
V	51	49.555	ug/L	1.159	249537	0.179
Cr	52	51.502	ug/L	1.248	204950	0.146
Cr	53		ug/L		97081	0.041
Mn	55	51.886	ug/L	1.296	366851	0.263
Fe	57	5278.561	ug/L	1.896	703859	0.505
Co	59	50.052	ug/L	2.427	259647	0.187
Ni	60	51.913	ug/L	2.228	56714	0.041
Cu	63		ug/L		129868	0.093
Cu	65	51.798	ug/L	1.594	64083	0.046
Zn	66	50.678	ug/L	1.199	47667	0.154
Zn	67		ug/L		17916	0.039
Zn	68		ug/L		34510	0.109
> Ge	74		ug/L		306895	306894.631
As	75	49.714	ug/L	3.580	43203	0.141
Se	77		ug/L		7755	0.019
Se	82	50.980	ug/L	1.891	4991	0.016
Kr	83		ug/L		63	0.000
Sr	88	51.428	ug/L	0.560	628337	2.371
Y	89		ug/L		89	0.000
Mo	98	48.116	ug/L	1.090	146896	0.554
Ag	107	49.217	ug/L	1.484	265922	1.003
Cd	111	48.966	ug/L	1.917	77082	0.291
Cd	114		ug/L		186112	0.702
> In	115		ug/L		265026	265026.461
Sn	120	50.317	ug/L	2.397	331058	1.249
Sb	121	50.123	ug/L	0.979	276741	1.044
Sb	123		ug/L		216068	0.815
Ba	135		ug/L		79677	0.128
Ba	137	49.808	ug/L	0.682	144215	0.231
Ho	165		ug/L		44	0.000
> Lu	175		ug/L		624812	624811.544
Tl	205	53.527	ug/L	2.523	1199300	1.911
Pb	208	53.578	ug/L	0.675	2176432	3.483
Bi	209		ug/L		854	0.001
Th	232	50.940	ug/L	2.620	2498725	3.999
U	238	52.575	ug/L	3.059	2808824	4.496

Sample ID: QC Std 6

Report Date/Time: Thursday, March 04, 2010 03:33:03

Page 1

## 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	0.9999
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	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	100.709				
Be	9	100.205				
B	11	97.868				
Na	23	88.738				
Mg	24	99.928				
Al	27	92.167				
P	31	102.807				
K	39	100.728				
Ca	43	96.788				
> Sc	45		94.1			
Ti	47	102.821				
V	51	99.111				
Cr	52	103.005				
Cr	53					
Mn	55	103.773				
Fe	57	105.571				
Co	59	100.104				
Ni	60	103.825				
Cu	63					
Cu	65	103.596				
Zn	66	101.357				
Zn	67					
Zn	68					
> Ge	74		93.4			
As	75	99.428				
Se	77					
Se	82	101.960				
Kr	83					
Sr	88	102.857				
Y	89					
Mo	98	96.232				
Ag	107	98.433				
Cd	111	97.932				
Cd	114					
> In	115		96.1			
Sn	120	100.633				
Sb	121	100.247				
Sb	123					
Ba	135					
Ba	137	99.616				
Ho	165					
> Lu	175		95.0			
Tl	205	107.053				
Pb	208	107.156				
Bi	209					
Th	232	101.880				
U	238	105.149				

## QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message  
 QC Std 6 Na 23CCV is out of limits (+/- 10%)

## QC Action

QC Action Line: Continue

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, March 04, 2010 03:36:28

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 7.241

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.004	ug/L	88.082	76	0.000
Be	9	0.010	ug/L	31.107	12	0.000
B	11	2.390	ug/L	21.972	1550	0.001
Na	23	2.250	ug/L	5.572	15342	0.006
Mg	24	2.344	ug/L	121.831	6336	0.004
Al	27	2.063	ug/L	41.118	9003	0.004
P	31	-0.042	ug/L	4867.930	4239	-0.000
K	39	-1.510	ug/L	246.565	298080	-0.004
Ca	43	2.946	ug/L	45.872	138	0.000
> Sc	45		ug/L		1464499	1464499.142
Ti	47	0.017	ug/L	160.672	189	0.000
V	51	-0.124	ug/L	247.676	-400	-0.000
Cr	52	0.015	ug/L	330.626	2346	0.000
Cr	53		ug/L		43392	0.001
Mn	55	-0.005	ug/L	79.411	700	-0.000
Fe	57	2.194	ug/L	37.847	2762	0.000
Co	59	0.004	ug/L	34.228	54	0.000
Ni	60	0.007	ug/L	154.707	83	0.000
Cu	63		ug/L		124	0.000
Cu	65	0.014	ug/L	19.118	69	0.000
Zn	66	0.010	ug/L	324.810	450	0.000
Zn	67		ug/L		6022	-0.001
Zn	68		ug/L		1016	-0.000
> Ge	74		ug/L		328681	328681.322
As	75	0.125	ug/L	144.439	9	0.000
Se	77		ug/L		2248	0.001
Se	82	0.111	ug/L	67.066	22	0.000
Kr	83		ug/L		60	-0.000
Sr	88	0.002	ug/L	54.523	123	0.000
Y	89		ug/L		31	-0.000
Mo	98	0.072	ug/L	2.603	278	0.001
Ag	107	0.006	ug/L	31.611	54	0.000
Cd	111	0.006	ug/L	36.629	22	0.000
Cd	114		ug/L		48	0.000
> In	115		ug/L		278376	278375.578
Sn	120	0.012	ug/L	17.174	264	0.000
Sb	121	0.062	ug/L	19.285	443	0.001
Sb	123		ug/L		356	0.001
Ba	135		ug/L		25	0.000
Ba	137	0.003	ug/L	103.984	44	0.000
Ho	165		ug/L		9	-0.000
> Lu	175		ug/L		662491	662491.070
Tl	205	0.402	ug/L	19.637	15212	0.014
Pb	208	0.004	ug/L	11.989	504	0.000
Bi	209		ug/L		528	-0.000
Th	232	0.020	ug/L	0.852	1421	0.002
U	238	0.006	ug/L	8.440	565	0.001

Sample ID: QC Std 7

Report Date/Time: Thursday, March 04, 2010 03:39:12

Page 1

## 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	0.9999
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	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		99.1			
	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		100.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
[	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.0			
	Sn	120					
	Sb	121					
	Sb	123					
[	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.7			
	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, March 04, 2010 03:42:34

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 10.242

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	861.337	ug/L	0.825	1732194	1.387
Be	9	914.866	ug/L	1.277	360847	0.289
B	11	1.693	ug/L	4.695	1033	0.001
Na	23	44852.293	ug/L	4.810	137103725	109.872
Mg	24	48833.113	ug/L	4.157	95571512	76.529
Al	27	46400.561	ug/L	4.453	121801858	97.592
P	31	22807.169	ug/L	1.446	2941032	2.353
K	39	51008.995	ug/L	2.803	153149389	122.480
Ca	43	47370.440	ug/L	1.120	406575	0.326
> Sc	45		ug/L		1248349	1248348.885
Ti	47	55.559	ug/L	3.751	23460	0.019
V	51	799.170	ug/L	1.655	3611120	2.892
Cr	52	825.684	ug/L	0.606	2921570	2.339
Cr	53		ug/L		457928	0.338
Mn	55	854.481	ug/L	0.986	5415897	4.338
Fe	57	53370.524	ug/L	0.871	6371915	5.103
Co	59	788.685	ug/L	1.047	3674286	2.943
Ni	60	857.669	ug/L	0.798	840573	0.673
Cu	63		ug/L		1734886	1.390
Cu	65	833.486	ug/L	1.211	925507	0.741
Zn	66	1957.084	ug/L	0.348	1678244	5.947
Zn	67		ug/L		302864	1.054
Zn	68		ug/L		1267309	4.489
> Ge	74		ug/L		282118	282118.359
As	75	870.411	ug/L	0.843	697170	2.472
Se	77		ug/L		35732	0.120
Se	82	481.378	ug/L	1.705	43256	0.153
Kr	83		ug/L		165	0.000
Sr	88	937.603	ug/L	1.875	10264911	43.219
Y	89		ug/L		337	0.001
Mo	98	874.448	ug/L	0.703	2391384	10.070
Ag	107	213.228	ug/L	0.562	1032431	4.347
Cd	111	840.414	ug/L	1.078	1185323	4.991
Cd	114		ug/L		2803585	11.805
> In	115		ug/L		237489	237489.037
Sn	120	807.409	ug/L	0.668	4759073	20.038
Sb	121	227.859	ug/L	1.008	1127053	4.746
Sb	123		ug/L		902178	3.799
Ba	135		ug/L		1281112	2.276
Ba	137	863.861	ug/L	0.589	2252680	4.003
Ho	165		ug/L		148	0.000
> Lu	175		ug/L		562819	562818.917
Tl	205	463.248	ug/L	0.885	9315006	16.541
Pb	208	4536.166	ug/L	0.430	165974202	294.892
Bi	209		ug/L		5137	0.008
Th	232	2469.705	ug/L	0.687	109137405	193.906
U	238	5232.714	ug/L	1.390	251889505	447.521

Sample ID: QC Std 10

Report Date/Time: Thursday, March 04, 2010 03:45:15

Page 1

## 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	0.9999
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	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	86.134				
Be	9	91.487				
B	11					
Na	23	89.705				
Mg	24	97.666				
Al	27	92.801				
P	31	91.229				
K	39	102.018				
Ca	43	94.741				
> Sc	45		84.5			
Ti	47					
V	51	79.917				
Cr	52	82.568				
Cr	53					
Mn	55	85.448				
Fe	57	106.741				
Co	59	78.869				
Ni	60	85.767				
Cu	63					
Cu	65	83.349				
Zn	66	78.283				
Zn	67					
Zn	68					
> Ge	74		85.9			
As	75	87.041				
Se	77					
Se	82	96.276				
Kr	83					
Sr	88	93.760				
Y	89					
Mo	98	87.445				
Ag	107	85.291				
Cd	111	84.041				
Cd	114					
> In	115		86.1			
Sn	120	80.741				
Sb	121	91.144				
Sb	123					
Ba	135					
Ba	137	86.386				
Ho	165					
> Lu	175		85.6			
Tl	205	92.650				
Pb	208	90.723				
Bi	209					
Th	232	98.788				
U	238	104.654				

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Li	7	7LRS is out of limits (+/- 10%)
QC Std 10	Na	23	23LRS is out of limits (+/- 10%)
QC Std 10	V	51	51LRS is out of limits (+/- 10%)
QC Std 10	Cr	52	52LRS is out of limits (+/- 10%)
QC Std 10	Mn	55	55LRS is out of limits (+/- 10%)
QC Std 10	Co	59	59LRS is out of limits (+/- 10%)
QC Std 10	Ni	60	60LRS is out of limits (+/- 10%)

Sample ID: QC Std 10

Report Date/Time: Thursday, March 04, 2010 03:45:15

Page 3

QC Std 10	Cu	65LRS is out of limits (+/- 10%)
QC Std 10	Zn	66LRS is out of limits (+/- 10%)
QC Std 10	As	75LRS is out of limits (+/- 10%)
QC Std 10	Mo	98LRS is out of limits (+/- 10%)
QC Std 10	Ag	107LRS is out of limits (+/- 10%)
QC Std 10	Cd	111LRS is out of limits (+/- 10%)
QC Std 10	Sn	120LRS is out of limits (+/- 10%)
QC Std 10	Ba	137LRS is out of limits (+/- 10%)

## QC Action

QC Action Line: Continue

## ICPMS#5 - Summary Report

Sample ID: QC Std 11

Sample Date/Time: Thursday, March 04, 2010 03:48:38

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 11.243

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	52.421	ug/L	1.922	117183	0.084
Be	9	52.480	ug/L	0.233	23004	0.017
B	11	102.499	ug/L	1.222	47308	0.034
Na	23	4643.330	ug/L	9.444	15779587	11.374
Mg	24	5228.603	ug/L	6.988	11365261	8.194
Al	27	5107.504	ug/L	2.723	14901529	10.742
P	31	5256.252	ug/L	1.273	756103	0.542
K	39	5051.038	ug/L	3.910	17108007	12.128
Ca	43	4990.647	ug/L	1.872	47679	0.034
> Sc	45		ug/L		1387043	1387043.135
Ti	47	52.459	ug/L	0.336	24630	0.018
V	51	51.391	ug/L	2.634	258202	0.186
Cr	52	53.330	ug/L	1.048	211695	0.151
Cr	53		ug/L		94465	0.040
Mn	55	53.220	ug/L	1.661	375432	0.270
Fe	57	5471.901	ug/L	0.335	728000	0.523
Co	59	51.991	ug/L	1.033	269152	0.194
Ni	60	52.910	ug/L	0.834	57686	0.042
Cu	63		ug/L		133701	0.096
Cu	65	52.571	ug/L	1.348	64904	0.047
Zn	66	52.477	ug/L	2.952	48999	0.159
Zn	67		ug/L		18947	0.043
Zn	68		ug/L		35521	0.113
> Ge	74		ug/L		304784	304783.684
As	75	50.912	ug/L	2.315	43953	0.145
Se	77		ug/L		7252	0.018
Se	82	53.346	ug/L	2.115	5188	0.017
Kr	83		ug/L		57	-0.000
Sr	88	54.218	ug/L	0.213	649517	2.499
Y	89		ug/L		73	0.000
Mo	98	50.443	ug/L	1.167	150991	0.581
Ag	107	51.311	ug/L	1.803	271840	1.046
Cd	111	50.994	ug/L	1.324	78709	0.303
Cd	114		ug/L		192262	0.740
> In	115		ug/L		259858	259858.022
Sn	120	52.424	ug/L	1.951	338258	1.301
Sb	121	53.047	ug/L	1.129	287182	1.105
Sb	123		ug/L		226379	0.871
Ba	135		ug/L		83429	0.133
Ba	137	51.711	ug/L	1.150	150818	0.240
Ho	165		ug/L		42	0.000
> Lu	175		ug/L		629383	629383.445
Tl	205	55.553	ug/L	1.381	1254001	1.984
Pb	208	54.623	ug/L	1.132	2235034	3.551
Bi	209		ug/L		838	0.000
Th	232	52.888	ug/L	1.002	2613846	4.152
U	238	54.473	ug/L	2.842	2931828	4.659

Sample ID: QC Std 11

Report Date/Time: Thursday, March 04, 2010 03:51:20

Page 1

## 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	0.9999
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	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	104.842				
Be	9	104.960				
B	11	102.499				
Na	23	92.867				
Mg	24	104.572				
Al	27	101.139				
P	31	105.125				
K	39	101.021				
Ca	43	99.813				
> Sc	45		93.8			
Ti	47	104.917				
V	51	102.783				
Cr	52	106.661				
Cr	53					
Mn	55	106.439				
Fe	57	109.438				
Co	59	103.982				
Ni	60	105.820				
Cu	63					
Cu	65	105.142				
Zn	66	104.955				
Zn	67					
Zn	68					
> Ge	74		92.8			
As	75	101.825				
Se	77					
Se	82	106.692				
Kr	83					
Sr	88	108.435				
Y	89					
Mo	98	100.887				
Ag	107	102.621				
Cd	111	101.987				
Cd	114					
> In	115		94.3			
Sn	120	104.848				
Sb	121	106.094				
Sb	123					
Ba	135					
Ba	137	103.423				
Ho	165					
> Lu	175		95.7			
Tl	205	111.107				
Pb	208	109.245				
Bi	209					
Th	232	105.777				
U	238	108.946				

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	TI	205	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, March 04, 2010 03:54:45

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 12.244

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.060	ug/L	15.052	209	0.000
Be	9	0.018	ug/L	47.804	16	0.000
B	11	2.477	ug/L	17.163	1609	0.001
Na	23	2.292	ug/L	24.065	15675	0.006
Mg	24	1.579	ug/L	15.801	4667	0.002
Al	27	1.388	ug/L	45.588	7002	0.003
P	31	-1.786	ug/L	56.462	4022	-0.000
K	39	8.752	ug/L	103.808	337971	0.021
Ca	43	0.958	ug/L	132.951	119	0.000
> Sc	45		ug/L		1481483	1481482.710
Ti	47	-0.062	ug/L	34.015	152	-0.000
V	51	-0.251	ug/L	189.338	-1105	-0.001
Cr	52	0.010	ug/L	723.197	2351	0.000
Cr	53		ug/L		41995	-0.000
Mn	55	0.004	ug/L	139.142	775	0.000
Fe	57	1.007	ug/L	47.775	2625	0.000
Co	59	0.021	ug/L	27.217	151	0.000
Ni	60	0.014	ug/L	29.386	92	0.000
Cu	63		ug/L		212	0.000
Cu	65	0.043	ug/L	24.174	108	0.000
Zn	66	0.046	ug/L	55.351	487	0.000
Zn	67		ug/L		6436	0.000
Zn	68		ug/L		1138	0.000
> Ge	74		ug/L		330089	330088.629
As	75	0.073	ug/L	229.215	-39	0.000
Se	77		ug/L		1920	-0.000
Se	82	0.047	ug/L	456.554	15	0.000
Kr	83		ug/L		64	-0.000
Sr	88	0.019	ug/L	16.199	338	0.001
Y	89		ug/L		36	-0.000
Mo	98	0.107	ug/L	11.463	389	0.001
Ag	107	0.011	ug/L	24.655	81	0.000
Cd	111	0.021	ug/L	2.684	46	0.000
Cd	114		ug/L		106	0.000
> In	115		ug/L		275850	275849.731
Sn	120	0.061	ug/L	7.878	592	0.002
Sb	121	0.227	ug/L	12.905	1390	0.005
Sb	123		ug/L		1074	0.004
Ba	135		ug/L		52	0.000
Ba	137	0.015	ug/L	21.870	81	0.000
Ho	165		ug/L		10	-0.000
> Lu	175		ug/L		664878	664878.381
Tl	205	0.712	ug/L	24.020	22600	0.025
Pb	208	0.079	ug/L	19.487	3755	0.005
Bi	209		ug/L		540	-0.000
Th	232	0.065	ug/L	9.356	3770	0.005
U	238	0.095	ug/L	16.813	5616	0.008

Sample ID: QC Std 12

Report Date/Time: Thursday, March 04, 2010 03:57:29

Page 1

## 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	0.9999
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	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		100.2			
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		100.5			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		100.1			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		101.1			
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 8

Sample Date/Time: Thursday, March 04, 2010 04:44:01

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 8.252

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	53.623	ug/L	2.487	108235	0.086
Be	9	53.042	ug/L	1.478	20983	0.017
B	11	100.502	ug/L	2.154	41886	0.033
Na	23	4525.038	ug/L	3.160	13890516	11.085
Mg	24	4866.915	ug/L	6.316	9551770	7.627
Al	27	4613.989	ug/L	6.928	12164001	9.704
P	31	5044.127	ug/L	2.923	655117	0.520
K	39	4947.896	ug/L	2.633	15132389	11.881
Ca	43	4808.584	ug/L	0.523	41471	0.033
> Sc	45		ug/L		1252026	1252025.776
Ti	47	48.838	ug/L	1.508	20708	0.016
V	51	49.905	ug/L	2.844	226309	0.181
Cr	52	52.315	ug/L	1.154	187483	0.148
Cr	53		ug/L		83165	0.038
Mn	55	52.771	ug/L	1.283	336048	0.268
Fe	57	5458.824	ug/L	2.113	655379	0.522
Co	59	51.202	ug/L	0.662	239263	0.191
Ni	60	52.403	ug/L	1.483	51566	0.041
Cu	63		ug/L		117436	0.094
Cu	65	50.731	ug/L	1.610	56524	0.045
Zn	66	50.714	ug/L	1.046	42774	0.154
Zn	67		ug/L		15306	0.036
Zn	68		ug/L		30894	0.109
> Ge	74		ug/L		275180	275179.526
As	75	49.991	ug/L	1.448	38971	0.142
Se	77		ug/L		6456	0.017
Se	82	52.892	ug/L	3.319	4643	0.017
Kr	83		ug/L		51	-0.000
Sr	88	51.256	ug/L	0.975	582770	2.363
Y	89		ug/L		106	0.000
Mo	98	47.098	ug/L	2.242	133785	0.542
Ag	107	48.689	ug/L	1.349	244815	0.993
Cd	111	48.893	ug/L	2.731	71615	0.290
Cd	114		ug/L		172971	0.701
> In	115		ug/L		246648	246648.265
Sn	120	49.514	ug/L	1.273	303223	1.229
Sb	121	50.073	ug/L	3.017	257240	1.043
Sb	123		ug/L		202266	0.820
Ba	135		ug/L		74139	0.121
Ba	137	47.455	ug/L	2.389	135240	0.220
Ho	165		ug/L		45	0.000
> Lu	175		ug/L		615011	615010.694
Tl	205	53.556	ug/L	2.186	1181315	1.912
Pb	208	53.632	ug/L	1.296	2144420	3.487
Bi	209		ug/L		804	0.000
Th	232	50.387	ug/L	1.138	2433409	3.956
U	238	52.464	ug/L	0.379	2759716	4.487

Sample ID: QC Std 8

Report Date/Time: Thursday, March 04, 2010 04:46:44

Page 1

## 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	0.9999
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	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	107.246				
	Be	9	106.084				
	B	11	100.502				
	Na	23	90.501				
	Mg	24	97.338				
	Al	27	91.366				
	P	31	100.883				
	K	39	98.958				
	Ca	43	96.172				
>	Sc	45		84.7			
	Ti	47	97.677				
	V	51	99.811				
	Cr	52	104.631				
	Cr	53					
	Mn	55	105.543				
	Fe	57	109.176				
	Co	59	102.404				
	Ni	60	104.806				
	Cu	63					
	Cu	65	101.462				
[	Zn	66	101.428				
	Zn	67					
	Zn	68					
>	Ge	74		83.8			
	As	75	99.981				
	Se	77					
	Se	82	105.784				
	Kr	83					
[	Sr	88	102.512				
	Y	89					
	Mo	98	94.196				
	Ag	107	97.378				
	Cd	111	97.786				
	Cd	114					
>	In	115		89.5			
	Sn	120	99.029				
	Sb	121	100.145				
	Sb	123					
[	Ba	135					
	Ba	137	94.911				
	Ho	165					
>	Lu	175		93.5			
	Tl	205	107.112				
	Pb	208	107.264				
	Bi	209					
	Th	232	100.774				
	U	238	104.929				

## 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 9  
 Sample Date/Time: Thursday, March 04, 2010 04:50:09  
 Sample Type:  
 Sample Description:  
 Number of Replicates: 3  
 Batch ID:  
 Method File: c:\elandata\Method\6020 2.mth  
 Dataset File: C:\elandata\Dataset\100303\QC Std 9.253

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.037	ug/L	19.908	142	0.000
Be	9	0.010	ug/L	12.499	11	0.000
B	11	2.606	ug/L	16.395	1531	0.001
Na	23	1.594	ug/L	98.975	12006	0.004
Mg	24	0.667	ug/L	81.552	2334	0.001
Al	27	0.781	ug/L	113.340	4668	0.002
P	31	-1.001	ug/L	192.676	3791	-0.000
K	39	-1.089	ug/L	258.194	277335	-0.003
Ca	43	-0.030	ug/L	3924.053	100	-0.000
> Sc	45		ug/L		1355493	1355492.861
Ti	47	0.009	ug/L	320.715	171	0.000
V	51	-0.193	ug/L	183.008	-707	-0.001
Cr	52	0.135	ug/L	18.877	2632	0.000
Cr	53		ug/L		37039	-0.001
Mn	55	0.001	ug/L	562.974	691	0.000
Fe	57	0.566	ug/L	34.410	2345	0.000
Co	59	0.008	ug/L	22.311	73	0.000
Ni	60	0.001	ug/L	310.934	71	0.000
Cu	63		ug/L		119	0.000
Cu	65	0.011	ug/L	74.170	60	0.000
Zn	66	-0.047	ug/L	37.371	358	-0.000
Zn	67		ug/L		5222	-0.002
Zn	68		ug/L		855	-0.000
> Ge	74		ug/L		299747	299746.801
As	75	0.014	ug/L	1327.472	-86	0.000
Se	77		ug/L		1701	-0.001
Se	82	0.218	ug/L	111.249	30	0.000
Kr	83		ug/L		58	-0.000
Sr	88	0.004	ug/L	22.216	139	0.000
Y	89		ug/L		44	-0.000
Mo	98	0.030	ug/L	18.913	134	0.000
Ag	107	0.004	ug/L	20.233	39	0.000
Cd	111	0.005	ug/L	169.287	19	0.000
Cd	114		ug/L		45	0.000
> In	115		ug/L		258869	258868.939
Sn	120	0.012	ug/L	15.428	244	0.000
Sb	121	0.062	ug/L	12.664	415	0.001
Sb	123		ug/L		332	0.001
Ba	135		ug/L		23	0.000
Ba	137	0.004	ug/L	90.866	46	0.000
Ho	165		ug/L		12	-0.000
> Lu	175		ug/L		645060	645059.975
Tl	205	0.373	ug/L	23.135	14154	0.013
Pb	208	0.008	ug/L	25.458	645	0.001
Bi	209		ug/L		489	-0.000
Th	232	0.020	ug/L	2.989	1385	0.002
U	238	0.009	ug/L	17.208	685	0.001

## 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	0.9999
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	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

Sample ID: QC Std 9

Report Date/Time: Thursday, March 04, 2010 04:52:54

Page 2



## 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		91.7			
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		91.3			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		93.9			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		98.1			
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 8

Sample Date/Time: Thursday, March 04, 2010 05:20:59

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 8.258

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	53.085	ug/L	0.381	111468	0.086
Be	9	51.466	ug/L	1.111	21188	0.016
B	11	98.317	ug/L	2.677	42646	0.032
Na	23	4528.538	ug/L	2.946	14455290	11.093
Mg	24	4928.687	ug/L	2.598	10060301	7.724
Al	27	4743.715	ug/L	5.109	12995584	9.977
P	31	5081.487	ug/L	1.917	686569	0.524
K	39	5026.172	ug/L	0.049	15994095	12.069
Ca	43	4789.055	ug/L	1.383	42973	0.033
> Sc	45		ug/L		1302901	1302900.737
Ti	47	48.775	ug/L	2.365	21525	0.016
V	51	49.264	ug/L	1.865	232442	0.178
Cr	52	52.160	ug/L	1.803	194483	0.148
Cr	53		ug/L		85730	0.037
Mn	55	53.094	ug/L	1.971	351725	0.270
Fe	57	5373.921	ug/L	2.060	671412	0.514
Co	59	51.385	ug/L	1.389	249841	0.192
Ni	60	52.550	ug/L	2.402	53798	0.041
Cu	63		ug/L		122806	0.094
Cu	65	51.185	ug/L	0.949	59351	0.046
Zn	66	50.199	ug/L	3.059	44412	0.153
Zn	67		ug/L		15570	0.035
Zn	68		ug/L		32243	0.108
> Ge	74		ug/L		288748	288747.879
As	75	49.859	ug/L	1.421	40777	0.142
Se	77		ug/L		6820	0.017
Se	82	51.212	ug/L	1.447	4718	0.016
Kr	83		ug/L		67	0.000
Sr	88	51.548	ug/L	1.724	597778	2.376
Y	89		ug/L		115	0.000
Mo	98	47.258	ug/L	3.914	136874	0.544
Ag	107	48.873	ug/L	1.751	250649	0.996
Cd	111	49.133	ug/L	3.852	73377	0.292
Cd	114		ug/L	2	179210	0.713
> In	115		ug/L		251624	251623.679
Sn	120	49.660	ug/L	3.161	310109	1.232
Sb	121	50.318	ug/L	2.140	263664	1.048
Sb	123		ug/L		207526	0.825
Ba	135		ug/L		77274	0.124
Ba	137	48.118	ug/L	1.538	138523	0.223
Ho	165		ug/L		48	0.000
> Lu	175		ug/L		621212	621212.014
Tl	205	53.549	ug/L	0.821	1193201	1.912
Pb	208	53.410	ug/L	1.011	2157060	3.472
Bi	209		ug/L		783	0.000
Th	232	50.287	ug/L	0.368	2453013	3.948
U	238	52.536	ug/L	2.840	2791109	4.493

Sample ID: QC Std 8

Report Date/Time: Thursday, March 04, 2010 05:23:42

Page 1

## 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	0.9999
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	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	106.169				
Be	9	102.932				
B	11	98.317				
Na	23	90.571				
Mg	24	98.574				
Al	27	93.935				
P	31	101.630				
K	39	100.523				
Ca	43	95.781				
> Sc	45		88.1			
Ti	47	97.550				
V	51	98.527				
Cr	52	104.320				
Cr	53					
Mn	55	106.188				
Fe	57	107.478				
Co	59	102.771				
Ni	60	105.100				
Cu	63					
Cu	65	102.370				
Zn	66	100.398				
Zn	67					
Zn	68					
> Ge	74		87.9			
As	75	99.719				
Se	77					
Se	82	102.423				
Kr	83					
Sr	88	103.097				
Y	89					
Mo	98	94.516				
Ag	107	97.747				
Cd	111	98.265				
Cd	114					
> In	115		91.3			
Sn	120	99.319				
Sb	121	100.636				
Sb	123					
Ba	135					
Ba	137	96.237				
Ho	165					
> Lu	175		94.5			
Tl	205	107.098				
Pb	208	106.819				
Bi	209					
Th	232	100.575				
U	238	105.073				

## 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 9  
 Sample Date/Time: Thursday, March 04, 2010 05:27:08  
 Sample Type:  
 Sample Description:  
 Number of Replicates: 3  
 Batch ID:  
 Method File: c:\elandata\Method\6020 2.mth  
 Dataset File: C:\elandata\Dataset\100303\QC Std 9.259

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.032	ug/L	6.551	132	0.000
Be	9	0.012	ug/L	87.450	12	0.000
B	11	2.401	ug/L	20.277	1452	0.001
Na	23	1.263	ug/L	25.830	11004	0.003
Mg	24	0.195	ug/L	556.139	1334	0.000
Al	27	0.187	ug/L	375.147	3000	0.000
P	31	-3.047	ug/L	40.975	3531	-0.000
K	39	-2.124	ug/L	645.664	276364	-0.005
Ca	43	0.875	ug/L	79.922	109	0.000
> Sc	45		ug/L		1366453	1366452.996
Ti	47	-0.063	ug/L	48.288	140	-0.000
V	51	-0.066	ug/L	636.742	-98	-0.000
Cr	52	0.249	ug/L	22.160	3095	0.001
Cr	53		ug/L		37112	-0.001
Mn	55	0.018	ug/L	25.840	814	0.000
Fe	57	0.710	ug/L	47.222	2383	0.000
Co	59	0.005	ug/L	43.975	56	0.000
Ni	60	0.006	ug/L	126.036	76	0.000
Cu	63		ug/L		109	0.000
Cu	65	0.011	ug/L	27.658	61	0.000
Zn	66	-0.043	ug/L	18.193	362	-0.000
Zn	67		ug/L		5136	-0.002
Zn	68		ug/L		780	-0.001
> Ge	74		ug/L		299952	299952.288
As	75	0.076	ug/L	82.313	-34	0.000
Se	77		ug/L		1756	-0.000
Se	82	0.215	ug/L	44.206	30	0.000
Kr	83		ug/L		54	-0.000
Sr	88	0.005	ug/L	41.313	149	0.000
Y	89		ug/L		40	-0.000
Mo	98	0.020	ug/L	34.566	107	0.000
Ag	107	0.005	ug/L	33.661	47	0.000
Cd	111	0.004	ug/L	170.896	17	0.000
Cd	114		ug/L		34	0.000
> In	115		ug/L		260367	260366.846
Sn	120	0.009	ug/L	9.676	224	0.000
Sb	121	0.057	ug/L	3.735	390	0.001
Sb	123		ug/L		312	0.001
Ba	135		ug/L		33	0.000
Ba	137	0.009	ug/L	1.825	61	0.000
Ho	165		ug/L		11	-0.000
> Lu	175		ug/L		634383	634382.728
Tl	205	0.356	ug/L	20.526	13519	0.013
Pb	208	0.009	ug/L	12.927	682	0.001
Bi	209		ug/L		433	-0.000
Th	232	0.019	ug/L	3.502	1328	0.001
U	238	0.010	ug/L	5.935	710	0.001

## 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	0.9999
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	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		92.4			
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		91.3			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		94.4			
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: QC Std 9

Report Date/Time: Thursday, March 04, 2010 05:29:52

Page 3

## ICPMS#5 - Summary Report

Sample ID: 1202036451

Sample Date/Time: Thursday, March 04, 2010 05:33:16

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 950326|1|baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\1202036451.260

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.180	ug/L	6.093	409	0.000
Be	9	0.014	ug/L	1.739	11	0.000
B	11	1.175	ug/L	7.116	800	0.000
Na	23	8.045	ug/L	33.624	30033	0.020
Mg	24	7.072	ug/L	74.678	14343	0.011
Al	27	54.837	ug/L	4.141	142710	0.115
P	31	9.530	ug/L	28.505	4730	0.001
K	39	19.081	ug/L	20.522	308295	0.046
Ca	43	20.690	ug/L	30.334	263	0.000
> Sc	45		ug/L		1218199	1218199.418
Ti	47	1.700	ug/L	4.570	846	0.001
V	51	-2.715	ug/L	69.732	-11715	-0.010
Cr	52	2.259	ug/L	4.326	9692	0.006
Cr	53		ug/L		147396	0.093
Mn	55	1.841	ug/L	1.463	12002	0.009
Fe	57	67.128	ug/L	2.676	9860	0.006
Co	59	0.020	ug/L	5.530	119	0.000
Ni	60	0.144	ug/L	10.433	200	0.000
Cu	63		ug/L		273	0.000
Cu	65	0.095	ug/L	11.881	145	0.000
Zn	66	1.278	ug/L	3.827	1374	0.004
Zn	67		ug/L		26632	0.082
Zn	68		ug/L		2521	0.006
> Ge	74		ug/L		263211	263211.085
As	75	-0.894	ug/L	97.101	-753	-0.003
Se	77		ug/L		7986	0.024
Se	82	0.503	ug/L	33.734	50	0.000
Kr	83		ug/L		42	-0.000
Sr	88	0.099	ug/L	5.058	1164	0.005
Y	89		ug/L		1027	0.004
Mo	98	0.012	ug/L	23.957	74	0.000
Ag	107	0.002	ug/L	46.652	27	0.000
Cd	111	0.002	ug/L	197.013	13	0.000
Cd	114		ug/L		24	-0.000
> In	115		ug/L		237517	237516.564
Sn	120	0.135	ug/L	6.204	949	0.003
Sb	121	0.038	ug/L	23.217	263	0.001
Sb	123		ug/L		205	0.001
Ba	135		ug/L		667	0.001
Ba	137	0.416	ug/L	3.187	1188	0.002
Ho	165		ug/L		109	0.000
> Lu	175		ug/L		599301	599300.605
Tl	205	-0.004	ug/L	139.211	5058	-0.000
Pb	208	0.072	ug/L	3.277	3086	0.005
Bi	209		ug/L		525	0.000
Th	232	0.067	ug/L	10.612	3511	0.005
U	238	0.011	ug/L	1.928	743	0.001

Sample ID: 1202036451

Report Date/Time: Thursday, March 04, 2010 05:36:00

Page 1



## 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	0.9999
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	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		82.4			
	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		80.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		86.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		91.1			
	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: 1202036451

Report Date/Time: Thursday, March 04, 2010 05:36:00

Page 3

## ICPMS#5 - Summary Report

Sample ID: 1202036452

Sample Date/Time: Thursday, March 04, 2010 05:39:26

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 950326|1|baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\1202036452.261

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	50.811	ug/L	0.254	100088	0.082
Be	9	51.851	ug/L	2.002	20026	0.016
B	11	97.369	ug/L	3.287	39617	0.032
Na	23	1750.734	ug/L	3.159	5248502	4.289
Mg	24	1900.079	ug/L	7.339	3637744	2.978
Al	27	1853.135	ug/L	6.667	4763466	3.898
P	31	1993.172	ug/L	0.721	254848	0.206
K	39	1919.482	ug/L	10.362	5881816	4.609
Ca	43	1866.537	ug/L	2.175	15769	0.013
> Sc	45		ug/L		1222173	1222173.337
Ti	47	41.509	ug/L	1.437	17205	0.014
V	51	43.833	ug/L	9.946	194042	0.159
Cr	52	49.209	ug/L	0.811	172255	0.139
Cr	53		ug/L		132536	0.080
Mn	55	51.444	ug/L	1.295	319766	0.261
Fe	57	2192.050	ug/L	2.136	258194	0.210
Co	59	48.494	ug/L	1.489	221220	0.181
Ni	60	48.799	ug/L	2.512	46875	0.038
Cu	63		ug/L		108231	0.088
Cu	65	47.870	ug/L	1.044	52082	0.043
Zn	66	48.474	ug/L	1.838	39575	0.147
Zn	67		ug/L		25368	0.076
Zn	68		ug/L		29566	0.108
> Ge	74		ug/L		266233	266232.660
As	75	47.219	ug/L	1.195	35608	0.134
Se	77		ug/L		9498	0.029
Se	82	51.777	ug/L	1.728	4398	0.016
Kr	83		ug/L		55	0.000
Sr	88	47.094	ug/L	1.623	524799	2.171
Y	89		ug/L		1042	0.004
Mo	98	43.257	ug/L	0.381	120446	0.498
Ag	107	46.079	ug/L	0.851	227108	0.939
Cd	111	46.689	ug/L	1.303	67029	0.277
Cd	114		ug/L		162183	0.671
> In	115		ug/L		241711	241710.978
Sn	120	47.289	ug/L	1.394	283856	1.174
Sb	121	47.876	ug/L	0.856	241085	0.997
Sb	123		ug/L		191053	0.790
Ba	135		ug/L		67112	0.110
Ba	137	42.522	ug/L	1.295	119789	0.197
Ho	165		ug/L		148	0.000
> Lu	175		ug/L		607854	607853.683
Tl	205	49.603	ug/L	2.266	1081885	1.771
Pb	208	50.281	ug/L	1.314	1987147	3.269
Bi	209		ug/L		1580168	2.599
Th	232	46.075	ug/L	1.376	2199301	3.617
U	238	48.406	ug/L	0.891	2516553	4.140

Sample ID: 1202036452

Report Date/Time: Thursday, March 04, 2010 05:42:10

Page 1

## 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	0.9999
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	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	82.7			
	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	81.1			
	As	75				
	Se	77				
	Se	82				
	Kr	83				
[	Sr	88				
	Y	89				
	Mo	98				
	Ag	107				
	Cd	111				
	Cd	114				
>	In	115	87.7			
	Sn	120				
	Sb	121				
	Sb	123				
[	Ba	135				
	Ba	137				
	Ho	165				
>	Lu	175	92.4			
	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: 1202036452

Report Date/Time: Thursday, March 04, 2010 05:42:10

Page 3

## ICPMS#5 - Summary Report

Sample ID: 246334001

Sample Date/Time: Thursday, March 04, 2010 05:51:47

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950326|1|baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\246334001.263

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.395	ug/L	3.236	724	0.001
Be	9	0.012	ug/L	47.880	9	0.000
B	11	26.704	ug/L	1.550	9668	0.009
Na	23	152.587	ug/L	8.487	403315	0.374
Mg	24	14.973	ug/L	9.054	25690	0.023
Al	27	83.972	ug/L	3.345	189923	0.177
P	31	13.705	ug/L	19.094	4586	0.001
K	39	177.967	ug/L	9.628	675675	0.427
Ca	43	47.676	ug/L	7.626	427	0.000
> Sc	45		ug/L		1064094	1064093.917
Ti	47	2.249	ug/L	3.683	936	0.001
V	51	-6.927	ug/L	45.903	-26557	-0.025
Cr	52	3.461	ug/L	12.390	12079	0.010
Cr	53		ug/L		137487	0.101
Mn	55	3.220	ug/L	1.447	17930	0.016
Fe	57	93.433	ug/L	2.203	11287	0.009
Co	59	0.027	ug/L	9.871	133	0.000
Ni	60	0.142	ug/L	10.323	173	0.000
Cu	63		ug/L		2725	0.002
Cu	65	1.359	ug/L	5.156	1322	0.001
Zn	66	1.723	ug/L	2.763	1495	0.005
Zn	67		ug/L		23717	0.085
Zn	68		ug/L		2458	0.008
> Ge	74		ug/L		227360	227359.544
As	75	-0.906	ug/L	22.594	-658	-0.003
Se	77		ug/L		7531	0.027
Se	82	0.438	ug/L	43.180	39	0.000
Kr	83		ug/L		44	-0.000
Sr	88	0.215	ug/L	3.182	2170	0.010
Y	89		ug/L		1294	0.006
Mo	98	0.018	ug/L	17.543	82	0.000
Ag	107	0.003	ug/L	5.681	29	0.000
Cd	111	0.010	ug/L	41.425	22	0.000
Cd	114		ug/L		32	0.000
> In	115		ug/L		211838	211837.950
Sn	120	0.128	ug/L	3.451	808	0.003
Sb	121	0.014	ug/L	25.810	126	0.000
Sb	123		ug/L		103	0.000
Ba	135		ug/L		928	0.002
Ba	137	0.658	ug/L	1.861	1731	0.003
Ho	165		ug/L		166	0.000
> Lu	175		ug/L		558088	558088.037
Tl	205	0.093	ug/L	7.028	6655	0.003
Pb	208	0.209	ug/L	0.643	7858	0.014
Bi	209		ug/L		301	-0.000
Th	232	0.062	ug/L	5.050	3064	0.005
U	238	0.177	ug/L	0.653	8628	0.015

Sample ID: 246334001

Report Date/Time: Thursday, March 04, 2010 05:54:31

Page 1

## 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	0.9999
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	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

Sample ID: 246334001

Report Date/Time: Thursday, March 04, 2010 05:54:31

Page 2

## 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		72.0			
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		69.2			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		76.8			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		84.9			
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: 1202036453

Sample Date/Time: Thursday, March 04, 2010 05:57:58

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 950326|1|baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\1202036453.264

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.382	ug/L	1.928	670	0.001
Be	9	0.021	ug/L	29.237	12	0.000
B	11	27.388	ug/L	0.555	9448	0.009
Na	23	153.388	ug/L	6.366	386160	0.376
Mg	24	14.880	ug/L	16.762	24354	0.023
Al	27	58.602	ug/L	13.808	126901	0.123
P	31	13.537	ug/L	24.069	4358	0.001
K	39	163.762	ug/L	11.406	609450	0.393
Ca	43	51.906	ug/L	15.301	437	0.000
> Sc	45		ug/L		1014668	1014668.091
Ti	47	2.326	ug/L	2.878	918	0.001
V	51	-5.536	ug/L	11.942	-20142	-0.020
Cr	52	3.249	ug/L	3.368	10921	0.009
Cr	53		ug/L		133425	0.103
Mn	55	3.057	ug/L	2.852	16255	0.016
Fe	57	85.335	ug/L	2.586	9978	0.008
Co	59	0.025	ug/L	5.315	119	0.000
Ni	60	0.121	ug/L	2.696	148	0.000
Cu	63		ug/L		2830	0.003
Cu	65	1.441	ug/L	4.232	1335	0.001
Zn	66	1.732	ug/L	7.668	1435	0.005
Zn	67		ug/L		22132	0.083
Zn	68		ug/L		2340	0.007
> Ge	74		ug/L		217481	217480.572
As	75	-1.134	ug/L	38.069	-771	-0.003
Se	77		ug/L		7586	0.029
Se	82	0.462	ug/L	39.641	39	0.000
Kr	83		ug/L		33	-0.000
Sr	88	0.206	ug/L	3.023	2010	0.009
Y	89		ug/L		1087	0.005
Mo	98	0.014	ug/L	26.437	69	0.000
Ag	107	0.003	ug/L	22.621	27	0.000
Cd	111	0.012	ug/L	39.610	24	0.000
Cd	114		ug/L		27	0.000
> In	115		ug/L		204258	204257.845
Sn	120	0.125	ug/L	3.163	764	0.003
Sb	121	0.008	ug/L	24.804	96	0.000
Sb	123		ug/L		85	0.000
Ba	135		ug/L		819	0.001
Ba	137	0.588	ug/L	1.681	1523	0.003
Ho	165		ug/L		139	0.000
> Lu	175		ug/L		548375	548375.251
Tl	205	-0.014	ug/L	29.689	4440	-0.000
Pb	208	0.201	ug/L	1.608	7440	0.013
Bi	209		ug/L		265	-0.000
Th	232	0.049	ug/L	5.656	2438	0.004
U	238	0.044	ug/L	1.133	2230	0.004

Sample ID: 1202036453

Report Date/Time: Thursday, March 04, 2010 06:00:43

Page 1

## 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	0.9999
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	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		68.6			
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		66.2			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		74.1			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		83.4			
Tl	205					
Pb	208					
Bi	209					
Th	232					
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: 1202036454

Sample Date/Time: Thursday, March 04, 2010 06:04:10

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 9503261|baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\1202036454.265

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	56.347	ug/L	1.101	90386	0.091
Be	9	55.693	ug/L	1.746	17517	0.018
B	11	128.439	ug/L	1.056	42472	0.042
Na	23	1865.031	ug/L	5.531	4552272	4.569
Mg	24	1866.072	ug/L	6.180	2911272	2.924
Al	27	1800.044	ug/L	1.543	3770031	3.786
P	31	1946.236	ug/L	0.710	202718	0.201
K	39	2073.377	ug/L	2.320	5161226	4.978
Ca	43	1909.362	ug/L	1.485	13136	0.013
> Sc	45		ug/L		995313	995312.964
Ti	47	41.967	ug/L	3.866	14163	0.014
V	51	45.495	ug/L	4.131	164039	0.165
Cr	52	51.718	ug/L	0.557	147367	0.147
Cr	53		ug/L		142503	0.115
Mn	55	54.381	ug/L	1.574	275275	0.276
Fe	57	2260.481	ug/L	0.794	216783	0.216
Co	59	49.427	ug/L	0.903	183620	0.184
Ni	60	49.738	ug/L	2.190	38917	0.039
Cu	63		ug/L		90577	0.091
Cu	65	49.174	ug/L	1.130	43566	0.044
Zn	66	49.402	ug/L	2.086	32954	0.150
Zn	67		ug/L		27371	0.107
Zn	68		ug/L		24708	0.110
> Ge	74		ug/L		217594	217593.872
As	75	71.868	ug/L	0.809	44334	0.204
Se	77		ug/L		8051	0.031
Se	82	20.824	ug/L	1.970	1450	0.007
Kr	83		ug/L		41	-0.000
Sr	88	47.453	ug/L	0.495	444452	2.187
Y	89		ug/L		1191	0.006
Mo	98	42.861	ug/L	0.996	100306	0.494
Ag	107	46.273	ug/L	1.366	191668	0.943
Cd	111	9.685	ug/L	1.923	11692	0.058
Cd	114		ug/L		27512	0.135
> In	115		ug/L		203153	203153.240
Sn	120	47.599	ug/L	2.444	240078	1.181
Sb	121	184.372	ug/L	0.282	780186	3.840
Sb	123		ug/L		616191	3.033
Ba	135		ug/L		58170	0.107
Ba	137	41.163	ug/L	3.457	103335	0.191
Ho	165		ug/L		400	0.001
> Lu	175		ug/L		541879	541878.576
Tl	205	93.113	ug/L	2.148	1805734	3.325
Pb	208	42.702	ug/L	2.352	1504046	2.776
Bi	209		ug/L		745	0.001
Th	232	49.412	ug/L	3.504	2101500	3.880
U	238	51.537	ug/L	1.631	2388010	4.408

Sample ID: 1202036454

Report Date/Time: Thursday, March 04, 2010 06:06:55

Page 1

## 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	0.9999
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	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

Sample ID: 1202036454

Report Date/Time: Thursday, March 04, 2010 06:06:55

Page 2

## 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		67.3			
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		66.2			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		73.7			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		82.4			
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: 1202036454

Report Date/Time: Thursday, March 04, 2010 06:06:55

Page 3

## ICPMS#5 - Summary Report

Sample ID: 1202036455

Sample Date/Time: Thursday, March 04, 2010 06:10:21

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 950326|5|baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\1202036455.266

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.086	ug/L	6.654	197	0.000
Be	9	0.012	ug/L	1.703	9	0.000
B	11	8.076	ug/L	5.713	3134	0.003
Na	23	31.729	ug/L	11.316	88274	0.078
Mg	24	1.759	ug/L	18.911	3667	0.003
Al	27	12.816	ug/L	20.245	30700	0.027
P	31	7.523	ug/L	23.821	3924	0.001
K	39	31.206	ug/L	18.745	301146	0.075
Ca	43	10.590	ug/L	9.617	157	0.000
> Sc	45		ug/L		1067364	1067363.592
Ti	47	0.502	ug/L	5.159	312	0.000
V	51	-1.033	ug/L	19.147	-3810	-0.004
Cr	52	1.138	ug/L	4.266	5105	0.003
Cr	53		ug/L		66994	0.034
Mn	55	0.672	ug/L	5.520	4179	0.003
Fe	57	19.446	ug/L	0.629	3773	0.002
Co	59	0.006	ug/L	26.830	49	0.000
Ni	60	0.079	ug/L	3.212	121	0.000
Cu	63		ug/L		704	0.001
Cu	65	0.307	ug/L	11.258	328	0.000
Zn	66	0.630	ug/L	3.673	759	0.002
Zn	67		ug/L		9162	0.020
Zn	68		ug/L		1349	0.003
> Ge	74		ug/L		233343	233342.764
As	75	-0.408	ug/L	52.126	-347	-0.001
Se	77		ug/L		3755	0.010
Se	82	0.274	ug/L	56.157	28	0.000
Kr	83		ug/L		48	0.000
Sr	88	0.045	ug/L	5.959	523	0.002
Y	89		ug/L		277	0.001
Mo	98	0.023	ug/L	16.699	94	0.000
Ag	107	0.002	ug/L	22.946	25	0.000
Cd	111	0.001	ug/L	607.559	11	0.000
Cd	114		ug/L		22	-0.000
> In	115		ug/L		216089	216089.161
Sn	120	0.042	ug/L	7.323	363	0.001
Sb	121	0.043	ug/L	11.607	260	0.001
Sb	123		ug/L		202	0.001
Ba	135		ug/L		202	0.000
Ba	137	0.129	ug/L	10.289	371	0.001
Ho	165		ug/L		49	0.000
> Lu	175		ug/L		571188	571187.929
Tl	205	1.395	ug/L	18.142	33435	0.050
Pb	208	0.042	ug/L	0.546	1851	0.003
Bi	209		ug/L		272	-0.000
Th	232	0.032	ug/L	17.038	1778	0.003
U	238	0.036	ug/L	0.842	1952	0.003

Sample ID: 1202036455

Report Date/Time: Thursday, March 04, 2010 06:13:05

Page 1

## 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	0.9999
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	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		72.2			
	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		71.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
[	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		78.4			
	Sn	120					
	Sb	121					
	Sb	123					
[	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		86.9			
	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: 1202036455

Report Date/Time: Thursday, March 04, 2010 06:13:05

Page 3

## ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Thursday, March 04, 2010 06:16:29

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 8.267

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	54.840	ug/L	1.484	99857	0.088
Be	9	54.099	ug/L	1.807	19311	0.017
B	11	100.321	ug/L	1.115	37727	0.033
Na	23	4418.542	ug/L	6.322	12227841	10.824
Mg	24	4809.511	ug/L	2.364	8513183	7.537
Al	27	4573.618	ug/L	1.573	10869186	9.619
P	31	4931.047	ug/L	0.598	577939	0.509
K	39	5182.749	ug/L	4.470	14285696	12.445
Ca	43	4758.505	ug/L	1.980	37029	0.033
> Sc	45		ug/L		1129804	1129804.172
Ti	47	48.943	ug/L	2.092	18723	0.016
V	51	49.562	ug/L	1.014	202822	0.179
Cr	52	52.131	ug/L	0.660	168589	0.148
Cr	53		ug/L		81363	0.044
Mn	55	52.613	ug/L	0.490	302319	0.267
Fe	57	5427.874	ug/L	1.522	588080	0.519
Co	59	50.760	ug/L	2.224	213971	0.189
Ni	60	51.329	ug/L	0.974	45579	0.040
Cu	63		ug/L		103848	0.092
Cu	65	50.214	ug/L	2.499	50485	0.045
Zn	66	50.406	ug/L	0.815	38202	0.153
Zn	67		ug/L		14229	0.038
Zn	68		ug/L		27701	0.109
> Ge	74		ug/L		247227	247227.191
As	75	49.417	ug/L	0.554	34612	0.140
Se	77		ug/L		6416	0.020
Se	82	51.349	ug/L	0.443	4051	0.016
Kr	83		ug/L		59	0.000
Sr	88	49.341	ug/L	0.961	513168	2.274
Y	89		ug/L		88	0.000
Mo	98	45.960	ug/L	2.639	119461	0.529
Ag	107	47.976	ug/L	3.068	220699	0.978
Cd	111	48.410	ug/L	1.779	64880	0.288
Cd	114		ug/L		159217	0.706
> In	115		ug/L		225594	225594.079
Sn	120	49.888	ug/L	0.379	279464	1.238
Sb	121	50.254	ug/L	1.538	236217	1.047
Sb	123		ug/L		185039	0.820
Ba	135		ug/L		68356	0.117
Ba	137	45.500	ug/L	3.023	123232	0.211
Ho	165		ug/L		38	0.000
> Lu	175		ug/L		584501	584500.587
Tl	205	53.999	ug/L	3.214	1131758	1.928
Pb	208	53.774	ug/L	2.297	2043201	3.496
Bi	209		ug/L		672	0.000
Th	232	50.481	ug/L	4.720	2316108	3.963
U	238	52.329	ug/L	3.191	2615365	4.475

Sample ID: QC Std 8

Report Date/Time: Thursday, March 04, 2010 06:19:12

Page 1

## 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	0.9999
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	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

Sample ID: QC Std 8

Report Date/Time: Thursday, March 04, 2010 06:19:12

Page 2

## QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7	109.679				
Be	9	108.198				
B	11	100.321				
Na	23	88.371				
Mg	24	96.190				
Al	27	90.567				
P	31	98.621				
K	39	103.655				
Ca	43	95.170				
Sc	45		76.4			
Ti	47	97.887				
V	51	99.123				
Cr	52	104.261				
Cr	53					
Mn	55	105.226				
Fe	57	108.557				
Co	59	101.520				
Ni	60	102.659				
Cu	63					
Cu	65	100.428				
Zn	66	100.812				
Zn	67					
Zn	68					
Ge	74		75.3			
As	75	98.834				
Se	77					
Se	82	102.699				
Kr	83					
Sr	88	98.682				
Y	89					
Mo	98	91.921				
Ag	107	95.951				
Cd	111	96.821				
Cd	114					
In	115		81.8			
Sn	120	99.777				
Sb	121	100.508				
Sb	123					
Ba	135					
Ba	137	91.000				
Ho	165					
Lu	175		88.9			
Tl	205	107.998				
Pb	208	107.547				
Bi	209					
Th	232	100.962				
U	238	104.659				

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Na	23	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC Sc		45	
Ge 74 Int Std for QC Ge		74	

## QC Action

Sample ID: QC Std 8  
 Report Date/Time: Thursday, March 04, 2010 06:19:12  
 Page 3

QC Action Line: Continue

## ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Thursday, March 04, 2010 06:22:37

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: C:\elandata\Dataset\100303\QC Std 9.268

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.014	ug/L	44.137	82	0.000
Be	9	0.008	ug/L	87.012	9	0.000
B	11	2.807	ug/L	10.515	1453	0.001
Na	23	0.549	ug/L	65.106	7669	0.001
Mg	24	0.263	ug/L	228.969	1333	0.000
Al	27	0.450	ug/L	55.325	3334	0.001
P	31	-2.617	ug/L	23.682	3192	-0.000
K	39	-3.693	ug/L	159.129	240681	-0.009
Ca	43	0.488	ug/L	274.554	94	0.000
> Sc	45		ug/L		1214394	1214393.505
Ti	47	-0.022	ug/L	175.184	141	-0.000
V	51	-0.444	ug/L	31.227	-1752	-0.002
Cr	52	0.331	ug/L	15.571	3031	0.001
Cr	53		ug/L		36336	0.002
Mn	55	-0.004	ug/L	47.081	587	-0.000
Fe	57	0.755	ug/L	14.224	2123	0.000
Co	59	0.007	ug/L	23.718	57	0.000
Ni	60	0.006	ug/L	114.095	68	0.000
Cu	63		ug/L		90	-0.000
Cu	65	0.008	ug/L	126.583	51	0.000
Zn	66	0.025	ug/L	85.700	380	0.000
Zn	67		ug/L		4779	-0.001
Zn	68		ug/L		815	-0.000
> Ge	74		ug/L		269325	269324.719
As	75	0.097	ug/L	263.702	-14	0.000
Se	77		ug/L		1840	0.001
Se	82	0.132	ug/L	85.422	20	0.000
Kr	83		ug/L		46	-0.000
Sr	88	0.002	ug/L	70.088	108	0.000
Y	89		ug/L		33	-0.000
Mo	98	0.027	ug/L	23.773	117	0.000
Ag	107	0.003	ug/L	56.932	35	0.000
Cd	111	0.004	ug/L	194.509	15	0.000
Cd	114		ug/L		34	0.000
> In	115		ug/L		238318	238317.984
Sn	120	0.014	ug/L	4.997	237	0.000
Sb	121	0.068	ug/L	8.224	409	0.001
Sb	123		ug/L		335	0.001
Ba	135		ug/L		27	0.000
Ba	137	0.001	ug/L	61.933	36	0.000
Ho	165		ug/L		10	-0.000
> Lu	175		ug/L		603360	603359.955
Tl	205	0.860	ug/L	18.359	23730	0.031
Pb	208	0.005	ug/L	11.417	502	0.000
Bi	209		ug/L		432	-0.000
Th	232	0.021	ug/L	8.448	1374	0.002
U	238	0.006	ug/L	23.304	490	0.001

Sample ID: QC Std 9

Report Date/Time: Thursday, March 04, 2010 06:25:21

Page 1

## 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	0.9999
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	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

Sample ID: QC Std 9

Report Date/Time: Thursday, March 04, 2010 06:25:21

Page 2

## 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		82.2			
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		82.0			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		86.4			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		91.8			
Tl	205					
Pb	208					
Bi	209					
Th	232					
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 Daily Performance Report

### Sample ID: Sample

Sample Date/Time: Thursday, March 04, 2010 12:13:51

### Sample Description:

Method File: c:\elandata\Method\Daily2.mth

Dataset File: c:\elandata\Dataset\default\Sample.644

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	4917.0	4917.046	76.152	1.5
Mg	24.0	49556.4	49556.410	421.182	0.8
Co	58.9	95296.0	95295.993	345.969	0.4
Rh	102.9	182253.3	182253.293	1838.164	1.0
In	114.9	271126.6	271126.619	2475.836	0.9
Pb	208.0	255677.7	255677.709	715.154	0.3
[> Ba	137.9	248095.1	248095.056	1759.513	0.7
[ Ba++	69.0	3224.4	0.013	0.000	1.4
[> Ce	139.9	304302.3	304302.268	1006.509	0.3
[ CeO	155.9	7653.1	0.025	0.000	1.9
Bkgd	220.0	21.3	21.300	2.225	10.4

### Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
6.00	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	13	5.5	5457.7
Co	59	13	6.0	98878.3
In	115	13	6.8	264010.6

## 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	588	2050	0.665
Be	9.0	9.0	2056	2075	0.621
Mg	24.0	24.0	5695	2080	0.628
Mg	25.0	25.0	5923	2080	0.592
Mg	26.0	26.0	6178	2080	0.633
Co	58.9	58.9	14189	2110	0.620
Rh	102.9	102.9	24872	2160	0.621
In	114.9	114.9	27799	2180	0.636
Ce	139.9	139.9	33870	2200	0.640
Pb	206.0	206.0	49948	2295	0.605
Pb	207.0	207.0	50159	2240	0.631
Pb	208.0	208.0	50451	2265	0.694
U	238.1	238.0	57724	2275	0.708

## ICPMS#5 - Summary Report

Sample ID: Blank

Sample Date/Time: Thursday, March 04, 2010 12:31:05

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\100304.mth

Dataset File: C:\elandata\Dataset\100304\Blank.001

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9		ug/L			15
> Sc	45		ug/L		1773783	
Mn	55		ug/L		1132	
Cu	63		ug/L		369	
Cu	65		ug/L		209	
Mo	98		ug/L		62	
> In	115		ug/L		353968	
Sb	121		ug/L		72	
Sb	123		ug/L		54	
> Lu	175		ug/L		572692	
Tl	205		ug/L		751	
U	238		ug/L		89	

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Simple Linear	
Sc	45Simple Linear	
Mn	55Simple Linear	
Cu	63Simple Linear	
Cu	65Simple Linear	
Mo	98Simple Linear	
In	115Simple Linear	
Sb	121Simple Linear	
Sb	123Simple Linear	
Lu	175Simple Linear	
Tl	205Simple 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						
Mn	55						
Cu	63						
Cu	65						
Mo	98						
> In	115						
Sb	121						
Sb	123						
> Lu	175						
Tl	205						
U	238						

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: Blank

Report Date/Time: Thursday, March 04, 2010 12:31:57

Page 1

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Thursday, March 04, 2010 12:33:24

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\100304.mth

Dataset File: C:\elandata\Dataset\100304\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	4.103	4747	0.003
> Sc	45		ug/L		1798222	1798221.936
Mn	55	10.000	ug/L	4.728	113830	0.063
Cu	63		ug/L		43407	0.024
Cu	65	10.000	ug/L	3.957	20944	0.012
[ Mo	98	10.000	ug/L	0.379	41237	0.115
> In	115		ug/L		358861	358860.659
Sb	121	10.000	ug/L	0.222	63445	0.177
Sb	123		ug/L		49622	0.138
> Lu	175		ug/L		570430	570430.162
Tl	205	10.000	ug/L	1.470	233823	0.409
U	238	10.000	ug/L	1.908	536095	0.940

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear 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 % Recov	Dilution % Di	Duplicate Rel. % Difference
Be	9					
> Sc	45					
Mn	55					
Cu	63					
Cu	65					
[ Mo	98					
> In	115					
Sb	121					
Sb	123					
> Lu	175					
Tl	205					
U	238					

### QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: Standard 1

Report Date/Time: Thursday, March 04, 2010 12:34:14

Page 1

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Thursday, March 04, 2010 12:35:41

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\100304.mth

Dataset File: C:\elandata\Dataset\100304\Standard 2.003

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	100.030	ug/L	3.258	46549	0.027
> Sc	45		ug/L		1714247	1714246.990
Mn	55	99.942	ug/L	3.545	1015747	0.592
Cu	63		ug/L		401603	0.234
Cu	65	100.005	ug/L	2.665	198831	0.116
Mo	98	100.026	ug/L	0.790	399149	1.178
> In	115		ug/L		338838	338838.424
Sb	121	100.061	ug/L	1.680	637700	1.882
Sb	123		ug/L		497782	1.469
> Lu	175		ug/L		548814	548814.155
Tl	205	99.844	ug/L	1.230	1937400	3.529
U	238	99.847	ug/L	2.385	4467359	8.141

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
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					
Mn	55					
Cu	63					
Cu	65					
Mo	98					
> In	115					
Sb	121					
Sb	123					
> Lu	175					
Tl	205					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: Standard 2

Report Date/Time: Thursday, March 04, 2010 12:36:31

Page 1

## QC Action

QC Action Line: No QC out of limits detected



## ICPMS#5 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Thursday, March 04, 2010 12:37:59

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\100304.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 1.004

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	49.950	ug/L	0.577	24145	0.014
Sc	45		ug/L		1778896	1778895.515
Mn	55	51.845	ug/L	1.340	547725	0.307
Cu	63		ug/L		209810	0.118
Cu	65	49.930	ug/L	1.103	103172	0.058
Mo	98	48.847	ug/L	0.706	200984	0.575
In	115		ug/L		349320	349320.083
Sb	121	50.278	ug/L	1.447	330387	0.946
Sb	123		ug/L		257824	0.738
Lu	175		ug/L		560280	560280.120
Tl	205	53.637	ug/L	0.602	1062937	1.896
U	238	51.733	ug/L	0.930	2363128	4.218

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
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	99.900					
Sc	45		100.3				
Mn	55	103.690					
Cu	63						
Cu	65	99.860					
Mo	98	97.693					
In	115		98.7				
Sb	121	100.556					
Sb	123						
Lu	175		97.8				
Tl	205	107.274					
U	238	103.466					

### QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

Sample ID: QC Std 1

Report Date/Time: Thursday, March 04, 2010 12:38:49

Page 1

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Thursday, March 04, 2010 12:40:19

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\100304.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 2.005

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.007	ug/L	68.727	18	0.000
> Sc	45		ug/L		1798915	1798914.607
Mn	55	0.006	ug/L	137.785	1208	0.000
Cu	63		ug/L		399	0.000
Cu	65	0.005	ug/L	189.053	223	0.000
Mo	98	0.065	ug/L	9.150	335	0.001
> In	115		ug/L		354777	354777.335
Sb	121	0.811	ug/L	5.522	5484	0.015
Sb	123		ug/L		4327	0.012
> Lu	175		ug/L		561317	561316.865
Ti	205	0.214	ug/L	12.771	4978	0.008
U	238	0.014	ug/L	2.864	708	0.001

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Ti	205Linear Thru Zero	0.9999
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		101.4				
Mn	55						
Cu	63						
Cu	65						
Mo	98						
> In	115		100.2				
Sb	121						
Sb	123						
> Lu	175		98.0				
Ti	205						
U	238						

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: QC Std 2

Report Date/Time: Thursday, March 04, 2010 12:41:11

Page 1

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Thursday, March 04, 2010 12:42:40

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\100304.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 3.006

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.527	ug/L	3.609	277	0.000
> Sc	45		ug/L		1828017	1828016.662
Mn	55	5.861	ug/L	2.079	64657	0.035
Cu	63		ug/L		5408	0.003
Cu	65	1.133	ug/L	2.947	2616	0.001
Mo	98	0.569	ug/L	2.068	2405	0.007
> In	115		ug/L		349582	349581.728
Sb	121	3.259	ug/L	1.979	21495	0.061
Sb	123		ug/L		16580	0.047
> Lu	175		ug/L		554195	554195.304
Tl	205	1.363	ug/L	2.345	27420	0.048
U	238	0.304	ug/L	1.276	13842	0.025

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
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	105.495				
> Sc	45		103.1			
Mn	55	117.213				
Cu	63					
Cu	65	113.272				
Mo	98	113.859				
> In	115		98.8			
Sb	121	108.618				
Sb	123					
> Lu	175		96.8			
Tl	205	136.287				
U	238	152.225				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: QC Std 3

Report Date/Time: Thursday, March 04, 2010 12:43:30

Page 1

QC Std 3	TI	205CRDL is out of limits
QC Std 3	U	238CRDL is out of limits

## QC Action

QC Action Line: Continue

## ICPMS#5 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Thursday, March 04, 2010 12:44:58

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\100304.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 4.007

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.096	ug/L	8.848	55	0.000
> Sc	45		ug/L		1607206	1607206.058
Mn	55	5.973	ug/L	1.689	57904	0.035
Cu	63		ug/L		9367	0.006
Cu	65	3.209	ug/L	2.415	6167	0.004
Mo	98	1773.869	ug/L	3.131	6675945	20.888
> In	115		ug/L		319757	319757.178
Sb	121	0.428	ug/L	5.475	2642	0.008
Sb	123		ug/L		2013	0.006
> Lu	175		ug/L		502399	502399.344
Ti	205	0.053	ug/L	5.536	1605	0.002
U	238	0.004	ug/L	10.908	226	0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Ti	205Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Be	9					
> Sc	45		90.6			
Mn	55	102.984				
Cu	63					
Cu	65	96.090				
Mo	98	88.693				
> In	115		90.3			
Sb	121					
Sb	123					
> Lu	175		87.7			
Ti	205					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: QC Std 4

Report Date/Time: Thursday, March 04, 2010 12:45:49

Page 1

## QC Action

QC Action Line: No QC out of limits detected



## ICPMS#5 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Thursday, March 04, 2010 12:47:18

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\100304.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 5.008

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	19.042	ug/L	4.722	8104	0.005
> Sc	45		ug/L		1566586	1566586.438
Mn	55	27.591	ug/L	4.615	256875	0.164
Cu	63		ug/L		79779	0.051
Cu	65	22.118	ug/L	4.596	40306	0.026
Mo	98	1777.475	ug/L	1.713	6680076	20.930
> In	115		ug/L		319171	319170.757
Sb	121	21.143	ug/L	0.325	126983	0.398
Sb	123		ug/L		98099	0.307
> Lu	175		ug/L		499457	499456.631
Tl	205	22.322	ug/L	0.498	394725	0.789
U	238	23.830	ug/L	0.258	970469	1.943

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear 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
Be	9	95.211				
> Sc	45		88.3			
Mn	55	106.941				
Cu	63					
Cu	65	94.765				
Mo	98	88.874				
> In	115		90.2			
Sb	121	105.714				
Sb	123					
> Lu	175		87.2			
Tl	205	111.612				
U	238	119.152				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: QC Std 5

Report Date/Time: Thursday, March 04, 2010 12:48:09

Page 1

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, March 04, 2010 12:49:38

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\100304.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 6.009

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	51.817	ug/L	2.736	23289	0.014
> Sc	45		ug/L		1654675	1654674.957
Mn	55	54.399	ug/L	2.496	534327	0.322
Cu	63		ug/L		201567	0.122
Cu	65	51.619	ug/L	1.613	99186	0.060
Mo	98	49.307	ug/L	0.536	199339	0.581
> In	115		ug/L		343226	343226.386
Sb	121	49.253	ug/L	0.899	318008	0.926
Sb	123		ug/L		249125	0.726
> Lu	175		ug/L		561191	561191.315
Tl	205	52.911	ug/L	0.568	1050254	1.870
U	238	51.307	ug/L	1.091	2347503	4.183

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
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	103.635					
> Sc	45		93.3				
Mn	55	108.798					
Cu	63						
Cu	65	103.238					
Mo	98	98.615					
> In	115		97.0				
Sb	121	98.507					
Sb	123						
> Lu	175		98.0				
Tl	205	105.821					
U	238	102.615					

### QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: QC Std 6

Report Date/Time: Thursday, March 04, 2010 12:50:29

Page 1

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, March 04, 2010 12:51:59

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\100304.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 7.010

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.008	ug/L	71.641	18	0.000
>	Sc	45		ug/L		1732565	1732564.662
	Mn	55	0.007	ug/L	28.253	1177	0.000
	Cu	63		ug/L		379	0.000
[	Cu	65	0.017	ug/L	36.998	237	0.000
[	Mo	98	0.158	ug/L	7.103	699	0.002
>	In	115		ug/L		344205	344205.427
	Sb	121	0.601	ug/L	5.274	3960	0.011
	Sb	123		ug/L		3085	0.009
>	Lu	175		ug/L		557954	557953.726
	Tl	205	0.209	ug/L	14.821	4850	0.007
	U	238	0.013	ug/L	10.350	659	0.001

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
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		97.7				
	Mn	55						
	Cu	63						
[	Cu	65						
[	Mo	98						
>	In	115		97.2				
	Sb	121						
	Sb	123						
>	Lu	175		97.4				
	Tl	205						
	U	238						

### QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: QC Std 7

Report Date/Time: Thursday, March 04, 2010 12:52:51

Page 1

## QC Action

QC Action Line: No QC out of limits detected

---

Sample ID: QC Std 7

Report Date/Time: Thursday, March 04, 2010 12:52:51

Page 2

## ICPMS#5 - Summary Report

Sample ID: 1202036451

Sample Date/Time: Thursday, March 04, 2010 12:54:21

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 950326|1|baj

Method File: c:\elandata\Method\100304.mth

Dataset File: C:\elandata\Dataset\100304\1202036451.011

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.006	ug/L	75.727	18	0.000
> Sc	45		ug/L		1804072	1804072.195
Mn	55	1.881	ug/L	2.884	21257	0.011
Cu	63		ug/L		645	0.000
Cu	65	0.070	ug/L	15.857	358	0.000
Mo	98	0.077	ug/L	14.014	360	0.001
> In	115		ug/L		334357	334356.902
Sb	121	0.415	ug/L	8.577	2675	0.008
Sb	123		ug/L		2141	0.006
> Lu	175		ug/L		542341	542340.916
Tl	205	0.059	ug/L	3.545	1841	0.002
U	238	0.015	ug/L	3.873	728	0.001

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel.	% Difference
Be	9						
> Sc	45		101.7				
Mn	55						
Cu	63						
Cu	65						
Mo	98						
> In	115		94.5				
Sb	121						
Sb	123						
> Lu	175		94.7				
Tl	205						
U	238						

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: 1202036451

Report Date/Time: Thursday, March 04, 2010 12:55:14

Page 1

## QC Action

QC Action Line: No QC out of limits detected



## ICPMS#5 - Summary Report

Sample ID: 1202036452

Sample Date/Time: Thursday, March 04, 2010 12:56:44

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 9503261|baj

Method File: c:\elandata\Method\100304.mth

Dataset File: C:\elandata\Dataset\100304\1202036452.012

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	50.336	ug/L	2.935	24409	0.014
> Sc	45		ug/L		1785577	1785577.404
Mn	55	53.343	ug/L	3.411	565225	0.316
Cu	63		ug/L		211800	0.118
Cu	65	49.762	ug/L	3.345	103139	0.058
Mo	98	49.131	ug/L	1.430	195481	0.579
> In	115		ug/L		337816	337815.973
Sb	121	53.422	ug/L	1.074	339462	1.005
Sb	123		ug/L		265749	0.787
> Lu	175		ug/L		548176	548175.865
Tl	205	49.292	ug/L	2.243	955614	1.742
U	238	49.619	ug/L	0.971	2217574	4.045

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear 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
Be	9					
> Sc	45		100.7			
Mn	55					
Cu	63					
Cu	65					
Mo	98					
> In	115		95.4			
Sb	121					
Sb	123					
> Lu	175		95.7			
Tl	205					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: 1202036452

Report Date/Time: Thursday, March 04, 2010 12:57:36

Page 1

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 246334001

Sample Date/Time: Thursday, March 04, 2010 13:01:31

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950326|1|baj

Method File: c:\elandata\Method\100304.mth

Dataset File: C:\elandata\Dataset\100304\246334001.014

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.011	ug/L	31.352	20	0.000
> Sc	45		ug/L		1788640	1788639.936
Mn	55	3.358	ug/L	0.759	36737	0.020
Cu	63		ug/L		6301	0.003
Cu	65	1.352	ug/L	0.752	3014	0.002
Mo	98	0.034	ug/L	18.179	191	0.000
> In	115		ug/L		332669	332669.318
Sb	121	0.081	ug/L	5.202	571	0.002
Sb	123		ug/L		480	0.001
> Lu	175		ug/L		541196	541195.944
Tl	205	0.250	ug/L	4.690	5499	0.009
U	238	0.184	ug/L	1.600	8211	0.015

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear 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
Be	9						
> Sc	45		100.8				
Mn	55						
Cu	63						
Cu	65						
Mo	98						
> In	115		94.0				
Sb	121						
Sb	123						
> Lu	175		94.5				
Tl	205						
U	238						

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: 246334001

Report Date/Time: Thursday, March 04, 2010 13:02:24

Page 1

## QC Action

QC Action Line: No QC out of limits detected

---

Sample ID: 246334001

Report Date/Time: Thursday, March 04, 2010 13:02:24

Page 2

## ICPMS#5 - Summary Report

Sample ID: 1202036453

Sample Date/Time: Thursday, March 04, 2010 13:03:55

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 950326|1|baj

Method File: c:\elandata\Method\100304.mth

Dataset File: C:\elandata\Dataset\100304\1202036453.015

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.006	ug/L	267.169	18	0.000
> Sc	45		ug/L		1833574	1833574.365
Mn	55	3.088	ug/L	0.527	34724	0.018
Cu	63		ug/L		7036	0.004
Cu	65	1.500	ug/L	0.718	3403	0.002
Mo	98	0.027	ug/L	15.539	165	0.000
> In	115		ug/L		335594	335594.487
Sb	121	0.054	ug/L	7.376	409	0.001
Sb	123		ug/L		326	0.001
> Lu	175		ug/L		542201	542201.265
Tl	205	0.146	ug/L	5.115	3512	0.005
U	238	0.044	ug/L	0.329	2027	0.004

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
U	238Linear 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		103.4			
Mn	55					
Cu	63					
Cu	65					
Mo	98					
> In	115		94.8			
Sb	121					
Sb	123					
> Lu	175		94.7			
Tl	205					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: 1202036453

Report Date/Time: Thursday, March 04, 2010 13:04:49

Page 1

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202036454

Sample Date/Time: Thursday, March 04, 2010 13:06:20

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 950326|1|baj

Method File: c:\elandata\Method\100304.mth

Dataset File: C:\elandata\Dataset\100304\1202036454.016

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	49.619	ug/L	1.749	24345	0.013
> Sc	45		ug/L		1805790	1805789.625
Mn	55	53.305	ug/L	1.478	571668	0.316
Cu	63		ug/L		219161	0.121
Cu	65	49.937	ug/L	1.263	104744	0.058
Mo	98	49.247	ug/L	0.680	191560	0.580
> In	115		ug/L		330256	330255.986
Sb	121	196.161	ug/L	1.394	1218370	3.689
Sb	123		ug/L		974855	2.952
> Lu	175		ug/L		535491	535490.585
Tl	205	89.424	ug/L	1.259	1693197	3.161
U	238	50.049	ug/L	0.806	2185138	4.081

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
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		101.8			
Mn	55					
Cu	63					
Cu	65					
Mo	98					
> In	115		93.3			
Sb	121					
Sb	123					
> Lu	175		93.5			
Tl	205					
U	238					

### QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: 1202036454

Report Date/Time: Thursday, March 04, 2010 13:07:14

Page 1

## QC Action

QC Action Line: No QC out of limits detected



## ICPMS#5 - Summary Report

Sample ID: 1202036455

Sample Date/Time: Thursday, March 04, 2010 13:08:44

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 950326|5|ba|

Method File: c:\elandata\Method\100304.mth

Dataset File: C:\elandata\Dataset\100304\1202036455.017

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9	0.005	ug/L	150.886	17	0.000
> Sc	45		ug/L		1736422	1736422.142
Mn	55	0.708	ug/L	4.684	8391	0.004
Cu	63		ug/L		1595	0.001
[ Cu	65	0.308	ug/L	4.668	824	0.000
[ Mo	98	0.048	ug/L	12.127	250	0.001
> In	115		ug/L		340031	340030.936
Sb	121	0.115	ug/L	5.443	802	0.002
[ Sb	123		ug/L		615	0.002
> Lu	175		ug/L		552859	552858.981
Tl	205	1.826	ug/L	13.276	36403	0.065
[ U	238	0.046	ug/L	2.645	2157	0.004

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear 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
[ Be	9					
> Sc	45		97.9			
Mn	55					
Cu	63					
[ Cu	65					
[ Mo	98					
> In	115		96.1			
Sb	121					
[ Sb	123					
> Lu	175		96.5			
Tl	205					
[ U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: 1202036455

Report Date/Time: Thursday, March 04, 2010 13:09:36

Page 1

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, March 04, 2010 13:11:05

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\100304.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 6.018

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	50.126	ug/L	2.622	22937	0.014
> Sc	45		ug/L		1684786	1684785.954
Mn	55	54.194	ug/L	3.957	541813	0.321
Cu	63		ug/L		207133	0.123
Cu	65	51.723	ug/L	3.205	101160	0.060
Mo	98	48.400	ug/L	1.290	197894	0.570
> In	115		ug/L		347151	347150.978
Sb	121	48.271	ug/L	3.130	315186	0.908
Sb	123		ug/L		246485	0.710
> Lu	175		ug/L		568186	568185.615
Tl	205	53.623	ug/L	1.092	1077517	1.895
U	238	51.775	ug/L	0.675	2398384	4.221

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
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	100.251				
> Sc	45		95.0			
Mn	55	108.387				
Cu	63					
Cu	65	103.445				
Mo	98	96.799				
> In	115		98.1			
Sb	121	96.542				
Sb	123					
> Lu	175		99.2			
Tl	205	107.247				
U	238	103.551				

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: QC Std 6

Report Date/Time: Thursday, March 04, 2010 13:11:57

Page 1

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Thursday, March 04, 2010 13:13:27

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\100304.mth

Dataset File: C:\elandata\Dataset\100304\QC Std 7.019

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.007	ug/L	176.487	17	0.000
> Sc	45		ug/L		1706274	1706274.353
Mn	55	0.022	ug/L	18.042	1314	0.000
Cu	63		ug/L		410	0.000
Cu	65	0.011	ug/L	144.817	222	0.000
Mo	98	0.061	ug/L	5.414	306	0.001
> In	115		ug/L		343896	343895.519
Sb	121	0.638	ug/L	6.575	4197	0.012
Sb	123		ug/L		3209	0.009
> Lu	175		ug/L		578004	578003.606
Tl	205	0.722	ug/L	7.997	15496	0.026
U	238	0.014	ug/L	10.191	747	0.001

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution %	Duplicate Rel. % Difference
Be	9					
> Sc	45		96.2			
Mn	55					
Cu	63					
Cu	65					
Mo	98					
> In	115		97.2			
Sb	121					
Sb	123					
> Lu	175		100.9			
Tl	205					
U	238					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: QC Std 7

Report Date/Time: Thursday, March 04, 2010 13:14:19

Page 1

## QC Action

QC Action Line: No QC out of limits detected

=====  
Analysis BegunLogged In Analyst: Administrator  
Spectrometer Model: FIMS-100, S/N B050-9550Technique: AA FIMS-MHS  
Autosampler Model: S10

Sample Information File: C:\data-AA\Administrator\Sample Information\021710W1.SIF

Batch ID:

Results Data Set: 021710W2

Results Library: C:\data-AA\Administrator\Results\Results.mdb

=====  
Method Loaded

Method Name: WATER

Method Last Saved: 2/8/2010 13:04:57

Method Description: 7470A, 245.2, ILM04 ANALYST JXL

Sequence No.: 1

Autosampler Location: 1

Sample ID: Calib Blank

Date Collected: 2/17/2010 09:35:12

Analyst:

Data Type: Original

-----  
Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0006	0.0053	0.0006	09:36:12	Yes
2		[0.00]	0.0005	0.0028	0.0005	09:36:47	Yes
Mean:		[0.00]	0.0006				
SD:		0.00	0.0001				
%RSD:		0.00	17.93				

Auto-zero performed.

Sequence No.: 2

Autosampler Location: 2

Sample ID: S0.2

Date Collected: 2/17/2010 09:37:06

Analyst:

Data Type: Original

-----  
Replicate Data: S0.2

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0017	0.0110	0.0023	09:38:07	Yes
2		[0.2]	0.0018	0.0104	0.0023	09:38:42	Yes
Mean:		[0.2]	0.0018				
SD:		0.0	0.0001				
%RSD:		0.0	3.11				

Standard number 1 applied. [0.2]

Correlation Coef.: 1.000000 Slope: 0.00877 Intercept: 0.00000

Sequence No.: 3

Autosampler Location: 3

Sample ID: S0.5

Date Collected: 2/17/2010 09:39:01

Analyst:

Data Type: Original

-----  
Replicate Data: S0.5

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0045	0.0220	0.0050	09:40:02	Yes
2		[0.5]	0.0044	0.0217	0.0050	09:40:37	Yes
Mean:		[0.5]	0.0045				
SD:		0.0	0.0000				
%RSD:		0.0	0.41				

Standard number 2 applied. [0.5]

Correlation Coef.: 0.999971 Slope: 0.00893 Intercept: -0.00001

Sequence No.: 4

Autosampler Location: 4

Sample ID: S2.0

Date Collected: 2/17/2010 09:40:56

Analyst:

Data Type: Original

-----  
Replicate Data: S2.0

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0191	0.0895	0.0196	09:41:58	Yes
2		[2.0]	0.0191	0.0903	0.0197	09:42:32	Yes
Mean:		[2.0]	0.0191				
SD:		0.0	0.0000				
%RSD:		0.0	0.15				

Standard number 3 applied. [2.0]  
Correlation Coef.: 0.999863 Slope: 0.00961 Intercept: -0.00015

Sequence No.: 5  
Sample ID: S5.0  
Analyst:

Autosampler Location: 5  
Date Collected: 2/17/2010 09:42:52  
Data Type: Original

-----  
Replicate Data: S5.0

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0484	0.2236	0.0490	09:43:54	Yes
2		[5.0]	0.0483	0.2221	0.0488	09:44:29	Yes
Mean:		[5.0]	0.0484				
SD:		0.0	0.0001				
%RSD:		0.0	0.21				

Standard number 4 applied. [5.0]  
Correlation Coef.: 0.999974 Slope: 0.00970 Intercept: -0.00020

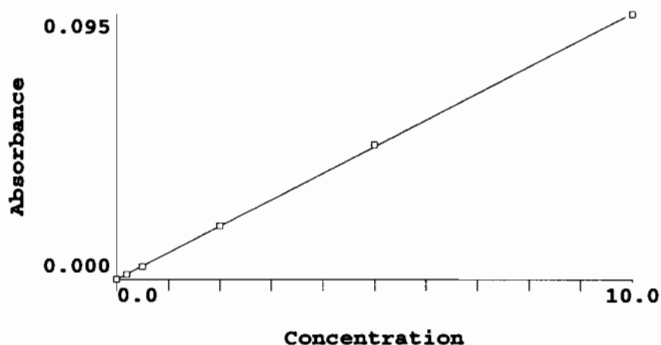
Sequence No.: 6  
Sample ID: S10.0  
Analyst:

Autosampler Location: 6  
Date Collected: 2/17/2010 09:44:49  
Data Type: Original

-----  
Replicate Data: S10.0

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.0954	0.4427	0.0960	09:45:49	Yes
2		[10.0]	0.0951	0.4391	0.0956	09:46:24	Yes
Mean:		[10.0]	0.0953				
SD:		0.0	0.0003				
%RSD:		0.0	0.27				

Standard number 5 applied. [10.0]  
Correlation Coef.: 0.999961 Slope: 0.00956 Intercept: -0.00004

-----  
Calibration data for Hg 253.7

Equation: Linear, Calculated Intercept

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	0.004	0.00	17.9
S0.2	0.0018	0.2	0.188	0.00	3.1
S0.5	0.0045	0.5	0.471	0.00	0.4
S2.0	0.0191	2.0	2.004	0.00	0.1



S5.0 0.0484 5.0 5.063 0.00 0.2  
S10.0 0.0953 10.0 9.969 0.00 0.3  
Correlation Coef.: 0.999961 Slope: 0.00956 Intercept: -0.00004

Sequence No.: 7

Sample ID: ICV

Analyst:

Autosampler Location: 9

Date Collected: 2/17/2010 09:46:43

Data Type: Original

## Replicate Data: ICV

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.252	5.252	0.0502	0.2331	0.0507	09:47:44	Yes
2	5.207	5.207	0.0497	0.2298	0.0503	09:48:19	Yes
Mean:	5.230	5.230	0.0500				
SD:	0.032	0.032	0.0003				
%RSD:	0.607	0.607	0.61				

QC value within limits for Hg 253.7 Recovery = 104.60%  
All analyte(s) passed QC.

Sequence No.: 8

Sample ID: ICB

Analyst:

Autosampler Location: 10

Date Collected: 2/17/2010 09:48:39

Data Type: Original

## Replicate Data: ICB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.015	-0.015	-0.0002	0.0016	0.0004	09:49:40	Yes
2	0.000	0.000	-0.0000	0.0027	0.0005	09:50:15	Yes
Mean:	-0.008	-0.008	-0.0001				
SD:	0.010	0.010	0.0001				
%RSD:	134.1	134.1	85.46				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 9

Sample ID: CRDL

Analyst:

Autosampler Location: 11

Date Collected: 2/17/2010 09:50:35

Data Type: Original

## Replicate Data: CRDL

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.178	0.178	0.0017	0.0097	0.0022	09:51:36	Yes
2	0.175	0.175	0.0016	0.0087	0.0022	09:52:11	Yes
Mean:	0.176	0.176	0.0016				
SD:	0.002	0.002	0.0000				
%RSD:	1.236	1.236	1.27				

QC value within limits for Hg 253.7 Recovery = 88.19%  
All analyte(s) passed QC.

Sequence No.: 10

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 2/17/2010 09:52:31

Data Type: Original

## Replicate Data: CCV

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.111	5.111	0.0488	0.2267	0.0494	09:53:31	Yes
2	5.119	5.119	0.0489	0.2263	0.0494	09:54:06	Yes
Mean:	5.115	5.115	0.0489				
SD:	0.005	0.005	0.0001				
%RSD:	0.106	0.106	0.11				

QC value within limits for Hg 253.7 Recovery = 102.30%  
All analyte(s) passed QC.

Sequence No.: 11  
Sample ID: CCB  
Analyst:

Autosampler Location: 8  
Date Collected: 2/17/2010 09:54:25  
Data Type: Original

## Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.016	-0.016	-0.0002	0.0004	0.0004	09:55:26	Yes
2	-0.014	-0.014	-0.0002	0.0015	0.0004	09:56:01	Yes
Mean:	-0.015	-0.015	-0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	12.15	12.15	9.35				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 12  
Sample ID: 1202039320|951563|1  
Analyst: JXL

Autosampler Location: 12  
Date Collected: 2/17/2010 09:56:20  
Data Type: Original

## Replicate Data: 1202039320|951563|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.013	-0.013	-0.0002	0.0005	0.0004	09:57:22	Yes
2	0.006	0.006	0.0000	0.0018	0.0006	09:57:57	Yes
Mean:	-0.003	-0.003	-0.0001				
SD:	0.013	0.013	0.0001				
%RSD:	409.9	409.9	173.74				

Sequence No.: 13  
Sample ID: 1202039321|951563|1  
Analyst: JXL

Autosampler Location: 13  
Date Collected: 2/17/2010 09:58:17  
Data Type: Original

## Replicate Data: 1202039321|951563|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.018	2.018	0.0193	0.0913	0.0198	09:59:19	Yes
2	2.038	2.038	0.0194	0.0922	0.0200	09:59:54	Yes
Mean:	2.028	2.028	0.0193				
SD:	0.014	0.014	0.0001				
%RSD:	0.668	0.668	0.67				

Sequence No.: 14  
Sample ID: 245934001|951563|1  
Analyst: JXL

Autosampler Location: 14  
Date Collected: 2/17/2010 10:00:14  
Data Type: Original

## Replicate Data: 245934001|951563|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.016	0.016	0.0001	0.0036	0.0007	10:01:14	Yes
2	0.024	0.024	0.0002	0.0038	0.0007	10:01:50	Yes
Mean:	0.020	0.020	0.0001				
SD:	0.005	0.005	0.0001				
%RSD:	27.85	27.85	35.88				

Sequence No.: 15  
Sample ID: 245934002|951563|1  
Analyst: JXL

Autosampler Location: 15  
Date Collected: 2/17/2010 10:02:09  
Data Type: Original

## Replicate Data: 245934002|951563|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
------	------------	---------	---------	------	------	------	------

-----  
Replicate Data: 1202039323|951563|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.024	2.024	0.0193	0.0929	0.0199	10:12:43	Yes
2	1.985	1.985	0.0189	0.0898	0.0195	10:13:17	Yes
Mean:	2.005	2.005	0.0191				
SD:	0.027	0.027	0.0003				
%RSD:	1.354	1.354	1.36				

Sequence No.: 21

Autosampler Location: 21

Sample ID: 1202039325|951563|5

Date Collected: 2/17/2010 10:13:37

Analyst: JXL

Data Type: Original  
-----

## Replicate Data: 1202039325|951563|5

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.005	-0.005	-0.0001	0.0021	0.0005	10:14:38	Yes
2	-0.005	-0.005	-0.0001	0.0015	0.0005	10:15:13	Yes
Mean:	-0.005	-0.005	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	8.610	8.610	4.54				

Sequence No.: 22

Autosampler Location: 7

Sample ID: CCV

Date Collected: 2/17/2010 10:15:32

Analyst:

Data Type: Original  
-----

## Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.089	5.089	0.0486	0.2253	0.0492	10:16:33	Yes
2	5.081	5.081	0.0485	0.2275	0.0491	10:17:08	Yes
Mean:	5.085	5.085	0.0486				
SD:	0.006	0.006	0.0001				
%RSD:	0.112	0.112	0.11				

QC value within limits for Hg 253.7 Recovery = 101.71%  
All analyte(s) passed QC.  
-----

Sequence No.: 23

Autosampler Location: 8

Sample ID: CCB

Date Collected: 2/17/2010 10:17:26

Analyst:

Data Type: Original  
-----

## Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.004	-0.004	-0.0001	0.0018	0.0005	10:18:27	Yes
2	-0.004	-0.004	-0.0001	0.0020	0.0005	10:19:02	Yes
Mean:	-0.004	-0.004	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	8.591	8.591	4.14				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.  
-----

Sequence No.: 24

Autosampler Location: 22

Sample ID: 246293002|951563|1

Date Collected: 2/17/2010 10:19:21

Analyst: JXL

Data Type: Original  
-----

## Replicate Data: 246293002|951563|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.011	0.011	0.0001	0.0038	0.0006	10:20:23	Yes
2	0.002	0.002	-0.0000	0.0027	0.0005	10:20:58	Yes

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.019	-0.019	-0.0002	0.0005	0.0003	10:30:03	Yes
2	-0.002	-0.002	-0.0001	0.0020	0.0005	10:30:38	Yes
Mean:	-0.010	-0.010	-0.0001				
SD:	0.012	0.012	0.0001				
%RSD:	117.3	117.3	82.53				

Sequence No.: 30

Sample ID: 246465001|951503|1

Analyst: JXL

Autosampler Location: 28

Date Collected: 2/17/2010 10:30:57

Data Type: Original

Replicate Data: 246465001|951503|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	-0.0001	0.0023	0.0005	10:31:58	Yes
2	0.004	0.004	-0.0000	0.0021	0.0005	10:32:33	Yes
Mean:	0.001	0.001	-0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	354.6	354.6	104.60				

Sequence No.: 31

Sample ID: 246590001|951503|1

Analyst: JXL

Autosampler Location: 29

Date Collected: 2/17/2010 10:32:53

Data Type: Original

Replicate Data: 246590001|951503|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.003	-0.003	-0.0001	0.0020	0.0005	10:33:53	Yes
2	0.000	0.000	-0.0000	0.0020	0.0005	10:34:28	Yes
Mean:	-0.001	-0.001	-0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	184.8	184.8	44.22				

Sequence No.: 32

Sample ID: 246591001|951503|1

Analyst: JXL

Autosampler Location: 30

Date Collected: 2/17/2010 10:34:47

Data Type: Original

Replicate Data: 246591001|951503|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.001	0.001	-0.0000	0.0022	0.0005	10:35:48	Yes
2	-0.007	-0.007	-0.0001	0.0024	0.0004	10:36:23	Yes
Mean:	-0.003	-0.003	-0.0001				
SD:	0.005	0.005	0.0001				
%RSD:	205.4	205.4	77.44				

Sequence No.: 33

Sample ID: 246606001|951503|1

Analyst: JXL

Autosampler Location: 31

Date Collected: 2/17/2010 10:36:42

Data Type: Original

Replicate Data: 246606001|951503|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.008	-0.008	-0.0001	0.0013	0.0004	10:37:43	Yes
2	0.001	0.001	-0.0000	0.0027	0.0005	10:38:18	Yes
Mean:	-0.003	-0.003	-0.0001				
SD:	0.007	0.007	0.0001				
%RSD:	201.4	201.4	87.27				

Sequence No.: 34

Sample ID: CCV

Autosampler Location: 7

Date Collected: 2/17/2010 10:38:37

Analyst:

Data Type: Original

-----  
Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	4.901	4.901	0.0468	0.2205	0.0474	10:39:37	Yes
2	4.918	4.918	0.0470	0.2207	0.0475	10:40:12	Yes
Mean:	4.910	4.910	0.0469				
SD:	0.012	0.012	0.0001				
%RSD:	0.244	0.244	0.24				

QC value within limits for Hg 253.7 Recovery = 98.19%  
All analyte(s) passed QC.

Sequence No.: 35

Autosampler Location: 8

Sample ID: CCB

Date Collected: 2/17/2010 10:40:31

Analyst:

Data Type: Original

-----  
Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.000	0.000	-0.0000	0.0029	0.0005	10:41:32	Yes
2	0.009	0.009	0.0000	0.0036	0.0006	10:42:07	Yes
Mean:	0.004	0.004	0.0000				
SD:	0.006	0.006	0.0001				
%RSD:	131.4	131.4	>999.9%				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 36

Autosampler Location: 32

Sample ID: 1202039173|951503|1

Date Collected: 2/17/2010 10:42:27

Analyst: JXL

Data Type: Original

-----  
Replicate Data: 1202039173|951503|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.003	-0.003	-0.0001	0.0020	0.0005	10:43:27	Yes
2	-0.007	-0.007	-0.0001	0.0017	0.0004	10:44:02	Yes
Mean:	-0.005	-0.005	-0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	62.16	62.16	31.63				

Sequence No.: 37

Autosampler Location: 33

Sample ID: 1202039174|951503|1

Date Collected: 2/17/2010 10:44:22

Analyst: JXL

Data Type: Original

-----  
Replicate Data: 1202039174|951503|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.012	2.012	0.0192	0.0919	0.0197	10:45:23	Yes
2	1.950	1.950	0.0186	0.0891	0.0192	10:45:57	Yes
Mean:	1.981	1.981	0.0189				
SD:	0.044	0.044	0.0004				
%RSD:	2.199	2.199	2.20				

Sequence No.: 38

Autosampler Location: 34

Sample ID: 1202039175|951503|5

Date Collected: 2/17/2010 10:46:17

Analyst: JXL

Data Type: Original

-----  
Replicate Data: 1202039175|951503|5

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.023	-0.023	-0.0003	0.0004	0.0003	10:47:18	Yes

2	-0.018	-0.018	-0.0002	0.0009	0.0003	10:47:53	Yes
Mean:	-0.020	-0.020	-0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	16.22	16.22	13.32				

Sequence No.: 39

Sample ID: 1202039378|951593|1

Analyst: JXL

Autosampler Location: 35

Date Collected: 2/17/2010 10:48:13

Data Type: Original

Replicate Data: 1202039378|951593|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.015	-0.015	-0.0002	0.0012	0.0004	10:49:15	Yes
2	-0.007	-0.007	-0.0001	0.0016	0.0004	10:49:50	Yes
Mean:	-0.011	-0.011	-0.0001				
SD:	0.005	0.005	0.0001				
%RSD:	48.40	48.40	34.45				

Sequence No.: 40

Sample ID: 1202039379|951593|1

Analyst: JXL

Autosampler Location: 36

Date Collected: 2/17/2010 10:50:10

Data Type: Original

Replicate Data: 1202039379|951593|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	1.962	1.962	0.0187	0.0899	0.0193	10:51:12	Yes
2	1.964	1.964	0.0187	0.0892	0.0193	10:51:46	Yes
Mean:	1.963	1.963	0.0187				
SD:	0.001	0.001	0.0000				
%RSD:	0.069	0.069	0.07				

Sequence No.: 41

Sample ID: 246323001|951593|1

Analyst: JXL

Autosampler Location: 37

Date Collected: 2/17/2010 10:52:07

Data Type: Original

Replicate Data: 246323001|951593|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.003	0.003	-0.0000	0.0024	0.0005	10:53:08	Yes
2	0.003	0.003	-0.0000	0.0032	0.0005	10:53:44	Yes
Mean:	0.003	0.003	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	13.18	13.18	23.27				

Sequence No.: 42

Sample ID: 246334001|951593|1

Analyst: JXL

Autosampler Location: 38

Date Collected: 2/17/2010 10:54:04

Data Type: Original

Replicate Data: 246334001|951593|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.015	-0.015	-0.0002	0.0015	0.0004	10:55:05	Yes
2	-0.012	-0.012	-0.0002	0.0017	0.0004	10:55:40	Yes
Mean:	-0.014	-0.014	-0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	15.38	15.38	11.62				

Sequence No.: 43

Sample ID: 246431001|951593|1

Analyst: JXL

Autosampler Location: 39

Date Collected: 2/17/2010 10:55:59

Data Type: Original

## Replicate Data: 246431001|951593|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.013	-0.013	-0.0002	0.0018	0.0004	10:57:00	Yes
2	-0.006	-0.006	-0.0001	0.0027	0.0005	10:57:36	Yes
Mean:	-0.009	-0.009	-0.0001				
SD:	0.005	0.005	0.0000				
%RSD:	54.51	54.51	36.73				

Sequence No.: 44

Autosampler Location: 40

Sample ID: 1202039380|951593|1

Date Collected: 2/17/2010 10:57:55

Analyst: JXL

Data Type: Original

## Replicate Data: 1202039380|951593|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.011	-0.011	-0.0002	0.0020	0.0004	10:58:57	Yes
2	-0.012	-0.012	-0.0002	0.0018	0.0004	10:59:32	Yes
Mean:	-0.012	-0.012	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	5.997	5.997	4.37				

Sequence No.: 45

Autosampler Location: 41

Sample ID: 1202039381|951593|1

Date Collected: 2/17/2010 10:59:51

Analyst: JXL

Data Type: Original

## Replicate Data: 1202039381|951593|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.943	1.943	0.0185	0.0894	0.0191	11:00:52	Yes
2	1.923	1.923	0.0183	0.0878	0.0189	11:01:27	Yes
Mean:	1.933	1.933	0.0184				
SD:	0.014	0.014	0.0001				
%RSD:	0.700	0.700	0.70				

Sequence No.: 46

Autosampler Location: 7

Sample ID: CCV

Date Collected: 2/17/2010 11:01:46

Analyst:

Data Type: Original

## Replicate Data: CCV

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.917	4.917	0.0470	0.2196	0.0475	11:02:47	Yes
2	4.890	4.890	0.0467	0.2184	0.0473	11:03:22	Yes
Mean:	4.904	4.904	0.0468				
SD:	0.019	0.019	0.0002				
%RSD:	0.390	0.390	0.39				

QC value within limits for Hg 253.7 Recovery = 98.07%

All analyte(s) passed QC.

Sequence No.: 47

Autosampler Location: 8

Sample ID: CCB

Date Collected: 2/17/2010 11:03:41

Analyst:

Data Type: Original

## Replicate Data: CCB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.005	-0.005	-0.0001	0.0026	0.0005	11:04:41	Yes
2	-0.016	-0.016	-0.0002	0.0012	0.0004	11:05:17	Yes
Mean:	-0.011	-0.011	-0.0001				
SD:	0.008	0.008	0.0001				
%RSD:	72.63	72.63	51.34				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 48

Sample ID: 1202039382|951593|5

Analyst: JXL

Autosampler Location: 42

Date Collected: 2/17/2010 11:05:36

Data Type: Original

Replicate Data: 1202039382|951593|5

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.013	-0.013	-0.0002	0.0015	0.0004	11:06:37	Yes
2	-0.018	-0.018	-0.0002	0.0014	0.0003	11:07:12	Yes
Mean:	-0.015	-0.015	-0.0002				
SD:	0.004	0.004	0.0000				
%RSD:	22.71	22.71	17.67				

Sequence No.: 49

Sample ID: 246431002|951593|1

Analyst: JXL

Autosampler Location: 43

Date Collected: 2/17/2010 11:07:31

Data Type: Original

Replicate Data: 246431002|951593|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.017	-0.017	-0.0002	0.0014	0.0004	11:08:32	Yes
2	-0.024	-0.024	-0.0003	0.0010	0.0003	11:09:07	Yes
Mean:	-0.021	-0.021	-0.0002				
SD:	0.005	0.005	0.0001				
%RSD:	25.92	25.92	21.33				

Sequence No.: 50

Sample ID: 246431003|951593|1

Analyst: JXL

Autosampler Location: 44

Date Collected: 2/17/2010 11:09:26

Data Type: Original

Replicate Data: 246431003|951593|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.011	-0.011	-0.0001	0.0025	0.0004	11:10:27	Yes
2	-0.012	-0.012	-0.0002	0.0021	0.0004	11:11:02	Yes
Mean:	-0.012	-0.012	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	6.297	6.297	4.58				

Sequence No.: 51

Sample ID: 246431004|951593|1

Analyst: JXL

Autosampler Location: 45

Date Collected: 2/17/2010 11:11:22

Data Type: Original

Replicate Data: 246431004|951593|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.025	-0.025	-0.0003	0.0006	0.0003	11:12:23	Yes
2	-0.015	-0.015	-0.0002	0.0020	0.0004	11:12:58	Yes
Mean:	-0.020	-0.020	-0.0002				
SD:	0.007	0.007	0.0001				
%RSD:	34.12	34.12	27.98				

Sequence No.: 52

Sample ID: 246436001|951593|1

Analyst: JXL

Autosampler Location: 46

Date Collected: 2/17/2010 11:13:18

Data Type: Original

Replicate Data: 246436001|951593|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored



-----  
Replicate Data: 1202039441|951627|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.021	-0.021	-0.0002	0.0013	0.0003	11:24:01	Yes
2	-0.020	-0.020	-0.0002	0.0011	0.0003	11:24:36	Yes
Mean:	-0.021	-0.021	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.177	0.177	0.15				

Sequence No.: 58

Autosampler Location: 7

Sample ID: CCV

Date Collected: 2/17/2010 11:24:56

Analyst:

Data Type: Original  
-----

## Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	4.900	4.900	0.0468	0.2214	0.0474	11:25:56	Yes
2	4.923	4.923	0.0470	0.2210	0.0476	11:26:31	Yes
Mean:	4.912	4.912	0.0469				
SD:	0.016	0.016	0.0002				
%RSD:	0.329	0.329	0.33				

QC value within limits for Hg 253.7 Recovery = 98.24%

All analyte(s) passed QC.  
-----

Sequence No.: 59

Autosampler Location: 8

Sample ID: CCB

Date Collected: 2/17/2010 11:26:50

Analyst:

Data Type: Original  
-----

## Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.020	-0.020	-0.0002	0.0009	0.0003	11:27:51	Yes
2	-0.014	-0.014	-0.0002	0.0014	0.0004	11:28:26	Yes
Mean:	-0.017	-0.017	-0.0002				
SD:	0.004	0.004	0.0000				
%RSD:	25.07	25.07	19.99				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.  
-----

Sequence No.: 60

Autosampler Location: 52

Sample ID: 1202039442|951627|1

Date Collected: 2/17/2010 11:28:45

Analyst: JXL

Data Type: Original  
-----

## Replicate Data: 1202039442|951627|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	1.956	1.956	0.0187	0.0901	0.0192	11:29:46	Yes
2	1.952	1.952	0.0186	0.0894	0.0192	11:30:21	Yes
Mean:	1.954	1.954	0.0186				
SD:	0.003	0.003	0.0000				
%RSD:	0.139	0.139	0.14				

Sequence No.: 61

Autosampler Location: 53

Sample ID: 1202039443|951627|5

Date Collected: 2/17/2010 11:30:41

Analyst: JXL

Data Type: Original  
-----

## Replicate Data: 1202039443|951627|5

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.021	-0.021	-0.0002	0.0013	0.0003	11:31:42	Yes
2	-0.014	-0.014	-0.0002	0.0024	0.0004	11:32:17	Yes
Mean:	-0.017	-0.017	-0.0002				

# Miscellaneous

# Prep LogBook

Analyst: FGA  
 Batch: 950315  
 Lab SOP: GL-MA-E-006 REV# 9

Verified by: \_\_\_\_\_

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202036426	U1100120-01	.25	mL
LCS	1202036426	U1100120-06	.25	mL
MS	1202036428	U1100120-01	.25	mL
MS	1202036428	U1100120-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202036425		SW846 3005A	15-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
LCS	1202036426		SW846 3005A	15-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	246323001		SW846 3005A	15-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	246334001		SW846 3005A	15-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
DUP	1202036427	246334001	SW846 3005A	15-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
MS	1202036428	246334001	SW846 3005A	15-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SDILT	1202036429	246334001	SW846 3005A	15-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER

## Comments

Reagent/Solvent Lot ID	Amount	Description
1265209	2.5 mL	HYDROCHLORIC ACID
1268732	1 mL	Nitric Acid CONC.

# Prep LogBook

Analyst: FGA Verified by: \_\_\_\_\_

Batch: 950323

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202036452	U1100120-A	.5	mL
LCS	1202036452	U1100120-B	.5	mL
MS	1202036454	U1090930-A	.5	mL
MS	1202036454	U1090930-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202036451		SW846 3005A	15-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
LCS	1202036452		SW846 3005A	15-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	246323001		SW846 3005A	15-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	246334001		SW846 3005A	15-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
DUP	1202036453	246334001	SW846 3005A	15-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
MS	1202036454	246334001	SW846 3005A	15-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SDILT	1202036455	246334001	SW846 3005A	15-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER

## Comments

Reagent/Solvent Lot ID	Amount	Description
1265209	2.5 mL	HYDROCHLORIC ACID
1268732	1 mL	Nitric Acid CONC.

# Prep LogBook

Analyst: TXB3 Verified by: \_\_\_\_\_

Batch: 951592

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	1202039378		SW846 7470A Prep	16-FEB-2010 11:55	<2	20 mL	20 mL	1		
LCS	1202039379		SW846 7470A Prep	16-FEB-2010 11:55	<2	20 mL	20 mL	1	.2	mL
SAMPLE	246323001		SW846 7470A Prep	16-FEB-2010 11:55	<2	20 mL	20 mL	1		
SAMPLE	246334001		SW846 7470A Prep	16-FEB-2010 11:55	<2	20 mL	20 mL	1		
SAMPLE	246431001		SW846 7470A Prep	16-FEB-2010 11:55	<2	20 mL	20 mL	1		
DUP	1202039380	246431001	SW846 7470A Prep	16-FEB-2010 11:55	<2	20 mL	20 mL	1		
MS	1202039381	246431001	SW846 7470A Prep	16-FEB-2010 11:55	<2	20 mL	20 mL	1		
SDILT	1202039382	246431001	SW846 7470A Prep	16-FEB-2010 11:55	<2	20 mL	20 mL	1		
SAMPLE	246431002		SW846 7470A Prep	16-FEB-2010 11:55	<2	20 mL	20 mL	1		
SAMPLE	246431003		SW846 7470A Prep	16-FEB-2010 11:55	<2	20 mL	20 mL	1		
SAMPLE	246431004		SW846 7470A Prep	16-FEB-2010 11:55	<2	20 mL	20 mL	1		
SAMPLE	246436001		SW846 7470A Prep	16-FEB-2010 11:55	<2	20 mL	20 mL	1		

Reagent/Solvent Lot ID	Amount	Description
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
WHG100216-06	500 uL	Mercury Working 2nd Source 5.0/CCV
WHG100216-01a	20 uL	Mercury Working 1st Source CAL 0.2/CRA
WHG100216-02	50 uL	Mercury Working 1st Source CAL 0.5
WHG100216-05	1 mL	Mercury Working 1st Source CAL 10.0
WHG100216-03	200 uL	Mercury Working 1st Source CAL 2.0
WHG100216-04	500 uL	Mercury Working 1st Source CAL 5.0/CCV

Comments Digestion Start Date: 16-FEB-10 11:55  
Digestion End Date: 16-FEB-10 13:55

# 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:** UI090612-02      **Opened:** 12-JUN-09      **Catalog Number :** 060074-06-01  
**Name:** ICPMS Tungsten - 10mg/L      **Received:** 12-JUN-09      **Lot Number :** 1016377  
**Type:** Source Material      **Expires:** 12-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
---------	---------------	---------	---------------

# 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:** 01-MAR-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:** 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

# Standard Logbook

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		

**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		

# Standard Logbook

**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		

**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

# Standard Logbook

Analyte	Concentration	Analyte	Concentration
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

**Serial ID:** UI100120-A      **Opened:** 20-JAN-10      **Catalog Number :** 160067-05  
**Name:** ICP-MS ALL OTHER SPIKE      **Received:** 20-JAN-10      **Lot Number :** 1018097  
**Type:** Source Material      **Expires:** 20-JAN-11  
**Employee:** Bryan Davis  
**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:** UI100120-B      **Opened:** 20-JAN-10      **Catalog Number :** 160067-05  
**Name:** ICP-MS ALL OTHER SPIKE      **Received:** 20-JAN-10      **Lot Number :** 1017644  
**Type:** Source Material      **Expires:** 20-JAN-11  
**Employee:** Bryan Davis  
**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

<b>Analyte</b>	<b>Concentration</b>	<b>Analyte</b>	<b>Concentration</b>
Sodium	500000 ug/L	Uranium	15000 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:** O2SI  
**Description:** ICP-MS ICSA Master A  
**Comments:** None

<b>Analyte</b>	<b>Concentration</b>	<b>Analyte</b>	<b>Concentration</b>
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:** UI100219-60      **Opened:** 19-FEB-10      **Amount :** .5 mL  
**Name:** ICPMS High Range Standard      **Received:** 19-FEB-10      **Catalog Number :** 160212-02-01  
**Type:** Source Material      **Expires:** 19-FEB-11      **Lot Number :** 1018890  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3 + Tr HF  
**Supplier:** O2SI  
**Description:** Linear Range Standard A  
**Comments:** None

<b>Analyte</b>	<b>Concentration</b>	<b>Analyte</b>	<b>Concentration</b>
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:** UI100219-61      **Opened:** 19-FEB-10      **Amount :** .5 mL  
**Name:** ICPMS High Range Standard      **Received:** 19-FEB-10      **Catalog Number :** 160212-02-01  
**Type:** Source Material      **Expires:** 19-FEB-11      **Lot Number :** 1018890  
**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:** UMS100226-01      **Opened:** 26-FEB-10      **Amount :** 250 mL  
**Name:** ICPMSCaSPIKEB      **Received:** 26-FEB-10      **Catalog Number :** ZGEL-100-250  
**Type:** Source Material      **Expires:** 26-FEB-11      **Lot Number :** 21-104JB  
**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:** UMS100226-02      **Opened:** 26-FEB-10      **Catalog Number :** ZGEL-102-250  
**Name:** ICPMSCaSPIKEA      **Received:** 26-FEB-10      **Lot Number :** 21-103JB  
**Type:** Source Material      **Expires:** 26-FEB-11  
**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		

# Standard Logbook

**Serial ID:** UMS100226-03      **Opened:** 26-FEB-10      **Amount :** 250 ml  
**Name:** ICPMSCalSPIKEC      **Received:** 26-FEB-10      **Catalog Number :** ZGEL-101-250  
**Type:** Source Material      **Expires:** 26-FEB-11      **Lot Number :** 21-102JB  
**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:** IHG100216-01      **Opened:** 16-FEB-10      **Instrument Id :** Mercury  
**Name:** MHGINTER1      **Received:** 16-FEB-10      **Pipet Id :** Minou1  
**Type:** Intermediate      **Expires:** 17-FEB-10      **Solvent :** 1mL HNO3 + Typel 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:** IHG100216-02      **Opened:** 16-FEB-10      **Pipet Id :** Minou1  
**Name:** MHGINTER2      **Received:** 16-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Intermediate      **Expires:** 17-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:** WHG100216-01a      **Opened:** 16-FEB-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCAL0.2CRA      **Received:** 16-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 23-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.
IHG100216-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

# Standard Logbook

**Serial ID:** WHG100216-02      **Opened:** 16-FEB-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCAL0.5      **Received:** 16-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 23-FEB-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Mercury Working 1st Source CAL 0.5  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100216-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

**Serial ID:** WHG100216-03      **Opened:** 16-FEB-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCAL2.0      **Received:** 16-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 23-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.
IHG100216-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

**Serial ID:** WHG100216-04      **Opened:** 16-FEB-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCAL5.0CCV      **Received:** 16-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 23-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.
IHG100216-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

**Serial ID:** WHG100216-05      **Opened:** 16-FEB-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCAL10.0      **Received:** 16-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 23-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.
IHG100216-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

# Standard Logbook

**Serial ID:** WHG100216-06      **Opened:** 16-FEB-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORK5.0ICV      **Received:** 16-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 23-FEB-10  
**Employee:** Tara Griffin  
**Supplier:** GEL  
**Description:** Mercury Working 2nd Source 5.0/ICV  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100216-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

**Serial ID:** WHG100216-13      **Opened:** 16-FEB-10      **Pipet Id :** Hg1289245  
**Name:** MHGLIQLCSMSSPIKE      **Received:** 16-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 23-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.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

**Serial ID:** WI100217-42      **Opened:** 17-FEB-10      **Balance Id :** 216  
**Name:** TRACE ICP 0.1 PPM STD.      **Received:** 02-NOV-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 18-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.
WI100217-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100217-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100217-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100217-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100217-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100217-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100217-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100217-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100217-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100217-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100217-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100217-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

**Serial ID:** WI100217-43      **Opened:** 17-FEB-10      **Balance Id :** 216  
**Name:** TRACE ICP 0.5/CCV STD.      **Received:** 02-NOV-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 18-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.	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

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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

**Serial ID:** WI100217-44      **Opened:** 17-FEB-10      **Balance Id :** 216  
**Name:** TRACE ICP SCAL 1.0      **Received:** 02-NOV-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 18-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.	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

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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

**Serial ID:** WI100217-45      **Opened:** 17-FEB-10      **Balance Id :** 216  
**Name:** TRACE ICP S-10 STD      **Received:** 22-APR-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 18-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:** WI100217-46      **Opened:** 17-FEB-10      **Balance Id :** 216  
**Name:** ICP TRACE ICV      **Received:** 25-SEP-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 18-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

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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
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:** WI100217-47      **Opened:** 17-FEB-10      **Balance Id :** 216  
**Name:** PQL Working Standard      **Received:** 30-JUN-09      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 18-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



# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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
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:** 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

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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

**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.	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

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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

**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.	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

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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

**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

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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
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

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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
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:** WMS100303-04      **Opened:** 03-MAR-10      **Amount :** 50 mL  
**Name:** ICPMS Cal Standard 100      **Received:** 03-MAR-10      **Balance Id :** 4025216  
**Type:** Working      **Expires:** 04-MAR-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl-1276824  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (100 ppb)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100226-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100226-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100226-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

**Serial ID:** WMS100303-04A      **Opened:** 03-MAR-10      **Balance Id :** 4025216  
**Name:** ICPMS Cal Standard 10      **Received:** 03-MAR-10      **Pipet Id :** 3541598  
**Type:** Working      **Expires:** 04-MAR-10      **Solvent :** 2%HNO3/1%HCl - 1276824  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (10 ppb)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100303-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100303-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100303-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100303-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100303-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100303-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100303-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100303-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100303-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100303-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100303-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

**Serial ID:** WMS100303-04B      **Opened:** 03-MAR-10      **Amount :** 50 mL  
**Name:** ICPMS Cal Standard 100      **Received:** 03-MAR-10      **Balance Id :** 40245216  
**Type:** Working      **Expires:** 04-MAR-10      **Pipet Id :** 1758088  
**Employee:** Rose Jenkins      **Solvent :** 2%HNO3/1%HCl- 1276824  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (100 ppb)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100226-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS100226-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Uranium	10 mg/L	.5	50 mL	100 ug/l



# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100226-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS100226-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS100226-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100226-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS100226-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100226-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS100226-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100226-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100226-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS100226-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS100226-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS100226-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

**Serial ID:** WMS100303-05      **Opened:** 03-MAR-10      **Balance Id :** 40245216  
**Name:** ICPMS ICV      **Received:** 03-MAR-10      **Pipet Id :** 3541598  
**Type:** Working      **Expires:** 04-MAR-10      **Solvent :** 2%HNO3/1%HCl - 1276824  
**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

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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:** WMS100303-06      **Opened:** 03-MAR-10      **Balance Id :** 40245216  
**Name:** ICPMS CRDL      **Received:** 03-MAR-10      **Pipet Id :** 3820544  
**Type:** Working      **Expires:** 04-MAR-10      **Solvent :** 2%HNO3/1%HCl - 1276824  
**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

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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:** WMS100303-07      **Opened:** 03-MAR-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSA      **Received:** 03-MAR-10      **Lot Number :** 1010773  
**Type:** Working      **Expires:** 04-MAR-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl - 1276824  
**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:** WMS100303-08      **Opened:** 03-MAR-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSAB      **Received:** 03-MAR-10      **Pipet Id :** 1758088  
**Type:** Working      **Expires:** 04-MAR-10      **Solvent :** 2%HNO3/1%HCl - 1276824  
**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

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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
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:** WMS100303-70      **Opened:** 03-MAR-10      **Balance Id :** 40245216  
**Name:** ICPMS LINEAR RANGE ST      **Received:** 03-MAR-10      **Pipet Id :** 1758088  
**Type:** Working      **Expires:** 04-MAR-10      **Solvent :** 2%HNO3/1%HCl - 1276824  
**Employee:** Paul Boyd  
**Supplier:** Q2SI  
**Description:** ICPMS LINEAR RANGE STANDARD  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100219-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

**Serial ID:** WMS100304-04      **Opened:** 04-MAR-10      **Amount :** 50 mL  
**Name:** ICPMS Cal Standard 100      **Received:** 04-MAR-10      **Balance Id :** 4025216  
**Type:** Working      **Expires:** 05-MAR-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl-1276824  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (100 ppb)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100226-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100226-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100226-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

**Serial ID:** WMS100304-04A      **Opened:** 04-MAR-10      **Balance Id :** 4025216  
**Name:** ICPMS Cal Standard 10      **Received:** 04-MAR-10      **Pipet Id :** 3541598  
**Type:** Working      **Expires:** 04-MAR-10      **Solvent :** 2%HNO3/1%HCl - 1276824  
**Employee:** Paul Boyd  
**Supplier:** GEL  
**Description:** ICPMS Calibration Standard (10 ppb)  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100303-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100303-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100303-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100303-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100303-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100303-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100303-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100303-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100303-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100303-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100303-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

**Serial ID:** WMS100304-05      **Opened:** 04-MAR-10      **Balance Id :** 40245216  
**Name:** ICPMS ICV      **Received:** 04-MAR-10      **Pipet Id :** 3541598  
**Type:** Working      **Expires:** 05-MAR-10      **Solvent :** 2%HNO3/1%HCl - 1276824  
**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

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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

**Serial ID:** WMS100304-06      **Opened:** 04-MAR-10      **Balance Id :** 40245216  
**Name:** ICPMS CRDL      **Received:** 04-MAR-10      **Pipet Id :** 3820544  
**Type:** Working      **Expires:** 05-MAR-10      **Solvent :** 2%HNO3/1%HCl - 1276824  
**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



# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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

**Serial ID:** WMS100304-07      **Opened:** 04-MAR-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSA      **Received:** 04-MAR-10      **Lot Number :** 1010773  
**Type:** Working      **Expires:** 05-MAR-10      **Pipet Id :** 3541598  
**Employee:** Paul Boyd      **Solvent :** 2%HNO3/1%HCl - 1276824  
**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

# Standard Logbook

**Serial ID:** WMS100304-08      **Opened:** 04-MAR-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSAB      **Received:** 04-MAR-10      **Pipet Id :** 1758088  
**Type:** Working      **Expires:** 05-MAR-10      **Solvent :** 2%HNO3/1%HCl - 1276824  
**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
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

## Standard Logbook

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

---

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

---

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

---

# Standard Logbook

**Serial ID:** 1228372-A      **Opened:** 12-NOV-09      **Lot Number :** 49215936  
**Name:** B-NH2OH.HCI-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:** 1255532-C      **Opened:** 15-JAN-10      **Balance Id :** BAL-002  
**Name:** B-NaCl.NH2OH.HCI-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.HCI-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:** 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: 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

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

Serial ID: 1276824      Opened: 01-MAR-10      Solvent : Type I Water  
 Name: B-2%HNO3/1%HCL-ICPMS      Received: 01-MAR-10  
 Type: Reagent/Solvent      Expires: 08-MAR-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

# Metals Analysis

# Case Narrative

**Metals Fractional Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-1568-1**

**Sample Analysis**

<b>Sample ID</b>	<b>Client ID</b>
246336001	RE15-10-8304
246336002	RE15-10-8305
246336003	RE15-10-8306
246336004	RE15-10-8307
246336005	RE15-10-8309
246336006	RE15-10-8308
246336007	RE15-10-8301
246336008	RE15-10-8300
246336009	RE15-10-8324
1202036650	Method Blank (MB) <b>ICP</b>
1202036655	Laboratory Control Sample (LCS)
1202036652	246336001(RE15-10-8304L) Serial Dilution (SD)
1202036651	246336001(RE15-10-8304D) Sample Duplicate (DUP)
1202036653	246336001(RE15-10-8304S) Matrix Spike (MS)
1202036654	246336001(RE15-10-8304SD) Matrix Spike Duplicate (MSD)
1202036669	Method Blank (MB) <b>ICP-MS</b>
1202036674	Laboratory Control Sample (LCS)
1202036671	246336001(RE15-10-8304L) Serial Dilution (SD)
1202036670	246336001(RE15-10-8304D) Sample Duplicate (DUP)
1202036672	246336001(RE15-10-8304S) Matrix Spike (MS)



1202036673	246336001(RE15-10-8304SD) Matrix Spike Duplicate (MSD)
1202039383	Method Blank (MB) CVAA
1202039384	Laboratory Control Sample (LCS)
1202039387	246344001(RE15-10-7981L) Serial Dilution (SD)
1202039385	246344001(RE15-10-7981D) Sample Duplicate (DUP)
1202039386	246344001(RE15-10-7981S) Matrix Spike (MS)
1202039388	246344001(RE15-10-7981SD) Matrix Spike Duplicate (MSD)

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

#### **Method/Analysis Information**

<b>Analytical Batch:</b>	950379, 950387 and 951598
<b>Prep Batch :</b>	950377, 950380 and 951597
<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 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.

### **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: 246336001 (RE15-10-8304) and 246344001 (RE15-10-7981).

#### **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 exceptions of antimony and magnesium, 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 exceptions of antimony, chromium and magnesium, as indicated by the "N" qualifiers.

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

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

**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 met these requirements with the exceptions of chromium, cobalt, lead and uranium, 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 246336001 (RE15-10-8304), 246336002 (RE15-10-8305) and 246336009 (RE15-10-8324) 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: 793839 and 796793. 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 Panson Date: 3/2/10

# Sample Data Summary

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

SDG No: 10-1568-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246336001

BASIS: Dry Weight

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-8304

LEVEL: Low

DATE RECEIVED 05-FEB-10

MATRIX: SOIL

%SOLIDS: 80

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3700000	ug/Kg		7950	23400	23400	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7440-36-0	Antimony	1170	ug/Kg	UN	386	1170	1170	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7440-38-2	Arsenic	2.38	mg/kg		0.243	1.21	1.21	2	MS	BAJ	02/26/10 14:47	100226-3	950387
7440-39-3	Barium	38700	ug/Kg		117	584	584	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7440-41-7	Beryllium	0.398	mg/kg		0.0243	0.121	0.121	2	MS	BAJ	02/26/10 14:47	100226-3	950387
7440-43-9	Cadmium	584	ug/Kg	U	117	584	584	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7440-70-2	Calcium	1310000	ug/Kg		9350	29200	29200	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7440-47-3	Chromium	8760	ug/Kg	*N	175	584	584	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7440-48-4	Cobalt	1440	ug/Kg	*	175	584	584	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7440-50-8	Copper	4070	ug/Kg		351	1170	1170	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7439-89-6	Iron	8530000	ug/Kg		9350	29200	29200	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7439-92-1	Lead	12300	ug/Kg	*	292	1170	1170	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7439-95-4	Magnesium	579000	ug/Kg	N	9930	35100	35100	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7439-96-5	Manganese	152000	ug/Kg		234	1170	1170	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7439-97-6	Mercury	12.9	ug/kg	J	4.94	14.5	14.5	1	AV	JXL1	02/22/10 12:40	02210S1-7	951598
7440-02-0	Nickel	2.14	mg/kg		0.121	0.486	0.486	2	MS	BAJ	02/26/10 14:47	100226-3	950387
7440-09-7	Potassium	489000	ug/Kg		7480	29200	29200	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7782-49-2	Selenium	0.669	mg/kg	J	0.607	1.21	1.21	2	MS	BAJ	02/26/10 14:47	100226-3	950387
7440-22-4	Silver	584	ug/Kg	U	117	584	584	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7440-23-5	Sodium	59700	ug/Kg		8180	29200	29200	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7440-28-0	Thallium	0.107	mg/kg	J	0.0728	0.243	0.243	2	MS	BAJ	02/26/10 04:15	100225-2	950387
7440-61-1	Uranium	52	mg/kg	*	0.16	0.486	0.486	20	MS	BAJ	02/26/10 17:50	100226-6	950387
7440-62-2	Vanadium	9900	ug/Kg		117	584	584	1	P	JWJ	02/21/10 04:11	022010C-1	950379
7440-66-6	Zinc	38000	ug/Kg		386	1170	1170	1	P	JWJ	02/21/10 04:11	022010C-1	950379

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt/vol.	Units	Final wt/vol.	Units	Date	Analyst
950379	950377	SW846 3050B	0.537	g	50	mL	02/17/10	FGA
950387	950380	SW846 3050B	0.517	g	50	mL	02/17/10	FGA
951598	951597	SW846 7471A Prep	0.518	g	30	mL	02/19/10	TXB3

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

SDG No: 10-1568-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246336002

BASIS: Dry Weight

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-8305

LEVEL: Low

DATE RECEIVED 05-FEB-10

MATRIX: SOIL

%SOLIDS: 62

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	6000000	ug/Kg		10300	30300	30300	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7440-36-0	Antimony	1340	ug/Kg	JN	500	1510	1510	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7440-38-2	Arsenic	2.47	mg/kg		0.318	1.59	1.59	2	MS	BAJ	02/26/10 15:00	100226-3	950387
7440-39-3	Barium	134000	ug/Kg		151	757	757	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7440-41-7	Beryllium	0.631	mg/kg		0.0318	0.159	0.159	2	MS	BAJ	02/26/10 15:00	100226-3	950387
7440-43-9	Cadmium	757	ug/Kg	U	151	757	757	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7440-70-2	Calcium	3430000	ug/Kg		12100	37800	37800	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7440-47-3	Chromium	6010	ug/Kg	*N	227	757	757	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7440-48-4	Cobalt	3430	ug/Kg	*	227	757	757	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7440-50-8	Copper	17800	ug/Kg		454	1510	1510	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7439-89-6	Iron	9710000	ug/Kg		12100	37800	37800	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7439-92-1	Lead	28200	ug/Kg	*	378	1510	1510	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7439-95-4	Magnesium	1300000	ug/Kg	N	12900	45400	45400	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7439-96-5	Manganese	447000	ug/Kg		303	1510	1510	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7439-97-6	Mercury	16.5	ug/kg	J	5.85	17.2	17.2	1	AV	JXL1	02/22/10 12:42	022210S1-7	951598
7440-02-0	Nickel	4.46	mg/kg		0.159	0.636	0.636	2	MS	BAJ	02/26/10 15:00	100226-3	950387
7440-09-7	Potassium	1190000	ug/Kg		9690	37800	37800	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7782-49-2	Selenium	1.59	mg/kg	U	0.795	1.59	1.59	2	MS	BAJ	02/26/10 15:00	100226-3	950387
7440-22-4	Silver	757	ug/Kg	U	151	757	757	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7440-23-5	Sodium	58600	ug/Kg		10600	37800	37800	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7440-28-0	Thallium	0.115	mg/kg	J	0.0955	0.318	0.318	2	MS	BAJ	02/26/10 04:46	100225-2	950387
7440-61-1	Uranium	615	mg/kg	*	0.525	1.59	1.59	50	MS	BAJ	02/26/10 17:59	100226-6	950387
7440-62-2	Vanadium	13700	ug/Kg		151	757	757	1	P	JWJ	02/21/10 04:30	022010C-1	950379
7440-66-6	Zinc	51500	ug/Kg		500	1510	1510	1	P	JWJ	02/21/10 04:30	022010C-1	950379

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
950379	950377	SW846 3050B	0.536	g	50	mL	02/17/10	FGA
950387	950380	SW846 3050B	0.51	g	50	mL	02/17/10	FGA
951598	951597	SW846 7471A Prep	0.566	g	30	mL	02/19/10	TXB3

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

SDG No: 10-1568-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246336003

BASIS: Dry Weight

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-8306

LEVEL: Low

DATE RECEIVED 05-FEB-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	5590000	ug/Kg		8450	24800	24800	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7440-36-0	Antimony	1120	ug/Kg	JN	410	1240	1240	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7440-38-2	Arsenic	2.86	mg/kg		0.252	1.26	1.26	2	MS	BAJ	02/26/10 15:02	100226-3	950387
7440-39-3	Barium	91000	ug/Kg		124	621	621	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7440-41-7	Beryllium	0.595	mg/kg		0.0252	0.126	0.126	2	MS	BAJ	02/26/10 15:02	100226-3	950387
7440-43-9	Cadmium	621	ug/Kg	U	124	621	621	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7440-70-2	Calcium	1550000	ug/Kg		9940	31100	31100	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7440-47-3	Chromium	6870	ug/Kg	*N	186	621	621	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7440-48-4	Cobalt	3360	ug/Kg	*	186	621	621	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7440-50-8	Copper	8650	ug/Kg		373	1240	1240	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7439-89-6	Iron	11000000	ug/Kg		9940	31100	31100	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7439-92-1	Lead	12100	ug/Kg	*	311	1240	1240	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7439-95-4	Magnesium	1050000	ug/Kg	N	10600	37300	37300	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7439-96-5	Manganese	280000	ug/Kg		248	1240	1240	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7439-97-6	Mercury	13.9	ug/kg	J	5.18	15.2	15.2	1	AV	JXL1	02/22/10 12:43	022210S1-7	951598
7440-02-0	Nickel	4.22	mg/kg		0.126	0.504	0.504	2	MS	BAJ	02/26/10 15:02	100226-3	950387
7440-09-7	Potassium	856000	ug/Kg		7950	31100	31100	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7782-49-2	Selenium	1.26	mg/kg	U	0.63	1.26	1.26	2	MS	BAJ	02/26/10 15:02	100226-3	950387
7440-22-4	Silver	621	ug/Kg	U	124	621	621	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7440-23-5	Sodium	47100	ug/Kg		8700	31100	31100	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7440-28-0	Thallium	0.161	mg/kg	J	0.0756	0.252	0.252	2	MS	BAJ	02/26/10 05:05	100225-2	950387
7440-61-1	Uranium	13.7	mg/kg	*	0.0166	0.0504	0.0504	2	MS	BAJ	02/26/10 17:29	100226-6	950387
7440-62-2	Vanadium	17800	ug/Kg		124	621	621	1	P	JWJ	02/21/10 04:33	022010C-1	950379
7440-66-6	Zinc	34800	ug/Kg		410	1240	1240	1	P	JWJ	02/21/10 04:33	022010C-1	950379

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
950379	950377	SW846 3050B	0.511	g	50	mL	02/17/10	FGA
950387	950380	SW846 3050B	0.504	g	50	mL	02/17/10	FGA
951598	951597	SW846 7471A Prep	0.5	g	30	mL	02/19/10	TXB3



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

SDG No: 10-1568-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246336004

BASIS: Dry Weight

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-8307

LEVEL: Low

DATE RECEIVED 05-FEB-10

MATRIX: SOIL

%SOLIDS: 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5860000	ug/Kg		7550	22200	22200	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7440-36-0	Antimony	605	ug/Kg	JN	367	1110	1110	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7440-38-2	Arsenic	1.86	mg/kg		0.231	1.15	1.15	2	MS	BAJ	02/26/10 15:10	100226-3	950387
7440-39-3	Barium	79400	ug/Kg		111	556	556	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7440-41-7	Beryllium	0.50	mg/kg		0.0231	0.115	0.115	2	MS	BAJ	02/26/10 15:10	100226-3	950387
7440-43-9	Cadmium	556	ug/Kg	U	111	556	556	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7440-70-2	Calcium	1940000	ug/Kg		8890	27800	27800	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7440-47-3	Chromium	7810	ug/Kg	*N	167	556	556	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7440-48-4	Cobalt	2620	ug/Kg	*	167	556	556	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7440-50-8	Copper	7320	ug/Kg		333	1110	1110	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7439-89-6	Iron	10300000	ug/Kg		8890	27800	27800	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7439-92-1	Lead	10800	ug/Kg	*	278	1110	1110	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7439-95-4	Magnesium	1020000	ug/Kg	N	9440	33300	33300	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7439-96-5	Manganese	233000	ug/Kg		222	1110	1110	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7439-97-6	Mercury	11.8	ug/kg	J	4.63	13.6	13.6	1	AV	JXL1	02/22/10 12:45	022210S1-7	951598
7440-02-0	Nickel	4.78	mg/kg		0.115	0.462	0.462	2	MS	BAJ	02/26/10 15:10	100226-3	950387
7440-09-7	Potassium	841000	ug/Kg		7110	27800	27800	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7782-49-2	Selenium	1.15	mg/kg	U	0.577	1.15	1.15	2	MS	BAJ	02/26/10 15:10	100226-3	950387
7440-22-4	Silver	556	ug/Kg	U	111	556	556	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7440-23-5	Sodium	54600	ug/Kg		7780	27800	27800	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7440-28-0	Thallium	0.110	mg/kg	J	0.0693	0.231	0.231	2	MS	BAJ	02/26/10 05:11	100225-2	950387
7440-61-1	Uranium	3.62	mg/kg	*	0.0152	0.0462	0.0462	2	MS	BAJ	02/26/10 17:31	100226-6	950387
7440-62-2	Vanadium	15800	ug/Kg		111	556	556	1	P	JWJ	02/21/10 04:44	022010C-1	950379
7440-66-6	Zinc	34800	ug/Kg		367	1110	1110	1	P	JWJ	02/21/10 04:44	022010C-1	950379

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt/vol.	Units	Final wt/vol.	Units	Date	Analyst
950379	950377	SW846 3050B	0.526	g	50	mL	02/17/10	FGA
950387	950380	SW846 3050B	0.506	g	50	mL	02/17/10	FGA
951598	951597	SW846 7471A Prep	0.515	g	30	mL	02/19/10	TXB3

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

SDG No: 10-1568-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246336005

BASIS: Dry Weight

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-8309

LEVEL: Low

DATE RECEIVED 05-FEB-10

MATRIX: SOIL

%SOLIDS: 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5030000	ug/Kg		7280	21400	21400	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7440-36-0	Antimony	813	ug/Kg	JN	353	1070	1070	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7440-38-2	Arsenic	2.15	mg/kg		0.224	1.12	1.12	2	MS	BAJ	02/26/10 15:12	100226-3	950387
7440-39-3	Barium	83600	ug/Kg		107	535	535	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7440-41-7	Beryllium	0.607	mg/kg		0.0224	0.112	0.112	2	MS	BAJ	02/26/10 15:12	100226-3	950387
7440-43-9	Cadmium	535	ug/Kg	U	107	535	535	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7440-70-2	Calcium	1320000	ug/Kg		8560	26700	26700	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7440-47-3	Chromium	19100	ug/Kg	*N	160	535	535	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7440-48-4	Cobalt	2300	ug/Kg	*	160	535	535	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7440-50-8	Copper	5520	ug/Kg		321	1070	1070	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7439-89-6	Iron	9940000	ug/Kg		8560	26700	26700	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7439-92-1	Lead	8890	ug/Kg	*	267	1070	1070	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7439-95-4	Magnesium	910000	ug/Kg	N	9090	32100	32100	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7439-96-5	Manganese	210000	ug/Kg		214	1070	1070	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7439-97-6	Mercury	7.21	ug/kg	J	4.34	12.8	12.8	1	AV	JXL1	02/22/10 12:47	022210S1-7	951598
7440-02-0	Nickel	3.97	mg/kg		0.112	0.448	0.448	2	MS	BAJ	02/26/10 15:12	100226-3	950387
7440-09-7	Potassium	798000	ug/Kg		6850	26700	26700	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7782-49-2	Selenium	1.12	mg/kg	U	0.56	1.12	1.12	2	MS	BAJ	02/26/10 15:12	100226-3	950387
7440-22-4	Silver	535	ug/Kg	U	107	535	535	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7440-23-5	Sodium	62200	ug/Kg		7490	26700	26700	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7440-28-0	Thallium	0.118	mg/kg	J	0.0671	0.224	0.224	2	MS	BAJ	02/26/10 05:17	100225-2	950387
7440-61-1	Uranium	3.07	mg/kg	*	0.0148	0.0448	0.0448	2	MS	BAJ	02/26/10 17:33	100226-6	950387
7440-62-2	Vanadium	15100	ug/Kg		107	535	535	1	P	JWJ	02/21/10 04:48	022010C-1	950379
7440-66-6	Zinc	31600	ug/Kg		353	1070	1070	1	P	JWJ	02/21/10 04:48	022010C-1	950379

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wL/vol.	Units	Final wL/vol.	Units	Date	Analyst
950379	950377	SW846 3050B	0.523	g	50	mL	02/17/10	FGA
950387	950380	SW846 3050B	0.5	g	50	mL	02/17/10	FGA
951598	951597	SW846 7471A Prep	0.526	g	30	mL	02/19/10	TXB3

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

SDG No: 10-1568-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246336006

BASIS: Dry Weight

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-8308

LEVEL: Low

DATE RECEIVED 05-FEB-10

MATRIX: SOIL

%SOLIDS: 72

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4950000	ug/Kg		8760	25800	25800	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7440-36-0	Antimony	571	ug/Kg	JN	425	1290	1290	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7440-38-2	Arsenic	1.46	mg/kg		0.276	1.38	1.38	2	MS	BAJ	02/26/10 15:15	100226-3	950387
7440-39-3	Barium	69500	ug/Kg		129	644	644	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7440-41-7	Beryllium	0.530	mg/kg		0.0276	0.138	0.138	2	MS	BAJ	02/26/10 15:15	100226-3	950387
7440-43-9	Cadmium	644	ug/Kg	U	129	644	644	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7440-70-2	Calcium	1250000	ug/Kg		10300	32200	32200	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7440-47-3	Chromium	14000	ug/Kg	*N	193	644	644	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7440-48-4	Cobalt	2400	ug/Kg	*	193	644	644	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7440-50-8	Copper	4680	ug/Kg		387	1290	1290	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7439-89-6	Iron	9480000	ug/Kg		10300	32200	32200	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7439-92-1	Lead	7740	ug/Kg	*	322	1290	1290	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7439-95-4	Magnesium	979000	ug/Kg	N	11000	38700	38700	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7439-96-5	Manganese	233000	ug/Kg		258	1290	1290	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7439-97-6	Mercury	8.96	ug/kg	J	5.35	15.7	15.7	1	AV	JXL1	02/22/10 12:52	022210S1-7	951598
7440-02-0	Nickel	4.2	mg/kg		0.138	0.552	0.552	2	MS	BAJ	02/26/10 15:15	100226-3	950387
7440-09-7	Potassium	963000	ug/Kg		8250	32200	32200	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7782-49-2	Selenium	1.38	mg/kg	U	0.691	1.38	1.38	2	MS	BAJ	02/26/10 15:15	100226-3	950387
7440-22-4	Silver	644	ug/Kg	U	129	644	644	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7440-23-5	Sodium	44600	ug/Kg		9020	32200	32200	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7440-28-0	Thallium	0.0859	mg/kg	J	0.0829	0.276	0.276	2	MS	BAJ	02/26/10 05:23	100225-2	950387
7440-61-1	Uranium	10.6	mg/kg	*	0.0182	0.0552	0.0552	2	MS	BAJ	02/26/10 17:34	100226-6	950387
7440-62-2	Vanadium	11500	ug/Kg		129	644	644	1	P	JWJ	02/21/10 04:52	022010C-1	950379
7440-66-6	Zinc	31700	ug/Kg		425	1290	1290	1	P	JWJ	02/21/10 04:52	022010C-1	950379

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
950379	950377	SW846 3050B	0.536	g	50	mL	02/17/10	FGA
950387	950380	SW846 3050B	0.5	g	50	mL	02/17/10	FGA
951598	951597	SW846 7471A Prep	0.527	g	30	mL	02/19/10	TXB3

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

SDG No: 10-1568-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246336007

BASIS: Dry Weight

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-8301

LEVEL: Low

DATE RECEIVED 05-FEB-10

MATRIX: SOIL

%SOLIDS: 94

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2870000	ug/Kg		6880	20200	20200	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7440-36-0	Antimony	787	ug/Kg	JN	334	1010	1010	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7440-38-2	Arsenic	1.5	mg/kg		0.211	1.06	1.06	2	MS	BAJ	02/26/10 15:18	100226-3	950387
7440-39-3	Barium	43900	ug/Kg		101	506	506	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7440-41-7	Beryllium	0.469	mg/kg		0.0211	0.106	0.106	2	MS	BAJ	02/26/10 15:18	100226-3	950387
7440-43-9	Cadmium	506	ug/Kg	U	101	506	506	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7440-70-2	Calcium	808000	ug/Kg		8090	25300	25300	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7440-47-3	Chromium	8690	ug/Kg	*N	152	506	506	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7440-48-4	Cobalt	1490	ug/Kg	*	152	506	506	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7440-50-8	Copper	3540	ug/Kg		303	1010	1010	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7439-89-6	Iron	8300000	ug/Kg		8090	25300	25300	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7439-92-1	Lead	5010	ug/Kg	*	253	1010	1010	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7439-95-4	Magnesium	507000	ug/Kg	N	8590	30300	30300	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7439-96-5	Manganese	224000	ug/Kg		202	1010	1010	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7439-97-6	Mercury	8.49	ug/kg	J	4.21	12.4	12.4	1	AV	JXL1	02/22/10 12:54	022210S1-7	951598
7440-02-0	Nickel	3.14	mg/kg		0.106	0.423	0.423	2	MS	BAJ	02/26/10 15:18	100226-3	950387
7440-09-7	Potassium	478000	ug/Kg		6470	25300	25300	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7782-49-2	Selenium	1.06	mg/kg	U	0.529	1.06	1.06	2	MS	BAJ	02/26/10 15:18	100226-3	950387
7440-22-4	Silver	506	ug/Kg	U	101	506	506	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7440-23-5	Sodium	58800	ug/Kg		7080	25300	25300	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7440-28-0	Thallium	0.0643	mg/kg	J	0.0634	0.211	0.211	2	MS	BAJ	02/26/10 05:29	100225-2	950387
7440-61-1	Uranium	2.62	mg/kg	*	0.014	0.0423	0.0423	2	MS	BAJ	02/26/10 17:40	100226-6	950387
7440-62-2	Vanadium	7580	ug/Kg		101	506	506	1	P	JWJ	02/21/10 04:55	022010C-1	950379
7440-66-6	Zinc	32900	ug/Kg		334	1010	1010	1	P	JWJ	02/21/10 04:55	022010C-1	950379

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
950379	950377	SW846 3050B	0.526	g	50	mL	02/17/10	FGA
950387	950380	SW846 3050B	0.503	g	50	mL	02/17/10	FGA
951598	951597	SW846 7471A Prep	0.515	g	30	mL	02/19/10	TXB3

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

SDG No: 10-1568-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246336008

BASIS: Dry Weight

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-8300

LEVEL: Low

DATE RECEIVED 05-FEB-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	1050000	ug/Kg		9800	28800	28800	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7440-36-0	Antimony	1440	ug/Kg	UN	476	1440	1440	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7440-38-2	Arsenic	0.731	mg/kg	J	0.253	1.27	1.27	2	MS	BAJ	02/26/10 15:20	100226-3	950387
7440-39-3	Barium	18700	ug/Kg		144	721	721	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7440-41-7	Beryllium	0.415	mg/kg		0.0253	0.127	0.127	2	MS	BAJ	02/26/10 15:20	100226-3	950387
7440-43-9	Cadmium	721	ug/Kg	U	144	721	721	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7440-70-2	Calcium	664000	ug/Kg		11500	36000	36000	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7440-47-3	Chromium	5820	ug/Kg	*N	216	721	721	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7440-48-4	Cobalt	635	ug/Kg	J*	216	721	721	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7440-50-8	Copper	2300	ug/Kg		433	1440	1440	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7439-89-6	Iron	5490000	ug/Kg		11500	36000	36000	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7439-92-1	Lead	2740	ug/Kg	*	360	1440	1440	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7439-95-4	Magnesium	242000	ug/Kg	N	12300	43300	43300	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7439-96-5	Manganese	202000	ug/Kg		288	1440	1440	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7439-97-6	Mercury	16.2	ug/kg	U	5.5	16.2	16.2	1	AV	JXL1	02/22/10 12:55	022210S1-7	951598
7440-02-0	Nickel	1.48	mg/kg		0.127	0.507	0.507	2	MS	BAJ	02/26/10 15:20	100226-3	950387
7440-09-7	Potassium	340000	ug/Kg		9230	36000	36000	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7782-49-2	Selenium	1.27	mg/kg	U	0.633	1.27	1.27	2	MS	BAJ	02/26/10 15:20	100226-3	950387
7440-22-4	Silver	721	ug/Kg	U	144	721	721	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7440-23-5	Sodium	49800	ug/Kg		10100	36000	36000	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7440-28-0	Thallium	0.253	mg/kg	U	0.076	0.253	0.253	2	MS	BAJ	02/26/10 05:36	100225-2	950387
7440-61-1	Uranium	1.5	mg/kg	*	0.0167	0.0507	0.0507	2	MS	BAJ	02/26/10 17:42	100226-6	950387
7440-62-2	Vanadium	2760	ug/Kg		144	721	721	1	P	JWJ	02/21/10 04:59	022010C-1	950379
7440-66-6	Zinc	31000	ug/Kg		476	1440	1440	1	P	JWJ	02/21/10 04:59	022010C-1	950379

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
950379	950377	SW846 3050B	0.5	g	50	mL	02/17/10	FGA
950387	950380	SW846 3050B	0.569	g	50	mL	02/17/10	FGA
951598	951597	SW846 7471A Prep	0.535	g	30	mL	02/19/10	TXB3

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

SDG No: 10-1568-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 246336009

BASIS: Dry Weight

DATE COLLECTED 01-FEB-10

CLIENT ID: RE15-10-8324

LEVEL: Low

DATE RECEIVED 05-FEB-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	5970000	ug/Kg		8530	25100	25100	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7440-36-0	Antimony	577	ug/Kg	JN	414	1250	1250	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7440-38-2	Arsenic	2.07	mg/kg		0.249	1.24	1.24	2	MS	BAJ	02/26/10 15:23	100226-3	950387
7440-39-3	Barium	101000	ug/Kg		125	627	627	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7440-41-7	Beryllium	0.589	mg/kg		0.0249	0.124	0.124	2	MS	BAJ	02/26/10 15:23	100226-3	950387
7440-43-9	Cadmium	627	ug/Kg	U	125	627	627	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7440-70-2	Calcium	1560000	ug/Kg		10000	31400	31400	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7440-47-3	Chromium	7090	ug/Kg	*N	188	627	627	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7440-48-4	Cobalt	3580	ug/Kg	*	188	627	627	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7440-50-8	Copper	9550	ug/Kg		376	1250	1250	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7439-89-6	Iron	10700000	ug/Kg		10000	31400	31400	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7439-92-1	Lead	12900	ug/Kg	*	314	1250	1250	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7439-95-4	Magnesium	1070000	ug/Kg	N	10700	37600	37600	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7439-96-5	Manganese	307000	ug/Kg		251	1250	1250	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7439-97-6	Mercury	12.4	ug/kg	J	4.36	12.8	12.8	1	AV	JXL	02/22/10 12:57	022210S1-7	951598
7440-02-0	Nickel	4.18	mg/kg		0.124	0.498	0.498	2	MS	BAJ	02/26/10 15:23	100226-3	950387
7440-09-7	Potassium	908000	ug/Kg		8030	31400	31400	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7782-49-2	Selenium	1.24	mg/kg	U	0.622	1.24	1.24	2	MS	BAJ	02/26/10 15:23	100226-3	950387
7440-22-4	Silver	627	ug/Kg	U	125	627	627	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7440-23-5	Sodium	51500	ug/Kg		8780	31400	31400	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7440-28-0	Thallium	0.115	mg/kg	J	0.0747	0.249	0.249	2	MS	BAJ	02/26/10 05:42	100225-2	950387
7440-61-1	Uranium	51.6	mg/kg	*	0.164	0.498	0.498	20	MS	BAJ	02/26/10 18:01	100226-6	950387
7440-62-2	Vanadium	17100	ug/Kg		125	627	627	1	P	JWJ	02/21/10 05:03	022010C-1	950379
7440-66-6	Zinc	34000	ug/Kg		414	1250	1250	1	P	JWJ	02/21/10 05:03	022010C-1	950379

**Prep Information:**

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
950379	950377	SW846 3050B	0.504	g	50	mL	02/17/10	FGA
950387	950380	SW846 3050B	0.508	g	50	mL	02/17/10	FGA
951598	951597	SW846 7471A Prep	0.591	g	30	mL	02/19/10	TXB3

# **Quality Control Summary**

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1568-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,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	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	20-FEB-10 21:07	022010C-1
	Antimony	457	ug/L	500	ug/L	91.5	90.0 – 110.0	P	20-FEB-10 21:07	022010C-1
	Barium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	20-FEB-10 21:07	022010C-1
	Cadmium	476	ug/L	500	ug/L	95.1	90.0 – 110.0	P	20-FEB-10 21:07	022010C-1
	Calcium	4960	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	20-FEB-10 21:07	022010C-1
	Chromium	463	ug/L	500	ug/L	92.6	90.0 – 110.0	P	20-FEB-10 21:07	022010C-1
	Cobalt	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	20-FEB-10 21:07	022010C-1
	Copper	480	ug/L	500	ug/L	96	90.0 – 110.0	P	20-FEB-10 21:07	022010C-1
	Iron	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	20-FEB-10 21:07	022010C-1
	Lead	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	20-FEB-10 21:07	022010C-1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	20-FEB-10 21:07	022010C-1
	Manganese	485	ug/L	500	ug/L	97	90.0 – 110.0	P	20-FEB-10 21:07	022010C-1
	Potassium	2400	ug/L	2500	ug/L	96.1	90.0 – 110.0	P	20-FEB-10 21:07	022010C-1
	Silver	242	ug/L	250	ug/L	96.9	90.0 – 110.0	P	20-FEB-10 21:07	022010C-1
	Sodium	2480	ug/L	2500	ug/L	99.4	90.0 – 110.0	P	20-FEB-10 21:07	022010C-1
	Vanadium	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	20-FEB-10 21:07	022010C-1
	Zinc	475	ug/L	500	ug/L	95	90.0 – 110.0	P	20-FEB-10 21:07	022010C-1
	Mercury	5.15	ug/L	5	ug/L	103	90.0 – 110.0	AV	22-FEB-10 09:22	022210S1-7
	Thallium	54	ug/L	50	ug/L	108	90.0 – 110.0	MS	26-FEB-10 01:23	100225-2
	Arsenic	48.1	ug/L	50	ug/L	96.1	90.0 – 110.0	MS	26-FEB-10 14:24	100226-3
	Beryllium	49.5	ug/L	50	ug/L	98.9	90.0 – 110.0	MS	26-FEB-10 14:24	100226-3
	Nickel	50.3	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	26-FEB-10 14:24	100226-3
	Selenium	48.9	ug/L	50	ug/L	97.8	90.0 – 110.0	MS	26-FEB-10 14:24	100226-3
	Uranium	48	ug/L	50	ug/L	95.9	90.0 – 110.0	MS	26-FEB-10 16:26	100226-6
CCV01										
	Aluminum	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	20-FEB-10 21:30	022010C-1
	Antimony	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	20-FEB-10 21:30	022010C-1
	Barium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	20-FEB-10 21:30	022010C-1
	Cadmium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	20-FEB-10 21:30	022010C-1
	Calcium	5200	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	20-FEB-10 21:30	022010C-1



**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1568-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,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	498	ug/L	500	ug/L	99.6	90.0 - 110.0	P	20-FEB-10 21:30	022010C-1
	Cobalt	501	ug/L	500	ug/L	100.2	90.0 - 110.0	P	20-FEB-10 21:30	022010C-1
	Copper	501	ug/L	500	ug/L	100.3	90.0 - 110.0	P	20-FEB-10 21:30	022010C-1
	Iron	5240	ug/L	5000	ug/L	104.7	90.0 - 110.0	P	20-FEB-10 21:30	022010C-1
	Lead	508	ug/L	500	ug/L	101.5	90.0 - 110.0	P	20-FEB-10 21:30	022010C-1
	Magnesium	5380	ug/L	5000	ug/L	107.5	90.0 - 110.0	P	20-FEB-10 21:30	022010C-1
	Manganese	505	ug/L	500	ug/L	101	90.0 - 110.0	P	20-FEB-10 21:30	022010C-1
	Potassium	5190	ug/L	5000	ug/L	103.8	90.0 - 110.0	P	20-FEB-10 21:30	022010C-1
	Silver	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	20-FEB-10 21:30	022010C-1
	Sodium	10400	ug/L	10000	ug/L	104.5	90.0 - 110.0	P	20-FEB-10 21:30	022010C-1
	Vanadium	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	20-FEB-10 21:30	022010C-1
	Zinc	503	ug/L	500	ug/L	100.6	90.0 - 110.0	P	20-FEB-10 21:30	022010C-1
	Mercury	5.06	ug/L	5	ug/L	101.1	80.0 - 120.0	AV	22-FEB-10 09:27	022210S1-7
	Thallium	50.6	ug/L	50	ug/L	101.2	90.0 - 110.0	MS	26-FEB-10 01:54	100225-2
	Arsenic	47.3	ug/L	50	ug/L	94.5	90.0 - 110.0	MS	26-FEB-10 14:36	100226-3
	Beryllium	48.3	ug/L	50	ug/L	96.6	90.0 - 110.0	MS	26-FEB-10 14:36	100226-3
	Nickel	51.7	ug/L	50	ug/L	103.4	90.0 - 110.0	MS	26-FEB-10 14:36	100226-3
	Selenium	50.2	ug/L	50	ug/L	100.4	90.0 - 110.0	MS	26-FEB-10 14:36	100226-3
	Uranium	48.5	ug/L	50	ug/L	97	90.0 - 110.0	MS	26-FEB-10 16:34	100226-6
CCV02	Aluminum	5280	ug/L	5000	ug/L	105.5	90.0 - 110.0	P	20-FEB-10 22:12	022010C-1
	Antimony	486	ug/L	500	ug/L	97.3	90.0 - 110.0	P	20-FEB-10 22:12	022010C-1
	Barium	493	ug/L	500	ug/L	98.7	90.0 - 110.0	P	20-FEB-10 22:12	022010C-1
	Cadmium	492	ug/L	500	ug/L	98.4	90.0 - 110.0	P	20-FEB-10 22:12	022010C-1
	Calcium	5180	ug/L	5000	ug/L	103.7	90.0 - 110.0	P	20-FEB-10 22:12	022010C-1
	Chromium	491	ug/L	500	ug/L	98.1	90.0 - 110.0	P	20-FEB-10 22:12	022010C-1
	Cobalt	495	ug/L	500	ug/L	99.1	90.0 - 110.0	P	20-FEB-10 22:12	022010C-1
	Copper	494	ug/L	500	ug/L	98.8	90.0 - 110.0	P	20-FEB-10 22:12	022010C-1
	Iron	5300	ug/L	5000	ug/L	106.1	90.0 - 110.0	P	20-FEB-10 22:12	022010C-1
	Lead	492	ug/L	500	ug/L	98.5	90.0 - 110.0	P	20-FEB-10 22:12	022010C-1

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1568-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,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>
	Magnesium	5430	ug/L	5000	ug/L	108.5	90.0 – 110.0	P	20-FEB-10 22:12	022010C-1
	Manganese	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	20-FEB-10 22:12	022010C-1
	Potassium	5130	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	20-FEB-10 22:12	022010C-1
	Silver	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	20-FEB-10 22:12	022010C-1
	Sodium	10500	ug/L	10000	ug/L	105.2	90.0 – 110.0	P	20-FEB-10 22:12	022010C-1
	Vanadium	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	20-FEB-10 22:12	022010C-1
	Zinc	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	20-FEB-10 22:12	022010C-1
	Mercury	5	ug/L	5	ug/L	99.9	80.0 – 120.0	AV	22-FEB-10 09:47	022210S1-7
	Thallium	55.3	ug/L	50	ug/L	110.5	90.0 – 110.0	MS	26-FEB-10 02:12	100225-2
	Arsenic	47.3	ug/L	50	ug/L	94.6	90.0 – 110.0	MS	26-FEB-10 15:05	100226-3
	Beryllium	49.7	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	26-FEB-10 15:05	100226-3
	Nickel	50.8	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	26-FEB-10 15:05	100226-3
	Selenium	49	ug/L	50	ug/L	98	90.0 – 110.0	MS	26-FEB-10 15:05	100226-3
	Uranium	48.5	ug/L	50	ug/L	97.1	90.0 – 110.0	MS	26-FEB-10 16:49	100226-6
CCV03	Aluminum	5360	ug/L	5000	ug/L	107.1	90.0 – 110.0	P	20-FEB-10 23:26	022010C-1
	Antimony	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	20-FEB-10 23:26	022010C-1
	Barium	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	20-FEB-10 23:26	022010C-1
	Cadmium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	20-FEB-10 23:26	022010C-1
	Calcium	5270	ug/L	5000	ug/L	105.4	90.0 – 110.0	P	20-FEB-10 23:26	022010C-1
	Chromium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	20-FEB-10 23:26	022010C-1
	Cobalt	505	ug/L	500	ug/L	101	90.0 – 110.0	P	20-FEB-10 23:26	022010C-1
	Copper	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	20-FEB-10 23:26	022010C-1
	Iron	5410	ug/L	5000	ug/L	108.3	90.0 – 110.0	P	20-FEB-10 23:26	022010C-1
	Lead	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	20-FEB-10 23:26	022010C-1
	Magnesium	5520	ug/L	5000	ug/L	110.4	90.0 – 110.0	P	20-FEB-10 23:26	022010C-1
	Manganese	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	20-FEB-10 23:26	022010C-1
	Potassium	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	20-FEB-10 23:26	022010C-1
	Silver	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	20-FEB-10 23:26	022010C-1
	Sodium	10700	ug/L	10000	ug/L	106.6	90.0 – 110.0	P	20-FEB-10 23:26	022010C-1

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1568-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,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>
	Vanadium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	20-FEB-10 23:26	022010C-1
	Zinc	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	20-FEB-10 23:26	022010C-1
	Mercury	5.04	ug/L	5	ug/L	100.8	80.0 – 120.0	AV	22-FEB-10 10:07	022210S1-7
	Thallium	54.4	ug/L	50	ug/L	108.8	90.0 – 110.0	MS	26-FEB-10 03:08	100225-2
	Arsenic	47.7	ug/L	50	ug/L	95.3	90.0 – 110.0	MS	26-FEB-10 15:31	100226-3
	Beryllium	48.1	ug/L	50	ug/L	96.2	90.0 – 110.0	MS	26-FEB-10 15:31	100226-3
	Nickel	51.1	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	26-FEB-10 15:31	100226-3
	Selenium	47.5	ug/L	50	ug/L	95	90.0 – 110.0	MS	26-FEB-10 15:31	100226-3
	Uranium	48.5	ug/L	50	ug/L	97.1	90.0 – 110.0	MS	26-FEB-10 17:01	100226-6
CCV04	Aluminum	5260	ug/L	5000	ug/L	105.3	90.0 – 110.0	P	21-FEB-10 00:03	022010C-1
	Antimony	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	21-FEB-10 00:03	022010C-1
	Barium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	21-FEB-10 00:03	022010C-1
	Cadmium	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	21-FEB-10 00:03	022010C-1
	Calcium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	21-FEB-10 00:03	022010C-1
	Chromium	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	21-FEB-10 00:03	022010C-1
	Cobalt	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	21-FEB-10 00:03	022010C-1
	Copper	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	21-FEB-10 00:03	022010C-1
	Iron	5280	ug/L	5000	ug/L	105.6	90.0 – 110.0	P	21-FEB-10 00:03	022010C-1
	Lead	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	21-FEB-10 00:03	022010C-1
	Magnesium	5400	ug/L	5000	ug/L	108	90.0 – 110.0	P	21-FEB-10 00:03	022010C-1
	Manganese	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	21-FEB-10 00:03	022010C-1
	Potassium	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	21-FEB-10 00:03	022010C-1
	Silver	500	ug/L	500	ug/L	100	90.0 – 110.0	P	21-FEB-10 00:03	022010C-1
	Sodium	10500	ug/L	10000	ug/L	104.9	90.0 – 110.0	P	21-FEB-10 00:03	022010C-1
	Vanadium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	21-FEB-10 00:03	022010C-1
	Zinc	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	21-FEB-10 00:03	022010C-1
	Mercury	5.11	ug/L	5	ug/L	102.3	80.0 – 120.0	AV	22-FEB-10 10:27	022210S1-7
	Thallium	53.9	ug/L	50	ug/L	107.8	90.0 – 110.0	MS	26-FEB-10 03:51	100225-2
	Uranium	51.2	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	26-FEB-10 17:17	100226-6

## METALS

-2a-

## Initial and Continuing Calibration Verification

SDG No: 10-1568-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,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>
CCV05										
	Aluminum	5240	ug/L	5000	ug/L	104.8	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Antimony	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Barium	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Cadmium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Calcium	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Chromium	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Cobalt	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Copper	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Iron	5240	ug/L	5000	ug/L	104.8	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Lead	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Magnesium	5370	ug/L	5000	ug/L	107.4	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Manganese	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Potassium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Silver	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Sodium	10400	ug/L	10000	ug/L	104.1	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Vanadium	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Zinc	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Mercury	5.2	ug/L	5	ug/L	103.9	80.0 – 120.0	AV	22-FEB-10 10:47	022210S1-7
	Thallium	54	ug/L	50	ug/L	107.9	90.0 – 110.0	MS	26-FEB-10 04:52	100225-2
	Uranium	48.3	ug/L	50	ug/L	96.7	90.0 – 110.0	MS	26-FEB-10 17:36	100226-6
CCV06										
	Aluminum	5320	ug/L	5000	ug/L	106.4	90.0 – 110.0	P	21-FEB-10 01:19	022010C-1
	Antimony	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	21-FEB-10 01:19	022010C-1
	Barium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	21-FEB-10 01:19	022010C-1
	Cadmium	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	21-FEB-10 01:19	022010C-1
	Calcium	5190	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	21-FEB-10 01:19	022010C-1
	Chromium	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	21-FEB-10 01:19	022010C-1
	Cobalt	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	21-FEB-10 01:19	022010C-1
	Copper	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	21-FEB-10 01:19	022010C-1
	Iron	5270	ug/L	5000	ug/L	105.3	90.0 – 110.0	P	21-FEB-10 01:19	022010C-1

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1568-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,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>
	Lead	491	ug/L	500	ug/L	98.3	90.0 - 110.0	P	21-FEB-10 01:19	022010C-1
	Magnesium	5380	ug/L	5000	ug/L	107.7	90.0 - 110.0	P	21-FEB-10 01:19	022010C-1
	Manganese	503	ug/L	500	ug/L	100.7	90.0 - 110.0	P	21-FEB-10 01:19	022010C-1
	Potassium	5110	ug/L	5000	ug/L	102.3	90.0 - 110.0	P	21-FEB-10 01:19	022010C-1
	Silver	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	21-FEB-10 01:19	022010C-1
	Sodium	10500	ug/L	10000	ug/L	105	90.0 - 110.0	P	21-FEB-10 01:19	022010C-1
	Vanadium	498	ug/L	500	ug/L	99.6	90.0 - 110.0	P	21-FEB-10 01:19	022010C-1
	Zinc	494	ug/L	500	ug/L	98.9	90.0 - 110.0	P	21-FEB-10 01:19	022010C-1
	Mercury	5.18	ug/L	5	ug/L	103.5	80.0 - 120.0	AV	22-FEB-10 11:07	022210S1-7
	Thallium	53.3	ug/L	50	ug/L	106.6	90.0 - 110.0	MS	26-FEB-10 06:00	100225-2
	Uranium	47.9	ug/L	50	ug/L	95.8	90.0 - 110.0	MS	26-FEB-10 17:47	100226-6
CCV07	Aluminum	5190	ug/L	5000	ug/L	103.8	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1
	Antimony	475	ug/L	500	ug/L	95	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1
	Barium	485	ug/L	500	ug/L	97	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1
	Cadmium	484	ug/L	500	ug/L	96.7	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1
	Calcium	5060	ug/L	5000	ug/L	101.2	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1
	Chromium	484	ug/L	500	ug/L	96.8	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1
	Cobalt	488	ug/L	500	ug/L	97.5	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1
	Copper	483	ug/L	500	ug/L	96.5	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1
	Iron	5170	ug/L	5000	ug/L	103.4	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1
	Lead	484	ug/L	500	ug/L	96.8	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1
	Magnesium	5300	ug/L	5000	ug/L	106	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1
	Manganese	494	ug/L	500	ug/L	98.7	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1
	Potassium	5020	ug/L	5000	ug/L	100.4	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1
	Silver	488	ug/L	500	ug/L	97.6	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1
	Sodium	10300	ug/L	10000	ug/L	103	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1
	Vanadium	489	ug/L	500	ug/L	97.7	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1
	Zinc	483	ug/L	500	ug/L	96.6	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1
	Mercury	5.16	ug/L	5	ug/L	103.2	80.0 - 120.0	AV	22-FEB-10 11:27	022210S1-7

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1568-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,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	Uranium	52.9	ug/L	50	ug/L	105.7	90.0 – 110.0	MS	26-FEB-10 18:02	100226-6
	Aluminum	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	21-FEB-10 02:37	022010C-1
	Antimony	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	21-FEB-10 02:37	022010C-1
	Barium	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	21-FEB-10 02:37	022010C-1
	Cadmium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	21-FEB-10 02:37	022010C-1
	Calcium	5090	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	21-FEB-10 02:37	022010C-1
	Chromium	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	21-FEB-10 02:37	022010C-1
	Cobalt	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	21-FEB-10 02:37	022010C-1
	Copper	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	21-FEB-10 02:37	022010C-1
	Iron	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	21-FEB-10 02:37	022010C-1
	Lead	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	21-FEB-10 02:37	022010C-1
	Magnesium	5320	ug/L	5000	ug/L	106.4	90.0 – 110.0	P	21-FEB-10 02:37	022010C-1
	Manganese	495	ug/L	500	ug/L	99	90.0 – 110.0	P	21-FEB-10 02:37	022010C-1
	Potassium	4990	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	21-FEB-10 02:37	022010C-1
	Silver	485	ug/L	500	ug/L	97	90.0 – 110.0	P	21-FEB-10 02:37	022010C-1
	Sodium	10200	ug/L	10000	ug/L	102.4	90.0 – 110.0	P	21-FEB-10 02:37	022010C-1
	Vanadium	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	21-FEB-10 02:37	022010C-1
	Zinc	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	21-FEB-10 02:37	022010C-1
	Mercury	5.18	ug/L	5	ug/L	103.5	80.0 – 120.0	AV	22-FEB-10 11:48	022210S1-7
CCV09	Aluminum	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	21-FEB-10 03:16	022010C-1
	Antimony	468	ug/L	500	ug/L	93.5	90.0 – 110.0	P	21-FEB-10 03:16	022010C-1
	Barium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	21-FEB-10 03:16	022010C-1
	Cadmium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	21-FEB-10 03:16	022010C-1
	Calcium	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	21-FEB-10 03:16	022010C-1
	Chromium	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	21-FEB-10 03:16	022010C-1
	Cobalt	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	21-FEB-10 03:16	022010C-1
	Copper	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	21-FEB-10 03:16	022010C-1
	Iron	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	21-FEB-10 03:16	022010C-1

## METALS

-2a-

## Initial and Continuing Calibration Verification

SDG No: 10-1568-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,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>
	Lead	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	21-FEB-10 03:16	022010C-1
	Magnesium	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	21-FEB-10 03:16	022010C-1
	Manganese	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	21-FEB-10 03:16	022010C-1
	Potassium	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	21-FEB-10 03:16	022010C-1
	Silver	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	21-FEB-10 03:16	022010C-1
	Sodium	10100	ug/L	10000	ug/L	101.2	90.0 – 110.0	P	21-FEB-10 03:16	022010C-1
	Vanadium	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	21-FEB-10 03:16	022010C-1
	Zinc	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	21-FEB-10 03:16	022010C-1
	Mercury	5.19	ug/L	5	ug/L	103.7	80.0 – 120.0	AV	22-FEB-10 12:08	022210S1-7
CCV10										
	Aluminum	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	21-FEB-10 03:57	022010C-1
	Antimony	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	21-FEB-10 03:57	022010C-1
	Barium	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	21-FEB-10 03:57	022010C-1
	Cadmium	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	21-FEB-10 03:57	022010C-1
	Calcium	5060	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	21-FEB-10 03:57	022010C-1
	Chromium	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	21-FEB-10 03:57	022010C-1
	Cobalt	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	21-FEB-10 03:57	022010C-1
	Copper	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	21-FEB-10 03:57	022010C-1
	Iron	5140	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	21-FEB-10 03:57	022010C-1
	Lead	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	21-FEB-10 03:57	022010C-1
	Magnesium	5230	ug/L	5000	ug/L	104.6	90.0 – 110.0	P	21-FEB-10 03:57	022010C-1
	Manganese	495	ug/L	500	ug/L	99	90.0 – 110.0	P	21-FEB-10 03:57	022010C-1
	Potassium	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	21-FEB-10 03:57	022010C-1
	Silver	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	21-FEB-10 03:57	022010C-1
	Sodium	10200	ug/L	10000	ug/L	102.4	90.0 – 110.0	P	21-FEB-10 03:57	022010C-1
	Vanadium	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	21-FEB-10 03:57	022010C-1
	Zinc	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	21-FEB-10 03:57	022010C-1
	Mercury	5.16	ug/L	5	ug/L	103.2	80.0 – 120.0	AV	22-FEB-10 12:28	022210S1-7
CCV11										
	Aluminum	5270	ug/L	5000	ug/L	105.4	90.0 – 110.0	P	21-FEB-10 04:37	022010C-1

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

SDG No: 10-1568-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,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>
	Antimony	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	21-FEB-10 04:37	022010C-1
	Barium	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	21-FEB-10 04:37	022010C-1
	Cadmium	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	21-FEB-10 04:37	022010C-1
	Calcium	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	21-FEB-10 04:37	022010C-1
	Chromium	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	21-FEB-10 04:37	022010C-1
	Cobalt	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	21-FEB-10 04:37	022010C-1
	Copper	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	21-FEB-10 04:37	022010C-1
	Iron	5230	ug/L	5000	ug/L	104.6	90.0 – 110.0	P	21-FEB-10 04:37	022010C-1
	Lead	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	21-FEB-10 04:37	022010C-1
	Magnesium	5320	ug/L	5000	ug/L	106.5	90.0 – 110.0	P	21-FEB-10 04:37	022010C-1
	Manganese	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	21-FEB-10 04:37	022010C-1
	Potassium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	21-FEB-10 04:37	022010C-1
	Silver	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	21-FEB-10 04:37	022010C-1
	Sodium	10400	ug/L	10000	ug/L	104.5	90.0 – 110.0	P	21-FEB-10 04:37	022010C-1
	Vanadium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	21-FEB-10 04:37	022010C-1
	Zinc	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	21-FEB-10 04:37	022010C-1
	Mercury	5.23	ug/L	5	ug/L	104.6	80.0 – 120.0	AV	22-FEB-10 12:49	022210S1-7
CCV12										
	Aluminum	5230	ug/L	5000	ug/L	104.6	90.0 – 110.0	P	21-FEB-10 05:13	022010C-1
	Antimony	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	21-FEB-10 05:13	022010C-1
	Barium	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	21-FEB-10 05:13	022010C-1
	Cadmium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	21-FEB-10 05:13	022010C-1
	Calcium	5160	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	21-FEB-10 05:13	022010C-1
	Chromium	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	21-FEB-10 05:13	022010C-1
	Cobalt	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	21-FEB-10 05:13	022010C-1
	Copper	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	21-FEB-10 05:13	022010C-1
	Iron	5260	ug/L	5000	ug/L	105.2	90.0 – 110.0	P	21-FEB-10 05:13	022010C-1
	Lead	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	21-FEB-10 05:13	022010C-1
	Magnesium	5350	ug/L	5000	ug/L	106.9	90.0 – 110.0	P	21-FEB-10 05:13	022010C-1
	Manganese	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	21-FEB-10 05:13	022010C-1



---

**METALS**  
**-2a-**  
**Initial and Continuing Calibration Verification**

---

SDG No: 10-1568-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,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>
	Potassium	5060	ug/L	5000	ug/L	101.2	90.0 - 110.0	P	21-FEB-10 05:13	022010C-1
	Silver	493	ug/L	500	ug/L	98.7	90.0 - 110.0	P	21-FEB-10 05:13	022010C-1
	Sodium	10400	ug/L	10000	ug/L	104.1	90.0 - 110.0	P	21-FEB-10 05:13	022010C-1
	Vanadium	495	ug/L	500	ug/L	99	90.0 - 110.0	P	21-FEB-10 05:13	022010C-1
	Zinc	491	ug/L	500	ug/L	98.3	90.0 - 110.0	P	21-FEB-10 05:13	022010C-1
	Mercury	5.3	ug/L	5	ug/L	106	80.0 - 120.0	AV	22-FEB-10 13:09	022210S1-7

**METALS**  
**-2b-**  
**CRDL Standard for AA & ICP**

SDG No: 10-1568-1

Contract: LANL01004

Lab Code: GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS5,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	.151	ug/L	.2	ug/L	75.5	70.0 – 130.0	AV	22-FEB-10 09:25	022210S1-7
	Thallium	1.27	ug/L	1	ug/L	127.2	70.0 – 130.0	MS	26-FEB-10 01:36	100225-2
	Selenium	5.74	ug/L	5	ug/L	114.9	70.0 – 130.0	MS	26-FEB-10 14:29	100226-3
	Arsenic	5.84	ug/L	5	ug/L	116.7	70.0 – 130.0	MS	26-FEB-10 14:29	100226-3
	Beryllium	.532	ug/L	.5	ug/L	106.4	70.0 – 130.0	MS	26-FEB-10 14:29	100226-3
	Nickel	2.21	ug/L	2	ug/L	110.4	70.0 – 130.0	MS	26-FEB-10 14:29	100226-3
	Uranium	.213	ug/L	.2	ug/L	106.5	70.0 – 130.0	MS	26-FEB-10 16:29	100226-6
PQL01										
	Iron	107	ug/L	100	ug/L	107.3	70.0 – 130.0	P	20-FEB-10 21:14	022010C-1
	Lead	8.54	ug/L	10	ug/L	85.4	70.0 – 130.0	P	20-FEB-10 21:14	022010C-1
	Magnesium	314	ug/L	300	ug/L	104.7	70.0 – 130.0	P	20-FEB-10 21:14	022010C-1
	Manganese	10.2	ug/L	10	ug/L	102.3	70.0 – 130.0	P	20-FEB-10 21:14	022010C-1
	Potassium	155	ug/L	150	ug/L	103.4	70.0 – 130.0	P	20-FEB-10 21:14	022010C-1
	Silver	5.53	ug/L	5	ug/L	110.7	70.0 – 130.0	P	20-FEB-10 21:14	022010C-1
	Sodium	315	ug/L	300	ug/L	105.1	70.0 – 130.0	P	20-FEB-10 21:14	022010C-1
	Antimony	8.87	ug/L	10	ug/L	88.7	70.0 – 130.0	P	20-FEB-10 21:14	022010C-1
	Aluminum	201	ug/L	200	ug/L	100.5	70.0 – 130.0	P	20-FEB-10 21:14	022010C-1
	Barium	4.95	ug/L	5	ug/L	99	70.0 – 130.0	P	20-FEB-10 21:14	022010C-1
	Cadmium	4.49	ug/L	5	ug/L	89.8	70.0 – 130.0	P	20-FEB-10 21:14	022010C-1
	Chromium	4.88	ug/L	5	ug/L	97.6	70.0 – 130.0	P	20-FEB-10 21:14	022010C-1
	Cobalt	4.65	ug/L	5	ug/L	93	70.0 – 130.0	P	20-FEB-10 21:14	022010C-1
	Copper	10.7	ug/L	10	ug/L	106.7	70.0 – 130.0	P	20-FEB-10 21:14	022010C-1
	Vanadium	5.24	ug/L	5	ug/L	104.9	70.0 – 130.0	P	20-FEB-10 21:14	022010C-1
	Zinc	10.5	ug/L	10	ug/L	104.8	70.0 – 130.0	P	20-FEB-10 21:14	022010C-1
	Calcium	209	ug/L	200	ug/L	104.6	70.0 – 130.0	P	20-FEB-10 21:14	022010C-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1568-1

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>
<b>ICB01</b>										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	20-FEB-10 21:10	022010C-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	20-FEB-10 21:10	022010C-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 21:10	022010C-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 21:10	022010C-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 21:10	022010C-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	20-FEB-10 21:10	022010C-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	20-FEB-10 21:10	022010C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	20-FEB-10 21:10	022010C-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 21:10	022010C-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	20-FEB-10 21:10	022010C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	20-FEB-10 21:10	022010C-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	20-FEB-10 21:10	022010C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	20-FEB-10 21:10	022010C-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 21:10	022010C-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	20-FEB-10 21:10	022010C-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 21:10	022010C-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	20-FEB-10 21:10	022010C-1
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	22-FEB-10 09:23	022210S1-7
	Thallium	0.321	+/-1	J	0.3	1.0	SOL	MS	26-FEB-10 01:29	100225-2
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	26-FEB-10 14:26	100226-3
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	26-FEB-10 14:26	100226-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	26-FEB-10 14:26	100226-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	26-FEB-10 14:26	100226-3
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	26-FEB-10 16:28	100226-6
<b>CCB01</b>										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	20-FEB-10 21:34	022010C-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	20-FEB-10 21:34	022010C-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 21:34	022010C-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 21:34	022010C-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 21:34	022010C-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	20-FEB-10 21:34	022010C-1

SW846

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1568-1

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>
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	20-FEB-10 21:34	022010C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	20-FEB-10 21:34	022010C-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 21:34	022010C-1
	Lead	6.22	+/-10	J	2.5	10.0	SOL	P	20-FEB-10 21:34	022010C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	20-FEB-10 21:34	022010C-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	20-FEB-10 21:34	022010C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	20-FEB-10 21:34	022010C-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 21:34	022010C-1
	Sodium	80.39	+/-250	J	70.0	250	SOL	P	20-FEB-10 21:34	022010C-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 21:34	022010C-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	20-FEB-10 21:34	022010C-1
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	22-FEB-10 09:28	022210S1-7
	Thallium	0.427	+/-1	J	0.3	1.0	SOL	MS	26-FEB-10 02:00	100225-2
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	26-FEB-10 14:39	100226-3
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	26-FEB-10 14:39	100226-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	26-FEB-10 14:39	100226-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	26-FEB-10 14:39	100226-3
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	26-FEB-10 16:36	100226-6
<b>CCB02</b>	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	20-FEB-10 22:16	022010C-1
	Antimony	4.28	+/-10	J	3.3	10.0	SOL	P	20-FEB-10 22:16	022010C-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 22:16	022010C-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 22:16	022010C-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 22:16	022010C-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	20-FEB-10 22:16	022010C-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	20-FEB-10 22:16	022010C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	20-FEB-10 22:16	022010C-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 22:16	022010C-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	20-FEB-10 22:16	022010C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	20-FEB-10 22:16	022010C-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	20-FEB-10 22:16	022010C-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1568-1

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>
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	20-FEB-10 22:16	022010C-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 22:16	022010C-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	20-FEB-10 22:16	022010C-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 22:16	022010C-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	20-FEB-10 22:16	022010C-1
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	22-FEB-10 09:48	022210S1-7
	Thallium	0.519	+/-1	J	0.3	1.0	SOL	MS	26-FEB-10 02:18	100225-2
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	26-FEB-10 15:07	100226-3
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	26-FEB-10 15:07	100226-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	26-FEB-10 15:07	100226-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	26-FEB-10 15:07	100226-3
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	26-FEB-10 16:51	100226-6
<b>CCB03</b>	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	20-FEB-10 23:30	022010C-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	20-FEB-10 23:30	022010C-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 23:30	022010C-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 23:30	022010C-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 23:30	022010C-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	20-FEB-10 23:30	022010C-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	20-FEB-10 23:30	022010C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	20-FEB-10 23:30	022010C-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 23:30	022010C-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	20-FEB-10 23:30	022010C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	20-FEB-10 23:30	022010C-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	20-FEB-10 23:30	022010C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	20-FEB-10 23:30	022010C-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 23:30	022010C-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	20-FEB-10 23:30	022010C-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 23:30	022010C-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	20-FEB-10 23:30	022010C-1
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	22-FEB-10 10:09	022210S1-7

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1568-1

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>
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	26-FEB-10 03:14	100225-2
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	26-FEB-10 15:33	100226-3
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	26-FEB-10 15:33	100226-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	26-FEB-10 15:33	100226-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	26-FEB-10 15:33	100226-3
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	26-FEB-10 17:03	100226-6
<b>CCB04</b>	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	21-FEB-10 00:07	022010C-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	21-FEB-10 00:07	022010C-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 00:07	022010C-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 00:07	022010C-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	21-FEB-10 00:07	022010C-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	21-FEB-10 00:07	022010C-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	21-FEB-10 00:07	022010C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	21-FEB-10 00:07	022010C-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	21-FEB-10 00:07	022010C-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	21-FEB-10 00:07	022010C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	21-FEB-10 00:07	022010C-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	21-FEB-10 00:07	022010C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	21-FEB-10 00:07	022010C-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 00:07	022010C-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	21-FEB-10 00:07	022010C-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 00:07	022010C-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	21-FEB-10 00:07	022010C-1
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	22-FEB-10 10:29	022210S1-7
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	26-FEB-10 03:57	100225-2
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	26-FEB-10 17:18	100226-6
<b>CCB05</b>	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	21-FEB-10 00:44	022010C-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	21-FEB-10 00:44	022010C-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 00:44	022010C-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1568-1

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>
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 00:44	022010C-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	21-FEB-10 00:44	022010C-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	21-FEB-10 00:44	022010C-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	21-FEB-10 00:44	022010C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	21-FEB-10 00:44	022010C-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	21-FEB-10 00:44	022010C-1
	Lead	-2.8	+/-10	J	2.5	10.0	SOL	P	21-FEB-10 00:44	022010C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	21-FEB-10 00:44	022010C-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	21-FEB-10 00:44	022010C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	21-FEB-10 00:44	022010C-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 00:44	022010C-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	21-FEB-10 00:44	022010C-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 00:44	022010C-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	21-FEB-10 00:44	022010C-1
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	22-FEB-10 10:49	022210S1-7
	Thallium	0.316	+/-1	J	0.3	1.0	SOL	MS	26-FEB-10 04:59	100225-2
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	26-FEB-10 17:38	100226-6
<b>CCB06</b>	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	21-FEB-10 01:23	022010C-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	21-FEB-10 01:23	022010C-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 01:23	022010C-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 01:23	022010C-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	21-FEB-10 01:23	022010C-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	21-FEB-10 01:23	022010C-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	21-FEB-10 01:23	022010C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	21-FEB-10 01:23	022010C-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	21-FEB-10 01:23	022010C-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	21-FEB-10 01:23	022010C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	21-FEB-10 01:23	022010C-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	21-FEB-10 01:23	022010C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	21-FEB-10 01:23	022010C-1

SW846

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1568-1

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>
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 01:23	022010C-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	21-FEB-10 01:23	022010C-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 01:23	022010C-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	21-FEB-10 01:23	022010C-1
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	22-FEB-10 11:09	022210S1-7
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	26-FEB-10 06:07	100225-2
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	26-FEB-10 17:49	100226-6
<b>CCB07</b>	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	21-FEB-10 02:03	022010C-1
	Antimony	5.46	+/-10	J	3.3	10.0	SOL	P	21-FEB-10 02:03	022010C-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 02:03	022010C-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 02:03	022010C-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	21-FEB-10 02:03	022010C-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	21-FEB-10 02:03	022010C-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	21-FEB-10 02:03	022010C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	21-FEB-10 02:03	022010C-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	21-FEB-10 02:03	022010C-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	21-FEB-10 02:03	022010C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	21-FEB-10 02:03	022010C-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	21-FEB-10 02:03	022010C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	21-FEB-10 02:03	022010C-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 02:03	022010C-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	21-FEB-10 02:03	022010C-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 02:03	022010C-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	21-FEB-10 02:03	022010C-1
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	22-FEB-10 11:29	022210S1-7
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	26-FEB-10 18:04	100226-6
<b>CCB08</b>	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	21-FEB-10 02:40	022010C-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	21-FEB-10 02:40	022010C-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 02:40	022010C-1



**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1568-1

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>
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 02:40	022010C-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	21-FEB-10 02:40	022010C-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	21-FEB-10 02:40	022010C-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	21-FEB-10 02:40	022010C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	21-FEB-10 02:40	022010C-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	21-FEB-10 02:40	022010C-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	21-FEB-10 02:40	022010C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	21-FEB-10 02:40	022010C-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	21-FEB-10 02:40	022010C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	21-FEB-10 02:40	022010C-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 02:40	022010C-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	21-FEB-10 02:40	022010C-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 02:40	022010C-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	21-FEB-10 02:40	022010C-1
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	22-FEB-10 11:49	022210S1-7
<b>CCB09</b>	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	21-FEB-10 03:20	022010C-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	21-FEB-10 03:20	022010C-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 03:20	022010C-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 03:20	022010C-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	21-FEB-10 03:20	022010C-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	21-FEB-10 03:20	022010C-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	21-FEB-10 03:20	022010C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	21-FEB-10 03:20	022010C-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	21-FEB-10 03:20	022010C-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	21-FEB-10 03:20	022010C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	21-FEB-10 03:20	022010C-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	21-FEB-10 03:20	022010C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	21-FEB-10 03:20	022010C-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 03:20	022010C-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	21-FEB-10 03:20	022010C-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1568-1

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>
CCB10	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 03:20	022010C-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	21-FEB-10 03:20	022010C-1
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	22-FEB-10 12:10	022210S1-7
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	21-FEB-10 04:00	022010C-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	21-FEB-10 04:00	022010C-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 04:00	022010C-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 04:00	022010C-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	21-FEB-10 04:00	022010C-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	21-FEB-10 04:00	022010C-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	21-FEB-10 04:00	022010C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	21-FEB-10 04:00	022010C-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	21-FEB-10 04:00	022010C-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	21-FEB-10 04:00	022010C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	21-FEB-10 04:00	022010C-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	21-FEB-10 04:00	022010C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	21-FEB-10 04:00	022010C-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 04:00	022010C-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	21-FEB-10 04:00	022010C-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 04:00	022010C-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	21-FEB-10 04:00	022010C-1
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	22-FEB-10 12:30	022210S1-7
CCB11	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	21-FEB-10 04:41	022010C-1
	Antimony	3.97	+/-10	J	3.3	10.0	SOL	P	21-FEB-10 04:41	022010C-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 04:41	022010C-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 04:41	022010C-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	21-FEB-10 04:41	022010C-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	21-FEB-10 04:41	022010C-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	21-FEB-10 04:41	022010C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	21-FEB-10 04:41	022010C-1

**Metals**  
**-3a-**  
**Initial and Continuing Calibration Blank Summary**

SDG No.: 10-1568-1

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>
	Iron	80.0	+/-250	U	80.0	250	SOL	P	21-FEB-10 04:41	022010C-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	21-FEB-10 04:41	022010C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	21-FEB-10 04:41	022010C-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	21-FEB-10 04:41	022010C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	21-FEB-10 04:41	022010C-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 04:41	022010C-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	21-FEB-10 04:41	022010C-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 04:41	022010C-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	21-FEB-10 04:41	022010C-1
	Mercury	0.068	+/- .2	U	0.068	0.2	SOL	AV	22-FEB-10 12:50	022210S1-7
CCB12	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	21-FEB-10 05:17	022010C-1
	Antimony	4.36	+/-10	J	3.3	10.0	SOL	P	21-FEB-10 05:17	022010C-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 05:17	022010C-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 05:17	022010C-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	21-FEB-10 05:17	022010C-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	21-FEB-10 05:17	022010C-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	21-FEB-10 05:17	022010C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	21-FEB-10 05:17	022010C-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	21-FEB-10 05:17	022010C-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	21-FEB-10 05:17	022010C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	21-FEB-10 05:17	022010C-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	21-FEB-10 05:17	022010C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	21-FEB-10 05:17	022010C-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 05:17	022010C-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	21-FEB-10 05:17	022010C-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 05:17	022010C-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	21-FEB-10 05:17	022010C-1
	Mercury	0.068	+/- .2	U	0.068	0.2	SOL	AV	22-FEB-10 13:11	022210S1-7

**METALS**  
**-3b-**  
**PREPARATION BLANK SUMMARY**

**SDG NO.** 10-1568-1  
**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>
1202036650	Aluminum	6580	ug/Kg	+/-19300	U	P	6580	19300
	Antimony	319	ug/Kg	+/-967	U	P	319	967
	Barium	96.7	ug/Kg	+/-484	U	P	96.7	484
	Calcium	7740	ug/Kg	+/-24200	U	P	7740	24200
	Cobalt	145	ug/Kg	+/-484	U	P	145	484
	Iron	7740	ug/Kg	+/-24200	U	P	7740	24200
	Magnesium	8220	ug/Kg	+/-29000	U	P	8220	29000
	Potassium	6190	ug/Kg	+/-24200	U	P	6190	24200
	Sodium	6770	ug/Kg	+/-24200	U	P	6770	24200
	Zinc	319	ug/Kg	+/-967	U	P	319	967
	Vanadium	96.7	ug/Kg	+/-484	U	P	96.7	484
	Silver	96.7	ug/Kg	+/-484	U	P	96.7	484
	Manganese	193	ug/Kg	+/-967	U	P	193	967
	Lead	242	ug/Kg	+/-967	U	P	242	967
	Copper	290	ug/Kg	+/-967	U	P	290	967
	Chromium	145	ug/Kg	+/-484	U	P	145	484
	Cadmium	96.7	ug/Kg	+/-484	U	P	96.7	484
1202036669	Arsenic	0.181	mg/kg	+/-0.907	U	MS	0.181	0.907
	Nickel	0.0907	mg/kg	+/-0.363	U	MS	0.0907	0.363
	Selenium	0.454	mg/kg	+/-0.907	U	MS	0.454	0.907
	Uranium	0.012	mg/kg	+/-0.0363	U	MS	0.012	0.0363
	Thallium	0.0545	mg/kg	+/-0.181	U	MS	0.0545	0.181
	Beryllium	0.0182	mg/kg	+/-0.0907	U	MS	0.0182	0.0907
1202039383	Mercury	3.86	ug/kg	+/-11.4	U	AV	3.86	11.4

**METALS**  
**-4-**  
**Interference Check Sample**

SDG No: 10-1568-1

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	514000	ug/L	500000	ug/L	103	80.0 – 120.0	20-FEB-10 21:18	022010C-1
	Antimony	-16.2	ug/L					20-FEB-10 21:18	022010C-1
	Barium	7.42	ug/L					20-FEB-10 21:18	022010C-1
	Cadmium	-6.77	ug/L					20-FEB-10 21:18	022010C-1
	Calcium	491000	ug/L	500000	ug/L	98.1	80.0 – 120.0	20-FEB-10 21:18	022010C-1
	Chromium	-0.969	ug/L					20-FEB-10 21:18	022010C-1
	Cobalt	2.52	ug/L					20-FEB-10 21:18	022010C-1
	Copper	-0.461	ug/L					20-FEB-10 21:18	022010C-1
	Iron	192000	ug/L	200000	ug/L	95.9	80.0 – 120.0	20-FEB-10 21:18	022010C-1
	Lead	4.99	ug/L					20-FEB-10 21:18	022010C-1
	Magnesium	495000	ug/L	500000	ug/L	98.9	80.0 – 120.0	20-FEB-10 21:18	022010C-1
	Manganese	9.86	ug/L					20-FEB-10 21:18	022010C-1
	Potassium	-19.3	ug/L					20-FEB-10 21:18	022010C-1
	Silver	-4.62	ug/L					20-FEB-10 21:18	022010C-1
	Sodium	38.1	ug/L					20-FEB-10 21:18	022010C-1
	Vanadium	-4.3	ug/L					20-FEB-10 21:18	022010C-1
	Zinc	-9.25	ug/L					20-FEB-10 21:18	022010C-1
<b>ICSAB01</b>									
	Aluminum	520000	ug/L	500000	ug/L	104	80.0 – 120.0	20-FEB-10 21:20	022010C-1
	Antimony	489	ug/L	500	ug/L	97.7	80.0 – 120.0	20-FEB-10 21:20	022010C-1
	Barium	488	ug/L	500	ug/L	97.7	80.0 – 120.0	20-FEB-10 21:20	022010C-1
	Cadmium	446	ug/L	500	ug/L	89.3	80.0 – 120.0	20-FEB-10 21:20	022010C-1
	Calcium	492000	ug/L	500000	ug/L	98.5	80.0 – 120.0	20-FEB-10 21:20	022010C-1
	Chromium	474	ug/L	500	ug/L	94.8	80.0 – 120.0	20-FEB-10 21:20	022010C-1
	Cobalt	424	ug/L	500	ug/L	84.9	80.0 – 120.0	20-FEB-10 21:20	022010C-1
	Copper	527	ug/L	500	ug/L	105	80.0 – 120.0	20-FEB-10 21:20	022010C-1
	Iron	191000	ug/L	200000	ug/L	95.6	80.0 – 120.0	20-FEB-10 21:20	022010C-1
	Lead	472	ug/L	500	ug/L	94.4	80.0 – 120.0	20-FEB-10 21:20	022010C-1
	Magnesium	497000	ug/L	500000	ug/L	99.3	80.0 – 120.0	20-FEB-10 21:20	022010C-1

SW846

---

**METALS**  
**-4-**  
**Interference Check Sample**

SDG No: 10-1568-1

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>
	Manganese	475	ug/L	500	ug/L	95	80.0 – 120.0	20-FEB-10 21:20	022010C-1
	Potassium	5020	ug/L	5000	ug/L	100	80.0 – 120.0	20-FEB-10 21:20	022010C-1
	Silver	251	ug/L	250	ug/L	101	80.0 – 120.0	20-FEB-10 21:20	022010C-1
	Sodium	5190	ug/L	5000	ug/L	104	80.0 – 120.0	20-FEB-10 21:20	022010C-1
	Vanadium	503	ug/L	500	ug/L	101	80.0 – 120.0	20-FEB-10 21:20	022010C-1
	Zinc	454	ug/L	500	ug/L	90.8	80.0 – 120.0	20-FEB-10 21:20	022010C-1

---

**METALS**  
**-4-**  
**Interference Check Sample**

**SDG No:** 10-1568-1

**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	Thallium	-0.058	ug/L					26-FEB-10 01:42	100225-2
ICSAB01	Thallium	21.1	ug/L	20	ug/L	105	80.0 - 120.0	26-FEB-10 01:48	100225-2

**METALS**  
**-4-**  
**Interference Check Sample**

SDG No: 10-1568-1

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>
<b>ICSA01</b>									
	Arsenic	0.757	ug/L					26-FEB-10 14:31	100226-3
	Beryllium	0.098	ug/L					26-FEB-10 14:31	100226-3
	Nickel	3.54	ug/L					26-FEB-10 14:31	100226-3
	Selenium	-0.059	ug/L					26-FEB-10 14:31	100226-3
<b>ICSAB01</b>									
	Arsenic	20.8	ug/L	20	ug/L	104	80.0 – 120.0	26-FEB-10 14:34	100226-3
	Beryllium	17.8	ug/L	20	ug/L	89.2	80.0 – 120.0	26-FEB-10 14:34	100226-3
	Nickel	23.4	ug/L	23.31	ug/L	100	80.0 – 120.0	26-FEB-10 14:34	100226-3
	Selenium	20.3	ug/L	20	ug/L	101	80.0 – 120.0	26-FEB-10 14:34	100226-3



METALS  
-4-  
Interference Check Sample

SDG No: 10-1568-1

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	Uranium	-0.007	ug/L					26-FEB-10 16:31	100226-6
ICSAB01	Uranium	20.2	ug/L	20	ug/L	101	80.0 - 120.0	26-FEB-10 16:33	100226-6

## METALS

-5a-

## Matrix Spike Summary

SDG NO. 10-1568-1 Client ID RE15-10-8304S

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 80

Sample ID: 246336001 Spike ID: 1202036653

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Zinc	ug/Kg	75-125	84500		38000		56200	82.8		P
Aluminum	ug/Kg		7600000		3700000		562000	693	N/A	P
Antimony	ug/Kg	75-125	41100		386	U	56200	72.8	N	P
Barium	ug/Kg	75-125	97800		38700		56200	105		P
Cadmium	ug/Kg	75-125	53400		117	U	56200	95		P
Calcium	ug/Kg	75-125	1830000		1310000		562000	92.6		P
Chromium	ug/Kg	75-125	51600		8760		56200	76.2		P
Cobalt	ug/Kg	75-125	55200		1440		56200	95.6		P
Copper	ug/Kg	75-125	51000		4070		56200	83.5		P
Iron	ug/Kg		9720000		8530000		562000	211	N/A	P
Lead	ug/Kg	75-125	67200		12300		56200	97.5		P
Magnesium	ug/Kg	75-125	1420000		579000		562000	149	N	P
Manganese	ug/Kg	75-125	213000		152000		56200	109		P
Potassium	ug/Kg	75-125	1190000		489000		562000	124		P
Silver	ug/Kg	75-125	54000		117	U	56200	96.1		P
Sodium	ug/Kg	75-125	601000		59700		562000	96.3		P
Vanadium	ug/Kg	75-125	55600		9900		56200	81.3		P

## METALS

-5a-

## Matrix Spike Duplicate Summary

SDG NO. 10-1568-1 Client ID RE15-10-8304SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 80

Sample ID: 246336001 Spike ID: 1202036654

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg		7310000		3700000		595000	607	N/A	P
Antimony	ug/Kg	75-125	42100		386	U	59500	70.5	N	P
Barium	ug/Kg	75-125	97900		38700		59500	99.4		P
Cadmium	ug/Kg	75-125	57500		117	U	59500	96.6		P
Calcium	ug/Kg	75-125	1780000		1310000		595000	78.7		P
Chromium	ug/Kg	75-125	52800		8760		59500	74	N	P
Cobalt	ug/Kg	75-125	59000		1440		59500	96.7		P
Copper	ug/Kg	75-125	51700		4070		59500	80.1		P
Iron	ug/Kg		11100000		8530000		595000	424	N/A	P
Lead	ug/Kg	75-125	73400		12300		59500	103		P
Magnesium	ug/Kg	75-125	1410000		579000		595000	139	N	P
Manganese	ug/Kg	75-125	212000		152000		59500	101		P
Potassium	ug/Kg	75-125	1190000		489000		595000	117		P
Silver	ug/Kg	75-125	58100		117	U	59500	97.6		P
Sodium	ug/Kg	75-125	644000		59700		595000	98.1		P
Vanadium	ug/Kg	75-125	57800		9900		59500	80.4		P
Zinc	ug/Kg	75-125	91300		38000		59500	89.6		P

## METALS

-5a-

## Matrix Spike Summary

SDG NO. 10-1568-1 Client ID RE15-10-8304S

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 80

Sample ID: 246336001 Spike ID: 1202036672

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75-125	11.8		2.38		9.9	95.1		MS
Beryllium	mg/kg	75-125	5.56		0.398		6.19	83.4		MS
Nickel	mg/kg	75-125	7.61		2.14		6.19	88.5		MS
Selenium	mg/kg	75-125	2.88		0.669	J	2.48	89.3		MS
Thallium	mg/kg	75-125	12.5		0.107	J	12.4	100		MS
Uranium	mg/kg		77.8		52		6.19	416	N/A	MS

## METALS

-5a-

## Matrix Spike Duplicate Summary

SDG NO. 10-1568-1 Client ID RE15-10-8304SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 80

Sample ID: 246336001 Spike ID: 1202036673

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75-125	11.8		2.38		9.94	94.4		MS
Beryllium	mg/kg	75-125	5.41		0.398		6.21	80.6		MS
Nickel	mg/kg	75-125	7.62		2.14		6.21	88.2		MS
Selenium	mg/kg	75-125	2.56		0.669	J	2.49	76		MS
Thallium	mg/kg	75-125	12.4		0.107	J	12.4	98.6		MS
Uranium	mg/kg		86.1		52		6.21	548	N/A	MS

## METALS

-5a-

## Matrix Spike Summary

SDG NO. 10-1568-1 Client ID RE15-10-7981S

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 75

Sample ID: 246344001 Spike ID: 1202039386

<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	175		10.4	J	154	107		AV

METALS  
-5a-

Matrix Spike Duplicate Summary

SDG NO.	10-1568-1	Client ID	RE15-10-7981SD
Contract:	LANL01004	Level:	Low
Matrix:	SOIL	% Solids:	75
Sample ID:	246344001	Spike ID:	1202039388

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	181		10.4	J	153	111		AV

**Metals**  
**-6-**  
**Duplicate Sample Summary**

SDG No.: 10-1568-1

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE15-10-8304D

Sample ID: 246336001

Duplicate ID: 1202036651

Percent Solids for Dup: 80

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20%	3700000		4090000		10		P
Antimony	ug/Kg		386 U		832 J		200		P
Barium	ug/Kg	+/-20%	38700		36800		5.06		P
Cadmium	ug/Kg		117 U		118 U				P
Calcium	ug/Kg	+/-20%	1310000		1200000		8.55		P
Chromium	ug/Kg	+/-20%	8760		5280		49.6	*	P
Cobalt	ug/Kg	+/-592	1440		2710		61.2	*	P
Copper	ug/Kg	+/-1180	4070		3680		9.92		P
Iron	ug/Kg	+/-20%	8530000		8560000		.284		P
Lead	ug/Kg	+/-20%	12300		15500		22.5	*	P
Magnesium	ug/Kg	+/-20%	579000		587000		1.44		P
Manganese	ug/Kg	+/-20%	152000		186000		20		P
Potassium	ug/Kg	+/-20%	489000		487000		.338		P
Silver	ug/Kg		117 U		118 U				P
Sodium	ug/Kg	+/-29600	59700		65200		8.9		P
Vanadium	ug/Kg	+/-20%	9900		8700		12.9		P
Zinc	ug/Kg	+/-20%	38000		39600		4.13		P



**Metals**  
**-6-**  
**Duplicate Sample Summary**

SDG No.: 10-1568-1

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE15-10-8304SD

Sample ID: 1202036653

Duplicate ID: 1202036654

Percent Solids for Dup: 80

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20	7600000		7310000		3.84		P
Antimony	ug/Kg	+/-20	41100		42100		2.5		P
Barium	ug/Kg	+/-20	97800		97900		.102		P
Cadmium	ug/Kg	+/-20	53400		57500		7.4		P
Calcium	ug/Kg	+/-20	1830000		1780000		2.89		P
Chromium	ug/Kg	+/-20	51600		52800		2.38		P
Cobalt	ug/Kg	+/-20	55200		59000		6.71		P
Copper	ug/Kg	+/-20	51000		51700		1.42		P
Iron	ug/Kg	+/-20	9720000		11100000		12.9		P
Lead	ug/Kg	+/-20	67200		73400		8.87		P
Magnesium	ug/Kg	+/-20	1420000		1410000		.455		P
Manganese	ug/Kg	+/-20	213000		212000		.623		P
Potassium	ug/Kg	+/-20	1190000		1190000		.136		P
Silver	ug/Kg	+/-20	54000		58100		7.35		P
Sodium	ug/Kg	+/-20	601000		644000		6.86		P
Vanadium	ug/Kg	+/-20	55600		57800		3.8		P
Zinc	ug/Kg	+/-20	84500		91300		7.7		P

**Metals**  
**-6-**  
**Duplicate Sample Summary**

SDG No.: 10-1568-1

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE15-10-8304D

Sample ID: 246336001

Duplicate ID: 1202036670

Percent Solids for Dup: 80

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/-1.14	2.38		2.35		1.4		MS
Beryllium	mg/kg	+/-1.14	0.398		0.405		1.6		MS
Nickel	mg/kg	+/-4.56	2.14		2.4		11.3		MS
Selenium	mg/kg	+/-1.14	0.669 J		0.895 J		28.9		MS
Thallium	mg/kg	+/-2.28	0.107 J		0.137 J		25.1		MS
Uranium	mg/kg	+/-20%	52		74.9		36.1	*	MS

---

**Metals**  
**-6-**  
**Duplicate Sample Summary**

SDG No.: 10-1568-1

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE15-10-8304SD

Sample ID: 1202036672

Duplicate ID: 1202036673

Percent Solids for Dup: 80

---

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/-20	11.8		11.8		.287		MS
Beryllium	mg/kg	+/-20	5.56		5.41		2.79		MS
Nickel	mg/kg	+/-20	7.61		7.62		.0598		MS
Selenium	mg/kg	+/-20	2.88		2.56		11.8		MS
Thallium	mg/kg	+/-20	12.5		12.4		1.35		MS
Uranium	mg/kg	+/-20	77.8		86.1		10.1		MS

---

Metals  
-6-  
Duplicate Sample Summary

SDG No.: 10-1568-1

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE15-10-7981D

Sample ID: 246344001

Duplicate ID: 1202039385

Percent Solids for Dup: 75

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-15.3	10.4 J		9.23 J		11.9		AV

---

**Metals**  
**-6-**  
**Duplicate Sample Summary**

SDG No.: 10-1568-1

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE15-10-7981SD

Sample ID: 1202039386

Duplicate ID: 1202039388

Percent Solids for Dup: 75

---

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-20	175		181		3.53		AV

---

**METALS**  
**-7-**  
**Laboratory Control Sample Summary**

SDG NO. 10-1568-1

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>
1202036655								
	Aluminum	ug/Kg	10500000	8520000		81.1	56-144	P
	Antimony	ug/Kg	173000	140000		81.1	71-130	P
	Barium	ug/Kg	198000	189000		95.6	80-120	P
	Cadmium	ug/Kg	60700	56800		93.6	81-120	P
	Calcium	ug/Kg	9870000	9630000		97.6	83-117	P
	Chromium	ug/Kg	236000	223000		94.5	80-120	P
	Cobalt	ug/Kg	91200	88900		97.5	81-120	P
	Copper	ug/Kg	174000	174000		99.8	81-118	P
	Iron	ug/Kg	18000000	18200000		101	51-149	P
	Lead	ug/Kg	86000	82300		95.7	79-121	P
	Magnesium	ug/Kg	4000000	3830000		95.6	79-122	P
	Manganese	ug/Kg	558000	537000		96.2	81-119	P
	Potassium	ug/Kg	4300000	3950000		91.8	74-127	P
	Silver	ug/Kg	30100	30100		100	66-134	P
	Sodium	ug/Kg	1020000	994000		97.5	74-127	P
	Vanadium	ug/Kg	115000	118000		103	79-121	P
	Zinc	ug/Kg	594000	580000		97.6	80-121	P

## METALS

-7-

## Laboratory Control Sample Summary

SDG NO. 10-1568-1

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>
1202036674								
	Arsenic	mg/kg	104	109		105	78-123	MS
	Beryllium	mg/kg	77.6	79.3		102	84-116	MS
	Nickel	mg/kg	134	147		109	78-123	MS
	Selenium	mg/kg	286	300		105	77-123	MS
	Thallium	mg/kg	121	141		116	78-122	MS
	Uranium	mg/kg	2.13	2.39		112	73-127	MS

---

METALS  
-7-  
Laboratory Control Sample Summary

SDG NO. 10-1568-1

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>
1202039384	Mercury	ug/kg	5150	5490		107	71.6-128.3	AV



## METALS

-9-

## Serial Dilution Sample Summary

SDG NO. 10-1568-1 Client ID RE15-10-8304L

Contract: LANL01004

Matrix: SOLID Level: Low

Sample ID: 246336001 Serial Dilution ID: 1202036652

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	31700		32300		1.89		10	P
Antimony	3.3	U	16.5	U				P
Barium	331		337		1.66		10	P
Cadmium	1	U	5	U				P
Calcium	11200		11500		2.23		10	P
Chromium	75		76		1.33		10	P
Cobalt	12.3		12.9	J	4.47			P
Copper	34.8		34.4	J	1.29			P
Iron	73000		76000		4.11		10	P
Lead	106		99		6.6			P
Magnesium	4960		5150		3.83		10	P
Manganese	1300		1310		.385		10	P
Potassium	4190		4240		1.07		10	P
Silver	1	U	5	U				P
Sodium	511		515	J	.783			P
Vanadium	84.7		87		2.72		10	P
Zinc	325		333		2.46		10	P

## METALS

-9-

## Serial Dilution Sample Summary

SDG NO. 10-1568-1 Client ID RE15-10-8304L

Contract: LANL01004

Matrix: SOLID Level: Low

Sample ID: 246336001 Serial Dilution ID: 1202036671

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	9.8		10.8	J	9.69			MS
Beryllium	1.64		2.03	J	23.5			MS
Nickel	8.82		10		13.4			MS
Selenium	2.76	J	12.5	U	100			MS
Thallium	.439	J	1.5	U	100			MS
Uranium	21.4		23.2		8.18		10	MS

## METALS

-9-

## Serial Dilution Sample Summary

**SDG NO.** 10-1568-1 **Client ID** RE15-10-7981L**Contract:** LANL01004**Matrix:** SOLID **Level:** Low**Sample ID:** 246344001 **Serial Dilution ID:** 1202039387

<b>Analyte</b>	<b><u>Initial</u> <u>Value</u> <u>ug/L</u></b>	<b><u>C</u></b>	<b><u>Serial</u> <u>Value</u> <u>ug/L</u></b>	<b><u>C</u></b>	<b><u>%</u> <u>Difference</u></b>	<b><u>Qual</u></b>	<b><u>Acceptance</u> <u>Limit</u></b>	<b><u>M</u></b>
Mercury	.134	J	.34	U	100			AV

---

METALS  
-13-  
SAMPLE PREPARATION SUMMARY

SDG No: 10-1568-1

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	950377						
1202036650	MB for batch 950377	MB	S	17-FEB-10	.517g	50mL	
1202036655	LCS for batch 950377	LCS	S	17-FEB-10	.501g	50mL	
1202036653	RE15-10-8304S	MS	S	17-FEB-10	.558g	50mL	
1202036654	RE15-10-8304SD	MSD	S	17-FEB-10	.527g	50mL	
1202036651	RE15-10-8304D	DUP	S	17-FEB-10	.53g	50mL	
246336001	RE15-10-8304	SAMPLE	S	17-FEB-10	.537g	50mL	
246336002	RE15-10-8305	SAMPLE	S	17-FEB-10	.536g	50mL	
246336003	RE15-10-8306	SAMPLE	S	17-FEB-10	.511g	50mL	
246336004	RE15-10-8307	SAMPLE	S	17-FEB-10	.526g	50mL	
246336005	RE15-10-8309	SAMPLE	S	17-FEB-10	.523g	50mL	
246336006	RE15-10-8308	SAMPLE	S	17-FEB-10	.536g	50mL	
246336007	RE15-10-8301	SAMPLE	S	17-FEB-10	.526g	50mL	
246336008	RE15-10-8300	SAMPLE	S	17-FEB-10	.5g	50mL	
246336009	RE15-10-8324	SAMPLE	S	17-FEB-10	.504g	50mL	

---

SW846

---

**METALS**  
**-13-**  
**SAMPLE PREPARATION SUMMARY**

SDG No: 10-1568-1

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	950380						
1202036669	MB for batch 950380	MB	S	17-FEB-10	.551g	50mL	
1202036674	LCS for batch 950380	LCS	S	17-FEB-10	.5g	50mL	
1202036672	RE15-10-8304S	MS	S	17-FEB-10	.507g	50mL	
1202036673	RE15-10-8304SD	MSD	S	17-FEB-10	.505g	50mL	
1202036670	RE15-10-8304D	DUP	S	17-FEB-10	.551g	50mL	
246336001	RE15-10-8304	SAMPLE	S	17-FEB-10	.517g	50mL	
246336002	RE15-10-8305	SAMPLE	S	17-FEB-10	.51g	50mL	
246336003	RE15-10-8306	SAMPLE	S	17-FEB-10	.504g	50mL	
246336004	RE15-10-8307	SAMPLE	S	17-FEB-10	.506g	50mL	
246336005	RE15-10-8309	SAMPLE	S	17-FEB-10	.5g	50mL	
246336006	RE15-10-8308	SAMPLE	S	17-FEB-10	.5g	50mL	
246336007	RE15-10-8301	SAMPLE	S	17-FEB-10	.503g	50mL	
246336008	RE15-10-8300	SAMPLE	S	17-FEB-10	.569g	50mL	
246336009	RE15-10-8324	SAMPLE	S	17-FEB-10	.508g	50mL	

---

SW846

---

**METALS**  
**-13-**  
**SAMPLE PREPARATION SUMMARY**

---

SDG No: 10-1568-1

Method Type: AV

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	951597						
1202039383	MB for batch 951597	MB	S	19-FEB-10	.528g	30mL	
1202039384	LCS for batch 951597	LCS	S	19-FEB-10	.2g	30mL	
1202039386	RE15-10-7981S	MS	S	19-FEB-10	.523g	30mL	
1202039388	RE15-10-7981SD	MSD	S	19-FEB-10	.526g	30mL	
1202039385	RE15-10-7981D	DUP	S	19-FEB-10	.527g	30mL	
246336001	RE15-10-8304	SAMPLE	S	19-FEB-10	.518g	30mL	
246336002	RE15-10-8305	SAMPLE	S	19-FEB-10	.566g	30mL	
246336003	RE15-10-8306	SAMPLE	S	19-FEB-10	.5g	30mL	
246336004	RE15-10-8307	SAMPLE	S	19-FEB-10	.515g	30mL	
246336005	RE15-10-8309	SAMPLE	S	19-FEB-10	.526g	30mL	
246336006	RE15-10-8308	SAMPLE	S	19-FEB-10	.527g	30mL	
246336007	RE15-10-8301	SAMPLE	S	19-FEB-10	.515g	30mL	
246336008	RE15-10-8300	SAMPLE	S	19-FEB-10	.535g	30mL	
246336009	RE15-10-8324	SAMPLE	S	19-FEB-10	.591g	30mL	

---

SW846

**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS5

Start Date: 26-FEB-10

Client Sdg: 10-1568-1

Method MS

Data File: 100225-2

End Date: 26-FEB-10

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	01:05																					X			
S10	1	01:11																					X			
S100	1	01:17																					X			
ICV01	1	01:23																					X			
ICB01	1	01:29																					X			
CRDL01	1	01:36																					X			
ICSA01	1	01:42																					X			
ICSAB01	1	01:48																					X			
CCV01	1	01:54																					X			
CCB01	1	02:00																					X			
LR01	1	02:06																					X			
CCV02	1	02:12																					X			
CCB02	1	02:18																					X			
ZZZZZZ	2	02:24																								
ZZZZZZ	40	02:31																								
ZZZZZZ	2	02:37																								
ZZZZZZ	2	02:43																								
ZZZZZZ	2	02:49																								
ZZZZZZ	2	02:55																								
ZZZZZZ	10	03:01																								
CCV03	1	03:08																					X			
CCB03	1	03:14																					X			
ZZZZZZ	2	03:20																								
ZZZZZZ	2	03:26																								
ZZZZZZ	2	03:32																								
ZZZZZZ	2	03:38																								
ZZZZZZ	2	03:44																								
CCV04	1	03:51																					X			
CCB04	1	03:57																					X			
1202036669	2	04:03																					X			
1202036674	40	04:09																					X			
246336001	2	04:15																					X			
1202036670	2	04:21																					X			
1202036672	2	04:28																					X			
1202036673	2	04:34																					X			
1202036671	10	04:40																					X			
246336002	2	04:46																					X			
CCV05	1	04:52																					X			
CCB05	1	04:59																					X			
246336003	2	05:05																					X			

Samp No.	D/F	Run Time																X			
246336004	2	05:11																X			
246336005	2	05:17																X			
246336006	2	05:23																X			
246336007	2	05:29																X			
246336008	2	05:36																X			
246336009	2	05:42																X			
ZZZZZZ	2	05:48																			
ZZZZZZ	2	05:54																			
CCV06	1	06:00																X			
CCB06	1	06:07																X			



**Metals**  
**-14-**  
**Analysis Run Log**

**Contract:** LANL01004**Lab Code:** GEL**Inst Name:** ICPMS5**Start Date:** 26-FEB-10**End Date:** 26-FEB-10**Client Sdg:** 10-1568-1**Method:** MS**Data File:** 100226-3

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	14:16			X		X											X		X						
S10	1	14:19			X		X											X		X						
S100	1	14:21			X		X											X		X						
ICV01	1	14:24			X		X											X		X						
ICB01	1	14:26			X		X											X		X						
CRDL01	1	14:29			X		X											X		X						
ICSA01	1	14:31			X		X											X		X						
ICSAB01	1	14:34			X		X											X		X						
CCV01	1	14:36			X		X											X		X						
CCB01	1	14:39			X		X											X		X						
1202036669	2	14:41			X		X											X		X						
1202036674	40	14:44			X		X											X		X						
246336001	2	14:47			X		X											X		X						
1202036670	2	14:49			X		X											X		X						
1202036672	2	14:52			X		X											X		X						
1202036673	2	14:54			X		X											X		X						
1202036671	10	14:57			X		X											X		X						
246336002	2	15:00			X		X											X		X						
246336003	2	15:02			X		X											X		X						
CCV02	1	15:05			X		X											X		X						
CCB02	1	15:07			X		X											X		X						
246336004	2	15:10			X		X											X		X						
246336005	2	15:12			X		X											X		X						
246336006	2	15:15			X		X											X		X						
246336007	2	15:18			X		X											X		X						
246336008	2	15:20			X		X											X		X						
246336009	2	15:23			X		X											X		X						
ZZZZZZ	2	15:25																								
ZZZZZZ	2	15:28																								
CCV03	1	15:31			X		X											X		X						
CCB03	1	15:33			X		X											X		X						

**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS5

Start Date: 26-FEB-10

End Date: 26-FEB-10

Client Sdg: 10-1568-1

Method MS

Data File: 100226-6

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	16:21																						X		
S10	1	16:23																						X		
S100	1	16:24																						X		
ICV01	1	16:26																						X		
ICB01	1	16:28																						X		
CRDL01	1	16:29																						X		
ICSA01	1	16:31																						X		
ICSAB01	1	16:33																						X		
CCV01	1	16:34																						X		
CCB01	1	16:36																						X		
ZZZZZZ	2	16:38																								
ZZZZZZ	40	16:39																								
ZZZZZZ	2	16:41																								
ZZZZZZ	2	16:43																								
ZZZZZZ	2	16:44																								
ZZZZZZ	2	16:46																								
ZZZZZZ	10	16:48																								
CCV02	1	16:49																						X		
CCB02	1	16:51																						X		
ZZZZZZ	2	16:53																								
ZZZZZZ	2	16:54																								
ZZZZZZ	2	16:56																								
ZZZZZZ	2	16:58																								
ZZZZZZ	2	16:59																								
CCV03	1	17:01																						X		
CCB03	1	17:03																						X		
ZZZZZZ	2	17:05																								
ZZZZZZ	40	17:07																								
ZZZZZZ	2	17:08																								
ZZZZZZ	2	17:10																								
ZZZZZZ	2	17:12																								
ZZZZZZ	2	17:13																								
ZZZZZZ	10	17:15																								
CCV04	1	17:17																						X		
CCB04	1	17:18																						X		
1202036669	2	17:21																						X		
1202036674	40	17:23																						X		
ZZZZZZ	2	17:25																								
246336003	2	17:29																						X		
246336004	2	17:31																						X		

[illegible]

**Metals**  
**-14-**  
**Analysis Run Log**

**Contract:** LANL01004**Lab Code:** GEL**Inst Name:** HG3**Start Date:** 22-FEB-10**Client Sdg:** 10-1568-1**Method:** AV**Data File:** 022210S1-7**End Date:** 22-FEB-10

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	09:12															X									
S0.2	1	09:13															X									
S0.5	1	09:15															X									
S2.0	1	09:17															X									
S5.0	1	09:18															X									
S10.0	1	09:20															X									
ICV01	1	09:22															X									
ICB01	1	09:23															X									
CRDL01	1	09:25															X									
CCV01	1	09:27															X									
CCB01	1	09:28															X									
ZZZZZZ	1	09:30																								
ZZZZZZ	10	09:32																								
ZZZZZZ	1	09:34																								
ZZZZZZ	1	09:35																								
ZZZZZZ	1	09:37																								
ZZZZZZ	1	09:38																								
ZZZZZZ	1	09:40																								
ZZZZZZ	1	09:42																								
ZZZZZZ	1	09:43																								
ZZZZZZ	1	09:45																								
CCV02	1	09:47															X									
CCB02	1	09:48															X									
ZZZZZZ	1	09:50																								
ZZZZZZ	1	09:52																								
ZZZZZZ	1	09:54																								
ZZZZZZ	1	09:55																								
ZZZZZZ	1	09:57																								
ZZZZZZ	1	09:59																								
ZZZZZZ	1	10:00																								
ZZZZZZ	5	10:02																								
ZZZZZZ	1	10:04																								
ZZZZZZ	1	10:05																								
CCV03	1	10:07															X									
CCB03	1	10:09															X									
ZZZZZZ	1	10:10																								
ZZZZZZ	1	10:12																								
ZZZZZZ	1	10:14																								
ZZZZZZ	1	10:15																								
ZZZZZZ	1	10:17																								

**Metals**  
**-14-**  
**Analysis Run Log**

Samp No.	D/F	Run Time
ZZZZZZ	1	10:19
ZZZZZZ	1	10:20
ZZZZZZ	10	10:22
ZZZZZZ	1	10:24
ZZZZZZ	1	10:25
CCV04	1	10:27
CCB04	1	10:29
ZZZZZZ	1	10:30
ZZZZZZ	1	10:32
ZZZZZZ	5	10:34
ZZZZZZ	1	10:35
ZZZZZZ	1	10:37
ZZZZZZ	1	10:39
ZZZZZZ	1	10:40
ZZZZZZ	1	10:42
ZZZZZZ	1	10:44
ZZZZZZ	1	10:45
CCV05	1	10:47
CCB05	1	10:49
ZZZZZZ	1	10:50
ZZZZZZ	1	10:52
ZZZZZZ	10	10:54
ZZZZZZ	1	10:56
ZZZZZZ	1	10:57
ZZZZZZ	1	10:59
ZZZZZZ	1	11:01
ZZZZZZ	5	11:02
ZZZZZZ	1	11:04
ZZZZZZ	1	11:06
CCV06	1	11:07
CCB06	1	11:09
ZZZZZZ	1	11:11
ZZZZZZ	1	11:12
ZZZZZZ	1	11:14
ZZZZZZ	1	11:16
ZZZZZZ	1	11:17
ZZZZZZ	1	11:19
ZZZZZZ	1	11:21
ZZZZZZ	1	11:22
ZZZZZZ	1	11:24

**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	11:26																								
CCV07	1	11:27															X									
CCB07	1	11:29															X									
ZZZZZZ	1	11:31																								
ZZZZZZ	1	11:32																								
ZZZZZZ	1	11:34																								
ZZZZZZ	1	11:36																								
ZZZZZZ	1	11:38																								
ZZZZZZ	1	11:39																								
ZZZZZZ	1	11:41																								
ZZZZZZ	1	11:43																								
ZZZZZZ	10	11:44																								
ZZZZZZ	1	11:46																								
CCV08	1	11:48															X									
CCB08	1	11:49															X									
ZZZZZZ	1	11:51																								
ZZZZZZ	1	11:53																								
ZZZZZZ	1	11:54																								
ZZZZZZ	1	11:56																								
ZZZZZZ	1	11:58																								
ZZZZZZ	1	11:59																								
ZZZZZZ	1	12:01																								
ZZZZZZ	1	12:03																								
ZZZZZZ	1	12:05																								
ZZZZZZ	1	12:06																								
CCV09	1	12:08															X									
CCB09	1	12:10															X									
ZZZZZZ	1	12:11																								
ZZZZZZ	1	12:13																								
ZZZZZZ	1	12:15																								
ZZZZZZ	1	12:16																								
ZZZZZZ	1	12:18																								
ZZZZZZ	1	12:20																								
ZZZZZZ	1	12:21																								
ZZZZZZ	1	12:23																								
ZZZZZZ	1	12:25																								
ZZZZZZ	1	12:27																								
CCV10	1	12:28															X									
CCB10	1	12:30															X									
ZZZZZZ	1	12:32																								

[illegible]

**Metals**  
**-14-**  
**Analysis Run Log**

Contract: LANL01004

Lab Code: GEL

Inst Name: OPTIMA1

Start Date: 20-FEB-10

End Date: 21-FEB-10

Client Sdg: 10-1568-1

Method P

Data File: 022010C-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	20:51	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S0.1	1	20:54		X		X		X		X	X	X		X		X			X		X				X	X
S0.5	1	20:57	X	X		X		X	X	X	X	X		X	X	X			X		X				X	X
SCAL	1	21:01	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S10	1	21:04	X						X				X		X							X				
ICV01	1	21:07	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICB01	1	21:10	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
PQL01	1	21:14	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSA01	1	21:18	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSAB01	1	21:20	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR01	1	21:23	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR02	1	21:26	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV01	1	21:30	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB01	1	21:34	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV02	1	22:12	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB02	1	22:16	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	22:58																								
ZZZZZZ	1	23:01																								
ZZZZZZ	1	23:04																								
ZZZZZZ	1	23:08																								
ZZZZZZ	1	23:12																								
ZZZZZZ	1	23:15																								
ZZZZZZ	5	23:19																								
ZZZZZZ	1	23:23																								
CCV03	1	23:26	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB03	1	23:30	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	23:34																								
ZZZZZZ	1	23:37																								
ZZZZZZ	1	23:41																								
ZZZZZZ	1	23:45																								
ZZZZZZ	1	23:48																								
ZZZZZZ	1	23:52																								
ZZZZZZ	1	23:56																								
ZZZZZZ	1	23:59																								
CCV04	1	00:03	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB04	1	00:07	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	00:10																								
ZZZZZZ	1	00:14																								
ZZZZZZ	1	00:18																								
ZZZZZZ	1	00:21																								



Samp No.	D/F	Run Time																								
ZZZZZZ	1	00:25																								
ZZZZZZ	1	00:29																								
ZZZZZZ	1	00:32																								
ZZZZZZ	1	00:36																								
CCV05	1	00:40	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
CCB05	1	00:44	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
ZZZZZZ	1	00:47																								
ZZZZZZ	1	00:51																								
ZZZZZZ	1	00:54																								
ZZZZZZ	1	00:57																								
ZZZZZZ	1	01:01																								
ZZZZZZ	1	01:05																								
ZZZZZZ	5	01:08																								
ZZZZZZ	1	01:12																								
ZZZZZZ	1	01:16																								
CCV06	1	01:19	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
CCB06	1	01:23	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
ZZZZZZ	1	01:27																								
ZZZZZZ	1	01:30																								
ZZZZZZ	1	01:34																								
ZZZZZZ	1	01:38																								
ZZZZZZ	1	01:41																								
ZZZZZZ	1	01:45																								
ZZZZZZ	1	01:49																								
ZZZZZZ	1	01:52																								
ZZZZZZ	1	01:56																								
CCV07	1	02:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
CCB07	1	02:03	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
ZZZZZZ	1	02:07																								
ZZZZZZ	1	02:11																								
ZZZZZZ	1	02:15																								
ZZZZZZ	1	02:18																								
ZZZZZZ	1	02:22																								
ZZZZZZ	1	02:26																								
ZZZZZZ	1	02:29																								
ZZZZZZ	1	02:33																								
CCV08	1	02:37	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
CCB08	1	02:40	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
ZZZZZZ	1	02:44																								
ZZZZZZ	1	02:47																								

**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	02:50																								
ZZZZZZ	1	02:54																								
ZZZZZZ	1	02:58																								
ZZZZZZ	1	03:01																								
ZZZZZZ	5	03:05																								
ZZZZZZ	1	03:09																								
ZZZZZZ	1	03:12																								
CCV09	1	03:16	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB09	1	03:20	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	03:23																								
ZZZZZZ	1	03:27																								
ZZZZZZ	1	03:31																								
ZZZZZZ	1	03:35																								
ZZZZZZ	1	03:38																								
ZZZZZZ	1	03:42																								
ZZZZZZ	1	03:46																								
ZZZZZZ	1	03:49																								
ZZZZZZ	1	03:53																								
CCV10	1	03:57	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB10	1	04:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202036650	1	04:04	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202036655	1	04:08	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
246336001	1	04:11	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202036651	1	04:15	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202036653	1	04:19	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202036654	1	04:22	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202036652	5	04:26	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
246336002	1	04:30	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
246336003	1	04:33	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV11	1	04:37	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB11	1	04:41	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
246336004	1	04:44	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
246336005	1	04:48	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
246336006	1	04:52	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
246336007	1	04:55	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
246336008	1	04:59	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
246336009	1	05:03	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	05:06																								
ZZZZZZ	1	05:10																								
CCV12	1	05:13	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X

Samp No.	D/F	Run Time																								
CCB12	1	05:17	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X

# Standards

---

**METALS**  
**-10-**  
**Instrument Detection Limits**

---

**SDG NO.** 10-1568-1

**Contract:** LANL01004

**Lab Code:** GEL

**MDL Effective Date:** 01-JUL-09

---

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>
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.** 10-1568-1

**Contract:** LANL01004

**Lab Code:** GEL

**MDL Effective Date:** 15-JUN-09

---

	<u>Analyte</u>	<u>Wavelength</u> <u>(nm)</u>	<u>MDL</u> <u>ug/L</u>	<u>RDL</u> <u>ug/L</u>
MERCURY				
SOLID	Mercury		0.068	.2

---

**METALS**  
**-10-**  
**Instrument Detection Limits**

---

**SDG NO.** 10-1568-1

**Contract:** LANL01004

**Lab Code:** GEL

**MDL Effective Date:** 01-JUL-09

---

ICP	<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	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-**  
**Interement Correction Factors**

Lab Code: GELGEL Job No: **10-1568-1**

Contract: LANL01004

Instrument: OPTIMA1

Effective Dates: **01-FEB-10**

Interement Correction Factors (apparent ppb analyte/ppm interferent)

		Aluminum	Antimony	Arsenic	Barium	Beryllium
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	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: **10-1568-1**

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: GELGEL Job No: **10-1568-1**

Contract: LANL01004

Instrument: OPTIMA1

Effective 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	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-**  
**Interement Correction Factors**

Lab Code: GEL

GEL Job No: 10-1568-1

Contract: LANL01004

Instrument: OPTIMA1

Effective Dates: 01-FEB-10

Interement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Nickel	Phosphorous	Selenium	Silicon	Silver
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-**  
**Interement Correction Factors**

Lab Code: GEL

GEL Job No: 10-1568-1

Contract: LANL01004

Instrument: OPTIMA1

Effective Dates: 01-FEB-10

Interement 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: GELGEL Job No: **10-1568-1**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. 10-1568-1

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

---

METALS  
-12-  
Linear Ranges

---

SDG NO. 10-1568-1

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

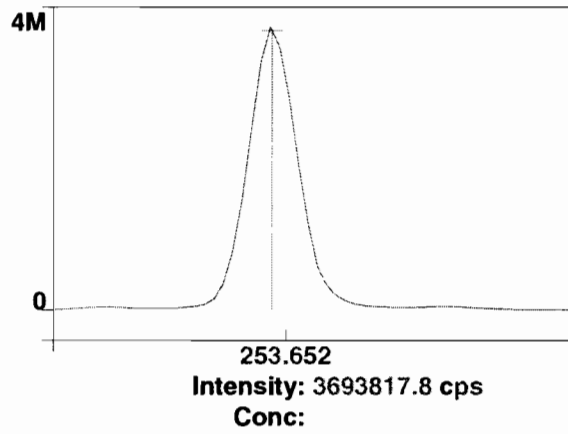


Method: Hg\_ReAlign  
Result: 030110

Sample ID: Hg\_ReAlign

Hg 253.652

Rep: 1



1

2/20/2010 20:49:28 Hg ReAlign... Actual peak offset (nm): -0.001  
Drift (nm): 0.000 Slit adjustment: 0

## Analysis Begun

Start Time: 2/20/2010 20:51:18

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\022010.SIF

Batch ID:

Results Data Set: 022010C

Results Library: c:\pe\optimal\Results\Results.mdb

Sequence No.: 1

Autosampler Location: 8

Sample ID: S0

Date Collected: 2/20/2010 20:51:20

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.	Analysis Time
1	Sc RADIAL	58448.9	58448.9	99.0 %		20:51:55
1	Al 396.153Radial†	-15.2	-15.4	[0.00] µg/L		20:51:55
1	Ca 317.933Radial†	194.3	196.3	[0.00] µg/L		20:52:16
1	Fe 238.204 Radial†	14.6	14.8	[0.00] µg/L		20:52:16
1	K 766.490 Radial†	192.6	194.5	[0.00] µg/L		20:51:55
1	Mg 279.077 IEC†	11.9	12.1	[0.00] µg/L		20:52:16
1	Na 589.592 Radial†	440.9	445.4	[0.00] µg/L		20:51:55
1	Sr 421.552†	28.8	29.1	[0.00] µg/L		20:51:55
1	Sc 361.383	2094656.1	2094656.1	99.763 %		20:53:17
1	Y 371.029	1452202.2	1452202.2	99.774 %		20:53:17
1	Ag 328.068†	-422.6	-423.6	[0.00] µg/L		20:53:23
1	As 188.979†	-2.8	-2.8	[0.00] µg/L		20:53:43
1	B 249.677†	330.9	331.7	[0.00] µg/L		20:53:43
1	Ba 233.527†	-14.5	-14.5	[0.00] µg/L		20:53:43
1	Be 313.107†	-3741.6	-3750.5	[0.00] µg/L		20:53:23
1	Cd 226.502†	-132.1	-132.4	[0.00] µg/L		20:53:43
1	Co 228.616†	6.5	6.6	[0.00] µg/L		20:53:43
1	Cr 267.716†	-54.3	-54.4	[0.00] µg/L		20:53:23
1	Cu 324.752†	2873.7	2880.5	[0.00] µg/L		20:53:23
1	Mn 257.610†	-298.2	-298.9	[0.00] µg/L		20:53:43
1	Mo 202.031†	-6.3	-6.3	[0.00] µg/L		20:53:43
1	Ni 231.604†	310.1	310.8	[0.00] µg/L		20:53:43
1	P 214.914†	17.5	17.6	[0.00] µg/L		20:53:43
1	Pb 220.353†	108.8	109.0	[0.00] µg/L		20:53:43
1	S 181.975 Axial†	18.2	18.3	[0.00] µg/L		20:53:43
1	Sb 206.836†	23.7	23.7	[0.00] µg/L		20:53:43
1	Se 196.026†	14.2	14.2	[0.00] µg/L		20:53:43
1	SiO2†	1469.0	1472.4	[0.00] µg/L		20:53:23
1	Si 251.611†	284.2	284.9	[0.00] µg/L		20:53:43
1	Sn 189.927†	4.2	4.2	[0.00] µg/L		20:53:43
1	Ti 334.940†	162.5	162.9	[0.00] µg/L		20:53:23
1	Tl 190.801†	-20.4	-20.4	[0.00] µg/L		20:53:43
1	U 409.014†	-4.3	-4.3	[0.00] µg/L		20:53:23
1	V 292.402†	-116.7	-117.0	[0.00] µg/L		20:53:23
1	Zn 213.857†	500.3	501.5	[0.00] µg/L		20:53:43
2	Sc RADIAL	59409.4	59409.4	101 %		20:52:21
2	Al 396.153Radial†	-5.5	-5.5	[0.00] µg/L		20:52:21
2	Ca 317.933Radial†	197.9	196.6	[0.00] µg/L		20:52:41
2	Fe 238.204 Radial†	14.4	14.3	[0.00] µg/L		20:52:41
2	K 766.490 Radial†	231.7	230.3	[0.00] µg/L		20:52:21
2	Mg 279.077 IEC†	13.5	13.4	[0.00] µg/L		20:52:41
2	Na 589.592 Radial†	487.2	484.2	[0.00] µg/L		20:52:21
2	Sr 421.552†	70.6	70.1	[0.00] µg/L		20:52:21

2	Sc 361.383	2104522.3	2104522.3	100.23 %	20:53:49
2	Y 371.029	1458624.5	1458624.5	100.22 %	20:53:49
2	Ag 328.068†	-484.5	-483.4	[0.00] µg/L	20:53:55
2	As 188.979†	3.1	3.1	[0.00] µg/L	20:54:15
2	B 249.677†	331.7	330.9	[0.00] µg/L	20:54:15
2	Ba 233.527†	-22.2	-22.1	[0.00] µg/L	20:54:15
2	Be 313.107†	-3797.7	-3788.9	[0.00] µg/L	20:53:55
2	Cd 226.502†	-140.2	-139.8	[0.00] µg/L	20:54:15
2	Co 228.616†	0.9	0.9	[0.00] µg/L	20:54:15
2	Cr 267.716†	-48.3	-48.2	[0.00] µg/L	20:53:55
2	Cu 324.752†	2909.8	2903.1	[0.00] µg/L	20:53:55
2	Mn 257.610†	-303.5	-302.8	[0.00] µg/L	20:54:15
2	Mo 202.031†	-2.0	-2.0	[0.00] µg/L	20:54:15
2	Ni 231.604†	308.7	307.9	[0.00] µg/L	20:54:15
2	P 214.914†	12.7	12.7	[0.00] µg/L	20:54:15
2	Pb 220.353†	87.0	86.8	[0.00] µg/L	20:54:15
2	S 181.975 Axial†	16.8	16.7	[0.00] µg/L	20:54:15
2	Sb 206.836†	26.2	26.1	[0.00] µg/L	20:54:15
2	Se 196.026†	14.8	14.8	[0.00] µg/L	20:54:15
2	SiO2†	1489.6	1486.1	[0.00] µg/L	20:53:55
2	Si 251.611†	290.6	289.9	[0.00] µg/L	20:54:15
2	Sn 189.927†	7.4	7.4	[0.00] µg/L	20:54:15
2	Ti 334.940†	137.6	137.3	[0.00] µg/L	20:53:55
2	Tl 190.801†	-26.8	-26.7	[0.00] µg/L	20:54:15
2	U 409.014†	30.6	30.5	[0.00] µg/L	20:53:55
2	V 292.402†	-76.2	-76.0	[0.00] µg/L	20:53:55
2	Zn 213.857†	503.0	501.9	[0.00] µg/L	20:54:15
3	Sc RADIAL	59272.8	59272.8	100 %	20:52:47
3	Al 396.153Radial†	-5.2	-5.2	[0.00] µg/L	20:52:47
3	Ca 317.933Radial†	186.7	186.0	[0.00] µg/L	20:53:07
3	Fe 238.204 Radial†	17.1	17.0	[0.00] µg/L	20:53:07
3	K 766.490 Radial†	171.1	170.4	[0.00] µg/L	20:52:47
3	Mg 279.077 IEC†	10.8	10.8	[0.00] µg/L	20:53:07
3	Na 589.592 Radial†	493.5	491.6	[0.00] µg/L	20:52:47
3	Sr 421.552†	25.0	24.9	[0.00] µg/L	20:52:47
3	Sc 361.383	2099721.0	2099721.0	100.00 %	20:54:21
3	Y 371.029	1455632.1	1455632.1	100.01 %	20:54:21
3	Ag 328.068†	-482.4	-482.3	[0.00] µg/L	20:54:27
3	As 188.979†	-1.1	-1.1	[0.00] µg/L	20:54:48
3	B 249.677†	313.8	313.8	[0.00] µg/L	20:54:48
3	Ba 233.527†	-18.4	-18.4	[0.00] µg/L	20:54:48
3	Be 313.107†	-3737.3	-3737.2	[0.00] µg/L	20:54:27
3	Cd 226.502†	-137.6	-137.6	[0.00] µg/L	20:54:48
3	Co 228.616†	0.3	0.3	[0.00] µg/L	20:54:48
3	Cr 267.716†	-39.6	-39.6	[0.00] µg/L	20:54:27
3	Cu 324.752†	2825.7	2825.6	[0.00] µg/L	20:54:27
3	Mn 257.610†	-306.0	-306.0	[0.00] µg/L	20:54:48
3	Mo 202.031†	-1.7	-1.7	[0.00] µg/L	20:54:48
3	Ni 231.604†	307.2	307.2	[0.00] µg/L	20:54:48
3	P 214.914†	18.5	18.5	[0.00] µg/L	20:54:48
3	Pb 220.353†	88.6	88.6	[0.00] µg/L	20:54:48
3	S 181.975 Axial†	16.9	16.9	[0.00] µg/L	20:54:48
3	Sb 206.836†	16.5	16.5	[0.00] µg/L	20:54:48
3	Se 196.026†	16.0	16.0	[0.00] µg/L	20:54:48
3	SiO2†	1494.7	1494.6	[0.00] µg/L	20:54:27
3	Si 251.611†	305.8	305.8	[0.00] µg/L	20:54:48
3	Sn 189.927†	2.5	2.5	[0.00] µg/L	20:54:48
3	Ti 334.940†	124.8	124.8	[0.00] µg/L	20:54:27
3	Tl 190.801†	-19.6	-19.6	[0.00] µg/L	20:54:48
3	U 409.014†	-28.5	-28.5	[0.00] µg/L	20:54:27
3	V 292.402†	-95.1	-95.0	[0.00] µg/L	20:54:27
3	Zn 213.857†	502.5	502.5	[0.00] µg/L	20:54:48

-----  
Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	2099633.2	4933.68	0.23%	100.00 %
Sc RADIAL	59043.7	519.64	0.88%	100 %
Y 371.029	1455486.3	3213.62	0.22%	100.00 %
Ag 328.068†	-463.1	34.20	7.39%	[0.00] µg/L

Al 396.153Radial†	-8.7	5.81	66.78%	[0.00]	µg/L
As 188.979†	-0.3	3.05	>999.9%	[0.00]	µg/L
B 249.677†	325.5	10.09	3.10%	[0.00]	µg/L
Ba 233.527†	-18.4	3.82	20.83%	[0.00]	µg/L
Be 313.107†	-3758.9	26.86	0.71%	[0.00]	µg/L
Ca 317.933Radial†	193.0	6.04	3.13%	[0.00]	µg/L
Cd 226.502†	-136.6	3.80	2.78%	[0.00]	µg/L
Co 228.616†	2.6	3.47	135.12%	[0.00]	µg/L
Cr 267.716†	-47.4	7.44	15.70%	[0.00]	µg/L
Cu 324.752†	2869.7	39.84	1.39%	[0.00]	µg/L
Fe 238.204 Radial†	15.4	1.44	9.38%	[0.00]	µg/L
K 766.490 Radial†	198.4	30.11	15.18%	[0.00]	µg/L
Mg 279.077 IEC†	12.1	1.31	10.86%	[0.00]	µg/L
Mn 257.610†	-302.6	3.56	1.18%	[0.00]	µg/L
Mo 202.031†	-3.3	2.62	78.84%	[0.00]	µg/L
Na 589.592 Radial†	473.7	24.82	5.24%	[0.00]	µg/L
Ni 231.604†	308.6	1.90	0.62%	[0.00]	µg/L
P 214.914†	16.2	3.12	19.25%	[0.00]	µg/L
Pb 220.353†	94.8	12.36	13.04%	[0.00]	µg/L
S 181.975 Axial†	17.3	0.84	4.84%	[0.00]	µg/L
Sb 206.836†	22.1	5.03	22.74%	[0.00]	µg/L
Se 196.026†	15.0	0.89	5.93%	[0.00]	µg/L
SiO2†	1484.4	11.19	0.75%	[0.00]	µg/L
Si 251.611†	293.5	10.90	3.71%	[0.00]	µg/L
Sn 189.927†	4.7	2.49	52.70%	[0.00]	µg/L
Sr 421.552†	41.4	24.99	60.43%	[0.00]	µg/L
Ti 334.940†	141.7	19.43	13.72%	[0.00]	µg/L
Tl 190.801†	-22.2	3.89	17.52%	[0.00]	µg/L
U 409.014†	-0.8	29.68	>999.9%	[0.00]	µg/L
V 292.402†	-96.0	20.49	21.35%	[0.00]	µg/L
Zn 213.857†	501.9	0.52	0.10%	[0.00]	µg/L

Sequence No.: 2

Sample ID: S0.1

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 2

Date Collected: 2/20/2010 20:54:57

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Analysis Time
1	Sc RADIAL	60231.0	60231.0	102 %	20:55:32
1	K 766.490 Radial†	1682.2	1450.6	[1000] µg/L	20:55:32
1	Sr 421.552†	9970.9	9733.0	[100] µg/L	20:55:32
1	Sc 361.383	2095468.6	2095468.6	99.802 %	20:55:54
1	Y 371.029	1450728.0	1450728.0	99.673 %	20:55:54
1	Ag 328.068†	12683.7	13172.0	[100] µg/L	20:55:59
1	As 188.979†	57.2	57.6	[100] µg/L	20:56:20
1	B 249.677†	2642.3	2322.1	[100] µg/L	20:55:59
1	Ba 233.527†	3983.6	4009.9	[100] µg/L	20:55:59
1	Be 313.107†	158762.4	162836.8	[100] µg/L	20:55:54
1	Cd 226.502†	3804.5	3948.7	[100] µg/L	20:55:59
1	Co 228.616†	2135.7	2137.4	[100] µg/L	20:56:20
1	Cr 267.716†	4838.6	4895.6	[100] µg/L	20:55:59
1	Cu 324.752†	17911.4	15077.2	[100] µg/L	20:55:59
1	Mn 257.610†	30916.6	31280.6	[100] µg/L	20:55:59
1	Mo 202.031†	1002.9	1008.2	[100] µg/L	20:56:20
1	Ni 231.604†	2295.0	1990.9	[100] µg/L	20:55:59
1	P 214.914†	265.2	249.5	[500] µg/L	20:56:20
1	Pb 220.353†	494.0	400.2	[100] µg/L	20:56:20
1	S 181.975 Axial†	61.7	44.5	[200] µg/L	20:56:20
1	Sb 206.836†	129.9	108.1	[100] µg/L	20:56:20
1	Se 196.026†	89.9	75.1	[100] µg/L	20:56:20
1	SiO2†	6595.6	5124.3	[1069.5] µg/L	20:55:59
1	Si 251.611†	6540.9	6260.3	[500] µg/L	20:55:59
1	Sn 189.927†	237.5	233.3	[100] µg/L	20:56:20
1	Ti 334.940†	42581.6	42524.6	[100] µg/L	20:55:59
1	Tl 190.801†	56.8	79.2	[100] µg/L	20:56:20
1	U 409.014†	1187.9	1191.0	[100] µg/L	20:55:59
1	V 292.402†	9838.9	9954.5	[100] µg/L	20:55:59
1	Zn 213.857†	4771.0	4278.6	[100] µg/L	20:55:59
2	Sc RADIAL	59982.5	59982.5	102 %	20:55:38
2	K 766.490 Radial†	1686.9	1462.2	[1000] µg/L	20:55:38
2	Sr 421.552†	10019.9	9821.7	[100] µg/L	20:55:38
2	Sc 361.383	2083683.4	2083683.4	99.240 %	20:56:26
2	Y 371.029	1443727.8	1443727.8	99.192 %	20:56:26
2	Ag 328.068†	12701.4	13261.8	[100] µg/L	20:56:32
2	As 188.979†	56.0	56.8	[100] µg/L	20:56:52
2	B 249.677†	2666.9	2361.8	[100] µg/L	20:56:32
2	Ba 233.527†	4011.6	4060.6	[100] µg/L	20:56:32
2	Be 313.107†	157999.5	162967.8	[100] µg/L	20:56:26
2	Cd 226.502†	3841.7	4007.7	[100] µg/L	20:56:32
2	Co 228.616†	2125.8	2139.5	[100] µg/L	20:56:52
2	Cr 267.716†	4835.1	4919.5	[100] µg/L	20:56:32
2	Cu 324.752†	17997.2	15265.2	[100] µg/L	20:56:32
2	Mn 257.610†	31096.9	31637.5	[100] µg/L	20:56:32
2	Mo 202.031†	1001.9	1012.9	[100] µg/L	20:56:52
2	Ni 231.604†	2288.5	1997.4	[100] µg/L	20:56:32
2	P 214.914†	261.1	246.8	[500] µg/L	20:56:52
2	Pb 220.353†	494.2	403.2	[100] µg/L	20:56:52
2	S 181.975 Axial†	64.6	47.8	[200] µg/L	20:56:52
2	Sb 206.836†	132.3	111.2	[100] µg/L	20:56:52
2	Se 196.026†	97.4	83.1	[100] µg/L	20:56:52
2	SiO2†	6674.6	5241.3	[1069.5] µg/L	20:56:32
2	Si 251.611†	6587.1	6344.0	[500] µg/L	20:56:32
2	Sn 189.927†	239.4	236.5	[100] µg/L	20:56:52
2	Ti 334.940†	42771.3	42957.0	[100] µg/L	20:56:32
2	Tl 190.801†	48.9	71.5	[100] µg/L	20:56:52
2	U 409.014†	1202.1	1212.1	[100] µg/L	20:56:32
2	V 292.402†	9871.9	10043.4	[100] µg/L	20:56:32

2	Zn 213.857†	4797.5	4332.3	[100]	µg/L	20:56:32
3	Sc RADIAL	59501.1	59501.1	101	%	20:55:43
3	K 766.490 Radial†	1557.1	1346.7	[1000]	µg/L	20:55:43
3	Sr 421.552†	9925.5	9807.9	[100]	µg/L	20:55:43
3	Sc 361.383	2088502.3	2088502.3	99.470	%	20:56:59
3	Y 371.029	1446604.0	1446604.0	99.390	%	20:56:59
3	Ag 328.068†	12678.4	13209.1	[100]	µg/L	20:57:04
3	As 188.979†	53.4	54.0	[100]	µg/L	20:57:25
3	B 249.677†	2669.0	2357.8	[100]	µg/L	20:57:04
3	Ba 233.527†	4010.7	4050.4	[100]	µg/L	20:57:04
3	Be 313.107†	158721.9	163326.7	[100]	µg/L	20:56:59
3	Cd 226.502†	3816.9	3973.9	[100]	µg/L	20:57:04
3	Co 228.616†	2149.2	2158.1	[100]	µg/L	20:57:25
3	Cr 267.716†	4805.9	4879.0	[100]	µg/L	20:57:04
3	Cu 324.752†	17911.9	15137.7	[100]	µg/L	20:57:04
3	Mn 257.610†	30979.9	31447.6	[100]	µg/L	20:57:04
3	Mo 202.031†	1008.1	1016.8	[100]	µg/L	20:57:25
3	Ni 231.604†	2297.0	2000.6	[100]	µg/L	20:57:04
3	P 214.914†	271.5	256.7	[500]	µg/L	20:57:25
3	Pb 220.353†	500.0	407.9	[100]	µg/L	20:57:25
3	S 181.975 Axial†	61.2	44.3	[200]	µg/L	20:57:25
3	Sb 206.836†	132.0	110.6	[100]	µg/L	20:57:25
3	Se 196.026†	88.5	74.0	[100]	µg/L	20:57:25
3	SiO2†	6602.5	5153.3	[1069.5]	µg/L	20:57:04
3	Si 251.611†	6582.4	6324.0	[500]	µg/L	20:57:04
3	Sn 189.927†	244.2	240.8	[100]	µg/L	20:57:25
3	Ti 334.940†	42614.4	42699.8	[100]	µg/L	20:57:04
3	Tl 190.801†	48.8	71.3	[100]	µg/L	20:57:25
3	U 409.014†	1112.7	1119.4	[100]	µg/L	20:57:04
3	V 292.402†	9933.7	10082.7	[100]	µg/L	20:57:04
3	Zn 213.857†	4763.3	4286.7	[100]	µg/L	20:57:04

## Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Sc 361.383	2089218.1	5925.11	0.28%	99.504	%
Sc RADIAL	59904.9	371.08	0.62%	101	%
Y 371.029	1447019.9	3518.57	0.24%	99.418	%
Ag 328.068†	13214.3	45.11	0.34%	[100]	µg/L
As 188.979†	56.1	1.92	3.42%	[100]	µg/L
B 249.677†	2347.2	21.88	0.93%	[100]	µg/L
Ba 233.527†	4040.3	26.83	0.66%	[100]	µg/L
Be 313.107†	163043.7	253.62	0.16%	[100]	µg/L
Cd 226.502†	3976.8	29.62	0.74%	[100]	µg/L
Co 228.616†	2145.0	11.38	0.53%	[100]	µg/L
Cr 267.716†	4898.0	20.38	0.42%	[100]	µg/L
Cu 324.752†	15160.0	95.96	0.63%	[100]	µg/L
K 766.490 Radial†	1419.8	63.57	4.48%	[1000]	µg/L
Mn 257.610†	31455.2	178.57	0.57%	[100]	µg/L
Mo 202.031†	1012.6	4.27	0.42%	[100]	µg/L
Ni 231.604†	1996.3	4.90	0.25%	[100]	µg/L
P 214.914†	251.0	5.13	2.04%	[500]	µg/L
Pb 220.353†	403.8	3.87	0.96%	[100]	µg/L
S 181.975 Axial†	45.5	1.97	4.34%	[200]	µg/L
Sb 206.836†	109.9	1.64	1.49%	[100]	µg/L
Se 196.026†	77.4	5.00	6.46%	[100]	µg/L
SiO2†	5173.0	60.92	1.18%	[1069.5]	µg/L
Si 251.611†	6309.4	43.68	0.69%	[500]	µg/L
Sn 189.927†	236.8	3.76	1.59%	[100]	µg/L
Sr 421.552†	9787.5	47.74	0.49%	[100]	µg/L
Ti 334.940†	42727.1	217.52	0.51%	[100]	µg/L
Tl 190.801†	74.0	4.49	6.07%	[100]	µg/L
U 409.014†	1174.2	48.60	4.14%	[100]	µg/L
V 292.402†	10026.9	65.68	0.66%	[100]	µg/L
Zn 213.857†	4299.2	28.95	0.67%	[100]	µg/L

Sequence No.: 3

Sample ID: S0.5

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 2/20/2010 20:57:34

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	59227.0	59227.0	100 %	20:58:07
1	Al 396.153Radial†	6666.8	6654.8	[5000] µg/L	20:58:07
1	Ca 317.933Radial†	5603.4	5393.1	[5000] µg/L	20:58:27
1	K 766.490 Radial†	7261.7	7040.9	[5000] µg/L	20:58:07
1	Mg 279.077 IEC†	541.6	527.8	[5000] µg/L	20:58:27
1	Sr 421.552†	49363.8	49169.6	[500] µg/L	20:58:07
1	Sc 361.383	2099306.9	2099306.9	99.984 %	20:59:31
1	Y 371.029	1449551.5	1449551.5	99.592 %	20:59:31
1	Ag 328.068†	64806.3	65279.5	[500] µg/L	20:59:36
1	As 188.979†	279.4	279.8	[500] µg/L	20:59:57
1	B 249.677†	12233.8	11910.2	[500] µg/L	20:59:36
1	Ba 233.527†	20099.7	20121.1	[500] µg/L	20:59:36
1	Be 313.107†	809214.8	813099.4	[500] µg/L	20:59:31
1	Cd 226.502†	19527.9	19667.6	[500] µg/L	20:59:36
1	Co 228.616†	10750.6	10749.7	[500] µg/L	20:59:36
1	Cr 267.716†	24287.6	24338.8	[500] µg/L	20:59:36
1	Cu 324.752†	76692.9	73835.1	[500] µg/L	20:59:36
1	Mn 257.610†	155162.7	155489.4	[500] µg/L	20:59:31
1	Mo 202.031†	5073.3	5077.4	[500] µg/L	20:59:57
1	Ni 231.604†	10161.8	9854.7	[500] µg/L	20:59:36
1	P 214.914†	1287.2	1271.2	[2500] µg/L	20:59:57
1	Pb 220.353†	2118.6	2024.2	[500] µg/L	20:59:57
1	S 181.975 Axial†	259.5	242.2	[1000] µg/L	20:59:57
1	Sb 206.836†	567.7	545.7	[500] µg/L	20:59:57
1	Se 196.026†	378.9	363.9	[500] µg/L	20:59:57
1	SiO2†	27719.4	26239.3	[5347.5] µg/L	20:59:36
1	Si 251.611†	32170.8	31882.3	[2500] µg/L	20:59:36
1	Sn 189.927†	1201.7	1197.2	[500] µg/L	20:59:57
1	Ti 334.940†	216326.3	216218.2	[500] µg/L	20:59:31
1	Tl 190.801†	355.8	378.1	[500] µg/L	20:59:57
1	U 409.014†	5849.8	5851.5	[500] µg/L	20:59:36
1	V 292.402†	49629.9	49733.6	[500] µg/L	20:59:36
1	Zn 213.857†	21637.6	21139.1	[500] µg/L	20:59:36
2	Sc RADIAL	59249.3	59249.3	100 %	20:58:33
2	Al 396.153Radial†	6692.0	6677.5	[5000] µg/L	20:58:33
2	Ca 317.933Radial†	5642.9	5430.4	[5000] µg/L	20:58:53
2	K 766.490 Radial†	7335.0	7111.1	[5000] µg/L	20:58:33
2	Mg 279.077 IEC†	536.3	522.3	[5000] µg/L	20:58:53
2	Sr 421.552†	49509.2	49296.1	[500] µg/L	20:58:33
2	Sc 361.383	2102625.9	2102625.9	100.14 %	21:00:04
2	Y 371.029	1453568.6	1453568.6	99.868 %	21:00:04
2	Ag 328.068†	64581.7	64952.9	[500] µg/L	21:00:10
2	As 188.979†	273.0	272.9	[500] µg/L	21:00:30
2	B 249.677†	12164.5	11821.7	[500] µg/L	21:00:10
2	Ba 233.527†	20007.1	19996.9	[500] µg/L	21:00:10
2	Be 313.107†	811385.9	813989.9	[500] µg/L	21:00:04
2	Cd 226.502†	19386.0	19495.0	[500] µg/L	21:00:10
2	Co 228.616†	10648.4	10630.7	[500] µg/L	21:00:10
2	Cr 267.716†	24137.7	24150.7	[500] µg/L	21:00:10
2	Cu 324.752†	76382.2	73403.7	[500] µg/L	21:00:10
2	Mn 257.610†	155515.3	155596.5	[500] µg/L	21:00:04
2	Mo 202.031†	4982.5	4978.7	[500] µg/L	21:00:30
2	Ni 231.604†	10088.0	9765.0	[500] µg/L	21:00:10
2	P 214.914†	1259.9	1241.9	[2500] µg/L	21:00:30
2	Pb 220.353†	2119.2	2021.4	[500] µg/L	21:00:30
2	S 181.975 Axial†	255.2	237.5	[1000] µg/L	21:00:30
2	Sb 206.836†	559.7	536.8	[500] µg/L	21:00:30
2	Se 196.026†	381.8	366.3	[500] µg/L	21:00:30
2	SiO2†	27683.2	26159.4	[5347.5] µg/L	21:00:10

2	Si 251.611†	32044.2	31705.0	[2500]	µg/L	21:00:10
2	Sn 189.927†	1175.2	1168.8	[500]	µg/L	21:00:30
2	Ti 334.940†	216499.2	216049.4	[500]	µg/L	21:00:04
2	Tl 190.801†	350.4	372.1	[500]	µg/L	21:00:30
2	U 409.014†	5757.2	5749.7	[500]	µg/L	21:00:10
2	V 292.402†	49422.0	49447.7	[500]	µg/L	21:00:10
2	Zn 213.857†	21443.5	20911.1	[500]	µg/L	21:00:10
3	Sc RADIAL	59262.1	59262.1	100	%	20:58:59
3	Al 396.153Radial†	6698.8	6682.8	[5000]	µg/L	20:58:59
3	Ca 317.933Radial†	5625.0	5411.3	[5000]	µg/L	20:59:19
3	K 766.490 Radial†	7351.8	7126.3	[5000]	µg/L	20:58:59
3	Mg 279.077 IEC†	539.1	525.0	[5000]	µg/L	20:59:19
3	Sr 421.552†	49542.1	49318.1	[500]	µg/L	20:58:59
3	Sc 361.383	2090574.9	2090574.9	99.569	%	21:00:37
3	Y 371.029	1444442.1	1444442.1	99.241	%	21:00:37
3	Ag 328.068†	60634.2	61360.1	[500]	µg/L	21:00:43
3	As 188.979†	231.6	232.9	[500]	µg/L	21:01:03
3	B 249.677†	11315.3	11038.8	[500]	µg/L	21:00:43
3	Ba 233.527†	18100.7	18197.5	[500]	µg/L	21:00:43
3	Be 313.107†	745374.2	752362.7	[500]	µg/L	21:00:37
3	Cd 226.502†	17553.6	17766.2	[500]	µg/L	21:00:43
3	Co 228.616†	9546.1	9584.9	[500]	µg/L	21:00:43
3	Cr 267.716†	21031.8	21170.4	[500]	µg/L	21:00:43
3	Cu 324.752†	68692.8	66120.7	[500]	µg/L	21:00:43
3	Mn 257.610†	143478.9	144403.2	[500]	µg/L	21:00:37
3	Mo 202.031†	4102.3	4123.4	[500]	µg/L	21:01:03
3	Ni 231.604†	9076.4	8807.1	[500]	µg/L	21:00:43
3	P 214.914†	1065.5	1053.9	[2500]	µg/L	21:01:03
3	Pb 220.353†	1816.3	1729.4	[500]	µg/L	21:01:03
3	S 181.975 Axial†	223.3	207.0	[1000]	µg/L	21:01:03
3	Sb 206.836†	475.1	455.1	[500]	µg/L	21:01:03
3	Se 196.026†	322.0	308.4	[500]	µg/L	21:01:03
3	SiO2†	25559.9	24186.3	[5347.5]	µg/L	21:00:43
3	Si 251.611†	29523.2	29357.6	[2500]	µg/L	21:00:43
3	Sn 189.927†	956.6	956.0	[500]	µg/L	21:01:03
3	Ti 334.940†	198087.6	198804.3	[500]	µg/L	21:00:37
3	Tl 190.801†	309.7	333.2	[500]	µg/L	21:01:03
3	U 409.014†	5157.8	5180.9	[500]	µg/L	21:00:43
3	V 292.402†	43891.6	44177.8	[500]	µg/L	21:00:43
3	Zn 213.857†	19304.6	18886.3	[500]	µg/L	21:00:43

## Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Sc 361.383	2097502.5	6224.83	0.30%	99.899	%
Sc RADIAL	59246.1	17.79	0.03%	100	%
Y 371.029	1449187.4	4574.13	0.32%	99.567	%
Ag 328.068†	63864.1	2174.72	3.41%	[500]	µg/L
Al 396.153Radial†	6671.7	14.86	0.22%	[5000]	µg/L
As 188.979†	261.9	25.31	9.66%	[500]	µg/L
B 249.677†	11590.2	479.57	4.14%	[500]	µg/L
Ba 233.527†	19438.5	1076.57	5.54%	[500]	µg/L
Be 313.107†	793150.7	35326.24	4.45%	[500]	µg/L
Ca 317.933Radial†	5411.6	18.66	0.34%	[5000]	µg/L
Cd 226.502†	18976.3	1051.48	5.54%	[500]	µg/L
Co 228.616†	10321.8	640.94	6.21%	[500]	µg/L
Cr 267.716†	23220.0	1777.48	7.65%	[500]	µg/L
Cu 324.752†	71119.9	4334.73	6.09%	[500]	µg/L
K 766.490 Radial†	7092.8	45.59	0.64%	[5000]	µg/L
Mg 279.077 IEC†	525.1	2.76	0.52%	[5000]	µg/L
Mn 257.610†	151829.7	6431.77	4.24%	[500]	µg/L
Mo 202.031†	4726.5	524.65	11.10%	[500]	µg/L
Ni 231.604†	9475.6	580.65	6.13%	[500]	µg/L
P 214.914†	1189.0	117.88	9.91%	[2500]	µg/L
Pb 220.353†	1925.0	169.42	8.80%	[500]	µg/L
S 181.975 Axial†	228.9	19.12	8.35%	[1000]	µg/L
Sb 206.836†	512.5	49.94	9.74%	[500]	µg/L
Se 196.026†	346.2	32.75	9.46%	[500]	µg/L
SiO2†	25528.3	1162.94	4.56%	[5347.5]	µg/L
Si 251.611†	30981.6	1409.26	4.55%	[2500]	µg/L



Sn 189.927†	1107.3	131.83	11.90%	[500] µg/L
Sr 421.552†	49261.3	80.10	0.16%	[500] µg/L
Ti 334.940†	210357.3	10005.59	4.76%	[500] µg/L
Tl 190.801†	361.1	24.36	6.75%	[500] µg/L
U 409.014†	5594.0	361.39	6.46%	[500] µg/L
V 292.402†	47786.3	3128.37	6.55%	[500] µg/L
Zn 213.857†	20312.1	1240.06	6.11%	[500] µg/L

Sequence No.: 4

Sample ID: SCAL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 2/20/2010 21:01:13

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	60156.6	60156.6	102 %	21:01:46
1	Al 396.153Radial†	14096.5	13844.4	[10000] µg/L	21:01:46
1	Ca 317.933Radial†	11567.0	11160.1	[10000] µg/L	21:02:07
1	Fe 238.204 Radial†	1237.6	1199.3	[10000] µg/L	21:02:07
1	K 766.490 Radial†	15035.1	14558.6	[10000] µg/L	21:01:46
1	Mg 279.077 IEC†	1108.9	1076.3	[10000] µg/L	21:02:07
1	Na 589.592 Radial†	32632.6	31555.2	[10000] µg/L	21:01:46
1	Sr 421.552†	104229.5	102259.9	[1000] µg/L	21:01:46
1	Sc 361.383	2088573.1	2088573.1	99.473 %	21:03:10
1	Y 371.029	1441916.2	1441916.2	99.068 %	21:03:10
1	Ag 328.068†	135179.9	136358.8	[1000] µg/L	21:03:16
1	As 188.979†	579.2	582.6	[1000] µg/L	21:03:37
1	B 249.677†	25141.1	24948.8	[1000] µg/L	21:03:16
1	Ba 233.527†	41576.8	41815.3	[1000] µg/L	21:03:16
1	Be 313.107†	1685742.4	1698428.1	[1000] µg/L	21:03:10
1	Cd 226.502†	40328.7	40678.9	[1000] µg/L	21:03:16
1	Co 228.616†	22041.9	22156.0	[1000] µg/L	21:03:16
1	Cr 267.716†	50424.8	50739.2	[1000] µg/L	21:03:16
1	Cu 324.752†	157161.0	155123.5	[1000] µg/L	21:03:16
1	Mn 257.610†	319858.7	321855.1	[1000] µg/L	21:03:16
1	Mo 202.031†	10542.0	10601.1	[1000] µg/L	21:03:37
1	Ni 231.604†	20518.2	20318.2	[1000] µg/L	21:03:16
1	P 214.914†	2655.9	2653.7	[5000] µg/L	21:03:37
1	Pb 220.353†	4343.8	4272.0	[1000] µg/L	21:03:37
1	S 181.975 Axial†	519.8	505.3	[2000] µg/L	21:03:37
1	Sb 206.836†	1178.1	1162.2	[1000] µg/L	21:03:37
1	Se 196.026†	767.3	756.3	[1000] µg/L	21:03:37
1	SiO2†	55621.0	54431.1	[10695] µg/L	21:03:16
1	Si 251.611†	65937.9	65993.6	[5000] µg/L	21:03:16
1	Sn 189.927†	2486.5	2495.0	[1000] µg/L	21:03:37
1	Ti 334.940†	449191.9	451429.0	[1000] µg/L	21:03:10
1	Tl 190.801†	752.0	778.2	[1000] µg/L	21:03:37
1	U 409.014†	12111.5	12176.4	[1000] µg/L	21:03:16
1	V 292.402†	103704.6	104349.8	[1000] µg/L	21:03:16
1	Zn 213.857†	43749.1	43478.8	[1000] µg/L	21:03:16
2	Sc RADIAL	59483.2	59483.2	101 %	21:02:12
2	Al 396.153Radial†	14015.6	13920.7	[10000] µg/L	21:02:12
2	Ca 317.933Radial†	11589.5	11310.9	[10000] µg/L	21:02:33
2	Fe 238.204 Radial†	1247.6	1223.0	[10000] µg/L	21:02:33
2	K 766.490 Radial†	15007.8	14698.5	[10000] µg/L	21:02:12
2	Mg 279.077 IEC†	1115.7	1095.4	[10000] µg/L	21:02:33
2	Na 589.592 Radial†	32442.9	31729.5	[10000] µg/L	21:02:12
2	Sr 421.552†	103196.7	102392.9	[1000] µg/L	21:02:12
2	Sc 361.383	2076936.3	2076936.3	98.919 %	21:03:44
2	Y 371.029	1433096.3	1433096.3	98.462 %	21:03:44
2	Ag 328.068†	135646.8	137592.3	[1000] µg/L	21:03:49
2	As 188.979†	580.7	587.4	[1000] µg/L	21:04:10
2	B 249.677†	25220.2	25170.4	[1000] µg/L	21:03:49
2	Ba 233.527†	41800.5	42275.7	[1000] µg/L	21:03:49
2	Be 313.107†	1674002.4	1696054.8	[1000] µg/L	21:03:44
2	Cd 226.502†	40550.0	41129.7	[1000] µg/L	21:03:49
2	Co 228.616†	22185.4	22425.3	[1000] µg/L	21:03:49
2	Cr 267.716†	50687.7	51289.0	[1000] µg/L	21:03:49
2	Cu 324.752†	157816.1	156671.0	[1000] µg/L	21:03:49
2	Mn 257.610†	320975.4	324785.6	[1000] µg/L	21:03:49
2	Mo 202.031†	10422.5	10539.8	[1000] µg/L	21:04:10
2	Ni 231.604†	20570.4	20486.6	[1000] µg/L	21:03:49
2	P 214.914†	2634.0	2646.5	[5000] µg/L	21:04:10
2	Pb 220.353†	4295.5	4247.7	[1000] µg/L	21:04:10

2	S 181.975 Axial†	519.1	507.5	[2000]	µg/L	21:04:10
2	Sb 206.836†	1162.4	1153.0	[1000]	µg/L	21:04:10
2	Se 196.026†	774.3	767.8	[1000]	µg/L	21:04:10
2	SiO2†	55947.2	55074.2	[10695]	µg/L	21:03:49
2	Si 251.611†	66408.5	66840.7	[5000]	µg/L	21:03:49
2	Sn 189.927†	2453.5	2475.6	[1000]	µg/L	21:04:10
2	Ti 334.940†	446354.9	451091.1	[1000]	µg/L	21:03:44
2	Tl 190.801†	749.5	779.9	[1000]	µg/L	21:04:10
2	U 409.014†	12159.8	12293.4	[1000]	µg/L	21:03:49
2	V 292.402†	104178.5	105413.0	[1000]	µg/L	21:03:49
2	Zn 213.857†	43897.6	43875.3	[1000]	µg/L	21:03:49
3	Sc RADIAL	60224.9	60224.9	102	%	21:02:38
3	Al 396.153Radial†	14209.8	13939.8	[10000]	µg/L	21:02:38
3	Ca 317.933Radial†	11532.6	11113.4	[10000]	µg/L	21:02:59
3	Fe 238.204 Radial†	1240.6	1200.9	[10000]	µg/L	21:02:59
3	K 766.490 Radial†	15145.7	14650.3	[10000]	µg/L	21:02:38
3	Mg 279.077 IEC†	1110.7	1076.8	[10000]	µg/L	21:02:59
3	Na 589.592 Radial†	32889.7	31770.9	[10000]	µg/L	21:02:38
3	Sr 421.552†	104952.1	102852.3	[1000]	µg/L	21:02:38
3	Sc 361.383	2086636.2	2086636.2	99.381	%	21:04:17
3	Y 371.029	1440282.4	1440282.4	98.955	%	21:04:17
3	Ag 328.068†	131729.1	133012.8	[1000]	µg/L	21:04:23
3	As 188.979†	516.9	520.4	[1000]	µg/L	21:04:43
3	B 249.677†	24365.3	24191.6	[1000]	µg/L	21:04:23
3	Ba 233.527†	39525.4	39790.0	[1000]	µg/L	21:04:23
3	Be 313.107†	1611957.3	1625756.5	[1000]	µg/L	21:04:17
3	Cd 226.502†	38378.8	38754.4	[1000]	µg/L	21:04:23
3	Co 228.616†	20799.7	20926.7	[1000]	µg/L	21:04:23
3	Cr 267.716†	46683.3	47021.4	[1000]	µg/L	21:04:23
3	Cu 324.752†	148756.8	146813.6	[1000]	µg/L	21:04:23
3	Mn 257.610†	301499.5	303680.0	[1000]	µg/L	21:04:23
3	Mo 202.031†	9131.4	9191.6	[1000]	µg/L	21:04:43
3	Ni 231.604†	19364.3	19176.2	[1000]	µg/L	21:04:23
3	P 214.914†	2348.3	2346.7	[5000]	µg/L	21:04:43
3	Pb 220.353†	3904.7	3834.3	[1000]	µg/L	21:04:43
3	S 181.975 Axial†	468.4	454.0	[2000]	µg/L	21:04:43
3	Sb 206.836†	1038.9	1023.2	[1000]	µg/L	21:04:43
3	Se 196.026†	703.1	692.5	[1000]	µg/L	21:04:43
3	SiO2†	53682.7	52532.6	[10695]	µg/L	21:04:23
3	Si 251.611†	63568.9	63671.4	[5000]	µg/L	21:04:23
3	Sn 189.927†	2128.2	2136.7	[1000]	µg/L	21:04:43
3	Ti 334.940†	428580.9	431108.8	[1000]	µg/L	21:04:17
3	Tl 190.801†	679.5	705.9	[1000]	µg/L	21:04:43
3	U 409.014†	11258.4	11329.3	[1000]	µg/L	21:04:23
3	V 292.402†	96976.6	97676.7	[1000]	µg/L	21:04:23
3	Zn 213.857†	41296.0	41051.3	[1000]	µg/L	21:04:23

## Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	2084048.5	6235.06	0.30%	99.258 %
Sc RADIAL	59954.9	409.94	0.68%	102 %
Y 371.029	1438431.6	4692.20	0.33%	98.828 %
Ag 328.068†	135654.6	2369.59	1.75%	[1000] µg/L
Al 396.153Radial†	13901.6	50.49	0.36%	[10000] µg/L
As 188.979†	563.4	37.36	6.63%	[1000] µg/L
B 249.677†	24770.2	513.22	2.07%	[1000] µg/L
Ba 233.527†	41293.7	1322.42	3.20%	[1000] µg/L
Be 313.107†	1673413.1	41288.92	2.47%	[1000] µg/L
Ca 317.933Radial†	11194.8	103.22	0.92%	[10000] µg/L
Cd 226.502†	40187.7	1261.54	3.14%	[1000] µg/L
Co 228.616†	21836.0	798.93	3.66%	[1000] µg/L
Cr 267.716†	49683.2	2321.51	4.67%	[1000] µg/L
Cu 324.752†	152869.4	5301.19	3.47%	[1000] µg/L
Fe 238.204 Radial†	1207.7	13.26	1.10%	[10000] µg/L
K 766.490 Radial†	14635.8	71.07	0.49%	[10000] µg/L
Mg 279.077 IEC†	1082.8	10.87	1.00%	[10000] µg/L
Mn 257.610†	316773.6	11433.63	3.61%	[1000] µg/L
Mo 202.031†	10110.8	796.66	7.88%	[1000] µg/L
Na 589.592 Radial†	31685.2	114.46	0.36%	[10000] µg/L

Ni 231.604†	19993.7	712.91	3.57%	[1000]	µg/L
P 214.914†	2549.0	175.19	6.87%	[5000]	µg/L
Pb 220.353†	4118.0	246.02	5.97%	[1000]	µg/L
S 181.975 Axial†	488.9	30.24	6.18%	[2000]	µg/L
Sb 206.836†	1112.8	77.72	6.98%	[1000]	µg/L
Se 196.026†	738.9	40.56	5.49%	[1000]	µg/L
SiO2†	54012.7	1321.46	2.45%	[10695]	µg/L
Si 251.611†	65501.9	1640.90	2.51%	[5000]	µg/L
Sn 189.927†	2369.1	201.49	8.50%	[1000]	µg/L
Sr 421.552†	102501.7	310.79	0.30%	[1000]	µg/L
Ti 334.940†	444542.9	11635.57	2.62%	[1000]	µg/L
Tl 190.801†	754.7	42.24	5.60%	[1000]	µg/L
U 409.014†	11933.0	526.12	4.41%	[1000]	µg/L
V 292.402†	102479.8	4193.48	4.09%	[1000]	µg/L
Zn 213.857†	42801.8	1528.90	3.57%	[1000]	µg/L

Sequence No.: 5

Sample ID: S10

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 5

Date Collected: 2/20/2010 21:04:52

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	59919.1	59919.1	101 %	21:05:25
1	Al 396.153Radial†	67636.3	66656.8	[50000] µg/L	21:05:25
1	Ca 317.933Radial†	55352.9	54351.2	[50000] µg/L	21:05:25
1	Fe 238.204 Radial†	2357.4	2307.6	[20000] µg/L	21:05:45
1	Mg 279.077 IEC†	5199.4	5111.3	[50000] µg/L	21:05:45
1	Na 589.592 Radial†	61841.3	60464.1	[20000] µg/L	21:05:25
1	Sc 361.383	2083386.2	2083386.2	99.226 %	21:06:49
1	Y 371.029	1430016.9	1430016.9	98.250 %	21:06:49
2	Sc RADIAL	59375.6	59375.6	101 %	21:05:51
2	Al 396.153Radial†	67037.3	66671.2	[50000] µg/L	21:05:51
2	Ca 317.933Radial†	54848.8	54349.2	[50000] µg/L	21:05:51
2	Fe 238.204 Radial†	2348.8	2320.3	[20000] µg/L	21:06:11
2	Mg 279.077 IEC†	5193.5	5152.4	[50000] µg/L	21:06:11
2	Na 589.592 Radial†	61435.9	60618.8	[20000] µg/L	21:05:51
2	Sc 361.383	2076508.3	2076508.3	98.899 %	21:06:57
2	Y 371.029	1426990.7	1426990.7	98.042 %	21:06:57
3	Sc RADIAL	59694.5	59694.5	101 %	21:06:17
3	Al 396.153Radial†	67735.8	67006.1	[50000] µg/L	21:06:17
3	Ca 317.933Radial†	55463.3	54665.7	[50000] µg/L	21:06:17
3	Fe 238.204 Radial†	2338.4	2297.5	[20000] µg/L	21:06:37
3	Mg 279.077 IEC†	5179.3	5110.8	[50000] µg/L	21:06:37
3	Na 589.592 Radial†	61946.4	60797.3	[20000] µg/L	21:06:17
3	Sc 361.383	2085817.8	2085817.8	99.342 %	21:07:05
3	Y 371.029	1433003.8	1433003.8	98.455 %	21:07:05

## Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	2081904.1	4828.46	0.23%	99.156 %
Sc RADIAL	59663.1	273.11	0.46%	101 %
Y 371.029	1430003.8	3006.55	0.21%	98.249 %
Al 396.153Radial†	66778.0	197.64	0.30%	[50000] µg/L
Ca 317.933Radial†	54455.4	182.14	0.33%	[50000] µg/L
Fe 238.204 Radial†	2308.5	11.43	0.49%	[20000] µg/L
Mg 279.077 IEC†	5124.8	23.86	0.47%	[50000] µg/L
Na 589.592 Radial†	60626.7	166.76	0.28%	[20000] µg/L

## Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	134.1	0.00000	0.999722	
Al 396.153Radial	3	Lin Thru 0	0.0	1.338	0.00000	0.999969	
As 188.979	3	Lin Thru 0	0.0	0.5555	0.00000	0.999594	
B 249.677	3	Lin Thru 0	0.0	24.44	0.00000	0.999658	
Ba 233.527	3	Lin Thru 0	0.0	40.81	0.00000	0.999721	
Be 313.107	3	Lin Thru 0	0.0	1656	0.00000	0.999779	
Ca 317.933Radial	3	Lin Thru 0	0.0	1.090	0.00000	0.999986	
Cd 226.502	3	Lin Thru 0	0.0	39.74	0.00000	0.999749	
Co 228.616	3	Lin Thru 0	0.0	21.60	0.00000	0.999758	
Cr 267.716	3	Lin Thru 0	0.0	49.03	0.00000	0.999653	
Cu 324.752	3	Lin Thru 0	0.0	150.8	0.00000	0.999606	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1165	0.00000	0.999831	
K 766.490 Radial	3	Lin Thru 0	0.0	1.454	0.00000	0.999922	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.1027	0.00000	0.999940	
Mn 257.610	3	Lin Thru 0	0.0	314.2	0.00000	0.999862	
Mo 202.031	3	Lin Thru 0	0.0	9.980	0.00000	0.999655	
Na 589.592 Radia	2	Lin Thru 0	0.0	3.059	0.00000	0.999839	

Ni 231.604	3	Lin Thru 0	0.0	19.79	0.00000	0.999779
P 214.914	3	Lin Thru 0	0.0	0.5030	0.00000	0.999633
Pb 220.353	3	Lin Thru 0	0.0	4.064	0.00000	0.999655
S 181.975 Axial	3	Lin Thru 0	0.0	0.2412	0.00000	0.999657
Sb 206.836	3	Lin Thru 0	0.0	1.095	0.00000	0.999490
Se 196.026	3	Lin Thru 0	0.0	0.7300	0.00000	0.999665
SiO2	3	Lin Thru 0	0.0	4.994	0.00000	0.999753
Si 251.611	3	Lin Thru 0	0.0	12.96	0.00000	0.999761
Sn 189.927	3	Lin Thru 0	0.0	2.338	0.00000	0.999653
Sr 421.552	3	Lin Thru 0	0.0	101.7	0.00000	0.999873
Ti 334.940	3	Lin Thru 0	0.0	439.7	0.00000	0.999764
Tl 190.801	3	Lin Thru 0	0.0	0.7481	0.00000	0.999851
U 409.014	3	Lin Thru 0	0.0	11.78	0.00000	0.999683
V 292.402	3	Lin Thru 0	0.0	101.1	0.00000	0.999629
Zn 213.857	3	Lin Thru 0	0.0	42.37	0.00000	0.999790

Sequence No.: 6

Sample ID: ICV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 9

Date Collected: 2/20/2010 21:07:14

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	59298.2	59298.2	100 %		21:07:47
1	Al 396.153Radial†	6742.2	6722.0	5014.4 µg/L	5014.4 ppb	21:07:47
1	Ca 317.933Radial†	5609.2	5392.1	4946.0 µg/L	4946.0 ppb	21:08:08
1	Fe 238.204 Radial†	610.2	592.2	5093.8 µg/L	5093.8 ppb	21:08:08
1	K 766.490 Radial†	3647.7	3433.7	2361.1 µg/L	2361.1 ppb	21:07:47
1	Mg 279.077 IEC†	537.6	523.2	5095.7 µg/L	5095.7 ppb	21:08:08
1	Na 589.592 Radial†	8072.8	7564.4	2473.0 µg/L	2473.0 ppb	21:07:47
1	Sr 421.552†	51335.1	51073.4	502.32 µg/L	502.32 ppb	21:07:47
1	Sc 361.383	2093410.3	2093410.3	99.704 %		21:09:11
1	Y 371.029	1444904.7	1444904.7	99.273 %		21:09:11
1	Ag 328.068†	32149.4	32708.1	247.53 µg/L	247.53 ppb	21:09:17
1	As 188.979†	267.3	268.4	482.08 µg/L	482.08 ppb	21:09:37
1	B 249.677†	12545.6	12257.4	499.56 µg/L	499.56 ppb	21:09:17
1	Ba 233.527†	20210.0	20288.4	498.06 µg/L	498.06 ppb	21:09:17
1	Be 313.107†	410657.7	415637.3	250.84 µg/L	250.84 ppb	21:09:11
1	Cd 226.502†	19282.1	19476.0	489.99 µg/L	489.99 ppb	21:09:17
1	Co 228.616†	10782.3	10811.8	500.12 µg/L	500.12 ppb	21:09:17
1	Cr 267.716†	23531.4	23648.8	482.60 µg/L	482.60 ppb	21:09:17
1	Cu 324.752†	77386.4	74746.7	496.54 µg/L	496.54 ppb	21:09:17
1	Mn 257.610†	155171.3	155935.1	496.84 µg/L	496.84 ppb	21:09:11
1	Mo 202.031†	5279.5	5298.5	531.08 µg/L	531.08 ppb	21:09:37
1	Ni 231.604†	9881.0	9601.7	484.73 µg/L	484.73 ppb	21:09:17
1	P 214.914†	1282.8	1270.4	2478.8 µg/L	2478.8 ppb	21:09:37
1	Pb 220.353†	2131.1	2042.7	502.90 µg/L	502.90 ppb	21:09:37
1	S 181.975 Axial†	604.4	588.9	2441.3 µg/L	2441.3 ppb	21:09:37
1	Sb 206.836†	547.4	526.9	483.83 µg/L	483.83 ppb	21:09:37
1	Se 196.026†	1866.4	1856.9	2551.9 µg/L	2551.9 ppb	21:09:37
1	SiO2†	52341.1	51012.3	10215 µg/L	10215 ppb	21:09:17
1	Si 251.611†	61706.4	61596.3	4754.2 µg/L	4754.2 ppb	21:09:17
1	Sn 189.927†	1246.3	1245.3	532.55 µg/L	532.55 ppb	21:09:37
1	Ti 334.940†	208718.0	209196.8	475.47 µg/L	475.47 ppb	21:09:11
1	Tl 190.801†	355.4	378.7	511.90 µg/L	511.90 ppb	21:09:37
1	U 409.014†	5449.2	5466.1	462.86 µg/L	462.86 ppb	21:09:17
1	V 292.402†	49021.9	49263.7	493.60 µg/L	493.60 ppb	21:09:17
1	Zn 213.857†	21386.8	20948.4	490.93 µg/L	490.93 ppb	21:09:17
2	Sc RADIAL	58520.2	58520.2	99.1 %		21:08:13
2	Al 396.153Radial†	6708.2	6776.9	5055.6 µg/L	5055.6 ppb	21:08:13
2	Ca 317.933Radial†	5585.4	5442.4	4992.1 µg/L	4992.1 ppb	21:08:34
2	Fe 238.204 Radial†	606.9	596.9	5134.9 µg/L	5134.9 ppb	21:08:34
2	K 766.490 Radial†	3713.9	3548.7	2440.2 µg/L	2440.2 ppb	21:08:13
2	Mg 279.077 IEC†	536.0	528.7	5148.9 µg/L	5148.9 ppb	21:08:34
2	Na 589.592 Radial†	8041.1	7639.3	2497.5 µg/L	2497.5 ppb	21:08:13
2	Sr 421.552†	50922.5	51336.7	504.91 µg/L	504.91 ppb	21:08:13
2	Sc 361.383	2092537.1	2092537.1	99.662 %		21:09:44
2	Y 371.029	1445744.5	1445744.5	99.331 %		21:09:44
2	Ag 328.068†	32120.3	32692.3	247.42 µg/L	247.42 ppb	21:09:50
2	As 188.979†	260.5	261.7	470.04 µg/L	470.04 ppb	21:10:10
2	B 249.677†	12595.0	12312.2	501.78 µg/L	501.78 ppb	21:09:50
2	Ba 233.527†	20197.1	20283.9	497.95 µg/L	497.95 ppb	21:09:50
2	Be 313.107†	410209.2	415359.2	250.67 µg/L	250.67 ppb	21:09:44
2	Cd 226.502†	19361.4	19563.7	492.19 µg/L	492.19 ppb	21:09:50
2	Co 228.616†	10832.8	10867.0	502.67 µg/L	502.67 ppb	21:09:50
2	Cr 267.716†	23645.5	23773.1	485.14 µg/L	485.14 ppb	21:09:50
2	Cu 324.752†	77350.7	74743.3	496.52 µg/L	496.52 ppb	21:09:50
2	Mn 257.610†	154859.2	155686.9	496.05 µg/L	496.05 ppb	21:09:44
2	Mo 202.031†	5189.9	5210.9	522.30 µg/L	522.30 ppb	21:10:10
2	Ni 231.604†	9855.9	9580.7	483.67 µg/L	483.67 ppb	21:09:50
2	P 214.914†	1266.5	1254.6	2447.1 µg/L	2447.1 ppb	21:10:10
2	Pb 220.353†	2092.1	2004.4	493.46 µg/L	493.46 ppb	21:10:10

2	S 181.975 Axial†	602.7	587.5	2435.3 µg/L	2435.3 ppb	21:10:10
2	Sb 206.836†	541.9	521.7	478.88 µg/L	478.88 ppb	21:10:10
2	Se 196.026†	1842.6	1833.9	2520.3 µg/L	2520.3 ppb	21:10:10
2	SiO2†	52485.3	51178.9	10249 µg/L	10249 ppb	21:09:50
2	Si 251.611†	61901.1	61817.5	4771.3 µg/L	4771.3 ppb	21:09:50
2	Sn 189.927†	1223.9	1223.3	523.17 µg/L	523.17 ppb	21:10:10
2	Ti 334.940†	208285.0	208849.7	474.68 µg/L	474.68 ppb	21:09:44
2	Tl 190.801†	366.2	389.6	526.51 µg/L	526.51 ppb	21:10:10
2	U 409.014†	5476.2	5495.5	465.35 µg/L	465.35 ppb	21:09:50
2	V 292.402†	49179.3	49442.1	495.31 µg/L	495.31 ppb	21:09:50
2	Zn 213.857†	21439.3	21010.1	492.38 µg/L	492.38 ppb	21:09:50
3	Sc RADIAL	59096.0	59096.0	100 %		21:08:39
3	Al 396.153Radial†	6747.8	6750.6	5037.7 µg/L	5037.7 ppb	21:08:39
3	Ca 317.933Radial†	5596.7	5398.8	4952.1 µg/L	4952.1 ppb	21:08:59
3	Fe 238.204 Radial†	606.6	590.7	5080.1 µg/L	5080.1 ppb	21:08:59
3	K 766.490 Radial†	3696.9	3495.2	2403.4 µg/L	2403.4 ppb	21:08:39
3	Mg 279.077 IEC†	535.3	522.7	5089.9 µg/L	5089.9 ppb	21:08:59
3	Na 589.592 Radial†	8071.9	7591.0	2481.7 µg/L	2481.7 ppb	21:08:39
3	Sr 421.552†	51459.2	51372.3	505.26 µg/L	505.26 ppb	21:08:39
3	Sc 361.383	2094405.8	2094405.8	99.751 %		21:10:18
3	Y 371.029	1447263.1	1447263.1	99.435 %		21:10:18
3	Ag 328.068†	30096.5	30634.8	231.71 µg/L	231.71 ppb	21:10:23
3	As 188.979†	226.6	227.4	408.55 µg/L	408.55 ppb	21:10:44
3	B 249.677†	11723.3	11427.1	465.50 µg/L	465.50 ppb	21:10:23
3	Ba 233.527†	18382.6	18446.8	452.83 µg/L	452.83 ppb	21:10:23
3	Be 313.107†	380739.4	385448.5	232.62 µg/L	232.62 ppb	21:10:18
3	Cd 226.502†	17489.2	17669.5	444.48 µg/L	444.48 ppb	21:10:23
3	Co 228.616†	9671.7	9693.2	448.32 µg/L	448.32 ppb	21:10:23
3	Cr 267.716†	20510.3	20608.9	420.57 µg/L	420.57 ppb	21:10:23
3	Cu 324.752†	69854.0	67158.6	446.20 µg/L	446.20 ppb	21:10:23
3	Mn 257.610†	144167.2	144829.6	461.49 µg/L	461.49 ppb	21:10:18
3	Mo 202.031†	4313.1	4327.2	433.76 µg/L	433.76 ppb	21:10:44
3	Ni 231.604†	8882.5	8596.0	433.97 µg/L	433.97 ppb	21:10:23
3	P 214.914†	1071.9	1058.4	2061.0 µg/L	2061.0 ppb	21:10:44
3	Pb 220.353†	1818.3	1728.0	425.34 µg/L	425.34 ppb	21:10:44
3	S 181.975 Axial†	531.7	515.7	2137.7 µg/L	2137.7 ppb	21:10:44
3	Sb 206.836†	466.9	445.9	409.02 µg/L	409.02 ppb	21:10:44
3	Se 196.026†	1609.6	1598.6	2197.9 µg/L	2197.9 ppb	21:10:44
3	SiO2†	48374.9	47011.3	9414.0 µg/L	9414.0 ppb	21:10:23
3	Si 251.611†	57002.4	56851.1	4388.0 µg/L	4388.0 ppb	21:10:23
3	Sn 189.927†	1010.2	1008.0	431.08 µg/L	431.08 ppb	21:10:44
3	Ti 334.940†	192169.6	192507.6	437.51 µg/L	437.51 ppb	21:10:18
3	Tl 190.801†	325.3	348.3	470.89 µg/L	470.89 ppb	21:10:44
3	U 409.014†	4809.6	4822.4	408.23 µg/L	408.23 ppb	21:10:23
3	V 292.402†	43652.8	43857.8	439.18 µg/L	439.18 ppb	21:10:23
3	Zn 213.857†	19288.3	18834.5	441.35 µg/L	441.35 ppb	21:10:23

## Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2093451.0	99.706 %	0.0445			0.04%
Sc RADIAL	58971.5	99.9 %	0.68			0.68%
Y 371.029	1445970.8	99.346 %	0.0821			0.08%
Ag 328.068†	32011.7	242.22 µg/L	9.104	242.22 ppb	9.104	3.76%
QC value within limits for Ag 328.068 Recovery = 96.89%						
Al 396.153Radial†	6749.8	5035.9 µg/L	20.68	5035.9 ppb	20.68	0.41%
QC value within limits for Al 396.153Radial Recovery = 100.72%						
As 188.979†	252.5	453.56 µg/L	39.442	453.56 ppb	39.442	8.70%
QC value within limits for As 188.979 Recovery = 90.71%						
B 249.677†	11998.9	488.95 µg/L	20.337	488.95 ppb	20.337	4.16%
QC value within limits for B 249.677 Recovery = 97.79%						
Ba 233.527†	19673.0	482.95 µg/L	26.080	482.95 ppb	26.080	5.40%
QC value within limits for Ba 233.527 Recovery = 96.59%						
Be 313.107†	405481.7	244.71 µg/L	10.470	244.71 ppb	10.470	4.28%
QC value within limits for Be 313.107 Recovery = 97.88%						
Ca 317.933Radial†	5411.1	4963.4 µg/L	25.04	4963.4 ppb	25.04	0.50%
QC value within limits for Ca 317.933Radial Recovery = 99.27%						
Cd 226.502†	18903.1	475.55 µg/L	26.932	475.55 ppb	26.932	5.66%
QC value within limits for Cd 226.502 Recovery = 95.11%						
Co 228.616†	10457.3	483.70 µg/L	30.670	483.70 ppb	30.670	6.34%



QC value within limits for Co 228.616 Recovery = 96.74%							
Cr 267.716†	22676.9	462.77 µg/L	36.566	462.77 ppb	36.566	7.90%	
QC value within limits for Cr 267.716 Recovery = 92.55%							
Cu 324.752†	72216.2	479.75 µg/L	29.057	479.75 ppb	29.057	6.06%	
QC value within limits for Cu 324.752 Recovery = 95.95%							
Fe 238.204 Radial†	593.3	5102.9 µg/L	28.53	5102.9 ppb	28.53	0.56%	
QC value within limits for Fe 238.204 Radial Recovery = 102.06%							
K 766.490 Radial†	3492.6	2401.5 µg/L	39.58	2401.5 ppb	39.58	1.65%	
QC value within limits for K 766.490 Radial Recovery = 96.06%							
Mg 279.077 IEC†	524.9	5111.5 µg/L	32.52	5111.5 ppb	32.52	0.64%	
QC value within limits for Mg 279.077 IEC Recovery = 102.23%							
Mn 257.610†	152150.5	484.79 µg/L	20.187	484.79 ppb	20.187	4.16%	
QC value within limits for Mn 257.610 Recovery = 96.96%							
Mo 202.031†	4945.5	495.71 µg/L	53.833	495.71 ppb	53.833	10.86%	
QC value within limits for Mo 202.031 Recovery = 99.14%							
Na 589.592 Radial†	7598.3	2484.1 µg/L	12.42	2484.1 ppb	12.42	0.50%	
QC value within limits for Na 589.592 Radial Recovery = 99.36%							
Ni 231.604†	9259.5	467.46 µg/L	29.007	467.46 ppb	29.007	6.21%	
QC value within limits for Ni 231.604 Recovery = 93.49%							
P 214.914†	1194.5	2329.0 µg/L	232.60	2329.0 ppb	232.60	9.99%	
QC value within limits for P 214.914 Recovery = 93.16%							
Pb 220.353†	1925.0	473.90 µg/L	42.315	473.90 ppb	42.315	8.93%	
QC value within limits for Pb 220.353 Recovery = 94.78%							
S 181.975 Axial†	564.0	2338.1 µg/L	173.55	2338.1 ppb	173.55	7.42%	
QC value within limits for S 181.975 Axial Recovery = 93.52%							
Sb 206.836†	498.2	457.24 µg/L	41.837	457.24 ppb	41.837	9.15%	
QC value within limits for Sb 206.836 Recovery = 91.45%							
Se 196.026†	1763.1	2423.4 µg/L	195.88	2423.4 ppb	195.88	8.08%	
QC value within limits for Se 196.026 Recovery = 96.94%							
SiO2†	49734.2	9959.3 µg/L	472.51	9959.3 ppb	472.51	4.74%	
QC value within limits for SiO2 Recovery = 93.12%							
Si 251.611†	60088.3	4637.8 µg/L	216.55	4637.8 ppb	216.55	4.67%	
QC value within limits for Si 251.611 Recovery = 92.76%							
Sn 189.927†	1158.9	495.60 µg/L	56.074	495.60 ppb	56.074	11.31%	
QC value within limits for Sn 189.927 Recovery = 99.12%							
Sr 421.552†	51260.8	504.16 µg/L	1.605	504.16 ppb	1.605	0.32%	
QC value within limits for Sr 421.552 Recovery = 100.83%							
Ti 334.940†	203518.0	462.56 µg/L	21.689	462.56 ppb	21.689	4.69%	
QC value within limits for Ti 334.940 Recovery = 92.51%							
Tl 190.801†	372.2	503.10 µg/L	28.835	503.10 ppb	28.835	5.73%	
QC value within limits for Tl 190.801 Recovery = 100.62%							
U 409.014†	5261.3	445.48 µg/L	32.282	445.48 ppb	32.282	7.25%	
QC value less than the lower limit for U 409.014 Recovery = 89.10%							
V 292.402†	47521.2	476.03 µg/L	31.929	476.03 ppb	31.929	6.71%	
QC value within limits for V 292.402 Recovery = 95.21%							
Zn 213.857†	20264.3	474.89 µg/L	29.056	474.89 ppb	29.056	6.12%	
QC value within limits for Zn 213.857 Recovery = 94.98%							
QC Failed. Continue with analysis.							

Sequence No.: 7

Sample ID: ICB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 2/20/2010 21:10:53

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	58564.9	58564.9	99.2 %		21:11:26
1	Al 396.153Radial†	-6.1	2.5	1.8721 µg/L	1.8721 ppb	21:11:26
1	Ca 317.933Radial†	199.2	7.8	7.1783 µg/L	7.1783 ppb	21:11:47
1	Fe 238.204 Radial†	17.4	2.1	18.159 µg/L	18.159 ppb	21:11:47
1	K 766.490 Radial†	203.0	6.2	4.2821 µg/L	4.2821 ppb	21:11:26
1	Mg 279.077 IEC†	7.5	-4.6	-44.441 µg/L	-44.441 ppb	21:11:47
1	Na 589.592 Radial†	519.5	50.0	16.342 µg/L	16.342 ppb	21:11:26
1	Sr 421.552†	55.6	14.7	0.1441 µg/L	0.1441 ppb	21:11:26
1	Sc 361.383	2085452.9	2085452.9	99.325 %		21:12:48
1	Y 371.029	1444872.9	1444872.9	99.271 %		21:12:48
1	Ag 328.068†	-369.2	91.4	0.6816 µg/L	0.6816 ppb	21:12:54
1	As 188.979†	3.0	3.3	6.0043 µg/L	6.0043 ppb	21:13:15
1	B 249.677†	395.3	72.5	2.9550 µg/L	2.9550 ppb	21:13:15
1	Ba 233.527†	-4.0	14.3	0.3502 µg/L	0.3502 ppb	21:13:15
1	Be 313.107†	-3487.7	247.5	0.1493 µg/L	0.1493 ppb	21:12:54
1	Cd 226.502†	-128.3	7.4	0.1844 µg/L	0.1844 ppb	21:13:15
1	Co 228.616†	5.6	3.1	0.1421 µg/L	0.1421 ppb	21:13:15
1	Cr 267.716†	-37.4	9.7	0.1985 µg/L	0.1985 ppb	21:12:54
1	Cu 324.752†	2887.5	37.4	0.2505 µg/L	0.2505 ppb	21:12:54
1	Mn 257.610†	-248.0	52.8	0.1724 µg/L	0.1724 ppb	21:13:15
1	Mo 202.031†	6.8	10.2	1.0191 µg/L	1.0191 ppb	21:13:15
1	Ni 231.604†	312.7	6.2	0.3110 µg/L	0.3110 ppb	21:13:15
1	P 214.914†	1.1	-15.2	-30.169 µg/L	-30.169 ppb	21:13:15
1	Pb 220.353†	95.1	1.0	0.2452 µg/L	0.2452 ppb	21:13:15
1	S 181.975 Axial†	16.9	-0.3	-1.2677 µg/L	-1.2677 ppb	21:13:15
1	Sb 206.836†	21.3	-0.7	-0.6239 µg/L	-0.6239 ppb	21:13:15
1	Se 196.026†	12.1	-2.8	-3.7521 µg/L	-3.7521 ppb	21:13:15
1	SiO2†	1508.7	34.5	6.9110 µg/L	6.9110 ppb	21:12:54
1	Si 251.611†	341.0	49.8	3.8443 µg/L	3.8443 ppb	21:13:15
1	Sn 189.927†	3.8	-0.9	-0.3913 µg/L	-0.3913 ppb	21:13:15
1	Ti 334.940†	281.1	141.4	0.3252 µg/L	0.3252 ppb	21:12:54
1	Tl 190.801†	-21.8	0.2	0.3385 µg/L	0.3385 ppb	21:13:15
1	U 409.014†	19.5	20.4	1.7315 µg/L	1.7315 ppb	21:12:54
1	V 292.402†	-116.7	-21.5	-0.2000 µg/L	-0.2000 ppb	21:12:54
1	Zn 213.857†	524.7	26.3	0.6208 µg/L	0.6208 ppb	21:13:15
2	Sc RADIAL	58481.1	58481.1	99.0 %		21:11:52
2	Al 396.153Radial†	-24.1	-15.6	-11.699 µg/L	-11.699 ppb	21:11:52
2	Ca 317.933Radial†	197.0	5.9	5.4176 µg/L	5.4176 ppb	21:12:12
2	Fe 238.204 Radial†	14.7	-0.6	-4.7257 µg/L	-4.7257 ppb	21:12:12
2	K 766.490 Radial†	178.6	-18.0	-12.399 µg/L	-12.399 ppb	21:11:52
2	Mg 279.077 IEC†	12.4	0.5	4.6624 µg/L	4.6624 ppb	21:12:12
2	Na 589.592 Radial†	494.5	25.5	8.3432 µg/L	8.3432 ppb	21:11:52
2	Sr 421.552†	30.4	-10.7	-0.1050 µg/L	-0.1050 ppb	21:11:52
2	Sc 361.383	2081054.4	2081054.4	99.115 %		21:13:21
2	Y 371.029	1441674.9	1441674.9	99.051 %		21:13:21
2	Ag 328.068†	-383.8	75.9	0.5684 µg/L	0.5684 ppb	21:13:26
2	As 188.979†	4.6	5.0	8.9367 µg/L	8.9367 ppb	21:13:47
2	B 249.677†	377.6	55.4	2.2708 µg/L	2.2708 ppb	21:13:47
2	Ba 233.527†	-14.7	3.5	0.0865 µg/L	0.0865 ppb	21:13:47
2	Be 313.107†	-3395.4	333.2	0.2011 µg/L	0.2011 ppb	21:13:26
2	Cd 226.502†	-146.1	-10.8	-0.2704 µg/L	-0.2704 ppb	21:13:47
2	Co 228.616†	14.9	12.4	0.5763 µg/L	0.5763 ppb	21:13:47
2	Cr 267.716†	-38.0	9.1	0.1857 µg/L	0.1857 ppb	21:13:26
2	Cu 324.752†	2936.4	92.9	0.6156 µg/L	0.6156 ppb	21:13:26
2	Mn 257.610†	-256.0	44.3	0.1401 µg/L	0.1401 ppb	21:13:47
2	Mo 202.031†	2.5	5.8	0.5834 µg/L	0.5834 ppb	21:13:47
2	Ni 231.604†	315.1	9.3	0.4672 µg/L	0.4672 ppb	21:13:47
2	P 214.914†	17.3	1.2	2.3923 µg/L	2.3923 ppb	21:13:47
2	Pb 220.353†	90.5	-3.5	-0.8520 µg/L	-0.8520 ppb	21:13:47

2	S 181.975 Axial†	20.2	3.1	12.918 µg/L	12.918 ppb	21:13:47
2	Sb 206.836†	23.6	1.7	1.5439 µg/L	1.5439 ppb	21:13:47
2	Se 196.026†	13.3	-1.6	-2.1637 µg/L	-2.1637 ppb	21:13:47
2	SiO2†	1438.6	-32.9	-6.5928 µg/L	-6.5928 ppb	21:13:26
2	Si 251.611†	330.0	39.4	3.0397 µg/L	3.0397 ppb	21:13:47
2	Sn 189.927†	2.0	-2.7	-1.1480 µg/L	-1.1480 ppb	21:13:47
2	Ti 334.940†	279.5	140.3	0.3189 µg/L	0.3189 ppb	21:13:26
2	Tl 190.801†	-29.6	-7.7	-10.244 µg/L	-10.244 ppb	21:13:47
2	U 409.014†	-34.5	-34.1	-2.8921 µg/L	-2.8921 ppb	21:13:26
2	V 292.402†	-60.5	35.0	0.3474 µg/L	0.3474 ppb	21:13:26
2	Zn 213.857†	528.7	31.5	0.7408 µg/L	0.7408 ppb	21:13:47
3	Sc RADIAL	58246.0	58246.0	98.6 %		21:12:18
3	Al 396.153Radial†	-18.3	-9.9	-7.3904 µg/L	-7.3904 ppb	21:12:18
3	Ca 317.933Radial†	194.4	4.1	3.7831 µg/L	3.7831 ppb	21:12:38
3	Fe 238.204 Radial†	16.3	1.1	9.6301 µg/L	9.6301 ppb	21:12:38
3	K 766.490 Radial†	228.7	33.5	23.010 µg/L	23.010 ppb	21:12:18
3	Mg 279.077 IEC†	15.5	3.6	34.925 µg/L	34.925 ppb	21:12:38
3	Na 589.592 Radial†	490.9	23.9	7.8279 µg/L	7.8279 ppb	21:12:18
3	Sr 421.552†	30.7	-10.2	-0.1003 µg/L	-0.1003 ppb	21:12:18
3	Sc 361.383	2087627.0	2087627.0	99.428 %		21:13:53
3	Y 371.029	1446373.3	1446373.3	99.374 %		21:13:53
3	Ag 328.068†	-400.9	59.9	0.4476 µg/L	0.4476 ppb	21:13:58
3	As 188.979†	-4.1	-3.9	-6.9926 µg/L	-6.9926 ppb	21:14:19
3	B 249.677†	385.6	62.3	2.5452 µg/L	2.5452 ppb	21:14:19
3	Ba 233.527†	-12.3	6.0	0.1471 µg/L	0.1471 ppb	21:14:19
3	Be 313.107†	-3568.2	170.1	0.1026 µg/L	0.1026 ppb	21:13:58
3	Cd 226.502†	-143.3	-7.5	-0.1900 µg/L	-0.1900 ppb	21:14:19
3	Co 228.616†	10.0	7.5	0.3489 µg/L	0.3489 ppb	21:14:19
3	Cr 267.716†	-23.2	24.1	0.4908 µg/L	0.4908 ppb	21:13:58
3	Cu 324.752†	2910.0	57.0	0.3793 µg/L	0.3793 ppb	21:13:58
3	Mn 257.610†	-265.6	35.5	0.1128 µg/L	0.1128 ppb	21:14:19
3	Mo 202.031†	3.3	6.7	0.6685 µg/L	0.6685 ppb	21:14:19
3	Ni 231.604†	308.4	1.5	0.0748 µg/L	0.0748 ppb	21:14:19
3	P 214.914†	9.7	-6.5	-13.002 µg/L	-13.002 ppb	21:14:19
3	Pb 220.353†	90.1	-4.2	-1.0268 µg/L	-1.0268 ppb	21:14:19
3	S 181.975 Axial†	17.9	0.7	2.7428 µg/L	2.7428 ppb	21:14:19
3	Sb 206.836†	25.1	3.1	2.8622 µg/L	2.8622 ppb	21:14:19
3	Se 196.026†	18.3	3.4	4.6867 µg/L	4.6867 ppb	21:14:19
3	SiO2†	1440.1	-36.0	-7.2055 µg/L	-7.2055 ppb	21:13:58
3	Si 251.611†	331.4	39.7	3.0667 µg/L	3.0667 ppb	21:14:19
3	Sn 189.927†	1.7	-3.0	-1.2716 µg/L	-1.2716 ppb	21:14:19
3	Ti 334.940†	276.4	136.3	0.3074 µg/L	0.3074 ppb	21:13:58
3	Tl 190.801†	-22.2	-0.1	-0.1300 µg/L	-0.1300 ppb	21:14:19
3	U 409.014†	-28.2	-27.6	-2.3446 µg/L	-2.3446 ppb	21:13:58
3	V 292.402†	-98.1	-2.7	-0.0214 µg/L	-0.0214 ppb	21:13:58
3	Zn 213.857†	526.3	27.4	0.6421 µg/L	0.6421 ppb	21:14:19

## Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2084711.4	99.289 %		0.1595			0.16%
Sc RADIAL	58430.7	99.0 %		0.28			0.28%
Y 371.029	1444307.0	99.232 %		0.1649			0.17%
Ag 328.068†	75.8	0.5659 µg/L		0.11703	0.5659 ppb	0.11703	20.68%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	-7.7	-5.7391 µg/L		6.93458	-5.7391 ppb	6.93458	120.83%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	1.5	2.6495 µg/L		8.47799	2.6495 ppb	8.47799	319.99%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	63.4	2.5903 µg/L		0.34433	2.5903 ppb	0.34433	13.29%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	7.9	0.1946 µg/L		0.13811	0.1946 ppb	0.13811	70.98%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	250.2	0.1510 µg/L		0.04926	0.1510 ppb	0.04926	32.62%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	6.0	5.4596 µg/L		1.69798	5.4596 ppb	1.69798	31.10%
QC value within limits for Ca 317.933Radial Recovery = Not calculated							
Cd 226.502†	-3.6	-0.0920 µg/L		0.24271	-0.0920 ppb	0.24271	263.84%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	7.7	0.3558 µg/L		0.21721	0.3558 ppb	0.21721	61.06%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	14.3	0.2916 µg/L	0.17257	0.2916 ppb	0.17257	59.17%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	62.4	0.4151 µg/L	0.18513	0.4151 ppb	0.18513	44.59%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	0.9	7.6878 µg/L	11.56524	7.6878 ppb	11.56524	150.44%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	7.2	4.9642 µg/L	17.71413	4.9642 ppb	17.71413	356.83%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-0.2	-1.6181 µg/L	40.05410	-1.6181 ppb	40.05410	>999.9%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	44.2	0.1418 µg/L	0.02981	0.1418 ppb	0.02981	21.03%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	7.6	0.7570 µg/L	0.23098	0.7570 ppb	0.23098	30.51%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	33.2	10.838 µg/L	4.7739	10.838 ppb	4.7739	44.05%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	5.6	0.2844 µg/L	0.19756	0.2844 ppb	0.19756	69.47%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-6.8	-13.593 µg/L	16.2889	-13.593 ppb	16.2889	119.83%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-2.2	-0.5445 µg/L	0.68946	-0.5445 ppb	0.68946	126.61%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	1.2	4.7978 µg/L	7.31276	4.7978 ppb	7.31276	152.42%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	1.4	1.2607 µg/L	1.76022	1.2607 ppb	1.76022	139.62%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-0.3	-0.4097 µg/L	4.48454	-0.4097 ppb	4.48454	>999.9%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	-11.5	-2.2958 µg/L	7.97915	-2.2958 ppb	7.97915	347.56%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	43.0	3.3169 µg/L	0.45696	3.3169 ppb	0.45696	13.78%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-2.2	-0.9370 µg/L	0.47656	-0.9370 ppb	0.47656	50.86%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-2.1	-0.0204 µg/L	0.14247	-0.0204 ppb	0.14247	698.46%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	139.3	0.3171 µg/L	0.00903	0.3171 ppb	0.00903	2.85%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-2.5	-3.3451 µg/L	5.97899	-3.3451 ppb	5.97899	178.74%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-13.8	-1.1684 µg/L	2.52625	-1.1684 ppb	2.52625	216.21%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	3.6	0.0420 µg/L	0.27913	0.0420 ppb	0.27913	664.64%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	28.4	0.6679 µg/L	0.06403	0.6679 ppb	0.06403	9.59%	
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: 2/20/2010 21:14:28

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	58458.4	58458.4	99.0 %		21:15:01
1	Al 396.153Radial†	258.8	270.1	201.71 µg/L	201.71 ppb	21:15:01
1	Ca 317.933Radial†	411.5	222.6	204.21 µg/L	204.21 ppb	21:15:21
1	Fe 238.204 Radial†	27.1	12.0	103.29 µg/L	103.29 ppb	21:15:21
1	K 766.490 Radial†	436.6	242.6	166.81 µg/L	166.81 ppb	21:15:01
1	Mg 279.077 IEC†	43.2	31.6	307.43 µg/L	307.43 ppb	21:15:21
1	Na 589.592 Radial†	1411.3	951.7	311.14 µg/L	311.14 ppb	21:15:01
1	Sr 421.552†	548.2	512.4	5.0393 µg/L	5.0393 ppb	21:15:01
1	Sc 361.383	2076756.1	2076756.1	98.910 %		21:16:24
1	Y 371.029	1438554.1	1438554.1	98.837 %		21:16:24
1	Ag 328.068†	275.7	741.9	5.5767 µg/L	5.5767 ppb	21:16:29
1	As 188.979†	18.9	19.4	34.854 µg/L	34.854 ppb	21:16:50
1	B 249.677†	1544.9	1236.4	50.536 µg/L	50.536 ppb	21:16:29
1	Ba 233.527†	188.0	208.4	5.1169 µg/L	5.1169 ppb	21:16:50
1	Be 313.107†	4586.8	8396.2	5.0689 µg/L	5.0689 ppb	21:16:29
1	Cd 226.502†	48.0	185.1	4.6526 µg/L	4.6526 ppb	21:16:50
1	Co 228.616†	122.0	120.8	5.5928 µg/L	5.5928 ppb	21:16:50
1	Cr 267.716†	187.5	237.0	4.8358 µg/L	4.8358 ppb	21:16:29
1	Cu 324.752†	4427.8	1606.9	10.674 µg/L	10.674 ppb	21:16:29
1	Mn 257.610†	2956.6	3291.7	10.479 µg/L	10.479 ppb	21:16:29
1	Mo 202.031†	101.5	106.0	10.621 µg/L	10.621 ppb	21:16:50
1	Ni 231.604†	423.2	119.2	6.0200 µg/L	6.0200 ppb	21:16:50
1	P 214.914†	87.1	71.9	141.87 µg/L	141.87 ppb	21:16:50
1	Pb 220.353†	128.7	35.3	8.6690 µg/L	8.6690 ppb	21:16:50
1	S 181.975 Axial†	42.4	25.6	106.10 µg/L	106.10 ppb	21:16:50
1	Sb 206.836†	34.3	12.6	11.564 µg/L	11.564 ppb	21:16:50
1	Se 196.026†	35.5	20.9	28.580 µg/L	28.580 ppb	21:16:50
1	SiO2†	2540.4	1084.0	217.07 µg/L	217.07 ppb	21:16:29
1	Si 251.611†	1606.9	1331.0	102.73 µg/L	102.73 ppb	21:16:29
1	Sn 189.927†	22.6	18.1	7.7813 µg/L	7.7813 ppb	21:16:50
1	Ti 334.940†	2333.3	2217.4	5.0222 µg/L	5.0222 ppb	21:16:29
1	Tl 190.801†	-10.0	12.1	16.365 µg/L	16.365 ppb	21:16:50
1	U 409.014†	545.1	551.8	46.805 µg/L	46.805 ppb	21:16:29
1	V 292.402†	448.5	549.4	5.5885 µg/L	5.5885 ppb	21:16:29
1	Zn 213.857†	962.3	470.9	11.048 µg/L	11.048 ppb	21:16:50
2	Sc RADIAL	58637.7	58637.7	99.3 %		21:15:27
2	Al 396.153Radial†	246.9	257.3	192.14 µg/L	192.14 ppb	21:15:27
2	Ca 317.933Radial†	420.8	230.7	211.63 µg/L	211.63 ppb	21:15:48
2	Fe 238.204 Radial†	27.6	12.4	106.26 µg/L	106.26 ppb	21:15:48
2	K 766.490 Radial†	399.5	203.9	140.19 µg/L	140.19 ppb	21:15:27
2	Mg 279.077 IEC†	42.6	30.8	299.94 µg/L	299.94 ppb	21:15:48
2	Na 589.592 Radial†	1434.6	970.9	317.40 µg/L	317.40 ppb	21:15:27
2	Sr 421.552†	537.3	499.6	4.9139 µg/L	4.9139 ppb	21:15:27
2	Sc 361.383	2073118.3	2073118.3	98.737 %		21:16:56
2	Y 371.029	1436197.3	1436197.3	98.675 %		21:16:56
2	Ag 328.068†	299.5	766.4	5.7589 µg/L	5.7589 ppb	21:17:01
2	As 188.979†	16.0	16.4	29.570 µg/L	29.570 ppb	21:17:22
2	B 249.677†	1526.7	1220.7	49.891 µg/L	49.891 ppb	21:17:01
2	Ba 233.527†	192.5	213.4	5.2381 µg/L	5.2381 ppb	21:17:22
2	Be 313.107†	4573.1	8390.5	5.0654 µg/L	5.0654 ppb	21:17:01
2	Cd 226.502†	52.5	189.8	4.7698 µg/L	4.7698 ppb	21:17:22
2	Co 228.616†	96.1	94.7	4.3852 µg/L	4.3852 ppb	21:17:22
2	Cr 267.716†	195.6	245.5	5.0105 µg/L	5.0105 ppb	21:17:01
2	Cu 324.752†	4459.6	1646.9	10.939 µg/L	10.939 ppb	21:17:01
2	Mn 257.610†	2958.3	3298.7	10.502 µg/L	10.502 ppb	21:17:01
2	Mo 202.031†	92.6	97.1	9.7325 µg/L	9.7325 ppb	21:17:22
2	Ni 231.604†	412.3	109.0	5.5035 µg/L	5.5035 ppb	21:17:22
2	P 214.914†	88.8	73.7	145.61 µg/L	145.61 ppb	21:17:22
2	Pb 220.353†	131.8	38.7	9.4863 µg/L	9.4863 ppb	21:17:22

2	S 181.975 Axial†	44.5	27.8	115.16 µg/L	115.16 ppb	21:17:22
2	Sb 206.836†	32.0	10.3	9.4435 µg/L	9.4435 ppb	21:17:22
2	Se 196.026†	37.8	23.3	31.877 µg/L	31.877 ppb	21:17:22
2	SiO2†	2511.2	1059.0	212.06 µg/L	212.06 ppb	21:17:01
2	Si 251.611†	1616.7	1343.8	103.72 µg/L	103.72 ppb	21:17:01
2	Sn 189.927†	29.7	25.3	10.859 µg/L	10.859 ppb	21:17:22
2	Ti 334.940†	2319.7	2207.8	5.0010 µg/L	5.0010 ppb	21:17:01
2	Tl 190.801†	-8.6	13.5	18.179 µg/L	18.179 ppb	21:17:22
2	U 409.014†	590.2	598.5	50.764 µg/L	50.764 ppb	21:17:01
2	V 292.402†	431.8	533.3	5.4276 µg/L	5.4276 ppb	21:17:01
2	Zn 213.857†	954.9	465.2	10.915 µg/L	10.915 ppb	21:17:22
3	Sc RADIAL	58244.5	58244.5	98.6 %		21:15:53
3	Al 396.153Radial†	267.7	280.0	209.15 µg/L	209.15 ppb	21:15:53
3	Ca 317.933Radial†	418.2	231.0	211.88 µg/L	211.88 ppb	21:16:13
3	Fe 238.204 Radial†	28.1	13.1	112.44 µg/L	112.44 ppb	21:16:13
3	K 766.490 Radial†	422.6	230.0	158.15 µg/L	158.15 ppb	21:15:53
3	Mg 279.077 IEC†	45.9	34.4	334.98 µg/L	334.98 ppb	21:16:13
3	Na 589.592 Radial†	1426.0	971.9	317.74 µg/L	317.74 ppb	21:15:53
3	Sr 421.552†	551.3	517.5	5.0897 µg/L	5.0897 ppb	21:15:53
3	Sc 361.383	2071181.4	2071181.4	98.645 %		21:17:28
3	Y 371.029	1436162.0	1436162.0	98.672 %		21:17:28
3	Ag 328.068†	234.7	701.0	5.2665 µg/L	5.2665 ppb	21:17:34
3	As 188.979†	15.6	16.1	28.992 µg/L	28.992 ppb	21:17:54
3	B 249.677†	1459.8	1154.4	47.175 µg/L	47.175 ppb	21:17:34
3	Ba 233.527†	162.7	183.3	4.5003 µg/L	4.5003 ppb	21:17:54
3	Be 313.107†	3897.6	7710.0	4.6546 µg/L	4.6546 ppb	21:17:34
3	Cd 226.502†	24.5	161.4	4.0536 µg/L	4.0536 ppb	21:17:54
3	Co 228.616†	87.0	85.6	3.9641 µg/L	3.9641 ppb	21:17:54
3	Cr 267.716†	185.3	235.2	4.7995 µg/L	4.7995 ppb	21:17:34
3	Cu 324.752†	4376.3	1566.7	10.408 µg/L	10.408 ppb	21:17:34
3	Mn 257.610†	2707.4	3047.2	9.7012 µg/L	9.7012 ppb	21:17:34
3	Mo 202.031†	93.8	98.4	9.8684 µg/L	9.8684 ppb	21:17:54
3	Ni 231.604†	397.4	94.2	4.7570 µg/L	4.7570 ppb	21:17:54
3	P 214.914†	76.6	61.4	121.13 µg/L	121.13 ppb	21:17:54
3	Pb 220.353†	123.5	30.4	7.4641 µg/L	7.4641 ppb	21:17:54
3	S 181.975 Axial†	39.0	22.3	92.294 µg/L	92.294 ppb	21:17:54
3	Sb 206.836†	27.8	6.1	5.6139 µg/L	5.6139 ppb	21:17:54
3	Se 196.026†	47.6	33.2	45.482 µg/L	45.482 ppb	21:17:54
3	SiO2†	2440.9	990.1	198.26 µg/L	198.26 ppb	21:17:34
3	Si 251.611†	1532.4	1259.9	97.245 µg/L	97.245 ppb	21:17:34
3	Sn 189.927†	23.1	18.7	8.0229 µg/L	8.0229 ppb	21:17:54
3	Ti 334.940†	2183.5	2071.9	4.6891 µg/L	4.6891 ppb	21:17:34
3	Tl 190.801†	-5.3	16.9	22.678 µg/L	22.678 ppb	21:17:54
3	U 409.014†	509.5	517.3	43.867 µg/L	43.867 ppb	21:17:34
3	V 292.402†	361.2	462.2	4.7178 µg/L	4.7178 ppb	21:17:34
3	Zn 213.857†	893.4	403.7	9.4663 µg/L	9.4663 ppb	21:17:54

## Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2073685.3	98.764 %	0.1348			0.14%
Sc RADIAL	58446.8	99.0 %	0.33			0.34%
Y 371.029	1436971.1	98.728 %	0.0942			0.10%
Ag 328.068†	736.4	5.5340 µg/L	0.24894	5.5340 ppb	0.24894	4.50%
QC value within limits for Ag 328.068 Recovery = 110.68%						
Al 396.153Radial†	269.1	201.00 µg/L	8.529	201.00 ppb	8.529	4.24%
QC value within limits for Al 396.153Radial Recovery = 100.50%						
As 188.979†	17.3	31.138 µg/L	3.2305	31.138 ppb	3.2305	10.37%
QC value within limits for As 188.979 Recovery = 103.79%						
B 249.677†	1203.9	49.200 µg/L	1.7837	49.200 ppb	1.7837	3.63%
QC value within limits for B 249.677 Recovery = 98.40%						
Ba 233.527†	201.7	4.9518 µg/L	0.39562	4.9518 ppb	0.39562	7.99%
QC value within limits for Ba 233.527 Recovery = 99.04%						
Be 313.107†	8165.6	4.9297 µg/L	0.23820	4.9297 ppb	0.23820	4.83%
QC value within limits for Be 313.107 Recovery = 98.59%						
Ca 317.933Radial†	228.1	209.24 µg/L	4.355	209.24 ppb	4.355	2.08%
QC value within limits for Ca 317.933Radial Recovery = 104.62%						
Cd 226.502†	178.8	4.4920 µg/L	0.38420	4.4920 ppb	0.38420	8.55%
QC value within limits for Cd 226.502 Recovery = 89.84%						
Co 228.616†	100.4	4.6474 µg/L	0.84542	4.6474 ppb	0.84542	18.19%

QC value within limits for Co 228.616 Recovery = 92.95%							
Cr 267.716†	239.2	4.8819 µg/L	0.11286	4.8819 ppb	0.11286	2.31%	
QC value within limits for Cr 267.716 Recovery = 97.64%							
Cu 324.752†	1606.8	10.674 µg/L	0.2654	10.674 ppb	0.2654	2.49%	
QC value within limits for Cu 324.752 Recovery = 106.74%							
Fe 238.204 Radial†	12.5	107.33 µg/L	4.670	107.33 ppb	4.670	4.35%	
QC value within limits for Fe 238.204 Radial Recovery = 107.33%							
K 766.490 Radial†	225.5	155.05 µg/L	13.579	155.05 ppb	13.579	8.76%	
QC value within limits for K 766.490 Radial Recovery = 103.37%							
Mg 279.077 IEC†	32.3	314.12 µg/L	18.454	314.12 ppb	18.454	5.87%	
QC value within limits for Mg 279.077 IEC Recovery = 104.71%							
Mn 257.610†	3212.5	10.228 µg/L	0.4560	10.228 ppb	0.4560	4.46%	
QC value within limits for Mn 257.610 Recovery = 102.28%							
Mo 202.031†	100.5	10.074 µg/L	0.4788	10.074 ppb	0.4788	4.75%	
QC value within limits for Mo 202.031 Recovery = 100.74%							
Na 589.592 Radial†	964.8	315.43 µg/L	3.714	315.43 ppb	3.714	1.18%	
QC value within limits for Na 589.592 Radial Recovery = 105.14%							
Ni 231.604†	107.5	5.4268 µg/L	0.63497	5.4268 ppb	0.63497	11.70%	
QC value within limits for Ni 231.604 Recovery = 108.54%							
P 214.914†	69.0	136.20 µg/L	13.187	136.20 ppb	13.187	9.68%	
QC value within limits for P 214.914 Recovery = 90.80%							
Pb 220.353†	34.8	8.5398 µg/L	1.01723	8.5398 ppb	1.01723	11.91%	
QC value within limits for Pb 220.353 Recovery = 85.40%							
S 181.975 Axial†	25.2	104.52 µg/L	11.515	104.52 ppb	11.515	11.02%	
QC value within limits for S 181.975 Axial Recovery = 104.52%							
Sb 206.836†	9.6	8.8738 µg/L	3.01568	8.8738 ppb	3.01568	33.98%	
QC value within limits for Sb 206.836 Recovery = 88.74%							
Se 196.026†	25.8	35.313 µg/L	8.9596	35.313 ppb	8.9596	25.37%	
QC value within limits for Se 196.026 Recovery = 117.71%							
SiO2†	1044.4	209.13 µg/L	9.740	209.13 ppb	9.740	4.66%	
QC value within limits for SiO2 Recovery = 98.18%							
Si 251.611†	1311.6	101.23 µg/L	3.489	101.23 ppb	3.489	3.45%	
QC value within limits for Si 251.611 Recovery = 101.23%							
Sn 189.927†	20.7	8.8878 µg/L	1.71151	8.8878 ppb	1.71151	19.26%	
QC value within limits for Sn 189.927 Recovery = 88.88%							
Sr 421.552†	509.8	5.0143 µg/L	0.09056	5.0143 ppb	0.09056	1.81%	
QC value within limits for Sr 421.552 Recovery = 100.29%							
Ti 334.940†	2165.7	4.9041 µg/L	0.18646	4.9041 ppb	0.18646	3.80%	
QC value within limits for Ti 334.940 Recovery = 98.08%							
Tl 190.801†	14.2	19.074 µg/L	3.2505	19.074 ppb	3.2505	17.04%	
QC value within limits for Tl 190.801 Recovery = 95.37%							
U 409.014†	555.9	47.145 µg/L	3.4611	47.145 ppb	3.4611	7.34%	
QC value within limits for U 409.014 Recovery = 94.29%							
V 292.402†	515.0	5.2446 µg/L	0.46328	5.2446 ppb	0.46328	8.83%	
QC value within limits for V 292.402 Recovery = 104.89%							
Zn 213.857†	446.6	10.477 µg/L	0.8775	10.477 ppb	0.8775	8.38%	
QC value within limits for Zn 213.857 Recovery = 104.77%							
All analyte(s) passed QC.							

Sequence No.: 9

Sample ID: ICSA

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 103

Date Collected: 2/20/2010 21:18:04

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

## Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56819.2	56819.2	96.2 %		21:18:45
1	Al 396.153Radial†	663448.7	689430.9	515410 µg/L	515410 ppb	21:18:39
1	Ca 317.933Radial†	515921.4	535926.3	491590 µg/L	491590 ppb	21:18:39
1	Fe 238.204 Radial†	21482.2	22307.8	191490 µg/L	191490 ppb	21:18:45
1	K 766.490 Radial†	168.1	-23.7	-16.325 µg/L	-16.325 ppb	21:18:45
1	Mg 279.077 IEC†	48942.9	50846.9	494700 µg/L	494700 ppb	21:18:45
1	Na 589.592 Radial†	575.8	124.6	40.751 µg/L	40.751 ppb	21:18:45
1	Sr 421.552†	383.3	356.9	3.5102 µg/L	3.5102 ppb	21:18:45
1	Sc 361.383	1959635.9	1959635.9	93.332 %		21:19:18
1	Y 371.029	1348760.4	1348760.4	92.667 %		21:19:18
1	Ag 328.068†	-2471.8	-2185.3	-4.4145 µg/L	-4.4145 ppb	21:19:23
1	As 188.979†	-17.6	-18.6	-47.859 µg/L	-47.859 ppb	21:19:44
1	B 249.677†	807.2	539.4	-77.855 µg/L	-77.855 ppb	21:19:23
1	Ba 233.527†	259.9	296.8	7.2241 µg/L	7.2241 ppb	21:19:44
1	Be 313.107†	-4248.7	-793.4	-0.4893 µg/L	-0.4893 ppb	21:19:23
1	Cd 226.502†	409.4	575.2	-7.1705 µg/L	-7.1705 ppb	21:19:44
1	Co 228.616†	58.0	59.6	2.6931 µg/L	2.6931 ppb	21:19:44
1	Cr 267.716†	-77.6	-35.8	-0.7464 µg/L	-0.7464 ppb	21:19:44
1	Cu 324.752†	-1129.5	-4079.9	-0.4461 µg/L	-0.4461 ppb	21:19:23
1	Mn 257.610†	950.3	1320.7	9.8767 µg/L	9.8767 ppb	21:19:23
1	Mo 202.031†	-96.1	-99.6	-2.7058 µg/L	-2.7058 ppb	21:19:44
1	Ni 231.604†	172.4	-124.0	-3.7785 µg/L	-3.7785 ppb	21:19:44
1	P 214.914†	82.2	71.9	138.26 µg/L	138.26 ppb	21:19:44
1	Pb 220.353†	25.6	-67.3	4.5259 µg/L	4.5259 ppb	21:19:44
1	S 181.975 Axial†	39.8	25.4	105.27 µg/L	105.27 ppb	21:19:44
1	Sb 206.836†	45.7	26.9	-18.388 µg/L	-18.388 ppb	21:19:44
1	Se 196.026†	17.5	3.7	-48.894 µg/L	-48.894 ppb	21:19:44
1	SiO2†	1279.5	-113.5	-22.734 µg/L	-22.734 ppb	21:19:44
1	Si 251.611†	453.4	192.2	14.837 µg/L	14.837 ppb	21:19:44
1	Sn 189.927†	-65.6	-75.0	3.4240 µg/L	3.4240 ppb	21:19:44
1	Ti 334.940†	11042.3	11689.5	-4.6455 µg/L	-4.6455 ppb	21:19:23
1	Tl 190.801†	-36.3	-16.7	-1.6599 µg/L	-1.6599 ppb	21:19:44
1	U 409.014†	-77.2	-82.0	-63.564 µg/L	-63.564 ppb	21:19:23
1	V 292.402†	-2625.3	-2716.9	-4.4225 µg/L	-4.4225 ppb	21:19:23
1	Zn 213.857†	1555.9	1165.1	-9.5890 µg/L	-9.5890 ppb	21:19:44
2	Sc RADIAL	57074.7	57074.7	96.7 %		21:18:56
2	Al 396.153Radial†	663732.9	686639.5	513330 µg/L	513330 ppb	21:18:51
2	Ca 317.933Radial†	516332.9	533952.7	489780 µg/L	489780 ppb	21:18:51
2	Fe 238.204 Radial†	21585.3	22314.6	191550 µg/L	191550 ppb	21:18:56
2	K 766.490 Radial†	149.3	-43.9	-30.192 µg/L	-30.192 ppb	21:18:56
2	Mg 279.077 IEC†	49168.6	50852.8	494760 µg/L	494760 ppb	21:18:56
2	Na 589.592 Radial†	578.5	124.8	40.785 µg/L	40.785 ppb	21:18:56
2	Sr 421.552†	373.8	345.3	3.3960 µg/L	3.3960 ppb	21:18:56
2	Sc 361.383	1939757.2	1939757.2	92.386 %		21:19:50
2	Y 371.029	1335581.2	1335581.2	91.762 %		21:19:50
2	Ag 328.068†	-2478.6	-2219.8	-4.6699 µg/L	-4.6699 ppb	21:19:56
2	As 188.979†	-10.5	-11.1	-34.286 µg/L	-34.286 ppb	21:20:16
2	B 249.677†	780.0	518.8	-78.730 µg/L	-78.730 ppb	21:19:56
2	Ba 233.527†	269.1	309.6	7.5380 µg/L	7.5380 ppb	21:20:16
2	Be 313.107†	-4253.7	-845.4	-0.5216 µg/L	-0.5216 ppb	21:19:56
2	Cd 226.502†	422.3	593.7	-6.7140 µg/L	-6.7140 ppb	21:20:16
2	Co 228.616†	53.2	55.0	2.4766 µg/L	2.4766 ppb	21:20:16
2	Cr 267.716†	-89.6	-49.6	-1.0286 µg/L	-1.0286 ppb	21:20:16
2	Cu 324.752†	-1145.7	-4109.9	-0.6368 µg/L	-0.6368 ppb	21:19:56
2	Mn 257.610†	927.9	1306.9	9.8383 µg/L	9.8383 ppb	21:19:56
2	Mo 202.031†	-107.8	-113.3	-4.0775 µg/L	-4.0775 ppb	21:20:16
2	Ni 231.604†	141.2	-155.8	-5.3889 µg/L	-5.3889 ppb	21:20:16
2	P 214.914†	85.2	76.0	145.79 µg/L	145.79 ppb	21:20:16
2	Pb 220.353†	31.0	-61.3	5.8949 µg/L	5.8949 ppb	21:20:16



2	S 181.975 Axial†	38.7	24.6	102.13 µg/L	102.13 ppb	21:20:16
2	Sb 206.836†	47.0	28.7	-16.542 µg/L	-16.542 ppb	21:20:16
2	Se 196.026†	20.1	6.8	-44.081 µg/L	-44.081 ppb	21:20:16
2	SiO2†	1274.3	-105.0	-21.030 µg/L	-21.030 ppb	21:20:16
2	Si 251.611†	460.3	204.7	15.801 µg/L	15.801 ppb	21:20:16
2	Sn 189.927†	-76.9	-87.9	-2.0815 µg/L	-2.0815 ppb	21:20:16
2	Ti 334.940†	11870.4	12707.1	-2.3645 µg/L	-2.3645 ppb	21:19:56
2	Tl 190.801†	-46.1	-27.7	-16.388 µg/L	-16.388 ppb	21:20:16
2	U 409.014†	-49.4	-52.7	-60.971 µg/L	-60.971 ppb	21:19:56
2	V 292.402†	-2622.2	-2742.3	-4.6756 µg/L	-4.6756 ppb	21:19:56
2	Zn 213.857†	1556.5	1182.8	-9.1685 µg/L	-9.1685 ppb	21:20:16
3	Sc RADIAL	57166.4	57166.4	96.8 %		21:19:07
3	Al 396.153Radial†	665337.5	687194.8	513740 µg/L	513740 ppb	21:19:02
3	Ca 317.933Radial†	517835.0	534646.9	490410 µg/L	490410 ppb	21:19:02
3	Fe 238.204 Radial†	21673.8	22370.2	192030 µg/L	192030 ppb	21:19:07
3	K 766.490 Radial†	176.2	-16.4	-11.291 µg/L	-11.291 ppb	21:19:07
3	Mg 279.077 IEC†	49234.8	50839.6	494630 µg/L	494630 ppb	21:19:07
3	Na 589.592 Radial†	555.4	100.0	32.681 µg/L	32.681 ppb	21:19:07
3	Sr 421.552†	387.4	358.7	3.5283 µg/L	3.5283 ppb	21:19:07
3	Sc 361.383	1950951.0	1950951.0	92.919 %		21:20:22
3	Y 371.029	1342787.4	1342787.4	92.257 %		21:20:22
3	Ag 328.068†	-2511.8	-2240.1	-4.7858 µg/L	-4.7858 ppb	21:20:28
3	As 188.979†	-10.9	-11.5	-35.015 µg/L	-35.015 ppb	21:20:49
3	B 249.677†	758.6	490.9	-80.121 µg/L	-80.121 ppb	21:20:28
3	Ba 233.527†	269.1	308.0	7.4991 µg/L	7.4991 ppb	21:20:49
3	Be 313.107†	-4316.3	-886.4	-0.5454 µg/L	-0.5454 ppb	21:20:28
3	Cd 226.502†	437.0	606.9	-6.4355 µg/L	-6.4355 ppb	21:20:49
3	Co 228.616†	51.8	53.2	2.3986 µg/L	2.3986 ppb	21:20:49
3	Cr 267.716†	-94.8	-54.6	-1.1309 µg/L	-1.1309 ppb	21:20:49
3	Cu 324.752†	-1114.5	-4069.1	-0.3003 µg/L	-0.3003 ppb	21:20:28
3	Mn 257.610†	923.5	1296.5	9.8735 µg/L	9.8735 ppb	21:20:28
3	Mo 202.031†	-100.1	-104.4	-3.1665 µg/L	-3.1665 ppb	21:20:49
3	Ni 231.604†	153.4	-143.5	-4.7588 µg/L	-4.7588 ppb	21:20:49
3	P 214.914†	98.0	89.2	171.81 µg/L	171.81 ppb	21:20:49
3	Pb 220.353†	26.1	-66.7	4.5588 µg/L	4.5588 ppb	21:20:49
3	S 181.975 Axial†	32.5	17.7	73.342 µg/L	73.342 ppb	21:20:49
3	Sb 206.836†	50.2	31.9	-13.690 µg/L	-13.690 ppb	21:20:49
3	Se 196.026†	16.4	2.7	-48.480 µg/L	-48.480 ppb	21:20:49
3	SiO2†	1286.5	-99.8	-19.991 µg/L	-19.991 ppb	21:20:49
3	Si 251.611†	421.6	160.2	12.361 µg/L	12.361 ppb	21:20:49
3	Sn 189.927†	-53.7	-62.5	8.7246 µg/L	8.7246 ppb	21:20:49
3	Ti 334.940†	10959.8	11653.4	-4.7408 µg/L	-4.7408 ppb	21:20:28
3	Tl 190.801†	-49.9	-31.5	-21.446 µg/L	-21.446 ppb	21:20:49
3	U 409.014†	-70.3	-74.9	-62.961 µg/L	-62.961 ppb	21:20:28
3	V 292.402†	-2559.7	-2658.7	-3.7882 µg/L	-3.7882 ppb	21:20:28
3	Zn 213.857†	1572.6	1190.5	-9.0051 µg/L	-9.0051 ppb	21:20:49

## Mean Data: ICSCA

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1950114.7	92.879 %	0.4746			0.51%
Sc RADIAL	57020.1	96.6 %	0.30			0.32%
Y 371.029	1342376.4	92.229 %	0.4534			0.49%
Ag 328.068†	-2215.0	-4.6234 µg/L	0.18995	-4.6234 ppb	0.18995	4.11%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	687755.1	514160 µg/L	1104.7	514160 ppb	1104.7	0.21%
QC value within limits for Al 396.153Radial Recovery = 102.83%						
As 188.979†	-13.7	-39.053 µg/L	7.6348	-39.053 ppb	7.6348	19.55%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	516.4	-78.902 µg/L	1.1426	-78.902 ppb	1.1426	1.45%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	304.8	7.4204 µg/L	0.17114	7.4204 ppb	0.17114	2.31%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-841.7	-0.5188 µg/L	0.02819	-0.5188 ppb	0.02819	5.43%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	534842.0	490590 µg/L	918.3	490590 ppb	918.3	0.19%
QC value within limits for Ca 317.933Radial Recovery = 98.12%						
Cd 226.502†	591.9	-6.7733 µg/L	0.37107	-6.7733 ppb	0.37107	5.48%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	55.9	2.5228 µg/L	0.15258	2.5228 ppb	0.15258	6.05%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-46.7	-0.9686 µg/L	0.19914	-0.9686 ppb	0.19914	20.56%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-4086.3	-0.4611 µg/L	0.16874	-0.4611 ppb	0.16874	36.60%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	22330.9	191690 µg/L	293.9	191690 ppb	293.9	0.15%	
QC value within limits for Fe 238.204 Radial Recovery = 95.85%							
K 766.490 Radial†	-28.0	-19.269 µg/L	9.7882	-19.269 ppb	9.7882	50.80%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	50846.4	494690 µg/L	64.9	494690 ppb	64.9	0.01%	
QC value within limits for Mg 279.077 IEC Recovery = 98.94%							
Mn 257.610†	1308.0	9.8628 µg/L	0.02134	9.8628 ppb	0.02134	0.22%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-105.8	-3.3166 µg/L	0.69809	-3.3166 ppb	0.69809	21.05%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	116.5	38.072 µg/L	4.6692	38.072 ppb	4.6692	12.26%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-141.1	-4.6421 µg/L	0.81155	-4.6421 ppb	0.81155	17.48%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	79.0	151.96 µg/L	17.606	151.96 ppb	17.606	11.59%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-65.1	4.9932 µg/L	0.78104	4.9932 ppb	0.78104	15.64%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	22.6	93.582 µg/L	17.5980	93.582 ppb	17.5980	18.80%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	29.2	-16.207 µg/L	2.3667	-16.207 ppb	2.3667	14.60%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	4.4	-47.151 µg/L	2.6675	-47.151 ppb	2.6675	5.66%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	-106.1	-21.252 µg/L	1.3852	-21.252 ppb	1.3852	6.52%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	185.7	14.333 µg/L	1.7743	14.333 ppb	1.7743	12.38%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-75.2	3.3557 µg/L	5.40337	3.3557 ppb	5.40337	161.02%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	353.6	3.4782 µg/L	0.07176	3.4782 ppb	0.07176	2.06%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	12016.7	-3.9169 µg/L	1.34528	-3.9169 ppb	1.34528	34.35%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-25.3	-13.165 µg/L	10.2795	-13.165 ppb	10.2795	78.08%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-69.8	-62.498 µg/L	1.3566	-62.498 ppb	1.3566	2.17%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-2706.0	-4.2954 µg/L	0.45718	-4.2954 ppb	0.45718	10.64%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	1179.5	-9.2542 µg/L	0.30128	-9.2542 ppb	0.30128	3.26%	
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: 2/20/2010 21:20:58

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	56972.6	56972.6	96.5 %			21:21:37
1	Al 396.153Radial†	667700.7	691981.7	517310 µg/L		517310 ppb	21:21:32
1	Ca 317.933Radial†	516453.9	535035.1	490770 µg/L		490770 ppb	21:21:32
1	Fe 238.204 Radial†	21548.4	22316.4	191580 µg/L		191580 ppb	21:21:37
1	K 766.490 Radial†	7197.7	7261.0	4992.8 µg/L		4992.8 ppb	21:21:37
1	Mg 279.077 IEC†	49172.8	50948.3	495690 µg/L		495690 ppb	21:21:37
1	Na 589.592 Radial†	15775.0	15874.7	5189.9 µg/L		5189.9 ppb	21:21:37
1	Sr 421.552†	48706.0	50435.2	496.04 µg/L		496.04 ppb	21:21:37
1	Sc 361.383	1950890.0	1950890.0	92.916 %			21:22:11
1	Y 371.029	1344114.6	1344114.6	92.348 %			21:22:11
1	Ag 328.068†	28700.0	31351.3	249.04 µg/L		249.04 ppb	21:22:17
1	As 188.979†	248.2	267.4	465.90 µg/L		465.90 ppb	21:22:37
1	B 249.677†	12106.5	12704.0	420.50 µg/L		420.50 ppb	21:22:17
1	Ba 233.527†	18309.4	19723.7	484.19 µg/L		484.19 ppb	21:22:17
1	Be 313.107†	362856.0	394280.4	237.93 µg/L		237.93 ppb	21:22:11
1	Cd 226.502†	17002.7	18435.6	442.66 µg/L		442.66 ppb	21:22:17
1	Co 228.616†	8513.4	9159.9	423.51 µg/L		423.51 ppb	21:22:37
1	Cr 267.716†	21301.8	22973.3	468.81 µg/L		468.81 ppb	21:22:17
1	Cu 324.752†	72110.4	74738.7	522.41 µg/L		522.41 ppb	21:22:17
1	Mn 257.610†	135669.4	146316.0	471.39 µg/L		471.39 ppb	21:22:17
1	Mo 202.031†	4462.9	4806.5	488.87 µg/L		488.87 ppb	21:22:37
1	Ni 231.604†	7948.6	8246.0	418.73 µg/L		418.73 ppb	21:22:37
1	P 214.914†	1244.6	1323.2	2578.9 µg/L		2578.9 ppb	21:22:37
1	Pb 220.353†	1768.6	1808.7	466.25 µg/L		466.25 ppb	21:22:37
1	S 181.975 Axial†	619.0	648.9	2689.6 µg/L		2689.6 ppb	21:22:37
1	Sb 206.836†	562.9	583.7	492.74 µg/L		492.74 ppb	21:22:37
1	Se 196.026†	1589.8	1696.0	2269.0 µg/L		2269.0 ppb	21:22:37
1	SiO2†	50384.2	52741.3	10561 µg/L		10561 ppb	21:22:17
1	Si 251.611†	59987.1	64267.2	4960.4 µg/L		4960.4 ppb	21:22:17
1	Sn 189.927†	1013.7	1086.3	500.15 µg/L		500.15 ppb	21:22:37
1	Ti 334.940†	209590.3	225428.5	481.39 µg/L		481.39 ppb	21:22:17
1	Tl 190.801†	283.8	327.6	464.12 µg/L		464.12 ppb	21:22:37
1	U 409.014†	5253.6	5654.9	423.32 µg/L		423.32 ppb	21:22:17
1	V 292.402†	44010.3	47461.8	497.33 µg/L		497.33 ppb	21:22:17
1	Zn 213.857†	19739.7	20742.8	449.69 µg/L		449.69 ppb	21:22:17
2	Sc RADIAL	56486.9	56486.9	95.7 %			21:21:49
2	Al 396.153Radial†	665996.8	696150.6	520430 µg/L		520430 ppb	21:21:43
2	Ca 317.933Radial†	513896.2	536963.7	492540 µg/L		492540 ppb	21:21:43
2	Fe 238.204 Radial†	21339.9	22290.4	191350 µg/L		191350 ppb	21:21:49
2	K 766.490 Radial†	7195.3	7322.5	5035.1 µg/L		5035.1 ppb	21:21:49
2	Mg 279.077 IEC†	48865.9	51065.6	496840 µg/L		496840 ppb	21:21:49
2	Na 589.592 Radial†	15574.5	15805.8	5167.4 µg/L		5167.4 ppb	21:21:49
2	Sr 421.552†	48292.5	50437.0	496.06 µg/L		496.06 ppb	21:21:49
2	Sc 361.383	1928851.3	1928851.3	91.866 %			21:22:43
2	Y 371.029	1328576.4	1328576.4	91.281 %			21:22:43
2	Ag 328.068†	28877.8	31897.8	253.16 µg/L		253.16 ppb	21:22:50
2	As 188.979†	236.8	258.0	449.02 µg/L		449.02 ppb	21:23:10
2	B 249.677†	12225.8	12982.8	432.03 µg/L		432.03 ppb	21:22:50
2	Ba 233.527†	18385.3	20031.5	491.75 µg/L		491.75 ppb	21:22:50
2	Be 313.107†	358164.9	393636.0	237.53 µg/L		237.53 ppb	21:22:43
2	Cd 226.502†	17066.4	18714.0	449.70 µg/L		449.70 ppb	21:22:50
2	Co 228.616†	8445.4	9190.6	424.91 µg/L		424.91 ppb	21:23:10
2	Cr 267.716†	21470.0	23418.3	477.89 µg/L		477.89 ppb	21:22:50
2	Cu 324.752†	72376.8	75915.4	530.18 µg/L		530.18 ppb	21:22:50
2	Mn 257.610†	136127.7	148483.1	478.21 µg/L		478.21 ppb	21:22:50
2	Mo 202.031†	4432.6	4828.4	491.06 µg/L		491.06 ppb	21:23:10
2	Ni 231.604†	7911.3	8303.2	421.62 µg/L		421.62 ppb	21:23:10
2	P 214.914†	1258.9	1354.2	2640.7 µg/L		2640.7 ppb	21:23:10
2	Pb 220.353†	1783.3	1846.5	475.72 µg/L		475.72 ppb	21:23:10

2	S 181.975 Axial†	612.4	649.3	2691.5 µg/L	2691.5 ppb	21:23:10
2	Sb 206.836†	545.5	571.7	481.62 µg/L	481.62 ppb	21:23:10
2	Se 196.026†	1567.3	1691.1	2260.1 µg/L	2260.1 ppb	21:23:10
2	SiO2†	50752.3	53761.5	10766 µg/L	10766 ppb	21:22:50
2	Si 251.611†	60354.6	65404.9	5048.2 µg/L	5048.2 ppb	21:22:50
2	Sn 189.927†	1012.7	1097.7	505.18 µg/L	505.18 ppb	21:23:10
2	Ti 334.940†	211110.8	229661.0	490.95 µg/L	490.95 ppb	21:22:50
2	Tl 190.801†	268.4	314.3	446.50 µg/L	446.50 ppb	21:23:10
2	U 409.014†	5240.2	5704.9	427.49 µg/L	427.49 ppb	21:22:50
2	V 292.402†	44336.8	48358.4	506.22 µg/L	506.22 ppb	21:22:50
2	Zn 213.857†	19816.0	21068.6	457.30 µg/L	457.30 ppb	21:22:50
3	Sc RADIAL	56093.4	56093.4	95.0 %		21:22:00
3	Al 396.153Radial†	664211.5	699155.3	522670 µg/L	522670 ppb	21:21:54
3	Ca 317.933Radial†	511912.6	538644.4	494080 µg/L	494080 ppb	21:21:54
3	Fe 238.204 Radial†	21142.1	22238.7	190910 µg/L	190910 ppb	21:22:00
3	K 766.490 Radial†	7140.4	7317.6	5031.7 µg/L	5031.7 ppb	21:22:00
3	Mg 279.077 IEC†	48557.1	51098.9	497160 µg/L	497160 ppb	21:22:00
3	Na 589.592 Radial†	15560.1	15904.8	5199.7 µg/L	5199.7 ppb	21:22:00
3	Sr 421.552†	47868.4	50344.8	495.15 µg/L	495.15 ppb	21:22:00
3	Sc 361.383	1926645.3	1926645.3	91.761 %		21:23:16
3	Y 371.029	1326726.5	1326726.5	91.153 %		21:23:16
3	Ag 328.068†	28729.6	31772.3	252.18 µg/L	252.18 ppb	21:23:22
3	As 188.979†	238.4	260.1	452.54 µg/L	452.54 ppb	21:23:43
3	B 249.677†	12156.5	12922.5	429.79 µg/L	429.79 ppb	21:23:22
3	Ba 233.527†	18270.9	19929.7	489.25 µg/L	489.25 ppb	21:23:22
3	Be 313.107†	358197.5	394117.9	237.83 µg/L	237.83 ppb	21:23:16
3	Cd 226.502†	16931.2	18588.0	446.58 µg/L	446.58 ppb	21:23:22
3	Co 228.616†	8424.2	9178.0	424.34 µg/L	424.34 ppb	21:23:43
3	Cr 267.716†	21333.0	23295.8	475.39 µg/L	475.39 ppb	21:23:22
3	Cu 324.752†	72177.6	75788.5	529.28 µg/L	529.28 ppb	21:23:22
3	Mn 257.610†	135165.3	147604.0	475.34 µg/L	475.34 ppb	21:23:22
3	Mo 202.031†	4456.1	4859.5	494.16 µg/L	494.16 ppb	21:23:43
3	Ni 231.604†	7868.4	8266.2	419.75 µg/L	419.75 ppb	21:23:43
3	P 214.914†	1244.4	1339.9	2613.3 µg/L	2613.3 ppb	21:23:43
3	Pb 220.353†	1772.3	1836.6	473.45 µg/L	473.45 ppb	21:23:43
3	S 181.975 Axial†	608.5	645.8	2677.1 µg/L	2677.1 ppb	21:23:43
3	Sb 206.836†	554.9	582.6	491.50 µg/L	491.50 ppb	21:23:43
3	Se 196.026†	1574.7	1701.1	2271.9 µg/L	2271.9 ppb	21:23:43
3	SiO2†	50447.2	53492.3	10712 µg/L	10712 ppb	21:23:22
3	Si 251.611†	60006.1	65100.4	5024.7 µg/L	5024.7 ppb	21:23:22
3	Sn 189.927†	988.8	1072.9	494.66 µg/L	494.66 ppb	21:23:43
3	Ti 334.940†	209795.6	228490.8	488.29 µg/L	488.29 ppb	21:23:22
3	Tl 190.801†	270.5	317.0	450.03 µg/L	450.03 ppb	21:23:43
3	U 409.014†	5253.4	5725.9	429.24 µg/L	429.24 ppb	21:23:22
3	V 292.402†	44112.1	48168.7	504.31 µg/L	504.31 ppb	21:23:22
3	Zn 213.857†	19695.1	20961.5	454.79 µg/L	454.79 ppb	21:23:22

## Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1935462.2	92.181 %	0.6385			0.69%
Sc RADIAL	56517.6	95.7 %	0.75			0.78%
Y 371.029	1333139.1	91.594 %	0.6561			0.72%
Ag 328.068†	31673.8	251.46 µg/L	2.154	251.46 ppb	2.154	0.86%
QC value within limits for Ag 328.068 Recovery = 100.58%						
Al 396.153Radial†	695762.5	520140 µg/L	2693.2	520140 ppb	2693.2	0.52%
QC value within limits for Al 396.153Radial Recovery = 104.03%						
As 188.979†	261.8	455.82 µg/L	8.904	455.82 ppb	8.904	1.95%
QC value within limits for As 188.979 Recovery = 91.16%						
B 249.677†	12869.8	427.44 µg/L	6.116	427.44 ppb	6.116	1.43%
QC value within limits for B 249.677 Recovery = 85.49%						
Ba 233.527†	19895.0	488.39 µg/L	3.851	488.39 ppb	3.851	0.79%
QC value within limits for Ba 233.527 Recovery = 97.68%						
Be 313.107†	394011.4	237.76 µg/L	0.204	237.76 ppb	0.204	0.09%
QC value within limits for Be 313.107 Recovery = 95.11%						
Ca 317.933Radial†	536881.0	492460 µg/L	1656.6	492460 ppb	1656.6	0.34%
QC value within limits for Ca 317.933Radial Recovery = 98.49%						
Cd 226.502†	18579.2	446.31 µg/L	3.524	446.31 ppb	3.524	0.79%
QC value within limits for Cd 226.502 Recovery = 89.26%						
Co 228.616†	9176.2	424.25 µg/L	0.705	424.25 ppb	0.705	0.17%

QC value within limits for Co 228.616 Recovery = 84.85%							
Cr 267.716†	23229.2	474.03 µg/L	4.691	474.03 ppb	4.691	0.99%	
QC value within limits for Cr 267.716 Recovery = 94.81%							
Cu 324.752†	75480.9	527.29 µg/L	4.252	527.29 ppb	4.252	0.81%	
QC value within limits for Cu 324.752 Recovery = 105.46%							
Fe 238.204 Radial†	22281.8	191280 µg/L	339.4	191280 ppb	339.4	0.18%	
QC value within limits for Fe 238.204 Radial Recovery = 95.64%							
K 766.490 Radial†	7300.4	5019.9 µg/L	23.52	5019.9 ppb	23.52	0.47%	
QC value within limits for K 766.490 Radial Recovery = 100.40%							
Mg 279.077 IEC†	51037.6	496560 µg/L	770.4	496560 ppb	770.4	0.16%	
QC value within limits for Mg 279.077 IEC Recovery = 99.31%							
Mn 257.610†	147467.7	474.98 µg/L	3.426	474.98 ppb	3.426	0.72%	
QC value within limits for Mn 257.610 Recovery = 95.00%							
Mo 202.031†	4831.5	491.36 µg/L	2.654	491.36 ppb	2.654	0.54%	
QC value within limits for Mo 202.031 Recovery = 98.27%							
Na 589.592 Radial†	15861.8	5185.7 µg/L	16.60	5185.7 ppb	16.60	0.32%	
QC value within limits for Na 589.592 Radial Recovery = 103.71%							
Ni 231.604†	8271.8	420.03 µg/L	1.463	420.03 ppb	1.463	0.35%	
QC value within limits for Ni 231.604 Recovery = 84.01%							
P 214.914†	1339.1	2611.0 µg/L	30.99	2611.0 ppb	30.99	1.19%	
QC value within limits for P 214.914 Recovery = 104.44%							
Pb 220.353†	1830.6	471.81 µg/L	4.941	471.81 ppb	4.941	1.05%	
QC value within limits for Pb 220.353 Recovery = 94.36%							
S 181.975 Axial†	648.0	2686.1 µg/L	7.86	2686.1 ppb	7.86	0.29%	
QC value within limits for S 181.975 Axial Recovery = 107.44%							
Sb 206.836†	579.3	488.62 µg/L	6.092	488.62 ppb	6.092	1.25%	
QC value within limits for Sb 206.836 Recovery = 97.72%							
Se 196.026†	1696.1	2267.0 µg/L	6.15	2267.0 ppb	6.15	0.27%	
QC value within limits for Se 196.026 Recovery = 90.68%							
SiO2†	53331.7	10680 µg/L	105.9	10680 ppb	105.9	0.99%	
QC value within limits for SiO2 Recovery = 99.86%							
Si 251.611†	64924.2	5011.1 µg/L	45.46	5011.1 ppb	45.46	0.91%	
QC value within limits for Si 251.611 Recovery = 100.22%							
Sn 189.927†	1085.6	500.00 µg/L	5.263	500.00 ppb	5.263	1.05%	
QC value within limits for Sn 189.927 Recovery = 100.00%							
Sr 421.552†	50405.7	495.75 µg/L	0.519	495.75 ppb	0.519	0.10%	
QC value within limits for Sr 421.552 Recovery = 99.15%							
Ti 334.940†	227860.1	486.88 µg/L	4.936	486.88 ppb	4.936	1.01%	
QC value within limits for Ti 334.940 Recovery = 97.38%							
Tl 190.801†	319.7	453.55 µg/L	9.321	453.55 ppb	9.321	2.06%	
QC value within limits for Tl 190.801 Recovery = 90.71%							
U 409.014†	5695.2	426.69 µg/L	3.040	426.69 ppb	3.040	0.71%	
QC value within limits for U 409.014 Recovery = 85.34%							
V 292.402†	47996.3	502.62 µg/L	4.677	502.62 ppb	4.677	0.93%	
QC value within limits for V 292.402 Recovery = 100.52%							
Zn 213.857†	20924.3	453.93 µg/L	3.877	453.93 ppb	3.877	0.85%	
QC value within limits for Zn 213.857 Recovery = 90.79%							
All analyte(s) passed QC.							

Sequence No.: 11

Sample ID: LR1

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 105

Date Collected: 2/20/2010 21:23:52

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	56319.3	56319.3	95.4 %		21:24:32
1	Al 396.153Radial†	661176.1	693168.0	518210 µg/L	518210 ppb	21:24:27
1	Ca 317.933Radial†	511430.3	535976.8	491630 µg/L	491630 ppb	21:24:27
1	Fe 238.204 Radial†	51860.2	54353.5	466580 µg/L	466580 ppb	21:24:32
1	K 766.490 Radial†	33.2	-163.6	-112.50 µg/L	-112.50 ppb	21:24:32
1	Mg 279.077 IEC†	48662.4	51004.2	495930 µg/L	495930 ppb	21:24:32
1	Na 589.592 Radial†	1456053.1	1526013.2	498900 µg/L	498900 ppb	21:24:27
1	Sr 421.552†	539.0	523.7	5.1507 µg/L	5.1507 ppb	21:24:32
1	Sc 361.383	1911423.8	1911423.8	91.036 %		21:25:07
1	Y 371.029	1306810.1	1306810.1	89.785 %		21:25:07
1	Ag 328.068†	-4548.6	-4533.3	-4.9291 µg/L	-4.9291 ppb	21:25:12
1	As 188.979†	-17.6	-19.1	-32.763 µg/L	-32.763 ppb	21:25:33
1	B 249.677†	1331.4	1137.0	-196.95 µg/L	-196.95 ppb	21:25:12
1	Ba 233.527†	550.5	623.1	15.131 µg/L	15.131 ppb	21:25:33
1	Be 313.107†	-11562.8	-8942.5	-5.4150 µg/L	-5.4150 ppb	21:25:12
1	Cd 226.502†	1148.5	1398.2	-17.553 µg/L	-17.553 ppb	21:25:12
1	Co 228.616†	198.0	214.9	9.8562 µg/L	9.8562 ppb	21:25:33
1	Cr 267.716†	1.5	49.0	0.9514 µg/L	0.9514 ppb	21:25:33
1	Cu 324.752†	-8413.1	-12111.2	-15.485 µg/L	-15.485 ppb	21:25:12
1	Mn 257.610†	-5482.5	-5719.8	23.991 µg/L	23.991 ppb	21:25:07
1	Mo 202.031†	-187.8	-203.0	-2.6104 µg/L	-2.6104 ppb	21:25:33
1	Ni 231.604†	63.7	-238.7	-6.0095 µg/L	-6.0095 ppb	21:25:33
1	P 214.914†	259.3	268.6	312.54 µg/L	312.54 ppb	21:25:33
1	Pb 220.353†	137.1	55.8	10.569 µg/L	10.569 ppb	21:25:33
1	S 181.975 Axial†	31.6	17.4	72.183 µg/L	72.183 ppb	21:25:33
1	Sb 206.836†	36.0	17.4	-27.203 µg/L	-27.203 ppb	21:25:33
1	Se 196.026†	-135.6	-163.9	472.01 µg/L	472.01 ppb	21:25:33
1	SiO2†	1118.5	-255.7	-51.211 µg/L	-51.211 ppb	21:25:33
1	Si 251.611†	-273.7	-594.2	-45.863 µg/L	-45.863 ppb	21:25:33
1	Sn 189.927†	-53.7	-63.8	-20.924 µg/L	-20.924 ppb	21:25:33
1	Ti 334.940†	15108.6	16454.6	6.0720 µg/L	6.0720 ppb	21:25:12
1	Tl 190.801†	-47.7	-30.2	35.804 µg/L	35.804 ppb	21:25:33
1	U 409.014†	144507.5	158737.3	13376 µg/L	13376 ppb	21:25:12
1	V 292.402†	-7150.1	-7758.1	-7.9850 µg/L	-7.9850 ppb	21:25:12
1	Zn 213.857†	2868.1	2648.5	12.380 µg/L	12.380 ppb	21:25:33
2	Sc RADIAL	56307.2	56307.2	95.4 %		21:24:44
2	Al 396.153Radial†	660050.3	692136.2	517440 µg/L	517440 ppb	21:24:39
2	Ca 317.933Radial†	509132.0	533681.9	489530 µg/L	489530 ppb	21:24:39
2	Fe 238.204 Radial†	51640.2	54134.4	464700 µg/L	464700 ppb	21:24:44
2	K 766.490 Radial†	93.5	-100.3	-68.978 µg/L	-68.978 ppb	21:24:44
2	Mg 279.077 IEC†	48394.2	50734.0	493310 µg/L	493310 ppb	21:24:44
2	Na 589.592 Radial†	1453903.8	1524087.1	498270 µg/L	498270 ppb	21:24:39
2	Sr 421.552†	530.3	514.7	5.0620 µg/L	5.0620 ppb	21:24:44
2	Sc 361.383	1899083.9	1899083.9	90.448 %		21:25:39
2	Y 371.029	1299144.4	1299144.4	89.258 %		21:25:39
2	Ag 328.068†	-4569.6	-4589.1	-5.4734 µg/L	-5.4734 ppb	21:25:45
2	As 188.979†	-29.7	-32.6	-57.152 µg/L	-57.152 ppb	21:26:06
2	B 249.677†	1359.0	1177.1	-194.33 µg/L	-194.33 ppb	21:25:45
2	Ba 233.527†	547.5	623.6	15.141 µg/L	15.141 ppb	21:26:06
2	Be 313.107†	-11635.7	-9105.6	-5.5135 µg/L	-5.5135 ppb	21:25:45
2	Cd 226.502†	1224.3	1490.1	-15.026 µg/L	-15.026 ppb	21:25:45
2	Co 228.616†	198.8	217.3	9.9633 µg/L	9.9633 ppb	21:26:06
2	Cr 267.716†	-2.4	44.7	0.8631 µg/L	0.8631 ppb	21:26:06
2	Cu 324.752†	-8395.8	-12152.1	-16.018 µg/L	-16.018 ppb	21:25:45
2	Mn 257.610†	-5392.3	-5659.2	24.039 µg/L	24.039 ppb	21:25:39
2	Mo 202.031†	-191.0	-207.9	-3.1681 µg/L	-3.1681 ppb	21:26:06
2	Ni 231.604†	67.1	-234.4	-5.8181 µg/L	-5.8181 ppb	21:26:06
2	P 214.914†	286.9	301.0	378.33 µg/L	378.33 ppb	21:26:06
2	Pb 220.353†	141.4	61.5	11.934 µg/L	11.934 ppb	21:26:06

2	S 181.975 Axial†	26.3	11.8	48.887 µg/L	48.887 ppb	21:26:06
2	Sb 206.836†	32.3	13.6	-30.568 µg/L	-30.568 ppb	21:26:06
2	Se 196.026†	-161.8	-193.9	428.79 µg/L	428.79 ppb	21:26:06
2	SiO2†	1124.4	-241.3	-48.318 µg/L	-48.318 ppb	21:26:06
2	Si 251.611†	-285.4	-609.1	-47.011 µg/L	-47.011 ppb	21:26:06
2	Sn 189.927†	-49.2	-59.2	-19.057 µg/L	-19.057 ppb	21:26:06
2	Ti 334.940†	15009.5	16452.9	6.2422 µg/L	6.2422 ppb	21:25:45
2	Tl 190.801†	-46.2	-28.8	37.585 µg/L	37.585 ppb	21:26:06
2	U 409.014†	144309.1	159549.3	13445 µg/L	13445 ppb	21:25:45
2	V 292.402†	-7245.7	-7914.8	-9.6891 µg/L	-9.6891 ppb	21:25:45
2	Zn 213.857†	2873.8	2675.3	13.249 µg/L	13.249 ppb	21:26:06
3	Sc RADIAL	56293.2	56293.2	95.3 %		21:24:56
3	Al 396.153Radial†	663696.2	696133.0	520420 µg/L	520420 ppb	21:24:50
3	Ca 317.933Radial†	512414.1	537257.6	492810 µg/L	492810 ppb	21:24:50
3	Fe 238.204 Radial†	51778.0	54292.5	466060 µg/L	466060 ppb	21:24:56
3	K 766.490 Radial†	127.5	-64.6	-44.448 µg/L	-44.448 ppb	21:24:56
3	Mg 279.077 IEC†	48568.4	50929.4	495210 µg/L	495210 ppb	21:24:56
3	Na 589.592 Radial†	1463081.6	1534093.7	501540 µg/L	501540 ppb	21:24:50
3	Sr 421.552†	546.3	531.6	5.2284 µg/L	5.2284 ppb	21:24:56
3	Sc 361.383	1897183.6	1897183.6	90.358 %		21:26:12
3	Y 371.029	1297152.7	1297152.7	89.122 %		21:26:12
3	Ag 328.068†	-4551.0	-4573.6	-5.2757 µg/L	-5.2757 ppb	21:26:18
3	As 188.979†	-29.1	-31.9	-56.001 µg/L	-56.001 ppb	21:26:39
3	B 249.677†	1366.1	1186.4	-194.65 µg/L	-194.65 ppb	21:26:18
3	Ba 233.527†	566.2	645.0	15.663 µg/L	15.663 ppb	21:26:39
3	Be 313.107†	-11542.1	-9014.9	-5.4586 µg/L	-5.4586 ppb	21:26:18
3	Cd 226.502†	1196.3	1460.6	-15.924 µg/L	-15.924 ppb	21:26:18
3	Co 228.616†	193.4	211.4	9.6922 µg/L	9.6922 ppb	21:26:39
3	Cr 267.716†	-23.2	21.8	0.3941 µg/L	0.3941 ppb	21:26:39
3	Cu 324.752†	-8442.9	-12213.6	-16.237 µg/L	-16.237 ppb	21:26:18
3	Mn 257.610†	-5234.6	-5490.6	24.680 µg/L	24.680 ppb	21:26:12
3	Mo 202.031†	-201.3	-219.4	-4.2764 µg/L	-4.2764 ppb	21:26:39
3	Ni 231.604†	61.8	-240.2	-6.0921 µg/L	-6.0921 ppb	21:26:39
3	P 214.914†	283.4	297.4	371.05 µg/L	371.05 ppb	21:26:39
3	Pb 220.353†	126.8	45.5	8.0375 µg/L	8.0375 ppb	21:26:39
3	S 181.975 Axial†	36.6	23.3	96.417 µg/L	96.417 ppb	21:26:39
3	Sb 206.836†	40.4	22.6	-22.620 µg/L	-22.620 ppb	21:26:39
3	Se 196.026†	-154.3	-185.8	441.00 µg/L	441.00 ppb	21:26:39
3	SiO2†	1148.6	-213.2	-42.702 µg/L	-42.702 ppb	21:26:39
3	Si 251.611†	-280.9	-604.4	-46.648 µg/L	-46.648 ppb	21:26:39
3	Sn 189.927†	-44.9	-54.4	-16.967 µg/L	-16.967 ppb	21:26:39
3	Ti 334.940†	14850.0	16293.0	5.7807 µg/L	5.7807 ppb	21:26:18
3	Tl 190.801†	-56.3	-40.1	22.746 µg/L	22.746 ppb	21:26:39
3	U 409.014†	144838.3	160294.9	13508 µg/L	13508 ppb	21:26:18
3	V 292.402†	-7286.7	-7968.3	-10.002 µg/L	-10.002 ppb	21:26:18
3	Zn 213.857†	2875.2	2680.1	13.192 µg/L	13.192 ppb	21:26:39

## Mean Data: LRI

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1902563.7	90.614 %	0.3682			0.41%
Sc RADIAL	56306.6	95.4 %	0.02			0.02%
Y 371.029	1301035.8	89.388 %	0.3503			0.39%
Ag 328.068†	-4565.3	-5.2261 µg/L	0.27555	-5.2261 ppb	0.27555	5.27%
Al 396.153Radial†	693812.4	518690 µg/L	1551.2	518690 ppb	1551.2	0.30%
QC value within limits for Al 396.153Radial Recovery = 103.74%						
As 188.979†	-27.9	-48.639 µg/L	13.7607	-48.639 ppb	13.7607	28.29%
B 249.677†	1166.8	-195.31 µg/L	1.428	-195.31 ppb	1.428	0.73%
Ba 233.527†	630.6	15.312 µg/L	0.3045	15.312 ppb	0.3045	1.99%
Be 313.107†	-9021.0	-5.4624 µg/L	0.04935	-5.4624 ppb	0.04935	0.90%
Ca 317.933Radial†	535638.8	491320 µg/L	1661.8	491320 ppb	1661.8	0.34%
QC value within limits for Ca 317.933Radial Recovery = 98.26%						
Cd 226.502†	1449.6	-16.168 µg/L	1.2808	-16.168 ppb	1.2808	7.92%
Co 228.616†	214.5	9.8373 µg/L	0.13654	9.8373 ppb	0.13654	1.39%
Cr 267.716†	38.5	0.7362 µg/L	0.29954	0.7362 ppb	0.29954	40.69%
Cu 324.752†	-12159.0	-15.913 µg/L	0.3867	-15.913 ppb	0.3867	2.43%
Fe 238.204 Radial†	54260.1	465780 µg/L	970.6	465780 ppb	970.6	0.21%
QC value within limits for Fe 238.204 Radial Recovery = 93.16%						
K 766.490 Radial†	-109.5	-75.310 µg/L	34.4673	-75.310 ppb	34.4673	45.77%
Mg 279.077 IEC†	50889.2	494820 µg/L	1356.9	494820 ppb	1356.9	0.27%

QC value within limits for Mg 279.077 IEC Recovery = 98.96%							
Mn 257.610†	-5623.2	24.237 µg/L	0.3846	24.237 ppb	0.3846	1.59%	
Mo 202.031†	-210.1	-3.3516 µg/L	0.84803	-3.3516 ppb	0.84803	25.30%	
Na 589.592 Radial†	1528064.7	499570 µg/L	1735.8	499570 ppb	1735.8	0.35%	
QC value within limits for Na 589.592 Radial Recovery = 99.91%							
Ni 231.604†	-237.8	-5.9732 µg/L	0.14058	-5.9732 ppb	0.14058	2.35%	
P 214.914†	289.0	353.97 µg/L	36.063	353.97 ppb	36.063	10.19%	
Pb 220.353†	54.3	10.180 µg/L	1.9773	10.180 ppb	1.9773	19.42%	
S 181.975 Axial†	17.5	72.496 µg/L	23.7669	72.496 ppb	23.7669	32.78%	
Sb 206.836†	17.9	-26.797 µg/L	3.9894	-26.797 ppb	3.9894	14.89%	
Se 196.026†	-181.2	447.27 µg/L	22.280	447.27 ppb	22.280	4.98%	
SiO2†	-236.8	-47.410 µg/L	4.3267	-47.410 ppb	4.3267	9.13%	
Si 251.611†	-602.6	-46.507 µg/L	0.5872	-46.507 ppb	0.5872	1.26%	
Sn 189.927†	-59.1	-18.983 µg/L	1.9794	-18.983 ppb	1.9794	10.43%	
Sr 421.552†	523.3	5.1470 µg/L	0.08328	5.1470 ppb	0.08328	1.62%	
Ti 334.940†	16400.2	6.0316 µg/L	0.23335	6.0316 ppb	0.23335	3.87%	
Tl 190.801†	-33.0	32.045 µg/L	8.1022	32.045 ppb	8.1022	25.28%	
U 409.014†	159527.2	13443 µg/L	66.1	13443 ppb	66.1	0.49%	
QC value less than the lower limit for U 409.014 Recovery = 89.62%							
V 292.402†	-7880.4	-9.2255 µg/L	1.08567	-9.2255 ppb	1.08567	11.77%	
Zn 213.857†	2668.0	12.941 µg/L	0.4861	12.941 ppb	0.4861	3.76%	
QC Failed. Continue with analysis.							



Sequence No.: 12  
 Sample ID: LR2  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 108  
 Date Collected: 2/20/2010 21:26:48  
 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	57570.1	57570.1	97.5 %		21:27:31
1	Al 396.153Radial†	354.6	372.3	71.948 µg/L	71.948 ppb	21:27:31
1	Ca 317.933Radial†	323.0	138.3	126.90 µg/L	126.90 ppb	21:27:51
1	Fe 238.204 Radial†	20.9	6.1	254.03 µg/L	254.03 ppb	21:27:51
1	K 766.490 Radial†	426369.9	437085.3	300550 µg/L	300550 ppb	21:27:25
1	Mg 279.077 IEC†	3.4	-8.6	85.087 µg/L	85.087 ppb	21:27:51
1	Na 589.592 Radial†	1212.7	770.0	251.74 µg/L	251.74 ppb	21:27:31
1	Sr 421.552†	975982.4	1000923.2	9844.3 µg/L	9844.3 ppb	21:27:25
1	Sc 361.383	2029765.1	2029765.1	96.672 %		21:29:22
1	Y 371.029	1394099.3	1394099.3	95.782 %		21:29:22
1	Ag 328.068†	-7470.5	-7264.5	12.428 µg/L	12.428 ppb	21:29:28
1	As 188.979†	5223.9	5404.0	9707.6 µg/L	9707.6 ppb	21:29:28
1	B 249.677†	116739.4	120432.3	4965.6 µg/L	4965.6 ppb	21:29:22
1	Ba 233.527†	575109.5	594924.2	14597 µg/L	14597 ppb	21:29:22
1	Be 313.107†	4646470.7	4810169.2	2901.2 µg/L	2901.2 ppb	21:29:12
1	Cd 226.502†	368833.4	381665.9	9613.5 µg/L	9613.5 ppb	21:29:22
1	Co 228.616†	198549.2	205381.1	9498.2 µg/L	9498.2 ppb	21:29:22
1	Cr 267.716†	1152796.9	1192525.5	24327 µg/L	24327 ppb	21:29:22
1	Cu 324.752†	2973051.4	3072519.3	20382 µg/L	20382 ppb	21:29:22
1	Mn 257.610†	2913350.0	3013935.2	9593.8 µg/L	9593.8 ppb	21:29:22
1	Mo 202.031†	96941.9	100282.1	10048 µg/L	10048 ppb	21:29:22
1	Ni 231.604†	185082.7	191144.9	9649.0 µg/L	9649.0 ppb	21:29:22
1	P 214.914†	7533.3	7776.4	13467 µg/L	13467 ppb	21:29:28
1	Pb 220.353†	99093.8	102410.0	25193 µg/L	25193 ppb	21:29:22
1	S 181.975 Axial†	12552.0	12966.8	53750 µg/L	53750 ppb	21:29:28
1	Sb 206.836†	11176.0	11538.6	10423 µg/L	10423 ppb	21:29:28
1	Se 196.026†	6976.8	7202.0	9866.5 µg/L	9866.5 ppb	21:29:28
1	SiO2†	482128.7	497240.0	99573 µg/L	99573 ppb	21:29:22
1	Si 251.611†	581728.1	601458.7	46423 µg/L	46423 ppb	21:29:22
1	Sn 189.927†	24049.3	24872.4	10636 µg/L	10636 ppb	21:29:28
1	Ti 334.940†	4256383.8	4402754.3	10014 µg/L	10014 ppb	21:29:12
1	Tl 190.801†	6983.3	7245.9	9779.9 µg/L	9779.9 ppb	21:29:28
1	U 409.014†	901.5	933.3	79.184 µg/L	79.184 ppb	21:29:22
1	V 292.402†	986603.2	1020659.8	10230 µg/L	10230 ppb	21:29:22
1	Zn 213.857†	597835.2	617911.8	14508 µg/L	14508 ppb	21:29:22
2	Sc RADIAL	57078.6	57078.6	96.7 %		21:28:03
2	Al 396.153Radial†	352.3	373.1	76.000 µg/L	76.000 ppb	21:28:03
2	Ca 317.933Radial†	312.2	129.9	119.19 µg/L	119.19 ppb	21:28:23
2	Fe 238.204 Radial†	17.3	2.5	220.00 µg/L	220.00 ppb	21:28:23
2	K 766.490 Radial†	423893.6	438289.0	301380 µg/L	301380 ppb	21:27:57
2	Mg 279.077 IEC†	2.7	-9.3	75.162 µg/L	75.162 ppb	21:28:23
2	Na 589.592 Radial†	1105.5	669.8	218.98 µg/L	218.98 ppb	21:28:03
2	Sr 421.552†	969342.4	1002673.6	9861.5 µg/L	9861.5 ppb	21:27:57
2	Sc 361.383	2028163.4	2028163.4	96.596 %		21:29:47
2	Y 371.029	1393408.8	1393408.8	95.735 %		21:29:47
2	Ag 328.068†	-7099.6	-6886.6	14.057 µg/L	14.057 ppb	21:29:53
2	As 188.979†	5031.0	5208.6	9356.2 µg/L	9356.2 ppb	21:29:53
2	B 249.677†	115607.6	119355.9	4920.7 µg/L	4920.7 ppb	21:29:47
2	Ba 233.527†	566441.9	586420.9	14388 µg/L	14388 ppb	21:29:47
2	Be 313.107†	4612573.7	4778873.4	2882.4 µg/L	2882.4 ppb	21:29:37
2	Cd 226.502†	363199.7	376134.9	9474.2 µg/L	9474.2 ppb	21:29:47
2	Co 228.616†	194824.0	201686.7	9327.1 µg/L	9327.1 ppb	21:29:47
2	Cr 267.716†	1125042.3	1164734.7	23760 µg/L	23760 ppb	21:29:47
2	Cu 324.752†	2916624.0	3016532.2	20010 µg/L	20010 ppb	21:29:47
2	Mn 257.610†	2861035.9	2962157.5	9429.0 µg/L	9429.0 ppb	21:29:47
2	Mo 202.031†	95232.3	98591.5	9878.5 µg/L	9878.5 ppb	21:29:47
2	Ni 231.604†	181755.8	187852.0	9482.8 µg/L	9482.8 ppb	21:29:47
2	P 214.914†	7167.0	7403.3	12755 µg/L	12755 ppb	21:29:53
2	Pb 220.353†	97865.0	101218.9	24900 µg/L	24900 ppb	21:29:47

2	S 181.975 Axial†	12058.1	12465.7	51673 µg/L	51673 ppb	21:29:53
2	Sb 206.836†	10663.3	11016.9	9950.7 µg/L	9950.7 ppb	21:29:53
2	Se 196.026†	6714.4	6936.0	9502.0 µg/L	9502.0 ppb	21:29:53
2	SiO2†	477940.5	493298.1	98783 µg/L	98783 ppb	21:29:47
2	Si 251.611†	576641.4	596667.9	46053 µg/L	46053 ppb	21:29:47
2	Sn 189.927†	22523.4	23312.4	9969.1 µg/L	9969.1 ppb	21:29:53
2	Ti 334.940†	4224180.4	4372893.1	9945.7 µg/L	9945.7 ppb	21:29:37
2	Tl 190.801†	6829.2	7092.1	9573.7 µg/L	9573.7 ppb	21:29:53
2	U 409.014†	845.2	875.8	74.310 µg/L	74.310 ppb	21:29:47
2	V 292.402†	968239.1	1002454.5	10047 µg/L	10047 ppb	21:29:47
2	Zn 213.857†	587539.9	607742.1	14269 µg/L	14269 ppb	21:29:47
3	Sc RADIAL	57562.2	57562.2	97.5 %		21:28:35
3	Al 396.153Radial†	336.7	354.1	87.622 µg/L	87.622 ppb	21:28:35
3	Ca 317.933Radial†	297.4	112.1	102.83 µg/L	102.83 ppb	21:28:55
3	Fe 238.204 Radial†	19.3	4.4	210.74 µg/L	210.74 ppb	21:28:55
3	K 766.490 Radial†	428234.2	439057.3	301900 µg/L	301900 ppb	21:28:29
3	Mg 279.077 IEC†	-0.2	-12.3	25.060 µg/L	25.060 ppb	21:28:55
3	Na 589.592 Radial†	1027.6	580.3	189.73 µg/L	189.73 ppb	21:28:35
3	Sr 421.552†	980045.3	1005227.6	9886.6 µg/L	9886.6 ppb	21:28:29
3	Sc 361.383	2036165.2	2036165.2	96.977 %		21:30:12
3	Y 371.029	1397984.2	1397984.2	96.049 %		21:30:12
3	Ag 328.068†	-6111.9	-5839.3	13.309 µg/L	13.309 ppb	21:30:17
3	As 188.979†	4468.8	4608.3	8278.2 µg/L	8278.2 ppb	21:30:17
3	B 249.677†	105724.6	108694.6	4478.9 µg/L	4478.9 ppb	21:30:12
3	Ba 233.527†	502450.4	518130.2	12713 µg/L	12713 ppb	21:30:12
3	Be 313.107†	4258535.6	4395034.4	2650.9 µg/L	2650.9 ppb	21:30:02
3	Cd 226.502†	321177.4	331325.2	8345.4 µg/L	8345.4 ppb	21:30:12
3	Co 228.616†	170352.2	175659.6	8122.5 µg/L	8122.5 ppb	21:30:12
3	Cr 267.716†	960792.7	990788.3	20212 µg/L	20212 ppb	21:30:12
3	Cu 324.752†	2556467.1	2633283.3	17468 µg/L	17468 ppb	21:30:12
3	Mn 257.610†	2509934.7	2588472.7	8239.5 µg/L	8239.5 ppb	21:30:12
3	Mo 202.031†	83435.6	86039.6	8620.8 µg/L	8620.8 ppb	21:30:12
3	Ni 231.604†	158831.9	163474.1	8252.2 µg/L	8252.2 ppb	21:30:12
3	P 214.914†	6202.0	6379.0	10964 µg/L	10964 ppb	21:30:17
3	Pb 220.353†	88046.6	90696.3	22311 µg/L	22311 ppb	21:30:12
3	S 181.975 Axial†	10674.1	10989.5	45554 µg/L	45554 ppb	21:30:17
3	Sb 206.836†	9290.3	9557.8	8638.2 µg/L	8638.2 ppb	21:30:17
3	Se 196.026†	5942.3	6112.6	8374.1 µg/L	8374.1 ppb	21:30:17
3	SiO2†	432835.4	444842.6	89080 µg/L	89080 ppb	21:30:12
3	Si 251.611†	522227.7	538212.2	41541 µg/L	41541 ppb	21:30:12
3	Sn 189.927†	19231.9	19826.6	8478.5 µg/L	8478.5 ppb	21:30:17
3	Ti 334.940†	3898845.7	4020232.3	9143.6 µg/L	9143.6 ppb	21:30:02
3	Tl 190.801†	6234.2	6450.8	8708.6 µg/L	8708.6 ppb	21:30:17
3	U 409.014†	735.3	758.9	64.395 µg/L	64.395 ppb	21:30:12
3	V 292.402†	844854.5	871284.9	8731.9 µg/L	8731.9 ppb	21:30:12
3	Zn 213.857†	517334.3	532957.9	12514 µg/L	12514 ppb	21:30:12

## Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2031364.6	96.749 %	0.2017			0.21%
Sc RADIAL	57403.6	97.2 %	0.48			0.49%
Y 371.029	1395164.1	95.856 %	0.1695			0.18%
Ag 328.068†	-6663.5	13.265 µg/L	0.8152	13.265 ppb	0.8152	6.15%
Al 396.153Radial†	366.5	78.523 µg/L	8.1361	78.523 ppb	8.1361	10.36%
As 188.979†	5073.6	9114.0 µg/L	744.83	9114.0 ppb	744.83	8.17%
QC value within limits for As 188.979 Recovery = 91.14%						
B 249.677†	116160.9	4788.4 µg/L	269.00	4788.4 ppb	269.00	5.62%
QC value within limits for B 249.677 Recovery = 95.77%						
Ba 233.527†	566491.8	13899 µg/L	1033.1	13899 ppb	1033.1	7.43%
QC value within limits for Ba 233.527 Recovery = 92.66%						
Be 313.107†	4661359.0	2811.5 µg/L	139.43	2811.5 ppb	139.43	4.96%
QC value within limits for Be 313.107 Recovery = 93.72%						
Ca 317.933Radial†	126.8	116.31 µg/L	12.291	116.31 ppb	12.291	10.57%
Cd 226.502†	363042.0	9144.4 µg/L	695.42	9144.4 ppb	695.42	7.60%
QC value within limits for Cd 226.502 Recovery = 91.44%						
Co 228.616†	194242.5	8982.6 µg/L	749.77	8982.6 ppb	749.77	8.35%
QC value less than the lower limit for Co 228.616 Recovery = 89.83%						
Cr 267.716†	1116016.2	22766 µg/L	2230.3	22766 ppb	2230.3	9.80%
QC value within limits for Cr 267.716 Recovery = 91.06%						

Cu 324.752†	2907444.9	19287 µg/L	1585.9	19287 ppb	1585.9	8.22%
QC value within limits for Cu 324.752 Recovery = 96.43%						
Fe 238.204 Radial†	4.4	228.26 µg/L	22.796	228.26 ppb	22.796	9.99%
K 766.490 Radial†	438143.9	301280 µg/L	683.5	301280 ppb	683.5	0.23%
QC value within limits for K 766.490 Radial Recovery = 100.43%						
Mg 279.077 IEC†	-10.1	61.770 µg/L	32.1767	61.770 ppb	32.1767	52.09%
Mn 257.610†	2854855.1	9087.5 µg/L	738.94	9087.5 ppb	738.94	8.13%
QC value within limits for Mn 257.610 Recovery = 90.87%						
Mo 202.031†	94971.1	9515.7 µg/L	779.62	9515.7 ppb	779.62	8.19%
QC value within limits for Mo 202.031 Recovery = 95.16%						
Na 589.592 Radial†	673.4	220.15 µg/L	31.021	220.15 ppb	31.021	14.09%
Ni 231.604†	180823.7	9128.0 µg/L	763.01	9128.0 ppb	763.01	8.36%
QC value within limits for Ni 231.604 Recovery = 91.28%						
P 214.914†	7186.3	12395 µg/L	1289.4	12395 ppb	1289.4	10.40%
QC value less than the lower limit for P 214.914 Recovery = 82.64%						
Pb 220.353†	98108.4	24135 µg/L	1585.8	24135 ppb	1585.8	6.57%
QC value within limits for Pb 220.353 Recovery = 96.54%						
S 181.975 Axial†	12140.7	50326 µg/L	4261.0	50326 ppb	4261.0	8.47%
QC value within limits for S 181.975 Axial Recovery = 100.65%						
Sb 206.836†	10704.4	9670.7 µg/L	924.95	9670.7 ppb	924.95	9.56%
QC value within limits for Sb 206.836 Recovery = 96.71%						
Se 196.026†	6750.2	9247.5 µg/L	778.07	9247.5 ppb	778.07	8.41%
QC value within limits for Se 196.026 Recovery = 92.48%						
SiO2†	478460.3	95812 µg/L	5843.4	95812 ppb	5843.4	6.10%
QC value less than the lower limit for SiO2 Recovery = 89.54%						
Si 251.611†	578779.6	44672 µg/L	2717.9	44672 ppb	2717.9	6.08%
QC value less than the lower limit for Si 251.611 Recovery = 89.34%						
Sn 189.927†	22670.5	9694.6 µg/L	1104.76	9694.6 ppb	1104.76	11.40%
QC value within limits for Sn 189.927 Recovery = 96.95%						
Sr 421.552†	1002941.5	9864.1 µg/L	21.29	9864.1 ppb	21.29	0.22%
QC value within limits for Sr 421.552 Recovery = 98.64%						
Ti 334.940†	4265293.2	9701.0 µg/L	483.88	9701.0 ppb	483.88	4.99%
QC value within limits for Ti 334.940 Recovery = 97.01%						
Tl 190.801†	6929.6	9354.1 µg/L	568.44	9354.1 ppb	568.44	6.08%
QC value within limits for Tl 190.801 Recovery = 93.54%						
U 409.014†	856.0	72.629 µg/L	7.5363	72.629 ppb	7.5363	10.38%
V 292.402†	964799.7	9669.7 µg/L	817.32	9669.7 ppb	817.32	8.45%
QC value within limits for V 292.402 Recovery = 96.70%						
Zn 213.857†	586203.9	13764 µg/L	1089.0	13764 ppb	1089.0	7.91%
QC value within limits for Zn 213.857 Recovery = 91.76%						
QC Failed. Continue with analysis.						

Sequence No.: 13

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/20/2010 21:30:27

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	58258.0	58258.0	98.7 %		21:31:05
1	Al 396.153Radial†	6918.0	7020.0	5237.2 µg/L	5237.2 ppb	21:31:26
1	Ca 317.933Radial†	5814.9	5700.3	5228.7 µg/L	5228.7 ppb	21:31:26
1	Fe 238.204 Radial†	617.1	610.0	5247.5 µg/L	5247.5 ppb	21:31:26
1	K 766.490 Radial†	7653.7	7558.5	5197.4 µg/L	5197.4 ppb	21:31:05
1	Mg 279.077 IEC†	556.5	552.0	5375.6 µg/L	5375.6 ppb	21:31:26
1	Na 589.592 Radial†	31918.2	31874.9	10421 µg/L	10421 ppb	21:31:05
1	Sr 421.552†	49932.5	50564.6	497.31 µg/L	497.31 ppb	21:31:05
1	Sc 361.383	2055342.0	2055342.0	97.891 %		21:32:29
1	Y 371.029	1419555.7	1419555.7	97.531 %		21:32:29
1	Ag 328.068†	65831.4	67713.1	508.83 µg/L	508.83 ppb	21:32:35
1	As 188.979†	283.8	290.2	521.31 µg/L	521.31 ppb	21:32:55
1	B 249.677†	12674.3	12621.9	514.45 µg/L	514.45 ppb	21:32:35
1	Ba 233.527†	20512.3	20972.7	514.87 µg/L	514.87 ppb	21:32:35
1	Be 313.107†	822161.1	843637.0	509.31 µg/L	509.31 ppb	21:32:29
1	Cd 226.502†	19793.2	20356.3	512.15 µg/L	512.15 ppb	21:32:35
1	Co 228.616†	10945.4	11178.7	517.03 µg/L	517.03 ppb	21:32:35
1	Cr 267.716†	24904.8	25488.8	520.14 µg/L	520.14 ppb	21:32:35
1	Cu 324.752†	79044.9	77878.5	517.33 µg/L	517.33 ppb	21:32:35
1	Mn 257.610†	158354.9	162069.9	516.37 µg/L	516.37 ppb	21:32:29
1	Mo 202.031†	5194.6	5309.9	532.23 µg/L	532.23 ppb	21:32:55
1	Ni 231.604†	10266.4	10179.0	513.89 µg/L	513.89 ppb	21:32:35
1	P 214.914†	1294.8	1306.5	2548.2 µg/L	2548.2 ppb	21:32:55
1	Pb 220.353†	2218.3	2171.4	534.48 µg/L	534.48 ppb	21:32:55
1	S 181.975 Axial†	265.9	254.3	1054.3 µg/L	1054.3 ppb	21:32:55
1	Sb 206.836†	579.1	569.4	522.22 µg/L	522.22 ppb	21:32:55
1	Se 196.026†	398.8	392.4	545.68 µg/L	545.68 ppb	21:32:55
1	SiO2†	28465.2	27594.2	5525.8 µg/L	5525.8 ppb	21:32:35
1	Si 251.611†	33015.0	33432.9	2580.5 µg/L	2580.5 ppb	21:32:35
1	Sn 189.927†	1221.3	1242.9	531.57 µg/L	531.57 ppb	21:32:55
1	Ti 334.940†	221072.4	225694.7	512.98 µg/L	512.98 ppb	21:32:29
1	Tl 190.801†	353.3	383.1	518.22 µg/L	518.22 ppb	21:32:55
1	U 409.014†	5936.1	6064.7	513.62 µg/L	513.62 ppb	21:32:35
1	V 292.402†	50601.0	51787.4	518.73 µg/L	518.73 ppb	21:32:35
1	Zn 213.857†	22201.9	22178.4	519.77 µg/L	519.77 ppb	21:32:35
2	Sc RADIAL	58528.4	58528.4	99.1 %		21:31:31
2	Al 396.153Radial†	6911.1	6980.7	5207.8 µg/L	5207.8 ppb	21:31:52
2	Ca 317.933Radial†	5816.8	5675.0	5205.5 µg/L	5205.5 ppb	21:31:52
2	Fe 238.204 Radial†	621.0	611.1	5256.9 µg/L	5256.9 ppb	21:31:52
2	K 766.490 Radial†	7645.9	7514.9	5167.3 µg/L	5167.3 ppb	21:31:31
2	Mg 279.077 IEC†	562.3	555.2	5406.9 µg/L	5406.9 ppb	21:31:52
2	Na 589.592 Radial†	32154.9	31964.3	10450 µg/L	10450 ppb	21:31:31
2	Sr 421.552†	50256.5	50657.6	498.23 µg/L	498.23 ppb	21:31:31
2	Sc 361.383	2049002.3	2049002.3	97.589 %		21:33:02
2	Y 371.029	1415800.4	1415800.4	97.273 %		21:33:02
2	Ag 328.068†	66395.3	68499.1	514.72 µg/L	514.72 ppb	21:33:08
2	As 188.979†	281.3	288.5	518.30 µg/L	518.30 ppb	21:33:29
2	B 249.677†	12746.7	12736.2	519.12 µg/L	519.12 ppb	21:33:08
2	Ba 233.527†	20498.4	21023.3	516.12 µg/L	516.12 ppb	21:33:08
2	Be 313.107†	822769.6	846859.1	511.26 µg/L	511.26 ppb	21:33:02
2	Cd 226.502†	19891.6	20519.7	516.26 µg/L	516.26 ppb	21:33:08
2	Co 228.616†	10978.0	11246.7	520.17 µg/L	520.17 ppb	21:33:08
2	Cr 267.716†	24873.7	25535.7	521.10 µg/L	521.10 ppb	21:33:08
2	Cu 324.752†	79277.4	78366.6	520.57 µg/L	520.57 ppb	21:33:08
2	Mn 257.610†	158426.5	162643.8	518.20 µg/L	518.20 ppb	21:33:02
2	Mo 202.031†	5139.8	5270.1	528.25 µg/L	528.25 ppb	21:33:29
2	Ni 231.604†	10369.8	10317.4	520.88 µg/L	520.88 ppb	21:33:08
2	P 214.914†	1278.0	1293.4	2521.8 µg/L	2521.8 ppb	21:33:29
2	Pb 220.353†	2203.0	2162.6	532.31 µg/L	532.31 ppb	21:33:29

2	S 181.975 Axial†	260.6	249.8	1035.3 µg/L	1035.3 ppb	21:33:29
2	Sb 206.836†	590.6	583.1	534.60 µg/L	534.60 ppb	21:33:29
2	Se 196.026†	385.9	380.5	529.28 µg/L	529.28 ppb	21:33:29
2	SiO2†	28603.4	27825.8	5572.1 µg/L	5572.1 ppb	21:33:08
2	Si 251.611†	33225.8	33753.3	2605.2 µg/L	2605.2 ppb	21:33:08
2	Sn 189.927†	1218.5	1243.9	531.99 µg/L	531.99 ppb	21:33:29
2	Ti 334.940†	221391.6	226720.5	515.31 µg/L	515.31 ppb	21:33:02
2	Tl 190.801†	360.6	391.8	529.83 µg/L	529.83 ppb	21:33:29
2	U 409.014†	6004.7	6153.9	521.19 µg/L	521.19 ppb	21:33:08
2	V 292.402†	50812.9	52164.5	522.44 µg/L	522.44 ppb	21:33:08
2	Zn 213.857†	22254.7	22302.7	522.67 µg/L	522.67 ppb	21:33:08
3	Sc RADIAL	58868.7	58868.7	99.7 %		21:31:57
3	Al 396.153Radial†	6921.4	6950.7	5187.3 µg/L	5187.3 ppb	21:32:17
3	Ca 317.933Radial†	5823.1	5647.5	5180.2 µg/L	5180.2 ppb	21:32:17
3	Fe 238.204 Radial†	618.4	604.9	5202.2 µg/L	5202.2 ppb	21:32:17
3	K 766.490 Radial†	7742.9	7567.5	5203.6 µg/L	5203.6 ppb	21:31:57
3	Mg 279.077 IEC†	559.2	548.8	5343.2 µg/L	5343.2 ppb	21:32:17
3	Na 589.592 Radial†	32419.4	32042.1	10475 µg/L	10475 ppb	21:31:57
3	Sr 421.552†	50911.5	51021.5	501.81 µg/L	501.81 ppb	21:31:57
3	Sc 361.383	2043315.4	2043315.4	97.318 %		21:33:36
3	Y 371.029	1411646.9	1411646.9	96.988 %		21:33:36
3	Ag 328.068†	61998.6	64170.5	482.04 µg/L	482.04 ppb	21:33:41
3	As 188.979†	234.6	241.3	433.58 µg/L	433.58 ppb	21:34:02
3	B 249.677†	11861.3	11862.8	483.31 µg/L	483.31 ppb	21:33:41
3	Ba 233.527†	18520.3	19049.1	467.64 µg/L	467.64 ppb	21:33:41
3	Be 313.107†	758581.3	783248.1	472.86 µg/L	472.86 ppb	21:33:36
3	Cd 226.502†	17923.1	18553.7	466.74 µg/L	466.74 ppb	21:33:41
3	Co 228.616†	9807.5	10075.2	465.93 µg/L	465.93 ppb	21:33:41
3	Cr 267.716†	21574.8	22216.8	453.38 µg/L	453.38 ppb	21:33:41
3	Cu 324.752†	71081.7	70171.1	466.20 µg/L	466.20 ppb	21:33:41
3	Mn 257.610†	146406.7	150744.5	480.32 µg/L	480.32 ppb	21:33:36
3	Mo 202.031†	4257.5	4378.1	438.87 µg/L	438.87 ppb	21:34:02
3	Ni 231.604†	9243.2	9189.3	463.93 µg/L	463.93 ppb	21:33:41
3	P 214.914†	1085.3	1099.0	2139.6 µg/L	2139.6 ppb	21:34:02
3	Pb 220.353†	1894.5	1852.0	455.77 µg/L	455.77 ppb	21:34:02
3	S 181.975 Axial†	233.0	222.1	920.81 µg/L	920.81 ppb	21:34:02
3	Sb 206.836†	504.5	496.2	454.65 µg/L	454.65 ppb	21:34:02
3	Se 196.026†	333.2	327.4	456.46 µg/L	456.46 ppb	21:34:02
3	SiO2†	26341.3	25582.9	5123.0 µg/L	5123.0 ppb	21:33:41
3	Si 251.611†	30488.1	31034.9	2395.4 µg/L	2395.4 ppb	21:33:41
3	Sn 189.927†	988.1	1010.6	432.21 µg/L	432.21 ppb	21:34:02
3	Ti 334.940†	202773.8	208221.0	473.24 µg/L	473.24 ppb	21:33:36
3	Tl 190.801†	315.1	346.0	468.23 µg/L	468.23 ppb	21:34:02
3	U 409.014†	5246.0	5391.4	456.49 µg/L	456.49 ppb	21:33:41
3	V 292.402†	45024.2	46361.1	464.12 µg/L	464.12 ppb	21:33:41
3	Zn 213.857†	19886.7	19932.9	467.08 µg/L	467.08 ppb	21:33:41

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2049219.9	97.599 %	0.2865			0.29%
Sc RADIAL	58551.7	99.2 %	0.52			0.52%
Y 371.029	1415667.7	97.264 %	0.2718			0.28%
Ag 328.068†	66794.3	501.86 µg/L	17.414	501.86 ppb	17.414	3.47%
QC value within limits for Ag 328.068 Recovery = 100.37%						
Al 396.153Radial†	6983.8	5210.8 µg/L	25.08	5210.8 ppb	25.08	0.48%
QC value within limits for Al 396.153Radial Recovery = 104.22%						
As 188.979†	273.3	491.06 µg/L	49.809	491.06 ppb	49.809	10.14%
QC value within limits for As 188.979 Recovery = 98.21%						
B 249.677†	12407.0	505.63 µg/L	19.468	505.63 ppb	19.468	3.85%
QC value within limits for B 249.677 Recovery = 101.13%						
Ba 233.527†	20348.4	499.54 µg/L	27.638	499.54 ppb	27.638	5.53%
QC value within limits for Ba 233.527 Recovery = 99.91%						
Be 313.107†	824581.4	497.81 µg/L	21.631	497.81 ppb	21.631	4.35%
QC value within limits for Be 313.107 Recovery = 99.56%						
Ca 317.933Radial†	5674.3	5204.8 µg/L	24.26	5204.8 ppb	24.26	0.47%
QC value within limits for Ca 317.933Radial Recovery = 104.10%						
Cd 226.502†	19809.9	498.39 µg/L	27.480	498.39 ppb	27.480	5.51%
QC value within limits for Cd 226.502 Recovery = 99.68%						
Co 228.616†	10833.5	501.05 µg/L	30.448	501.05 ppb	30.448	6.08%

QC value within limits for Co 228.616 Recovery = 100.21%							
Cr 267.716†	24413.8	498.21 µg/L	38.826	498.21 ppb	38.826	7.79%	
QC value within limits for Cr 267.716 Recovery = 99.64%							
Cu 324.752†	75472.1	501.37 µg/L	30.500	501.37 ppb	30.500	6.08%	
QC value within limits for Cu 324.752 Recovery = 100.27%							
Fe 238.204 Radial†	608.7	5235.5 µg/L	29.27	5235.5 ppb	29.27	0.56%	
QC value within limits for Fe 238.204 Radial Recovery = 104.71%							
K 766.490 Radial†	7547.0	5189.4 µg/L	19.38	5189.4 ppb	19.38	0.37%	
QC value within limits for K 766.490 Radial Recovery = 103.79%							
Mg 279.077 IEC†	552.0	5375.2 µg/L	31.85	5375.2 ppb	31.85	0.59%	
QC value within limits for Mg 279.077 IEC Recovery = 107.50%							
Mn 257.610†	158486.1	504.97 µg/L	21.363	504.97 ppb	21.363	4.23%	
QC value within limits for Mn 257.610 Recovery = 100.99%							
Mo 202.031†	4986.1	499.78 µg/L	52.790	499.78 ppb	52.790	10.56%	
QC value within limits for Mo 202.031 Recovery = 99.96%							
Na 589.592 Radial†	31960.4	10449 µg/L	27.3	10449 ppb	27.3	0.26%	
QC value within limits for Na 589.592 Radial Recovery = 104.49%							
Ni 231.604†	9895.2	499.57 µg/L	31.060	499.57 ppb	31.060	6.22%	
QC value within limits for Ni 231.604 Recovery = 99.91%							
P 214.914†	1233.0	2403.2 µg/L	228.67	2403.2 ppb	228.67	9.52%	
QC value within limits for P 214.914 Recovery = 96.13%							
Pb 220.353†	2062.0	507.52 µg/L	44.832	507.52 ppb	44.832	8.83%	
QC value within limits for Pb 220.353 Recovery = 101.50%							
S 181.975 Axial†	242.1	1003.5 µg/L	72.21	1003.5 ppb	72.21	7.20%	
QC value within limits for S 181.975 Axial Recovery = 100.35%							
Sb 206.836†	549.6	503.82 µg/L	43.033	503.82 ppb	43.033	8.54%	
QC value within limits for Sb 206.836 Recovery = 100.76%							
Se 196.026†	366.7	510.47 µg/L	47.489	510.47 ppb	47.489	9.30%	
QC value within limits for Se 196.026 Recovery = 102.09%							
SiO2†	27001.0	5407.0 µg/L	247.02	5407.0 ppb	247.02	4.57%	
QC value within limits for SiO2 Recovery = 101.11%							
Si 251.611†	32740.4	2527.0 µg/L	114.67	2527.0 ppb	114.67	4.54%	
QC value within limits for Si 251.611 Recovery = 101.08%							
Sn 189.927†	1165.8	498.59 µg/L	57.483	498.59 ppb	57.483	11.53%	
QC value within limits for Sn 189.927 Recovery = 99.72%							
Sr 421.552†	50747.9	499.12 µg/L	2.375	499.12 ppb	2.375	0.48%	
QC value within limits for Sr 421.552 Recovery = 99.82%							
Ti 334.940†	220212.1	500.51 µg/L	23.646	500.51 ppb	23.646	4.72%	
QC value within limits for Ti 334.940 Recovery = 100.10%							
Tl 190.801†	373.6	505.43 µg/L	32.736	505.43 ppb	32.736	6.48%	
QC value within limits for Tl 190.801 Recovery = 101.09%							
U 409.014†	5870.0	497.10 µg/L	35.374	497.10 ppb	35.374	7.12%	
QC value within limits for U 409.014 Recovery = 99.42%							
V 292.402†	50104.4	501.77 µg/L	32.656	501.77 ppb	32.656	6.51%	
QC value within limits for V 292.402 Recovery = 100.35%							
Zn 213.857†	21471.3	503.17 µg/L	31.289	503.17 ppb	31.289	6.22%	
QC value within limits for Zn 213.857 Recovery = 100.63%							
All analyte(s) passed QC.							

Sequence No.: 14  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 2/20/2010 21:34:11  
 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	57134.4	57134.4	96.8 %		21:34:44
1	Al 396.153Radial†	12.3	21.4	15.996 µg/L	15.996 ppb	21:34:44
1	Ca 317.933Radial†	226.6	41.2	37.828 µg/L	37.828 ppb	21:35:04
1	Fe 238.204 Radial†	16.2	1.4	11.796 µg/L	11.796 ppb	21:35:04
1	K 766.490 Radial†	325.0	137.5	94.513 µg/L	94.513 ppb	21:34:44
1	Mg 279.077 IEC†	13.3	1.6	15.841 µg/L	15.841 ppb	21:35:04
1	Na 589.592 Radial†	736.3	287.2	93.896 µg/L	93.896 ppb	21:34:44
1	Sr 421.552†	116.9	79.5	0.7816 µg/L	0.7816 ppb	21:34:44
1	Sc 361.383	2053403.3	2053403.3	97.798 %		21:36:06
1	Y 371.029	1422840.1	1422840.1	97.757 %		21:36:06
1	Ag 328.068†	-371.1	83.7	0.6280 µg/L	0.6280 ppb	21:36:12
1	As 188.979†	1.0	1.3	2.3692 µg/L	2.3692 ppb	21:36:33
1	B 249.677†	518.8	205.0	8.3831 µg/L	8.3831 ppb	21:36:33
1	Ba 233.527†	8.6	27.1	0.6651 µg/L	0.6651 ppb	21:36:33
1	Be 313.107†	-3351.1	332.3	0.2005 µg/L	0.2005 ppb	21:36:12
1	Cd 226.502†	-120.3	13.6	0.3419 µg/L	0.3419 ppb	21:36:33
1	Co 228.616†	13.8	11.5	0.5347 µg/L	0.5347 ppb	21:36:33
1	Cr 267.716†	20.8	68.7	1.4014 µg/L	1.4014 ppb	21:36:12
1	Cu 324.752†	3165.9	367.4	2.4389 µg/L	2.4389 ppb	21:36:12
1	Mn 257.610†	-152.9	146.3	0.4665 µg/L	0.4665 ppb	21:36:33
1	Mo 202.031†	9.9	13.5	1.3512 µg/L	1.3512 ppb	21:36:33
1	Ni 231.604†	324.4	23.0	1.1634 µg/L	1.1634 ppb	21:36:33
1	P 214.914†	16.0	0.2	0.1011 µg/L	0.1011 ppb	21:36:33
1	Pb 220.353†	124.8	32.8	8.0675 µg/L	8.0675 ppb	21:36:33
1	S 181.975 Axial†	18.1	1.2	4.8561 µg/L	4.8561 ppb	21:36:33
1	Sb 206.836†	24.5	3.0	2.7028 µg/L	2.7028 ppb	21:36:33
1	Se 196.026†	24.5	10.1	13.821 µg/L	13.821 ppb	21:36:33
1	SiO2†	1544.0	94.4	18.894 µg/L	18.894 ppb	21:36:12
1	Si 251.611†	374.6	89.6	6.9122 µg/L	6.9122 ppb	21:36:33
1	Sn 189.927†	7.1	2.6	1.0956 µg/L	1.0956 ppb	21:36:33
1	Ti 334.940†	371.2	237.9	0.5404 µg/L	0.5404 ppb	21:36:12
1	Tl 190.801†	-25.6	-4.0	-5.3134 µg/L	-5.3134 ppb	21:36:33
1	U 409.014†	9.7	10.7	0.9049 µg/L	0.9049 ppb	21:36:12
1	V 292.402†	-51.3	43.5	0.4466 µg/L	0.4466 ppb	21:36:12
1	Zn 213.857†	599.8	111.4	2.6177 µg/L	2.6177 ppb	21:36:33
2	Sc RADIAL	57584.4	57584.4	97.5 %		21:35:10
2	Al 396.153Radial†	5.4	14.3	10.634 µg/L	10.634 ppb	21:35:10
2	Ca 317.933Radial†	220.2	32.8	30.087 µg/L	30.087 ppb	21:35:30
2	Fe 238.204 Radial†	17.5	2.6	21.985 µg/L	21.985 ppb	21:35:30
2	K 766.490 Radial†	218.9	26.1	17.917 µg/L	17.917 ppb	21:35:10
2	Mg 279.077 IEC†	14.6	2.9	27.793 µg/L	27.793 ppb	21:35:30
2	Na 589.592 Radial†	662.7	205.7	67.259 µg/L	67.259 ppb	21:35:10
2	Sr 421.552†	77.0	37.6	0.3694 µg/L	0.3694 ppb	21:35:10
2	Sc 361.383	2045860.3	2045860.3	97.439 %		21:36:38
2	Y 371.029	1417907.7	1417907.7	97.418 %		21:36:38
2	Ag 328.068†	-375.1	78.2	0.5885 µg/L	0.5885 ppb	21:36:44
2	As 188.979†	4.9	5.3	9.5965 µg/L	9.5965 ppb	21:37:05
2	B 249.677†	501.2	188.9	7.7183 µg/L	7.7183 ppb	21:37:05
2	Ba 233.527†	10.7	29.3	0.7188 µg/L	0.7188 ppb	21:37:05
2	Be 313.107†	-3374.8	295.3	0.1781 µg/L	0.1781 ppb	21:36:44
2	Cd 226.502†	-126.7	6.5	0.1622 µg/L	0.1622 ppb	21:37:05
2	Co 228.616†	12.3	10.1	0.4656 µg/L	0.4656 ppb	21:37:05
2	Cr 267.716†	18.2	66.1	1.3478 µg/L	1.3478 ppb	21:36:44
2	Cu 324.752†	3217.3	432.2	2.8698 µg/L	2.8698 ppb	21:36:44
2	Mn 257.610†	-152.8	145.8	0.4659 µg/L	0.4659 ppb	21:37:05
2	Mo 202.031†	5.9	9.4	0.9444 µg/L	0.9444 ppb	21:37:05
2	Ni 231.604†	307.6	7.0	0.3538 µg/L	0.3538 ppb	21:37:05
2	P 214.914†	10.7	-5.3	-10.805 µg/L	-10.805 ppb	21:37:05
2	Pb 220.353†	109.4	17.5	4.3032 µg/L	4.3032 ppb	21:37:05

2	S 181.975 Axial†	16.6	-0.3	-1.1655 µg/L	-1.1655 ppb	21:37:05
2	Sb 206.836†	26.1	4.6	4.2202 µg/L	4.2202 ppb	21:37:05
2	Se 196.026†	17.6	3.0	4.1962 µg/L	4.1962 ppb	21:37:05
2	SiO2†	1544.4	100.6	20.146 µg/L	20.146 ppb	21:36:44
2	Si 251.611†	389.3	106.0	8.1841 µg/L	8.1841 ppb	21:37:05
2	Sn 189.927†	5.7	1.2	0.5057 µg/L	0.5057 ppb	21:37:05
2	Ti 334.940†	442.3	312.3	0.7085 µg/L	0.7085 ppb	21:36:44
2	Tl 190.801†	-22.1	-0.4	-0.5366 µg/L	-0.5366 ppb	21:37:05
2	U 409.014†	77.1	79.9	6.7734 µg/L	6.7734 ppb	21:36:44
2	V 292.402†	-36.4	58.6	0.5998 µg/L	0.5998 ppb	21:36:44
2	Zn 213.857†	604.7	118.6	2.7914 µg/L	2.7914 ppb	21:37:05
3	Sc RADIAL	57348.8	57348.8	97.1 %		21:35:36
3	Al 396.153Radial†	9.1	18.1	13.478 µg/L	13.478 ppb	21:35:36
3	Ca 317.933Radial†	222.5	36.1	33.128 µg/L	33.128 ppb	21:35:56
3	Fe 238.204 Radial†	17.6	2.7	23.399 µg/L	23.399 ppb	21:35:56
3	K 766.490 Radial†	272.0	81.6	56.131 µg/L	56.131 ppb	21:35:36
3	Mg 279.077 IEC†	15.3	3.6	35.472 µg/L	35.472 ppb	21:35:56
3	Na 589.592 Radial†	697.9	244.8	80.020 µg/L	80.020 ppb	21:35:36
3	Sr 421.552†	63.5	24.0	0.2364 µg/L	0.2364 ppb	21:35:36
3	Sc 361.383	2060878.4	2060878.4	98.154 %		21:37:11
3	Y 371.029	1428093.8	1428093.8	98.118 %		21:37:11
3	Ag 328.068†	-406.7	48.8	0.3697 µg/L	0.3697 ppb	21:37:16
3	As 188.979†	1.3	1.6	2.9013 µg/L	2.9013 ppb	21:37:37
3	B 249.677†	493.4	177.2	7.2381 µg/L	7.2381 ppb	21:37:37
3	Ba 233.527†	24.8	43.6	1.0692 µg/L	1.0692 ppb	21:37:37
3	Be 313.107†	-3499.3	193.8	0.1168 µg/L	0.1168 ppb	21:37:16
3	Cd 226.502†	-123.2	11.1	0.2773 µg/L	0.2773 ppb	21:37:37
3	Co 228.616†	10.7	8.3	0.3869 µg/L	0.3869 ppb	21:37:37
3	Cr 267.716†	-11.0	36.2	0.7393 µg/L	0.7393 ppb	21:37:16
3	Cu 324.752†	3123.2	312.2	2.0741 µg/L	2.0741 ppb	21:37:16
3	Mn 257.610†	-179.2	120.0	0.3838 µg/L	0.3838 ppb	21:37:37
3	Mo 202.031†	14.4	18.0	1.8034 µg/L	1.8034 ppb	21:37:37
3	Ni 231.604†	318.5	15.8	0.8000 µg/L	0.8000 ppb	21:37:37
3	P 214.914†	11.5	-4.5	-9.0965 µg/L	-9.0965 ppb	21:37:37
3	Pb 220.353†	118.2	25.6	6.2932 µg/L	6.2932 ppb	21:37:37
3	S 181.975 Axial†	15.5	-1.5	-6.0762 µg/L	-6.0762 ppb	21:37:37
3	Sb 206.836†	24.7	3.1	2.8299 µg/L	2.8299 ppb	21:37:37
3	Se 196.026†	19.1	4.5	6.1770 µg/L	6.1770 ppb	21:37:37
3	SiO2†	1494.4	38.1	7.6305 µg/L	7.6305 ppb	21:37:16
3	Si 251.611†	382.0	95.7	7.3845 µg/L	7.3845 ppb	21:37:37
3	Sn 189.927†	8.3	3.8	1.6138 µg/L	1.6138 ppb	21:37:37
3	Ti 334.940†	379.8	245.3	0.5555 µg/L	0.5555 ppb	21:37:16
3	Tl 190.801†	-21.3	0.6	0.7731 µg/L	0.7731 ppb	21:37:37
3	U 409.014†	46.7	48.4	4.0995 µg/L	4.0995 ppb	21:37:16
3	V 292.402†	-29.8	65.7	0.6722 µg/L	0.6722 ppb	21:37:16
3	Zn 213.857†	587.7	96.8	2.2748 µg/L	2.2748 ppb	21:37:37

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2053380.7	97.797 %	0.3576			0.37%
Sc RADIAL	57355.9	97.1 %	0.38			0.39%
Y 371.029	1422947.2	97.764 %	0.3500			0.36%
Ag 328.068†	70.2	0.5287 µg/L	0.13915	0.5287 ppb	0.13915	26.32%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	17.9	13.369 µg/L	2.6826	13.369 ppb	2.6826	20.07%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	2.8	4.9557 µg/L	4.02788	4.9557 ppb	4.02788	81.28%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	190.4	7.7798 µg/L	0.57496	7.7798 ppb	0.57496	7.39%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	33.3	0.8177 µg/L	0.21948	0.8177 ppb	0.21948	26.84%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	273.8	0.1651 µg/L	0.04331	0.1651 ppb	0.04331	26.23%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	36.7	33.681 µg/L	3.8999	33.681 ppb	3.8999	11.58%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	10.4	0.2605 µg/L	0.09104	0.2605 ppb	0.09104	34.95%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	10.0	0.4624 µg/L	0.07393	0.4624 ppb	0.07393	15.99%



Cr 267.716†	QC value within limits for Co 228.616	Recovery = Not calculated				
	57.0	1.1628 µg/L	0.36776	1.1628 ppb	0.36776	31.63%
Cu 324.752†	QC value within limits for Cr 267.716	Recovery = Not calculated				
	370.6	2.4609 µg/L	0.39832	2.4609 ppb	0.39832	16.19%
Fe 238.204 Radial†	QC value within limits for Cu 324.752	Recovery = Not calculated				
	2.2	19.060 µg/L	6.3305	19.060 ppb	6.3305	33.21%
K 766.490 Radial†	QC value within limits for Fe 238.204 Radial	Recovery = Not calculated				
	81.7	56.187 µg/L	38.2981	56.187 ppb	38.2981	68.16%
Mg 279.077 IEC†	QC value within limits for K 766.490 Radial	Recovery = Not calculated				
	2.7	26.369 µg/L	9.8923	26.369 ppb	9.8923	37.52%
Mn 257.610†	QC value within limits for Mg 279.077 IEC	Recovery = Not calculated				
	137.4	0.4387 µg/L	0.04758	0.4387 ppb	0.04758	10.84%
Mo 202.031†	QC value within limits for Mn 257.610	Recovery = Not calculated				
	13.6	1.3663 µg/L	0.42970	1.3663 ppb	0.42970	31.45%
Na 589.592 Radial†	QC value within limits for Mo 202.031	Recovery = Not calculated				
	245.9	80.392 µg/L	13.3222	80.392 ppb	13.3222	16.57%
Ni 231.604†	QC value within limits for Na 589.592 Radial	Recovery = Not calculated				
	15.3	0.7724 µg/L	0.40552	0.7724 ppb	0.40552	52.50%
P 214.914†	QC value within limits for Ni 231.604	Recovery = Not calculated				
	-3.2	-6.6003 µg/L	5.86613	-6.6003 ppb	5.86613	88.88%
Pb 220.353†	QC value within limits for P 214.914	Recovery = Not calculated				
	25.3	6.2213 µg/L	1.88319	6.2213 ppb	1.88319	30.27%
S 181.975 Axial†	QC value within limits for Pb 220.353	Recovery = Not calculated				
	-0.2	-0.7952 µg/L	5.47556	-0.7952 ppb	5.47556	688.55%
Sb 206.836†	QC value within limits for S 181.975 Axial	Recovery = Not calculated				
	3.6	3.2510 µg/L	0.84177	3.2510 ppb	0.84177	25.89%
Se 196.026†	QC value within limits for Sb 206.836	Recovery = Not calculated				
	5.9	8.0648 µg/L	5.08269	8.0648 ppb	5.08269	63.02%
SiO2†	QC value within limits for Se 196.026	Recovery = Not calculated				
	77.7	15.557 µg/L	6.8931	15.557 ppb	6.8931	44.31%
Si 251.611†	QC value within limits for SiO2	Recovery = Not calculated				
	97.1	7.4936 µg/L	0.64290	7.4936 ppb	0.64290	8.58%
Sn 189.927†	QC value within limits for Si 251.611	Recovery = Not calculated				
	2.5	1.0717 µg/L	0.55441	1.0717 ppb	0.55441	51.73%
Sr 421.552†	QC value within limits for Sn 189.927	Recovery = Not calculated				
	47.0	0.4625 µg/L	0.28430	0.4625 ppb	0.28430	61.47%
Ti 334.940†	QC value within limits for Sr 421.552	Recovery = Not calculated				
	265.1	0.6015 µg/L	0.09301	0.6015 ppb	0.09301	15.46%
Tl 190.801†	QC value within limits for Ti 334.940	Recovery = Not calculated				
	-1.3	-1.6923 µg/L	3.20365	-1.6923 ppb	3.20365	189.31%
U 409.014†	QC value within limits for Tl 190.801	Recovery = Not calculated				
	46.3	3.9259 µg/L	2.93808	3.9259 ppb	2.93808	74.84%
V 292.402†	QC value within limits for U 409.014	Recovery = Not calculated				
	55.9	0.5728 µg/L	0.11519	0.5728 ppb	0.11519	20.11%
Zn 213.857†	QC value within limits for V 292.402	Recovery = Not calculated				
	108.9	2.5613 µg/L	0.26286	2.5613 ppb	0.26286	10.26%
	QC value within limits for Zn 213.857	Recovery = Not calculated				

All analyte(s) passed QC.

=====  
Analysis Begun

Start Time: 2/20/2010 22:12:52

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\022010.SIF

Batch ID:

Results Data Set: 022010C

Results Library: c:\pe\optimal\Results\Results.mdb

=====  
Method Loaded

Method Name: Gen Eng fast\_new Si

Method Last Saved: 2/20/2010 19:48:18

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: 7

Sample ID: CCV

Date Collected: 2/20/2010 22:12:55

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	56823.3	56823.3	96.2 %		22:13:29
1	Al 396.153Radial†	6779.6	7053.2	5262.2 µg/L	5262.2 ppb	22:13:29
1	Ca 317.933Radial†	5656.2	5684.2	5213.9 µg/L	5213.9 ppb	22:13:49
1	Fe 238.204 Radial†	612.3	620.8	5340.4 µg/L	5340.4 ppb	22:13:49

1	K 766.490 Radial†	7360.7	7449.9	5122.7 µg/L	5122.7 ppb	22:13:29
1	Mg 279.077 IEC†	551.2	560.7	5460.5 µg/L	5460.5 ppb	22:13:49
1	Na 589.592 Radial†	31464.7	32220.5	10534 µg/L	10534 ppb	22:13:29
1	Sr 421.552†	49272.3	51156.2	503.13 µg/L	503.13 ppb	22:13:29
1	Sc 361.383	2061302.8	2061302.8	98.174 %		22:14:53
1	Y 371.029	1421783.1	1421783.1	97.684 %		22:14:53
1	Ag 328.068†	65899.8	67588.3	507.89 µg/L	507.89 ppb	22:14:58
1	As 188.979†	280.7	286.2	514.11 µg/L	514.11 ppb	22:15:19
1	B 249.677†	12356.0	12260.3	499.60 µg/L	499.60 ppb	22:14:58
1	Ba 233.527†	20373.0	20770.2	509.90 µg/L	509.90 ppb	22:14:58
1	Be 313.107†	828097.3	847254.8	511.50 µg/L	511.50 ppb	22:14:53
1	Cd 226.502†	19746.1	20249.9	509.46 µg/L	509.46 ppb	22:14:58
1	Co 228.616†	10940.2	11141.1	515.28 µg/L	515.28 ppb	22:14:58
1	Cr 267.716†	24642.8	25148.5	513.20 µg/L	513.20 ppb	22:14:58
1	Cu 324.752†	78467.9	77057.3	511.90 µg/L	511.90 ppb	22:14:58
1	Mn 257.610†	159108.4	162369.6	517.34 µg/L	517.34 ppb	22:14:53
1	Mo 202.031†	5106.6	5204.9	521.71 µg/L	521.71 ppb	22:15:19
1	Ni 231.604†	10301.1	10184.0	514.15 µg/L	514.15 ppb	22:14:58
1	P 214.914†	1277.0	1284.6	2505.0 µg/L	2505.0 ppb	22:15:19
1	Pb 220.353†	2145.9	2091.0	514.68 µg/L	514.68 ppb	22:15:19
1	S 181.975 Axial†	265.3	253.0	1048.6 µg/L	1048.6 ppb	22:15:19
1	Sb 206.836†	574.3	562.9	516.17 µg/L	516.17 ppb	22:15:19
1	Se 196.026†	386.2	378.4	526.66 µg/L	526.66 ppb	22:15:19
1	SiO2†	28213.4	27253.6	5457.6 µg/L	5457.6 ppb	22:14:58
1	Si 251.611†	32765.5	33081.2	2553.3 µg/L	2553.3 ppb	22:14:58
1	Sn 189.927†	1207.9	1225.7	524.19 µg/L	524.19 ppb	22:15:19
1	Ti 334.940†	222142.4	226131.6	513.96 µg/L	513.96 ppb	22:14:53
1	Tl 190.801†	360.7	389.7	527.00 µg/L	527.00 ppb	22:15:19
1	U 409.014†	6010.5	6123.0	518.56 µg/L	518.56 ppb	22:14:58
1	V 292.402†	50504.7	51539.9	516.20 µg/L	516.20 ppb	22:14:58
1	Zn 213.857†	21927.1	21832.9	511.62 µg/L	511.62 ppb	22:14:58
2	Sc RADIAL	57242.8	57242.8	96.9 %		22:13:55
2	Al 396.153Radial†	6869.5	7094.3	5292.9 µg/L	5292.9 ppb	22:13:55
2	Ca 317.933Radial†	5669.5	5654.9	5187.0 µg/L	5187.0 ppb	22:14:15
2	Fe 238.204 Radial†	613.7	617.6	5312.2 µg/L	5312.2 ppb	22:14:15
2	K 766.490 Radial†	7451.6	7487.6	5148.6 µg/L	5148.6 ppb	22:13:55
2	Mg 279.077 IEC†	551.2	556.5	5419.6 µg/L	5419.6 ppb	22:14:15
2	Na 589.592 Radial†	31655.2	32177.4	10520 µg/L	10520 ppb	22:13:55
2	Sr 421.552†	49674.6	51196.1	503.52 µg/L	503.52 ppb	22:13:55
2	Sc 361.383	2034508.7	2034508.7	96.898 %		22:15:26
2	Y 371.029	1404777.1	1404777.1	96.516 %		22:15:26
2	Ag 328.068†	65111.9	67659.3	508.42 µg/L	508.42 ppb	22:15:32
2	As 188.979†	276.9	286.0	513.83 µg/L	513.83 ppb	22:15:52
2	B 249.677†	12217.6	12283.2	500.55 µg/L	500.55 ppb	22:15:32
2	Ba 233.527†	20109.4	20771.4	509.94 µg/L	509.94 ppb	22:15:32
2	Be 313.107†	818478.3	848436.6	512.21 µg/L	512.21 ppb	22:15:26
2	Cd 226.502†	19476.7	20236.8	509.13 µg/L	509.13 ppb	22:15:32
2	Co 228.616†	10743.6	11085.0	512.68 µg/L	512.68 ppb	22:15:32
2	Cr 267.716†	24304.7	25130.1	512.82 µg/L	512.82 ppb	22:15:32
2	Cu 324.752†	77516.2	77127.8	512.36 µg/L	512.36 ppb	22:15:32
2	Mn 257.610†	157296.9	162634.5	518.18 µg/L	518.18 ppb	22:15:26
2	Mo 202.031†	5051.7	5216.7	522.90 µg/L	522.90 ppb	22:15:52
2	Ni 231.604†	10117.7	10132.9	511.57 µg/L	511.57 ppb	22:15:32
2	P 214.914†	1275.0	1299.5	2534.8 µg/L	2534.8 ppb	22:15:52
2	Pb 220.353†	2141.4	2115.2	520.65 µg/L	520.65 ppb	22:15:52
2	S 181.975 Axial†	252.7	243.5	1009.5 µg/L	1009.5 ppb	22:15:52
2	Sb 206.836†	565.0	561.0	514.48 µg/L	514.48 ppb	22:15:52
2	Se 196.026†	378.8	376.0	523.29 µg/L	523.29 ppb	22:15:52
2	SiO2†	27857.1	27264.4	5459.7 µg/L	5459.7 ppb	22:15:32
2	Si 251.611†	32373.2	33116.0	2556.0 µg/L	2556.0 ppb	22:15:32
2	Sn 189.927†	1189.0	1222.4	522.77 µg/L	522.77 ppb	22:15:52
2	Ti 334.940†	219896.1	226793.3	515.47 µg/L	515.47 ppb	22:15:26
2	Tl 190.801†	352.9	386.4	522.65 µg/L	522.65 ppb	22:15:52
2	U 409.014†	5845.5	6033.3	510.95 µg/L	510.95 ppb	22:15:32
2	V 292.402†	49914.5	51608.3	516.88 µg/L	516.88 ppb	22:15:32
2	Zn 213.857†	21654.1	21845.3	511.92 µg/L	511.92 ppb	22:15:32
3	Sc RADIAL	57543.1	57543.1	97.5 %		22:14:20
3	Al 396.153Radial†	6877.7	7065.8	5273.5 µg/L	5273.5 ppb	22:14:20
3	Ca 317.933Radial†	5660.8	5615.5	5150.9 µg/L	5150.9 ppb	22:14:41
3	Fe 238.204 Radial†	610.5	611.1	5255.2 µg/L	5255.2 ppb	22:14:41
3	K 766.490 Radial†	7434.8	7430.3	5109.2 µg/L	5109.2 ppb	22:14:20

3	Mg 279.077 IEC†	551.8	554.1	5395.2 µg/L	5395.2 ppb	22:14:41
3	Na 589.592 Radial†	31802.3	32157.9	10513 µg/L	10513 ppb	22:14:20
3	Sr 421.552†	49999.8	51262.3	504.18 µg/L	504.18 ppb	22:14:20
3	Sc 361.383	2052108.6	2052108.6	97.737 %		22:15:59
3	Y 371.029	1416657.7	1416657.7	97.332 %		22:15:59
3	Ag 328.068†	61547.1	63435.6	476.51 µg/L	476.51 ppb	22:16:05
3	As 188.979†	236.3	242.1	434.90 µg/L	434.90 ppb	22:16:25
3	B 249.677†	11462.5	11402.5	464.44 µg/L	464.44 ppb	22:16:05
3	Ba 233.527†	18301.3	18743.5	460.13 µg/L	460.13 ppb	22:16:05
3	Be 313.107†	763518.1	784959.2	473.89 µg/L	473.89 ppb	22:15:59
3	Cd 226.502†	17660.5	18206.1	457.98 µg/L	457.98 ppb	22:16:05
3	Co 228.616†	9679.7	9901.3	457.87 µg/L	457.87 ppb	22:16:05
3	Cr 267.716†	21297.1	21837.7	445.64 µg/L	445.64 ppb	22:16:05
3	Cu 324.752†	70165.8	68921.1	457.92 µg/L	457.92 ppb	22:16:05
3	Mn 257.610†	147281.8	150995.3	481.12 µg/L	481.12 ppb	22:15:59
3	Mo 202.031†	4169.8	4269.7	428.01 µg/L	428.01 ppb	22:16:25
3	Ni 231.604†	9147.2	9050.4	456.92 µg/L	456.92 ppb	22:16:05
3	P 214.914†	1082.1	1090.9	2124.3 µg/L	2124.3 ppb	22:16:25
3	Pb 220.353†	1845.5	1793.4	441.36 µg/L	441.36 ppb	22:16:25
3	S 181.975 Axial†	228.0	216.0	895.36 µg/L	895.36 ppb	22:16:25
3	Sb 206.836†	479.1	468.0	428.82 µg/L	428.82 ppb	22:16:25
3	Se 196.026†	334.4	327.1	456.22 µg/L	456.22 ppb	22:16:25
3	SiO2†	25891.7	25006.9	5007.7 µg/L	5007.7 ppb	22:16:05
3	Si 251.611†	29967.0	30367.5	2343.9 µg/L	2343.9 ppb	22:16:05
3	Sn 189.927†	968.4	986.2	421.77 µg/L	421.77 ppb	22:16:25
3	Ti 334.940†	203768.6	208345.9	473.52 µg/L	473.52 ppb	22:15:59
3	Tl 190.801†	308.0	337.4	456.71 µg/L	456.71 ppb	22:16:25
3	U 409.014†	5292.0	5415.3	458.52 µg/L	458.52 ppb	22:16:05
3	V 292.402†	44442.9	45568.1	456.18 µg/L	456.18 ppb	22:16:05
3	Zn 213.857†	19577.7	19529.1	457.59 µg/L	457.59 ppb	22:16:05

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2049306.7	97.603 %	0.6484			0.66%
Sc RADIAL	57203.1	96.9 %	0.61			0.63%
Y 371.029	1414406.0	97.178 %	0.5994			0.62%
Ag 328.068†	66227.7	497.61 µg/L	18.269	497.61 ppb	18.269	3.67%
QC value within limits for Ag 328.068 Recovery = 99.52%						
Al 396.153Radial†	7071.1	5276.2 µg/L	15.52	5276.2 ppb	15.52	0.29%
QC value within limits for Al 396.153Radial Recovery = 105.52%						
As 188.979†	271.4	487.62 µg/L	45.651	487.62 ppb	45.651	9.36%
QC value within limits for As 188.979 Recovery = 97.52%						
B 249.677†	11982.0	488.19 µg/L	20.577	488.19 ppb	20.577	4.21%
QC value within limits for B 249.677 Recovery = 97.64%						
Ba 233.527†	20095.0	493.32 µg/L	28.745	493.32 ppb	28.745	5.83%
QC value within limits for Ba 233.527 Recovery = 98.66%						
Be 313.107†	826883.5	499.20 µg/L	21.921	499.20 ppb	21.921	4.39%
QC value within limits for Be 313.107 Recovery = 99.84%						
Ca 317.933Radial†	5651.5	5183.9 µg/L	31.64	5183.9 ppb	31.64	0.61%
QC value within limits for Ca 317.933Radial Recovery = 103.68%						
Cd 226.502†	19564.3	492.19 µg/L	29.625	492.19 ppb	29.625	6.02%
QC value within limits for Cd 226.502 Recovery = 98.44%						
Co 228.616†	10709.1	495.28 µg/L	32.420	495.28 ppb	32.420	6.55%
QC value within limits for Co 228.616 Recovery = 99.06%						
Cr 267.716†	24038.8	490.55 µg/L	38.896	490.55 ppb	38.896	7.93%
QC value within limits for Cr 267.716 Recovery = 98.11%						
Cu 324.752†	74368.7	494.06 µg/L	31.302	494.06 ppb	31.302	6.34%
QC value within limits for Cu 324.752 Recovery = 98.81%						
Fe 238.204 Radial†	616.5	5302.6 µg/L	43.37	5302.6 ppb	43.37	0.82%
QC value within limits for Fe 238.204 Radial Recovery = 106.05%						
K 766.490 Radial†	7456.0	5126.8 µg/L	20.03	5126.8 ppb	20.03	0.39%
QC value within limits for K 766.490 Radial Recovery = 102.54%						
Mg 279.077 IEC†	557.1	5425.1 µg/L	33.00	5425.1 ppb	33.00	0.61%
QC value within limits for Mg 279.077 IEC Recovery = 108.50%						
Mn 257.610†	158666.5	505.55 µg/L	21.156	505.55 ppb	21.156	4.18%
QC value within limits for Mn 257.610 Recovery = 101.11%						
Mo 202.031†	4897.1	490.87 µg/L	54.446	490.87 ppb	54.446	11.09%
QC value within limits for Mo 202.031 Recovery = 98.17%						
Na 589.592 Radial†	32185.2	10522 µg/L	10.5	10522 ppb	10.5	0.10%

QC value within limits for Na 589.592 Radial Recovery = 105.22%

Ni 231.604†	9789.1	494.21 µg/L	32.319	494.21 ppb	32.319	6.54%
QC value within limits for Ni 231.604 Recovery = 98.84%						
P 214.914†	1225.0	2388.0 µg/L	228.90	2388.0 ppb	228.90	9.59%
QC value within limits for P 214.914 Recovery = 95.52%						
Pb 220.353†	1999.9	492.23 µg/L	44.158	492.23 ppb	44.158	8.97%
QC value within limits for Pb 220.353 Recovery = 98.45%						
S 181.975 Axial†	237.5	984.47 µg/L	79.605	984.47 ppb	79.605	8.09%
QC value within limits for S 181.975 Axial Recovery = 98.45%						
Sb 206.836†	530.6	486.49 µg/L	49.951	486.49 ppb	49.951	10.27%
QC value within limits for Sb 206.836 Recovery = 97.30%						
Se 196.026†	360.5	502.06 µg/L	39.734	502.06 ppb	39.734	7.91%
QC value within limits for Se 196.026 Recovery = 100.41%						
SiO2†	26508.3	5308.3 µg/L	260.37	5308.3 ppb	260.37	4.90%
QC value within limits for SiO2 Recovery = 99.27%						
Si 251.611†	32188.2	2484.4 µg/L	121.71	2484.4 ppb	121.71	4.90%
QC value within limits for Si 251.611 Recovery = 99.38%						
Sn 189.927†	1144.7	489.58 µg/L	58.731	489.58 ppb	58.731	12.00%
QC value within limits for Sn 189.927 Recovery = 97.92%						
Sr 421.552†	51204.9	503.61 µg/L	0.527	503.61 ppb	0.527	0.10%
QC value within limits for Sr 421.552 Recovery = 100.72%						
Ti 334.940†	220423.6	500.98 µg/L	23.800	500.98 ppb	23.800	4.75%
QC value within limits for Ti 334.940 Recovery = 100.20%						
Tl 190.801†	371.1	502.12 µg/L	39.384	502.12 ppb	39.384	7.84%
QC value within limits for Tl 190.801 Recovery = 100.42%						
U 409.014†	5857.2	496.01 µg/L	32.692	496.01 ppb	32.692	6.59%
QC value within limits for U 409.014 Recovery = 99.20%						
V 292.402†	49572.1	496.42 µg/L	34.850	496.42 ppb	34.850	7.02%
QC value within limits for V 292.402 Recovery = 99.28%						
Zn 213.857†	21069.1	493.71 µg/L	31.280	493.71 ppb	31.280	6.34%
QC value within limits for Zn 213.857 Recovery = 98.74%						

All analyte(s) passed QC.

Sequence No.: 2

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/20/2010 22:16:34

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	56690.7	56690.7	96.0 %		22:17:07
1	Al 396.153Radial†	-16.2	-8.1	-6.0850 µg/L	-6.0850 ppb	22:17:07
1	Ca 317.933Radial†	187.6	2.4	2.1692 µg/L	2.1692 ppb	22:17:28
1	Fe 238.204 Radial†	14.2	-0.6	-4.8794 µg/L	-4.8794 ppb	22:17:28
1	K 766.490 Radial†	253.3	65.4	45.004 µg/L	45.004 ppb	22:17:07
1	Mg 279.077 IEC†	12.1	0.6	5.4377 µg/L	5.4377 ppb	22:17:28
1	Na 589.592 Radial†	501.2	48.3	15.796 µg/L	15.796 ppb	22:17:07
1	Sr 421.552†	52.2	13.1	0.1284 µg/L	0.1284 ppb	22:17:07
1	Sc 361.383	2044523.0	2044523.0	97.375 %		22:18:29
1	Y 371.029	1416244.4	1416244.4	97.304 %		22:18:29
1	Ag 328.068†	-376.8	76.2	0.5704 µg/L	0.5704 ppb	22:18:35
1	As 188.979†	-0.4	-0.1	-0.2510 µg/L	-0.2510 ppb	22:18:55
1	B 249.677†	369.4	53.8	2.2047 µg/L	2.2047 ppb	22:18:55
1	Ba 233.527†	-7.2	10.9	0.2687 µg/L	0.2687 ppb	22:18:55
1	Be 313.107†	-3638.5	22.2	0.0133 µg/L	0.0133 ppb	22:18:35
1	Cd 226.502†	-132.8	0.2	0.0051 µg/L	0.0051 ppb	22:18:55
1	Co 228.616†	-1.0	-3.6	-0.1674 µg/L	-0.1674 ppb	22:18:55
1	Cr 267.716†	-58.2	-12.3	-0.2514 µg/L	-0.2514 ppb	22:18:35
1	Cu 324.752†	2937.3	146.8	0.9729 µg/L	0.9729 ppb	22:18:35
1	Mn 257.610†	-281.5	13.5	0.0420 µg/L	0.0420 ppb	22:18:55
1	Mo 202.031†	1.3	4.7	0.4660 µg/L	0.4660 ppb	22:18:55
1	Ni 231.604†	297.6	-3.0	-0.1533 µg/L	-0.1533 ppb	22:18:55
1	P 214.914†	18.1	2.4	4.5665 µg/L	4.5665 ppb	22:18:55
1	Pb 220.353†	93.5	1.2	0.2968 µg/L	0.2968 ppb	22:18:55
1	S 181.975 Axial†	14.8	-2.1	-8.7907 µg/L	-8.7907 ppb	22:18:55
1	Sb 206.836†	30.0	8.7	7.9428 µg/L	7.9428 ppb	22:18:55
1	Se 196.026†	14.1	-0.5	-0.6684 µg/L	-0.6684 ppb	22:18:55
1	SiO2†	1435.5	-10.3	-2.0535 µg/L	-2.0535 ppb	22:18:35
1	Si 251.611†	314.0	28.9	2.2323 µg/L	2.2323 ppb	22:18:55
1	Sn 189.927†	3.1	-1.5	-0.6542 µg/L	-0.6542 ppb	22:18:55
1	Ti 334.940†	250.4	115.5	0.2624 µg/L	0.2624 ppb	22:18:35
1	Tl 190.801†	-18.8	3.0	3.9540 µg/L	3.9540 ppb	22:18:55
1	U 409.014†	-2.3	-1.6	-0.1352 µg/L	-0.1352 ppb	22:18:35
1	V 292.402†	-60.1	34.3	0.3418 µg/L	0.3418 ppb	22:18:35
1	Zn 213.857†	516.6	28.6	0.6744 µg/L	0.6744 ppb	22:18:55
2	Sc RADIAL	56718.4	56718.4	96.1 %		22:17:33
2	Al 396.153Radial†	-2.8	5.8	4.3005 µg/L	4.3005 ppb	22:17:33
2	Ca 317.933Radial†	197.7	12.8	11.737 µg/L	11.737 ppb	22:17:53
2	Fe 238.204 Radial†	14.6	-0.2	-1.3875 µg/L	-1.3875 ppb	22:17:53
2	K 766.490 Radial†	188.2	-2.4	-1.6769 µg/L	-1.6769 ppb	22:17:33
2	Mg 279.077 IEC†	9.3	-2.4	-23.345 µg/L	-23.345 ppb	22:17:53
2	Na 589.592 Radial†	507.7	54.8	17.905 µg/L	17.905 ppb	22:17:33
2	Sr 421.552†	60.1	21.2	0.2085 µg/L	0.2085 ppb	22:17:33
2	Sc 361.383	2044848.8	2044848.8	97.391 %		22:19:01
2	Y 371.029	1415277.2	1415277.2	97.237 %		22:19:01
2	Ag 328.068†	-435.9	15.6	0.1141 µg/L	0.1141 ppb	22:19:07
2	As 188.979†	-3.2	-3.0	-5.3653 µg/L	-5.3653 ppb	22:19:28
2	B 249.677†	353.2	37.2	1.5224 µg/L	1.5224 ppb	22:19:28
2	Ba 233.527†	-16.0	1.9	0.0468 µg/L	0.0468 ppb	22:19:28
2	Be 313.107†	-3616.2	45.8	0.0275 µg/L	0.0275 ppb	22:19:07
2	Cd 226.502†	-134.3	-1.3	-0.0313 µg/L	-0.0313 ppb	22:19:28
2	Co 228.616†	4.9	2.5	0.1147 µg/L	0.1147 ppb	22:19:28
2	Cr 267.716†	-54.1	-8.2	-0.1673 µg/L	-0.1673 ppb	22:19:07
2	Cu 324.752†	2929.6	138.3	0.9174 µg/L	0.9174 ppb	22:19:07
2	Mn 257.610†	-256.9	38.8	0.1242 µg/L	0.1242 ppb	22:19:28
2	Mo 202.031†	2.4	5.8	0.5761 µg/L	0.5761 ppb	22:19:28
2	Ni 231.604†	311.6	11.4	0.5740 µg/L	0.5740 ppb	22:19:28
2	P 214.914†	13.7	-2.1	-4.3406 µg/L	-4.3406 ppb	22:19:28
2	Pb 220.353†	88.8	-3.6	-0.8839 µg/L	-0.8839 ppb	22:19:28

2	S 181.975 Axial†	18.1	1.3	5.3479 µg/L	5.3479 ppb	22:19:28
2	Sb 206.836†	27.3	5.9	5.3724 µg/L	5.3724 ppb	22:19:28
2	Se 196.026†	22.0	7.6	10.407 µg/L	10.407 ppb	22:19:28
2	SiO2†	1478.5	33.7	6.7532 µg/L	6.7532 ppb	22:19:07
2	Si 251.611†	336.0	51.4	3.9704 µg/L	3.9704 ppb	22:19:28
2	Sn 189.927†	3.9	-0.7	-0.3194 µg/L	-0.3194 ppb	22:19:28
2	Ti 334.940†	256.3	121.5	0.2784 µg/L	0.2784 ppb	22:19:07
2	Tl 190.801†	-24.9	-3.3	-4.4510 µg/L	-4.4510 ppb	22:19:28
2	U 409.014†	-17.4	-17.1	-1.4524 µg/L	-1.4524 ppb	22:19:07
2	V 292.402†	-124.6	-32.0	-0.3138 µg/L	-0.3138 ppb	22:19:07
2	Zn 213.857†	518.6	30.5	0.7183 µg/L	0.7183 ppb	22:19:28
3	Sc RADIAL	56709.5	56709.5	96.0 %		22:17:59
3	Al 396.153Radial†	-10.8	-2.5	-1.8802 µg/L	-1.8802 ppb	22:17:59
3	Ca 317.933Radial†	198.6	13.8	12.681 µg/L	12.681 ppb	22:18:19
3	Fe 238.204 Radial†	14.2	-0.6	-5.3099 µg/L	-5.3099 ppb	22:18:19
3	K 766.490 Radial†	198.2	8.0	5.4794 µg/L	5.4794 ppb	22:17:59
3	Mg 279.077 IEC†	6.9	-4.9	-47.572 µg/L	-47.572 ppb	22:18:19
3	Na 589.592 Radial†	542.6	91.2	29.809 µg/L	29.809 ppb	22:17:59
3	Sr 421.552†	36.4	-3.4	-0.0338 µg/L	-0.0338 ppb	22:17:59
3	Sc 361.383	2051656.6	2051656.6	97.715 %		22:19:34
3	Y 371.029	1420449.0	1420449.0	97.593 %		22:19:34
3	Ag 328.068†	-390.0	64.0	0.4781 µg/L	0.4781 ppb	22:19:39
3	As 188.979†	3.1	3.4	6.1846 µg/L	6.1846 ppb	22:20:00
3	B 249.677†	351.8	34.5	1.4159 µg/L	1.4159 ppb	22:20:00
3	Ba 233.527†	-5.4	12.9	0.3153 µg/L	0.3153 ppb	22:20:00
3	Be 313.107†	-3585.3	89.7	0.0540 µg/L	0.0540 ppb	22:19:39
3	Cd 226.502†	-132.5	1.0	0.0254 µg/L	0.0254 ppb	22:20:00
3	Co 228.616†	0.5	-2.0	-0.0950 µg/L	-0.0950 ppb	22:20:00
3	Cr 267.716†	-26.6	20.2	0.4113 µg/L	0.4113 ppb	22:19:39
3	Cu 324.752†	2896.9	95.0	0.6292 µg/L	0.6292 ppb	22:19:39
3	Mn 257.610†	-277.2	18.9	0.0613 µg/L	0.0613 ppb	22:20:00
3	Mo 202.031†	0.9	4.2	0.4244 µg/L	0.4244 ppb	22:20:00
3	Ni 231.604†	316.1	14.9	0.7517 µg/L	0.7517 ppb	22:20:00
3	P 214.914†	9.2	-6.8	-13.569 µg/L	-13.569 ppb	22:20:00
3	Pb 220.353†	72.8	-20.3	-4.9887 µg/L	-4.9887 ppb	22:20:00
3	S 181.975 Axial†	17.0	0.1	0.5553 µg/L	0.5553 ppb	22:20:00
3	Sb 206.836†	21.1	-0.5	-0.4646 µg/L	-0.4646 ppb	22:20:00
3	Se 196.026†	13.9	-0.8	-1.0457 µg/L	-1.0457 ppb	22:20:00
3	SiO2†	1463.4	13.2	2.6405 µg/L	2.6405 ppb	22:19:39
3	Si 251.611†	318.4	32.3	2.4907 µg/L	2.4907 ppb	22:20:00
3	Sn 189.927†	0.9	-3.8	-1.6168 µg/L	-1.6168 ppb	22:20:00
3	Ti 334.940†	280.5	145.4	0.3348 µg/L	0.3348 ppb	22:19:39
3	Tl 190.801†	-23.1	-1.5	-1.9664 µg/L	-1.9664 ppb	22:20:00
3	U 409.014†	-89.3	-90.6	-7.6908 µg/L	-7.6908 ppb	22:19:39
3	V 292.402†	-84.2	9.9	0.0933 µg/L	0.0933 ppb	22:19:39
3	Zn 213.857†	513.7	23.8	0.5608 µg/L	0.5608 ppb	22:20:00

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2047009.5	97.494 %	0.1918			0.20%
Sc RADIAL	56706.2	96.0 %	0.02			0.02%
Y 371.029	1417323.5	97.378 %	0.1889			0.19%
Ag 328.068†	51.9	0.3875 µg/L	0.24123	0.3875 ppb	0.24123	62.25%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-1.6	-1.2215 µg/L	5.22398	-1.2215 ppb	5.22398	427.66%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	0.1	0.1894 µg/L	5.78751	0.1894 ppb	5.78751	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	41.9	1.7144 µg/L	0.42800	1.7144 ppb	0.42800	24.97%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	8.6	0.2103 µg/L	0.14350	0.2103 ppb	0.14350	68.25%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	52.6	0.0316 µg/L	0.02066	0.0316 ppb	0.02066	65.31%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	9.7	8.8624 µg/L	5.81566	8.8624 ppb	5.81566	65.62%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-0.0	-0.0003 µg/L	0.02873	-0.0003 ppb	0.02873	>999.9%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-1.1	-0.0493 µg/L	0.14653	-0.0493 ppb	0.14653	297.51%

Cr 267.716†	QC value within limits for Co 228.616 Recovery = Not calculated				
	-0.1 -0.0025 µg/L 0.36078 -0.0025 ppb			0.36078	>999.9%
Cu 324.752†	QC value within limits for Cr 267.716 Recovery = Not calculated				
	126.7 0.8399 µg/L 0.18449 0.8399 ppb			0.18449	21.97%
Fe 238.204 Radial†	QC value within limits for Cu 324.752 Recovery = Not calculated				
	-0.4 -3.8589 µg/L 2.15113 -3.8589 ppb			2.15113	55.74%
K 766.490 Radial†	QC value within limits for Fe 238.204 Radial Recovery = Not calculated				
	23.7 16.269 µg/L 25.1413 16.269 ppb			25.1413	154.54%
Mg 279.077 IEC†	QC value within limits for K 766.490 Radial Recovery = Not calculated				
	-2.2 -21.826 µg/L 26.5375 -21.826 ppb			26.5375	121.58%
Mn 257.610†	QC value within limits for Mg 279.077 IEC Recovery = Not calculated				
	23.7 0.0758 µg/L 0.04301 0.0758 ppb			0.04301	56.73%
Mo 202.031†	QC value within limits for Mn 257.610 Recovery = Not calculated				
	4.9 0.4888 µg/L 0.07837 0.4888 ppb			0.07837	16.03%
Na 589.592 Radial†	QC value within limits for Mo 202.031 Recovery = Not calculated				
	64.8 21.170 µg/L 7.5553 21.170 ppb			7.5553	35.69%
Ni 231.604†	QC value within limits for Na 589.592 Radial Recovery = Not calculated				
	7.7 0.3908 µg/L 0.47949 0.3908 ppb			0.47949	122.69%
P 214.914†	QC value within limits for Ni 231.604 Recovery = Not calculated				
	-2.2 -4.4478 µg/L 9.06832 -4.4478 ppb			9.06832	203.88%
Pb 220.353†	QC value within limits for P 214.914 Recovery = Not calculated				
	-7.6 -1.8586 µg/L 2.77430 -1.8586 ppb			2.77430	149.27%
S 181.975 Axial†	QC value within limits for Pb 220.353 Recovery = Not calculated				
	-0.2 -0.9625 µg/L 7.19044 -0.9625 ppb			7.19044	747.07%
Sb 206.836†	QC value within limits for S 181.975 Axial Recovery = Not calculated				
	4.7 4.2835 µg/L 4.30813 4.2835 ppb			4.30813	100.57%
Se 196.026†	QC value within limits for Sb 206.836 Recovery = Not calculated				
	2.1 2.8976 µg/L 6.50604 2.8976 ppb			6.50604	224.53%
SiO2†	QC value within limits for Se 196.026 Recovery = Not calculated				
	12.2 2.4467 µg/L 4.40657 2.4467 ppb			4.40657	180.10%
Si 251.611†	QC value within limits for SiO2 Recovery = Not calculated				
	37.5 2.8978 µg/L 0.93785 2.8978 ppb			0.93785	32.36%
Sn 189.927†	QC value within limits for Si 251.611 Recovery = Not calculated				
	-2.0 -0.8635 µg/L 0.67354 -0.8635 ppb			0.67354	78.00%
Sr 421.552†	QC value within limits for Sn 189.927 Recovery = Not calculated				
	10.3 0.1010 µg/L 0.12347 0.1010 ppb			0.12347	122.23%
Ti 334.940†	QC value within limits for Sr 421.552 Recovery = Not calculated				
	127.5 0.2918 µg/L 0.03803 0.2918 ppb			0.03803	13.03%
Tl 190.801†	QC value within limits for Ti 334.940 Recovery = Not calculated				
	-0.6 -0.8211 µg/L 4.31796 -0.8211 ppb			4.31796	525.88%
U 409.014†	QC value within limits for Tl 190.801 Recovery = Not calculated				
	-36.4 -3.0928 µg/L 4.03610 -3.0928 ppb			4.03610	130.50%
V 292.402†	QC value within limits for U 409.014 Recovery = Not calculated				
	4.1 0.0404 µg/L 0.33099 0.0404 ppb			0.33099	818.81%
Zn 213.857†	QC value within limits for V 292.402 Recovery = Not calculated				
	27.7 0.6512 µg/L 0.08127 0.6512 ppb			0.08127	12.48%
	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: 2/20/2010 23:26:46

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	56330.5	56330.5	95.4 %		23:27:25
1	Al 396.153Radial†	6838.9	7177.0	5354.4 µg/L	5354.4 ppb	23:27:25
1	Ca 317.933Radial†	5704.4	5786.2	5307.4 µg/L	5307.4 ppb	23:27:45
1	Fe 238.204 Radial†	620.2	634.6	5459.0 µg/L	5459.0 ppb	23:27:45
1	K 766.490 Radial†	7410.1	7568.7	5204.3 µg/L	5204.3 ppb	23:27:25
1	Mg 279.077 IEC†	556.6	571.3	5564.0 µg/L	5564.0 ppb	23:27:45
1	Na 589.592 Radial†	31622.1	32671.4	10681 µg/L	10681 ppb	23:27:25
1	Sr 421.552†	49311.4	51645.1	507.94 µg/L	507.94 ppb	23:27:25
1	Sc 361.383	2042292.5	2042292.5	97.269 %		23:28:48
1	Y 371.029	1408589.0	1408589.0	96.778 %		23:28:48
1	Ag 328.068†	66253.9	68577.2	515.32 µg/L	515.32 ppb	23:28:54
1	As 188.979†	289.0	297.4	534.28 µg/L	534.28 ppb	23:29:15
1	B 249.677†	12397.5	12420.1	506.09 µg/L	506.09 ppb	23:28:54
1	Ba 233.527†	20472.6	21065.8	517.16 µg/L	517.16 ppb	23:28:54
1	Be 313.107†	830688.1	857769.9	517.84 µg/L	517.84 ppb	23:28:48
1	Cd 226.502†	19841.6	20535.2	516.63 µg/L	516.63 ppb	23:28:54
1	Co 228.616†	11022.5	11329.4	524.00 µg/L	524.00 ppb	23:28:54
1	Cr 267.716†	24858.5	25603.8	522.49 µg/L	522.49 ppb	23:28:54
1	Cu 324.752†	78561.6	77897.6	517.49 µg/L	517.49 ppb	23:28:54
1	Mn 257.610†	159582.8	164365.9	523.70 µg/L	523.70 ppb	23:28:48
1	Mo 202.031†	5208.8	5358.4	537.10 µg/L	537.10 ppb	23:29:15
1	Ni 231.604†	10332.3	10313.8	520.70 µg/L	520.70 ppb	23:28:54
1	P 214.914†	1319.5	1340.3	2615.5 µg/L	2615.5 ppb	23:29:15
1	Pb 220.353†	2190.2	2156.9	530.93 µg/L	530.93 ppb	23:29:15
1	S 181.975 Axial†	264.7	254.8	1056.2 µg/L	1056.2 ppb	23:29:15
1	Sb 206.836†	575.3	569.3	522.18 µg/L	522.18 ppb	23:29:15
1	Se 196.026†	384.2	380.0	529.08 µg/L	529.08 ppb	23:29:15
1	SiO2†	28510.0	27826.0	5572.2 µg/L	5572.2 ppb	23:28:54
1	Si 251.611†	33161.7	33799.3	2608.7 µg/L	2608.7 ppb	23:28:54
1	Sn 189.927†	1234.2	1264.1	540.63 µg/L	540.63 ppb	23:29:15
1	Ti 334.940†	223294.7	229422.4	521.44 µg/L	521.44 ppb	23:28:48
1	Tl 190.801†	358.9	391.2	529.11 µg/L	529.11 ppb	23:29:15
1	U 409.014†	5987.0	6155.9	521.32 µg/L	521.32 ppb	23:28:54
1	V 292.402†	50717.1	52237.1	523.26 µg/L	523.26 ppb	23:28:54
1	Zn 213.857†	22060.8	22178.3	519.72 µg/L	519.72 ppb	23:28:54
2	Sc RADIAL	57430.1	57430.1	97.3 %		23:27:51
2	Al 396.153Radial†	6965.0	7169.4	5349.0 µg/L	5349.0 ppb	23:27:51
2	Ca 317.933Radial†	5725.6	5693.5	5222.5 µg/L	5222.5 ppb	23:28:11
2	Fe 238.204 Radial†	620.1	622.1	5351.7 µg/L	5351.7 ppb	23:28:11
2	K 766.490 Radial†	7476.9	7488.6	5149.3 µg/L	5149.3 ppb	23:27:51
2	Mg 279.077 IEC†	557.8	561.4	5467.4 µg/L	5467.4 ppb	23:28:11
2	Na 589.592 Radial†	32080.0	32507.6	10628 µg/L	10628 ppb	23:27:51
2	Sr 421.552†	50471.1	51847.8	509.93 µg/L	509.93 ppb	23:27:51
2	Sc 361.383	2054918.9	2054918.9	97.870 %		23:29:22
2	Y 371.029	1416762.5	1416762.5	97.339 %		23:29:22
2	Ag 328.068†	66701.2	68615.7	515.60 µg/L	515.60 ppb	23:29:27
2	As 188.979†	276.9	283.2	508.74 µg/L	508.74 ppb	23:29:48
2	B 249.677†	12524.2	12471.3	508.23 µg/L	508.23 ppb	23:29:27
2	Ba 233.527†	20631.2	21098.5	517.96 µg/L	517.96 ppb	23:29:27
2	Be 313.107†	832869.8	854751.6	516.02 µg/L	516.02 ppb	23:29:22
2	Cd 226.502†	19978.0	20549.3	517.00 µg/L	517.00 ppb	23:29:27
2	Co 228.616†	11072.2	11310.5	523.11 µg/L	523.11 ppb	23:29:27
2	Cr 267.716†	24957.6	25548.0	521.35 µg/L	521.35 ppb	23:29:27
2	Cu 324.752†	79210.4	78064.3	518.58 µg/L	518.58 ppb	23:29:27
2	Mn 257.610†	160168.0	163955.8	522.39 µg/L	522.39 ppb	23:29:22
2	Mo 202.031†	5111.5	5226.0	523.83 µg/L	523.83 ppb	23:29:48
2	Ni 231.604†	10393.7	10311.2	520.57 µg/L	520.57 ppb	23:29:27
2	P 214.914†	1303.1	1315.2	2565.2 µg/L	2565.2 ppb	23:29:48
2	Pb 220.353†	2156.7	2108.8	519.05 µg/L	519.05 ppb	23:29:48

2	S 181.975 Axial†	264.6	253.0	1048.9 µg/L	1048.9 ppb	23:29:48
2	Sb 206.836†	578.6	569.0	521.72 µg/L	521.72 ppb	23:29:48
2	Se 196.026†	377.1	370.3	515.54 µg/L	515.54 ppb	23:29:48
2	SiO2†	28873.1	28017.0	5610.4 µg/L	5610.4 ppb	23:29:27
2	Si 251.611†	33504.9	33940.4	2619.6 µg/L	2619.6 ppb	23:29:27
2	Sn 189.927†	1199.8	1221.2	522.28 µg/L	522.28 ppb	23:29:48
2	Ti 334.940†	223897.9	228628.2	519.64 µg/L	519.64 ppb	23:29:22
2	Tl 190.801†	354.0	383.9	519.36 µg/L	519.36 ppb	23:29:48
2	U 409.014†	6049.5	6181.9	523.56 µg/L	523.56 ppb	23:29:27
2	V 292.402†	51068.6	52275.8	523.53 µg/L	523.53 ppb	23:29:27
2	Zn 213.857†	22196.3	22177.3	519.71 µg/L	519.71 ppb	23:29:27
3	Sc RADIAL	56802.4	56802.4	96.2 %		23:28:16
3	Al 396.153Radial†	6911.2	7192.5	5368.1 µg/L	5368.1 ppb	23:28:16
3	Ca 317.933Radial†	5728.6	5761.7	5285.0 µg/L	5285.0 ppb	23:28:37
3	Fe 238.204 Radial†	622.1	631.2	5428.7 µg/L	5428.7 ppb	23:28:37
3	K 766.490 Radial†	7497.5	7594.9	5222.4 µg/L	5222.4 ppb	23:28:16
3	Mg 279.077 IEC†	558.5	568.5	5534.8 µg/L	5534.8 ppb	23:28:37
3	Na 589.592 Radial†	31884.2	32668.5	10680 µg/L	10680 ppb	23:28:16
3	Sr 421.552†	49822.6	51747.1	508.94 µg/L	508.94 ppb	23:28:16
3	Sc 361.383	2052647.1	2052647.1	97.762 %		23:29:55
3	Y 371.029	1416680.5	1416680.5	97.334 %		23:29:55
3	Ag 328.068†	62677.9	64575.7	485.09 µg/L	485.09 ppb	23:30:01
3	As 188.979†	239.9	245.7	441.47 µg/L	441.47 ppb	23:30:21
3	B 249.677†	11686.2	11628.2	473.60 µg/L	473.60 ppb	23:30:01
3	Ba 233.527†	18696.5	19142.8	469.94 µg/L	469.94 ppb	23:30:01
3	Be 313.107†	776698.6	798236.4	481.90 µg/L	481.90 ppb	23:29:55
3	Cd 226.502†	18058.3	18608.3	468.10 µg/L	468.10 ppb	23:30:01
3	Co 228.616†	9890.6	10114.5	467.73 µg/L	467.73 ppb	23:30:01
3	Cr 267.716†	21790.7	22336.9	455.83 µg/L	455.83 ppb	23:30:01
3	Cu 324.752†	71427.3	70192.6	466.38 µg/L	466.38 ppb	23:30:01
3	Mn 257.610†	149598.9	153325.9	488.56 µg/L	488.56 ppb	23:29:55
3	Mo 202.031†	4266.2	4367.2	437.78 µg/L	437.78 ppb	23:30:21
3	Ni 231.604†	9355.9	9261.4	467.58 µg/L	467.58 ppb	23:30:01
3	P 214.914†	1099.2	1108.1	2157.6 µg/L	2157.6 ppb	23:30:21
3	Pb 220.353†	1893.0	1841.5	453.20 µg/L	453.20 ppb	23:30:21
3	S 181.975 Axial†	234.1	222.2	920.91 µg/L	920.91 ppb	23:30:21
3	Sb 206.836†	487.3	476.4	436.43 µg/L	436.43 ppb	23:30:21
3	Se 196.026†	335.0	327.7	457.35 µg/L	457.35 ppb	23:30:21
3	SiO2†	26605.4	25730.0	5152.4 µg/L	5152.4 ppb	23:30:01
3	Si 251.611†	30897.0	31310.7	2416.7 µg/L	2416.7 ppb	23:30:01
3	Sn 189.927†	988.5	1006.4	430.43 µg/L	430.43 ppb	23:30:21
3	Ti 334.940†	207641.6	212253.0	482.39 µg/L	482.39 ppb	23:29:55
3	Tl 190.801†	318.3	347.8	470.71 µg/L	470.71 ppb	23:30:21
3	U 409.014†	5235.3	5355.9	453.44 µg/L	453.44 ppb	23:30:01
3	V 292.402†	45428.0	46563.9	466.15 µg/L	466.15 ppb	23:30:01
3	Zn 213.857†	19978.4	19933.7	467.07 µg/L	467.07 ppb	23:30:01

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2049952.8	97.634 %	0.3206			0.33%
Sc RADIAL	56854.3	96.3 %	0.93			0.97%
Y 371.029	1414010.7	97.150 %	0.3226			0.33%
Ag 328.068†	67256.2	505.34 µg/L	17.531	505.34 ppb	17.531	3.47%
QC value within limits for Ag 328.068 Recovery = 101.07%						
Al 396.153Radial†	7179.6	5357.2 µg/L	9.85	5357.2 ppb	9.85	0.18%
QC value within limits for Al 396.153Radial Recovery = 107.14%						
As 188.979†	275.4	494.83 µg/L	47.944	494.83 ppb	47.944	9.69%
QC value within limits for As 188.979 Recovery = 98.97%						
B 249.677†	12173.2	495.97 µg/L	19.407	495.97 ppb	19.407	3.91%
QC value within limits for B 249.677 Recovery = 99.19%						
Ba 233.527†	20435.7	501.69 µg/L	27.500	501.69 ppb	27.500	5.48%
QC value within limits for Ba 233.527 Recovery = 100.34%						
Be 313.107†	836919.3	505.26 µg/L	20.244	505.26 ppb	20.244	4.01%
QC value within limits for Be 313.107 Recovery = 101.05%						
Ca 317.933Radial†	5747.1	5271.6 µg/L	44.03	5271.6 ppb	44.03	0.84%
QC value within limits for Ca 317.933Radial Recovery = 105.43%						
Cd 226.502†	19897.6	500.58 µg/L	28.130	500.58 ppb	28.130	5.62%
QC value within limits for Cd 226.502 Recovery = 100.12%						
Co 228.616†	10918.1	504.95 µg/L	32.233	504.95 ppb	32.233	6.38%

QC value within limits for Co 228.616 Recovery = 100.99%							
Cr 267.716†	24496.3	499.89 µg/L	38.162	499.89 ppb	38.162	7.63%	
QC value within limits for Cr 267.716 Recovery = 99.98%							
Cu 324.752†	75384.8	500.82 µg/L	29.831	500.82 ppb	29.831	5.96%	
QC value within limits for Cu 324.752 Recovery = 100.16%							
Fe 238.204 Radial†	629.3	5413.1 µg/L	55.31	5413.1 ppb	55.31	1.02%	
QC value within limits for Fe 238.204 Radial Recovery = 108.26%							
K 766.490 Radial†	7550.7	5192.0 µg/L	38.08	5192.0 ppb	38.08	0.73%	
QC value within limits for K 766.490 Radial Recovery = 103.84%							
Mg 279.077 IEC†	567.1	5522.1 µg/L	49.58	5522.1 ppb	49.58	0.90%	
QC value greater than the upper limit for Mg 279.077 IEC Recovery = 110.44%							
Mn 257.610†	160549.2	511.55 µg/L	19.922	511.55 ppb	19.922	3.89%	
QC value within limits for Mn 257.610 Recovery = 102.31%							
Mo 202.031†	4983.8	499.57 µg/L	53.921	499.57 ppb	53.921	10.79%	
QC value within limits for Mo 202.031 Recovery = 99.91%							
Na 589.592 Radial†	32615.8	10663 µg/L	30.7	10663 ppb	30.7	0.29%	
QC value within limits for Na 589.592 Radial Recovery = 106.63%							
Ni 231.604†	9962.1	502.95 µg/L	30.630	502.95 ppb	30.630	6.09%	
QC value within limits for Ni 231.604 Recovery = 100.59%							
P 214.914†	1254.5	2446.1 µg/L	251.15	2446.1 ppb	251.15	10.27%	
QC value within limits for P 214.914 Recovery = 97.84%							
Pb 220.353†	2035.7	501.06 µg/L	41.871	501.06 ppb	41.871	8.36%	
QC value within limits for Pb 220.353 Recovery = 100.21%							
S 181.975 Axial†	243.3	1008.7 µg/L	76.11	1008.7 ppb	76.11	7.55%	
QC value within limits for S 181.975 Axial Recovery = 100.87%							
Sb 206.836†	538.2	493.45 µg/L	49.373	493.45 ppb	49.373	10.01%	
QC value within limits for Sb 206.836 Recovery = 98.69%							
Se 196.026†	359.3	500.66 µg/L	38.110	500.66 ppb	38.110	7.61%	
QC value within limits for Se 196.026 Recovery = 100.13%							
SiO2†	27191.0	5445.0 µg/L	254.09	5445.0 ppb	254.09	4.67%	
QC value within limits for SiO2 Recovery = 101.82%							
Si 251.611†	33016.8	2548.4 µg/L	114.17	2548.4 ppb	114.17	4.48%	
QC value within limits for Si 251.611 Recovery = 101.93%							
Sn 189.927†	1163.9	497.78 µg/L	59.044	497.78 ppb	59.044	11.86%	
QC value within limits for Sn 189.927 Recovery = 99.56%							
Sr 421.552†	51746.7	508.94 µg/L	0.997	508.94 ppb	0.997	0.20%	
QC value within limits for Sr 421.552 Recovery = 101.79%							
Ti 334.940†	223434.5	507.83 µg/L	22.043	507.83 ppb	22.043	4.34%	
QC value within limits for Ti 334.940 Recovery = 101.57%							
Tl 190.801†	374.3	506.39 µg/L	31.287	506.39 ppb	31.287	6.18%	
QC value within limits for Tl 190.801 Recovery = 101.28%							
U 409.014†	5897.9	499.44 µg/L	39.850	499.44 ppb	39.850	7.98%	
QC value within limits for U 409.014 Recovery = 99.89%							
V 292.402†	50358.9	504.31 µg/L	33.052	504.31 ppb	33.052	6.55%	
QC value within limits for V 292.402 Recovery = 100.86%							
Zn 213.857†	21429.8	502.16 µg/L	30.396	502.16 ppb	30.396	6.05%	
QC value within limits for Zn 213.857 Recovery = 100.43%							
QC Failed. Continue with analysis.							

Sequence No.: 10

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/20/2010 23:30:31

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	56597.7	56597.7	95.9 %		23:31:03
1	Al 396.153Radial†	-0.8	7.9	5.8734 µg/L	5.8734 ppb	23:31:03
1	Ca 317.933Radial†	191.2	6.5	5.9558 µg/L	5.9558 ppb	23:31:24
1	Fe 238.204 Radial†	15.7	1.0	8.6808 µg/L	8.6808 ppb	23:31:24
1	K 766.490 Radial†	217.3	28.3	19.449 µg/L	19.449 ppb	23:31:03
1	Mg 279.077 IEC†	10.6	-1.0	-9.7422 µg/L	-9.7422 ppb	23:31:24
1	Na 589.592 Radial†	461.3	7.5	2.4505 µg/L	2.4505 ppb	23:31:03
1	Sr 421.552†	47.1	7.7	0.0761 µg/L	0.0761 ppb	23:31:03
1	Sc 361.383	2058481.8	2058481.8	98.040 %		23:32:26
1	Y 371.029	1425545.5	1425545.5	97.943 %		23:32:26
1	Ag 328.068†	-373.6	82.0	0.6126 µg/L	0.6126 ppb	23:32:31
1	As 188.979†	3.1	3.5	6.2164 µg/L	6.2164 ppb	23:32:52
1	B 249.677†	369.7	51.6	2.1077 µg/L	2.1077 ppb	23:32:52
1	Ba 233.527†	-15.2	2.8	0.0697 µg/L	0.0697 ppb	23:32:52
1	Be 313.107†	-3583.9	103.3	0.0623 µg/L	0.0623 ppb	23:32:31
1	Cd 226.502†	-146.6	-13.0	-0.3259 µg/L	-0.3259 ppb	23:32:52
1	Co 228.616†	0.9	-1.6	-0.0753 µg/L	-0.0753 ppb	23:32:52
1	Cr 267.716†	-55.1	-8.9	-0.1806 µg/L	-0.1806 ppb	23:32:31
1	Cu 324.752†	2905.9	94.2	0.6262 µg/L	0.6262 ppb	23:32:31
1	Mn 257.610†	-228.1	69.9	0.2241 µg/L	0.2241 ppb	23:32:52
1	Mo 202.031†	1.7	5.0	0.5026 µg/L	0.5026 ppb	23:32:52
1	Ni 231.604†	328.5	26.5	1.3383 µg/L	1.3383 ppb	23:32:52
1	P 214.914†	13.1	-2.9	-5.8038 µg/L	-5.8038 ppb	23:32:52
1	Pb 220.353†	89.3	-3.7	-0.9092 µg/L	-0.9092 ppb	23:32:52
1	S 181.975 Axial†	15.1	-1.8	-7.6484 µg/L	-7.6484 ppb	23:32:52
1	Sb 206.836†	26.8	5.2	4.7642 µg/L	4.7642 ppb	23:32:52
1	Se 196.026†	12.5	-2.2	-3.0313 µg/L	-3.0313 ppb	23:32:52
1	SiO2†	1531.2	77.4	15.504 µg/L	15.504 ppb	23:32:31
1	Si 251.611†	394.6	108.9	8.4067 µg/L	8.4067 ppb	23:32:52
1	Sn 189.927†	5.0	0.4	0.1651 µg/L	0.1651 ppb	23:32:52
1	Ti 334.940†	275.6	139.5	0.3181 µg/L	0.3181 ppb	23:32:31
1	Tl 190.801†	-21.0	0.8	1.1068 µg/L	1.1068 ppb	23:32:52
1	U 409.014†	-38.0	-38.0	-3.2223 µg/L	-3.2223 ppb	23:32:31
1	V 292.402†	-90.1	4.1	0.0416 µg/L	0.0416 ppb	23:32:31
1	Zn 213.857†	513.1	21.5	0.4997 µg/L	0.4997 ppb	23:32:52
2	Sc RADIAL	56998.6	56998.6	96.5 %		23:31:29
2	Al 396.153Radial†	-15.5	-7.3	-5.4832 µg/L	-5.4832 ppb	23:31:29
2	Ca 317.933Radial†	194.2	8.2	7.4814 µg/L	7.4814 ppb	23:31:49
2	Fe 238.204 Radial†	16.5	1.8	15.072 µg/L	15.072 ppb	23:31:49
2	K 766.490 Radial†	187.3	-4.4	-3.0096 µg/L	-3.0096 ppb	23:31:29
2	Mg 279.077 IEC†	14.0	2.4	23.405 µg/L	23.405 ppb	23:31:49
2	Na 589.592 Radial†	531.6	76.9	25.147 µg/L	25.147 ppb	23:31:29
2	Sr 421.552†	61.0	21.9	0.2150 µg/L	0.2150 ppb	23:31:29
2	Sc 361.383	2043982.4	2043982.4	97.350 %		23:32:58
2	Y 371.029	1414969.6	1414969.6	97.216 %		23:32:58
2	Ag 328.068†	-456.0	-5.3	-0.0372 µg/L	-0.0372 ppb	23:33:03
2	As 188.979†	4.4	4.8	8.5664 µg/L	8.5664 ppb	23:33:24
2	B 249.677†	375.8	60.6	2.4698 µg/L	2.4698 ppb	23:33:24
2	Ba 233.527†	-13.9	4.1	0.0996 µg/L	0.0996 ppb	23:33:24
2	Be 313.107†	-3641.4	18.3	0.0110 µg/L	0.0110 ppb	23:33:03
2	Cd 226.502†	-141.8	-9.0	-0.2292 µg/L	-0.2292 ppb	23:33:24
2	Co 228.616†	10.2	7.9	0.3668 µg/L	0.3668 ppb	23:33:24
2	Cr 267.716†	-34.4	12.0	0.2456 µg/L	0.2456 ppb	23:33:03
2	Cu 324.752†	2865.3	73.6	0.4901 µg/L	0.4901 ppb	23:33:03
2	Mn 257.610†	-238.1	58.0	0.1857 µg/L	0.1857 ppb	23:33:24
2	Mo 202.031†	2.0	5.3	0.5356 µg/L	0.5356 ppb	23:33:24
2	Ni 231.604†	301.1	0.6	0.0326 µg/L	0.0326 ppb	23:33:24
2	P 214.914†	16.4	0.6	1.1371 µg/L	1.1371 ppb	23:33:24
2	Pb 220.353†	86.5	-6.0	-1.4750 µg/L	-1.4750 ppb	23:33:24

2	S 181.975 Axial†	16.4	-0.4	-1.8512 µg/L	-1.8512 ppb	23:33:24
2	Sb 206.836†	26.0	4.6	4.2209 µg/L	4.2209 ppb	23:33:24
2	Se 196.026†	17.1	2.6	3.5596 µg/L	3.5596 ppb	23:33:24
2	SiO2†	1535.1	92.5	18.530 µg/L	18.530 ppb	23:33:03
2	Si 251.611†	409.0	126.6	9.7715 µg/L	9.7715 ppb	23:33:24
2	Sn 189.927†	3.7	-0.9	-0.3803 µg/L	-0.3803 ppb	23:33:24
2	Ti 334.940†	243.7	108.6	0.2453 µg/L	0.2453 ppb	23:33:03
2	Tl 190.801†	-24.0	-2.4	-3.2418 µg/L	-3.2418 ppb	23:33:24
2	U 409.014†	31.8	33.4	2.8340 µg/L	2.8340 ppb	23:33:03
2	V 292.402†	-76.9	17.0	0.1780 µg/L	0.1780 ppb	23:33:03
2	Zn 213.857†	520.4	32.6	0.7660 µg/L	0.7660 ppb	23:33:24
3	Sc RADIAL	56938.6	56938.6	96.4 %		23:31:55
3	Al 396.153Radial†	-11.1	-2.8	-2.0917 µg/L	-2.0917 ppb	23:31:55
3	Ca 317.933Radial†	197.6	12.0	10.967 µg/L	10.967 ppb	23:32:15
3	Fe 238.204 Radial†	14.8	0.0	0.0818 µg/L	0.0818 ppb	23:32:15
3	K 766.490 Radial†	158.3	-34.3	-23.568 µg/L	-23.568 ppb	23:31:55
3	Mg 279.077 IEC†	16.9	5.4	52.591 µg/L	52.591 ppb	23:32:15
3	Na 589.592 Radial†	520.3	65.8	21.512 µg/L	21.512 ppb	23:31:55
3	Sr 421.552†	35.8	-4.2	-0.0417 µg/L	-0.0417 ppb	23:31:55
3	Sc 361.383	2054454.8	2054454.8	97.848 %		23:33:30
3	Y 371.029	1422965.1	1422965.1	97.766 %		23:33:30
3	Ag 328.068†	-440.4	13.0	0.1001 µg/L	0.1001 ppb	23:33:35
3	As 188.979†	1.9	2.2	4.0082 µg/L	4.0082 ppb	23:33:56
3	B 249.677†	364.8	47.3	1.9353 µg/L	1.9353 ppb	23:33:56
3	Ba 233.527†	-14.0	4.1	0.1006 µg/L	0.1006 ppb	23:33:56
3	Be 313.107†	-3655.9	22.6	0.0135 µg/L	0.0135 ppb	23:33:35
3	Cd 226.502†	-153.0	-19.7	-0.4965 µg/L	-0.4965 ppb	23:33:56
3	Co 228.616†	2.8	0.3	0.0153 µg/L	0.0153 ppb	23:33:56
3	Cr 267.716†	-24.7	22.2	0.4529 µg/L	0.4529 ppb	23:33:35
3	Cu 324.752†	2916.6	111.0	0.7362 µg/L	0.7362 ppb	23:33:35
3	Mn 257.610†	-230.1	67.4	0.2123 µg/L	0.2123 ppb	23:33:56
3	Mo 202.031†	1.4	4.7	0.4718 µg/L	0.4718 ppb	23:33:56
3	Ni 231.604†	303.9	2.0	0.0999 µg/L	0.0999 ppb	23:33:56
3	P 214.914†	13.0	-2.9	-5.9281 µg/L	-5.9281 ppb	23:33:56
3	Pb 220.353†	84.4	-8.5	-2.1070 µg/L	-2.1070 ppb	23:33:56
3	S 181.975 Axial†	15.7	-1.3	-5.1940 µg/L	-5.1940 ppb	23:33:56
3	Sb 206.836†	20.6	-1.0	-0.9220 µg/L	-0.9220 ppb	23:33:56
3	Se 196.026†	18.0	3.4	4.5710 µg/L	4.5710 ppb	23:33:56
3	SiO2†	1537.6	87.0	17.424 µg/L	17.424 ppb	23:33:35
3	Si 251.611†	429.7	145.6	11.239 µg/L	11.239 ppb	23:33:56
3	Sn 189.927†	2.1	-2.5	-1.0841 µg/L	-1.0841 ppb	23:33:56
3	Ti 334.940†	313.1	178.3	0.4016 µg/L	0.4016 ppb	23:33:35
3	Tl 190.801†	-19.0	2.9	3.8293 µg/L	3.8293 ppb	23:33:56
3	U 409.014†	57.0	59.0	5.0081 µg/L	5.0081 ppb	23:33:35
3	V 292.402†	-48.7	46.2	0.4673 µg/L	0.4673 ppb	23:33:35
3	Zn 213.857†	511.5	20.8	0.4860 µg/L	0.4860 ppb	23:33:56

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2052306.3	97.746 %	0.3565			0.36%
Sc RADIAL	56845.0	96.3 %	0.37			0.38%
Y 371.029	1421160.1	97.642 %	0.3789			0.39%
Ag 328.068†	29.9	0.2252 µg/L	0.34250	0.2252 ppb	0.34250	152.10%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-0.7	-0.5672 µg/L	5.82978	-0.5672 ppb	5.82978	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	3.5	6.2637 µg/L	2.27951	6.2637 ppb	2.27951	36.39%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	53.2	2.1709 µg/L	0.27277	2.1709 ppb	0.27277	12.56%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	3.7	0.0899 µg/L	0.01757	0.0899 ppb	0.01757	19.54%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	48.1	0.0289 µg/L	0.02891	0.0289 ppb	0.02891	100.03%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	8.9	8.1348 µg/L	2.56885	8.1348 ppb	2.56885	31.58%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-13.9	-0.3505 µg/L	0.13534	-0.3505 ppb	0.13534	38.61%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	2.2	0.1023 µg/L	0.23353	0.1023 ppb	0.23353	228.35%

QC value within limits for Co 228.616	Recovery = Not calculated		
Cr 267.716†	8.5 0.1726 µg/L	0.32301 0.1726 ppb	0.32301 187.12%
QC value within limits for Cr 267.716	Recovery = Not calculated		
Cu 324.752†	92.9 0.6175 µg/L	0.12327 0.6175 ppb	0.12327 19.96%
QC value within limits for Cu 324.752	Recovery = Not calculated		
Fe 238.204 Radial†	0.9 7.9448 µg/L	7.52214 7.9448 ppb	7.52214 94.68%
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
K 766.490 Radial†	-3.5 -2.3760 µg/L	21.51560 -2.3760 ppb	21.51560 905.54%
QC value within limits for K 766.490 Radial	Recovery = Not calculated		
Mg 279.077 IEC†	2.3 22.085 µg/L	31.1877 22.085 ppb	31.1877 141.22%
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
Mn 257.610†	65.1 0.2074 µg/L	0.01965 0.2074 ppb	0.01965 9.48%
QC value within limits for Mn 257.610	Recovery = Not calculated		
Mo 202.031†	5.0 0.5033 µg/L	0.03194 0.5033 ppb	0.03194 6.35%
QC value within limits for Mo 202.031	Recovery = Not calculated		
Na 589.592 Radial†	50.1 16.370 µg/L	12.1907 16.370 ppb	12.1907 74.47%
QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
Ni 231.604†	9.7 0.4903 µg/L	0.73516 0.4903 ppb	0.73516 149.95%
QC value within limits for Ni 231.604	Recovery = Not calculated		
P 214.914†	-1.7 -3.5316 µg/L	4.04367 -3.5316 ppb	4.04367 114.50%
QC value within limits for P 214.914	Recovery = Not calculated		
Pb 220.353†	-6.1 -1.4971 µg/L	0.59924 -1.4971 ppb	0.59924 40.03%
QC value within limits for Pb 220.353	Recovery = Not calculated		
S 181.975 Axial†	-1.2 -4.8979 µg/L	2.90991 -4.8979 ppb	2.90991 59.41%
QC value within limits for S 181.975 Axial	Recovery = Not calculated		
Sb 206.836†	2.9 2.6877 µg/L	3.13784 2.6877 ppb	3.13784 116.75%
QC value within limits for Sb 206.836	Recovery = Not calculated		
Se 196.026†	1.2 1.6998 µg/L	4.12830 1.6998 ppb	4.12830 242.88%
QC value within limits for Se 196.026	Recovery = Not calculated		
SiO2†	85.7 17.153 µg/L	1.5311 17.153 ppb	1.5311 8.93%
QC value within limits for SiO2	Recovery = Not calculated		
Si 251.611†	127.0 9.8056 µg/L	1.41621 9.8056 ppb	1.41621 14.44%
QC value within limits for Si 251.611	Recovery = Not calculated		
Sn 189.927†	-1.0 -0.4331 µg/L	0.62629 -0.4331 ppb	0.62629 144.61%
QC value within limits for Sn 189.927	Recovery = Not calculated		
Sr 421.552†	8.5 0.0831 µg/L	0.12853 0.0831 ppb	0.12853 154.64%
QC value within limits for Sr 421.552	Recovery = Not calculated		
Ti 334.940†	142.1 0.3217 µg/L	0.07819 0.3217 ppb	0.07819 24.30%
QC value within limits for Ti 334.940	Recovery = Not calculated		
Tl 190.801†	0.4 0.5648 µg/L	3.56656 0.5648 ppb	3.56656 631.50%
QC value within limits for Tl 190.801	Recovery = Not calculated		
U 409.014†	18.2 1.5399 µg/L	4.26509 1.5399 ppb	4.26509 276.97%
QC value within limits for U 409.014	Recovery = Not calculated		
V 292.402†	22.5 0.2290 µg/L	0.21738 0.2290 ppb	0.21738 94.94%
QC value within limits for V 292.402	Recovery = Not calculated		
Zn 213.857†	24.9 0.5839 µg/L	0.15784 0.5839 ppb	0.15784 27.03%
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: 2/21/2010 00:03:29  
 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	57415.5	57415.5	97.2 %		00:04:07
1	Al 396.153Radial†	6854.0	7057.1	5264.9 µg/L	5264.9 ppb	00:04:07
1	Ca 317.933Radial†	5695.7	5664.2	5195.6 µg/L	5195.6 ppb	00:04:27
1	Fe 238.204 Radial†	613.4	615.4	5293.7 µg/L	5293.7 ppb	00:04:27
1	K 766.490 Radial†	7454.4	7467.4	5134.7 µg/L	5134.7 ppb	00:04:07
1	Mg 279.077 IEC†	554.3	557.9	5433.5 µg/L	5433.5 ppb	00:04:27
1	Na 589.592 Radial†	31689.3	32114.3	10499 µg/L	10499 ppb	00:04:07
1	Sr 421.552†	49564.2	50928.4	500.89 µg/L	500.89 ppb	00:04:07
1	Sc 361.383	2064117.9	2064117.9	98.309 %		00:05:31
1	Y 371.029	1426502.9	1426502.9	98.009 %		00:05:31
1	Ag 328.068†	66769.1	68381.1	513.84 µg/L	513.84 ppb	00:05:36
1	As 188.979†	285.7	290.9	522.63 µg/L	522.63 ppb	00:05:57
1	B 249.677†	12494.0	12383.5	504.67 µg/L	504.67 ppb	00:05:36
1	Ba 233.527†	20677.2	21051.4	516.81 µg/L	516.81 ppb	00:05:36
1	Be 313.107†	826682.0	844664.8	509.93 µg/L	509.93 ppb	00:05:31
1	Cd 226.502†	20017.2	20498.2	515.72 µg/L	515.72 ppb	00:05:36
1	Co 228.616†	11069.1	11257.0	520.65 µg/L	520.65 ppb	00:05:36
1	Cr 267.716†	25065.6	25544.3	521.28 µg/L	521.28 ppb	00:05:36
1	Cu 324.752†	79232.5	77726.1	516.33 µg/L	516.33 ppb	00:05:36
1	Mn 257.610†	158863.3	161899.2	515.84 µg/L	515.84 ppb	00:05:31
1	Mo 202.031†	5190.0	5282.6	529.50 µg/L	529.50 ppb	00:05:57
1	Ni 231.604†	10438.8	10309.8	520.50 µg/L	520.50 ppb	00:05:36
1	P 214.914†	1302.3	1308.4	2552.2 µg/L	2552.2 ppb	00:05:57
1	Pb 220.353†	2189.3	2132.1	524.82 µg/L	524.82 ppb	00:05:57
1	S 181.975 Axial†	266.9	254.2	1053.7 µg/L	1053.7 ppb	00:05:57
1	Sb 206.836†	573.6	561.4	514.82 µg/L	514.82 ppb	00:05:57
1	Se 196.026†	389.5	381.2	530.42 µg/L	530.42 ppb	00:05:57
1	SiO2†	28760.8	27771.2	5561.2 µg/L	5561.2 ppb	00:05:36
1	Si 251.611†	33414.9	33696.3	2600.8 µg/L	2600.8 ppb	00:05:36
1	Sn 189.927†	1225.9	1242.3	531.29 µg/L	531.29 ppb	00:05:57
1	Ti 334.940†	221942.7	225619.8	512.80 µg/L	512.80 ppb	00:05:31
1	Tl 190.801†	360.6	389.0	526.07 µg/L	526.07 ppb	00:05:57
1	U 409.014†	6053.7	6158.6	521.59 µg/L	521.59 ppb	00:05:36
1	V 292.402†	51256.8	52234.8	523.15 µg/L	523.15 ppb	00:05:36
1	Zn 213.857†	22169.6	22049.1	516.69 µg/L	516.69 ppb	00:05:36
2	Sc RADIAL	57827.3	57827.3	97.9 %		00:04:33
2	Al 396.153Radial†	6893.7	7047.4	5258.0 µg/L	5258.0 ppb	00:04:33
2	Ca 317.933Radial†	5700.5	5627.4	5161.8 µg/L	5161.8 ppb	00:04:53
2	Fe 238.204 Radial†	615.8	613.3	5275.8 µg/L	5275.8 ppb	00:04:53
2	K 766.490 Radial†	7531.6	7491.7	5151.4 µg/L	5151.4 ppb	00:04:33
2	Mg 279.077 IEC†	548.6	548.1	5337.6 µg/L	5337.6 ppb	00:04:53
2	Na 589.592 Radial†	31949.3	32147.6	10510 µg/L	10510 ppb	00:04:33
2	Sr 421.552†	50012.1	51022.7	501.82 µg/L	501.82 ppb	00:04:33
2	Sc 361.383	2071786.3	2071786.3	98.674 %		00:06:04
2	Y 371.029	1431109.7	1431109.7	98.325 %		00:06:04
2	Ag 328.068†	66150.2	67502.5	507.24 µg/L	507.24 ppb	00:06:10
2	As 188.979†	278.9	283.0	508.37 µg/L	508.37 ppb	00:06:30
2	B 249.677†	12317.5	12157.6	495.43 µg/L	495.43 ppb	00:06:10
2	Ba 233.527†	20441.0	20734.1	509.02 µg/L	509.02 ppb	00:06:10
2	Be 313.107†	826922.1	841795.6	508.20 µg/L	508.20 ppb	00:06:04
2	Cd 226.502†	19844.2	20247.5	509.41 µg/L	509.41 ppb	00:06:10
2	Co 228.616†	10939.6	11084.1	512.64 µg/L	512.64 ppb	00:06:10
2	Cr 267.716†	24768.4	25148.7	513.20 µg/L	513.20 ppb	00:06:10
2	Cu 324.752†	78472.6	76657.6	509.24 µg/L	509.24 ppb	00:06:10
2	Mn 257.610†	159085.5	161526.3	514.65 µg/L	514.65 ppb	00:06:04
2	Mo 202.031†	5075.5	5147.1	515.92 µg/L	515.92 ppb	00:06:30
2	Ni 231.604†	10303.5	10133.4	511.59 µg/L	511.59 ppb	00:06:10
2	P 214.914†	1279.9	1280.9	2498.0 µg/L	2498.0 ppb	00:06:30
2	Pb 220.353†	2143.2	2077.3	511.29 µg/L	511.29 ppb	00:06:30

2	S 181.975 Axial†	263.1	249.3	1033.4 µg/L	1033.4 ppb	00:06:30
2	Sb 206.836†	565.6	551.1	505.33 µg/L	505.33 ppb	00:06:30
2	Se 196.026†	378.1	368.2	512.59 µg/L	512.59 ppb	00:06:30
2	SiO2†	28495.1	27393.7	5485.6 µg/L	5485.6 ppb	00:06:10
2	Si 251.611†	33093.1	33244.4	2565.9 µg/L	2565.9 ppb	00:06:10
2	Sn 189.927†	1196.1	1207.5	516.40 µg/L	516.40 ppb	00:06:30
2	Ti 334.940†	222052.0	224895.0	511.16 µg/L	511.16 ppb	00:06:04
2	Tl 190.801†	352.9	379.9	513.94 µg/L	513.94 ppb	00:06:30
2	U 409.014†	6014.3	6095.9	516.27 µg/L	516.27 ppb	00:06:10
2	V 292.402†	50766.2	51544.5	516.20 µg/L	516.20 ppb	00:06:10
2	Zn 213.857†	21962.1	21755.3	509.81 µg/L	509.81 ppb	00:06:10
3	Sc RADIAL	57722.0	57722.0	97.8 %		00:04:59
3	Al 396.153Radial†	6896.4	7063.0	5271.3 µg/L	5271.3 ppb	00:04:59
3	Ca 317.933Radial†	5715.0	5652.9	5185.2 µg/L	5185.2 ppb	00:05:19
3	Fe 238.204 Radial†	613.9	612.6	5268.1 µg/L	5268.1 ppb	00:05:19
3	K 766.490 Radial†	7377.9	7348.5	5052.9 µg/L	5052.9 ppb	00:04:59
3	Mg 279.077 IEC†	557.1	557.8	5430.6 µg/L	5430.6 ppb	00:05:19
3	Na 589.592 Radial†	31767.7	32021.4	10469 µg/L	10469 ppb	00:04:59
3	Sr 421.552†	49751.5	50849.4	500.11 µg/L	500.11 ppb	00:04:59
3	Sc 361.383	2057993.8	2057993.8	98.017 %		00:06:37
3	Y 371.029	1421787.4	1421787.4	97.685 %		00:06:37
3	Ag 328.068†	62121.2	63841.2	479.58 µg/L	479.58 ppb	00:06:43
3	As 188.979†	240.0	245.1	440.36 µg/L	440.36 ppb	00:07:03
3	B 249.677†	11580.9	11489.7	468.01 µg/L	468.01 ppb	00:06:43
3	Ba 233.527†	18574.3	18968.5	465.66 µg/L	465.66 ppb	00:06:43
3	Be 313.107†	767265.6	786548.6	474.85 µg/L	474.85 ppb	00:06:37
3	Cd 226.502†	17953.0	18452.8	464.20 µg/L	464.20 ppb	00:06:43
3	Co 228.616†	9804.2	10000.0	462.44 µg/L	462.44 ppb	00:06:43
3	Cr 267.716†	21658.9	22144.5	451.90 µg/L	451.90 ppb	00:06:43
3	Cu 324.752†	70892.5	69457.1	461.47 µg/L	461.47 ppb	00:06:43
3	Mn 257.610†	148137.6	151437.4	482.53 µg/L	482.53 ppb	00:06:37
3	Mo 202.031†	4229.1	4318.0	432.85 µg/L	432.85 ppb	00:07:03
3	Ni 231.604†	9286.8	9166.0	462.76 µg/L	462.76 ppb	00:06:43
3	P 214.914†	1094.8	1100.7	2143.4 µg/L	2143.4 ppb	00:07:03
3	Pb 220.353†	1866.2	1809.2	445.24 µg/L	445.24 ppb	00:07:03
3	S 181.975 Axial†	233.3	220.8	915.15 µg/L	915.15 ppb	00:07:03
3	Sb 206.836†	488.7	476.5	436.51 µg/L	436.51 ppb	00:07:03
3	Se 196.026†	335.8	327.6	456.89 µg/L	456.89 ppb	00:07:03
3	SiO2†	26439.5	25490.1	5104.4 µg/L	5104.4 ppb	00:06:43
3	Si 251.611†	30590.6	30916.1	2386.2 µg/L	2386.2 ppb	00:06:43
3	Sn 189.927†	983.9	999.0	427.28 µg/L	427.28 ppb	00:07:03
3	Ti 334.940†	205015.2	209021.6	475.05 µg/L	475.05 ppb	00:06:37
3	Tl 190.801†	319.1	347.7	470.58 µg/L	470.58 ppb	00:07:03
3	U 409.014†	5267.4	5374.7	455.06 µg/L	455.06 ppb	00:06:43
3	V 292.402†	45133.8	46142.9	461.92 µg/L	461.92 ppb	00:06:43
3	Zn 213.857†	19842.4	19742.0	462.58 µg/L	462.58 ppb	00:06:43

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2064632.7	98.333 %	0.3291			0.33%
Sc RADIAL	57654.9	97.6 %	0.36			0.37%
Y 371.029	1426466.7	98.006 %	0.3203			0.33%
Ag 328.068†	66574.9	500.22 µg/L	18.180	500.22 ppb	18.180	3.63%
QC value within limits for Ag 328.068 Recovery = 100.04%						
Al 396.153Radial†	7055.8	5264.8 µg/L	6.66	5264.8 ppb	6.66	0.13%
QC value within limits for Al 396.153Radial Recovery = 105.30%						
As 188.979†	273.0	490.46 µg/L	43.965	490.46 ppb	43.965	8.96%
QC value within limits for As 188.979 Recovery = 98.09%						
B 249.677†	12010.3	489.37 µg/L	19.067	489.37 ppb	19.067	3.90%
QC value within limits for B 249.677 Recovery = 97.87%						
Ba 233.527†	20251.3	497.16 µg/L	27.560	497.16 ppb	27.560	5.54%
QC value within limits for Ba 233.527 Recovery = 99.43%						
Be 313.107†	824336.3	497.66 µg/L	19.775	497.66 ppb	19.775	3.97%
QC value within limits for Be 313.107 Recovery = 99.53%						
Ca 317.933Radial†	5648.2	5180.9 µg/L	17.30	5180.9 ppb	17.30	0.33%
QC value within limits for Ca 317.933Radial Recovery = 103.62%						
Cd 226.502†	19732.8	496.44 µg/L	28.102	496.44 ppb	28.102	5.66%
QC value within limits for Cd 226.502 Recovery = 99.29%						
Co 228.616†	10780.4	498.58 µg/L	31.549	498.58 ppb	31.549	6.33%



QC value within limits for Co 228.616 Recovery = 99.72%							
Cr 267.716†	24279.2	495.46 µg/L	37.938	495.46 ppb	37.938	7.66%	
QC value within limits for Cr 267.716 Recovery = 99.09%							
Cu 324.752†	74613.6	495.68 µg/L	29.835	495.68 ppb	29.835	6.02%	
QC value within limits for Cu 324.752 Recovery = 99.14%							
Fe 238.204 Radial†	613.8	5279.2 µg/L	13.10	5279.2 ppb	13.10	0.25%	
QC value within limits for Fe 238.204 Radial Recovery = 105.58%							
K 766.490 Radial†	7435.8	5113.0 µg/L	52.69	5113.0 ppb	52.69	1.03%	
QC value within limits for K 766.490 Radial Recovery = 102.26%							
Mg 279.077 IEC†	554.6	5400.6 µg/L	54.55	5400.6 ppb	54.55	1.01%	
QC value within limits for Mg 279.077 IEC Recovery = 108.01%							
Mn 257.610†	158287.7	504.34 µg/L	18.896	504.34 ppb	18.896	3.75%	
QC value within limits for Mn 257.610 Recovery = 100.87%							
Mo 202.031†	4915.9	492.75 µg/L	52.321	492.75 ppb	52.321	10.62%	
QC value within limits for Mo 202.031 Recovery = 98.55%							
Na 589.592 Radial†	32094.4	10493 µg/L	21.4	10493 ppb	21.4	0.20%	
QC value within limits for Na 589.592 Radial Recovery = 104.93%							
Ni 231.604†	9869.7	498.28 µg/L	31.083	498.28 ppb	31.083	6.24%	
QC value within limits for Ni 231.604 Recovery = 99.66%							
P 214.914†	1230.0	2397.9 µg/L	221.99	2397.9 ppb	221.99	9.26%	
QC value within limits for P 214.914 Recovery = 95.91%							
Pb 220.353†	2006.2	493.78 µg/L	42.581	493.78 ppb	42.581	8.62%	
QC value within limits for Pb 220.353 Recovery = 98.76%							
S 181.975 Axial†	241.4	1000.8 µg/L	74.84	1000.8 ppb	74.84	7.48%	
QC value within limits for S 181.975 Axial Recovery = 100.08%							
Sb 206.836†	529.6	485.55 µg/L	42.736	485.55 ppb	42.736	8.80%	
QC value within limits for Sb 206.836 Recovery = 97.11%							
Se 196.026†	359.0	499.97 µg/L	38.354	499.97 ppb	38.354	7.67%	
QC value within limits for Se 196.026 Recovery = 99.99%							
SiO2†	26885.0	5383.7 µg/L	244.85	5383.7 ppb	244.85	4.55%	
QC value within limits for SiO2 Recovery = 100.68%							
Si 251.611†	32618.9	2517.6 µg/L	115.15	2517.6 ppb	115.15	4.57%	
QC value within limits for Si 251.611 Recovery = 100.71%							
Sn 189.927†	1149.6	491.66 µg/L	56.249	491.66 ppb	56.249	11.44%	
QC value within limits for Sn 189.927 Recovery = 98.33%							
Sr 421.552†	50933.5	500.94 µg/L	0.853	500.94 ppb	0.853	0.17%	
QC value within limits for Sr 421.552 Recovery = 100.19%							
Ti 334.940†	219845.5	499.67 µg/L	21.337	499.67 ppb	21.337	4.27%	
QC value within limits for Ti 334.940 Recovery = 99.93%							
Tl 190.801†	372.2	503.53 µg/L	29.173	503.53 ppb	29.173	5.79%	
QC value within limits for Tl 190.801 Recovery = 100.71%							
U 409.014†	5876.4	497.64 µg/L	36.969	497.64 ppb	36.969	7.43%	
QC value within limits for U 409.014 Recovery = 99.53%							
V 292.402†	49974.1	500.42 µg/L	33.528	500.42 ppb	33.528	6.70%	
QC value within limits for V 292.402 Recovery = 100.08%							
Zn 213.857†	21182.1	496.36 µg/L	29.454	496.36 ppb	29.454	5.93%	
QC value within limits for Zn 213.857 Recovery = 99.27%							
All analyte(s) passed QC.							

Sequence No.: 20

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/21/2010 00:07:13

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	56827.9	56827.9	96.2 %		00:07:46
1	Al 396.153Radial†	-11.9	-3.7	-2.7798 µg/L	-2.7798 ppb	00:07:46
1	Ca 317.933Radial†	191.0	5.4	4.9932 µg/L	4.9932 ppb	00:08:07
1	Fe 238.204 Radial†	17.6	2.9	25.038 µg/L	25.038 ppb	00:08:07
1	K 766.490 Radial†	227.0	37.5	25.770 µg/L	25.770 ppb	00:07:46
1	Mg 279.077 IEC†	5.0	-6.9	-67.444 µg/L	-67.444 ppb	00:08:07
1	Na 589.592 Radial†	474.5	19.3	6.3097 µg/L	6.3097 ppb	00:07:46
1	Sr 421.552†	52.2	12.9	0.1264 µg/L	0.1264 ppb	00:07:46
1	Sc 361.383	2048811.8	2048811.8	97.580 %		00:09:08
1	Y 371.029	1421637.4	1421637.4	97.674 %		00:09:08
1	Ag 328.068†	-402.5	50.6	0.3802 µg/L	0.3802 ppb	00:09:14
1	As 188.979†	0.1	0.4	0.6624 µg/L	0.6624 ppb	00:09:35
1	B 249.677†	345.4	28.5	1.1536 µg/L	1.1536 ppb	00:09:35
1	Ba 233.527†	-7.9	10.2	0.2511 µg/L	0.2511 ppb	00:09:35
1	Be 313.107†	-3529.5	141.9	0.0854 µg/L	0.0854 ppb	00:09:14
1	Cd 226.502†	-133.2	0.1	-0.0004 µg/L	-0.0004 ppb	00:09:35
1	Co 228.616†	2.6	0.1	0.0041 µg/L	0.0041 ppb	00:09:35
1	Cr 267.716†	-21.2	25.7	0.5236 µg/L	0.5236 ppb	00:09:14
1	Cu 324.752†	2883.1	84.9	0.5666 µg/L	0.5666 ppb	00:09:14
1	Mn 257.610†	-43.8	257.7	0.8263 µg/L	0.8263 ppb	00:09:35
1	Mo 202.031†	5.7	9.2	0.9218 µg/L	0.9218 ppb	00:09:35
1	Ni 231.604†	304.8	3.8	0.1904 µg/L	0.1904 ppb	00:09:35
1	P 214.914†	18.0	2.2	4.3058 µg/L	4.3058 ppb	00:09:35
1	Pb 220.353†	88.6	-4.0	-0.9893 µg/L	-0.9893 ppb	00:09:35
1	S 181.975 Axial†	19.6	2.8	11.780 µg/L	11.780 ppb	00:09:35
1	Sb 206.836†	20.5	-1.1	-1.0267 µg/L	-1.0267 ppb	00:09:35
1	Se 196.026†	17.3	2.7	3.8268 µg/L	3.8268 ppb	00:09:35
1	SiO2†	1591.3	146.4	29.313 µg/L	29.313 ppb	00:09:14
1	Si 251.611†	446.5	164.0	12.660 µg/L	12.660 ppb	00:09:35
1	Sn 189.927†	4.9	0.3	0.1048 µg/L	0.1048 ppb	00:09:35
1	Ti 334.940†	476.1	346.2	0.7928 µg/L	0.7928 ppb	00:09:14
1	Tl 190.801†	-23.9	-2.3	-3.0080 µg/L	-3.0080 ppb	00:09:35
1	U 409.014†	-26.8	-26.7	-2.2692 µg/L	-2.2692 ppb	00:09:14
1	V 292.402†	-78.6	15.5	0.1620 µg/L	0.1620 ppb	00:09:14
1	Zn 213.857†	511.1	21.8	0.5155 µg/L	0.5155 ppb	00:09:35
2	Sc RADIAL	56976.7	56976.7	96.5 %		00:08:12
2	Al 396.153Radial†	1.1	9.8	7.3287 µg/L	7.3287 ppb	00:08:12
2	Ca 317.933Radial†	188.1	2.0	1.7975 µg/L	1.7975 ppb	00:08:32
2	Fe 238.204 Radial†	17.2	2.4	20.850 µg/L	20.850 ppb	00:08:32
2	K 766.490 Radial†	220.2	29.8	20.496 µg/L	20.496 ppb	00:08:12
2	Mg 279.077 IEC†	13.3	1.7	16.748 µg/L	16.748 ppb	00:08:32
2	Na 589.592 Radial†	450.8	-6.5	-2.1321 µg/L	-2.1321 ppb	00:08:12
2	Sr 421.552†	23.3	-17.2	-0.1691 µg/L	-0.1691 ppb	00:08:12
2	Sc 361.383	2061213.2	2061213.2	98.170 %		00:09:41
2	Y 371.029	1429644.0	1429644.0	98.224 %		00:09:41
2	Ag 328.068†	-411.8	43.6	0.3297 µg/L	0.3297 ppb	00:09:46
2	As 188.979†	-3.2	-3.0	-5.4202 µg/L	-5.4202 ppb	00:10:07
2	B 249.677†	353.3	34.4	1.3935 µg/L	1.3935 ppb	00:10:07
2	Ba 233.527†	-7.9	10.3	0.2534 µg/L	0.2534 ppb	00:10:07
2	Be 313.107†	-3550.5	142.2	0.0855 µg/L	0.0855 ppb	00:09:46
2	Cd 226.502†	-138.6	-4.6	-0.1171 µg/L	-0.1171 ppb	00:10:07
2	Co 228.616†	3.1	0.6	0.0277 µg/L	0.0277 ppb	00:10:07
2	Cr 267.716†	-79.6	-33.6	-0.6859 µg/L	-0.6859 ppb	00:09:46
2	Cu 324.752†	2945.2	130.4	0.8681 µg/L	0.8681 ppb	00:09:46
2	Mn 257.610†	-43.7	258.0	0.8234 µg/L	0.8234 ppb	00:10:07
2	Mo 202.031†	0.2	3.6	0.3577 µg/L	0.3577 ppb	00:10:07
2	Ni 231.604†	309.5	6.7	0.3374 µg/L	0.3374 ppb	00:10:07
2	P 214.914†	9.6	-6.4	-12.836 µg/L	-12.836 ppb	00:10:07
2	Pb 220.353†	93.2	0.2	0.0620 µg/L	0.0620 ppb	00:10:07

2	S 181.975 Axial†	17.6	0.7	2.8242 µg/L	2.8242 ppb	00:10:07
2	Sb 206.836†	18.1	-3.7	-3.3805 µg/L	-3.3805 ppb	00:10:07
2	Se 196.026†	21.2	6.6	9.0772 µg/L	9.0772 ppb	00:10:07
2	SiO2†	1578.3	123.3	24.690 µg/L	24.690 ppb	00:09:46
2	Si 251.611†	447.3	162.1	12.510 µg/L	12.510 ppb	00:10:07
2	Sn 189.927†	4.9	0.3	0.1188 µg/L	0.1188 ppb	00:10:07
2	Ti 334.940†	549.0	417.6	0.9484 µg/L	0.9484 ppb	00:09:46
2	Tl 190.801†	-26.3	-4.5	-6.0444 µg/L	-6.0444 ppb	00:10:07
2	U 409.014†	-155.2	-157.4	-13.356 µg/L	-13.356 ppb	00:09:46
2	V 292.402†	-52.5	42.5	0.4101 µg/L	0.4101 ppb	00:09:46
2	Zn 213.857†	521.8	29.6	0.6944 µg/L	0.6944 ppb	00:10:07
3	Sc RADIAL	57148.0	57148.0	96.8 %		00:08:38
3	Al 396.153Radial†	-21.0	-13.0	-9.7230 µg/L	-9.7230 ppb	00:08:38
3	Ca 317.933Radial†	205.2	19.0	17.463 µg/L	17.463 ppb	00:08:58
3	Fe 238.204 Radial†	16.0	1.1	9.7862 µg/L	9.7862 ppb	00:08:58
3	K 766.490 Radial†	172.9	-19.7	-13.576 µg/L	-13.576 ppb	00:08:38
3	Mg 279.077 IEC†	11.6	-0.1	-1.3133 µg/L	-1.3133 ppb	00:08:58
3	Na 589.592 Radial†	491.4	34.0	11.119 µg/L	11.119 ppb	00:08:38
3	Sr 421.552†	45.6	5.8	0.0568 µg/L	0.0568 ppb	00:08:38
3	Sc 361.383	2058859.2	2058859.2	98.058 %		00:10:13
3	Y 371.029	1427504.8	1427504.8	98.078 %		00:10:13
3	Ag 328.068†	-407.6	47.4	0.3542 µg/L	0.3542 ppb	00:10:19
3	As 188.979†	-1.6	-1.4	-2.4452 µg/L	-2.4452 ppb	00:10:39
3	B 249.677†	345.6	27.0	1.1001 µg/L	1.1001 ppb	00:10:39
3	Ba 233.527†	-10.8	7.3	0.1793 µg/L	0.1793 ppb	00:10:39
3	Be 313.107†	-3550.4	138.1	0.0831 µg/L	0.0831 ppb	00:10:19
3	Cd 226.502†	-138.9	-5.0	-0.1281 µg/L	-0.1281 ppb	00:10:39
3	Co 228.616†	9.2	6.8	0.3141 µg/L	0.3141 ppb	00:10:39
3	Cr 267.716†	-26.7	20.2	0.4110 µg/L	0.4110 ppb	00:10:19
3	Cu 324.752†	2907.8	95.6	0.6357 µg/L	0.6357 ppb	00:10:19
3	Mn 257.610†	-111.8	188.6	0.6017 µg/L	0.6017 ppb	00:10:39
3	Mo 202.031†	-0.0	3.3	0.3311 µg/L	0.3311 ppb	00:10:39
3	Ni 231.604†	300.3	-2.4	-0.1200 µg/L	-0.1200 ppb	00:10:39
3	P 214.914†	13.4	-2.5	-5.1026 µg/L	-5.1026 ppb	00:10:39
3	Pb 220.353†	89.9	-3.1	-0.7731 µg/L	-0.7731 ppb	00:10:39
3	S 181.975 Axial†	17.6	0.6	2.6706 µg/L	2.6706 ppb	00:10:39
3	Sb 206.836†	21.6	-0.1	-0.0875 µg/L	-0.0875 ppb	00:10:39
3	Se 196.026†	20.9	6.3	8.6805 µg/L	8.6805 ppb	00:10:39
3	SiO2†	1581.5	128.5	25.723 µg/L	25.723 ppb	00:10:19
3	Si 251.611†	427.7	142.6	11.006 µg/L	11.006 ppb	00:10:39
3	Sn 189.927†	4.2	-0.4	-0.1884 µg/L	-0.1884 ppb	00:10:39
3	Ti 334.940†	552.9	422.2	0.9607 µg/L	0.9607 ppb	00:10:19
3	Tl 190.801†	-20.1	1.7	2.2786 µg/L	2.2786 ppb	00:10:39
3	U 409.014†	-1.8	-1.1	-0.0980 µg/L	-0.0980 ppb	00:10:19
3	V 292.402†	-97.2	-3.2	-0.0267 µg/L	-0.0267 ppb	00:10:19
3	Zn 213.857†	515.9	24.1	0.5685 µg/L	0.5685 ppb	00:10:39

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2056294.7	97.936 %	0.3137			0.32%
Sc RADIAL	56984.2	96.5 %	0.27			0.28%
Y 371.029	1426262.1	97.992 %	0.2848			0.29%
Ag 328.068†	47.2	0.3547 µg/L	0.02525	0.3547 ppb	0.02525	7.12%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-2.3	-1.7247 µg/L	8.57468	-1.7247 ppb	8.57468	497.17%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-1.3	-2.4010 µg/L	3.04154	-2.4010 ppb	3.04154	126.68%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	30.0	1.2158 µg/L	0.15625	1.2158 ppb	0.15625	12.85%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	9.3	0.2279 µg/L	0.04213	0.2279 ppb	0.04213	18.49%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	140.7	0.0847 µg/L	0.00138	0.0847 ppb	0.00138	1.63%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	8.8	8.0845 µg/L	8.27760	8.0845 ppb	8.27760	102.39%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-3.2	-0.0819 µg/L	0.07074	-0.0819 ppb	0.07074	86.42%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	2.5	0.1153 µg/L	0.17258	0.1153 ppb	0.17258	149.65%

QC value within limits for Co 228.616	Recovery = Not calculated		
Cr 267.716†	4.1 0.0829 µg/L	0.66815 0.0829 ppb	0.66815 805.80%
QC value within limits for Cr 267.716	Recovery = Not calculated		
Cu 324.752†	103.6 0.6901 µg/L	0.15793 0.6901 ppb	0.15793 22.88%
QC value within limits for Cu 324.752	Recovery = Not calculated		
Fe 238.204 Radial†	2.2 18.558 µg/L	7.8801 18.558 ppb	7.8801 42.46%
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
K 766.490 Radial†	15.8 10.897 µg/L	21.3573 10.897 ppb	21.3573 196.00%
QC value within limits for K 766.490 Radial	Recovery = Not calculated		
Mg 279.077 IEC†	-1.8 -17.336 µg/L	44.3242 -17.336 ppb	44.3242 255.67%
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
Mn 257.610†	234.8 0.7505 µg/L	0.12888 0.7505 ppb	0.12888 17.17%
QC value within limits for Mn 257.610	Recovery = Not calculated		
Mo 202.031†	5.4 0.5369 µg/L	0.33365 0.5369 ppb	0.33365 62.15%
QC value within limits for Mo 202.031	Recovery = Not calculated		
Na 589.592 Radial†	15.6 5.0989 µg/L	6.70808 5.0989 ppb	6.70808 131.56%
QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
Ni 231.604†	2.7 0.1359 µg/L	0.23349 0.1359 ppb	0.23349 171.78%
QC value within limits for Ni 231.604	Recovery = Not calculated		
P 214.914†	-2.2 -4.5444 µg/L	8.58475 -4.5444 ppb	8.58475 188.91%
QC value within limits for P 214.914	Recovery = Not calculated		
Pb 220.353†	-2.3 -0.5668 µg/L	0.55518 -0.5668 ppb	0.55518 97.95%
QC value within limits for Pb 220.353	Recovery = Not calculated		
S 181.975 Axial†	1.4 5.7582 µg/L	5.21534 5.7582 ppb	5.21534 90.57%
QC value within limits for S 181.975 Axial	Recovery = Not calculated		
Sb 206.836†	-1.6 -1.4982 µg/L	1.69637 -1.4982 ppb	1.69637 113.23%
QC value within limits for Sb 206.836	Recovery = Not calculated		
Se 196.026†	5.2 7.1948 µg/L	2.92353 7.1948 ppb	2.92353 40.63%
QC value within limits for Se 196.026	Recovery = Not calculated		
SiO2†	132.7 26.575 µg/L	2.4263 26.575 ppb	2.4263 9.13%
QC value within limits for SiO2	Recovery = Not calculated		
Si 251.611†	156.2 12.059 µg/L	0.9143 12.059 ppb	0.9143 7.58%
QC value within limits for Si 251.611	Recovery = Not calculated		
Sn 189.927†	0.0 0.0117 µg/L	0.17349 0.0117 ppb	0.17349 >999.9%
QC value within limits for Sn 189.927	Recovery = Not calculated		
Sr 421.552†	0.5 0.0047 µg/L	0.15451 0.0047 ppb	0.15451 >999.9%
QC value within limits for Sr 421.552	Recovery = Not calculated		
Ti 334.940†	395.3 0.9007 µg/L	0.09358 0.9007 ppb	0.09358 10.39%
QC value within limits for Ti 334.940	Recovery = Not calculated		
Tl 190.801†	-1.7 -2.2579 µg/L	4.21187 -2.2579 ppb	4.21187 186.54%
QC value within limits for Tl 190.801	Recovery = Not calculated		
U 409.014†	-61.7 -5.2412 µg/L	7.11135 -5.2412 ppb	7.11135 135.68%
QC value within limits for U 409.014	Recovery = Not calculated		
V 292.402†	18.3 0.1818 µg/L	0.21908 0.1818 ppb	0.21908 120.51%
QC value within limits for V 292.402	Recovery = Not calculated		
Zn 213.857†	25.2 0.5928 µg/L	0.09190 0.5928 ppb	0.09190 15.50%
QC value within limits for Zn 213.857	Recovery = Not calculated		

All analyte(s) passed QC.

Sequence No.: 29

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/21/2010 00:40:19

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	57881.2	57881.2	98.0 %		00:40:54
1	Al 396.153Radial†	6874.3	7021.1	5238.1 µg/L	5238.1 ppb	00:40:54
1	Ca 317.933Radial†	5664.1	5584.9	5122.8 µg/L	5122.8 ppb	00:41:15
1	Fe 238.204 Radial†	610.6	607.5	5225.8 µg/L	5225.8 ppb	00:41:15
1	K 766.490 Radial†	7410.5	7360.9	5061.5 µg/L	5061.5 ppb	00:40:54
1	Mg 279.077 IEC†	547.1	546.0	5317.3 µg/L	5317.3 ppb	00:41:15
1	Na 589.592 Radial†	31642.9	31804.7	10398 µg/L	10398 ppb	00:40:54
1	Sr 421.552†	49374.6	50324.8	494.96 µg/L	494.96 ppb	00:40:54
1	Sc 361.383	2058449.1	2058449.1	98.039 %		00:42:18
1	Y 371.029	1422350.2	1422350.2	97.723 %		00:42:18
1	Ag 328.068†	65498.8	67272.4	505.50 µg/L	505.50 ppb	00:42:24
1	As 188.979†	278.6	284.5	511.07 µg/L	511.07 ppb	00:42:45
1	B 249.677†	12182.9	12101.1	493.14 µg/L	493.14 ppb	00:42:24
1	Ba 233.527†	20217.2	20640.0	506.71 µg/L	506.71 ppb	00:42:24
1	Be 313.107†	813128.2	833155.6	502.98 µg/L	502.98 ppb	00:42:18
1	Cd 226.502†	19525.0	20052.3	504.49 µg/L	504.49 ppb	00:42:24
1	Co 228.616†	10814.6	11028.4	510.08 µg/L	510.08 ppb	00:42:24
1	Cr 267.716†	24537.6	25075.9	511.72 µg/L	511.72 ppb	00:42:24
1	Cu 324.752†	77653.4	76337.4	507.11 µg/L	507.11 ppb	00:42:24
1	Mn 257.610†	156762.6	160201.6	510.43 µg/L	510.43 ppb	00:42:18
1	Mo 202.031†	5112.7	5218.3	523.05 µg/L	523.05 ppb	00:42:45
1	Ni 231.604†	10181.2	10076.3	508.71 µg/L	508.71 ppb	00:42:24
1	P 214.914†	1284.0	1293.5	2523.3 µg/L	2523.3 ppb	00:42:45
1	Pb 220.353†	2131.2	2079.0	511.75 µg/L	511.75 ppb	00:42:45
1	S 181.975 Axial†	258.7	246.5	1022.0 µg/L	1022.0 ppb	00:42:45
1	Sb 206.836†	562.1	551.2	505.59 µg/L	505.59 ppb	00:42:45
1	Se 196.026†	376.8	369.3	514.08 µg/L	514.08 ppb	00:42:45
1	SiO2†	28192.4	27272.0	5461.2 µg/L	5461.2 ppb	00:42:24
1	Si 251.611†	32691.3	33051.9	2551.1 µg/L	2551.1 ppb	00:42:24
1	Sn 189.927†	1202.0	1221.3	522.33 µg/L	522.33 ppb	00:42:45
1	Ti 334.940†	218714.5	222948.7	506.73 µg/L	506.73 ppb	00:42:18
1	Tl 190.801†	360.0	389.5	526.64 µg/L	526.64 ppb	00:42:45
1	U 409.014†	5957.1	6077.0	514.68 µg/L	514.68 ppb	00:42:24
1	V 292.402†	50130.9	51229.9	513.13 µg/L	513.13 ppb	00:42:24
1	Zn 213.857†	21705.2	21637.6	507.05 µg/L	507.05 ppb	00:42:24
2	Sc RADIAL	57384.3	57384.3	97.2 %		00:41:20
2	Al 396.153Radial†	6807.4	7013.0	5232.4 µg/L	5232.4 ppb	00:41:20
2	Ca 317.933Radial†	5637.9	5607.9	5143.9 µg/L	5143.9 ppb	00:41:41
2	Fe 238.204 Radial†	607.5	609.7	5244.8 µg/L	5244.8 ppb	00:41:41
2	K 766.490 Radial†	7386.7	7401.9	5089.7 µg/L	5089.7 ppb	00:41:20
2	Mg 279.077 IEC†	550.0	553.8	5393.5 µg/L	5393.5 ppb	00:41:41
2	Na 589.592 Radial†	31475.5	31912.0	10433 µg/L	10433 ppb	00:41:20
2	Sr 421.552†	49051.1	50428.2	495.97 µg/L	495.97 ppb	00:41:20
2	Sc 361.383	2075281.0	2075281.0	98.840 %		00:42:52
2	Y 371.029	1432661.4	1432661.4	98.432 %		00:42:52
2	Ag 328.068†	65552.1	66784.5	501.84 µg/L	501.84 ppb	00:42:57
2	As 188.979†	275.4	278.9	501.05 µg/L	501.05 ppb	00:43:18
2	B 249.677†	12290.4	12109.1	493.45 µg/L	493.45 ppb	00:42:57
2	Ba 233.527†	20250.0	20506.0	503.42 µg/L	503.42 ppb	00:42:57
2	Be 313.107†	815905.2	829238.2	500.62 µg/L	500.62 ppb	00:42:52
2	Cd 226.502†	19614.8	19981.6	502.71 µg/L	502.71 ppb	00:42:57
2	Co 228.616†	10794.9	10919.0	505.00 µg/L	505.00 ppb	00:42:57
2	Cr 267.716†	24518.7	24853.8	507.19 µg/L	507.19 ppb	00:42:57
2	Cu 324.752†	77695.4	75737.4	503.13 µg/L	503.13 ppb	00:42:57
2	Mn 257.610†	156827.5	158970.4	506.51 µg/L	506.51 ppb	00:42:52
2	Mo 202.031†	5025.0	5087.3	509.92 µg/L	509.92 ppb	00:43:18
2	Ni 231.604†	10201.7	10012.8	505.50 µg/L	505.50 ppb	00:42:57
2	P 214.914†	1256.2	1254.7	2446.5 µg/L	2446.5 ppb	00:43:18
2	Pb 220.353†	2112.1	2042.1	502.65 µg/L	502.65 ppb	00:43:18

2	S 181.975 Axial†	257.4	243.1	1007.6 µg/L	1007.6 ppb	00:43:18
2	Sb 206.836†	561.0	545.5	500.16 µg/L	500.16 ppb	00:43:18
2	Se 196.026†	373.0	362.4	504.55 µg/L	504.55 ppb	00:43:18
2	SiO2†	28219.5	27066.3	5420.0 µg/L	5420.0 ppb	00:42:57
2	Si 251.611†	32775.0	32866.0	2536.7 µg/L	2536.7 ppb	00:42:57
2	Sn 189.927†	1183.0	1192.2	509.88 µg/L	509.88 ppb	00:43:18
2	Ti 334.940†	219319.0	221750.9	504.00 µg/L	504.00 ppb	00:42:52
2	Tl 190.801†	346.1	372.4	503.80 µg/L	503.80 ppb	00:43:18
2	U 409.014†	5900.4	5970.4	505.63 µg/L	505.63 ppb	00:42:57
2	V 292.402†	50215.4	50900.7	509.75 µg/L	509.75 ppb	00:42:57
2	Zn 213.857†	21723.0	21476.0	503.25 µg/L	503.25 ppb	00:42:57
3	Sc RADIAL	57362.8	57362.8	97.2 %		00:41:46
3	Al 396.153Radial†	6816.6	7025.1	5243.1 µg/L	5243.1 ppb	00:41:46
3	Ca 317.933Radial†	5637.3	5609.5	5145.4 µg/L	5145.4 ppb	00:42:07
3	Fe 238.204 Radial†	607.4	609.8	5244.1 µg/L	5244.1 ppb	00:42:07
3	K 766.490 Radial†	7349.2	7366.2	5065.1 µg/L	5065.1 ppb	00:41:46
3	Mg 279.077 IEC†	550.3	554.3	5396.8 µg/L	5396.8 ppb	00:42:07
3	Na 589.592 Radial†	31396.3	31842.5	10410 µg/L	10410 ppb	00:41:46
3	Sr 421.552†	48853.4	50243.6	494.16 µg/L	494.16 ppb	00:41:46
3	Sc 361.383	2057125.1	2057125.1	97.975 %		00:43:25
3	Y 371.029	1420790.7	1420790.7	97.616 %		00:43:25
3	Ag 328.068†	61278.1	63007.4	473.31 µg/L	473.31 ppb	00:43:31
3	As 188.979†	237.3	242.5	435.64 µg/L	435.64 ppb	00:43:51
3	B 249.677†	11357.0	11266.2	458.87 µg/L	458.87 ppb	00:43:31
3	Ba 233.527†	18273.7	18669.6	458.32 µg/L	458.32 ppb	00:43:31
3	Be 313.107†	755469.0	774838.7	467.78 µg/L	467.78 ppb	00:43:25
3	Cd 226.502†	17664.9	18166.6	456.99 µg/L	456.99 ppb	00:43:31
3	Co 228.616†	9661.2	9858.3	455.89 µg/L	455.89 ppb	00:43:31
3	Cr 267.716†	21236.1	21722.3	443.29 µg/L	443.29 ppb	00:43:31
3	Cu 324.752†	69937.5	68513.0	455.21 µg/L	455.21 ppb	00:43:31
3	Mn 257.610†	145958.9	149277.5	475.65 µg/L	475.65 ppb	00:43:25
3	Mo 202.031†	4159.4	4248.6	425.90 µg/L	425.90 ppb	00:43:51
3	Ni 231.604†	9107.2	8986.7	453.71 µg/L	453.71 ppb	00:43:31
3	P 214.914†	1072.9	1078.8	2100.5 µg/L	2100.5 ppb	00:43:51
3	Pb 220.353†	1836.4	1779.6	437.96 µg/L	437.96 ppb	00:43:51
3	S 181.975 Axial†	229.3	216.7	898.33 µg/L	898.33 ppb	00:43:51
3	Sb 206.836†	477.3	465.1	426.09 µg/L	426.09 ppb	00:43:51
3	Se 196.026†	334.1	326.0	454.62 µg/L	454.62 ppb	00:43:51
3	SiO2†	25997.3	25050.1	5016.3 µg/L	5016.3 ppb	00:43:31
3	Si 251.611†	30110.7	30439.3	2349.4 µg/L	2349.4 ppb	00:43:31
3	Sn 189.927†	967.9	983.2	420.48 µg/L	420.48 ppb	00:43:51
3	Ti 334.940†	201941.0	205972.2	468.12 µg/L	468.12 ppb	00:43:25
3	Tl 190.801†	313.7	342.4	463.38 µg/L	463.38 ppb	00:43:51
3	U 409.014†	5162.9	5270.3	446.21 µg/L	446.21 ppb	00:43:31
3	V 292.402†	44408.7	45422.3	454.70 µg/L	454.70 ppb	00:43:31
3	Zn 213.857†	19499.7	19400.7	454.58 µg/L	454.58 ppb	00:43:31

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2063618.4	98.285 %	0.4821			0.49%
Sc RADIAL	57542.8	97.5 %	0.50			0.51%
Y 371.029	1425267.4	97.924 %	0.4432			0.45%
Ag 328.068†	65688.1	493.55 µg/L	17.625	493.55 ppb	17.625	3.57%
QC value within limits for Ag 328.068 Recovery = 98.71%						
Al 396.153Radial†	7019.7	5237.9 µg/L	5.39	5237.9 ppb	5.39	0.10%
QC value within limits for Al 396.153Radial Recovery = 104.76%						
As 188.979†	268.6	482.59 µg/L	40.964	482.59 ppb	40.964	8.49%
QC value within limits for As 188.979 Recovery = 96.52%						
B 249.677†	11825.5	481.82 µg/L	19.878	481.82 ppb	19.878	4.13%
QC value within limits for B 249.677 Recovery = 96.36%						
Ba 233.527†	19938.5	489.48 µg/L	27.038	489.48 ppb	27.038	5.52%
QC value within limits for Ba 233.527 Recovery = 97.90%						
Be 313.107†	812410.8	490.46 µg/L	19.679	490.46 ppb	19.679	4.01%
QC value within limits for Be 313.107 Recovery = 98.09%						
Ca 317.933Radial†	5600.8	5137.4 µg/L	12.66	5137.4 ppb	12.66	0.25%
QC value within limits for Ca 317.933Radial Recovery = 102.75%						
Cd 226.502†	19400.1	488.06 µg/L	26.928	488.06 ppb	26.928	5.52%
QC value within limits for Cd 226.502 Recovery = 97.61%						
Co 228.616†	10601.9	490.32 µg/L	29.930	490.32 ppb	29.930	6.10%

QC value within limits for Co 228.616 Recovery = 98.06%							
Cr 267.716†	23884.0	487.40 µg/L	38.266	487.40 ppb	38.266	7.85%	
QC value within limits for Cr 267.716 Recovery = 97.48%							
Cu 324.752†	73529.3	488.48 µg/L	28.885	488.48 ppb	28.885	5.91%	
QC value within limits for Cu 324.752 Recovery = 97.70%							
Fe 238.204 Radial†	609.0	5238.2 µg/L	10.73	5238.2 ppb	10.73	0.20%	
QC value within limits for Fe 238.204 Radial Recovery = 104.76%							
K 766.490 Radial†	7376.3	5072.1 µg/L	15.33	5072.1 ppb	15.33	0.30%	
QC value within limits for K 766.490 Radial Recovery = 101.44%							
Mg 279.077 IEC†	551.4	5369.2 µg/L	45.00	5369.2 ppb	45.00	0.84%	
QC value within limits for Mg 279.077 IEC Recovery = 107.38%							
Mn 257.610†	156149.8	497.53 µg/L	19.046	497.53 ppb	19.046	3.83%	
QC value within limits for Mn 257.610 Recovery = 99.51%							
Mo 202.031†	4851.4	486.29 µg/L	52.714	486.29 ppb	52.714	10.84%	
QC value within limits for Mo 202.031 Recovery = 97.26%							
Na 589.592 Radial†	31853.1	10414 µg/L	17.8	10414 ppb	17.8	0.17%	
QC value within limits for Na 589.592 Radial Recovery = 104.14%							
Ni 231.604†	9691.9	489.31 µg/L	30.871	489.31 ppb	30.871	6.31%	
QC value within limits for Ni 231.604 Recovery = 97.86%							
P 214.914†	1209.0	2356.7 µg/L	225.22	2356.7 ppb	225.22	9.56%	
QC value within limits for P 214.914 Recovery = 94.27%							
Pb 220.353†	1966.9	484.12 µg/L	40.236	484.12 ppb	40.236	8.31%	
QC value within limits for Pb 220.353 Recovery = 96.82%							
S 181.975 Axial†	235.4	975.97 µg/L	67.623	975.97 ppb	67.623	6.93%	
QC value within limits for S 181.975 Axial Recovery = 97.60%							
Sb 206.836†	520.6	477.28 µg/L	44.414	477.28 ppb	44.414	9.31%	
QC value within limits for Sb 206.836 Recovery = 95.46%							
Se 196.026†	352.6	491.09 µg/L	31.935	491.09 ppb	31.935	6.50%	
QC value within limits for Se 196.026 Recovery = 98.22%							
SiO2†	26462.8	5299.2 µg/L	245.85	5299.2 ppb	245.85	4.64%	
QC value within limits for SiO2 Recovery = 99.10%							
Si 251.611†	32119.1	2479.1 µg/L	112.51	2479.1 ppb	112.51	4.54%	
QC value within limits for Si 251.611 Recovery = 99.16%							
Sn 189.927†	1132.2	484.23 µg/L	55.558	484.23 ppb	55.558	11.47%	
QC value within limits for Sn 189.927 Recovery = 96.85%							
Sr 421.552†	50332.2	495.03 µg/L	0.910	495.03 ppb	0.910	0.18%	
QC value within limits for Sr 421.552 Recovery = 99.01%							
Ti 334.940†	216890.6	492.95 µg/L	21.551	492.95 ppb	21.551	4.37%	
QC value within limits for Ti 334.940 Recovery = 98.59%							
Tl 190.801†	368.1	497.94 µg/L	32.034	497.94 ppb	32.034	6.43%	
QC value within limits for Tl 190.801 Recovery = 99.59%							
U 409.014†	5772.6	488.84 µg/L	37.191	488.84 ppb	37.191	7.61%	
QC value within limits for U 409.014 Recovery = 97.77%							
V 292.402†	49184.3	492.53 µg/L	32.800	492.53 ppb	32.800	6.66%	
QC value within limits for V 292.402 Recovery = 98.51%							
Zn 213.857†	20838.1	488.30 µg/L	29.259	488.30 ppb	29.259	5.99%	
QC value within limits for Zn 213.857 Recovery = 97.66%							
All analyte(s) passed QC.							

Sequence No.: 30

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/21/2010 00:44:02

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	56896.4	56896.4	96.4 %		00:44:34
1	Al 396.153Radial†	-29.0	-21.4	-16.015 µg/L	-16.015 ppb	00:44:34
1	Ca 317.933Radial†	186.7	0.8	0.7488 µg/L	0.7488 ppb	00:44:55
1	Fe 238.204 Radial†	16.7	2.0	17.106 µg/L	17.106 ppb	00:44:55
1	K 766.490 Radial†	181.9	-9.6	-6.5992 µg/L	-6.5992 ppb	00:44:34
1	Mg 279.077 IEC†	9.8	-1.9	-18.464 µg/L	-18.464 ppb	00:44:55
1	Na 589.592 Radial†	456.3	-0.2	-0.0705 µg/L	-0.0705 ppb	00:44:34
1	Sr 421.552†	51.5	12.0	0.1185 µg/L	0.1185 ppb	00:44:34
1	Sc 361.383	2073373.1	2073373.1	98.749 %		00:45:57
1	Y 371.029	1437404.4	1437404.4	98.758 %		00:45:57
1	Ag 328.068†	-433.1	24.5	0.1815 µg/L	0.1815 ppb	00:46:02
1	As 188.979†	4.2	4.5	8.0821 µg/L	8.0821 ppb	00:46:23
1	B 249.677†	342.9	21.7	0.8791 µg/L	0.8791 ppb	00:46:23
1	Ba 233.527†	-15.6	2.6	0.0632 µg/L	0.0632 ppb	00:46:23
1	Be 313.107†	-3530.6	183.6	0.1108 µg/L	0.1108 ppb	00:46:02
1	Cd 226.502†	-146.9	-12.2	-0.3078 µg/L	-0.3078 ppb	00:46:23
1	Co 228.616†	3.0	0.5	0.0217 µg/L	0.0217 ppb	00:46:23
1	Cr 267.716†	-64.7	-18.2	-0.3707 µg/L	-0.3707 ppb	00:46:02
1	Cu 324.752†	2872.3	39.0	0.2609 µg/L	0.2609 ppb	00:46:02
1	Mn 257.610†	-233.0	66.7	0.2152 µg/L	0.2152 ppb	00:46:23
1	Mo 202.031†	5.1	8.5	0.8533 µg/L	0.8533 ppb	00:46:23
1	Ni 231.604†	305.4	0.6	0.0317 µg/L	0.0317 ppb	00:46:23
1	P 214.914†	12.9	-3.1	-6.2855 µg/L	-6.2855 ppb	00:46:23
1	Pb 220.353†	84.7	-9.0	-2.2213 µg/L	-2.2213 ppb	00:46:23
1	S 181.975 Axial†	17.8	0.7	2.8936 µg/L	2.8936 ppb	00:46:23
1	Sb 206.836†	20.5	-1.4	-1.2500 µg/L	-1.2500 ppb	00:46:23
1	Se 196.026†	13.2	-1.6	-2.1416 µg/L	-2.1416 ppb	00:46:23
1	SiO2†	1510.2	44.9	8.9960 µg/L	8.9960 ppb	00:46:02
1	Si 251.611†	398.1	109.7	8.4643 µg/L	8.4643 ppb	00:46:23
1	Sn 189.927†	3.6	-1.1	-0.4635 µg/L	-0.4635 ppb	00:46:23
1	Ti 334.940†	199.4	60.3	0.1385 µg/L	0.1385 ppb	00:46:02
1	Tl 190.801†	-19.6	2.4	3.2210 µg/L	3.2210 ppb	00:46:23
1	U 409.014†	-43.8	-43.6	-3.7052 µg/L	-3.7052 ppb	00:46:02
1	V 292.402†	-130.2	-35.8	-0.3505 µg/L	-0.3505 ppb	00:46:02
1	Zn 213.857†	511.9	16.4	0.3872 µg/L	0.3872 ppb	00:46:23
2	Sc RADIAL	56812.6	56812.6	96.2 %		00:45:00
2	Al 396.153Radial†	-8.2	0.1	0.1128 µg/L	0.1128 ppb	00:45:00
2	Ca 317.933Radial†	185.7	0.0	0.0285 µg/L	0.0285 ppb	00:45:21
2	Fe 238.204 Radial†	13.6	-1.2	-10.584 µg/L	-10.584 ppb	00:45:21
2	K 766.490 Radial†	174.4	-17.1	-11.774 µg/L	-11.774 ppb	00:45:00
2	Mg 279.077 IEC†	7.5	-4.3	-42.175 µg/L	-42.175 ppb	00:45:21
2	Na 589.592 Radial†	444.6	-11.7	-3.8255 µg/L	-3.8255 ppb	00:45:00
2	Sr 421.552†	46.5	7.0	0.0689 µg/L	0.0689 ppb	00:45:00
2	Sc 361.383	2065404.0	2065404.0	98.370 %		00:46:29
2	Y 371.029	1431739.7	1431739.7	98.368 %		00:46:29
2	Ag 328.068†	-456.2	-0.7	-0.0036 µg/L	-0.0036 ppb	00:46:34
2	As 188.979†	1.1	1.4	2.5097 µg/L	2.5097 ppb	00:46:55
2	B 249.677†	343.1	23.3	0.9591 µg/L	0.9591 ppb	00:46:55
2	Ba 233.527†	-18.7	-0.7	-0.0162 µg/L	-0.0162 ppb	00:46:55
2	Be 313.107†	-3596.1	103.2	0.0622 µg/L	0.0622 ppb	00:46:34
2	Cd 226.502†	-131.1	3.3	0.0844 µg/L	0.0844 ppb	00:46:55
2	Co 228.616†	7.9	5.5	0.2517 µg/L	0.2517 ppb	00:46:55
2	Cr 267.716†	-76.0	-29.9	-0.6087 µg/L	-0.6087 ppb	00:46:34
2	Cu 324.752†	2833.6	10.9	0.0706 µg/L	0.0706 ppb	00:46:34
2	Mn 257.610†	-227.8	71.0	0.2262 µg/L	0.2262 ppb	00:46:55
2	Mo 202.031†	-4.7	-1.5	-0.1461 µg/L	-0.1461 ppb	00:46:55
2	Ni 231.604†	306.0	2.4	0.1232 µg/L	0.1232 ppb	00:46:55
2	P 214.914†	10.9	-5.1	-10.181 µg/L	-10.181 ppb	00:46:55
2	Pb 220.353†	78.8	-14.6	-3.6015 µg/L	-3.6015 ppb	00:46:55



2	S 181.975 Axial†	17.3	0.3	1.2946 µg/L	1.2946 ppb	00:46:55
2	Sb 206.836†	25.4	3.7	3.4016 µg/L	3.4016 ppb	00:46:55
2	Se 196.026†	17.0	2.3	3.1238 µg/L	3.1238 ppb	00:46:55
2	SiO2†	1516.5	57.3	11.468 µg/L	11.468 ppb	00:46:34
2	Si 251.611†	398.3	111.4	8.5984 µg/L	8.5984 ppb	00:46:55
2	Sn 189.927†	4.2	-0.4	-0.1825 µg/L	-0.1825 ppb	00:46:55
2	Ti 334.940†	291.1	154.2	0.3541 µg/L	0.3541 ppb	00:46:34
2	Tl 190.801†	-18.8	3.1	4.1166 µg/L	4.1166 ppb	00:46:55
2	U 409.014†	6.1	7.0	0.5913 µg/L	0.5913 ppb	00:46:34
2	V 292.402†	-62.1	32.9	0.3220 µg/L	0.3220 ppb	00:46:34
2	Zn 213.857†	508.8	15.3	0.3633 µg/L	0.3633 ppb	00:46:55
3	Sc RADIAL	56934.4	56934.4	96.4 %		00:45:26
3	Al 396.153Radial†	-15.3	-7.1	-5.3436 µg/L	-5.3436 ppb	00:45:26
3	Ca 317.933Radial†	188.9	2.9	2.6763 µg/L	2.6763 ppb	00:45:47
3	Fe 238.204 Radial†	15.5	0.7	6.2831 µg/L	6.2831 ppb	00:45:47
3	K 766.490 Radial†	197.0	5.9	4.0896 µg/L	4.0896 ppb	00:45:26
3	Mg 279.077 IEC†	15.3	3.8	36.639 µg/L	36.639 ppb	00:45:47
3	Na 589.592 Radial†	443.2	-14.0	-4.5928 µg/L	-4.5928 ppb	00:45:26
3	Sr 421.552†	51.4	11.9	0.1174 µg/L	0.1174 ppb	00:45:26
3	Sc 361.383	2075668.4	2075668.4	98.859 %		00:47:01
3	Y 371.029	1439968.1	1439968.1	98.934 %		00:47:01
3	Ag 328.068†	-392.6	66.0	0.4947 µg/L	0.4947 ppb	00:47:07
3	As 188.979†	-4.5	-4.3	-7.7675 µg/L	-7.7675 ppb	00:47:27
3	B 249.677†	338.1	16.6	0.6735 µg/L	0.6735 ppb	00:47:27
3	Ba 233.527†	-15.2	3.0	0.0732 µg/L	0.0732 ppb	00:47:27
3	Be 313.107†	-3468.6	250.2	0.1510 µg/L	0.1510 ppb	00:47:07
3	Cd 226.502†	-140.5	-5.5	-0.1398 µg/L	-0.1398 ppb	00:47:27
3	Co 228.616†	-1.4	-4.0	-0.1860 µg/L	-0.1860 ppb	00:47:27
3	Cr 267.716†	-67.3	-20.7	-0.4221 µg/L	-0.4221 ppb	00:47:07
3	Cu 324.752†	2855.7	18.9	0.1264 µg/L	0.1264 ppb	00:47:07
3	Mn 257.610†	-240.4	59.4	0.1885 µg/L	0.1885 ppb	00:47:27
3	Mo 202.031†	2.3	5.6	0.5634 µg/L	0.5634 ppb	00:47:27
3	Ni 231.604†	304.7	-0.4	-0.0189 µg/L	-0.0189 ppb	00:47:27
3	P 214.914†	9.0	-7.1	-14.198 µg/L	-14.198 ppb	00:47:27
3	Pb 220.353†	83.4	-10.4	-2.5635 µg/L	-2.5635 ppb	00:47:27
3	S 181.975 Axial†	18.2	1.1	4.7095 µg/L	4.7095 ppb	00:47:27
3	Sb 206.836†	19.4	-2.5	-2.2840 µg/L	-2.2840 ppb	00:47:27
3	Se 196.026†	23.9	9.2	12.607 µg/L	12.607 ppb	00:47:27
3	SiO2†	1508.4	41.5	8.3010 µg/L	8.3010 ppb	00:47:07
3	Si 251.611†	400.3	111.4	8.5957 µg/L	8.5957 ppb	00:47:27
3	Sn 189.927†	-0.3	-5.1	-2.1635 µg/L	-2.1635 ppb	00:47:27
3	Ti 334.940†	221.9	82.8	0.1855 µg/L	0.1855 ppb	00:47:07
3	Tl 190.801†	-20.4	1.6	2.1244 µg/L	2.1244 ppb	00:47:27
3	U 409.014†	-38.3	-38.0	-3.2256 µg/L	-3.2256 ppb	00:47:07
3	V 292.402†	-60.6	34.7	0.3442 µg/L	0.3442 ppb	00:47:07
3	Zn 213.857†	511.1	15.1	0.3541 µg/L	0.3541 ppb	00:47:27

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2071481.9	98.659 %	0.2566			0.26%
Sc RADIAL	56881.2	96.3 %	0.11			0.11%
Y 371.029	1436370.7	98.687 %	0.2893			0.29%
Ag 328.068†	29.9	0.2242 µg/L	0.25188	0.2242 ppb	0.25188	112.33%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-9.5	-7.0820 µg/L	8.20331	-7.0820 ppb	8.20331	115.83%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	0.5	0.9414 µg/L	8.04035	0.9414 ppb	8.04035	854.06%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	20.5	0.8372 µg/L	0.14733	0.8372 ppb	0.14733	17.60%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	1.6	0.0401 µg/L	0.04900	0.0401 ppb	0.04900	122.31%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	179.0	0.1080 µg/L	0.04449	0.1080 ppb	0.04449	41.19%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	1.3	1.1512 µg/L	1.36898	1.1512 ppb	1.36898	118.91%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-4.8	-0.1211 µg/L	0.19680	-0.1211 ppb	0.19680	162.56%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	0.6	0.0291 µg/L	0.21895	0.0291 ppb	0.21895	751.75%

QC value within limits for Co 228.616	Recovery = Not calculated		
Cr 267.716†	-22.9 -0.4672 µg/L	0.12520 -0.4672 ppb	0.12520 26.80%
QC value within limits for Cr 267.716	Recovery = Not calculated		
Cu 324.752†	22.9 0.1526 µg/L	0.09782 0.1526 ppb	0.09782 64.09%
QC value within limits for Cu 324.752	Recovery = Not calculated		
Fe 238.204 Radial†	0.5 4.2682 µg/L	13.95442 4.2682 ppb	13.95442 326.94%
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
K 766.490 Radial†	-6.9 -4.7612 µg/L	8.08983 -4.7612 ppb	8.08983 169.91%
QC value within limits for K 766.490 Radial	Recovery = Not calculated		
Mg 279.077 IEC†	-0.8 -7.9998 µg/L	40.43557 -7.9998 ppb	40.43557 505.46%
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
Mn 257.610†	65.7 0.2099 µg/L	0.01941 0.2099 ppb	0.01941 9.25%
QC value within limits for Mn 257.610	Recovery = Not calculated		
Mo 202.031†	4.2 0.4235 µg/L	0.51419 0.4235 ppb	0.51419 121.41%
QC value within limits for Mo 202.031	Recovery = Not calculated		
Na 589.592 Radial†	-8.7 -2.8296 µg/L	2.42002 -2.8296 ppb	2.42002 85.53%
QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
Ni 231.604†	0.9 0.0453 µg/L	0.07199 0.0453 ppb	0.07199 158.86%
QC value within limits for Ni 231.604	Recovery = Not calculated		
P 214.914†	-5.1 -10.222 µg/L	3.9565 -10.222 ppb	3.9565 38.71%
QC value within limits for P 214.914	Recovery = Not calculated		
Pb 220.353†	-11.4 -2.7954 µg/L	0.71873 -2.7954 ppb	0.71873 25.71%
QC value within limits for Pb 220.353	Recovery = Not calculated		
S 181.975 Axial†	0.7 2.9659 µg/L	1.70856 2.9659 ppb	1.70856 57.61%
QC value within limits for S 181.975 Axial	Recovery = Not calculated		
Sb 206.836†	-0.1 -0.0442 µg/L	3.02857 -0.0442 ppb	3.02857 >999.9%
QC value within limits for Sb 206.836	Recovery = Not calculated		
Se 196.026†	3.3 4.5299 µg/L	7.47441 4.5299 ppb	7.47441 165.00%
QC value within limits for Se 196.026	Recovery = Not calculated		
SiO2†	47.9 9.5882 µg/L	1.66428 9.5882 ppb	1.66428 17.36%
QC value within limits for SiO2	Recovery = Not calculated		
Si 251.611†	110.8 8.5528 µg/L	0.07667 8.5528 ppb	0.07667 0.90%
QC value within limits for Si 251.611	Recovery = Not calculated		
Sn 189.927†	-2.2 -0.9365 µg/L	1.07188 -0.9365 ppb	1.07188 114.45%
QC value within limits for Sn 189.927	Recovery = Not calculated		
Sr 421.552†	10.3 0.1016 µg/L	0.02835 0.1016 ppb	0.02835 27.91%
QC value within limits for Sr 421.552	Recovery = Not calculated		
Ti 334.940†	99.1 0.2260 µg/L	0.11335 0.2260 ppb	0.11335 50.14%
QC value within limits for Ti 334.940	Recovery = Not calculated		
Tl 190.801†	2.4 3.1540 µg/L	0.99778 3.1540 ppb	0.99778 31.64%
QC value within limits for Tl 190.801	Recovery = Not calculated		
U 409.014†	-24.9 -2.1132 µg/L	2.35439 -2.1132 ppb	2.35439 111.41%
QC value within limits for U 409.014	Recovery = Not calculated		
V 292.402†	10.6 0.1052 µg/L	0.39487 0.1052 ppb	0.39487 375.26%
QC value within limits for V 292.402	Recovery = Not calculated		
Zn 213.857†	15.6 0.3682 µg/L	0.01710 0.3682 ppb	0.01710 4.64%
QC value within limits for Zn 213.857	Recovery = Not calculated		

All analyte(s) passed QC.

Sequence No.: 40

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/21/2010 01:19:51

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	57636.1	57636.1	97.6 %		01:20:30
1	Al 396.153Radial†	6955.2	7133.7	5322.3 µg/L	5322.3 ppb	01:20:30
1	Ca 317.933Radial†	5685.4	5631.3	5165.4 µg/L	5165.4 ppb	01:20:50
1	Fe 238.204 Radial†	615.3	615.0	5290.1 µg/L	5290.1 ppb	01:20:50
1	K 766.490 Radial†	7506.3	7491.2	5151.1 µg/L	5151.1 ppb	01:20:30
1	Mg 279.077 IEC†	551.1	552.5	5380.5 µg/L	5380.5 ppb	01:20:50
1	Na 589.592 Radial†	31863.0	32167.5	10516 µg/L	10516 ppb	01:20:30
1	Sr 421.552†	49924.1	51102.0	502.60 µg/L	502.60 ppb	01:20:30
1	Sc 361.383	2075657.0	2075657.0	98.858 %		01:21:54
1	Y 371.029	1434036.8	1434036.8	98.526 %		01:21:54
1	Ag 328.068†	66183.0	67410.6	506.56 µg/L	506.56 ppb	01:21:59
1	As 188.979†	286.3	289.9	520.90 µg/L	520.90 ppb	01:22:20
1	B 249.677†	12361.7	12179.0	496.30 µg/L	496.30 ppb	01:21:59
1	Ba 233.527†	20502.0	20757.1	509.58 µg/L	509.58 ppb	01:21:59
1	Be 313.107†	830255.8	843605.1	509.29 µg/L	509.29 ppb	01:21:54
1	Cd 226.502†	19831.6	20197.3	508.14 µg/L	508.14 ppb	01:21:59
1	Co 228.616†	10974.0	11098.2	513.30 µg/L	513.30 ppb	01:21:59
1	Cr 267.716†	24826.6	25160.8	513.45 µg/L	513.45 ppb	01:21:59
1	Cu 324.752†	78508.8	76546.0	508.50 µg/L	508.50 ppb	01:21:59
1	Mn 257.610†	159314.6	161457.4	514.43 µg/L	514.43 ppb	01:21:54
1	Mo 202.031†	5193.0	5256.3	526.87 µg/L	526.87 ppb	01:22:20
1	Ni 231.604†	10307.1	10117.5	510.79 µg/L	510.79 ppb	01:21:59
1	P 214.914†	1307.2	1306.0	2548.2 µg/L	2548.2 ppb	01:22:20
1	Pb 220.353†	2173.4	2103.7	517.85 µg/L	517.85 ppb	01:22:20
1	S 181.975 Axial†	261.2	246.9	1023.5 µg/L	1023.5 ppb	01:22:20
1	Sb 206.836†	583.8	568.4	521.31 µg/L	521.31 ppb	01:22:20
1	Se 196.026†	386.2	375.7	522.89 µg/L	522.89 ppb	01:22:20
1	SiO2†	28521.1	27366.1	5480.1 µg/L	5480.1 ppb	01:21:59
1	Si 251.611†	33186.5	33276.3	2568.4 µg/L	2568.4 ppb	01:21:59
1	Sn 189.927†	1222.7	1232.1	526.92 µg/L	526.92 ppb	01:22:20
1	Ti 334.940†	223276.9	225714.3	513.02 µg/L	513.02 ppb	01:21:54
1	Tl 190.801†	359.4	385.8	521.78 µg/L	521.78 ppb	01:22:20
1	U 409.014†	6011.0	6081.2	515.02 µg/L	515.02 ppb	01:21:59
1	V 292.402†	50817.6	51500.6	515.85 µg/L	515.85 ppb	01:21:59
1	Zn 213.857†	22006.4	21758.7	509.89 µg/L	509.89 ppb	01:21:59
2	Sc RADIAL	57890.5	57890.5	98.0 %		01:20:56
2	Al 396.153Radial†	6993.2	7141.2	5328.0 µg/L	5328.0 ppb	01:20:56
2	Ca 317.933Radial†	5738.6	5659.9	5191.6 µg/L	5191.6 ppb	01:21:16
2	Fe 238.204 Radial†	613.0	609.8	5246.0 µg/L	5246.0 ppb	01:21:16
2	K 766.490 Radial†	7519.6	7471.0	5137.2 µg/L	5137.2 ppb	01:20:56
2	Mg 279.077 IEC†	551.3	550.2	5358.8 µg/L	5358.8 ppb	01:21:16
2	Na 589.592 Radial†	31933.6	32096.1	10493 µg/L	10493 ppb	01:20:56
2	Sr 421.552†	50192.0	51150.5	503.08 µg/L	503.08 ppb	01:20:56
2	Sc 361.383	2072531.3	2072531.3	98.709 %		01:22:27
2	Y 371.029	1429823.2	1429823.2	98.237 %		01:22:27
2	Ag 328.068†	66103.9	67431.4	506.72 µg/L	506.72 ppb	01:22:33
2	As 188.979†	277.5	281.4	505.61 µg/L	505.61 ppb	01:22:53
2	B 249.677†	12413.4	12250.2	499.24 µg/L	499.24 ppb	01:22:33
2	Ba 233.527†	20489.7	20776.0	510.05 µg/L	510.05 ppb	01:22:33
2	Be 313.107†	828998.8	843598.2	509.29 µg/L	509.29 ppb	01:22:27
2	Cd 226.502†	19821.6	20217.4	508.65 µg/L	508.65 ppb	01:22:33
2	Co 228.616†	10976.1	11117.0	514.16 µg/L	514.16 ppb	01:22:33
2	Cr 267.716†	24910.7	25283.9	515.96 µg/L	515.96 ppb	01:22:33
2	Cu 324.752†	78735.1	76895.0	510.81 µg/L	510.81 ppb	01:22:33
2	Mn 257.610†	159177.7	161561.8	514.76 µg/L	514.76 ppb	01:22:27
2	Mo 202.031†	5127.8	5198.2	521.04 µg/L	521.04 ppb	01:22:53
2	Ni 231.604†	10379.5	10206.6	515.29 µg/L	515.29 ppb	01:22:33
2	P 214.914†	1289.7	1290.4	2516.8 µg/L	2516.8 ppb	01:22:53
2	Pb 220.353†	2157.1	2090.5	514.57 µg/L	514.57 ppb	01:22:53

2	S 181.975 Axial†	264.1	250.2	1037.3 µg/L	1037.3 ppb	01:22:53
2	Sb 206.836†	566.2	551.5	505.71 µg/L	505.71 ppb	01:22:53
2	Se 196.026†	387.9	378.0	525.91 µg/L	525.91 ppb	01:22:53
2	SiO2†	28684.0	27574.7	5521.9 µg/L	5521.9 ppb	01:22:33
2	Si 251.611†	33340.4	33482.8	2584.3 µg/L	2584.3 ppb	01:22:33
2	Sn 189.927†	1212.7	1223.9	523.41 µg/L	523.41 ppb	01:22:53
2	Ti 334.940†	223296.3	226074.6	513.84 µg/L	513.84 ppb	01:22:27
2	Tl 190.801†	354.0	380.9	515.26 µg/L	515.26 ppb	01:22:53
2	U 409.014†	6031.4	6111.0	517.55 µg/L	517.55 ppb	01:22:33
2	V 292.402†	50925.7	51687.6	517.65 µg/L	517.65 ppb	01:22:33
2	Zn 213.857†	22096.6	21883.6	512.82 µg/L	512.82 ppb	01:22:33
3	Sc RADIAL	57793.0	57793.0	97.9 %		01:21:22
3	Al 396.153Radial†	6955.2	7114.4	5309.8 µg/L	5309.8 ppb	01:21:22
3	Ca 317.933Radial†	5739.0	5670.2	5201.1 µg/L	5201.1 ppb	01:21:42
3	Fe 238.204 Radial†	613.9	611.8	5261.7 µg/L	5261.7 ppb	01:21:42
3	K 766.490 Radial†	7386.3	7347.8	5052.5 µg/L	5052.5 ppb	01:21:22
3	Mg 279.077 IEC†	556.3	556.2	5415.4 µg/L	5415.4 ppb	01:21:42
3	Na 589.592 Radial†	31872.6	32088.7	10491 µg/L	10491 ppb	01:21:22
3	Sr 421.552†	50014.9	51055.9	502.15 µg/L	502.15 ppb	01:21:22
3	Sc 361.383	2076428.2	2076428.2	98.895 %		01:23:00
3	Y 371.029	1433371.9	1433371.9	98.481 %		01:23:00
3	Ag 328.068†	62511.2	63673.0	478.32 µg/L	478.32 ppb	01:23:06
3	As 188.979†	238.5	241.4	433.77 µg/L	433.77 ppb	01:23:27
3	B 249.677†	11652.4	11457.1	466.68 µg/L	466.68 ppb	01:23:06
3	Ba 233.527†	18718.0	18945.5	465.09 µg/L	465.09 ppb	01:23:06
3	Be 313.107†	772345.2	784735.3	473.75 µg/L	473.75 ppb	01:23:00
3	Cd 226.502†	18085.5	18424.2	463.47 µg/L	463.47 ppb	01:23:06
3	Co 228.616†	9919.7	10028.0	463.73 µg/L	463.73 ppb	01:23:06
3	Cr 267.716†	21781.1	22071.9	450.42 µg/L	450.42 ppb	01:23:06
3	Cu 324.752†	71348.5	69276.2	460.27 µg/L	460.27 ppb	01:23:06
3	Mn 257.610†	148951.7	150918.9	480.88 µg/L	480.88 ppb	01:23:00
3	Mo 202.031†	4236.6	4287.2	429.77 µg/L	429.77 ppb	01:23:27
3	Ni 231.604†	9327.2	9122.8	460.57 µg/L	460.57 ppb	01:23:06
3	P 214.914†	1090.2	1086.2	2114.7 µg/L	2114.7 ppb	01:23:27
3	Pb 220.353†	1869.4	1795.6	441.88 µg/L	441.88 ppb	01:23:27
3	S 181.975 Axial†	227.0	212.2	879.58 µg/L	879.58 ppb	01:23:27
3	Sb 206.836†	485.3	468.6	429.29 µg/L	429.29 ppb	01:23:27
3	Se 196.026†	335.4	324.2	452.18 µg/L	452.18 ppb	01:23:27
3	SiO2†	26683.7	25497.5	5105.9 µg/L	5105.9 ppb	01:23:06
3	Si 251.611†	30858.0	30909.4	2385.7 µg/L	2385.7 ppb	01:23:06
3	Sn 189.927†	995.4	1001.8	428.44 µg/L	428.44 ppb	01:23:27
3	Ti 334.940†	207019.0	209190.9	475.44 µg/L	475.44 ppb	01:23:00
3	Tl 190.801†	310.6	336.3	455.30 µg/L	455.30 ppb	01:23:27
3	U 409.014†	5280.5	5340.3	452.14 µg/L	452.14 ppb	01:23:06
3	V 292.402†	45436.2	46040.0	460.87 µg/L	460.87 ppb	01:23:06
3	Zn 213.857†	19912.3	19632.9	460.02 µg/L	460.02 ppb	01:23:06

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2074872.2	98.821 %	0.0983			0.10%
Sc RADIAL	57773.2	97.8 %	0.22			0.22%
Y 371.029	1432410.6	98.415 %	0.1556			0.16%
Ag 328.068†	66171.7	497.20 µg/L	16.352	497.20 ppb	16.352	3.29%
QC value within limits for Ag 328.068 Recovery = 99.44%						
Al 396.153Radial†	7129.8	5320.0 µg/L	9.29	5320.0 ppb	9.29	0.17%
QC value within limits for Al 396.153Radial Recovery = 106.40%						
As 188.979†	270.9	486.76 µg/L	46.523	486.76 ppb	46.523	9.56%
QC value within limits for As 188.979 Recovery = 97.35%						
B 249.677†	11962.1	487.40 µg/L	18.010	487.40 ppb	18.010	3.69%
QC value within limits for B 249.677 Recovery = 97.48%						
Ba 233.527†	20159.5	494.91 µg/L	25.822	494.91 ppb	25.822	5.22%
QC value within limits for Ba 233.527 Recovery = 98.98%						
Be 313.107†	823979.5	497.44 µg/L	20.518	497.44 ppb	20.518	4.12%
QC value within limits for Be 313.107 Recovery = 99.49%						
Ca 317.933Radial†	5653.8	5186.0 µg/L	18.52	5186.0 ppb	18.52	0.36%
QC value within limits for Ca 317.933Radial Recovery = 103.72%						
Cd 226.502†	19613.0	493.42 µg/L	25.937	493.42 ppb	25.937	5.26%
QC value within limits for Cd 226.502 Recovery = 98.68%						
Co 228.616†	10747.8	497.07 µg/L	28.869	497.07 ppb	28.869	5.81%

QC value within limits for Co 228.616	Recovery = 99.41%			
Cr 267.716†	24172.2	493.28 µg/L	37.135	493.28 ppb 37.135 7.53%
QC value within limits for Cr 267.716	Recovery = 98.66%			
Cu 324.752†	74239.0	493.19 µg/L	28.534	493.19 ppb 28.534 5.79%
QC value within limits for Cu 324.752	Recovery = 98.64%			
Fe 238.204 Radial†	612.2	5265.9 µg/L	22.35	5265.9 ppb 22.35 0.42%
QC value within limits for Fe 238.204 Radial	Recovery = 105.32%			
K 766.490 Radial†	7436.7	5113.6 µg/L	53.38	5113.6 ppb 53.38 1.04%
QC value within limits for K 766.490 Radial	Recovery = 102.27%			
Mg 279.077 IEC†	553.0	5384.9 µg/L	28.57	5384.9 ppb 28.57 0.53%
QC value within limits for Mg 279.077 IEC	Recovery = 107.70%			
Mn 257.610†	157979.4	503.36 µg/L	19.466	503.36 ppb 19.466 3.87%
QC value within limits for Mn 257.610	Recovery = 100.67%			
Mo 202.031†	4913.9	492.56 µg/L	54.457	492.56 ppb 54.457 11.06%
QC value within limits for Mo 202.031	Recovery = 98.51%			
Na 589.592 Radial†	32117.4	10500 µg/L	14.2	10500 ppb 14.2 0.14%
QC value within limits for Na 589.592 Radial	Recovery = 105.00%			
Ni 231.604†	9815.6	495.55 µg/L	30.373	495.55 ppb 30.373 6.13%
QC value within limits for Ni 231.604	Recovery = 99.11%			
P 214.914†	1227.5	2393.2 µg/L	241.73	2393.2 ppb 241.73 10.10%
QC value within limits for P 214.914	Recovery = 95.73%			
Pb 220.353†	1996.6	491.43 µg/L	42.943	491.43 ppb 42.943 8.74%
QC value within limits for Pb 220.353	Recovery = 98.29%			
S 181.975 Axial†	236.5	980.13 µg/L	87.356	980.13 ppb 87.356 8.91%
QC value within limits for S 181.975 Axial	Recovery = 98.01%			
Sb 206.836†	529.5	485.44 µg/L	49.251	485.44 ppb 49.251 10.15%
QC value within limits for Sb 206.836	Recovery = 97.09%			
Se 196.026†	359.3	500.33 µg/L	41.727	500.33 ppb 41.727 8.34%
QC value within limits for Se 196.026	Recovery = 100.07%			
SiO2†	26812.8	5369.3 µg/L	229.06	5369.3 ppb 229.06 4.27%
QC value within limits for SiO2	Recovery = 100.41%			
Si 251.611†	32556.2	2512.8 µg/L	110.36	2512.8 ppb 110.36 4.39%
QC value within limits for Si 251.611	Recovery = 100.51%			
Sn 189.927†	1152.6	492.92 µg/L	55.871	492.92 ppb 55.871 11.33%
QC value within limits for Sn 189.927	Recovery = 98.58%			
Sr 421.552†	51102.8	502.61 µg/L	0.465	502.61 ppb 0.465 0.09%
QC value within limits for Sr 421.552	Recovery = 100.52%			
Ti 334.940†	220326.6	500.77 µg/L	21.940	500.77 ppb 21.940 4.38%
QC value within limits for Ti 334.940	Recovery = 100.15%			
Tl 190.801†	367.7	497.45 µg/L	36.643	497.45 ppb 36.643 7.37%
QC value within limits for Tl 190.801	Recovery = 99.49%			
U 409.014†	5844.2	494.91 µg/L	37.055	494.91 ppb 37.055 7.49%
QC value within limits for U 409.014	Recovery = 98.98%			
V 292.402†	49742.7	498.12 µg/L	32.277	498.12 ppb 32.277 6.48%
QC value within limits for V 292.402	Recovery = 99.62%			
Zn 213.857†	21091.7	494.24 µg/L	29.675	494.24 ppb 29.675 6.00%
QC value within limits for Zn 213.857	Recovery = 98.85%			

All analyte(s) passed QC.

Sequence No.: 41  
 Sample ID: CCB  
 Analyst:  
 Initial Sample Wt:  
 Dilution:

Autosampler Location: 8  
 Date Collected: 2/21/2010 01:23:37  
 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	57129.8	57129.8	96.8 %		01:24:09
1	Al 396.153Radial†	3.2	12.0	8.9366 µg/L	8.9366 ppb	01:24:09
1	Ca 317.933Radial†	192.3	5.7	5.2506 µg/L	5.2506 ppb	01:24:30
1	Fe 238.204 Radial†	17.3	2.5	21.504 µg/L	21.504 ppb	01:24:30
1	K 766.490 Radial†	212.2	21.0	14.420 µg/L	14.420 ppb	01:24:09
1	Mg 279.077 IEC†	9.8	-1.9	-18.972 µg/L	-18.972 ppb	01:24:30
1	Na 589.592 Radial†	489.8	32.5	10.633 µg/L	10.633 ppb	01:24:09
1	Sr 421.552†	6.3	-34.9	-0.3429 µg/L	-0.3429 ppb	01:24:09
1	Sc 361.383	2077058.7	2077058.7	98.925 %		01:25:32
1	Y 371.029	1438364.8	1438364.8	98.824 %		01:25:32
1	Ag 328.068†	-347.2	112.2	0.8415 µg/L	0.8415 ppb	01:25:37
1	As 188.979†	2.3	2.6	4.7000 µg/L	4.7000 ppb	01:25:58
1	B 249.677†	352.1	30.5	1.2354 µg/L	1.2354 ppb	01:25:58
1	Ba 233.527†	4.8	23.2	0.5684 µg/L	0.5684 ppb	01:25:58
1	Be 313.107†	-3477.9	243.1	0.1465 µg/L	0.1465 ppb	01:25:37
1	Cd 226.502†	-133.7	1.5	0.0354 µg/L	0.0354 ppb	01:25:58
1	Co 228.616†	5.5	3.0	0.1376 µg/L	0.1376 ppb	01:25:58
1	Cr 267.716†	-47.0	-0.2	-0.0030 µg/L	-0.0030 ppb	01:25:37
1	Cu 324.752†	2876.2	37.7	0.2534 µg/L	0.2534 ppb	01:25:37
1	Mn 257.610†	-147.7	153.3	0.4915 µg/L	0.4915 ppb	01:25:58
1	Mo 202.031†	-1.7	1.6	0.1627 µg/L	0.1627 ppb	01:25:58
1	Ni 231.604†	317.1	11.9	0.5999 µg/L	0.5999 ppb	01:25:58
1	P 214.914†	13.0	-3.1	-6.1302 µg/L	-6.1302 ppb	01:25:58
1	Pb 220.353†	88.2	-5.6	-1.3909 µg/L	-1.3909 ppb	01:25:58
1	S 181.975 Axial†	15.8	-1.3	-5.4652 µg/L	-5.4652 ppb	01:25:58
1	Sb 206.836†	21.9	0.0	0.0189 µg/L	0.0189 ppb	01:25:58
1	Se 196.026†	18.3	3.5	4.8552 µg/L	4.8552 ppb	01:25:58
1	SiO2†	1541.9	74.2	14.860 µg/L	14.860 ppb	01:25:37
1	Si 251.611†	473.0	184.6	14.252 µg/L	14.252 ppb	01:25:58
1	Sn 189.927†	5.2	0.5	0.2135 µg/L	0.2135 ppb	01:25:58
1	Ti 334.940†	513.3	377.2	0.8596 µg/L	0.8596 ppb	01:25:37
1	Tl 190.801†	-22.3	-0.3	-0.4006 µg/L	-0.4006 ppb	01:25:58
1	U 409.014†	31.3	32.4	2.7423 µg/L	2.7423 ppb	01:25:37
1	V 292.402†	-45.8	49.8	0.4988 µg/L	0.4988 ppb	01:25:37
1	Zn 213.857†	524.6	28.4	0.6672 µg/L	0.6672 ppb	01:25:58
2	Sc RADIAL	56868.8	56868.8	96.3 %		01:24:35
2	Al 396.153Radial†	4.8	13.7	10.252 µg/L	10.252 ppb	01:24:35
2	Ca 317.933Radial†	196.9	11.5	10.524 µg/L	10.524 ppb	01:24:56
2	Fe 238.204 Radial†	16.0	1.2	10.470 µg/L	10.470 ppb	01:24:56
2	K 766.490 Radial†	155.2	-37.2	-25.608 µg/L	-25.608 ppb	01:24:35
2	Mg 279.077 IEC†	10.3	-1.4	-13.855 µg/L	-13.855 ppb	01:24:56
2	Na 589.592 Radial†	436.5	-20.5	-6.6996 µg/L	-6.6996 ppb	01:24:35
2	Sr 421.552†	18.4	-22.3	-0.2189 µg/L	-0.2189 ppb	01:24:35
2	Sc 361.383	2075497.9	2075497.9	98.851 %		01:26:04
2	Y 371.029	1437390.5	1437390.5	98.757 %		01:26:04
2	Ag 328.068†	-446.0	11.9	0.0879 µg/L	0.0879 ppb	01:26:10
2	As 188.979†	-1.8	-1.6	-2.8461 µg/L	-2.8461 ppb	01:26:30
2	B 249.677†	362.2	40.9	1.6698 µg/L	1.6698 ppb	01:26:30
2	Ba 233.527†	1.7	20.1	0.4913 µg/L	0.4913 ppb	01:26:30
2	Be 313.107†	-3468.2	250.3	0.1509 µg/L	0.1509 ppb	01:26:10
2	Cd 226.502†	-148.9	-14.1	-0.3545 µg/L	-0.3545 ppb	01:26:30
2	Co 228.616†	8.2	5.7	0.2649 µg/L	0.2649 ppb	01:26:30
2	Cr 267.716†	-33.9	13.1	0.2673 µg/L	0.2673 ppb	01:26:10
2	Cu 324.752†	2841.3	4.6	0.0322 µg/L	0.0322 ppb	01:26:10
2	Mn 257.610†	-155.1	145.7	0.4657 µg/L	0.4657 ppb	01:26:30
2	Mo 202.031†	3.3	6.6	0.6658 µg/L	0.6658 ppb	01:26:30
2	Ni 231.604†	314.3	9.3	0.4718 µg/L	0.4718 ppb	01:26:30
2	P 214.914†	6.9	-9.3	-18.519 µg/L	-18.519 ppb	01:26:30
2	Pb 220.353†	82.7	-11.1	-2.7391 µg/L	-2.7391 ppb	01:26:30

2	S 181.975 Axial†	19.7	2.6	10.963 µg/L	10.963 ppb	01:26:30
2	Sb 206.836†	27.9	6.1	5.5563 µg/L	5.5563 ppb	01:26:30
2	Se 196.026†	13.3	-1.5	-2.0829 µg/L	-2.0829 ppb	01:26:30
2	SiO2†	1549.9	83.6	16.733 µg/L	16.733 ppb	01:26:10
2	Si 251.611†	476.7	188.7	14.566 µg/L	14.566 ppb	01:26:30
2	Sn 189.927†	2.0	-2.7	-1.1388 µg/L	-1.1388 ppb	01:26:30
2	Ti 334.940†	506.7	370.9	0.8449 µg/L	0.8449 ppb	01:26:10
2	Tl 190.801†	-21.4	0.6	0.7474 µg/L	0.7474 ppb	01:26:30
2	U 409.014†	-9.6	-8.9	-0.7605 µg/L	-0.7605 ppb	01:26:10
2	V 292.402†	-117.8	-23.2	-0.2234 µg/L	-0.2234 ppb	01:26:10
2	Zn 213.857†	523.8	27.9	0.6576 µg/L	0.6576 ppb	01:26:30
3	Sc RADIAL	57048.5	57048.5	96.6 %		01:25:01
3	Al 396.153Radial†	-7.7	0.8	0.5641 µg/L	0.5641 ppb	01:25:01
3	Ca 317.933Radial†	194.3	8.1	7.4721 µg/L	7.4721 ppb	01:25:22
3	Fe 238.204 Radial†	15.3	0.5	4.1055 µg/L	4.1055 ppb	01:25:22
3	K 766.490 Radial†	188.7	-3.1	-2.1461 µg/L	-2.1461 ppb	01:25:01
3	Mg 279.077 IEC†	10.3	-1.4	-13.342 µg/L	-13.342 ppb	01:25:22
3	Na 589.592 Radial†	464.0	6.5	2.1154 µg/L	2.1154 ppb	01:25:01
3	Sr 421.552†	36.7	-3.4	-0.0333 µg/L	-0.0333 ppb	01:25:01
3	Sc 361.383	2073475.7	2073475.7	98.754 %		01:26:36
3	Y 371.029	1437389.9	1437389.9	98.757 %		01:26:36
3	Ag 328.068†	-395.7	62.5	0.4707 µg/L	0.4707 ppb	01:26:42
3	As 188.979†	1.0	1.3	2.3836 µg/L	2.3836 ppb	01:27:02
3	B 249.677†	357.5	36.5	1.4904 µg/L	1.4904 ppb	01:27:02
3	Ba 233.527†	-7.1	11.1	0.2745 µg/L	0.2745 ppb	01:27:02
3	Be 313.107†	-3512.1	202.4	0.1219 µg/L	0.1219 ppb	01:26:42
3	Cd 226.502†	-130.9	4.1	0.1034 µg/L	0.1034 ppb	01:27:02
3	Co 228.616†	6.3	3.8	0.1738 µg/L	0.1738 ppb	01:27:02
3	Cr 267.716†	-68.5	-22.0	-0.4472 µg/L	-0.4472 ppb	01:26:42
3	Cu 324.752†	2820.3	-13.9	-0.0915 µg/L	-0.0915 ppb	01:26:42
3	Mn 257.610†	-178.7	121.6	0.3883 µg/L	0.3883 ppb	01:27:02
3	Mo 202.031†	4.1	7.5	0.7505 µg/L	0.7505 ppb	01:27:02
3	Ni 231.604†	318.8	14.2	0.7155 µg/L	0.7155 ppb	01:27:02
3	P 214.914†	5.9	-10.2	-20.374 µg/L	-20.374 ppb	01:27:02
3	Pb 220.353†	83.4	-10.4	-2.5468 µg/L	-2.5468 ppb	01:27:02
3	S 181.975 Axial†	15.1	-2.1	-8.5153 µg/L	-8.5153 ppb	01:27:02
3	Sb 206.836†	15.7	-6.2	-5.6783 µg/L	-5.6783 ppb	01:27:02
3	Se 196.026†	16.7	2.0	2.7080 µg/L	2.7080 ppb	01:27:02
3	SiO2†	1566.8	102.2	20.467 µg/L	20.467 ppb	01:26:42
3	Si 251.611†	490.6	203.2	15.685 µg/L	15.685 ppb	01:27:02
3	Sn 189.927†	4.2	-0.5	-0.2088 µg/L	-0.2088 ppb	01:27:02
3	Ti 334.940†	557.3	422.6	0.9624 µg/L	0.9624 ppb	01:26:42
3	Tl 190.801†	-19.3	2.7	3.5890 µg/L	3.5890 ppb	01:27:02
3	U 409.014†	-42.1	-41.8	-3.5508 µg/L	-3.5508 ppb	01:26:42
3	V 292.402†	-27.0	68.7	0.6809 µg/L	0.6809 ppb	01:26:42
3	Zn 213.857†	522.7	27.4	0.6431 µg/L	0.6431 ppb	01:27:02

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2075344.1	98.843 %	0.0856			0.09%
Sc RADIAL	57015.7	96.6 %	0.23			0.23%
Y 371.029	1437715.1	98.779 %	0.0387			0.04%
Ag 328.068†	62.2	0.4667 µg/L	0.37681	0.4667 ppb	0.37681	80.74%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	8.8	6.5842 µg/L	5.25483	6.5842 ppb	5.25483	79.81%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	0.8	1.4125 µg/L	3.86565	1.4125 ppb	3.86565	273.68%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	36.0	1.4652 µg/L	0.21830	1.4652 ppb	0.21830	14.90%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	18.1	0.4447 µg/L	0.15242	0.4447 ppb	0.15242	34.27%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	232.0	0.1398 µg/L	0.01562	0.1398 ppb	0.01562	11.18%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	8.4	7.7489 µg/L	2.64750	7.7489 ppb	2.64750	34.17%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-2.8	-0.0719 µg/L	0.24711	-0.0719 ppb	0.24711	343.83%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	4.2	0.1921 µg/L	0.06559	0.1921 ppb	0.06559	34.14%

QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-3.0	-0.0610 µg/L	0.36078	-0.0610 ppb	0.36078	591.77%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	9.5	0.0647 µg/L	0.17472	0.0647 ppb	0.17472	270.06%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	1.4	12.026 µg/L	8.8029	12.026 ppb	8.8029	73.20%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	-6.5	-4.4446 µg/L	20.11276	-4.4446 ppb	20.11276	452.52%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-1.6	-15.390 µg/L	3.1127	-15.390 ppb	3.1127	20.23%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	140.2	0.4485 µg/L	0.05370	0.4485 ppb	0.05370	11.97%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	5.2	0.5263 µg/L	0.31773	0.5263 ppb	0.31773	60.37%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	6.2	2.0162 µg/L	8.66669	2.0162 ppb	8.66669	429.84%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	11.8	0.5957 µg/L	0.12191	0.5957 ppb	0.12191	20.46%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-7.5	-15.008 µg/L	7.7439	-15.008 ppb	7.7439	51.60%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-9.1	-2.2256 µg/L	0.72927	-2.2256 ppb	0.72927	32.77%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-0.2	-1.0058 µg/L	10.47692	-1.0058 ppb	10.47692	>999.9%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	-0.0	-0.0344 µg/L	5.61753	-0.0344 ppb	5.61753	>999.9%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	1.3	1.8267 µg/L	3.55200	1.8267 ppb	3.55200	194.45%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	86.7	17.354 µg/L	2.8546	17.354 ppb	2.8546	16.45%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	192.2	14.834 µg/L	0.7534	14.834 ppb	0.7534	5.08%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	-0.9	-0.3780 µg/L	0.69187	-0.3780 ppb	0.69187	183.01%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-20.2	-0.1984 µg/L	0.15585	-0.1984 ppb	0.15585	78.56%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	390.3	0.8890 µg/L	0.06401	0.8890 ppb	0.06401	7.20%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	1.0	1.3120 µg/L	2.05385	1.3120 ppb	2.05385	156.55%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-6.1	-0.5230 µg/L	3.15324	-0.5230 ppb	3.15324	602.89%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	31.7	0.3188 µg/L	0.47826	0.3188 ppb	0.47826	150.02%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	27.9	0.6560 µg/L	0.01214	0.6560 ppb	0.01214	1.85%
QC value within limits for Zn 213.857 Recovery = Not calculated						
All analyte(s) passed QC.						



Sequence No.: 51

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 2/21/2010 02:00:15

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	58016.3	58016.3	98.3 %		02:00:53
1	Al 396.153Radial†	6803.2	6932.4	5171.9 µg/L	5171.9 ppb	02:00:53
1	Ca 317.933Radial†	5589.6	5495.6	5040.9 µg/L	5040.9 ppb	02:01:13
1	Fe 238.204 Radial†	602.8	598.1	5144.9 µg/L	5144.9 ppb	02:01:13
1	K 766.490 Radial†	7436.0	7369.3	5067.3 µg/L	5067.3 ppb	02:00:53
1	Mg 279.077 IEC†	544.7	542.3	5281.5 µg/L	5281.5 ppb	02:01:13
1	Na 589.592 Radial†	31370.9	31452.7	10283 µg/L	10283 ppb	02:00:53
1	Sr 421.552†	49036.1	49863.0	490.41 µg/L	490.41 ppb	02:00:53
1	Sc 361.383	2078272.5	2078272.5	98.983 %		02:02:17
1	Y 371.029	1433440.7	1433440.7	98.485 %		02:02:17
1	Ag 328.068†	64786.8	65915.9	495.32 µg/L	495.32 ppb	02:02:23
1	As 188.979†	280.3	283.4	509.17 µg/L	509.17 ppb	02:02:43
1	B 249.677†	12026.2	11824.3	481.84 µg/L	481.84 ppb	02:02:23
1	Ba 233.527†	20064.6	20289.2	498.10 µg/L	498.10 ppb	02:02:23
1	Be 313.107†	813725.5	825847.9	498.57 µg/L	498.57 ppb	02:02:17
1	Cd 226.502†	19380.6	19716.4	496.05 µg/L	496.05 ppb	02:02:23
1	Co 228.616†	10781.0	10889.2	503.63 µg/L	503.63 ppb	02:02:23
1	Cr 267.716†	24292.9	24590.0	501.80 µg/L	501.80 ppb	02:02:23
1	Cu 324.752†	76665.5	74583.8	495.46 µg/L	495.46 ppb	02:02:23
1	Mn 257.610†	156372.6	158282.4	504.31 µg/L	504.31 ppb	02:02:17
1	Mo 202.031†	5113.1	5169.0	518.11 µg/L	518.11 ppb	02:02:43
1	Ni 231.604†	10116.6	9912.0	500.41 µg/L	500.41 ppb	02:02:23
1	P 214.914†	1294.4	1291.5	2520.6 µg/L	2520.6 ppb	02:02:43
1	Pb 220.353†	2152.3	2079.6	511.92 µg/L	511.92 ppb	02:02:43
1	S 181.975 Axial†	258.7	244.1	1011.7 µg/L	1011.7 ppb	02:02:43
1	Sb 206.836†	565.3	549.0	503.57 µg/L	503.57 ppb	02:02:43
1	Se 196.026†	369.3	358.1	498.48 µg/L	498.48 ppb	02:02:43
1	SiO2†	27924.0	26726.6	5352.0 µg/L	5352.0 ppb	02:02:23
1	Si 251.611†	32437.5	32477.3	2506.7 µg/L	2506.7 ppb	02:02:23
1	Sn 189.927†	1201.8	1209.4	517.23 µg/L	517.23 ppb	02:02:43
1	Ti 334.940†	219148.3	221259.1	502.89 µg/L	502.89 ppb	02:02:17
1	Tl 190.801†	350.0	375.8	508.35 µg/L	508.35 ppb	02:02:43
1	U 409.014†	5831.0	5891.7	498.96 µg/L	498.96 ppb	02:02:23
1	V 292.402†	49752.9	50360.3	504.44 µg/L	504.44 ppb	02:02:23
1	Zn 213.857†	21494.0	21213.0	497.09 µg/L	497.09 ppb	02:02:23
2	Sc RADIAL	57936.0	57936.0	98.1 %		02:01:19
2	Al 396.153Radial†	6835.4	6974.8	5203.8 µg/L	5203.8 ppb	02:01:19
2	Ca 317.933Radial†	5608.9	5523.1	5066.2 µg/L	5066.2 ppb	02:01:39
2	Fe 238.204 Radial†	606.6	602.8	5185.0 µg/L	5185.0 ppb	02:01:39
2	K 766.490 Radial†	7367.3	7309.7	5026.3 µg/L	5026.3 ppb	02:01:19
2	Mg 279.077 IEC†	548.9	547.3	5330.3 µg/L	5330.3 ppb	02:01:39
2	Na 589.592 Radial†	31392.3	31518.8	10304 µg/L	10304 ppb	02:01:19
2	Sr 421.552†	49150.2	50048.6	492.24 µg/L	492.24 ppb	02:01:19
2	Sc 361.383	2100300.4	2100300.4	100.03 %		02:02:50
2	Y 371.029	1448333.3	1448333.3	99.509 %		02:02:50
2	Ag 328.068†	65725.2	66167.5	497.21 µg/L	497.21 ppb	02:02:56
2	As 188.979†	280.5	280.7	504.24 µg/L	504.24 ppb	02:03:16
2	B 249.677†	12285.8	11956.4	487.23 µg/L	487.23 ppb	02:02:56
2	Ba 233.527†	20311.3	20323.2	498.93 µg/L	498.93 ppb	02:02:56
2	Be 313.107†	819773.3	823271.7	497.02 µg/L	497.02 ppb	02:02:50
2	Cd 226.502†	19666.7	19797.1	498.07 µg/L	498.07 ppb	02:02:56
2	Co 228.616†	10904.5	10898.5	504.06 µg/L	504.06 ppb	02:02:56
2	Cr 267.716†	24664.1	24703.7	504.12 µg/L	504.12 ppb	02:02:56
2	Cu 324.752†	77879.1	74984.7	498.13 µg/L	498.13 ppb	02:02:56
2	Mn 257.610†	157557.9	157810.4	502.81 µg/L	502.81 ppb	02:02:50
2	Mo 202.031†	5068.1	5069.8	508.18 µg/L	508.18 ppb	02:03:16
2	Ni 231.604†	10256.2	9944.3	502.05 µg/L	502.05 ppb	02:02:56
2	P 214.914†	1262.7	1246.1	2429.9 µg/L	2429.9 ppb	02:03:16
2	Pb 220.353†	2137.8	2042.3	502.71 µg/L	502.71 ppb	02:03:16

2	S 181.975 Axial†	254.1	236.7	981.19 µg/L	981.19 ppb	02:03:16
2	Sb 206.836†	565.3	543.1	497.96 µg/L	497.96 ppb	02:03:16
2	Se 196.026†	389.1	374.0	520.38 µg/L	520.38 ppb	02:03:16
2	SiO2†	28333.6	26840.2	5374.8 µg/L	5374.8 ppb	02:02:56
2	Si 251.611†	32968.1	32664.1	2521.1 µg/L	2521.1 ppb	02:02:56
2	Sn 189.927†	1191.0	1185.9	507.18 µg/L	507.18 ppb	02:03:16
2	Ti 334.940†	220546.4	220334.7	500.79 µg/L	500.79 ppb	02:02:50
2	Tl 190.801†	351.4	373.6	505.31 µg/L	505.31 ppb	02:03:16
2	U 409.014†	5875.4	5874.3	497.48 µg/L	497.48 ppb	02:02:56
2	V 292.402†	50411.1	50491.1	505.66 µg/L	505.66 ppb	02:02:56
2	Zn 213.857†	21824.0	21315.1	499.49 µg/L	499.49 ppb	02:02:56
3	Sc RADIAL	57472.6	57472.6	97.3 %		02:01:45
3	Al 396.153Radial†	6756.7	6950.1	5187.1 µg/L	5187.1 ppb	02:01:45
3	Ca 317.933Radial†	5572.1	5531.4	5073.8 µg/L	5073.8 ppb	02:02:05
3	Fe 238.204 Radial†	601.6	602.6	5182.7 µg/L	5182.7 ppb	02:02:05
3	K 766.490 Radial†	7219.7	7218.6	4963.7 µg/L	4963.7 ppb	02:01:45
3	Mg 279.077 IEC†	540.4	543.1	5287.9 µg/L	5287.9 ppb	02:02:05
3	Na 589.592 Radial†	31182.9	31561.5	10318 µg/L	10318 ppb	02:01:45
3	Sr 421.552†	48567.8	49854.1	490.33 µg/L	490.33 ppb	02:01:45
3	Sc 361.383	2097522.4	2097522.4	99.899 %		02:03:24
3	Y 371.029	1447759.9	1447759.9	99.469 %		02:03:24
3	Ag 328.068†	62305.7	62831.5	472.00 µg/L	472.00 ppb	02:03:29
3	As 188.979†	242.2	242.7	436.07 µg/L	436.07 ppb	02:03:50
3	B 249.677†	11525.4	11211.5	456.67 µg/L	456.67 ppb	02:03:29
3	Ba 233.527†	18622.1	18659.2	458.07 µg/L	458.07 ppb	02:03:29
3	Be 313.107†	768316.6	772848.6	466.58 µg/L	466.58 ppb	02:03:24
3	Cd 226.502†	17987.1	18141.8	456.37 µg/L	456.37 ppb	02:03:29
3	Co 228.616†	9836.6	9843.9	455.22 µg/L	455.22 ppb	02:03:29
3	Cr 267.716†	21805.7	21875.0	446.40 µg/L	446.40 ppb	02:03:29
3	Cu 324.752†	71131.3	68333.1	454.01 µg/L	454.01 ppb	02:03:29
3	Mn 257.610†	148169.2	148620.9	473.56 µg/L	473.56 ppb	02:03:24
3	Mo 202.031†	4240.4	4248.0	425.83 µg/L	425.83 ppb	02:03:50
3	Ni 231.604†	9332.7	9033.5	456.07 µg/L	456.07 ppb	02:03:29
3	P 214.914†	1086.1	1070.9	2084.9 µg/L	2084.9 ppb	02:03:50
3	Pb 220.353†	1870.1	1777.2	437.37 µg/L	437.37 ppb	02:03:50
3	S 181.975 Axial†	230.1	213.1	883.28 µg/L	883.28 ppb	02:03:50
3	Sb 206.836†	483.6	461.9	423.20 µg/L	423.20 ppb	02:03:50
3	Se 196.026†	336.4	321.7	448.75 µg/L	448.75 ppb	02:03:50
3	SiO2†	26495.3	25037.6	5013.8 µg/L	5013.8 ppb	02:03:29
3	Si 251.611†	30642.3	30379.6	2344.8 µg/L	2344.8 ppb	02:03:29
3	Sn 189.927†	982.2	978.4	418.46 µg/L	418.46 ppb	02:03:50
3	Ti 334.940†	205524.3	205589.5	467.25 µg/L	467.25 ppb	02:03:24
3	Tl 190.801†	316.3	338.8	458.58 µg/L	458.58 ppb	02:03:50
3	U 409.014†	5367.3	5373.5	454.98 µg/L	454.98 ppb	02:03:29
3	V 292.402†	45385.6	45527.3	455.75 µg/L	455.75 ppb	02:03:29
3	Zn 213.857†	19811.8	19329.8	452.91 µg/L	452.91 ppb	02:03:29

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2092031.7	99.638 %	0.5714			0.57%
Sc RADIAL	57808.3	97.9 %	0.50			0.51%
Y 371.029	1443177.9	99.154 %	0.5797			0.58%
Ag 328.068†	64971.6	488.18 µg/L	14.041	488.18 ppb	14.041	2.88%
QC value within limits for Ag 328.068 Recovery = 97.64%						
Al 396.153Radial†	6952.4	5187.6 µg/L	15.95	5187.6 ppb	15.95	0.31%
QC value within limits for Al 396.153Radial Recovery = 103.75%						
As 188.979†	268.9	483.16 µg/L	40.859	483.16 ppb	40.859	8.46%
QC value within limits for As 188.979 Recovery = 96.63%						
B 249.677†	11664.1	475.25 µg/L	16.314	475.25 ppb	16.314	3.43%
QC value within limits for B 249.677 Recovery = 95.05%						
Ba 233.527†	19757.2	485.03 µg/L	23.356	485.03 ppb	23.356	4.82%
QC value within limits for Ba 233.527 Recovery = 97.01%						
Be 313.107†	807322.8	487.39 µg/L	18.040	487.39 ppb	18.040	3.70%
QC value within limits for Be 313.107 Recovery = 97.48%						
Ca 317.933Radial†	5516.7	5060.3 µg/L	17.19	5060.3 ppb	17.19	0.34%
QC value within limits for Ca 317.933Radial Recovery = 101.21%						
Cd 226.502†	19218.4	483.50 µg/L	23.511	483.50 ppb	23.511	4.86%
QC value within limits for Cd 226.502 Recovery = 96.70%						
Co 228.616†	10543.9	487.64 µg/L	28.074	487.64 ppb	28.074	5.76%

QC value within limits for Co 228.616 Recovery = 97.53%							
Cr	267.716†	23722.9	484.11 µg/L	32.674	484.11 ppb	32.674	6.75%
QC value within limits for Cr 267.716 Recovery = 96.82%							
Cu	324.752†	72633.9	482.53 µg/L	24.741	482.53 ppb	24.741	5.13%
QC value within limits for Cu 324.752 Recovery = 96.51%							
Fe	238.204 Radial†	601.2	5170.9 µg/L	22.55	5170.9 ppb	22.55	0.44%
QC value within limits for Fe 238.204 Radial Recovery = 103.42%							
K	766.490 Radial†	7299.2	5019.1 µg/L	52.18	5019.1 ppb	52.18	1.04%
QC value within limits for K 766.490 Radial Recovery = 100.38%							
Mg	279.077 IEC†	544.3	5299.9 µg/L	26.51	5299.9 ppb	26.51	0.50%
QC value within limits for Mg 279.077 IEC Recovery = 106.00%							
Mn	257.610†	154904.6	493.56 µg/L	17.337	493.56 ppb	17.337	3.51%
QC value within limits for Mn 257.610 Recovery = 98.71%							
Mo	202.031†	4828.9	484.04 µg/L	50.653	484.04 ppb	50.653	10.46%
QC value within limits for Mo 202.031 Recovery = 96.81%							
Na	589.592 Radial†	31511.0	10302 µg/L	17.9	10302 ppb	17.9	0.17%
QC value within limits for Na 589.592 Radial Recovery = 103.02%							
Ni	231.604†	9629.9	486.17 µg/L	26.086	486.17 ppb	26.086	5.37%
QC value within limits for Ni 231.604 Recovery = 97.23%							
P	214.914†	1202.9	2345.2 µg/L	229.87	2345.2 ppb	229.87	9.80%
QC value within limits for P 214.914 Recovery = 93.81%							
Pb	220.353†	1966.4	484.00 µg/L	40.648	484.00 ppb	40.648	8.40%
QC value within limits for Pb 220.353 Recovery = 96.80%							
S	181.975 Axial†	231.3	958.73 µg/L	67.105	958.73 ppb	67.105	7.00%
QC value within limits for S 181.975 Axial Recovery = 95.87%							
Sb	206.836†	518.0	474.91 µg/L	44.871	474.91 ppb	44.871	9.45%
QC value within limits for Sb 206.836 Recovery = 94.98%							
Se	196.026†	351.3	489.20 µg/L	36.704	489.20 ppb	36.704	7.50%
QC value within limits for Se 196.026 Recovery = 97.84%							
SiO2†		26201.4	5246.9 µg/L	202.16	5246.9 ppb	202.16	3.85%
QC value within limits for SiO2 Recovery = 98.12%							
Si	251.611†	31840.3	2457.5 µg/L	97.90	2457.5 ppb	97.90	3.98%
QC value within limits for Si 251.611 Recovery = 98.30%							
Sn	189.927†	1124.6	480.96 µg/L	54.359	480.96 ppb	54.359	11.30%
QC value within limits for Sn 189.927 Recovery = 96.19%							
Sr	421.552†	49921.9	490.99 µg/L	1.080	490.99 ppb	1.080	0.22%
QC value within limits for Sr 421.552 Recovery = 98.20%							
Ti	334.940†	215727.8	490.31 µg/L	19.996	490.31 ppb	19.996	4.08%
QC value within limits for Ti 334.940 Recovery = 98.06%							
Tl	190.801†	362.7	490.75 µg/L	27.898	490.75 ppb	27.898	5.68%
QC value within limits for Tl 190.801 Recovery = 98.15%							
U	409.014†	5713.2	483.81 µg/L	24.975	483.81 ppb	24.975	5.16%
QC value within limits for U 409.014 Recovery = 96.76%							
V	292.402†	48792.9	488.62 µg/L	28.471	488.62 ppb	28.471	5.83%
QC value within limits for V 292.402 Recovery = 97.72%							
Zn	213.857†	20619.3	483.16 µg/L	26.228	483.16 ppb	26.228	5.43%
QC value within limits for Zn 213.857 Recovery = 96.63%							

All analyte(s) passed QC.

Sequence No.: 52

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 2/21/2010 02:03:59

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	57517.3	57517.3	97.4 %		02:04:32
1	Al 396.153Radial†	-10.6	-2.2	-1.6313 µg/L	-1.6313 ppb	02:04:32
1	Ca 317.933Radial†	181.1	-7.1	-6.4780 µg/L	-6.4780 ppb	02:04:53
1	Fe 238.204 Radial†	15.1	0.1	1.0423 µg/L	1.0423 ppb	02:04:53
1	K 766.490 Radial†	275.7	84.6	58.171 µg/L	58.171 ppb	02:04:32
1	Mg 279.077 IEC†	17.0	5.3	52.016 µg/L	52.016 ppb	02:04:53
1	Na 589.592 Radial†	432.6	-29.6	-9.6762 µg/L	-9.6762 ppb	02:04:32
1	Sr 421.552†	14.5	-26.5	-0.2608 µg/L	-0.2608 ppb	02:04:32
1	Sc 361.383	2097014.1	2097014.1	99.875 %		02:05:55
1	Y 371.029	1452757.0	1452757.0	99.812 %		02:05:55
1	Ag 328.068†	-422.9	39.7	0.2980 µg/L	0.2980 ppb	02:06:00
1	As 188.979†	4.4	4.7	8.5045 µg/L	8.5045 ppb	02:06:21
1	B 249.677†	356.9	31.9	1.3039 µg/L	1.3039 ppb	02:06:21
1	Ba 233.527†	-8.6	9.8	0.2399 µg/L	0.2399 ppb	02:06:21
1	Be 313.107†	-3581.4	173.0	0.1043 µg/L	0.1043 ppb	02:06:00
1	Cd 226.502†	-136.4	0.1	0.0015 µg/L	0.0015 ppb	02:06:21
1	Co 228.616†	2.8	0.2	0.0091 µg/L	0.0091 ppb	02:06:21
1	Cr 267.716†	-44.7	2.7	0.0543 µg/L	0.0543 ppb	02:06:00
1	Cu 324.752†	2817.5	-48.7	-0.3227 µg/L	-0.3227 ppb	02:06:00
1	Mn 257.610†	-246.1	56.2	0.1769 µg/L	0.1769 ppb	02:06:21
1	Mo 202.031†	4.9	8.2	0.8218 µg/L	0.8218 ppb	02:06:21
1	Ni 231.604†	301.7	-6.6	-0.3323 µg/L	-0.3323 ppb	02:06:21
1	P 214.914†	11.7	-4.5	-9.0031 µg/L	-9.0031 ppb	02:06:21
1	Pb 220.353†	88.8	-5.8	-1.4217 µg/L	-1.4217 ppb	02:06:21
1	S 181.975 Axial†	18.4	1.1	4.5996 µg/L	4.5996 ppb	02:06:21
1	Sb 206.836†	31.8	9.7	8.8827 µg/L	8.8827 ppb	02:06:21
1	Se 196.026†	19.0	4.0	5.4505 µg/L	5.4505 ppb	02:06:21
1	SiO2†	1533.5	51.0	10.220 µg/L	10.220 ppb	02:06:00
1	Si 251.611†	416.7	123.7	9.5476 µg/L	9.5476 ppb	02:06:21
1	Sn 189.927†	0.9	-3.8	-1.6263 µg/L	-1.6263 ppb	02:06:21
1	Ti 334.940†	344.8	203.6	0.4588 µg/L	0.4588 ppb	02:06:00
1	Tl 190.801†	-21.3	0.9	1.2407 µg/L	1.2407 ppb	02:06:21
1	U 409.014†	-110.5	-109.9	-9.3273 µg/L	-9.3273 ppb	02:06:00
1	V 292.402†	-70.9	25.0	0.2446 µg/L	0.2446 ppb	02:06:00
1	Zn 213.857†	516.1	14.8	0.3489 µg/L	0.3489 ppb	02:06:21
2	Sc RADIAL	58127.4	58127.4	98.4 %		02:04:58
2	Al 396.153Radial†	2.2	10.9	8.1529 µg/L	8.1529 ppb	02:04:58
2	Ca 317.933Radial†	186.9	-3.1	-2.8447 µg/L	-2.8447 ppb	02:05:19
2	Fe 238.204 Radial†	17.6	2.5	21.642 µg/L	21.642 ppb	02:05:19
2	K 766.490 Radial†	172.8	-22.9	-15.723 µg/L	-15.723 ppb	02:04:58
2	Mg 279.077 IEC†	7.3	-4.7	-45.425 µg/L	-45.425 ppb	02:05:19
2	Na 589.592 Radial†	455.4	-11.1	-3.6281 µg/L	-3.6281 ppb	02:04:58
2	Sr 421.552†	24.2	-16.8	-0.1647 µg/L	-0.1647 ppb	02:04:58
2	Sc 361.383	2094113.4	2094113.4	99.737 %		02:06:27
2	Y 371.029	1450930.3	1450930.3	99.687 %		02:06:27
2	Ag 328.068†	-415.6	46.4	0.3532 µg/L	0.3532 ppb	02:06:32
2	As 188.979†	-1.4	-1.1	-1.9523 µg/L	-1.9523 ppb	02:06:53
2	B 249.677†	343.9	19.4	0.7814 µg/L	0.7814 ppb	02:06:53
2	Ba 233.527†	-7.4	10.9	0.2685 µg/L	0.2685 ppb	02:06:53
2	Be 313.107†	-3506.3	243.4	0.1468 µg/L	0.1468 ppb	02:06:32
2	Cd 226.502†	-134.8	1.5	0.0349 µg/L	0.0349 ppb	02:06:53
2	Co 228.616†	12.8	10.2	0.4733 µg/L	0.4733 ppb	02:06:53
2	Cr 267.716†	-40.1	7.2	0.1469 µg/L	0.1469 ppb	02:06:32
2	Cu 324.752†	2839.1	-23.2	-0.1506 µg/L	-0.1506 ppb	02:06:32
2	Mn 257.610†	-242.3	59.6	0.1944 µg/L	0.1944 ppb	02:06:53
2	Mo 202.031†	5.5	8.8	0.8831 µg/L	0.8831 ppb	02:06:53
2	Ni 231.604†	311.1	3.3	0.1651 µg/L	0.1651 ppb	02:06:53
2	P 214.914†	6.1	-10.1	-20.066 µg/L	-20.066 ppb	02:06:53
2	Pb 220.353†	87.5	-7.1	-1.7360 µg/L	-1.7360 ppb	02:06:53

2	S 181.975 Axial†	13.8	-3.4	-14.185 µg/L	-14.185 ppb	02:06:53
2	Sb 206.836†	27.2	5.1	4.6888 µg/L	4.6888 ppb	02:06:53
2	Se 196.026†	17.0	2.1	2.9364 µg/L	2.9364 ppb	02:06:53
2	SiO2†	1558.7	78.4	15.702 µg/L	15.702 ppb	02:06:32
2	Si 251.611†	411.8	119.4	9.2140 µg/L	9.2140 ppb	02:06:53
2	Sn 189.927†	5.2	0.5	0.1899 µg/L	0.1899 ppb	02:06:53
2	Ti 334.940†	360.0	219.3	0.5023 µg/L	0.5023 ppb	02:06:32
2	Tl 190.801†	-22.2	-0.0	-0.0136 µg/L	-0.0136 ppb	02:06:53
2	U 409.014†	-74.9	-74.4	-6.3131 µg/L	-6.3131 ppb	02:06:32
2	V 292.402†	-8.2	87.8	0.8714 µg/L	0.8714 ppb	02:06:32
2	Zn 213.857†	504.7	4.1	0.0972 µg/L	0.0972 ppb	02:06:53
3	Sc RADIAL	57528.6	57528.6	97.4 %		02:05:24
3	Al 396.153Radial†	-12.0	-3.6	-2.7112 µg/L	-2.7112 ppb	02:05:24
3	Ca 317.933Radial†	190.4	2.4	2.2357 µg/L	2.2357 ppb	02:05:44
3	Fe 238.204 Radial†	16.0	1.1	9.2703 µg/L	9.2703 ppb	02:05:44
3	K 766.490 Radial†	235.2	43.0	29.565 µg/L	29.565 ppb	02:05:24
3	Mg 279.077 IEC†	10.5	-1.3	-12.298 µg/L	-12.298 ppb	02:05:44
3	Na 589.592 Radial†	465.3	3.8	1.2538 µg/L	1.2538 ppb	02:05:24
3	Sr 421.552†	22.5	-18.3	-0.1798 µg/L	-0.1798 ppb	02:05:24
3	Sc 361.383	2084159.3	2084159.3	99.263 %		02:06:59
3	Y 371.029	1442314.0	1442314.0	99.095 %		02:06:59
3	Ag 328.068†	-428.7	31.2	0.2375 µg/L	0.2375 ppb	02:07:04
3	As 188.979†	0.1	0.3	0.6305 µg/L	0.6305 ppb	02:07:25
3	B 249.677†	346.3	23.3	0.9497 µg/L	0.9497 ppb	02:07:25
3	Ba 233.527†	-10.8	7.4	0.1835 µg/L	0.1835 ppb	02:07:25
3	Be 313.107†	-3475.8	257.3	0.1552 µg/L	0.1552 ppb	02:07:04
3	Cd 226.502†	-147.3	-11.8	-0.2973 µg/L	-0.2973 ppb	02:07:25
3	Co 228.616†	4.5	2.0	0.0917 µg/L	0.0917 ppb	02:07:25
3	Cr 267.716†	-60.3	-13.3	-0.2713 µg/L	-0.2713 ppb	02:07:04
3	Cu 324.752†	2859.1	10.7	0.0720 µg/L	0.0720 ppb	02:07:04
3	Mn 257.610†	-235.8	65.0	0.2087 µg/L	0.2087 ppb	02:07:25
3	Mo 202.031†	-8.4	-5.2	-0.5199 µg/L	-0.5199 ppb	02:07:25
3	Ni 231.604†	310.5	4.2	0.2128 µg/L	0.2128 ppb	02:07:25
3	P 214.914†	15.8	-0.3	-0.5548 µg/L	-0.5548 ppb	02:07:25
3	Pb 220.353†	83.9	-10.3	-2.5204 µg/L	-2.5204 ppb	02:07:25
3	S 181.975 Axial†	14.0	-3.2	-13.304 µg/L	-13.304 ppb	02:07:25
3	Sb 206.836†	25.0	3.1	2.8200 µg/L	2.8200 ppb	02:07:25
3	Se 196.026†	16.0	1.1	1.5337 µg/L	1.5337 ppb	02:07:25
3	SiO2†	1532.7	59.6	11.941 µg/L	11.941 ppb	02:07:04
3	Si 251.611†	443.3	153.1	11.814 µg/L	11.814 ppb	02:07:25
3	Sn 189.927†	4.0	-0.7	-0.3131 µg/L	-0.3131 ppb	02:07:25
3	Ti 334.940†	327.5	188.3	0.4292 µg/L	0.4292 ppb	02:07:04
3	Tl 190.801†	-20.5	1.6	2.0986 µg/L	2.0986 ppb	02:07:25
3	U 409.014†	-45.9	-45.5	-3.8585 µg/L	-3.8585 ppb	02:07:04
3	V 292.402†	-37.5	58.2	0.5683 µg/L	0.5683 ppb	02:07:04
3	Zn 213.857†	515.9	17.7	0.4180 µg/L	0.4180 ppb	02:07:25

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2091762.3	99.625 %	0.3211			0.32%
Sc RADIAL	57724.5	97.8 %	0.59			0.60%
Y 371.029	1448667.1	99.531 %	0.3832			0.38%
Ag 328.068†	39.1	0.2962 µg/L	0.05791	0.2962 ppb	0.05791	19.55%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	1.7	1.2701 µg/L	5.98503	1.2701 ppb	5.98503	471.21%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	1.3	2.3942 µg/L	5.44692	2.3942 ppb	5.44692	227.50%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	24.9	1.0116 µg/L	0.26671	1.0116 ppb	0.26671	26.36%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	9.4	0.2306 µg/L	0.04322	0.2306 ppb	0.04322	18.74%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	224.5	0.1354 µg/L	0.02730	0.1354 ppb	0.02730	20.16%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-2.6	-2.3624 µg/L	4.37682	-2.3624 ppb	4.37682	185.27%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-3.4	-0.0870 µg/L	0.18292	-0.0870 ppb	0.18292	210.36%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	4.1	0.1914 µg/L	0.24766	0.1914 ppb	0.24766	129.41%

Cr	267.716†	-1.2	-0.0234 µg/L	0.21961	-0.0234 ppb	0.21961	939.10%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cu	324.752†	-20.4	-0.1338 µg/L	0.19788	-0.1338 ppb	0.19788	147.93%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	1.2	10.651 µg/L	10.3689	10.651 ppb	10.3689	97.35%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	34.9	24.004 µg/L	37.2596	24.004 ppb	37.2596	155.22%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	-0.2	-1.9023 µg/L	49.54493	-1.9023 ppb	49.54493	>999.9%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	60.3	0.1933 µg/L	0.01592	0.1933 ppb	0.01592	8.23%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	3.9	0.3950 µg/L	0.79290	0.3950 ppb	0.79290	200.73%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	-12.3	-4.0169 µg/L	5.47535	-4.0169 ppb	5.47535	136.31%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	0.3	0.0152 µg/L	0.30189	0.0152 ppb	0.30189	>999.9%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	-5.0	-9.8746 µg/L	9.78475	-9.8746 ppb	9.78475	99.09%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	-7.7	-1.8927 µg/L	0.56585	-1.8927 ppb	0.56585	29.90%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	-1.8	-7.6299 µg/L	10.60018	-7.6299 ppb	10.60018	138.93%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	6.0	5.4638 µg/L	3.10480	5.4638 ppb	3.10480	56.82%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	2.4	3.3069 µg/L	1.98452	3.3069 ppb	1.98452	60.01%
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†		63.0	12.621 µg/L	2.8032	12.621 ppb	2.8032	22.21%
QC value within limits for SiO2 Recovery = Not calculated							
Si	251.611†	132.0	10.192 µg/L	1.4149	10.192 ppb	1.4149	13.88%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	-1.4	-0.5831 µg/L	0.93774	-0.5831 ppb	0.93774	160.81%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	-20.5	-0.2018 µg/L	0.05167	-0.2018 ppb	0.05167	25.60%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	203.7	0.4634 µg/L	0.03675	0.4634 ppb	0.03675	7.93%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	0.8	1.1086 µg/L	1.06227	1.1086 ppb	1.06227	95.82%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	-76.6	-6.4996 µg/L	2.73915	-6.4996 ppb	2.73915	42.14%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	57.0	0.5614 µg/L	0.31343	0.5614 ppb	0.31343	55.83%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	12.2	0.2880 µg/L	0.16888	0.2880 ppb	0.16888	58.63%
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 61

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 2/21/2010 02:37:01

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	57377.2	57377.2	97.2 %		02:37:36
1	Al 396.153Radial†	6735.9	6940.3	5177.9 µg/L	5177.9 ppb	02:37:36
1	Ca 317.933Radial†	5600.4	5570.1	5109.3 µg/L	5109.3 ppb	02:37:57
1	Fe 238.204 Radial†	602.7	604.8	5202.7 µg/L	5202.7 ppb	02:37:57
1	K 766.490 Radial†	7251.0	7263.2	4994.3 µg/L	4994.3 ppb	02:37:36
1	Mg 279.077 IEC†	540.0	543.6	5293.9 µg/L	5293.9 ppb	02:37:57
1	Na 589.592 Radial†	30929.5	31354.0	10251 µg/L	10251 ppb	02:37:36
1	Sr 421.552†	48431.7	49796.9	489.76 µg/L	489.76 ppb	02:37:36
1	Sc 361.383	2098021.8	2098021.8	99.923 %		02:39:01
1	Y 371.029	1446111.2	1446111.2	99.356 %		02:39:01
1	Ag 328.068†	65119.9	65633.1	493.20 µg/L	493.20 ppb	02:39:06
1	As 188.979†	280.3	280.8	504.54 µg/L	504.54 ppb	02:39:27
1	B 249.677†	12177.8	11861.7	483.34 µg/L	483.34 ppb	02:39:06
1	Ba 233.527†	20088.3	20122.1	494.00 µg/L	494.00 ppb	02:39:06
1	Be 313.107†	822706.5	827097.2	499.33 µg/L	499.33 ppb	02:39:01
1	Cd 226.502†	19540.4	19692.0	495.42 µg/L	495.42 ppb	02:39:06
1	Co 228.616†	10811.6	10817.3	500.30 µg/L	500.30 ppb	02:39:06
1	Cr 267.716†	24471.0	24537.2	500.72 µg/L	500.72 ppb	02:39:06
1	Cu 324.752†	77142.2	74331.7	493.80 µg/L	493.80 ppb	02:39:06
1	Mn 257.610†	158119.4	158543.4	505.15 µg/L	505.15 ppb	02:39:01
1	Mo 202.031†	5130.4	5137.7	514.97 µg/L	514.97 ppb	02:39:27
1	Ni 231.604†	10155.1	9854.3	497.50 µg/L	497.50 ppb	02:39:06
1	P 214.914†	1301.6	1286.3	2510.5 µg/L	2510.5 ppb	02:39:27
1	Pb 220.353†	2168.3	2075.2	510.83 µg/L	510.83 ppb	02:39:27
1	S 181.975 Axial†	263.7	246.6	1022.1 µg/L	1022.1 ppb	02:39:27
1	Sb 206.836†	577.4	555.8	509.70 µg/L	509.70 ppb	02:39:27
1	Se 196.026†	385.4	370.7	515.90 µg/L	515.90 ppb	02:39:27
1	SiO2†	27993.2	26530.3	5312.7 µg/L	5312.7 ppb	02:39:06
1	Si 251.611†	32511.5	32243.0	2488.6 µg/L	2488.6 ppb	02:39:06
1	Sn 189.927†	1219.0	1215.3	519.73 µg/L	519.73 ppb	02:39:27
1	Ti 334.940†	220795.3	220823.2	501.90 µg/L	501.90 ppb	02:39:01
1	Tl 190.801†	359.2	381.7	516.24 µg/L	516.24 ppb	02:39:27
1	U 409.014†	5872.9	5878.1	497.80 µg/L	497.80 ppb	02:39:06
1	V 292.402†	49956.8	50091.2	501.76 µg/L	501.76 ppb	02:39:06
1	Zn 213.857†	21636.6	21151.2	495.65 µg/L	495.65 ppb	02:39:06
2	Sc RADIAL	57493.2	57493.2	97.4 %		02:38:02
2	Al 396.153Radial†	6730.2	6920.4	5163.2 µg/L	5163.2 ppb	02:38:02
2	Ca 317.933Radial†	5607.5	5565.8	5105.3 µg/L	5105.3 ppb	02:38:23
2	Fe 238.204 Radial†	599.5	600.3	5163.4 µg/L	5163.4 ppb	02:38:23
2	K 766.490 Radial†	7235.0	7231.7	4972.7 µg/L	4972.7 ppb	02:38:02
2	Mg 279.077 IEC†	549.4	552.1	5376.7 µg/L	5376.7 ppb	02:38:23
2	Na 589.592 Radial†	30985.2	31347.1	10248 µg/L	10248 ppb	02:38:02
2	Sr 421.552†	48559.0	49827.1	490.06 µg/L	490.06 ppb	02:38:02
2	Sc 361.383	2099879.4	2099879.4	100.01 %		02:39:34
2	Y 371.029	1448354.5	1448354.5	99.510 %		02:39:34
2	Ag 328.068†	65212.4	65667.9	493.46 µg/L	493.46 ppb	02:39:39
2	As 188.979†	283.1	283.4	509.10 µg/L	509.10 ppb	02:40:00
2	B 249.677†	12220.4	11893.5	484.66 µg/L	484.66 ppb	02:39:39
2	Ba 233.527†	20211.9	20227.9	496.59 µg/L	496.59 ppb	02:39:39
2	Be 313.107†	825290.6	828952.6	500.45 µg/L	500.45 ppb	02:39:34
2	Cd 226.502†	19555.6	19690.0	495.38 µg/L	495.38 ppb	02:39:39
2	Co 228.616†	10842.5	10838.6	501.28 µg/L	501.28 ppb	02:39:39
2	Cr 267.716†	24495.5	24540.0	500.78 µg/L	500.78 ppb	02:39:39
2	Cu 324.752†	77358.5	74479.7	494.78 µg/L	494.78 ppb	02:39:39
2	Mn 257.610†	158360.4	158644.4	505.46 µg/L	505.46 ppb	02:39:34
2	Mo 202.031†	5060.8	5063.5	507.54 µg/L	507.54 ppb	02:40:00
2	Ni 231.604†	10224.6	9914.7	500.55 µg/L	500.55 ppb	02:39:39
2	P 214.914†	1283.3	1266.9	2471.6 µg/L	2471.6 ppb	02:40:00
2	Pb 220.353†	2127.5	2032.5	500.29 µg/L	500.29 ppb	02:40:00

2	S 181.975 Axial†	261.6	244.2	1012.4 µg/L	1012.4 ppb	02:40:00
2	Sb 206.836†	555.1	532.9	488.75 µg/L	488.75 ppb	02:40:00
2	Se 196.026†	388.5	373.4	519.45 µg/L	519.45 ppb	02:40:00
2	SiO2†	28163.3	26675.6	5341.8 µg/L	5341.8 ppb	02:39:39
2	Si 251.611†	32643.3	32345.9	2496.6 µg/L	2496.6 ppb	02:39:39
2	Sn 189.927†	1187.0	1182.2	505.59 µg/L	505.59 ppb	02:40:00
2	Ti 334.940†	220997.1	220829.5	501.91 µg/L	501.91 ppb	02:39:34
2	Tl 190.801†	348.7	370.9	501.71 µg/L	501.71 ppb	02:40:00
2	U 409.014†	5890.1	5890.1	498.83 µg/L	498.83 ppb	02:39:39
2	V 292.402†	50027.5	50117.6	501.96 µg/L	501.96 ppb	02:39:39
2	Zn 213.857†	21721.2	21216.7	497.18 µg/L	497.18 ppb	02:39:39
3	Sc RADIAL	58022.1	58022.1	98.3 %		02:38:28
3	Al 396.153Radial†	6797.6	6926.0	5169.1 µg/L	5169.1 ppb	02:38:28
3	Ca 317.933Radial†	5614.0	5519.8	5063.1 µg/L	5063.1 ppb	02:38:49
3	Fe 238.204 Radial†	603.3	598.5	5147.3 µg/L	5147.3 ppb	02:38:49
3	K 766.490 Radial†	7323.7	7254.2	4988.1 µg/L	4988.1 ppb	02:38:28
3	Mg 279.077 IEC†	545.0	542.6	5282.5 µg/L	5282.5 ppb	02:38:49
3	Na 589.592 Radial†	31197.4	31272.9	10224 µg/L	10224 ppb	02:38:28
3	Sr 421.552†	48893.6	49713.1	488.94 µg/L	488.94 ppb	02:38:28
3	Sc 361.383	2094918.7	2094918.7	99.775 %		02:40:07
3	Y 371.029	1445516.4	1445516.4	99.315 %		02:40:07
3	Ag 328.068†	61673.9	62275.8	467.83 µg/L	467.83 ppb	02:40:13
3	As 188.979†	239.7	240.5	432.13 µg/L	432.13 ppb	02:40:33
3	B 249.677†	11436.9	11137.2	453.63 µg/L	453.63 ppb	02:40:13
3	Ba 233.527†	18556.3	18616.4	457.01 µg/L	457.01 ppb	02:40:13
3	Be 313.107†	769146.1	774635.8	467.66 µg/L	467.66 ppb	02:40:07
3	Cd 226.502†	17900.9	18077.8	454.76 µg/L	454.76 ppb	02:40:13
3	Co 228.616†	9816.3	9835.9	454.85 µg/L	454.85 ppb	02:40:13
3	Cr 267.716†	21534.7	21630.5	441.41 µg/L	441.41 ppb	02:40:13
3	Cu 324.752†	70376.9	67665.6	449.57 µg/L	449.57 ppb	02:40:13
3	Mn 257.610†	148134.2	148770.2	474.03 µg/L	474.03 ppb	02:40:07
3	Mo 202.031†	4229.6	4242.4	425.27 µg/L	425.27 ppb	02:40:33
3	Ni 231.604†	9247.0	8959.1	452.31 µg/L	452.31 ppb	02:40:13
3	P 214.914†	1097.8	1084.0	2111.4 µg/L	2111.4 ppb	02:40:33
3	Pb 220.353†	1856.3	1765.7	434.55 µg/L	434.55 ppb	02:40:33
3	S 181.975 Axial†	226.4	209.6	869.04 µg/L	869.04 ppb	02:40:33
3	Sb 206.836†	484.5	463.5	424.65 µg/L	424.65 ppb	02:40:33
3	Se 196.026†	336.6	322.4	449.55 µg/L	449.55 ppb	02:40:33
3	SiO2†	26233.0	24807.6	4967.7 µg/L	4967.7 ppb	02:40:13
3	Si 251.611†	30318.9	30093.6	2322.7 µg/L	2322.7 ppb	02:40:13
3	Sn 189.927†	981.0	978.5	418.50 µg/L	418.50 ppb	02:40:33
3	Ti 334.940†	205030.8	205350.6	466.71 µg/L	466.71 ppb	02:40:07
3	Tl 190.801†	314.8	337.8	457.15 µg/L	457.15 ppb	02:40:33
3	U 409.014†	5205.9	5218.4	441.83 µg/L	441.83 ppb	02:40:13
3	V 292.402†	45040.0	45237.3	452.85 µg/L	452.85 ppb	02:40:13
3	Zn 213.857†	19757.6	19300.1	452.23 µg/L	452.23 ppb	02:40:13

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2097606.7	99.903 %	0.1194			0.12%
Sc RADIAL	57630.8	97.6 %	0.58			0.60%
Y 371.029	1446660.7	99.394 %	0.1028			0.10%
Ag 328.068†	64525.6	484.83 µg/L	14.720	484.83 ppb	14.720	3.04%
QC value within limits for Ag 328.068 Recovery = 96.97%						
Al 396.153Radial†	6928.9	5170.1 µg/L	7.40	5170.1 ppb	7.40	0.14%
QC value within limits for Al 396.153Radial Recovery = 103.40%						
As 188.979†	268.2	481.92 µg/L	43.181	481.92 ppb	43.181	8.96%
QC value within limits for As 188.979 Recovery = 96.38%						
B 249.677†	11630.8	473.88 µg/L	17.545	473.88 ppb	17.545	3.70%
QC value within limits for B 249.677 Recovery = 94.78%						
Ba 233.527†	19655.5	482.53 µg/L	22.139	482.53 ppb	22.139	4.59%
QC value within limits for Ba 233.527 Recovery = 96.51%						
Be 313.107†	810228.6	489.14 µg/L	18.617	489.14 ppb	18.617	3.81%
QC value within limits for Be 313.107 Recovery = 97.83%						
Ca 317.933Radial†	5551.9	5092.6 µg/L	25.55	5092.6 ppb	25.55	0.50%
QC value within limits for Ca 317.933Radial Recovery = 101.85%						
Cd 226.502†	19153.3	481.85 µg/L	23.461	481.85 ppb	23.461	4.87%
QC value within limits for Cd 226.502 Recovery = 96.37%						
Co 228.616†	10497.3	485.48 µg/L	26.530	485.48 ppb	26.530	5.46%



QC value within limits for Co 228.616 Recovery = 97.10%							
Cr 267.716†	23569.3	480.97 µg/L	34.259	480.97 ppb	34.259	7.12%	
QC value within limits for Cr 267.716 Recovery = 96.19%							
Cu 324.752†	72159.0	479.38 µg/L	25.821	479.38 ppb	25.821	5.39%	
QC value within limits for Cu 324.752 Recovery = 95.88%							
Fe 238.204 Radial†	601.2	5171.2 µg/L	28.51	5171.2 ppb	28.51	0.55%	
QC value within limits for Fe 238.204 Radial Recovery = 103.42%							
K 766.490 Radial†	7249.7	4985.0 µg/L	11.14	4985.0 ppb	11.14	0.22%	
QC value within limits for K 766.490 Radial Recovery = 99.70%							
Mg 279.077 IEC†	546.1	5317.7 µg/L	51.40	5317.7 ppb	51.40	0.97%	
QC value within limits for Mg 279.077 IEC Recovery = 106.35%							
Mn 257.610†	155319.3	494.88 µg/L	18.056	494.88 ppb	18.056	3.65%	
QC value within limits for Mn 257.610 Recovery = 98.98%							
Mo 202.031†	4814.5	482.60 µg/L	49.785	482.60 ppb	49.785	10.32%	
QC value within limits for Mo 202.031 Recovery = 96.52%							
Na 589.592 Radial†	31324.7	10241 µg/L	14.7	10241 ppb	14.7	0.14%	
QC value within limits for Na 589.592 Radial Recovery = 102.41%							
Ni 231.604†	9576.0	483.45 µg/L	27.013	483.45 ppb	27.013	5.59%	
QC value within limits for Ni 231.604 Recovery = 96.69%							
P 214.914†	1212.4	2364.5 µg/L	220.04	2364.5 ppb	220.04	9.31%	
QC value within limits for P 214.914 Recovery = 94.58%							
Pb 220.353†	1957.8	481.89 µg/L	41.334	481.89 ppb	41.334	8.58%	
QC value within limits for Pb 220.353 Recovery = 96.38%							
S 181.975 Axial†	233.5	967.86 µg/L	85.720	967.86 ppb	85.720	8.86%	
QC value within limits for S 181.975 Axial Recovery = 96.79%							
Sb 206.836†	517.4	474.37 µg/L	44.310	474.37 ppb	44.310	9.34%	
QC value within limits for Sb 206.836 Recovery = 94.87%							
Se 196.026†	355.5	494.97 µg/L	39.374	494.97 ppb	39.374	7.95%	
QC value within limits for Se 196.026 Recovery = 98.99%							
SiO2†	26004.5	5207.4 µg/L	208.08	5207.4 ppb	208.08	4.00%	
QC value within limits for SiO2 Recovery = 97.38%							
Si 251.611†	31560.8	2436.0 µg/L	98.15	2436.0 ppb	98.15	4.03%	
QC value within limits for Si 251.611 Recovery = 97.44%							
Sn 189.927†	1125.3	481.27 µg/L	54.820	481.27 ppb	54.820	11.39%	
QC value within limits for Sn 189.927 Recovery = 96.25%							
Sr 421.552†	49779.0	489.59 µg/L	0.581	489.59 ppb	0.581	0.12%	
QC value within limits for Sr 421.552 Recovery = 97.92%							
Ti 334.940†	215667.7	490.17 µg/L	20.320	490.17 ppb	20.320	4.15%	
QC value within limits for Ti 334.940 Recovery = 98.03%							
Tl 190.801†	363.4	491.70 µg/L	30.794	491.70 ppb	30.794	6.26%	
QC value within limits for Tl 190.801 Recovery = 98.34%							
U 409.014†	5662.2	479.49 µg/L	32.617	479.49 ppb	32.617	6.80%	
QC value within limits for U 409.014 Recovery = 95.90%							
V 292.402†	48482.0	485.52 µg/L	28.295	485.52 ppb	28.295	5.83%	
QC value within limits for V 292.402 Recovery = 97.10%							
Zn 213.857†	20556.0	481.69 µg/L	25.518	481.69 ppb	25.518	5.30%	
QC value within limits for Zn 213.857 Recovery = 96.34%							
All analyte(s) passed QC.							

Sequence No.: 62

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 2/21/2010 02:40:43

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	57583.8	57583.8	97.5 %		02:41:18
1	Al 396.153Radial†	15.1	24.2	18.089 µg/L	18.089 ppb	02:41:18
1	Ca 317.933Radial†	186.5	-1.8	-1.6127 µg/L	-1.6127 ppb	02:41:38
1	Fe 238.204 Radial†	18.1	3.1	26.922 µg/L	26.922 ppb	02:41:38
1	K 766.490 Radial†	196.7	3.3	2.2687 µg/L	2.2687 ppb	02:41:18
1	Mg 279.077 IEC†	15.7	4.0	38.686 µg/L	38.686 ppb	02:41:38
1	Na 589.592 Radial†	471.3	9.6	3.1322 µg/L	3.1322 ppb	02:41:18
1	Sr 421.552†	71.4	31.9	0.3135 µg/L	0.3135 ppb	02:41:18
1	Sc 361.383	2107882.2	2107882.2	100.39 %		02:42:41
1	Y 371.029	1457472.0	1457472.0	100.14 %		02:42:41
1	Ag 328.068†	-355.8	108.7	0.8127 µg/L	0.8127 ppb	02:42:46
1	As 188.979†	-1.4	-1.1	-1.9225 µg/L	-1.9225 ppb	02:43:07
1	B 249.677†	341.3	14.5	0.5781 µg/L	0.5781 ppb	02:43:07
1	Ba 233.527†	-7.0	11.4	0.2789 µg/L	0.2789 ppb	02:43:07
1	Be 313.107†	-3675.1	98.1	0.0592 µg/L	0.0592 ppb	02:42:46
1	Cd 226.502†	-141.4	-4.2	-0.1088 µg/L	-0.1088 ppb	02:43:07
1	Co 228.616†	7.3	4.8	0.2195 µg/L	0.2195 ppb	02:43:07
1	Cr 267.716†	-51.9	-4.3	-0.0878 µg/L	-0.0878 ppb	02:42:46
1	Cu 324.752†	2891.5	10.5	0.0734 µg/L	0.0734 ppb	02:42:46
1	Mn 257.610†	-150.7	152.5	0.4873 µg/L	0.4873 ppb	02:43:07
1	Mo 202.031†	-2.8	0.5	0.0534 µg/L	0.0534 ppb	02:43:07
1	Ni 231.604†	310.9	1.0	0.0524 µg/L	0.0524 ppb	02:43:07
1	P 214.914†	13.8	-2.5	-4.9422 µg/L	-4.9422 ppb	02:43:07
1	Pb 220.353†	92.6	-2.5	-0.6217 µg/L	-0.6217 ppb	02:43:07
1	S 181.975 Axial†	16.0	-1.4	-5.8209 µg/L	-5.8209 ppb	02:43:07
1	Sb 206.836†	27.0	4.7	4.3295 µg/L	4.3295 ppb	02:43:07
1	Se 196.026†	15.2	0.1	0.2118 µg/L	0.2118 ppb	02:43:07
1	SiO2†	1525.3	34.9	6.9923 µg/L	6.9923 ppb	02:42:46
1	Si 251.611†	373.5	78.5	6.0589 µg/L	6.0589 ppb	02:43:07
1	Sn 189.927†	-0.7	-5.4	-2.3047 µg/L	-2.3047 ppb	02:43:07
1	Ti 334.940†	249.9	107.3	0.2409 µg/L	0.2409 ppb	02:42:46
1	Tl 190.801†	-25.0	-2.7	-3.5993 µg/L	-3.5993 ppb	02:43:07
1	U 409.014†	-40.8	-39.9	-3.3887 µg/L	-3.3887 ppb	02:42:46
1	V 292.402†	-95.0	1.3	0.0130 µg/L	0.0130 ppb	02:42:46
1	Zn 213.857†	509.7	5.7	0.1315 µg/L	0.1315 ppb	02:43:07
2	Sc RADIAL	57661.8	57661.8	97.7 %		02:41:44
2	Al 396.153Radial†	-5.1	3.5	2.5947 µg/L	2.5947 ppb	02:41:44
2	Ca 317.933Radial†	188.3	-0.1	-0.1298 µg/L	-0.1298 ppb	02:42:04
2	Fe 238.204 Radial†	16.1	1.1	9.0929 µg/L	9.0929 ppb	02:42:04
2	K 766.490 Radial†	221.1	28.0	19.262 µg/L	19.262 ppb	02:41:44
2	Mg 279.077 IEC†	9.8	-2.0	-19.680 µg/L	-19.680 ppb	02:42:04
2	Na 589.592 Radial†	438.6	-24.6	-8.0312 µg/L	-8.0312 ppb	02:41:44
2	Sr 421.552†	21.9	-18.9	-0.1861 µg/L	-0.1861 ppb	02:41:44
2	Sc 361.383	2088666.9	2088666.9	99.478 %		02:43:13
2	Y 371.029	1445652.0	1445652.0	99.324 %		02:43:13
2	Ag 328.068†	-442.1	18.7	0.1418 µg/L	0.1418 ppb	02:43:18
2	As 188.979†	-2.4	-2.2	-3.9040 µg/L	-3.9040 ppb	02:43:39
2	B 249.677†	352.6	29.0	1.1802 µg/L	1.1802 ppb	02:43:39
2	Ba 233.527†	-8.7	9.6	0.2348 µg/L	0.2348 ppb	02:43:39
2	Be 313.107†	-3617.3	122.5	0.0739 µg/L	0.0739 ppb	02:43:18
2	Cd 226.502†	-141.8	-6.0	-0.1516 µg/L	-0.1516 ppb	02:43:39
2	Co 228.616†	5.6	3.1	0.1443 µg/L	0.1443 ppb	02:43:39
2	Cr 267.716†	-45.8	1.3	0.0268 µg/L	0.0268 ppb	02:43:18
2	Cu 324.752†	2907.6	53.1	0.3536 µg/L	0.3536 ppb	02:43:18
2	Mn 257.610†	-145.0	156.8	0.5010 µg/L	0.5010 ppb	02:43:39
2	Mo 202.031†	5.2	8.5	0.8529 µg/L	0.8529 ppb	02:43:39
2	Ni 231.604†	309.8	2.8	0.1420 µg/L	0.1420 ppb	02:43:39
2	P 214.914†	12.5	-3.7	-7.4397 µg/L	-7.4397 ppb	02:43:39
2	Pb 220.353†	83.3	-11.0	-2.7169 µg/L	-2.7169 ppb	02:43:39

2	S 181.975 Axial†	14.7	-2.5	-10.513 µg/L	-10.513 ppb	02:43:39
2	Sb 206.836†	29.7	7.8	7.1143 µg/L	7.1143 ppb	02:43:39
2	Se 196.026†	12.0	-2.9	-3.9797 µg/L	-3.9797 ppb	02:43:39
2	SiO2†	1476.7	0.1	0.0198 µg/L	0.0198 ppb	02:43:18
2	Si 251.611†	368.7	77.1	5.9524 µg/L	5.9524 ppb	02:43:39
2	Sn 189.927†	3.2	-1.5	-0.6607 µg/L	-0.6607 ppb	02:43:39
2	Ti 334.940†	253.4	113.1	0.2588 µg/L	0.2588 ppb	02:43:18
2	Tl 190.801†	-22.9	-0.8	-1.0279 µg/L	-1.0279 ppb	02:43:39
2	U 409.014†	2.5	3.3	0.2780 µg/L	0.2780 ppb	02:43:18
2	V 292.402†	-69.9	25.8	0.2628 µg/L	0.2628 ppb	02:43:18
2	Zn 213.857†	522.2	23.0	0.5425 µg/L	0.5425 ppb	02:43:39
3	Sc RADIAL	57594.0	57594.0	97.5 %		02:42:10
3	Al 396.153Radial†	0.3	9.0	6.7301 µg/L	6.7301 ppb	02:42:10
3	Ca 317.933Radial†	197.0	9.0	8.2470 µg/L	8.2470 ppb	02:42:30
3	Fe 238.204 Radial†	12.9	-2.2	-18.514 µg/L	-18.514 ppb	02:42:30
3	K 766.490 Radial†	186.2	-7.5	-5.1374 µg/L	-5.1374 ppb	02:42:10
3	Mg 279.077 IEC†	11.0	-0.8	-7.3537 µg/L	-7.3537 ppb	02:42:30
3	Na 589.592 Radial†	465.0	3.0	0.9910 µg/L	0.9910 ppb	02:42:10
3	Sr 421.552†	49.2	9.0	0.0890 µg/L	0.0890 ppb	02:42:10
3	Sc 361.383	2091576.3	2091576.3	99.616 %		02:43:45
3	Y 371.029	1447072.2	1447072.2	99.422 %		02:43:45
3	Ag 328.068†	-443.6	17.8	0.1308 µg/L	0.1308 ppb	02:43:50
3	As 188.979†	1.1	1.4	2.5375 µg/L	2.5375 ppb	02:44:11
3	B 249.677†	359.1	35.0	1.4407 µg/L	1.4407 ppb	02:44:11
3	Ba 233.527†	-8.4	9.9	0.2431 µg/L	0.2431 ppb	02:44:11
3	Be 313.107†	-3647.7	97.1	0.0586 µg/L	0.0586 ppb	02:43:50
3	Cd 226.502†	-142.6	-6.5	-0.1625 µg/L	-0.1625 ppb	02:44:11
3	Co 228.616†	1.0	-1.5	-0.0717 µg/L	-0.0717 ppb	02:44:11
3	Cr 267.716†	-39.1	8.2	0.1667 µg/L	0.1667 ppb	02:43:50
3	Cu 324.752†	2871.8	13.1	0.0843 µg/L	0.0843 ppb	02:43:50
3	Mn 257.610†	-169.6	132.3	0.4189 µg/L	0.4189 ppb	02:44:11
3	Mo 202.031†	2.3	5.7	0.5669 µg/L	0.5669 ppb	02:44:11
3	Ni 231.604†	308.3	0.9	0.0450 µg/L	0.0450 ppb	02:44:11
3	P 214.914†	9.6	-6.6	-13.197 µg/L	-13.197 ppb	02:44:11
3	Pb 220.353†	95.4	1.0	0.2429 µg/L	0.2429 ppb	02:44:11
3	S 181.975 Axial†	14.7	-2.5	-10.332 µg/L	-10.332 ppb	02:44:11
3	Sb 206.836†	19.2	-2.8	-2.5403 µg/L	-2.5403 ppb	02:44:11
3	Se 196.026†	13.8	-1.2	-1.6582 µg/L	-1.6582 ppb	02:44:11
3	SiO2†	1518.9	40.3	8.0743 µg/L	8.0743 ppb	02:43:50
3	Si 251.611†	392.2	100.2	7.7354 µg/L	7.7354 ppb	02:44:11
3	Sn 189.927†	-0.8	-5.5	-2.3524 µg/L	-2.3524 ppb	02:44:11
3	Ti 334.940†	259.2	118.5	0.2702 µg/L	0.2702 ppb	02:43:50
3	Tl 190.801†	-25.5	-3.4	-4.4847 µg/L	-4.4847 ppb	02:44:11
3	U 409.014†	10.5	11.3	0.9632 µg/L	0.9632 ppb	02:43:50
3	V 292.402†	-112.5	-16.9	-0.1640 µg/L	-0.1640 ppb	02:43:50
3	Zn 213.857†	518.7	18.8	0.4446 µg/L	0.4446 ppb	02:44:11

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2096041.8	99.829 %	0.4933			0.49%
Sc RADIAL	57613.2	97.6 %	0.07			0.07%
Y 371.029	1450065.4	99.628 %	0.4434			0.45%
Ag 328.068†	48.4	0.3618 µg/L	0.39056	0.3618 ppb	0.39056	107.96%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	12.2	9.1381 µg/L	8.02305	9.1381 ppb	8.02305	87.80%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-0.6	-1.0964 µg/L	3.29926	-1.0964 ppb	3.29926	300.93%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	26.1	1.0663 µg/L	0.44245	1.0663 ppb	0.44245	41.49%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	10.3	0.2523 µg/L	0.02346	0.2523 ppb	0.02346	9.30%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	105.9	0.0639 µg/L	0.00870	0.0639 ppb	0.00870	13.61%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	2.4	2.1682 µg/L	5.31639	2.1682 ppb	5.31639	245.20%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-5.6	-0.1410 µg/L	0.02838	-0.1410 ppb	0.02838	20.13%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	2.1	0.0974 µg/L	0.15115	0.0974 ppb	0.15115	155.23%

Cr	267.716†	1.7	0.0352 µg/L	0.12743	0.0352 ppb	0.12743	361.80%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cu	324.752†	25.6	0.1704 µg/L	0.15874	0.1704 ppb	0.15874	93.14%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	0.7	5.8337 µg/L	22.89244	5.8337 ppb	22.89244	392.42%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	7.9	5.4645 µg/L	12.50980	5.4645 ppb	12.50980	228.93%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	0.4	3.8840 µg/L	30.76296	3.8840 ppb	30.76296	792.04%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	147.2	0.4691 µg/L	0.04398	0.4691 ppb	0.04398	9.38%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	4.9	0.4911 µg/L	0.40510	0.4911 ppb	0.40510	82.49%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	-4.0	-1.3027 µg/L	5.92462	-1.3027 ppb	5.92462	454.80%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	1.6	0.0798 µg/L	0.05397	0.0798 ppb	0.05397	67.64%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	-4.3	-8.5263 µg/L	4.23323	-8.5263 ppb	4.23323	49.65%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	-4.2	-1.0319 µg/L	1.52191	-1.0319 ppb	1.52191	147.48%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	-2.1	-8.8886 µg/L	2.65825	-8.8886 ppb	2.65825	29.91%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	3.2	2.9678 µg/L	4.96928	2.9678 ppb	4.96928	167.44%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	-1.3	-1.8087 µg/L	2.09982	-1.8087 ppb	2.09982	116.10%
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†		25.1	5.0288 µg/L	4.37154	5.0288 ppb	4.37154	86.93%
QC value within limits for SiO2 Recovery = Not calculated							
Si	251.611†	85.3	6.5823 µg/L	1.00011	6.5823 ppb	1.00011	15.19%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	-4.1	-1.7726 µg/L	0.96321	-1.7726 ppb	0.96321	54.34%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	7.3	0.0721 µg/L	0.25021	0.0721 ppb	0.25021	346.93%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	113.0	0.2566 µg/L	0.01476	0.2566 ppb	0.01476	5.75%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	-2.3	-3.0373 µg/L	1.79562	-3.0373 ppb	1.79562	59.12%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	-8.4	-0.7158 µg/L	2.33997	-0.7158 ppb	2.33997	326.90%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	3.4	0.0373 µg/L	0.21443	0.0373 ppb	0.21443	575.04%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	15.8	0.3729 µg/L	0.21469	0.3729 ppb	0.21469	57.58%
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 72

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 2/21/2010 03:16:36

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	58780.1	58780.1	99.6 %		03:17:14
1	Al 396.153Radial†	6771.9	6810.9	5081.3 µg/L	5081.3 ppb	03:17:14
1	Ca 317.933Radial†	5581.2	5413.2	4965.3 µg/L	4965.3 ppb	03:17:34
1	Fe 238.204 Radial†	597.4	584.7	5029.4 µg/L	5029.4 ppb	03:17:34
1	K 766.490 Radial†	7336.3	7170.8	4930.8 µg/L	4930.8 ppb	03:17:14
1	Mg 279.077 IEC†	544.5	534.8	5208.7 µg/L	5208.7 ppb	03:17:34
1	Na 589.592 Radial†	31243.8	30910.2	10105 µg/L	10105 ppb	03:17:14
1	Sr 421.552†	48814.8	48992.3	481.85 µg/L	481.85 ppb	03:17:14
1	Sc 361.383	2103212.2	2103212.2	100.17 %		03:18:37
1	Y 371.029	1451433.5	1451433.5	99.722 %		03:18:37
1	Ag 328.068†	64829.4	65182.2	489.80 µg/L	489.80 ppb	03:18:43
1	As 188.979†	279.0	278.8	500.92 µg/L	500.92 ppb	03:19:03
1	B 249.677†	12131.8	11785.7	480.31 µg/L	480.31 ppb	03:18:43
1	Ba 233.527†	20072.3	20056.5	492.38 µg/L	492.38 ppb	03:18:43
1	Be 313.107†	812693.7	815069.6	492.07 µg/L	492.07 ppb	03:18:37
1	Cd 226.502†	19401.3	19504.9	490.73 µg/L	490.73 ppb	03:18:43
1	Co 228.616†	10732.0	10711.2	495.40 µg/L	495.40 ppb	03:18:43
1	Cr 267.716†	24288.3	24294.3	495.77 µg/L	495.77 ppb	03:18:43
1	Cu 324.752†	76695.4	73695.2	489.55 µg/L	489.55 ppb	03:18:43
1	Mn 257.610†	156156.3	156193.1	497.65 µg/L	497.65 ppb	03:18:37
1	Mo 202.031†	5085.0	5079.7	509.16 µg/L	509.16 ppb	03:19:03
1	Ni 231.604†	10120.5	9794.7	494.49 µg/L	494.49 ppb	03:18:43
1	P 214.914†	1281.0	1262.6	2463.6 µg/L	2463.6 ppb	03:19:03
1	Pb 220.353†	2142.4	2044.0	503.15 µg/L	503.15 ppb	03:19:03
1	S 181.975 Axial†	255.0	237.2	983.40 µg/L	983.40 ppb	03:19:03
1	Sb 206.836†	558.7	535.6	491.31 µg/L	491.31 ppb	03:19:03
1	Se 196.026†	380.5	364.8	507.51 µg/L	507.51 ppb	03:19:03
1	SiO2†	27964.6	26432.6	5293.1 µg/L	5293.1 ppb	03:18:43
1	Si 251.611†	32472.9	32124.1	2479.5 µg/L	2479.5 ppb	03:18:43
1	Sn 189.927†	1197.2	1190.4	509.13 µg/L	509.13 ppb	03:19:03
1	Ti 334.940†	218058.4	217545.7	494.45 µg/L	494.45 ppb	03:18:37
1	Tl 190.801†	351.1	372.8	504.17 µg/L	504.17 ppb	03:19:03
1	U 409.014†	5775.7	5766.6	488.37 µg/L	488.37 ppb	03:18:43
1	V 292.402†	49656.7	49668.2	497.49 µg/L	497.49 ppb	03:18:43
1	Zn 213.857†	21553.3	21014.7	492.46 µg/L	492.46 ppb	03:18:43
2	Sc RADIAL	58126.7	58126.7	98.4 %		03:17:40
2	Al 396.153Radial†	6696.3	6810.7	5081.2 µg/L	5081.2 ppb	03:17:40
2	Ca 317.933Radial†	5617.4	5513.1	5057.0 µg/L	5057.0 ppb	03:18:00
2	Fe 238.204 Radial†	600.3	594.3	5112.5 µg/L	5112.5 ppb	03:18:00
2	K 766.490 Radial†	7298.6	7215.4	4961.4 µg/L	4961.4 ppb	03:17:40
2	Mg 279.077 IEC†	542.3	538.7	5246.6 µg/L	5246.6 ppb	03:18:00
2	Na 589.592 Radial†	31001.1	31016.4	10140 µg/L	10140 ppb	03:17:40
2	Sr 421.552†	48358.5	49080.1	482.71 µg/L	482.71 ppb	03:17:40
2	Sc 361.383	2106051.0	2106051.0	100.31 %		03:19:11
2	Y 371.029	1452532.7	1452532.7	99.797 %		03:19:11
2	Ag 328.068†	65181.5	65445.9	491.79 µg/L	491.79 ppb	03:19:16
2	As 188.979†	276.3	275.7	495.36 µg/L	495.36 ppb	03:19:37
2	B 249.677†	12206.6	11844.0	482.66 µg/L	482.66 ppb	03:19:16
2	Ba 233.527†	20200.9	20157.7	494.87 µg/L	494.87 ppb	03:19:16
2	Be 313.107†	814693.9	815970.2	492.61 µg/L	492.61 ppb	03:19:11
2	Cd 226.502†	19570.4	19647.4	494.31 µg/L	494.31 ppb	03:19:16
2	Co 228.616†	10803.4	10767.9	498.02 µg/L	498.02 ppb	03:19:16
2	Cr 267.716†	24448.9	24421.8	498.37 µg/L	498.37 ppb	03:19:16
2	Cu 324.752†	77156.8	74052.0	491.93 µg/L	491.93 ppb	03:19:16
2	Mn 257.610†	156187.4	156014.0	497.09 µg/L	497.09 ppb	03:19:11
2	Mo 202.031†	5052.6	5040.6	505.24 µg/L	505.24 ppb	03:19:37
2	Ni 231.604†	10198.6	9858.9	497.73 µg/L	497.73 ppb	03:19:16
2	P 214.914†	1282.9	1262.8	2463.7 µg/L	2463.7 ppb	03:19:37
2	Pb 220.353†	2119.9	2018.7	496.90 µg/L	496.90 ppb	03:19:37

2	S 181.975 Axial†	260.0	241.9	1002.7 µg/L	1002.7 ppb	03:19:37
2	Sb 206.836†	561.3	537.5	492.88 µg/L	492.88 ppb	03:19:37
2	Se 196.026†	370.5	354.4	493.33 µg/L	493.33 ppb	03:19:37
2	SiO2†	28226.7	26656.3	5337.9 µg/L	5337.9 ppb	03:19:16
2	Si 251.611†	32807.7	32414.2	2501.8 µg/L	2501.8 ppb	03:19:16
2	Sn 189.927†	1184.5	1176.2	503.03 µg/L	503.03 ppb	03:19:37
2	Ti 334.940†	218640.3	217832.4	495.10 µg/L	495.10 ppb	03:19:11
2	Tl 190.801†	351.2	372.4	503.63 µg/L	503.63 ppb	03:19:37
2	U 409.014†	5893.8	5876.6	497.69 µg/L	497.69 ppb	03:19:16
2	V 292.402†	50043.4	49986.9	500.63 µg/L	500.63 ppb	03:19:16
2	Zn 213.857†	21682.9	21114.8	494.80 µg/L	494.80 ppb	03:19:16
3	Sc RADIAL	58480.8	58480.8	99.0 %		03:18:05
3	Al 396.153Radial†	6751.8	6825.5	5094.0 µg/L	5094.0 ppb	03:18:05
3	Ca 317.933Radial†	5600.9	5461.8	5009.9 µg/L	5009.9 ppb	03:18:26
3	Fe 238.204 Radial†	599.0	589.3	5068.6 µg/L	5068.6 ppb	03:18:26
3	K 766.490 Radial†	7352.7	7225.1	4968.1 µg/L	4968.1 ppb	03:18:05
3	Mg 279.077 IEC†	539.0	532.1	5181.1 µg/L	5181.1 ppb	03:18:26
3	Na 589.592 Radial†	31112.1	30937.9	10114 µg/L	10114 ppb	03:18:05
3	Sr 421.552†	48679.1	49106.3	482.97 µg/L	482.97 ppb	03:18:05
3	Sc 361.383	2111088.1	2111088.1	100.55 %		03:19:44
3	Y 371.029	1457436.3	1457436.3	100.13 %		03:19:44
3	Ag 328.068†	61753.3	61881.4	464.87 µg/L	464.87 ppb	03:19:49
3	As 188.979†	237.7	236.7	425.23 µg/L	425.23 ppb	03:20:10
3	B 249.677†	11516.7	11128.7	453.33 µg/L	453.33 ppb	03:19:49
3	Ba 233.527†	18496.0	18414.0	452.05 µg/L	452.05 ppb	03:19:49
3	Be 313.107†	766109.7	765711.6	462.27 µg/L	462.27 ppb	03:19:44
3	Cd 226.502†	17927.4	17966.7	451.97 µg/L	451.97 ppb	03:19:49
3	Co 228.616†	9812.7	9756.9	451.20 µg/L	451.20 ppb	03:19:49
3	Cr 267.716†	21609.3	21539.4	439.55 µg/L	439.55 ppb	03:19:49
3	Cu 324.752†	70519.4	67267.0	446.92 µg/L	446.92 ppb	03:19:49
3	Mn 257.610†	147252.4	146756.0	467.61 µg/L	467.61 ppb	03:19:44
3	Mo 202.031†	4231.0	4211.3	422.15 µg/L	422.15 ppb	03:20:10
3	Ni 231.604†	9264.2	8905.3	449.59 µg/L	449.59 ppb	03:19:49
3	P 214.914†	1083.3	1061.2	2066.2 µg/L	2066.2 ppb	03:20:10
3	Pb 220.353†	1866.2	1761.3	433.46 µg/L	433.46 ppb	03:20:10
3	S 181.975 Axial†	236.4	217.9	903.06 µg/L	903.06 ppb	03:20:10
3	Sb 206.836†	481.7	457.0	418.72 µg/L	418.72 ppb	03:20:10
3	Se 196.026†	338.8	322.0	448.94 µg/L	448.94 ppb	03:20:10
3	SiO2†	26287.6	24660.6	4938.3 µg/L	4938.3 ppb	03:19:49
3	Si 251.611†	30522.1	30063.0	2320.4 µg/L	2320.4 ppb	03:19:49
3	Sn 189.927†	978.0	968.0	414.00 µg/L	414.00 ppb	03:20:10
3	Ti 334.940†	204439.1	203188.2	461.80 µg/L	461.80 ppb	03:19:44
3	Tl 190.801†	315.6	336.1	454.90 µg/L	454.90 ppb	03:20:10
3	U 409.014†	5237.1	5209.5	441.08 µg/L	441.08 ppb	03:19:49
3	V 292.402†	45091.9	44943.3	449.90 µg/L	449.90 ppb	03:19:49
3	Zn 213.857†	19803.6	19194.2	449.76 µg/L	449.76 ppb	03:19:49

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2106783.7	100.34 %	0.190			0.19%
Sc RADIAL	58462.5	99.0 %	0.55			0.56%
Y 371.029	1453800.8	99.884 %	0.2196			0.22%
Ag 328.068†	64169.8	482.15 µg/L	15.001	482.15 ppb	15.001	3.11%
QC value within limits for Ag 328.068 Recovery = 96.43%						
Al 396.153Radial†	6815.7	5085.5 µg/L	7.35	5085.5 ppb	7.35	0.14%
QC value within limits for Al 396.153Radial Recovery = 101.71%						
As 188.979†	263.7	473.84 µg/L	42.188	473.84 ppb	42.188	8.90%
QC value within limits for As 188.979 Recovery = 94.77%						
B 249.677†	11586.1	472.10 µg/L	16.299	472.10 ppb	16.299	3.45%
QC value within limits for B 249.677 Recovery = 94.42%						
Ba 233.527†	19542.7	479.77 µg/L	24.037	479.77 ppb	24.037	5.01%
QC value within limits for Ba 233.527 Recovery = 95.95%						
Be 313.107†	798917.1	482.32 µg/L	17.362	482.32 ppb	17.362	3.60%
QC value within limits for Be 313.107 Recovery = 96.46%						
Ca 317.933Radial†	5462.7	5010.7 µg/L	45.81	5010.7 ppb	45.81	0.91%
QC value within limits for Ca 317.933Radial Recovery = 100.21%						
Cd 226.502†	19039.7	479.00 µg/L	23.477	479.00 ppb	23.477	4.90%
QC value within limits for Cd 226.502 Recovery = 95.80%						
Co 228.616†	10412.0	481.54 µg/L	26.306	481.54 ppb	26.306	5.46%

QC value within limits for Co 228.616 Recovery = 96.31%							
Cr 267.716†	23418.5	477.90 µg/L	33.231	477.90 ppb	33.231	6.95%	
QC value within limits for Cr 267.716 Recovery = 95.58%							
Cu 324.752†	71671.4	476.13 µg/L	25.330	476.13 ppb	25.330	5.32%	
QC value within limits for Cu 324.752 Recovery = 95.23%							
Fe 238.204 Radial†	589.4	5070.2 µg/L	41.55	5070.2 ppb	41.55	0.82%	
QC value within limits for Fe 238.204 Radial Recovery = 101.40%							
K 766.490 Radial†	7203.8	4953.4 µg/L	19.90	4953.4 ppb	19.90	0.40%	
QC value within limits for K 766.490 Radial Recovery = 99.07%							
Mg 279.077 IEC†	535.2	5212.1 µg/L	32.92	5212.1 ppb	32.92	0.63%	
QC value within limits for Mg 279.077 IEC Recovery = 104.24%							
Mn 257.610†	152987.7	487.45 µg/L	17.180	487.45 ppb	17.180	3.52%	
QC value within limits for Mn 257.610 Recovery = 97.49%							
Mo 202.031†	4777.2	478.85 µg/L	49.141	478.85 ppb	49.141	10.26%	
QC value within limits for Mo 202.031 Recovery = 95.77%							
Na 589.592 Radial†	30954.8	10120 µg/L	18.0	10120 ppb	18.0	0.18%	
QC value within limits for Na 589.592 Radial Recovery = 101.20%							
Ni 231.604†	9519.6	480.61 µg/L	26.906	480.61 ppb	26.906	5.60%	
QC value within limits for Ni 231.604 Recovery = 96.12%							
P 214.914†	1195.5	2331.2 µg/L	229.45	2331.2 ppb	229.45	9.84%	
QC value within limits for P 214.914 Recovery = 93.25%							
Pb 220.353†	1941.3	477.84 µg/L	38.558	477.84 ppb	38.558	8.07%	
QC value within limits for Pb 220.353 Recovery = 95.57%							
S 181.975 Axial†	232.3	963.07 µg/L	52.861	963.07 ppb	52.861	5.49%	
QC value within limits for S 181.975 Axial Recovery = 96.31%							
Sb 206.836†	510.0	467.64 µg/L	42.373	467.64 ppb	42.373	9.06%	
QC value within limits for Sb 206.836 Recovery = 93.53%							
Se 196.026†	347.1	483.26 µg/L	30.554	483.26 ppb	30.554	6.32%	
QC value within limits for Se 196.026 Recovery = 96.65%							
SiO2†	25916.5	5189.8 µg/L	218.95	5189.8 ppb	218.95	4.22%	
QC value within limits for SiO2 Recovery = 97.05%							
Si 251.611†	31533.8	2433.9 µg/L	98.95	2433.9 ppb	98.95	4.07%	
QC value within limits for Si 251.611 Recovery = 97.36%							
Sn 189.927†	1111.5	475.39 µg/L	53.246	475.39 ppb	53.246	11.20%	
QC value within limits for Sn 189.927 Recovery = 95.08%							
Sr 421.552†	49059.5	482.51 µg/L	0.587	482.51 ppb	0.587	0.12%	
QC value within limits for Sr 421.552 Recovery = 96.50%							
Ti 334.940†	212855.4	483.79 µg/L	19.042	483.79 ppb	19.042	3.94%	
QC value within limits for Ti 334.940 Recovery = 96.76%							
Tl 190.801†	360.4	487.57 µg/L	28.293	487.57 ppb	28.293	5.80%	
QC value within limits for Tl 190.801 Recovery = 97.51%							
U 409.014†	5617.6	475.71 µg/L	30.354	475.71 ppb	30.354	6.38%	
QC value within limits for U 409.014 Recovery = 95.14%							
V 292.402†	48199.5	482.67 µg/L	28.425	482.67 ppb	28.425	5.89%	
QC value within limits for V 292.402 Recovery = 96.53%							
Zn 213.857†	20441.3	479.01 µg/L	25.354	479.01 ppb	25.354	5.29%	
QC value within limits for Zn 213.857 Recovery = 95.80%							
All analyte(s) passed QC.							

Sequence No.: 73

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 2/21/2010 03:20:19

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	57796.8	57796.8	97.9 %		03:20:54
1	Al 396.153Radial†	-27.4	-19.3	-14.417 µg/L	-14.417 ppb	03:20:54
1	Ca 317.933Radial†	192.4	3.6	3.2827 µg/L	3.2827 ppb	03:21:14
1	Fe 238.204 Radial†	16.3	1.2	10.495 µg/L	10.495 ppb	03:21:14
1	K 766.490 Radial†	195.3	1.2	0.8088 µg/L	0.8088 ppb	03:20:54
1	Mg 279.077 IEC†	12.1	0.3	2.4570 µg/L	2.4570 ppb	03:21:14
1	Na 589.592 Radial†	418.9	-45.8	-14.971 µg/L	-14.971 ppb	03:20:54
1	Sr 421.552†	26.8	-13.9	-0.1370 µg/L	-0.1370 ppb	03:20:54
1	Sc 361.383	2099269.8	2099269.8	99.983 %		03:22:16
1	Y 371.029	1452643.4	1452643.4	99.805 %		03:22:16
1	Ag 328.068†	-420.9	42.1	0.3139 µg/L	0.3139 ppb	03:22:22
1	As 188.979†	-6.1	-5.8	-10.485 µg/L	-10.485 ppb	03:22:42
1	B 249.677†	354.1	28.7	1.1701 µg/L	1.1701 ppb	03:22:42
1	Ba 233.527†	-17.2	1.2	0.0280 µg/L	0.0280 ppb	03:22:42
1	Be 313.107†	-3602.5	155.7	0.0938 µg/L	0.0938 ppb	03:22:22
1	Cd 226.502†	-129.8	6.8	0.1691 µg/L	0.1691 ppb	03:22:42
1	Co 228.616†	4.5	2.0	0.0907 µg/L	0.0907 ppb	03:22:42
1	Cr 267.716†	-28.7	18.7	0.3814 µg/L	0.3814 ppb	03:22:22
1	Cu 324.752†	2910.5	41.3	0.2752 µg/L	0.2752 ppb	03:22:22
1	Mn 257.610†	-158.2	144.3	0.4607 µg/L	0.4607 ppb	03:22:42
1	Mo 202.031†	5.3	8.6	0.8621 µg/L	0.8621 ppb	03:22:42
1	Ni 231.604†	308.6	-0.0	-0.0006 µg/L	-0.0006 ppb	03:22:42
1	P 214.914†	18.5	2.3	4.5368 µg/L	4.5368 ppb	03:22:42
1	Pb 220.353†	93.1	-1.7	-0.4110 µg/L	-0.4110 ppb	03:22:42
1	S 181.975 Axial†	13.1	-4.2	-17.367 µg/L	-17.367 ppb	03:22:42
1	Sb 206.836†	22.7	0.6	0.5416 µg/L	0.5416 ppb	03:22:42
1	Se 196.026†	15.6	0.7	0.9289 µg/L	0.9289 ppb	03:22:42
1	SiO2†	1589.4	105.3	21.083 µg/L	21.083 ppb	03:22:22
1	Si 251.611†	433.0	139.5	10.769 µg/L	10.769 ppb	03:22:42
1	Sn 189.927†	2.8	-1.9	-0.8334 µg/L	-0.8334 ppb	03:22:42
1	Ti 334.940†	409.8	268.2	0.6099 µg/L	0.6099 ppb	03:22:22
1	Tl 190.801†	-26.4	-4.2	-5.6298 µg/L	-5.6298 ppb	03:22:42
1	U 409.014†	-104.8	-104.1	-8.8362 µg/L	-8.8362 ppb	03:22:22
1	V 292.402†	-114.5	-18.5	-0.1837 µg/L	-0.1837 ppb	03:22:22
1	Zn 213.857†	522.6	20.7	0.4877 µg/L	0.4877 ppb	03:22:42
2	Sc RADIAL	57635.8	57635.8	97.6 %		03:21:20
2	Al 396.153Radial†	-3.7	4.9	3.6309 µg/L	3.6309 ppb	03:21:20
2	Ca 317.933Radial†	186.9	-1.6	-1.4238 µg/L	-1.4238 ppb	03:21:40
2	Fe 238.204 Radial†	18.8	3.9	33.093 µg/L	33.093 ppb	03:21:40
2	K 766.490 Radial†	202.7	9.3	6.3913 µg/L	6.3913 ppb	03:21:20
2	Mg 279.077 IEC†	12.4	0.6	5.6794 µg/L	5.6794 ppb	03:21:40
2	Na 589.592 Radial†	456.6	-6.0	-1.9559 µg/L	-1.9559 ppb	03:21:20
2	Sr 421.552†	70.5	30.9	0.3035 µg/L	0.3035 ppb	03:21:20
2	Sc 361.383	2093057.7	2093057.7	99.687 %		03:22:48
2	Y 371.029	1448630.2	1448630.2	99.529 %		03:22:48
2	Ag 328.068†	-390.1	71.8	0.5419 µg/L	0.5419 ppb	03:22:54
2	As 188.979†	-4.3	-4.0	-7.2433 µg/L	-7.2433 ppb	03:23:14
2	B 249.677†	363.4	39.1	1.5820 µg/L	1.5820 ppb	03:23:14
2	Ba 233.527†	-13.9	4.4	0.1089 µg/L	0.1089 ppb	03:23:14
2	Be 313.107†	-3624.3	123.2	0.0743 µg/L	0.0743 ppb	03:22:54
2	Cd 226.502†	-147.3	-11.2	-0.2845 µg/L	-0.2845 ppb	03:23:14
2	Co 228.616†	8.1	5.5	0.2556 µg/L	0.2556 ppb	03:23:14
2	Cr 267.716†	-31.0	16.3	0.3336 µg/L	0.3336 ppb	03:22:54
2	Cu 324.752†	2908.0	47.4	0.3193 µg/L	0.3193 ppb	03:22:54
2	Mn 257.610†	-163.4	138.7	0.4456 µg/L	0.4456 ppb	03:23:14
2	Mo 202.031†	4.4	7.7	0.7763 µg/L	0.7763 ppb	03:23:14
2	Ni 231.604†	313.9	6.3	0.3172 µg/L	0.3172 ppb	03:23:14
2	P 214.914†	12.7	-3.5	-6.9064 µg/L	-6.9064 ppb	03:23:14
2	Pb 220.353†	86.2	-8.3	-2.0488 µg/L	-2.0488 ppb	03:23:14



2	S 181.975 Axial†	16.9	-0.3	-1.2490 µg/L	-1.2490 ppb	03:23:14
2	Sb 206.836†	24.2	2.1	1.9550 µg/L	1.9550 ppb	03:23:14
2	Se 196.026†	15.7	0.8	1.1757 µg/L	1.1757 ppb	03:23:14
2	SiO2†	1560.6	81.1	16.250 µg/L	16.250 ppb	03:22:54
2	Si 251.611†	434.9	142.8	11.019 µg/L	11.019 ppb	03:23:14
2	Sn 189.927†	7.4	2.8	1.1751 µg/L	1.1751 ppb	03:23:14
2	Ti 334.940†	270.8	130.0	0.2952 µg/L	0.2952 ppb	03:22:54
2	Tl 190.801†	-23.5	-1.3	-1.7449 µg/L	-1.7449 ppb	03:23:14
2	U 409.014†	12.0	12.8	1.0822 µg/L	1.0822 ppb	03:22:54
2	V 292.402†	-35.9	60.0	0.6055 µg/L	0.6055 ppb	03:22:54
2	Zn 213.857†	523.7	23.4	0.5483 µg/L	0.5483 ppb	03:23:14
3	Sc RADIAL	57534.0	57534.0	97.4 %		03:21:46
3	Al 396.153Radial†	-12.7	-4.3	-3.2564 µg/L	-3.2564 ppb	03:21:46
3	Ca 317.933Radial†	187.7	-0.4	-0.3487 µg/L	-0.3487 ppb	03:22:06
3	Fe 238.204 Radial†	17.4	2.4	20.771 µg/L	20.771 ppb	03:22:06
3	K 766.490 Radial†	128.8	-66.2	-45.514 µg/L	-45.514 ppb	03:21:46
3	Mg 279.077 IEC†	14.1	2.4	23.552 µg/L	23.552 ppb	03:22:06
3	Na 589.592 Radial†	452.3	-9.5	-3.1061 µg/L	-3.1061 ppb	03:21:46
3	Sr 421.552†	23.1	-17.7	-0.1739 µg/L	-0.1739 ppb	03:21:46
3	Sc 361.383	2108483.6	2108483.6	100.42 %		03:23:20
3	Y 371.029	1458182.9	1458182.9	100.19 %		03:23:20
3	Ag 328.068†	-394.1	70.7	0.5318 µg/L	0.5318 ppb	03:23:26
3	As 188.979†	4.1	4.4	7.8351 µg/L	7.8351 ppb	03:23:47
3	B 249.677†	349.6	22.7	0.9164 µg/L	0.9164 ppb	03:23:47
3	Ba 233.527†	-8.0	10.3	0.2542 µg/L	0.2542 ppb	03:23:47
3	Be 313.107†	-3555.2	218.6	0.1318 µg/L	0.1318 ppb	03:23:26
3	Cd 226.502†	-139.9	-2.7	-0.0698 µg/L	-0.0698 ppb	03:23:47
3	Co 228.616†	-3.6	-6.2	-0.2873 µg/L	-0.2873 ppb	03:23:47
3	Cr 267.716†	-72.0	-24.3	-0.4956 µg/L	-0.4956 ppb	03:23:26
3	Cu 324.752†	2886.2	4.3	0.0315 µg/L	0.0315 ppb	03:23:26
3	Mn 257.610†	-190.4	112.9	0.3613 µg/L	0.3613 ppb	03:23:47
3	Mo 202.031†	3.2	6.5	0.6517 µg/L	0.6517 ppb	03:23:47
3	Ni 231.604†	330.5	20.4	1.0338 µg/L	1.0338 ppb	03:23:47
3	P 214.914†	14.3	-2.0	-4.0587 µg/L	-4.0587 ppb	03:23:47
3	Pb 220.353†	94.7	-0.5	-0.1285 µg/L	-0.1285 ppb	03:23:47
3	S 181.975 Axial†	19.4	2.1	8.5354 µg/L	8.5354 ppb	03:23:47
3	Sb 206.836†	19.1	-3.1	-2.7977 µg/L	-2.7977 ppb	03:23:47
3	Se 196.026†	21.9	6.8	9.3560 µg/L	9.3560 ppb	03:23:47
3	SiO2†	1563.4	72.5	14.510 µg/L	14.510 ppb	03:23:26
3	Si 251.611†	446.2	150.8	11.639 µg/L	11.639 ppb	03:23:47
3	Sn 189.927†	0.5	-4.3	-1.8220 µg/L	-1.8220 ppb	03:23:47
3	Ti 334.940†	379.4	236.1	0.5351 µg/L	0.5351 ppb	03:23:26
3	Tl 190.801†	-24.3	-1.9	-2.5628 µg/L	-2.5628 ppb	03:23:47
3	U 409.014†	28.0	28.7	2.4304 µg/L	2.4304 ppb	03:23:26
3	V 292.402†	-48.9	47.3	0.4768 µg/L	0.4768 ppb	03:23:26
3	Zn 213.857†	514.5	10.4	0.2378 µg/L	0.2378 ppb	03:23:47

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2100270.4	100.03 %	0.370			0.37%
Sc RADIAL	57655.5	97.6 %	0.22			0.23%
Y 371.029	1453152.2	99.840 %	0.3296			0.33%
Ag 328.068†	61.6	0.4625 µg/L	0.12882	0.4625 ppb	0.12882	27.85%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-6.2	-4.6809 µg/L	9.10797	-4.6809 ppb	9.10797	194.58%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-1.8	-3.2978 µg/L	9.77670	-3.2978 ppb	9.77670	296.46%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	30.2	1.2229 µg/L	0.33593	1.2229 ppb	0.33593	27.47%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	5.3	0.1304 µg/L	0.11460	0.1304 ppb	0.11460	87.89%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	165.8	0.1000 µg/L	0.02926	0.1000 ppb	0.02926	29.27%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	0.5	0.5034 µg/L	2.46620	0.5034 ppb	2.46620	489.91%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-2.4	-0.0617 µg/L	0.22690	-0.0617 ppb	0.22690	367.47%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	0.4	0.0197 µg/L	0.27831	0.0197 ppb	0.27831	>999.9%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	3.6	0.0731 µg/L	0.49313	0.0731 ppb	0.49313	674.40%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	31.0	0.2087 µg/L	0.15498	0.2087 ppb	0.15498	74.27%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	2.5	21.453 µg/L	11.3142	21.453 ppb	11.3142	52.74%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-18.6	-12.771 µg/L	28.4931	-12.771 ppb	28.4931	223.10%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	1.1	10.563 µg/L	11.3640	10.563 ppb	11.3640	107.58%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	132.0	0.4226 µg/L	0.05355	0.4226 ppb	0.05355	12.67%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	7.6	0.7634 µg/L	0.10576	0.7634 ppb	0.10576	13.85%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-20.4	-6.6776 µg/L	7.20511	-6.6776 ppb	7.20511	107.90%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	8.9	0.4501 µg/L	0.52984	0.4501 ppb	0.52984	117.71%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-1.1	-2.1428 µg/L	5.95731	-2.1428 ppb	5.95731	278.02%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-3.5	-0.8627 µg/L	1.03678	-0.8627 ppb	1.03678	120.17%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-0.8	-3.3601 µg/L	13.07954	-3.3601 ppb	13.07954	389.26%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-0.1	-0.1004 µg/L	2.44056	-0.1004 ppb	2.44056	>999.9%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	2.8	3.8202 µg/L	4.79574	3.8202 ppb	4.79574	125.54%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	86.3	17.281 µg/L	3.4054	17.281 ppb	3.4054	19.71%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	144.4	11.142 µg/L	0.4479	11.142 ppb	0.4479	4.02%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-1.2	-0.4935 µg/L	1.52721	-0.4935 ppb	1.52721	309.49%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-0.3	-0.0025 µg/L	0.26564	-0.0025 ppb	0.26564	>999.9%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	211.4	0.4801 µg/L	0.16443	0.4801 ppb	0.16443	34.25%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-2.5	-3.3125 µg/L	2.04811	-3.3125 ppb	2.04811	61.83%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-20.9	-1.7745 µg/L	6.15265	-1.7745 ppb	6.15265	346.72%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	29.6	0.2995 µg/L	0.42344	0.2995 ppb	0.42344	141.37%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	18.2	0.4246 µg/L	0.16456	0.4246 ppb	0.16456	38.76%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
All analyte(s) passed QC.							

Sequence No.: 83

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 2/21/2010 03:57:05

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	58531.6	58531.6	99.1 %		03:57:43
1	Al 396.153Radial†	6849.9	6918.5	5161.6 µg/L	5161.6 ppb	03:57:43
1	Ca 317.933Radial†	5659.2	5515.8	5059.4 µg/L	5059.4 ppb	03:58:04
1	Fe 238.204 Radial†	605.6	595.5	5122.2 µg/L	5122.2 ppb	03:58:04
1	K 766.490 Radial†	7356.2	7222.2	4966.1 µg/L	4966.1 ppb	03:57:43
1	Mg 279.077 IEC†	551.3	544.0	5298.2 µg/L	5298.2 ppb	03:58:04
1	Na 589.592 Radial†	31454.5	31256.0	10218 µg/L	10218 ppb	03:57:43
1	Sr 421.552†	49251.0	49640.5	488.22 µg/L	488.22 ppb	03:57:43
1	Sc 361.383	2078184.7	2078184.7	98.978 %		03:59:08
1	Y 371.029	1433368.9	1433368.9	98.480 %		03:59:08
1	Ag 328.068†	64859.1	65991.6	495.88 µg/L	495.88 ppb	03:59:13
1	As 188.979†	279.1	282.3	507.09 µg/L	507.09 ppb	03:59:34
1	B 249.677†	12180.7	11980.9	488.26 µg/L	488.26 ppb	03:59:13
1	Ba 233.527†	20061.6	20287.0	498.04 µg/L	498.04 ppb	03:59:13
1	Be 313.107†	816218.6	828401.4	500.11 µg/L	500.11 ppb	03:59:08
1	Cd 226.502†	19471.2	19808.8	498.37 µg/L	498.37 ppb	03:59:13
1	Co 228.616†	10753.9	10862.3	502.39 µg/L	502.39 ppb	03:59:13
1	Cr 267.716†	24286.7	24584.8	501.70 µg/L	501.70 ppb	03:59:13
1	Cu 324.752†	76889.7	74813.5	496.99 µg/L	496.99 ppb	03:59:13
1	Mn 257.610†	156764.4	158684.9	505.59 µg/L	505.59 ppb	03:59:08
1	Mo 202.031†	5084.8	5140.6	515.26 µg/L	515.26 ppb	03:59:34
1	Ni 231.604†	10149.9	9946.1	502.13 µg/L	502.13 ppb	03:59:13
1	P 214.914†	1283.4	1280.4	2498.4 µg/L	2498.4 ppb	03:59:34
1	Pb 220.353†	2143.9	2071.3	509.85 µg/L	509.85 ppb	03:59:34
1	S 181.975 Axial†	262.6	248.0	1028.0 µg/L	1028.0 ppb	03:59:34
1	Sb 206.836†	565.7	549.4	503.91 µg/L	503.91 ppb	03:59:34
1	Se 196.026†	374.8	363.7	506.11 µg/L	506.11 ppb	03:59:34
1	SiO2†	28064.9	26870.1	5380.8 µg/L	5380.8 ppb	03:59:13
1	Si 251.611†	32532.1	32574.4	2514.2 µg/L	2514.2 ppb	03:59:13
1	Sn 189.927†	1199.2	1206.8	516.14 µg/L	516.14 ppb	03:59:34
1	Ti 334.940†	219415.9	221538.8	503.53 µg/L	503.53 ppb	03:59:08
1	Tl 190.801†	356.3	382.2	516.94 µg/L	516.94 ppb	03:59:34
1	U 409.014†	5914.5	5976.3	506.15 µg/L	506.15 ppb	03:59:13
1	V 292.402†	49736.8	50346.1	504.28 µg/L	504.28 ppb	03:59:13
1	Zn 213.857†	21565.6	21286.3	498.81 µg/L	498.81 ppb	03:59:13
2	Sc RADIAL	58001.6	58001.6	98.2 %		03:58:09
2	Al 396.153Radial†	6804.9	6935.9	5174.8 µg/L	5174.8 ppb	03:58:09
2	Ca 317.933Radial†	5627.9	5536.1	5078.0 µg/L	5078.0 ppb	03:58:30
2	Fe 238.204 Radial†	605.8	601.3	5172.7 µg/L	5172.7 ppb	03:58:30
2	K 766.490 Radial†	7363.4	7297.3	5017.8 µg/L	5017.8 ppb	03:58:09
2	Mg 279.077 IEC†	538.4	536.0	5219.6 µg/L	5219.6 ppb	03:58:30
2	Na 589.592 Radial†	31265.6	31353.6	10250 µg/L	10250 ppb	03:58:09
2	Sr 421.552†	48850.9	49687.3	488.68 µg/L	488.68 ppb	03:58:09
2	Sc 361.383	2093473.1	2093473.1	99.707 %		03:59:41
2	Y 371.029	1443918.1	1443918.1	99.205 %		03:59:41
2	Ag 328.068†	64902.3	65556.4	492.61 µg/L	492.61 ppb	03:59:47
2	As 188.979†	272.6	273.6	491.61 µg/L	491.61 ppb	04:00:07
2	B 249.677†	12163.5	11873.8	483.85 µg/L	483.85 ppb	03:59:47
2	Ba 233.527†	20122.1	20199.7	495.90 µg/L	495.90 ppb	03:59:47
2	Be 313.107†	819369.0	825538.9	498.39 µg/L	498.39 ppb	03:59:41
2	Cd 226.502†	19513.4	19707.4	495.81 µg/L	495.81 ppb	03:59:47
2	Co 228.616†	10777.9	10807.0	499.82 µg/L	499.82 ppb	03:59:47
2	Cr 267.716†	24288.9	24407.8	498.08 µg/L	498.08 ppb	03:59:47
2	Cu 324.752†	76932.2	74288.9	493.51 µg/L	493.51 ppb	03:59:47
2	Mn 257.610†	157419.2	158185.0	504.00 µg/L	504.00 ppb	03:59:41
2	Mo 202.031†	5028.5	5046.6	505.84 µg/L	505.84 ppb	04:00:07
2	Ni 231.604†	10146.8	9868.0	498.19 µg/L	498.19 ppb	03:59:47
2	P 214.914†	1277.2	1264.7	2467.4 µg/L	2467.4 ppb	04:00:07
2	Pb 220.353†	2126.9	2038.3	501.73 µg/L	501.73 ppb	04:00:07

2	S 181.975 Axial†	259.8	243.3	1008.3 µg/L	1008.3 ppb	04:00:07
2	Sb 206.836†	563.4	543.0	497.93 µg/L	497.93 ppb	04:00:07
2	Se 196.026†	368.6	354.7	494.02 µg/L	494.02 ppb	04:00:07
2	SiO2†	28163.2	26761.7	5359.0 µg/L	5359.0 ppb	03:59:47
2	Si 251.611†	32625.6	32428.1	2502.9 µg/L	2502.9 ppb	03:59:47
2	Sn 189.927†	1185.8	1184.6	506.61 µg/L	506.61 ppb	04:00:07
2	Ti 334.940†	219851.1	220356.4	500.85 µg/L	500.85 ppb	03:59:41
2	Tl 190.801†	352.4	375.7	508.14 µg/L	508.14 ppb	04:00:07
2	U 409.014†	5890.2	5908.3	500.37 µg/L	500.37 ppb	03:59:47
2	V 292.402†	49698.7	49940.9	500.19 µg/L	500.19 ppb	03:59:47
2	Zn 213.857†	21597.0	21158.6	495.83 µg/L	495.83 ppb	03:59:47
3	Sc RADIAL	58382.6	58382.6	98.9 %		03:58:35
3	Al 396.153Radial†	6839.6	6925.7	5168.8 µg/L	5168.8 ppb	03:58:35
3	Ca 317.933Radial†	5616.8	5487.4	5033.4 µg/L	5033.4 ppb	03:58:56
3	Fe 238.204 Radial†	606.1	597.5	5139.2 µg/L	5139.2 ppb	03:58:56
3	K 766.490 Radial†	7430.3	7316.1	5030.7 µg/L	5030.7 ppb	03:58:35
3	Mg 279.077 IEC†	537.6	531.6	5176.0 µg/L	5176.0 ppb	03:58:56
3	Na 589.592 Radial†	31457.3	31339.8	10246 µg/L	10246 ppb	03:58:35
3	Sr 421.552†	49308.1	49825.1	490.04 µg/L	490.04 ppb	03:58:35
3	Sc 361.383	2082026.1	2082026.1	99.161 %		04:00:14
3	Y 371.029	1432610.6	1432610.6	98.428 %		04:00:14
3	Ag 328.068†	61695.5	62680.3	470.86 µg/L	470.86 ppb	04:00:20
3	As 188.979†	243.5	245.8	441.69 µg/L	441.69 ppb	04:00:40
3	B 249.677†	11511.1	11283.0	459.61 µg/L	459.61 ppb	04:00:20
3	Ba 233.527†	18525.0	18700.0	459.06 µg/L	459.06 ppb	04:00:20
3	Be 313.107†	764443.3	774666.8	467.68 µg/L	467.68 ppb	04:00:14
3	Cd 226.502†	17844.5	18132.0	456.13 µg/L	456.13 ppb	04:00:20
3	Co 228.616†	9779.8	9860.0	455.97 µg/L	455.97 ppb	04:00:20
3	Cr 267.716†	21572.1	21801.9	444.91 µg/L	444.91 ppb	04:00:20
3	Cu 324.752†	70371.5	68096.9	452.43 µg/L	452.43 ppb	04:00:20
3	Mn 257.610†	147534.0	149084.2	475.03 µg/L	475.03 ppb	04:00:14
3	Mo 202.031†	4225.9	4265.0	427.53 µg/L	427.53 ppb	04:00:40
3	Ni 231.604†	9252.4	9022.0	455.49 µg/L	455.49 ppb	04:00:20
3	P 214.914†	1092.6	1085.6	2114.3 µg/L	2114.3 ppb	04:00:40
3	Pb 220.353†	1874.9	1796.0	442.00 µg/L	442.00 ppb	04:00:40
3	S 181.975 Axial†	233.3	218.0	903.54 µg/L	903.54 ppb	04:00:40
3	Sb 206.836†	488.8	470.9	431.40 µg/L	431.40 ppb	04:00:40
3	Se 196.026†	335.7	323.5	451.24 µg/L	451.24 ppb	04:00:40
3	SiO2†	26279.0	25016.8	5009.6 µg/L	5009.6 ppb	04:00:20
3	Si 251.611†	30568.4	30533.4	2356.7 µg/L	2356.7 ppb	04:00:20
3	Sn 189.927†	987.4	991.1	423.85 µg/L	423.85 ppb	04:00:40
3	Ti 334.940†	204246.0	205831.6	467.81 µg/L	467.81 ppb	04:00:14
3	Tl 190.801†	319.6	344.5	466.20 µg/L	466.20 ppb	04:00:40
3	U 409.014†	5223.0	5267.9	446.03 µg/L	446.03 ppb	04:00:20
3	V 292.402†	44899.0	45374.7	454.24 µg/L	454.24 ppb	04:00:20
3	Zn 213.857†	19708.6	19373.3	453.95 µg/L	453.95 ppb	04:00:20

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2084561.3	99.282 %	0.3788			0.38%
Sc RADIAL	58305.3	98.7 %	0.46			0.47%
Y 371.029	1436632.6	98.705 %	0.4343			0.44%
Ag 328.068†	64742.8	486.45 µg/L	13.603	486.45 ppb	13.603	2.80%
QC value within limits for Ag 328.068 Recovery = 97.29%						
Al 396.153Radial†	6926.7	5168.4 µg/L	6.59	5168.4 ppb	6.59	0.13%
QC value within limits for Al 396.153Radial Recovery = 103.37%						
As 188.979†	267.2	480.13 µg/L	34.176	480.13 ppb	34.176	7.12%
QC value within limits for As 188.979 Recovery = 96.03%						
B 249.677†	11712.6	477.24 µg/L	15.426	477.24 ppb	15.426	3.23%
QC value within limits for B 249.677 Recovery = 95.45%						
Ba 233.527†	19728.9	484.33 µg/L	21.911	484.33 ppb	21.911	4.52%
QC value within limits for Ba 233.527 Recovery = 96.87%						
Be 313.107†	809535.7	488.73 µg/L	18.250	488.73 ppb	18.250	3.73%
QC value within limits for Be 313.107 Recovery = 97.75%						
Ca 317.933Radial†	5513.1	5057.0 µg/L	22.43	5057.0 ppb	22.43	0.44%
QC value within limits for Ca 317.933Radial Recovery = 101.14%						
Cd 226.502†	19216.0	483.44 µg/L	23.684	483.44 ppb	23.684	4.90%
QC value within limits for Cd 226.502 Recovery = 96.69%						
Co 228.616†	10509.8	486.06 µg/L	26.092	486.06 ppb	26.092	5.37%

QC value within limits for Co 228.616 Recovery = 97.21%							
Cr 267.716†	23598.2	481.56 µg/L	31.793	481.56 ppb	31.793	6.60%	
QC value within limits for Cr 267.716 Recovery = 96.31%							
Cu 324.752†	72399.8	480.98 µg/L	24.780	480.98 ppb	24.780	5.15%	
QC value within limits for Cu 324.752 Recovery = 96.20%							
Fe 238.204 Radial†	598.1	5144.7 µg/L	25.68	5144.7 ppb	25.68	0.50%	
QC value within limits for Fe 238.204 Radial Recovery = 102.89%							
K 766.490 Radial†	7278.5	5004.8 µg/L	34.17	5004.8 ppb	34.17	0.68%	
QC value within limits for K 766.490 Radial Recovery = 100.10%							
Mg 279.077 IEC†	537.2	5231.3 µg/L	61.92	5231.3 ppb	61.92	1.18%	
QC value within limits for Mg 279.077 IEC Recovery = 104.63%							
Mn 257.610†	155318.0	494.87 µg/L	17.202	494.87 ppb	17.202	3.48%	
QC value within limits for Mn 257.610 Recovery = 98.97%							
Mo 202.031†	4817.4	482.88 µg/L	48.163	482.88 ppb	48.163	9.97%	
QC value within limits for Mo 202.031 Recovery = 96.58%							
Na 589.592 Radial†	31316.5	10238 µg/L	17.3	10238 ppb	17.3	0.17%	
QC value within limits for Na 589.592 Radial Recovery = 102.38%							
Ni 231.604†	9612.0	485.27 µg/L	25.870	485.27 ppb	25.870	5.33%	
QC value within limits for Ni 231.604 Recovery = 97.05%							
P 214.914†	1210.2	2360.0 µg/L	213.38	2360.0 ppb	213.38	9.04%	
QC value within limits for P 214.914 Recovery = 94.40%							
Pb 220.353†	1968.5	484.53 µg/L	37.054	484.53 ppb	37.054	7.65%	
QC value within limits for Pb 220.353 Recovery = 96.91%							
S 181.975 Axial†	236.4	979.95 µg/L	66.905	979.95 ppb	66.905	6.83%	
QC value within limits for S 181.975 Axial Recovery = 98.00%							
Sb 206.836†	521.1	477.75 µg/L	40.248	477.75 ppb	40.248	8.42%	
QC value within limits for Sb 206.836 Recovery = 95.55%							
Se 196.026†	347.3	483.79 µg/L	28.829	483.79 ppb	28.829	5.96%	
QC value within limits for Se 196.026 Recovery = 96.76%							
SiO2†	26216.2	5249.8 µg/L	208.28	5249.8 ppb	208.28	3.97%	
QC value within limits for SiO2 Recovery = 98.17%							
Si 251.611†	31845.3	2457.9 µg/L	87.87	2457.9 ppb	87.87	3.58%	
QC value within limits for Si 251.611 Recovery = 98.32%							
Sn 189.927†	1127.5	482.20 µg/L	50.753	482.20 ppb	50.753	10.53%	
QC value within limits for Sn 189.927 Recovery = 96.44%							
Sr 421.552†	49717.6	488.98 µg/L	0.944	488.98 ppb	0.944	0.19%	
QC value within limits for Sr 421.552 Recovery = 97.80%							
Ti 334.940†	215908.9	490.73 µg/L	19.891	490.73 ppb	19.891	4.05%	
QC value within limits for Ti 334.940 Recovery = 98.15%							
Tl 190.801†	367.5	497.09 µg/L	27.116	497.09 ppb	27.116	5.45%	
QC value within limits for Tl 190.801 Recovery = 99.42%							
U 409.014†	5717.5	484.18 µg/L	33.165	484.18 ppb	33.165	6.85%	
QC value within limits for U 409.014 Recovery = 96.84%							
V 292.402†	48553.9	486.24 µg/L	27.788	486.24 ppb	27.788	5.71%	
QC value within limits for V 292.402 Recovery = 97.25%							
Zn 213.857†	20606.1	482.86 µg/L	25.084	482.86 ppb	25.084	5.19%	
QC value within limits for Zn 213.857 Recovery = 96.57%							

All analyte(s) passed QC.

Sequence No.: 84

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 2/21/2010 04:00:51

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	57441.3	57441.3	97.3 %		04:01:25
1	Al 396.153Radial†	-7.6	0.9	0.6454 µg/L	0.6454 ppb	04:01:25
1	Ca 317.933Radial†	192.3	4.7	4.2670 µg/L	4.2670 ppb	04:01:46
1	Fe 238.204 Radial†	15.5	0.5	4.3286 µg/L	4.3286 ppb	04:01:46
1	K 766.490 Radial†	224.6	32.5	22.339 µg/L	22.339 ppb	04:01:25
1	Mg 279.077 IEC†	14.6	2.9	28.439 µg/L	28.439 ppb	04:01:46
1	Na 589.592 Radial†	441.6	-19.8	-6.4739 µg/L	-6.4739 ppb	04:01:25
1	Sr 421.552†	34.9	-5.4	-0.0536 µg/L	-0.0536 ppb	04:01:25
1	Sc 361.383	2089247.2	2089247.2	99.505 %		04:02:48
1	Y 371.029	1444417.0	1444417.0	99.239 %		04:02:48
1	Ag 328.068†	-419.0	42.0	0.3153 µg/L	0.3153 ppb	04:02:54
1	As 188.979†	-1.8	-1.5	-2.7849 µg/L	-2.7849 ppb	04:03:14
1	B 249.677†	359.8	36.1	1.4756 µg/L	1.4756 ppb	04:03:14
1	Ba 233.527†	-4.3	14.0	0.3445 µg/L	0.3445 ppb	04:03:14
1	Be 313.107†	-3624.0	116.9	0.0704 µg/L	0.0704 ppb	04:02:54
1	Cd 226.502†	-139.2	-3.3	-0.0840 µg/L	-0.0840 ppb	04:03:14
1	Co 228.616†	3.2	0.7	0.0312 µg/L	0.0312 ppb	04:03:14
1	Cr 267.716†	-32.4	14.8	0.3017 µg/L	0.3017 ppb	04:02:54
1	Cu 324.752†	2922.7	67.5	0.4485 µg/L	0.4485 ppb	04:02:54
1	Mn 257.610†	-217.3	84.1	0.2673 µg/L	0.2673 ppb	04:03:14
1	Mo 202.031†	5.1	8.4	0.8441 µg/L	0.8441 ppb	04:03:14
1	Ni 231.604†	305.3	-1.8	-0.0898 µg/L	-0.0898 ppb	04:03:14
1	P 214.914†	20.8	4.6	9.1410 µg/L	9.1410 ppb	04:03:14
1	Pb 220.353†	87.9	-6.5	-1.5905 µg/L	-1.5905 ppb	04:03:14
1	S 181.975 Axial†	16.2	-1.0	-4.0930 µg/L	-4.0930 ppb	04:03:14
1	Sb 206.836†	24.9	2.9	2.6935 µg/L	2.6935 ppb	04:03:14
1	Se 196.026†	17.4	2.5	3.4033 µg/L	3.4033 ppb	04:03:14
1	SiO2†	1568.8	92.2	18.455 µg/L	18.455 ppb	04:02:54
1	Si 251.611†	409.7	118.2	9.1234 µg/L	9.1234 ppb	04:03:14
1	Sn 189.927†	3.5	-1.2	-0.5196 µg/L	-0.5196 ppb	04:03:14
1	Ti 334.940†	379.6	239.8	0.5432 µg/L	0.5432 ppb	04:02:54
1	Tl 190.801†	-25.6	-3.5	-4.7094 µg/L	-4.7094 ppb	04:03:14
1	U 409.014†	20.4	21.3	1.8073 µg/L	1.8073 ppb	04:02:54
1	V 292.402†	-72.1	23.5	0.2422 µg/L	0.2422 ppb	04:02:54
1	Zn 213.857†	523.4	24.1	0.5663 µg/L	0.5663 ppb	04:03:14
2	Sc RADIAL	57470.5	57470.5	97.3 %		04:01:51
2	Al 396.153Radial†	14.8	23.9	17.835 µg/L	17.835 ppb	04:01:51
2	Ca 317.933Radial†	197.9	10.3	9.4490 µg/L	9.4490 ppb	04:02:12
2	Fe 238.204 Radial†	17.2	2.3	19.681 µg/L	19.681 ppb	04:02:12
2	K 766.490 Radial†	177.8	-15.7	-10.824 µg/L	-10.824 ppb	04:01:51
2	Mg 279.077 IEC†	11.9	0.2	1.6851 µg/L	1.6851 ppb	04:02:12
2	Na 589.592 Radial†	453.0	-8.3	-2.7180 µg/L	-2.7180 ppb	04:01:51
2	Sr 421.552†	12.1	-28.9	-0.2843 µg/L	-0.2843 ppb	04:01:51
2	Sc 361.383	2076688.9	2076688.9	98.907 %		04:03:20
2	Y 371.029	1437032.1	1437032.1	98.732 %		04:03:20
2	Ag 328.068†	-445.3	13.0	0.0963 µg/L	0.0963 ppb	04:03:26
2	As 188.979†	-0.9	-0.6	-1.1369 µg/L	-1.1369 ppb	04:03:46
2	B 249.677†	358.1	36.6	1.4874 µg/L	1.4874 ppb	04:03:46
2	Ba 233.527†	-6.9	11.4	0.2787 µg/L	0.2787 ppb	04:03:46
2	Be 313.107†	-3636.5	82.2	0.0495 µg/L	0.0495 ppb	04:03:26
2	Cd 226.502†	-143.8	-8.8	-0.2251 µg/L	-0.2251 ppb	04:03:46
2	Co 228.616†	5.0	2.5	0.1131 µg/L	0.1131 ppb	04:03:46
2	Cr 267.716†	-45.0	1.9	0.0389 µg/L	0.0389 ppb	04:03:26
2	Cu 324.752†	2804.5	-34.2	-0.2241 µg/L	-0.2241 ppb	04:03:26
2	Mn 257.610†	-207.6	92.7	0.2975 µg/L	0.2975 ppb	04:03:46
2	Mo 202.031†	1.2	4.6	0.4571 µg/L	0.4571 ppb	04:03:46
2	Ni 231.604†	292.7	-12.7	-0.6422 µg/L	-0.6422 ppb	04:03:46
2	P 214.914†	19.0	3.0	5.9336 µg/L	5.9336 ppb	04:03:46
2	Pb 220.353†	85.0	-8.8	-2.1663 µg/L	-2.1663 ppb	04:03:46

2	S 181.975 Axial†	18.3	1.2	4.8871 µg/L	4.8871 ppb	04:03:46
2	Sb 206.836†	24.8	2.9	2.6738 µg/L	2.6738 ppb	04:03:46
2	Se 196.026†	14.2	-0.6	-0.8387 µg/L	-0.8387 ppb	04:03:46
2	SiO2†	1527.9	60.4	12.095 µg/L	12.095 ppb	04:03:26
2	Si 251.611†	422.9	134.1	10.349 µg/L	10.349 ppb	04:03:46
2	Sn 189.927†	-1.5	-6.2	-2.6583 µg/L	-2.6583 ppb	04:03:46
2	Ti 334.940†	355.5	217.8	0.4954 µg/L	0.4954 ppb	04:03:26
2	Tl 190.801†	-23.4	-1.4	-1.9341 µg/L	-1.9341 ppb	04:03:46
2	U 409.014†	-47.5	-47.3	-4.0174 µg/L	-4.0174 ppb	04:03:26
2	V 292.402†	-118.3	-23.6	-0.2312 µg/L	-0.2312 ppb	04:03:26
2	Zn 213.857†	519.4	23.2	0.5506 µg/L	0.5506 ppb	04:03:46
3	Sc RADIAL	56797.0	56797.0	96.2 %		04:02:17
3	Al 396.153Radial†	5.5	14.4	10.722 µg/L	10.722 ppb	04:02:17
3	Ca 317.933Radial†	187.7	2.2	1.9881 µg/L	1.9881 ppb	04:02:38
3	Fe 238.204 Radial†	16.3	1.5	13.221 µg/L	13.221 ppb	04:02:38
3	K 766.490 Radial†	214.2	24.2	16.672 µg/L	16.672 ppb	04:02:17
3	Mg 279.077 IEC†	10.4	-1.3	-12.504 µg/L	-12.504 ppb	04:02:38
3	Na 589.592 Radial†	462.5	7.1	2.3266 µg/L	2.3266 ppb	04:02:17
3	Sr 421.552†	35.6	-4.3	-0.0427 µg/L	-0.0427 ppb	04:02:17
3	Sc 361.383	2074832.4	2074832.4	98.819 %		04:03:52
3	Y 371.029	1434371.9	1434371.9	98.549 %		04:03:52
3	Ag 328.068†	-365.5	93.3	0.6979 µg/L	0.6979 ppb	04:03:58
3	As 188.979†	-5.3	-5.1	-9.2346 µg/L	-9.2346 ppb	04:04:19
3	B 249.677†	349.0	27.6	1.1238 µg/L	1.1238 ppb	04:04:19
3	Ba 233.527†	-9.8	8.4	0.2068 µg/L	0.2068 ppb	04:04:19
3	Be 313.107†	-3548.7	167.8	0.1011 µg/L	0.1011 ppb	04:03:58
3	Cd 226.502†	-144.8	-9.9	-0.2507 µg/L	-0.2507 ppb	04:04:19
3	Co 228.616†	2.0	-0.6	-0.0279 µg/L	-0.0279 ppb	04:04:19
3	Cr 267.716†	-50.7	-4.0	-0.0805 µg/L	-0.0805 ppb	04:03:58
3	Cu 324.752†	2862.7	27.2	0.1824 µg/L	0.1824 ppb	04:03:58
3	Mn 257.610†	-204.3	95.8	0.3072 µg/L	0.3072 ppb	04:04:19
3	Mo 202.031†	5.1	8.4	0.8454 µg/L	0.8454 ppb	04:04:19
3	Ni 231.604†	308.6	3.6	0.1825 µg/L	0.1825 ppb	04:04:19
3	P 214.914†	16.7	0.7	1.3578 µg/L	1.3578 ppb	04:04:19
3	Pb 220.353†	94.9	1.2	0.3068 µg/L	0.3068 ppb	04:04:19
3	S 181.975 Axial†	12.0	-5.2	-21.512 µg/L	-21.512 ppb	04:04:19
3	Sb 206.836†	19.3	-2.6	-2.3556 µg/L	-2.3556 ppb	04:04:19
3	Se 196.026†	19.2	4.4	6.0846 µg/L	6.0846 ppb	04:04:19
3	SiO2†	1583.3	117.9	23.601 µg/L	23.601 ppb	04:03:58
3	Si 251.611†	425.5	137.1	10.579 µg/L	10.579 ppb	04:04:19
3	Sn 189.927†	0.3	-4.4	-1.8947 µg/L	-1.8947 ppb	04:04:19
3	Ti 334.940†	379.1	242.0	0.5514 µg/L	0.5514 ppb	04:03:58
3	Tl 190.801†	-22.9	-0.9	-1.2027 µg/L	-1.2027 ppb	04:04:19
3	U 409.014†	-108.6	-109.1	-9.2614 µg/L	-9.2614 ppb	04:03:58
3	V 292.402†	-76.6	18.5	0.1812 µg/L	0.1812 ppb	04:03:58
3	Zn 213.857†	521.4	25.7	0.6063 µg/L	0.6063 ppb	04:04:19

-----  
Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2080256.2	99.077 %	0.3735			0.38%
Sc RADIAL	57236.3	96.9 %	0.64			0.67%
Y 371.029	1438607.0	98.840 %	0.3576			0.36%
Ag 328.068†	49.4	0.3698 µg/L	0.30447	0.3698 ppb	0.30447	82.32%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	13.0	9.7341 µg/L	8.63711	9.7341 ppb	8.63711	88.73%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-2.4	-4.3855 µg/L	4.27954	-4.3855 ppb	4.27954	97.58%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	33.5	1.3623 µg/L	0.20661	1.3623 ppb	0.20661	15.17%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	11.3	0.2767 µg/L	0.06884	0.2767 ppb	0.06884	24.88%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	122.3	0.0736 µg/L	0.02597	0.0736 ppb	0.02597	35.27%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	5.7	5.2347 µg/L	3.82345	5.2347 ppb	3.82345	73.04%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-7.4	-0.1866 µg/L	0.08976	-0.1866 ppb	0.08976	48.10%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	0.8	0.0388 µg/L	0.07080	0.0388 ppb	0.07080	182.35%

QC value within limits for Co 228.616	Recovery = Not calculated		
Cr 267.716†	4.2 0.0867 µg/L	0.19555 0.0867 ppb	0.19555 225.60%
QC value within limits for Cr 267.716	Recovery = Not calculated		
Cu 324.752†	20.2 0.1356 µg/L	0.33876 0.1356 ppb	0.33876 249.79%
QC value within limits for Cu 324.752	Recovery = Not calculated		
Fe 238.204 Radial†	1.4 12.410 µg/L	7.7081 12.410 ppb	7.7081 62.11%
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
K 766.490 Radial†	13.7 9.3956 µg/L	17.73884 9.3956 ppb	17.73884 188.80%
QC value within limits for K 766.490 Radial	Recovery = Not calculated		
Mg 279.077 IEC†	0.6 5.8733 µg/L	20.79015 5.8733 ppb	20.79015 353.98%
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
Mn 257.610†	90.9 0.2907 µg/L	0.02084 0.2907 ppb	0.02084 7.17%
QC value within limits for Mn 257.610	Recovery = Not calculated		
Mo 202.031†	7.1 0.7155 µg/L	0.22382 0.7155 ppb	0.22382 31.28%
QC value within limits for Mo 202.031	Recovery = Not calculated		
Na 589.592 Radial†	-7.0 -2.2884 µg/L	4.41591 -2.2884 ppb	4.41591 192.97%
QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
Ni 231.604†	-3.6 -0.1832 µg/L	0.42017 -0.1832 ppb	0.42017 229.40%
QC value within limits for Ni 231.604	Recovery = Not calculated		
P 214.914†	2.8 5.4775 µg/L	3.91159 5.4775 ppb	3.91159 71.41%
QC value within limits for P 214.914	Recovery = Not calculated		
Pb 220.353†	-4.7 -1.1500 µg/L	1.29405 -1.1500 ppb	1.29405 112.52%
QC value within limits for Pb 220.353	Recovery = Not calculated		
S 181.975 Axial†	-1.7 -6.9061 µg/L	13.42273 -6.9061 ppb	13.42273 194.36%
QC value within limits for S 181.975 Axial	Recovery = Not calculated		
Sb 206.836†	1.1 1.0039 µg/L	2.90946 1.0039 ppb	2.90946 289.82%
QC value within limits for Sb 206.836	Recovery = Not calculated		
Se 196.026†	2.1 2.8831 µg/L	3.49084 2.8831 ppb	3.49084 121.08%
QC value within limits for Se 196.026	Recovery = Not calculated		
SiO2†	90.1 18.050 µg/L	5.7635 18.050 ppb	5.7635 31.93%
QC value within limits for SiO2	Recovery = Not calculated		
Si 251.611†	129.8 10.017 µg/L	0.7824 10.017 ppb	0.7824 7.81%
QC value within limits for Si 251.611	Recovery = Not calculated		
Sn 189.927†	-4.0 -1.6909 µg/L	1.08381 -1.6909 ppb	1.08381 64.10%
QC value within limits for Sn 189.927	Recovery = Not calculated		
Sr 421.552†	-12.9 -0.1269 µg/L	0.13648 -0.1269 ppb	0.13648 107.57%
QC value within limits for Sr 421.552	Recovery = Not calculated		
Ti 334.940†	233.2 0.5300 µg/L	0.03026 0.5300 ppb	0.03026 5.71%
QC value within limits for Ti 334.940	Recovery = Not calculated		
Tl 190.801†	-2.0 -2.6154 µg/L	1.84993 -2.6154 ppb	1.84993 70.73%
QC value within limits for Tl 190.801	Recovery = Not calculated		
U 409.014†	-45.0 -3.8238 µg/L	5.53688 -3.8238 ppb	5.53688 144.80%
QC value within limits for U 409.014	Recovery = Not calculated		
V 292.402†	6.2 0.0641 µg/L	0.25756 0.0641 ppb	0.25756 402.04%
QC value within limits for V 292.402	Recovery = Not calculated		
Zn 213.857†	24.4 0.5744 µg/L	0.02872 0.5744 ppb	0.02872 5.00%
QC value within limits for Zn 213.857	Recovery = Not calculated		

All analyte(s) passed QC.



Sequence No.: 85

Sample ID: 1202036650|950379|1

Analyst: JWW

Initial Sample Wt:

Dilution:

Autosampler Location: 409

Date Collected: 2/21/2010 04:04:29

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202036650|950379|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	56947.9	56947.9	96.5 %		04:05:08
1	Al 396.153Radial†	-1.4	7.2	5.4015 µg/L	5.4015 ppb	04:05:08
1	Ca 317.933Radial†	228.0	43.5	39.865 µg/L	39.865 ppb	04:05:28
1	Fe 238.204 Radial†	23.6	9.0	77.617 µg/L	77.617 ppb	04:05:28
1	K 766.490 Radial†	261.3	72.5	49.850 µg/L	49.850 ppb	04:05:08
1	Mg 279.077 IEC†	11.9	0.3	2.3861 µg/L	2.3861 ppb	04:05:28
1	Na 589.592 Radial†	540.4	86.6	28.308 µg/L	28.308 ppb	04:05:08
1	Sr 421.552†	47.7	8.1	0.0800 µg/L	0.0800 ppb	04:05:08
1	Sc 361.383	2062792.3	2062792.3	98.245 %		04:06:30
1	Y 371.029	1425306.6	1425306.6	97.926 %		04:06:30
1	Ag 328.068†	-423.6	31.9	0.2429 µg/L	0.2429 ppb	04:06:35
1	As 188.979†	-0.0	0.3	0.4663 µg/L	0.4663 ppb	04:06:56
1	B 249.677†	353.8	34.7	1.3783 µg/L	1.3783 ppb	04:06:56
1	Ba 233.527†	-0.5	17.8	0.4363 µg/L	0.4363 ppb	04:06:56
1	Be 313.107†	-3629.5	64.5	0.0387 µg/L	0.0387 ppb	04:06:35
1	Cd 226.502†	-143.0	-9.0	-0.2341 µg/L	-0.2341 ppb	04:06:56
1	Co 228.616†	13.2	10.8	0.4997 µg/L	0.4997 ppb	04:06:56
1	Cr 267.716†	-27.5	19.4	0.3952 µg/L	0.3952 ppb	04:06:35
1	Cu 324.752†	2957.6	140.7	0.9440 µg/L	0.9440 ppb	04:06:35
1	Mn 257.610†	119.7	424.4	1.3612 µg/L	1.3612 ppb	04:06:56
1	Mo 202.031†	-2.2	1.1	0.1114 µg/L	0.1114 ppb	04:06:56
1	Ni 231.604†	310.7	7.6	0.3866 µg/L	0.3866 ppb	04:06:56
1	P 214.914†	17.5	1.6	3.0177 µg/L	3.0177 ppb	04:06:56
1	Pb 220.353†	76.5	-16.9	-4.1484 µg/L	-4.1484 ppb	04:06:56
1	S 181.975 Axial†	18.3	1.3	5.5357 µg/L	5.5357 ppb	04:06:56
1	Sb 206.836†	23.0	1.3	1.1580 µg/L	1.1580 ppb	04:06:56
1	Se 196.026†	16.1	1.4	2.1523 µg/L	2.1523 ppb	04:06:56
1	SiO2†	1706.6	252.7	50.607 µg/L	50.607 ppb	04:06:35
1	Si 251.611†	618.3	335.8	25.920 µg/L	25.920 ppb	04:06:56
1	Sn 189.927†	5.9	1.3	0.5593 µg/L	0.5593 ppb	04:06:56
1	Ti 334.940†	491.8	359.0	0.8169 µg/L	0.8169 ppb	04:06:35
1	Tl 190.801†	-22.4	-0.5	-0.7151 µg/L	-0.7151 ppb	04:06:56
1	U 409.014†	-82.0	-82.7	-7.0313 µg/L	-7.0313 ppb	04:06:35
1	V 292.402†	-97.5	-3.2	-0.0284 µg/L	-0.0284 ppb	04:06:35
1	Zn 213.857†	587.7	96.2	2.2644 µg/L	2.2644 ppb	04:06:56
2	Sc RADIAL	56700.7	56700.7	96.0 %		04:05:33
2	Al 396.153Radial†	12.1	21.3	15.876 µg/L	15.876 ppb	04:05:33
2	Ca 317.933Radial†	224.1	40.4	37.032 µg/L	37.032 ppb	04:05:54
2	Fe 238.204 Radial†	22.3	7.9	67.428 µg/L	67.428 ppb	04:05:54
2	K 766.490 Radial†	211.4	21.7	14.932 µg/L	14.932 ppb	04:05:33
2	Mg 279.077 IEC†	9.1	-2.6	-25.303 µg/L	-25.303 ppb	04:05:54
2	Na 589.592 Radial†	469.0	14.6	4.7815 µg/L	4.7815 ppb	04:05:33
2	Sr 421.552†	44.8	5.3	0.0518 µg/L	0.0518 ppb	04:05:33
2	Sc 361.383	2067717.4	2067717.4	98.480 %		04:07:02
2	Y 371.029	1428602.9	1428602.9	98.153 %		04:07:02
2	Ag 328.068†	-452.7	3.4	0.0293 µg/L	0.0293 ppb	04:07:08
2	As 188.979†	2.5	2.8	5.0365 µg/L	5.0365 ppb	04:07:28
2	B 249.677†	348.9	28.8	1.1443 µg/L	1.1443 ppb	04:07:28
2	Ba 233.527†	19.0	37.7	0.9225 µg/L	0.9225 ppb	04:07:28
2	Be 313.107†	-3651.3	51.2	0.0306 µg/L	0.0306 ppb	04:07:08
2	Cd 226.502†	-138.6	-4.1	-0.1111 µg/L	-0.1111 ppb	04:07:28
2	Co 228.616†	6.2	3.8	0.1731 µg/L	0.1731 ppb	04:07:28
2	Cr 267.716†	-21.3	25.8	0.5262 µg/L	0.5262 ppb	04:07:08
2	Cu 324.752†	2965.6	141.7	0.9492 µg/L	0.9492 ppb	04:07:08
2	Mn 257.610†	113.1	417.5	1.3388 µg/L	1.3388 ppb	04:07:28
2	Mo 202.031†	4.2	7.6	0.7612 µg/L	0.7612 ppb	04:07:28
2	Ni 231.604†	317.2	13.5	0.6833 µg/L	0.6833 ppb	04:07:28
2	P 214.914†	6.3	-9.8	-19.666 µg/L	-19.666 ppb	04:07:28
2	Pb 220.353†	91.3	-2.1	-0.5145 µg/L	-0.5145 ppb	04:07:28

2	S 181.975 Axial†	17.3	0.3	1.3227 µg/L	1.3227 ppb	04:07:28
2	Sb 206.836†	25.5	3.8	3.5012 µg/L	3.5012 ppb	04:07:28
2	Se 196.026†	22.8	8.2	11.423 µg/L	11.423 ppb	04:07:28
2	SiO2†	1695.0	236.8	47.420 µg/L	47.420 ppb	04:07:08
2	Si 251.611†	625.9	342.1	26.402 µg/L	26.402 ppb	04:07:28
2	Sn 189.927†	7.0	2.3	0.9930 µg/L	0.9930 ppb	04:07:28
2	Ti 334.940†	439.3	304.4	0.6949 µg/L	0.6949 ppb	04:07:08
2	Tl 190.801†	-21.7	0.2	0.2313 µg/L	0.2313 ppb	04:07:28
2	U 409.014†	-14.1	-13.6	-1.1661 µg/L	-1.1661 ppb	04:07:08
2	V 292.402†	-102.6	-8.2	-0.0669 µg/L	-0.0669 ppb	04:07:08
2	Zn 213.857†	593.3	100.5	2.3652 µg/L	2.3652 ppb	04:07:28
3	Sc RADIAL	56834.8	56834.8	96.3 %		04:05:59
3	Al 396.153Radial†	-17.3	-9.2	-6.9039 µg/L	-6.9039 ppb	04:05:59
3	Ca 317.933Radial†	221.9	37.6	34.484 µg/L	34.484 ppb	04:06:20
3	Fe 238.204 Radial†	23.9	9.4	80.868 µg/L	80.868 ppb	04:06:20
3	K 766.490 Radial†	254.5	66.0	45.398 µg/L	45.398 ppb	04:05:59
3	Mg 279.077 IEC†	9.8	-1.9	-18.429 µg/L	-18.429 ppb	04:06:20
3	Na 589.592 Radial†	512.1	58.2	19.043 µg/L	19.043 ppb	04:05:59
3	Sr 421.552†	78.7	40.4	0.3969 µg/L	0.3969 ppb	04:05:59
3	Sc 361.383	2071796.2	2071796.2	98.674 %		04:07:34
3	Y 371.029	1432119.0	1432119.0	98.395 %		04:07:34
3	Ag 328.068†	-403.3	54.4	0.4107 µg/L	0.4107 ppb	04:07:40
3	As 188.979†	-0.1	0.2	0.3693 µg/L	0.3693 ppb	04:08:00
3	B 249.677†	352.4	31.7	1.2543 µg/L	1.2543 ppb	04:08:00
3	Ba 233.527†	1.4	19.8	0.4854 µg/L	0.4854 ppb	04:08:00
3	Be 313.107†	-3668.3	41.3	0.0246 µg/L	0.0246 ppb	04:07:40
3	Cd 226.502†	-150.4	-15.9	-0.4078 µg/L	-0.4078 ppb	04:08:00
3	Co 228.616†	11.7	9.3	0.4302 µg/L	0.4302 ppb	04:08:00
3	Cr 267.716†	-16.9	30.3	0.6176 µg/L	0.6176 ppb	04:07:40
3	Cu 324.752†	2936.3	106.0	0.7143 µg/L	0.7143 ppb	04:07:40
3	Mn 257.610†	76.3	379.9	1.2208 µg/L	1.2208 ppb	04:08:00
3	Mo 202.031†	-2.3	1.0	0.1018 µg/L	0.1018 ppb	04:08:00
3	Ni 231.604†	310.3	5.8	0.2960 µg/L	0.2960 ppb	04:08:00
3	P 214.914†	10.7	-5.4	-10.854 µg/L	-10.854 ppb	04:08:00
3	Pb 220.353†	83.7	-9.9	-2.4323 µg/L	-2.4323 ppb	04:08:00
3	S 181.975 Axial†	17.5	0.5	2.0240 µg/L	2.0240 ppb	04:08:00
3	Sb 206.836†	25.8	4.0	3.6299 µg/L	3.6299 ppb	04:08:00
3	Se 196.026†	8.1	-6.8	-9.1140 µg/L	-9.1140 ppb	04:08:00
3	SiO2†	1722.5	261.3	52.319 µg/L	52.319 ppb	04:07:40
3	Si 251.611†	613.5	328.2	25.329 µg/L	25.329 ppb	04:08:00
3	Sn 189.927†	6.8	2.1	0.9049 µg/L	0.9049 ppb	04:08:00
3	Ti 334.940†	505.2	370.3	0.8443 µg/L	0.8443 ppb	04:07:40
3	Tl 190.801†	-20.2	1.8	2.3502 µg/L	2.3502 ppb	04:08:00
3	U 409.014†	-140.8	-141.9	-12.056 µg/L	-12.056 ppb	04:07:40
3	V 292.402†	-102.0	-7.4	-0.0739 µg/L	-0.0739 ppb	04:07:40
3	Zn 213.857†	572.5	78.3	1.8424 µg/L	1.8424 ppb	04:08:00

Mean Data: 1202036650|950379|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2067435.3	98.467 %	0.2147			0.22%
Sc RADIAL	56827.8	96.2 %	0.21			0.22%
Y 371.029	1428676.1	98.158 %	0.2341			0.24%
Ag 328.068†	29.9	0.2276 µg/L	0.19116	0.2276 ppb	0.19116	83.98%
Al 396.153Radial†	6.4	4.7914 µg/L	11.40240	4.7914 ppb	11.40240	237.98%
As 188.979†	1.1	1.9574 µg/L	2.66704	1.9574 ppb	2.66704	136.26%
B 249.677†	31.7	1.2590 µg/L	0.11711	1.2590 ppb	0.11711	9.30%
Ba 233.527†	25.1	0.6147 µg/L	0.26769	0.6147 ppb	0.26769	43.55%
Be 313.107†	52.3	0.0313 µg/L	0.00705	0.0313 ppb	0.00705	22.50%
Ca 317.933Radial†	40.5	37.127 µg/L	2.6918	37.127 ppb	2.6918	7.25%
Cd 226.502†	-9.7	-0.2510 µg/L	0.14907	-0.2510 ppb	0.14907	59.39%
Co 228.616†	8.0	0.3677 µg/L	0.17204	0.3677 ppb	0.17204	46.79%
Cr 267.716†	25.2	0.5130 µg/L	0.11182	0.5130 ppb	0.11182	21.80%
Cu 324.752†	129.5	0.8692 µg/L	0.13418	0.8692 ppb	0.13418	15.44%
Fe 238.204 Radial†	8.8	75.305 µg/L	7.0122	75.305 ppb	7.0122	9.31%
K 766.490 Radial†	53.4	36.726 µg/L	19.0056	36.726 ppb	19.0056	51.75%
Mg 279.077 IEC†	-1.4	-13.782 µg/L	14.4176	-13.782 ppb	14.4176	104.61%
Mn 257.610†	407.3	1.3069 µg/L	0.07545	1.3069 ppb	0.07545	5.77%
Mo 202.031†	3.2	0.3248 µg/L	0.37797	0.3248 ppb	0.37797	116.37%
Na 589.592 Radial†	53.2	17.378 µg/L	11.8515	17.378 ppb	11.8515	68.20%

Ni 231.604†	9.0	0.4553 µg/L	0.20256	0.4553 ppb	0.20256	44.49%
P 214.914†	-4.5	-9.1675 µg/L	11.43554	-9.1675 ppb	11.43554	124.74%
Pb 220.353†	-9.6	-2.3651 µg/L	1.81793	-2.3651 ppb	1.81793	76.87%
S 181.975 Axial†	0.7	2.9608 µg/L	2.25730	2.9608 ppb	2.25730	76.24%
Sb 206.836†	3.0	2.7630 µg/L	1.39151	2.7630 ppb	1.39151	50.36%
Se 196.026†	0.9	1.4873 µg/L	10.28488	1.4873 ppb	10.28488	691.53%
SiO2†	250.3	50.115 µg/L	2.4864	50.115 ppb	2.4864	4.96%
Si 251.611†	335.4	25.884 µg/L	0.5371	25.884 ppb	0.5371	2.08%
Sn 189.927†	1.9	0.8191 µg/L	0.22922	0.8191 ppb	0.22922	27.99%
Sr 421.552†	17.9	0.1763 µg/L	0.19161	0.1763 ppb	0.19161	108.70%
Ti 334.940†	344.6	0.7853 µg/L	0.07956	0.7853 ppb	0.07956	10.13%
Tl 190.801†	0.5	0.6222 µg/L	1.56959	0.6222 ppb	1.56959	252.28%
U 409.014†	-79.4	-6.7510 µg/L	5.45017	-6.7510 ppb	5.45017	80.73%
V 292.402†	-6.3	-0.0564 µg/L	0.02449	-0.0564 ppb	0.02449	43.42%
Zn 213.857†	91.7	2.1573 µg/L	0.27736	2.1573 ppb	0.27736	12.86%

Sequence No.: 86

Sample ID: 1202036655|950379|1

Analyst: JWJ

Initial Sample Wt:

Dilution:

Autosampler Location: 410

Date Collected: 2/21/2010 04:08:09

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202036655|950379|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	59188.9	59188.9	100 %		04:08:42
1	Al 396.153Radial†	113976.3	113705.4	84995 µg/L	84995 ppb	04:08:42
1	Ca 317.933Radial†	105615.6	105163.6	96463 µg/L	96463 ppb	04:08:42
1	Fe 238.204 Radial†	21198.9	21131.6	181420 µg/L	181420 ppb	04:09:02
1	K 766.490 Radial†	57609.0	57269.3	39379 µg/L	39379 ppb	04:08:42
1	Mg 279.077 IEC†	3951.6	3929.8	38064 µg/L	38064 ppb	04:09:02
1	Na 589.592 Radial†	30956.4	30406.7	9940.8 µg/L	9940.8 ppb	04:08:42
1	Sr 421.552†	221047.1	220463.5	2168.3 µg/L	2168.3 ppb	04:08:42
1	Sc 361.383	2078280.9	2078280.9	98.983 %		04:10:07
1	Y 371.029	1459873.4	1459873.4	100.30 %		04:10:07
1	Ag 328.068†	37215.7	38061.2	303.02 µg/L	303.02 ppb	04:10:13
1	As 188.979†	574.4	580.6	1049.5 µg/L	1049.5 ppb	04:10:33
1	B 249.677†	34674.4	34705.2	1328.7 µg/L	1328.7 ppb	04:10:13
1	Ba 233.527†	77059.8	77869.9	1910.3 µg/L	1910.3 ppb	04:10:13
1	Be 313.107†	1273613.6	1290457.5	777.28 µg/L	777.28 ppb	04:10:07
1	Cd 226.502†	23133.3	23507.6	572.32 µg/L	572.32 ppb	04:10:13
1	Co 228.616†	19428.1	19625.1	897.79 µg/L	897.79 ppb	04:10:13
1	Cr 267.716†	109368.3	110539.4	2255.1 µg/L	2255.1 ppb	04:10:13
1	Cu 324.752†	260534.8	260341.8	1752.2 µg/L	1752.2 ppb	04:10:13
1	Mn 257.610†	1673777.3	1691276.2	5406.2 µg/L	5406.2 ppb	04:10:07
1	Mo 202.031†	4954.8	5009.1	508.78 µg/L	508.78 ppb	04:10:33
1	Ni 231.604†	25640.1	25594.8	1294.8 µg/L	1294.8 ppb	04:10:13
1	P 214.914†	4049.8	4075.2	7813.3 µg/L	7813.3 ppb	04:10:33
1	Pb 220.353†	3484.2	3425.2	839.22 µg/L	839.22 ppb	04:10:33
1	S 181.975 Axial†	1019.7	1012.9	4198.5 µg/L	4198.5 ppb	04:10:33
1	Sb 206.836†	1610.6	1605.1	1439.7 µg/L	1439.7 ppb	04:10:33
1	Se 196.026†	1956.9	1962.0	3122.8 µg/L	3122.8 ppb	04:10:33
1	SiO2†	176811.5	177143.6	35473 µg/L	35473 ppb	04:10:13
1	Si 251.611†	211939.5	213823.4	16504 µg/L	16504 ppb	04:10:13
1	Sn 189.927†	2504.1	2525.1	1064.5 µg/L	1064.5 ppb	04:10:33
1	Ti 334.940†	2375182.5	2399443.4	5455.8 µg/L	5455.8 ppb	04:10:07
1	Tl 190.801†	840.5	871.4	1254.1 µg/L	1254.1 ppb	04:10:33
1	U 409.014†	-1316.6	-1329.4	-143.92 µg/L	-143.92 ppb	04:10:13
1	V 292.402†	116230.0	117520.1	1192.8 µg/L	1192.8 ppb	04:10:13
1	Zn 213.857†	246515.8	248546.5	5846.6 µg/L	5846.6 ppb	04:10:13
2	Sc RADIAL	58781.1	58781.1	99.6 %		04:09:08
2	Al 396.153Radial†	114028.9	114546.9	85624 µg/L	85624 ppb	04:09:08
2	Ca 317.933Radial†	104969.4	105245.4	96538 µg/L	96538 ppb	04:09:08
2	Fe 238.204 Radial†	21294.7	21374.4	183500 µg/L	183500 ppb	04:09:28
2	K 766.490 Radial†	57569.9	57628.7	39626 µg/L	39626 ppb	04:09:08
2	Mg 279.077 IEC†	3962.6	3968.2	38435 µg/L	38435 ppb	04:09:28
2	Na 589.592 Radial†	30917.7	30582.1	9998.1 µg/L	9998.1 ppb	04:09:08
2	Sr 421.552†	220408.6	221351.9	2177.0 µg/L	2177.0 ppb	04:09:08
2	Sc 361.383	2071203.6	2071203.6	98.646 %		04:10:40
2	Y 371.029	1455024.7	1455024.7	99.968 %		04:10:40
2	Ag 328.068†	37385.8	38362.1	305.48 µg/L	305.48 ppb	04:10:46
2	As 188.979†	575.8	584.0	1055.8 µg/L	1055.8 ppb	04:11:07
2	B 249.677†	35015.4	35170.5	1346.7 µg/L	1346.7 ppb	04:10:46
2	Ba 233.527†	77625.8	78709.6	1930.9 µg/L	1930.9 ppb	04:10:46
2	Be 313.107†	1271478.1	1292689.4	778.63 µg/L	778.63 ppb	04:10:40
2	Cd 226.502†	23333.0	23789.8	579.20 µg/L	579.20 ppb	04:10:46
2	Co 228.616†	19546.5	19812.2	906.44 µg/L	906.44 ppb	04:10:46
2	Cr 267.716†	110299.9	111861.3	2282.0 µg/L	2282.0 ppb	04:10:46
2	Cu 324.752†	262515.9	263249.5	1771.8 µg/L	1771.8 ppb	04:10:46
2	Mn 257.610†	1668227.0	1691427.9	5406.9 µg/L	5406.9 ppb	04:10:40
2	Mo 202.031†	4948.9	5020.2	509.97 µg/L	509.97 ppb	04:11:07
2	Ni 231.604†	25849.8	25896.0	1310.1 µg/L	1310.1 ppb	04:10:46
2	P 214.914†	4061.5	4101.0	7861.2 µg/L	7861.2 ppb	04:11:07
2	Pb 220.353†	3506.7	3460.0	847.71 µg/L	847.71 ppb	04:11:07

2	S 181.975 Axial†	1020.8	1017.5	4217.8 µg/L	4217.8 ppb	04:11:07
2	Sb 206.836†	1621.6	1621.7	1454.6 µg/L	1454.6 ppb	04:11:07
2	Se 196.026†	1959.7	1971.6	3141.2 µg/L	3141.2 ppb	04:11:07
2	SiO2†	178175.5	179136.8	35872 µg/L	35872 ppb	04:10:46
2	Si 251.611†	213408.8	216044.6	16675 µg/L	16675 ppb	04:10:46
2	Sn 189.927†	2494.9	2524.4	1064.0 µg/L	1064.0 ppb	04:11:07
2	Ti 334.940†	2370394.3	2402788.9	5463.4 µg/L	5463.4 ppb	04:10:40
2	Tl 190.801†	835.1	868.8	1251.0 µg/L	1251.0 ppb	04:11:07
2	U 409.014†	-1267.9	-1284.6	-140.41 µg/L	-140.41 ppb	04:10:46
2	V 292.402†	117144.6	118848.6	1206.3 µg/L	1206.3 ppb	04:10:46
2	Zn 213.857†	248424.0	251331.9	5912.2 µg/L	5912.2 ppb	04:10:46
3	Sc RADIAL	58953.2	58953.2	99.8 %		04:09:34
3	Al 396.153Radial†	114073.8	114257.6	85409 µg/L	85409 ppb	04:09:34
3	Ca 317.933Radial†	105291.9	105260.5	96552 µg/L	96552 ppb	04:09:34
3	Fe 238.204 Radial†	21302.8	21320.1	183030 µg/L	183030 ppb	04:09:55
3	K 766.490 Radial†	57708.7	57598.9	39606 µg/L	39606 ppb	04:09:34
3	Mg 279.077 IEC†	3981.0	3975.1	38502 µg/L	38502 ppb	04:09:55
3	Na 589.592 Radial†	30866.9	30440.6	9951.9 µg/L	9951.9 ppb	04:09:34
3	Sr 421.552†	220792.0	221089.6	2174.5 µg/L	2174.5 ppb	04:09:34
3	Sc 361.383	2086944.6	2086944.6	99.396 %		04:11:14
3	Y 371.029	1465871.8	1465871.8	100.71 %		04:11:14
3	Ag 328.068†	36621.2	37307.0	297.23 µg/L	297.23 ppb	04:11:20
3	As 188.979†	534.4	538.0	973.02 µg/L	973.02 ppb	04:11:40
3	B 249.677†	34117.6	33999.5	1298.9 µg/L	1298.9 ppb	04:11:20
3	Ba 233.527†	74918.6	75392.5	1849.6 µg/L	1849.6 ppb	04:11:20
3	Be 313.107†	1258270.6	1269679.7	764.77 µg/L	764.77 ppb	04:11:14
3	Cd 226.502†	22582.5	22856.4	555.70 µg/L	555.70 ppb	04:11:20
3	Co 228.616†	18885.3	18997.6	868.90 µg/L	868.90 ppb	04:11:20
3	Cr 267.716†	105481.6	106170.3	2165.9 µg/L	2165.9 ppb	04:11:20
3	Cu 324.752†	253350.1	252020.7	1697.2 µg/L	1697.2 ppb	04:11:20
3	Mn 257.610†	1654266.4	1664626.9	5321.6 µg/L	5321.6 ppb	04:11:14
3	Mo 202.031†	4574.9	4606.0	468.46 µg/L	468.46 ppb	04:11:40
3	Ni 231.604†	24873.5	24716.1	1250.5 µg/L	1250.5 ppb	04:11:20
3	P 214.914†	3775.7	3782.4	7234.6 µg/L	7234.6 ppb	04:11:40
3	Pb 220.353†	3285.2	3210.3	786.28 µg/L	786.28 ppb	04:11:40
3	S 181.975 Axial†	968.4	957.0	3967.0 µg/L	3967.0 ppb	04:11:40
3	Sb 206.836†	1488.4	1475.4	1321.6 µg/L	1321.6 ppb	04:11:40
3	Se 196.026†	1854.8	1851.1	2974.9 µg/L	2974.9 ppb	04:11:40
3	SiO2†	172021.0	171582.4	34360 µg/L	34360 ppb	04:11:20
3	Si 251.611†	206071.3	207030.7	15979 µg/L	15979 ppb	04:11:20
3	Sn 189.927†	2312.1	2321.4	977.25 µg/L	977.25 ppb	04:11:40
3	Ti 334.940†	2341463.3	2355557.7	5355.9 µg/L	5355.9 ppb	04:11:14
3	Tl 190.801†	799.9	827.0	1193.8 µg/L	1193.8 ppb	04:11:40
3	U 409.014†	-1183.6	-1190.0	-132.32 µg/L	-132.32 ppb	04:11:20
3	V 292.402†	112602.3	113382.9	1151.6 µg/L	1151.6 ppb	04:11:20
3	Zn 213.857†	240211.7	241170.2	5672.7 µg/L	5672.7 ppb	04:11:20

Mean Data: 1202036655|950379|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2078809.7	99.008 %	0.3755			0.38%
Sc RADIAL	58974.4	99.9 %	0.35			0.35%
Y 371.029	1460256.6	100.33 %	0.373			0.37%
Ag 328.068†	37910.1	301.91 µg/L	4.239	301.91 ppb	4.239	1.40%
Al 396.153Radial†	114170.0	85342 µg/L	319.7	85342 ppb	319.7	0.37%
As 188.979†	567.5	1026.1 µg/L	46.10	1026.1 ppb	46.10	4.49%
B 249.677†	34625.1	1324.8 µg/L	24.17	1324.8 ppb	24.17	1.82%
Ba 233.527†	77324.0	1896.9 µg/L	42.31	1896.9 ppb	42.31	2.23%
Be 313.107†	1284275.5	773.56 µg/L	7.641	773.56 ppb	7.641	0.99%
Ca 317.933Radial†	105223.2	96517 µg/L	47.8	96517 ppb	47.8	0.05%
Cd 226.502†	23384.6	569.07 µg/L	12.079	569.07 ppb	12.079	2.12%
Co 228.616†	19478.3	891.04 µg/L	19.656	891.04 ppb	19.656	2.21%
Cr 267.716†	109523.7	2234.3 µg/L	60.76	2234.3 ppb	60.76	2.72%
Cu 324.752†	258537.4	1740.4 µg/L	38.65	1740.4 ppb	38.65	2.22%
Fe 238.204 Radial†	21275.4	182650 µg/L	1094.1	182650 ppb	1094.1	0.60%
K 766.490 Radial†	57498.9	39537 µg/L	137.2	39537 ppb	137.2	0.35%
Mg 279.077 IEC†	3957.7	38333 µg/L	236.0	38333 ppb	236.0	0.62%
Mn 257.610†	1682443.6	5378.2 µg/L	49.08	5378.2 ppb	49.08	0.91%
Mo 202.031†	4878.4	495.74 µg/L	23.633	495.74 ppb	23.633	4.77%
Na 589.592 Radial†	30476.5	9963.6 µg/L	30.41	9963.6 ppb	30.41	0.31%

Ni 231.604†	25402.3	1285.1 µg/L	30.96	1285.1 ppb	30.96	2.41%
P 214.914†	3986.2	7636.4 µg/L	348.75	7636.4 ppb	348.75	4.57%
Pb 220.353†	3365.2	824.40 µg/L	33.290	824.40 ppb	33.290	4.04%
S 181.975 Axial†	995.8	4127.8 µg/L	139.53	4127.8 ppb	139.53	3.38%
Sb 206.836†	1567.4	1405.3 µg/L	72.87	1405.3 ppb	72.87	5.19%
Se 196.026†	1928.2	3079.6 µg/L	91.20	3079.6 ppb	91.20	2.96%
SiO2†	175954.3	35235 µg/L	784.0	35235 ppb	784.0	2.23%
Si 251.611†	212299.5	16386 µg/L	362.5	16386 ppb	362.5	2.21%
Sn 189.927†	2457.0	1035.2 µg/L	50.22	1035.2 ppb	50.22	4.85%
Sr 421.552†	220968.3	2173.3 µg/L	4.49	2173.3 ppb	4.49	0.21%
Ti 334.940†	2385930.0	5425.0 µg/L	59.95	5425.0 ppb	59.95	1.11%
Tl 190.801†	855.7	1233.0 µg/L	33.91	1233.0 ppb	33.91	2.75%
U 409.014†	-1268.0	-138.88 µg/L	5.949	-138.88 ppb	5.949	4.28%
V 292.402†	116583.9	1183.5 µg/L	28.50	1183.5 ppb	28.50	2.41%
Zn 213.857†	247016.2	5810.5 µg/L	123.73	5810.5 ppb	123.73	2.13%

Sequence No.: 87

Sample ID: 246336001|950379|1

Analyst: JWW

Initial Sample Wt:

Dilution:

Autosampler Location: 411

Date Collected: 2/21/2010 04:11:49

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 246336001|950379|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	58267.2	58267.2	98.7 %		04:12:22
1	Al 396.153Radial†	41716.1	42280.8	31609 µg/L	31609 ppb	04:12:22
1	Ca 317.933Radial†	12204.2	12173.9	11167 µg/L	11167 ppb	04:12:42
1	Fe 238.204 Radial†	8396.4	8492.9	72905 µg/L	72905 ppb	04:12:42
1	K 766.490 Radial†	6160.8	6044.5	4156.3 µg/L	4156.3 ppb	04:12:22
1	Mg 279.077 IEC†	524.0	518.9	4973.0 µg/L	4973.0 ppb	04:12:42
1	Na 589.592 Radial†	1966.9	1519.4	496.73 µg/L	496.73 ppb	04:12:22
1	Sr 421.552†	7081.8	7134.8	70.172 µg/L	70.172 ppb	04:12:22
1	Sc 361.383	2084890.7	2084890.7	99.298 %		04:13:46
1	Y 371.029	1476896.4	1476896.4	101.47 %		04:13:46
1	Ag 328.068†	-1219.9	-765.5	-0.6066 µg/L	-0.6066 ppb	04:13:52
1	As 188.979†	14.1	14.5	29.687 µg/L	29.687 ppb	04:14:12
1	B 249.677†	838.5	519.0	-16.689 µg/L	-16.689 ppb	04:13:52
1	Ba 233.527†	13604.7	13719.3	336.34 µg/L	336.34 ppb	04:13:52
1	Be 313.107†	5064.1	8858.7	4.3886 µg/L	4.3886 ppb	04:13:52
1	Cd 226.502†	131.8	269.4	-1.4208 µg/L	-1.4208 ppb	04:14:12
1	Co 228.616†	396.6	396.9	13.118 µg/L	13.118 ppb	04:14:12
1	Cr 267.716†	3654.1	3727.3	76.063 µg/L	76.063 ppb	04:13:52
1	Cu 324.752†	6612.4	3789.4	35.271 µg/L	35.271 ppb	04:13:52
1	Mn 257.610†	403841.4	406999.6	1305.0 µg/L	1305.0 ppb	04:13:46
1	Mo 202.031†	91.7	95.7	12.358 µg/L	12.358 ppb	04:14:12
1	Ni 231.604†	1073.3	772.3	39.955 µg/L	39.955 ppb	04:14:12
1	P 214.914†	408.6	395.3	733.35 µg/L	733.35 ppb	04:14:12
1	Pb 220.353†	538.5	447.5	108.83 µg/L	108.83 ppb	04:14:12
1	S 181.975 Axial†	105.2	88.6	367.27 µg/L	367.27 ppb	04:14:12
1	Sb 206.836†	24.3	2.3	0.4553 µg/L	0.4553 ppb	04:14:12
1	Se 196.026†	-21.9	-37.0	140.98 µg/L	140.98 ppb	04:14:12
1	SiO2†	122534.7	121916.7	24414 µg/L	24414 ppb	04:13:52
1	Si 251.611†	147734.6	148485.7	11461 µg/L	11461 ppb	04:13:46
1	Sn 189.927†	27.6	23.1	2.6392 µg/L	2.6392 ppb	04:14:12
1	Ti 334.940†	1102014.5	1109665.3	2523.6 µg/L	2523.6 ppb	04:13:46
1	Tl 190.801†	-40.1	-18.2	15.010 µg/L	15.010 ppb	04:14:12
1	U 409.014†	2583.2	2602.2	210.02 µg/L	210.02 ppb	04:13:52
1	V 292.402†	7670.8	7821.1	86.425 µg/L	86.425 ppb	04:13:52
1	Zn 213.857†	14589.9	14191.1	330.96 µg/L	330.96 ppb	04:13:52
2	Sc RADIAL	57572.9	57572.9	97.5 %		04:12:48
2	Al 396.153Radial†	41553.0	42623.2	31865 µg/L	31865 ppb	04:12:48
2	Ca 317.933Radial†	12250.2	12370.2	11347 µg/L	11347 ppb	04:13:08
2	Fe 238.204 Radial†	8393.5	8592.5	73760 µg/L	73760 ppb	04:13:08
2	K 766.490 Radial†	6188.4	6148.1	4227.5 µg/L	4227.5 ppb	04:12:48
2	Mg 279.077 IEC†	521.2	522.5	5006.4 µg/L	5006.4 ppb	04:13:08
2	Na 589.592 Radial†	2015.7	1593.5	520.95 µg/L	520.95 ppb	04:12:48
2	Sr 421.552†	7010.9	7148.6	70.308 µg/L	70.308 ppb	04:12:48
2	Sc 361.383	2109961.1	2109961.1	100.49 %		04:14:19
2	Y 371.029	1493994.1	1493994.1	102.65 %		04:14:19
2	Ag 328.068†	-1192.8	-723.8	-0.2490 µg/L	-0.2490 ppb	04:14:25
2	As 188.979†	8.8	9.1	19.998 µg/L	19.998 ppb	04:14:45
2	B 249.677†	858.5	528.8	-16.733 µg/L	-16.733 ppb	04:14:25
2	Ba 233.527†	13669.6	13621.0	333.93 µg/L	333.93 ppb	04:14:25
2	Be 313.107†	5035.5	8769.7	4.3335 µg/L	4.3335 ppb	04:14:25
2	Cd 226.502†	132.7	268.6	-1.5382 µg/L	-1.5382 ppb	04:14:45
2	Co 228.616†	388.5	384.1	12.519 µg/L	12.519 ppb	04:14:45
2	Cr 267.716†	3704.4	3733.7	76.192 µg/L	76.192 ppb	04:14:25
2	Cu 324.752†	6641.5	3739.3	35.057 µg/L	35.057 ppb	04:14:25
2	Mn 257.610†	410082.6	408377.9	1309.5 µg/L	1309.5 ppb	04:14:19
2	Mo 202.031†	104.2	107.0	13.527 µg/L	13.527 ppb	04:14:45
2	Ni 231.604†	1059.5	745.6	38.622 µg/L	38.622 ppb	04:14:45
2	P 214.914†	417.3	399.0	740.14 µg/L	740.14 ppb	04:14:45
2	Pb 220.353†	546.5	449.0	109.20 µg/L	109.20 ppb	04:14:45

2	S 181.975 Axial†	104.0	86.2	357.11 µg/L	357.11 ppb	04:14:45
2	Sb 206.836†	23.8	1.5	-0.2856 µg/L	-0.2856 ppb	04:14:45
2	Se 196.026†	-17.5	-32.4	149.60 µg/L	149.60 ppb	04:14:45
2	SiO2†	122557.3	120473.0	24125 µg/L	24125 ppb	04:14:25
2	Si 251.611†	149881.0	148853.8	11489 µg/L	11489 ppb	04:14:19
2	Sn 189.927†	27.4	22.5	2.3066 µg/L	2.3066 ppb	04:14:45
2	Ti 334.940†	1116806.9	1111198.6	2527.1 µg/L	2527.1 ppb	04:14:19
2	Tl 190.801†	-43.6	-21.1	11.185 µg/L	11.185 ppb	04:14:45
2	U 409.014†	2580.1	2568.2	207.00 µg/L	207.00 ppb	04:14:25
2	V 292.402†	7656.4	7714.9	85.482 µg/L	85.482 ppb	04:14:25
2	Zn 213.857†	14599.4	14026.0	327.03 µg/L	327.03 ppb	04:14:25
3	Sc RADIAL	58701.9	58701.9	99.4 %		04:13:13
3	Al 396.153Radial†	41986.8	42239.9	31578 µg/L	31578 ppb	04:13:13
3	Ca 317.933Radial†	12227.4	12105.6	11104 µg/L	11104 ppb	04:13:34
3	Fe 238.204 Radial†	8393.7	8427.1	72341 µg/L	72341 ppb	04:13:34
3	K 766.490 Radial†	6228.6	6066.5	4171.4 µg/L	4171.4 ppb	04:13:13
3	Mg 279.077 IEC†	519.1	510.1	4887.0 µg/L	4887.0 ppb	04:13:34
3	Na 589.592 Radial†	2034.1	1572.2	513.99 µg/L	513.99 ppb	04:13:13
3	Sr 421.552†	7148.0	7148.3	70.305 µg/L	70.305 ppb	04:13:13
3	Sc 361.383	2094838.0	2094838.0	99.772 %		04:14:52
3	Y 371.029	1481805.2	1481805.2	101.81 %		04:14:52
3	Ag 328.068†	-1156.8	-696.3	-0.1537 µg/L	-0.1537 ppb	04:14:58
3	As 188.979†	11.1	11.4	24.076 µg/L	24.076 ppb	04:15:18
3	B 249.677†	833.0	509.4	-16.793 µg/L	-16.793 ppb	04:14:58
3	Ba 233.527†	13141.4	13189.9	323.36 µg/L	323.36 ppb	04:14:58
3	Be 313.107†	4636.7	8406.2	4.1373 µg/L	4.1373 ppb	04:14:58
3	Cd 226.502†	112.6	249.4	-1.8626 µg/L	-1.8626 ppb	04:15:18
3	Co 228.616†	358.9	357.1	11.399 µg/L	11.399 ppb	04:15:18
3	Cr 267.716†	3504.6	3560.0	72.649 µg/L	72.649 ppb	04:14:58
3	Cu 324.752†	6480.1	3625.2	34.103 µg/L	34.103 ppb	04:14:58
3	Mn 257.610†	398390.8	399605.3	1281.4 µg/L	1281.4 ppb	04:14:52
3	Mo 202.031†	87.6	91.1	11.879 µg/L	11.879 ppb	04:15:18
3	Ni 231.604†	1013.1	706.7	36.639 µg/L	36.639 ppb	04:15:18
3	P 214.914†	382.6	367.3	678.18 µg/L	678.18 ppb	04:15:18
3	Pb 220.353†	499.4	405.8	98.586 µg/L	98.586 ppb	04:15:18
3	S 181.975 Axial†	97.8	80.7	334.64 µg/L	334.64 ppb	04:15:18
3	Sb 206.836†	27.3	5.3	3.1627 µg/L	3.1627 ppb	04:15:18
3	Se 196.026†	-18.6	-33.7	144.10 µg/L	144.10 ppb	04:15:18
3	SiO2†	118766.7	117554.2	23540 µg/L	23540 ppb	04:14:58
3	Si 251.611†	146188.9	146230.0	11287 µg/L	11287 ppb	04:14:52
3	Sn 189.927†	22.3	17.7	0.3647 µg/L	0.3647 ppb	04:15:18
3	Ti 334.940†	1081912.6	1084247.5	2465.8 µg/L	2465.8 ppb	04:14:52
3	Tl 190.801†	-41.8	-19.6	12.384 µg/L	12.384 ppb	04:15:18
3	U 409.014†	2562.1	2568.7	207.26 µg/L	207.26 ppb	04:14:58
3	V 292.402†	7290.9	7403.6	82.215 µg/L	82.215 ppb	04:14:58
3	Zn 213.857†	14048.1	13578.3	316.55 µg/L	316.55 ppb	04:14:58

Mean Data: 246336001|950379|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2096563.3	99.854 %	0.6012			0.60%
Sc RADIAL	58180.7	98.5 %	0.96			0.98%
Y 371.029	1484231.9	101.97 %	0.605			0.59%
Ag 328.068†	-728.5	-0.3364 µg/L	0.23876	-0.3364 ppb	0.23876	70.97%
Al 396.153Radial†	42381.3	31684 µg/L	157.3	31684 ppb	157.3	0.50%
As 188.979†	11.6	24.587 µg/L	4.8645	24.587 ppb	4.8645	19.78%
B 249.677†	519.1	-16.738 µg/L	0.0522	-16.738 ppb	0.0522	0.31%
Ba 233.527†	13510.1	331.21 µg/L	6.905	331.21 ppb	6.905	2.08%
Be 313.107†	8678.2	4.2865 µg/L	0.13207	4.2865 ppb	0.13207	3.08%
Ca 317.933Radial†	12216.5	11206 µg/L	126.0	11206 ppb	126.0	1.12%
Cd 226.502†	262.5	-1.6072 µg/L	0.22887	-1.6072 ppb	0.22887	14.24%
Co 228.616†	379.4	12.345 µg/L	0.8727	12.345 ppb	0.8727	7.07%
Cr 267.716†	3673.7	74.968 µg/L	2.0096	74.968 ppb	2.0096	2.68%
Cu 324.752†	3718.0	34.810 µg/L	0.6219	34.810 ppb	0.6219	1.79%
Fe 238.204 Radial†	8504.2	73002 µg/L	714.9	73002 ppb	714.9	0.98%
K 766.490 Radial†	6086.4	4185.1 µg/L	37.53	4185.1 ppb	37.53	0.90%
Mg 279.077 IEC†	517.2	4955.5 µg/L	61.61	4955.5 ppb	61.61	1.24%
Mn 257.610†	404994.2	1298.7 µg/L	15.10	1298.7 ppb	15.10	1.16%
Mo 202.031†	97.9	12.588 µg/L	0.8477	12.588 ppb	0.8477	6.73%
Na 589.592 Radial†	1561.7	510.56 µg/L	12.472	510.56 ppb	12.472	2.44%



Ni 231.604†	741.5	38.405 µg/L	1.6689	38.405 ppb	1.6689	4.35%
P 214.914†	387.2	717.22 µg/L	33.982	717.22 ppb	33.982	4.74%
Pb 220.353†	434.1	105.54 µg/L	6.025	105.54 ppb	6.025	5.71%
S 181.975 Axial†	85.2	353.01 µg/L	16.699	353.01 ppb	16.699	4.73%
Sb 206.836†	3.0	1.1108 µg/L	1.81521	1.1108 ppb	1.81521	163.42%
Se 196.026†	-34.4	144.90 µg/L	4.362	144.90 ppb	4.362	3.01%
SiO2†	119981.3	24026 µg/L	445.0	24026 ppb	445.0	1.85%
Si 251.611†	147856.5	11412 µg/L	109.6	11412 ppb	109.6	0.96%
Sn 189.927†	21.1	1.7702 µg/L	1.22848	1.7702 ppb	1.22848	69.40%
Sr 421.552†	7143.9	70.262 µg/L	0.0776	70.262 ppb	0.0776	0.11%
Ti 334.940†	1101703.8	2505.5 µg/L	34.42	2505.5 ppb	34.42	1.37%
Tl 190.801†	-19.6	12.859 µg/L	1.9562	12.859 ppb	1.9562	15.21%
U 409.014†	2579.7	208.09 µg/L	1.673	208.09 ppb	1.673	0.80%
V 292.402†	7646.5	84.707 µg/L	2.2093	84.707 ppb	2.2093	2.61%
Zn 213.857†	13931.8	324.84 µg/L	7.452	324.84 ppb	7.452	2.29%

Sequence No.: 88

Sample ID: 1202036651|950379|1

Analyst: JWJ

Initial Sample Wt:

Dilution:

Autosampler Location: 412

Date Collected: 2/21/2010 04:15:27

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202036651|950379|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	58607.5	58607.5	99.3 %		04:16:00
1	Al 396.153Radial†	45710.4	46059.3	34433 µg/L	34433 ppb	04:16:00
1	Ca 317.933Radial†	11189.9	11080.2	10163 µg/L	10163 ppb	04:16:00
1	Fe 238.204 Radial†	8346.3	8393.0	72048 µg/L	72048 ppb	04:16:00
1	K 766.490 Radial†	6158.9	6006.3	4130.1 µg/L	4130.1 ppb	04:16:00
1	Mg 279.077 IEC†	519.8	511.5	4901.8 µg/L	4901.8 ppb	04:16:20
1	Na 589.592 Radial†	2155.9	1698.2	555.20 µg/L	555.20 ppb	04:16:00
1	Sr 421.552†	6353.3	6359.2	62.544 µg/L	62.544 ppb	04:16:00
1	Sc 361.383	2099022.5	2099022.5	99.971 %		04:17:24
1	Y 371.029	1492050.5	1492050.5	102.51 %		04:17:24
1	Ag 328.068†	-1229.0	-766.3	-0.7497 µg/L	-0.7497 ppb	04:17:30
1	As 188.979†	6.5	6.8	15.842 µg/L	15.842 ppb	04:17:50
1	B 249.677†	797.8	472.5	-18.191 µg/L	-18.191 ppb	04:17:30
1	Ba 233.527†	12682.3	12704.3	311.44 µg/L	311.44 ppb	04:17:30
1	Be 313.107†	4704.4	8464.6	4.2376 µg/L	4.2376 ppb	04:17:30
1	Cd 226.502†	118.3	254.9	-1.7021 µg/L	-1.7021 ppb	04:17:50
1	Co 228.616†	606.0	603.6	23.165 µg/L	23.165 ppb	04:17:50
1	Cr 267.716†	2182.4	2230.5	45.529 µg/L	45.529 ppb	04:17:50
1	Cu 324.752†	6003.4	3135.5	30.814 µg/L	30.814 ppb	04:17:30
1	Mn 257.610†	489453.5	489898.5	1568.8 µg/L	1568.8 ppb	04:17:24
1	Mo 202.031†	82.6	86.0	11.350 µg/L	11.350 ppb	04:17:50
1	Ni 231.604†	793.4	485.0	25.417 µg/L	25.417 ppb	04:17:50
1	P 214.914†	349.1	332.9	611.30 µg/L	611.30 ppb	04:17:50
1	Pb 220.353†	633.3	538.7	131.52 µg/L	131.52 ppb	04:17:50
1	S 181.975 Axial†	82.9	65.6	271.87 µg/L	271.87 ppb	04:17:50
1	Sb 206.836†	29.9	7.8	5.8430 µg/L	5.8430 ppb	04:17:50
1	Se 196.026†	-32.2	-47.2	125.06 µg/L	125.06 ppb	04:17:50
1	SiO2†	123947.2	122498.9	24530 µg/L	24530 ppb	04:17:30
1	Si 251.611†	150454.9	150205.1	11593 µg/L	11593 ppb	04:17:24
1	Sn 189.927†	22.3	17.6	0.3673 µg/L	0.3673 ppb	04:17:50
1	Ti 334.940†	1009109.6	1009261.5	2295.2 µg/L	2295.2 ppb	04:17:24
1	Tl 190.801†	-45.3	-23.1	7.6304 µg/L	7.6304 ppb	04:17:50
1	U 409.014†	1856.7	1858.0	147.04 µg/L	147.04 ppb	04:17:30
1	V 292.402†	6450.5	6548.3	73.591 µg/L	73.591 ppb	04:17:30
1	Zn 213.857†	14841.0	14343.3	334.67 µg/L	334.67 ppb	04:17:30
2	Sc RADIAL	57535.1	57535.1	97.4 %		04:16:26
2	Al 396.153Radial†	45227.6	46422.2	34705 µg/L	34705 ppb	04:16:26
2	Ca 317.933Radial†	10973.6	11068.4	10153 µg/L	10153 ppb	04:16:26
2	Fe 238.204 Radial†	8242.3	8443.1	72478 µg/L	72478 ppb	04:16:26
2	K 766.490 Radial†	6017.6	5977.0	4109.9 µg/L	4109.9 ppb	04:16:26
2	Mg 279.077 IEC†	520.4	521.9	5002.4 µg/L	5002.4 ppb	04:16:46
2	Na 589.592 Radial†	2080.2	1661.1	543.05 µg/L	543.05 ppb	04:16:26
2	Sr 421.552†	6252.8	6375.4	62.704 µg/L	62.704 ppb	04:16:26
2	Sc 361.383	2082438.6	2082438.6	99.181 %		04:17:57
2	Y 371.029	1480417.4	1480417.4	101.71 %		04:17:57
2	Ag 328.068†	-1264.3	-811.6	-1.0526 µg/L	-1.0526 ppb	04:18:03
2	As 188.979†	8.5	8.9	19.633 µg/L	19.633 ppb	04:18:24
2	B 249.677†	753.2	433.9	-19.995 µg/L	-19.995 ppb	04:18:03
2	Ba 233.527†	12834.5	12958.9	317.68 µg/L	317.68 ppb	04:18:03
2	Be 313.107†	4761.8	8560.0	4.2877 µg/L	4.2877 ppb	04:18:03
2	Cd 226.502†	127.2	264.8	-1.5013 µg/L	-1.5013 ppb	04:18:24
2	Co 228.616†	609.4	611.9	23.510 µg/L	23.510 ppb	04:18:24
2	Cr 267.716†	2183.1	2248.5	45.897 µg/L	45.897 ppb	04:18:24
2	Cu 324.752†	6142.5	3323.5	32.120 µg/L	32.120 ppb	04:18:03
2	Mn 257.610†	490568.6	494921.8	1584.8 µg/L	1584.8 ppb	04:17:57
2	Mo 202.031†	90.1	94.1	12.186 µg/L	12.186 ppb	04:18:24
2	Ni 231.604†	799.2	497.2	26.034 µg/L	26.034 ppb	04:18:24
2	P 214.914†	346.9	333.5	612.08 µg/L	612.08 ppb	04:18:24
2	Pb 220.353†	642.6	553.1	135.07 µg/L	135.07 ppb	04:18:24

2	S 181.975 Axial†	79.1	62.5	258.97 µg/L	258.97 ppb	04:18:24
2	Sb 206.836†	32.7	10.8	8.6413 µg/L	8.6413 ppb	04:18:24
2	Se 196.026†	-20.1	-35.3	142.42 µg/L	142.42 ppb	04:18:24
2	SiO2†	125375.4	124926.2	25017 µg/L	25017 ppb	04:18:03
2	Si 251.611†	150572.6	151522.3	11695 µg/L	11695 ppb	04:17:57
2	Sn 189.927†	21.7	17.1	0.1433 µg/L	0.1433 ppb	04:18:24
2	Ti 334.940†	1009641.9	1017836.8	2314.7 µg/L	2314.7 ppb	04:17:57
2	Tl 190.801†	-48.1	-26.3	3.7068 µg/L	3.7068 ppb	04:18:24
2	U 409.014†	1940.8	1957.5	155.43 µg/L	155.43 ppb	04:18:03
2	V 292.402†	6524.0	6673.9	74.900 µg/L	74.900 ppb	04:18:03
2	Zn 213.857†	15025.8	14647.9	341.83 µg/L	341.83 ppb	04:18:03
3	Sc RADIAL	57927.1	57927.1	98.1 %		04:16:52
3	Al 396.153Radial†	45324.7	46207.0	34544 µg/L	34544 ppb	04:16:52
3	Ca 317.933Radial†	11038.1	11057.9	10143 µg/L	10143 ppb	04:16:52
3	Fe 238.204 Radial†	8271.5	8415.5	72241 µg/L	72241 ppb	04:16:52
3	K 766.490 Radial†	6058.7	5977.1	4110.0 µg/L	4110.0 ppb	04:16:52
3	Mg 279.077 IEC†	521.7	519.7	4981.0 µg/L	4981.0 ppb	04:17:12
3	Na 589.592 Radial†	2128.3	1695.6	554.33 µg/L	554.33 ppb	04:16:52
3	Sr 421.552†	6287.5	6367.3	62.624 µg/L	62.624 ppb	04:16:52
3	Sc 361.383	2096372.5	2096372.5	99.845 %		04:18:31
3	Y 371.029	1488830.4	1488830.4	102.29 %		04:18:31
3	Ag 328.068†	-1200.5	-739.2	-0.5470 µg/L	-0.5470 ppb	04:18:36
3	As 188.979†	3.5	3.8	10.474 µg/L	10.474 ppb	04:18:57
3	B 249.677†	702.5	378.1	-22.158 µg/L	-22.158 ppb	04:18:36
3	Ba 233.527†	12329.7	12367.3	303.18 µg/L	303.18 ppb	04:18:36
3	Be 313.107†	4457.4	8223.2	4.1089 µg/L	4.1089 ppb	04:18:36
3	Cd 226.502†	108.4	245.2	-1.9708 µg/L	-1.9708 ppb	04:18:57
3	Co 228.616†	580.3	578.6	22.102 µg/L	22.102 ppb	04:18:57
3	Cr 267.716†	2019.8	2070.3	42.262 µg/L	42.262 ppb	04:18:57
3	Cu 324.752†	5928.4	3067.9	30.393 µg/L	30.393 ppb	04:18:36
3	Mn 257.610†	482273.9	483326.6	1547.9 µg/L	1547.9 ppb	04:18:31
3	Mo 202.031†	79.6	83.0	11.062 µg/L	11.062 ppb	04:18:57
3	Ni 231.604†	768.6	461.1	24.212 µg/L	24.212 ppb	04:18:57
3	P 214.914†	316.5	300.7	547.26 µg/L	547.26 ppb	04:18:57
3	Pb 220.353†	606.8	512.9	125.19 µg/L	125.19 ppb	04:18:57
3	S 181.975 Axial†	78.0	60.8	252.19 µg/L	252.19 ppb	04:18:57
3	Sb 206.836†	30.6	8.6	6.5896 µg/L	6.5896 ppb	04:18:57
3	Se 196.026†	-16.2	-31.2	147.38 µg/L	147.38 ppb	04:18:57
3	SiO2†	120968.6	119672.4	23964 µg/L	23964 ppb	04:18:36
3	Si 251.611†	148694.2	148632.0	11472 µg/L	11472 ppb	04:18:31
3	Sn 189.927†	30.6	25.9	3.9220 µg/L	3.9220 ppb	04:18:57
3	Ti 334.940†	988108.5	989503.7	2250.3 µg/L	2250.3 ppb	04:18:31
3	Tl 190.801†	-39.1	-17.0	15.361 µg/L	15.361 ppb	04:18:57
3	U 409.014†	1841.7	1845.4	145.94 µg/L	145.94 ppb	04:18:36
3	V 292.402†	6268.9	6374.7	71.885 µg/L	71.885 ppb	04:18:36
3	Zn 213.857†	14450.2	13970.7	325.87 µg/L	325.87 ppb	04:18:36

Mean Data: 1202036651|950379|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2092611.2	99.666 %	0.4243			0.43%
Sc RADIAL	58023.2	98.3 %	0.92			0.94%
Y 371.029	1487099.5	102.17 %	0.413			0.40%
Ag 328.068†	-772.4	-0.7831 µg/L	0.25443	-0.7831 ppb	0.25443	32.49%
Al 396.153Radial†	46229.5	34561 µg/L	136.4	34561 ppb	136.4	0.39%
As 188.979†	6.5	15.316 µg/L	4.6018	15.316 ppb	4.6018	30.05%
B 249.677†	428.2	-20.115 µg/L	1.9865	-20.115 ppb	1.9865	9.88%
Ba 233.527†	12676.8	310.77 µg/L	7.275	310.77 ppb	7.275	2.34%
Be 313.107†	8415.9	4.2114 µg/L	0.09226	4.2114 ppb	0.09226	2.19%
Ca 317.933Radial†	11068.9	10153 µg/L	10.2	10153 ppb	10.2	0.10%
Cd 226.502†	255.0	-1.7247 µg/L	0.23557	-1.7247 ppb	0.23557	13.66%
Co 228.616†	598.0	22.925 µg/L	0.7339	22.925 ppb	0.7339	3.20%
Cr 267.716†	2183.1	44.563 µg/L	2.0006	44.563 ppb	2.0006	4.49%
Cu 324.752†	3175.6	31.109 µg/L	0.9010	31.109 ppb	0.9010	2.90%
Fe 238.204 Radial†	8417.2	72255 µg/L	215.3	72255 ppb	215.3	0.30%
K 766.490 Radial†	5986.8	4116.6 µg/L	11.62	4116.6 ppb	11.62	0.28%
Mg 279.077 IEC†	517.7	4961.7 µg/L	53.03	4961.7 ppb	53.03	1.07%
Mn 257.610†	489382.3	1567.2 µg/L	18.52	1567.2 ppb	18.52	1.18%
Mo 202.031†	87.7	11.532 µg/L	0.5838	11.532 ppb	0.5838	5.06%
Na 589.592 Radial†	1685.0	550.86 µg/L	6.776	550.86 ppb	6.776	1.23%

Ni 231.604†	481.1	25.221 µg/L	0.9267	25.221 ppb	0.9267	3.67%
P 214.914†	322.4	590.21 µg/L	37.201	590.21 ppb	37.201	6.30%
Pb 220.353†	534.9	130.59 µg/L	5.003	130.59 ppb	5.003	3.83%
S 181.975 Axial†	63.0	261.01 µg/L	9.999	261.01 ppb	9.999	3.83%
Sb 206.836†	9.1	7.0246 µg/L	1.44900	7.0246 ppb	1.44900	20.63%
Se 196.026†	-37.9	138.29 µg/L	11.716	138.29 ppb	11.716	8.47%
SiO2†	122365.8	24504 µg/L	526.5	24504 ppb	526.5	2.15%
Si 251.611†	150119.8	11587 µg/L	111.7	11587 ppb	111.7	0.96%
Sn 189.927†	20.2	1.4775 µg/L	2.11996	1.4775 ppb	2.11996	143.48%
Sr 421.552†	6367.3	62.624 µg/L	0.0797	62.624 ppb	0.0797	0.13%
Ti 334.940†	1005534.0	2286.7 µg/L	33.05	2286.7 ppb	33.05	1.45%
Tl 190.801†	-22.1	8.8993 µg/L	5.92971	8.8993 ppb	5.92971	66.63%
U 409.014†	1887.0	149.47 µg/L	5.189	149.47 ppb	5.189	3.47%
V 292.402†	6532.3	73.459 µg/L	1.5117	73.459 ppb	1.5117	2.06%
Zn 213.857†	14320.7	334.12 µg/L	7.994	334.12 ppb	7.994	2.39%

Sequence No.: 89

Sample ID: 1202036653|950379|1

Analyst: JWJ

Initial Sample Wt:

Dilution:

Autosampler Location: 413

Date Collected: 2/21/2010 04:19:06

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202036653|950379|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	58775.5	58775.5	99.5 %		04:19:39
1	Al 396.153Radial†	89973.5	90392.7	67568 µg/L	67568 ppb	04:19:39
1	Ca 317.933Radial†	17875.0	17763.6	16294 µg/L	16294 ppb	04:19:39
1	Fe 238.204 Radial†	10022.2	10052.5	86304 µg/L	86304 ppb	04:19:59
1	K 766.490 Radial†	15459.3	15331.4	10542 µg/L	10542 ppb	04:19:39
1	Mg 279.077 IEC†	1308.2	1302.1	12588 µg/L	12588 ppb	04:19:59
1	Na 589.592 Radial†	16726.5	16329.1	5338.5 µg/L	5338.5 ppb	04:19:39
1	Sr 421.552†	56254.1	56469.4	555.39 µg/L	555.39 ppb	04:19:39
1	Sc 361.383	2084690.5	2084690.5	99.288 %		04:21:03
1	Y 371.029	1481735.5	1481735.5	101.80 %		04:21:03
1	Ag 328.068†	63266.6	64183.2	487.46 µg/L	487.46 ppb	04:21:09
1	As 188.979†	278.9	281.2	509.47 µg/L	509.47 ppb	04:21:29
1	B 249.677†	12485.5	12249.6	456.84 µg/L	456.84 ppb	04:21:09
1	Ba 233.527†	35972.0	36248.2	889.17 µg/L	889.17 ppb	04:21:09
1	Be 313.107†	823290.6	832950.7	501.79 µg/L	501.79 ppb	04:21:03
1	Cd 226.502†	19386.1	19661.6	485.44 µg/L	485.44 ppb	04:21:09
1	Co 228.616†	10937.0	11012.8	503.38 µg/L	503.38 ppb	04:21:09
1	Cr 267.716†	22833.5	23044.6	470.28 µg/L	470.28 ppb	04:21:09
1	Cu 324.752†	70386.0	68020.8	463.21 µg/L	463.21 ppb	04:21:09
1	Mn 257.610†	592243.1	596790.8	1910.6 µg/L	1910.6 ppb	04:21:03
1	Mo 202.031†	4027.9	4060.1	410.08 µg/L	410.08 ppb	04:21:29
1	Ni 231.604†	8979.8	8735.5	442.00 µg/L	442.00 ppb	04:21:09
1	P 214.914†	653.9	642.4	1185.3 µg/L	1185.3 ppb	04:21:29
1	Pb 220.353†	2564.2	2487.8	612.08 µg/L	612.08 ppb	04:21:29
1	S 181.975 Axial†	1103.6	1094.2	4535.5 µg/L	4535.5 ppb	04:21:29
1	Sb 206.836†	434.4	415.4	379.18 µg/L	379.18 ppb	04:21:29
1	Se 196.026†	277.9	264.9	583.02 µg/L	583.02 ppb	04:21:29
1	SiO2†	180828.0	180639.8	36173 µg/L	36173 ppb	04:21:03
1	Si 251.611†	216293.8	217550.6	16791 µg/L	16791 ppb	04:21:03
1	Sn 189.927†	1009.8	1012.3	425.12 µg/L	425.12 ppb	04:21:29
1	Ti 334.940†	1448051.3	1458289.0	3316.0 µg/L	3316.0 ppb	04:21:03
1	Tl 190.801†	243.3	267.3	409.45 µg/L	409.45 ppb	04:21:29
1	U 409.014†	10102.0	10175.2	850.51 µg/L	850.51 ppb	04:21:09
1	V 292.402†	49115.0	49563.1	505.55 µg/L	505.55 ppb	04:21:09
1	Zn 213.857†	33099.9	32835.2	767.45 µg/L	767.45 ppb	04:21:09
2	Sc RADIAL	59016.0	59016.0	100.0 %		04:20:05
2	Al 396.153Radial†	90191.4	90242.4	67456 µg/L	67456 ppb	04:20:05
2	Ca 317.933Radial†	17950.5	17766.0	16296 µg/L	16296 ppb	04:20:05
2	Fe 238.204 Radial†	10028.0	10017.3	86001 µg/L	86001 ppb	04:20:25
2	K 766.490 Radial†	15555.7	15364.6	10565 µg/L	10565 ppb	04:20:05
2	Mg 279.077 IEC†	1296.9	1285.4	12426 µg/L	12426 ppb	04:20:25
2	Na 589.592 Radial†	16797.6	16331.8	5339.3 µg/L	5339.3 ppb	04:20:05
2	Sr 421.552†	56425.0	56410.1	554.81 µg/L	554.81 ppb	04:20:05
2	Sc 361.383	2109975.5	2109975.5	100.49 %		04:21:37
2	Y 371.029	1499584.9	1499584.9	103.03 %		04:21:37
2	Ag 328.068†	62553.3	62709.8	476.38 µg/L	476.38 ppb	04:21:43
2	As 188.979†	291.5	290.4	526.03 µg/L	526.03 ppb	04:22:03
2	B 249.677†	12394.1	12007.8	447.09 µg/L	447.09 ppb	04:21:43
2	Ba 233.527†	35558.1	35402.2	868.41 µg/L	868.41 ppb	04:21:43
2	Be 313.107†	832174.2	831854.0	501.13 µg/L	501.13 ppb	04:21:37
2	Cd 226.502†	19092.7	19135.8	472.22 µg/L	472.22 ppb	04:21:43
2	Co 228.616†	10773.0	10717.6	489.73 µg/L	489.73 ppb	04:21:43
2	Cr 267.716†	22538.4	22475.3	458.66 µg/L	458.66 ppb	04:21:43
2	Cu 324.752†	69603.2	66392.3	452.37 µg/L	452.37 ppb	04:21:43
2	Mn 257.610†	596932.4	594309.1	1902.7 µg/L	1902.7 ppb	04:21:37
2	Mo 202.031†	4023.4	4007.0	404.75 µg/L	404.75 ppb	04:22:03
2	Ni 231.604†	8811.7	8459.9	428.08 µg/L	428.08 ppb	04:21:43
2	P 214.914†	640.3	621.0	1144.0 µg/L	1144.0 ppb	04:22:03
2	Pb 220.353†	2542.1	2434.8	599.07 µg/L	599.07 ppb	04:22:03

2	S 181.975 Axial†	1095.3	1072.7	4446.4 µg/L	4446.4 ppb	04:22:03
2	Sb 206.836†	426.9	402.7	367.60 µg/L	367.60 ppb	04:22:03
2	Se 196.026†	274.3	258.0	572.78 µg/L	572.78 ppb	04:22:03
2	SiO2†	182918.4	180537.4	36153 µg/L	36153 ppb	04:21:37
2	Si 251.611†	218827.7	217461.6	16784 µg/L	16784 ppb	04:21:37
2	Sn 189.927†	1006.8	997.2	418.65 µg/L	418.65 ppb	04:22:03
2	Ti 334.940†	1461701.2	1454394.8	3307.1 µg/L	3307.1 ppb	04:21:37
2	Tl 190.801†	242.5	263.5	404.26 µg/L	404.26 ppb	04:22:03
2	U 409.014†	10023.8	9975.4	833.60 µg/L	833.60 ppb	04:21:43
2	V 292.402†	48604.9	48462.6	494.55 µg/L	494.55 ppb	04:21:43
2	Zn 213.857†	32695.1	32032.9	748.61 µg/L	748.61 ppb	04:21:43
3	Sc RADIAL	58399.2	58399.2	98.9 %		04:20:30
3	Al 396.153Radial†	89601.4	90598.8	67723 µg/L	67723 ppb	04:20:30
3	Ca 317.933Radial†	17688.7	17690.9	16227 µg/L	16227 ppb	04:20:30
3	Fe 238.204 Radial†	10026.4	10121.7	86897 µg/L	86897 ppb	04:20:51
3	K 766.490 Radial†	15361.2	15332.3	10543 µg/L	10543 ppb	04:20:30
3	Mg 279.077 IEC†	1314.5	1317.0	12731 µg/L	12731 ppb	04:20:51
3	Na 589.592 Radial†	16670.2	16380.5	5355.2 µg/L	5355.2 ppb	04:20:30
3	Sr 421.552†	55916.6	56492.3	555.61 µg/L	555.61 ppb	04:20:30
3	Sc 361.383	2095906.8	2095906.8	99.823 %		04:22:10
3	Y 371.029	1490403.5	1490403.5	102.40 %		04:22:10
3	Ag 328.068†	62220.9	62794.6	476.99 µg/L	476.99 ppb	04:22:16
3	As 188.979†	263.9	264.7	479.92 µg/L	479.92 ppb	04:22:36
3	B 249.677†	12247.2	11943.4	443.97 µg/L	443.97 ppb	04:22:16
3	Ba 233.527†	34642.2	34722.1	851.73 µg/L	851.73 ppb	04:22:16
3	Be 313.107†	810834.0	816034.5	491.60 µg/L	491.60 ppb	04:22:10
3	Cd 226.502†	18754.2	18924.2	466.79 µg/L	466.79 ppb	04:22:16
3	Co 228.616†	10464.7	10480.7	478.88 µg/L	478.88 ppb	04:22:16
3	Cr 267.716†	21843.7	21929.9	447.53 µg/L	447.53 ppb	04:22:16
3	Cu 324.752†	68008.1	65259.3	444.97 µg/L	444.97 ppb	04:22:16
3	Mn 257.610†	583328.5	584668.2	1872.1 µg/L	1872.1 ppb	04:22:10
3	Mo 202.031†	3756.0	3766.0	380.64 µg/L	380.64 ppb	04:22:36
3	Ni 231.604†	8639.9	8346.6	422.38 µg/L	422.38 ppb	04:22:16
3	P 214.914†	609.1	593.9	1090.1 µg/L	1090.1 ppb	04:22:36
3	Pb 220.353†	2451.9	2361.5	580.97 µg/L	580.97 ppb	04:22:36
3	S 181.975 Axial†	1049.8	1034.4	4287.8 µg/L	4287.8 ppb	04:22:36
3	Sb 206.836†	404.5	383.1	349.43 µg/L	349.43 ppb	04:22:36
3	Se 196.026†	251.9	237.4	546.77 µg/L	546.77 ppb	04:22:36
3	SiO2†	175962.4	174790.8	35002 µg/L	35002 ppb	04:22:10
3	Si 251.611†	210614.3	210695.3	16262 µg/L	16262 ppb	04:22:10
3	Sn 189.927†	936.4	933.4	391.31 µg/L	391.31 ppb	04:22:36
3	Ti 334.940†	1423011.7	1425400.1	3241.2 µg/L	3241.2 ppb	04:22:10
3	Tl 190.801†	235.4	258.0	396.40 µg/L	396.40 ppb	04:22:36
3	U 409.014†	9651.4	9669.3	807.50 µg/L	807.50 ppb	04:22:16
3	V 292.402†	47205.6	47385.6	483.76 µg/L	483.76 ppb	04:22:16
3	Zn 213.857†	32041.8	31596.8	738.30 µg/L	738.30 ppb	04:22:16

Mean Data: 1202036653|950379|1

Analyte	Mean Corrected	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	2096857.6	99.868 %		0.6034				0.60%
Sc RADIAL	58730.2	99.5 %		0.53				0.53%
Y 371.029	1490574.7	102.41 %		0.613				0.60%
Ag 328.068†	63229.2	480.28 µg/L		6.227	480.28 ppb		6.227	1.30%
Al 396.153Radial†	90411.3	67583 µg/L		134.0	67583 ppb		134.0	0.20%
As 188.979†	278.7	505.14 µg/L		23.356	505.14 ppb		23.356	4.62%
B 249.677†	12066.9	449.30 µg/L		6.713	449.30 ppb		6.713	1.49%
Ba 233.527†	35457.5	869.77 µg/L		18.755	869.77 ppb		18.755	2.16%
Be 313.107†	826946.4	498.17 µg/L		5.701	498.17 ppb		5.701	1.14%
Ca 317.933Radial†	17740.2	16272 µg/L		39.1	16272 ppb		39.1	0.24%
Cd 226.502†	19240.5	474.82 µg/L		9.589	474.82 ppb		9.589	2.02%
Co 228.616†	10737.0	490.66 µg/L		12.281	490.66 ppb		12.281	2.50%
Cr 267.716†	22483.3	458.82 µg/L		11.374	458.82 ppb		11.374	2.48%
Cu 324.752†	66557.4	453.52 µg/L		9.172	453.52 ppb		9.172	2.02%
Fe 238.204 Radial†	10063.9	86401 µg/L		455.6	86401 ppb		455.6	0.53%
K 766.490 Radial†	15342.8	10550 µg/L		13.0	10550 ppb		13.0	0.12%
Mg 279.077 IEC†	1301.5	12582 µg/L		153.0	12582 ppb		153.0	1.22%
Mn 257.610†	591922.7	1895.2 µg/L		20.34	1895.2 ppb		20.34	1.07%
Mo 202.031†	3944.3	398.49 µg/L		15.691	398.49 ppb		15.691	3.94%
Na 589.592 Radial†	16347.1	5344.3 µg/L		9.45	5344.3 ppb		9.45	0.18%

Ni 231.604†	8514.0	430.82 µg/L	10.093	430.82 ppb	10.093	2.34%
P 214.914†	619.1	1139.8 µg/L	47.77	1139.8 ppb	47.77	4.19%
Pb 220.353†	2428.0	597.38 µg/L	15.623	597.38 ppb	15.623	2.62%
S 181.975 Axial†	1067.1	4423.2 µg/L	125.48	4423.2 ppb	125.48	2.84%
Sb 206.836†	400.4	365.40 µg/L	14.997	365.40 ppb	14.997	4.10%
Se 196.026†	253.4	567.52 µg/L	18.692	567.52 ppb	18.692	3.29%
SiO2†	178656.0	35776 µg/L	670.4	35776 ppb	670.4	1.87%
Si 251.611†	215235.8	16613 µg/L	303.5	16613 ppb	303.5	1.83%
Sn 189.927†	981.0	411.69 µg/L	17.945	411.69 ppb	17.945	4.36%
Sr 421.552†	56457.3	555.27 µg/L	0.417	555.27 ppb	0.417	0.08%
Ti 334.940†	1446027.9	3288.1 µg/L	40.88	3288.1 ppb	40.88	1.24%
Tl 190.801†	262.9	403.37 µg/L	6.571	403.37 ppb	6.571	1.63%
U 409.014†	9940.0	830.53 µg/L	21.666	830.53 ppb	21.666	2.61%
V 292.402†	48470.4	494.62 µg/L	10.897	494.62 ppb	10.897	2.20%
Zn 213.857†	32155.0	751.45 µg/L	14.780	751.45 ppb	14.780	1.97%

Sequence No.: 90

Sample ID: 1202036654|950379|1

Analyst: JWJ

Initial Sample Wt:

Dilution:

Autosampler Location: 414

Date Collected: 2/21/2010 04:22:45

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202036654|950379|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	58861.0	58861.0	99.7 %		04:23:18
1	Al 396.153Radial†	81885.1	82148.0	61405 µg/L	61405 ppb	04:23:18
1	Ca 317.933Radial†	16454.9	16313.1	14963 µg/L	14963 ppb	04:23:18
1	Fe 238.204 Radial†	10813.3	10831.4	92990 µg/L	92990 ppb	04:23:38
1	K 766.490 Radial†	14638.0	14485.1	9960.2 µg/L	9960.2 ppb	04:23:18
1	Mg 279.077 IEC†	1233.4	1225.2	11831 µg/L	11831 ppb	04:23:38
1	Na 589.592 Radial†	16961.2	16540.2	5407.5 µg/L	5407.5 ppb	04:23:18
1	Sr 421.552†	55878.6	56010.7	550.88 µg/L	550.88 ppb	04:23:18
1	Sc 361.383	2083059.3	2083059.3	99.211 %		04:24:43
1	Y 371.029	1484984.9	1484984.9	102.03 %		04:24:43
1	Ag 328.068†	63696.6	64666.5	491.39 µg/L	491.39 ppb	04:24:48
1	As 188.979†	287.6	290.2	526.24 µg/L	526.24 ppb	04:25:09
1	B 249.677†	12612.3	12387.2	458.95 µg/L	458.95 ppb	04:24:48
1	Ba 233.527†	33641.1	33927.1	832.26 µg/L	832.26 ppb	04:24:48
1	Be 313.107†	830739.0	841107.6	506.71 µg/L	506.71 ppb	04:24:43
1	Cd 226.502†	19494.1	19785.8	487.78 µg/L	487.78 ppb	04:24:48
1	Co 228.616†	10910.6	10994.8	502.48 µg/L	502.48 ppb	04:24:48
1	Cr 267.716†	21864.3	22085.6	450.71 µg/L	450.71 ppb	04:24:48
1	Cu 324.752†	66680.2	64341.0	439.73 µg/L	439.73 ppb	04:24:48
1	Mn 257.610†	553243.7	557948.1	1787.9 µg/L	1787.9 ppb	04:24:43
1	Mo 202.031†	3886.1	3920.4	396.34 µg/L	396.34 ppb	04:25:09
1	Ni 231.604†	8538.3	8297.6	419.95 µg/L	419.95 ppb	04:24:48
1	P 214.914†	669.2	658.3	1212.1 µg/L	1212.1 ppb	04:25:09
1	Pb 220.353†	2643.6	2569.8	631.48 µg/L	631.48 ppb	04:25:09
1	S 181.975 Axial†	1037.3	1028.3	4262.3 µg/L	4262.3 ppb	04:25:09
1	Sb 206.836†	416.8	398.0	363.36 µg/L	363.36 ppb	04:25:09
1	Se 196.026†	242.6	229.5	553.83 µg/L	553.83 ppb	04:25:09
1	SiO2†	161218.7	161017.1	32244 µg/L	32244 ppb	04:24:48
1	Si 251.611†	194908.0	196165.3	15141 µg/L	15141 ppb	04:24:43
1	Sn 189.927†	960.5	963.4	403.41 µg/L	403.41 ppb	04:25:09
1	Ti 334.940†	1458078.5	1469538.0	3341.6 µg/L	3341.6 ppb	04:24:43
1	Tl 190.801†	240.1	264.2	405.86 µg/L	405.86 ppb	04:25:09
1	U 409.014†	12237.2	12335.3	1033.0 µg/L	1033.0 ppb	04:24:48
1	V 292.402†	47605.7	48080.5	491.71 µg/L	491.71 ppb	04:24:48
1	Zn 213.857†	33420.5	33184.5	775.55 µg/L	775.55 ppb	04:24:48
2	Sc RADIAL	58810.6	58810.6	99.6 %		04:23:44
2	Al 396.153Radial†	81809.3	82142.2	61401 µg/L	61401 ppb	04:23:44
2	Ca 317.933Radial†	16382.2	16254.2	14909 µg/L	14909 ppb	04:23:44
2	Fe 238.204 Radial†	10822.4	10849.9	93148 µg/L	93148 ppb	04:24:04
2	K 766.490 Radial†	14655.9	14515.5	9981.1 µg/L	9981.1 ppb	04:23:44
2	Mg 279.077 IEC†	1235.1	1228.0	11859 µg/L	11859 ppb	04:24:04
2	Na 589.592 Radial†	16937.8	16531.2	5404.5 µg/L	5404.5 ppb	04:23:44
2	Sr 421.552†	55794.7	55974.5	550.52 µg/L	550.52 ppb	04:23:44
2	Sc 361.383	2094886.4	2094886.4	99.774 %		04:25:16
2	Y 371.029	1493149.1	1493149.1	102.59 %		04:25:16
2	Ag 328.068†	64030.6	64638.8	491.19 µg/L	491.19 ppb	04:25:22
2	As 188.979†	292.6	293.5	532.19 µg/L	532.19 ppb	04:25:42
2	B 249.677†	12700.3	12403.6	459.54 µg/L	459.54 ppb	04:25:22
2	Ba 233.527†	33838.3	33933.3	832.41 µg/L	832.41 ppb	04:25:22
2	Be 313.107†	835264.3	840915.7	506.59 µg/L	506.59 ppb	04:25:16
2	Cd 226.502†	19623.5	19804.6	488.24 µg/L	488.24 ppb	04:25:22
2	Co 228.616†	10985.7	11008.0	503.10 µg/L	503.10 ppb	04:25:22
2	Cr 267.716†	21969.1	22066.3	450.32 µg/L	450.32 ppb	04:25:22
2	Cu 324.752†	67049.5	64331.7	439.69 µg/L	439.69 ppb	04:25:22
2	Mn 257.610†	557232.8	558798.0	1790.6 µg/L	1790.6 ppb	04:25:16
2	Mo 202.031†	3869.3	3881.4	392.44 µg/L	392.44 ppb	04:25:42
2	Ni 231.604†	8624.9	8335.8	421.89 µg/L	421.89 ppb	04:25:22
2	P 214.914†	664.0	649.2	1193.9 µg/L	1193.9 ppb	04:25:42
2	Pb 220.353†	2622.6	2533.7	622.57 µg/L	622.57 ppb	04:25:42



2	S 181.975 Axial†	1035.6	1020.7	4230.9 µg/L	4230.9 ppb	04:25:42
2	Sb 206.836†	417.4	396.2	361.71 µg/L	361.71 ppb	04:25:42
2	Se 196.026†	250.4	236.0	563.11 µg/L	563.11 ppb	04:25:42
2	SiO2†	162051.8	160934.6	32227 µg/L	32227 ppb	04:25:22
2	Si 251.611†	195596.1	195745.7	15108 µg/L	15108 ppb	04:25:16
2	Sn 189.927†	955.9	953.3	399.07 µg/L	399.07 ppb	04:25:42
2	Ti 334.940†	1464878.1	1468055.7	3338.2 µg/L	3338.2 ppb	04:25:16
2	Tl 190.801†	232.4	255.2	393.79 µg/L	393.79 ppb	04:25:42
2	U 409.014†	12361.4	12390.1	1037.6 µg/L	1037.6 ppb	04:25:22
2	V 292.402†	47905.6	48110.1	492.00 µg/L	492.00 ppb	04:25:22
2	Zn 213.857†	33620.8	33195.0	775.78 µg/L	775.78 ppb	04:25:22
3	Sc RADIAL	59013.3	59013.3	99.9 %		04:24:10
3	Al 396.153Radial†	82180.1	82231.1	61468 µg/L	61468 ppb	04:24:10
3	Ca 317.933Radial†	16448.8	16264.3	14919 µg/L	14919 ppb	04:24:10
3	Fe 238.204 Radial†	10772.4	10762.6	92399 µg/L	92399 ppb	04:24:30
3	K 766.490 Radial†	14720.7	14529.9	9991.0 µg/L	9991.0 ppb	04:24:10
3	Mg 279.077 IEC†	1233.0	1221.6	11797 µg/L	11797 ppb	04:24:30
3	Na 589.592 Radial†	16999.3	16534.3	5405.5 µg/L	5405.5 ppb	04:24:10
3	Sr 421.552†	56043.7	56031.3	551.08 µg/L	551.08 ppb	04:24:10
3	Sc 361.383	2087289.4	2087289.4	99.412 %		04:25:49
3	Y 371.029	1488539.4	1488539.4	102.27 %		04:25:49
3	Ag 328.068†	62608.5	63441.9	482.09 µg/L	482.09 ppb	04:25:55
3	As 188.979†	270.5	272.4	494.22 µg/L	494.22 ppb	04:26:15
3	B 249.677†	12331.6	12079.0	446.62 µg/L	446.62 ppb	04:25:55
3	Ba 233.527†	32491.6	32702.1	802.21 µg/L	802.21 ppb	04:25:55
3	Be 313.107†	816746.9	825335.8	497.21 µg/L	497.21 ppb	04:25:49
3	Cd 226.502†	18936.1	19184.7	472.71 µg/L	472.71 ppb	04:25:55
3	Co 228.616†	10471.3	10530.7	481.12 µg/L	481.12 ppb	04:25:55
3	Cr 267.716†	20911.5	21082.6	430.24 µg/L	430.24 ppb	04:25:55
3	Cu 324.752†	64453.6	61965.1	423.89 µg/L	423.89 ppb	04:25:55
3	Mn 257.610†	544966.0	548491.3	1757.7 µg/L	1757.7 ppb	04:25:49
3	Mo 202.031†	3630.5	3655.3	369.75 µg/L	369.75 ppb	04:26:15
3	Ni 231.604†	8300.3	8040.8	407.00 µg/L	407.00 ppb	04:25:55
3	P 214.914†	628.6	616.1	1129.9 µg/L	1129.9 ppb	04:26:15
3	Pb 220.353†	2503.9	2423.9	595.60 µg/L	595.60 ppb	04:26:15
3	S 181.975 Axial†	1002.8	991.4	4109.8 µg/L	4109.8 ppb	04:26:15
3	Sb 206.836†	388.5	368.7	336.44 µg/L	336.44 ppb	04:26:15
3	Se 196.026†	240.2	226.7	548.32 µg/L	548.32 ppb	04:26:15
3	SiO2†	152147.9	151563.2	30351 µg/L	30351 ppb	04:25:55
3	Si 251.611†	189227.4	190053.0	14669 µg/L	14669 ppb	04:25:49
3	Sn 189.927†	903.1	903.7	377.93 µg/L	377.93 ppb	04:26:15
3	Ti 334.940†	1430787.1	1439106.7	3272.4 µg/L	3272.4 ppb	04:25:49
3	Tl 190.801†	223.4	247.0	382.02 µg/L	382.02 ppb	04:26:15
3	U 409.014†	11770.2	11840.6	991.07 µg/L	991.07 ppb	04:25:55
3	V 292.402†	45764.1	46130.8	472.06 µg/L	472.06 ppb	04:25:55
3	Zn 213.857†	32338.5	32027.8	748.37 µg/L	748.37 ppb	04:25:55

Mean Data: 1202036654|950379|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2088411.7	99.466 %	0.2854			0.29%
Sc RADIAL	58895.0	99.7 %	0.18			0.18%
Y 371.029	1488891.1	102.30 %	0.281			0.27%
Ag 328.068†	64249.1	488.22 µg/L	5.314	488.22 ppb	5.314	1.09%
Al 396.153Radial†	82173.8	61425 µg/L	37.5	61425 ppb	37.5	0.06%
As 188.979†	285.4	517.55 µg/L	20.422	517.55 ppb	20.422	3.95%
B 249.677†	12289.9	455.04 µg/L	7.295	455.04 ppb	7.295	1.60%
Ba 233.527†	33520.8	822.29 µg/L	17.396	822.29 ppb	17.396	2.12%
Be 313.107†	835786.4	503.50 µg/L	5.451	503.50 ppb	5.451	1.08%
Ca 317.933Radial†	16277.2	14930 µg/L	28.9	14930 ppb	28.9	0.19%
Cd 226.502†	19591.7	482.91 µg/L	8.837	482.91 ppb	8.837	1.83%
Co 228.616†	10844.5	495.57 µg/L	12.519	495.57 ppb	12.519	2.53%
Cr 267.716†	21744.8	443.76 µg/L	11.705	443.76 ppb	11.705	2.64%
Cu 324.752†	63545.9	434.44 µg/L	9.135	434.44 ppb	9.135	2.10%
Fe 238.204 Radial†	10814.6	92846 µg/L	395.2	92846 ppb	395.2	0.43%
K 766.490 Radial†	14510.2	9977.4 µg/L	15.74	9977.4 ppb	15.74	0.16%
Mg 279.077 IEC†	1224.9	11829 µg/L	30.8	11829 ppb	30.8	0.26%
Mn 257.610†	555079.2	1778.8 µg/L	18.26	1778.8 ppb	18.26	1.03%
Mo 202.031†	3819.0	386.18 µg/L	14.357	386.18 ppb	14.357	3.72%
Na 589.592 Radial†	16535.2	5405.8 µg/L	1.50	5405.8 ppb	1.50	0.03%

Ni 231.604†	8224.7	416.28 µg/L	8.098	416.28 ppb	8.098	1.95%
P 214.914†	641.2	1178.6 µg/L	43.15	1178.6 ppb	43.15	3.66%
Pb 220.353†	2509.1	616.55 µg/L	18.682	616.55 ppb	18.682	3.03%
S 181.975 Axial†	1013.5	4201.0 µg/L	80.56	4201.0 ppb	80.56	1.92%
Sb 206.836†	387.6	353.84 µg/L	15.089	353.84 ppb	15.089	4.26%
Se 196.026†	230.7	555.08 µg/L	7.473	555.08 ppb	7.473	1.35%
SiO2†	157838.3	31607 µg/L	1088.3	31607 ppb	1088.3	3.44%
Si 251.611†	193988.0	14973 µg/L	263.5	14973 ppb	263.5	1.76%
Sn 189.927†	940.2	393.47 µg/L	13.631	393.47 ppb	13.631	3.46%
Sr 421.552†	56005.5	550.83 µg/L	0.283	550.83 ppb	0.283	0.05%
Ti 334.940†	1458900.1	3317.4 µg/L	39.02	3317.4 ppb	39.02	1.18%
Tl 190.801†	255.5	393.89 µg/L	11.921	393.89 ppb	11.921	3.03%
U 409.014†	12188.7	1020.6 µg/L	25.63	1020.6 ppb	25.63	2.51%
V 292.402†	47440.5	485.26 µg/L	11.429	485.26 ppb	11.429	2.36%
Zn 213.857†	32802.4	766.57 µg/L	15.763	766.57 ppb	15.763	2.06%

Sequence No.: 91

Sample ID: 1202036652|950379|5

Analyst: JWJ

Initial Sample Wt:

Dilution:

Autosampler Location: 415

Date Collected: 2/21/2010 04:26:24

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202036652|950379|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	58195.0	58195.0	98.6 %		04:26:57
1	Al 396.153Radial†	8499.0	8631.7	6452.9 µg/L	6452.9 ppb	04:26:57
1	Ca 317.933Radial†	2654.4	2500.1	2293.3 µg/L	2293.3 ppb	04:27:18
1	Fe 238.204 Radial†	1753.4	1763.6	15139 µg/L	15139 ppb	04:27:18
1	K 766.490 Radial†	1442.8	1265.4	870.12 µg/L	870.12 ppb	04:26:57
1	Mg 279.077 IEC†	116.1	105.7	1012.3 µg/L	1012.3 ppb	04:27:18
1	Na 589.592 Radial†	782.8	320.5	104.77 µg/L	104.77 ppb	04:26:57
1	Sr 421.552†	1485.0	1465.3	14.412 µg/L	14.412 ppb	04:26:57
1	Sc 361.383	2095476.4	2095476.4	99.802 %		04:28:20
1	Y 371.029	1452408.4	1452408.4	99.789 %		04:28:20
1	Ag 328.068†	-560.0	-98.0	0.3309 µg/L	0.3309 ppb	04:28:26
1	As 188.979†	-2.3	-2.0	-2.9072 µg/L	-2.9072 ppb	04:28:46
1	B 249.677†	481.3	156.8	-1.4599 µg/L	-1.4599 ppb	04:28:26
1	Ba 233.527†	2809.1	2833.0	69.454 µg/L	69.454 ppb	04:28:26
1	Be 313.107†	-1730.7	2024.7	1.0274 µg/L	1.0274 ppb	04:28:26
1	Cd 226.502†	-80.3	56.1	-0.2899 µg/L	-0.2899 ppb	04:28:46
1	Co 228.616†	78.2	75.8	2.4415 µg/L	2.4415 ppb	04:28:46
1	Cr 267.716†	709.8	758.6	15.480 µg/L	15.480 ppb	04:28:26
1	Cu 324.752†	3621.8	759.2	7.1408 µg/L	7.1408 ppb	04:28:26
1	Mn 257.610†	84420.5	84890.5	272.19 µg/L	272.19 ppb	04:28:26
1	Mo 202.031†	24.4	27.8	3.3559 µg/L	3.3559 ppb	04:28:46
1	Ni 231.604†	466.2	158.5	8.2049 µg/L	8.2049 ppb	04:28:46
1	P 214.914†	94.2	78.2	144.45 µg/L	144.45 ppb	04:28:46
1	Pb 220.353†	180.6	86.2	20.936 µg/L	20.936 ppb	04:28:46
1	S 181.975 Axial†	32.2	15.0	62.125 µg/L	62.125 ppb	04:28:46
1	Sb 206.836†	21.8	-0.3	-0.5728 µg/L	-0.5728 ppb	04:28:46
1	Se 196.026†	9.9	-5.0	32.945 µg/L	32.945 ppb	04:28:46
1	SiO2†	27102.4	25671.8	5140.8 µg/L	5140.8 ppb	04:28:26
1	Si 251.611†	31312.6	31081.2	2399.0 µg/L	2399.0 ppb	04:28:26
1	Sn 189.927†	8.5	3.8	0.1326 µg/L	0.1326 ppb	04:28:46
1	Ti 334.940†	225201.9	225506.9	512.85 µg/L	512.85 ppb	04:28:20
1	Tl 190.801†	-27.5	-5.3	0.9742 µg/L	0.9742 ppb	04:28:46
1	U 409.014†	517.2	519.0	41.802 µg/L	41.802 ppb	04:28:26
1	V 292.402†	1554.7	1653.8	18.244 µg/L	18.244 ppb	04:28:26
1	Zn 213.857†	3470.3	2975.3	69.398 µg/L	69.398 ppb	04:28:26
2	Sc RADIAL	58311.9	58311.9	98.8 %		04:27:23
2	Al 396.153Radial†	8503.6	8619.0	6443.5 µg/L	6443.5 ppb	04:27:23
2	Ca 317.933Radial†	2649.1	2489.4	2283.4 µg/L	2283.4 ppb	04:27:44
2	Fe 238.204 Radial†	1750.5	1757.1	15083 µg/L	15083 ppb	04:27:44
2	K 766.490 Radial†	1397.6	1216.7	836.65 µg/L	836.65 ppb	04:27:23
2	Mg 279.077 IEC†	121.2	110.7	1061.0 µg/L	1061.0 ppb	04:27:44
2	Na 589.592 Radial†	807.5	343.9	112.44 µg/L	112.44 ppb	04:27:23
2	Sr 421.552†	1487.1	1464.4	14.402 µg/L	14.402 ppb	04:27:23
2	Sc 361.383	2106442.8	2106442.8	100.32 %		04:28:53
2	Y 371.029	1460567.8	1460567.8	100.35 %		04:28:53
2	Ag 328.068†	-535.3	-70.4	0.5249 µg/L	0.5249 ppb	04:28:58
2	As 188.979†	4.5	4.7	9.2788 µg/L	9.2788 ppb	04:29:19
2	B 249.677†	455.8	128.9	-2.5748 µg/L	-2.5748 ppb	04:28:58
2	Ba 233.527†	2779.6	2789.0	68.372 µg/L	68.372 ppb	04:28:58
2	Be 313.107†	-1820.3	1944.4	0.9803 µg/L	0.9803 ppb	04:28:58
2	Cd 226.502†	-86.5	50.4	-0.4286 µg/L	-0.4286 ppb	04:29:19
2	Co 228.616†	87.0	84.2	2.8365 µg/L	2.8365 ppb	04:29:19
2	Cr 267.716†	702.6	747.7	15.259 µg/L	15.259 ppb	04:28:58
2	Cu 324.752†	3635.7	754.3	7.0999 µg/L	7.0999 ppb	04:28:58
2	Mn 257.610†	82410.0	82446.2	264.40 µg/L	264.40 ppb	04:28:58
2	Mo 202.031†	15.3	18.6	2.4368 µg/L	2.4368 ppb	04:29:19
2	Ni 231.604†	456.4	146.2	7.5822 µg/L	7.5822 ppb	04:29:19
2	P 214.914†	97.3	80.7	149.62 µg/L	149.62 ppb	04:29:19
2	Pb 220.353†	181.2	85.8	20.846 µg/L	20.846 ppb	04:29:19

2	S 181.975 Axial†	35.2	17.8	73.901 µg/L	73.901 ppb	04:29:19
2	Sb 206.836†	24.3	2.1	1.5670 µg/L	1.5670 ppb	04:29:19
2	Se 196.026†	0.0	-15.0	19.152 µg/L	19.152 ppb	04:29:19
2	SiO2†	26599.3	25028.9	5012.1 µg/L	5012.1 ppb	04:28:58
2	Si 251.611†	30588.4	30196.0	2330.6 µg/L	2330.6 ppb	04:28:58
2	Sn 189.927†	6.5	1.7	-0.7565 µg/L	-0.7565 ppb	04:29:19
2	Ti 334.940†	224794.8	223926.4	509.25 µg/L	509.25 ppb	04:28:53
2	Tl 190.801†	-28.9	-6.5	-0.7645 µg/L	-0.7645 ppb	04:29:19
2	U 409.014†	485.8	484.9	38.918 µg/L	38.918 ppb	04:28:58
2	V 292.402†	1440.3	1531.7	17.019 µg/L	17.019 ppb	04:28:58
2	Zn 213.857†	3403.6	2890.7	67.405 µg/L	67.405 ppb	04:28:58
3	Sc RADIAL	57652.4	57652.4	97.6 %		04:27:49
3	Al 396.153Radial†	8442.2	8654.6	6470.1 µg/L	6470.1 ppb	04:27:49
3	Ca 317.933Radial†	2643.0	2513.8	2305.8 µg/L	2305.8 ppb	04:28:09
3	Fe 238.204 Radial†	1747.9	1774.7	15234 µg/L	15234 ppb	04:28:09
3	K 766.490 Radial†	1377.4	1212.2	833.55 µg/L	833.55 ppb	04:27:49
3	Mg 279.077 IEC†	114.5	105.2	1007.1 µg/L	1007.1 ppb	04:28:09
3	Na 589.592 Radial†	738.1	282.2	92.266 µg/L	92.266 ppb	04:27:49
3	Sr 421.552†	1430.2	1423.3	13.999 µg/L	13.999 ppb	04:27:49
3	Sc 361.383	2103679.0	2103679.0	100.19 %		04:29:25
3	Y 371.029	1458561.8	1458561.8	100.21 %		04:29:25
3	Ag 328.068†	-560.6	-96.4	0.3390 µg/L	0.3390 ppb	04:29:31
3	As 188.979†	3.6	3.9	7.7383 µg/L	7.7383 ppb	04:29:51
3	B 249.677†	445.7	119.4	-3.0417 µg/L	-3.0417 ppb	04:29:31
3	Ba 233.527†	2602.4	2615.8	64.127 µg/L	64.127 ppb	04:29:31
3	Be 313.107†	-2084.6	1678.2	0.8273 µg/L	0.8273 ppb	04:29:31
3	Cd 226.502†	-89.4	47.4	-0.5229 µg/L	-0.5229 ppb	04:29:51
3	Co 228.616†	77.4	74.7	2.4415 µg/L	2.4415 ppb	04:29:51
3	Cr 267.716†	680.8	726.9	14.834 µg/L	14.834 ppb	04:29:31
3	Cu 324.752†	3519.6	643.1	6.3836 µg/L	6.3836 ppb	04:29:31
3	Mn 257.610†	76929.6	77084.3	247.36 µg/L	247.36 ppb	04:29:31
3	Mo 202.031†	16.5	19.8	2.5611 µg/L	2.5611 ppb	04:29:51
3	Ni 231.604†	444.7	135.2	7.0275 µg/L	7.0275 ppb	04:29:51
3	P 214.914†	85.9	69.5	127.23 µg/L	127.23 ppb	04:29:51
3	Pb 220.353†	168.0	72.9	17.667 µg/L	17.667 ppb	04:29:51
3	S 181.975 Axial†	35.1	17.7	73.572 µg/L	73.572 ppb	04:29:51
3	Sb 206.836†	26.8	4.6	3.8989 µg/L	3.8989 ppb	04:29:51
3	Se 196.026†	8.9	-6.1	31.686 µg/L	31.686 ppb	04:29:51
3	SiO2†	25310.0	23776.9	4761.3 µg/L	4761.3 ppb	04:29:31
3	Si 251.611†	29057.1	28707.7	2215.8 µg/L	2215.8 ppb	04:29:31
3	Sn 189.927†	4.8	0.1	-1.4802 µg/L	-1.4802 ppb	04:29:51
3	Ti 334.940†	215470.0	214913.9	488.75 µg/L	488.75 ppb	04:29:25
3	Tl 190.801†	-26.6	-4.3	2.0320 µg/L	2.0320 ppb	04:29:51
3	U 409.014†	431.5	431.4	34.355 µg/L	34.355 ppb	04:29:31
3	V 292.402†	1415.8	1509.0	16.808 µg/L	16.808 ppb	04:29:31
3	Zn 213.857†	3208.1	2700.0	62.903 µg/L	62.903 ppb	04:29:31

Mean Data: 1202036652|950379|5

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2101866.1	100.11 %	0.272			0.27%
Sc RADIAL	58053.1	98.3 %	0.60			0.61%
Y 371.029	1457179.3	100.12 %	0.292			0.29%
Ag 328.068†	-88.3	0.3983 µg/L	0.10976	0.3983 ppb	0.10976	27.56%
Al 396.153Radial†	8635.1	6455.5 µg/L	13.48	6455.5 ppb	13.48	0.21%
As 188.979†	2.2	4.7033 µg/L	6.63571	4.7033 ppb	6.63571	141.09%
B 249.677†	135.0	-2.3588 µg/L	0.81269	-2.3588 ppb	0.81269	34.45%
Ba 233.527†	2745.9	67.318 µg/L	2.8157	67.318 ppb	2.8157	4.18%
Be 313.107†	1882.5	0.9450 µg/L	0.10460	0.9450 ppb	0.10460	11.07%
Ca 317.933Radial†	2501.1	2294.2 µg/L	11.24	2294.2 ppb	11.24	0.49%
Cd 226.502†	51.3	-0.4138 µg/L	0.11721	-0.4138 ppb	0.11721	28.33%
Co 228.616†	78.2	2.5732 µg/L	0.22806	2.5732 ppb	0.22806	8.86%
Cr 267.716†	744.4	15.191 µg/L	0.3286	15.191 ppb	0.3286	2.16%
Cu 324.752†	718.9	6.8747 µg/L	0.42586	6.8747 ppb	0.42586	6.19%
Fe 238.204 Radial†	1765.1	15152 µg/L	76.4	15152 ppb	76.4	0.50%
K 766.490 Radial†	1231.5	846.77 µg/L	20.280	846.77 ppb	20.280	2.39%
Mg 279.077 IEC†	107.2	1026.8 µg/L	29.72	1026.8 ppb	29.72	2.89%
Mn 257.610†	81473.7	261.32 µg/L	12.702	261.32 ppb	12.702	4.86%
Mo 202.031†	22.0	2.7846 µg/L	0.49868	2.7846 ppb	0.49868	17.91%
Na 589.592 Radial†	315.5	103.16 µg/L	10.184	103.16 ppb	10.184	9.87%

Ni 231.604†	146.7	7.6049 µg/L	0.58904	7.6049 ppb	0.58904	7.75%
P 214.914†	76.1	140.43 µg/L	11.720	140.43 ppb	11.720	8.35%
Pb 220.353†	81.6	19.816 µg/L	1.8621	19.816 ppb	1.8621	9.40%
S 181.975 Axial†	16.9	69.866 µg/L	6.7063	69.866 ppb	6.7063	9.60%
Sb 206.836†	2.2	1.6310 µg/L	2.23651	1.6310 ppb	2.23651	137.12%
Se 196.026†	-8.7	27.928 µg/L	7.6257	27.928 ppb	7.6257	27.31%
SiO2†	24825.9	4971.4 µg/L	192.96	4971.4 ppb	192.96	3.88%
Si 251.611†	29995.0	2315.1 µg/L	92.58	2315.1 ppb	92.58	4.00%
Sn 189.927†	1.9	-0.7013 µg/L	0.80782	-0.7013 ppb	0.80782	115.18%
Sr 421.552†	1451.0	14.271 µg/L	0.2358	14.271 ppb	0.2358	1.65%
Ti 334.940†	221449.1	503.62 µg/L	12.996	503.62 ppb	12.996	2.58%
Tl 190.801†	-5.4	0.7472 µg/L	1.41204	0.7472 ppb	1.41204	188.97%
U 409.014†	478.5	38.358 µg/L	3.7549	38.358 ppb	3.7549	9.79%
V 292.402†	1564.8	17.357 µg/L	0.7757	17.357 ppb	0.7757	4.47%
Zn 213.857†	2855.3	66.569 µg/L	3.3272	66.569 ppb	3.3272	5.00%

Sequence No.: 92

Sample ID: 246336002|950379|1

Analyst: JWJ

Initial Sample Wt:

Dilution:

Autosampler Location: 416

Date Collected: 2/21/2010 04:30:02

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 246336002|950379|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	58539.6	58539.6	99.1 %			04:30:34
1	Al 396.153Radial†	52262.3	52721.0	39414 µg/L		39414 ppb	04:30:34
1	Ca 317.933Radial†	24700.8	24720.5	22675 µg/L		22675 ppb	04:30:34
1	Fe 238.204 Radial†	7395.6	7443.9	63900 µg/L		63900 ppb	04:30:55
1	K 766.490 Radial†	11504.5	11405.2	7842.4 µg/L		7842.4 ppb	04:30:34
1	Mg 279.077 IEC†	888.5	884.1	8536.2 µg/L		8536.2 ppb	04:30:55
1	Na 589.592 Radial†	1630.7	1171.0	382.83 µg/L		382.83 ppb	04:30:34
1	Sr 421.552†	15634.3	15727.5	154.68 µg/L		154.68 ppb	04:30:34
1	Sc 361.383	2075318.0	2075318.0	98.842 %			04:31:59
1	Y 371.029	1464013.8	1464013.8	100.59 %			04:31:59
1	Ag 328.068†	-1125.6	-675.7	-0.4839 µg/L		-0.4839 ppb	04:32:04
1	As 188.979†	13.1	13.5	26.841 µg/L		26.841 ppb	04:32:25
1	B 249.677†	971.6	657.5	-6.3801 µg/L		-6.3801 ppb	04:32:04
1	Ba 233.527†	36065.2	36506.1	894.75 µg/L		894.75 ppb	04:32:04
1	Be 313.107†	4688.5	8502.2	4.2936 µg/L		4.2936 ppb	04:32:04
1	Cd 226.502†	94.6	232.3	-1.3452 µg/L		-1.3452 ppb	04:32:25
1	Co 228.616†	607.8	612.4	23.751 µg/L		23.751 ppb	04:32:25
1	Cr 267.716†	1929.8	1999.8	40.834 µg/L		40.834 ppb	04:32:25
1	Cu 324.752†	19227.2	16582.7	118.88 µg/L		118.88 ppb	04:32:04
1	Mn 257.610†	921378.6	932476.4	2976.4 µg/L		2976.4 ppb	04:31:59
1	Mo 202.031†	31.3	35.0	5.9386 µg/L		5.9386 ppb	04:32:25
1	Ni 231.604†	905.9	607.9	31.518 µg/L		31.518 ppb	04:32:25
1	P 214.914†	780.8	773.7	1486.2 µg/L		1486.2 ppb	04:32:25
1	Pb 220.353†	871.2	786.6	189.66 µg/L		189.66 ppb	04:32:25
1	S 181.975 Axial†	172.3	157.0	650.88 µg/L		650.88 ppb	04:32:25
1	Sb 206.836†	36.0	14.3	10.652 µg/L		10.652 ppb	04:32:25
1	Se 196.026†	-23.9	-39.2	107.03 µg/L		107.03 ppb	04:32:25
1	SiO2†	136344.3	136457.4	27326 µg/L		27326 ppb	04:32:04
1	Si 251.611†	164519.0	166153.0	12824 µg/L		12824 ppb	04:31:59
1	Sn 189.927†	-0.5	-5.3	-8.1737 µg/L		-8.1737 ppb	04:32:25
1	Ti 334.940†	959680.3	970782.6	2207.6 µg/L		2207.6 ppb	04:31:59
1	Tl 190.801†	-47.5	-25.9	10.816 µg/L		10.816 ppb	04:32:25
1	U 409.014†	38696.1	39150.2	3312.1 µg/L		3312.1 ppb	04:32:04
1	V 292.402†	7941.8	8130.9	91.525 µg/L		91.525 ppb	04:32:04
1	Zn 213.857†	15136.9	14812.4	345.75 µg/L		345.75 ppb	04:32:04
2	Sc RADIAL	58206.8	58206.8	98.6 %			04:31:00
2	Al 396.153Radial†	52240.4	53000.2	39622 µg/L		39622 ppb	04:31:00
2	Ca 317.933Radial†	24587.9	24748.4	22701 µg/L		22701 ppb	04:31:00
2	Fe 238.204 Radial†	7378.6	7469.3	64118 µg/L		64118 ppb	04:31:21
2	K 766.490 Radial†	11491.3	11458.1	7878.8 µg/L		7878.8 ppb	04:31:00
2	Mg 279.077 IEC†	892.5	893.3	8625.6 µg/L		8625.6 ppb	04:31:21
2	Na 589.592 Radial†	1650.2	1200.2	392.38 µg/L		392.38 ppb	04:31:00
2	Sr 421.552†	15599.0	15781.9	155.22 µg/L		155.22 ppb	04:31:00
2	Sc 361.383	2078353.9	2078353.9	98.987 %			04:32:32
2	Y 371.029	1467143.0	1467143.0	100.80 %			04:32:32
2	Ag 328.068†	-1122.3	-670.7	-0.4324 µg/L		-0.4324 ppb	04:32:37
2	As 188.979†	8.5	8.9	18.547 µg/L		18.547 ppb	04:32:58
2	B 249.677†	931.4	615.5	-8.2137 µg/L		-8.2137 ppb	04:32:37
2	Ba 233.527†	35938.5	36324.8	890.30 µg/L		890.30 ppb	04:32:37
2	Be 313.107†	4643.1	8449.5	4.2620 µg/L		4.2620 ppb	04:32:37
2	Cd 226.502†	97.8	235.4	-1.2909 µg/L		-1.2909 ppb	04:32:58
2	Co 228.616†	592.0	595.4	22.968 µg/L		22.968 ppb	04:32:58
2	Cr 267.716†	1924.2	1991.3	40.661 µg/L		40.661 ppb	04:32:58
2	Cu 324.752†	19253.7	16581.1	118.90 µg/L		118.90 ppb	04:32:37
2	Mn 257.610†	921814.8	931555.4	2973.5 µg/L		2973.5 ppb	04:32:32
2	Mo 202.031†	29.0	32.6	5.7031 µg/L		5.7031 ppb	04:32:58
2	Ni 231.604†	925.0	625.9	32.432 µg/L		32.432 ppb	04:32:58
2	P 214.914†	763.8	755.3	1449.5 µg/L		1449.5 ppb	04:32:58
2	Pb 220.353†	873.9	788.1	190.03 µg/L		190.03 ppb	04:32:58

2	S 181.975 Axial†	174.4	158.9	658.50 µg/L	658.50 ppb	04:32:58
2	Sb 206.836†	36.8	15.1	11.361 µg/L	11.361 ppb	04:32:58
2	Se 196.026†	-21.9	-37.1	110.32 µg/L	110.32 ppb	04:32:58
2	SiO2†	135652.8	135557.3	27145 µg/L	27145 ppb	04:32:37
2	Si 251.611†	164718.2	166111.1	12821 µg/L	12821 ppb	04:32:32
2	Sn 189.927†	-5.6	-10.4	-10.388 µg/L	-10.388 ppb	04:32:58
2	Ti 334.940†	960860.3	970556.4	2207.1 µg/L	2207.1 ppb	04:32:32
2	Tl 190.801†	-53.9	-32.3	2.2770 µg/L	2.2770 ppb	04:32:58
2	U 409.014†	38567.2	38962.8	3296.2 µg/L	3296.2 ppb	04:32:37
2	V 292.402†	7960.5	8138.0	91.602 µg/L	91.602 ppb	04:32:37
2	Zn 213.857†	15056.1	14708.4	343.27 µg/L	343.27 ppb	04:32:37
3	Sc RADIAL	57744.4	57744.4	97.8 %		04:31:26
3	Al 396.153Radial†	52081.3	53261.8	39818 µg/L	39818 ppb	04:31:26
3	Ca 317.933Radial†	24374.0	24729.5	22683 µg/L	22683 ppb	04:31:26
3	Fe 238.204 Radial†	7352.0	7502.1	64400 µg/L	64400 ppb	04:31:47
3	K 766.490 Radial†	11504.3	11564.8	7952.1 µg/L	7952.1 ppb	04:31:26
3	Mg 279.077 IEC†	889.4	897.4	8665.1 µg/L	8665.1 ppb	04:31:47
3	Na 589.592 Radial†	1620.6	1183.3	386.87 µg/L	386.87 ppb	04:31:26
3	Sr 421.552†	15477.1	15784.0	155.24 µg/L	155.24 ppb	04:31:26
3	Sc 361.383	2077684.9	2077684.9	98.955 %		04:33:05
3	Y 371.029	1465244.8	1465244.8	100.67 %		04:33:05
3	Ag 328.068†	-1125.4	-674.1	-0.4607 µg/L	-0.4607 ppb	04:33:10
3	As 188.979†	9.9	10.3	21.109 µg/L	21.109 ppb	04:33:31
3	B 249.677†	932.2	616.5	-8.3218 µg/L	-8.3218 ppb	04:33:10
3	Ba 233.527†	34830.5	35216.8	863.15 µg/L	863.15 ppb	04:33:10
3	Be 313.107†	4272.8	8076.8	4.0566 µg/L	4.0566 ppb	04:33:10
3	Cd 226.502†	84.4	221.9	-1.6649 µg/L	-1.6649 ppb	04:33:31
3	Co 228.616†	552.9	556.2	21.257 µg/L	21.257 ppb	04:33:31
3	Cr 267.716†	1774.4	1840.5	37.584 µg/L	37.584 ppb	04:33:31
3	Cu 324.752†	18547.1	15873.3	114.25 µg/L	114.25 ppb	04:33:10
3	Mn 257.610†	902873.9	912714.3	2913.5 µg/L	2913.5 ppb	04:33:05
3	Mo 202.031†	32.4	36.0	6.0566 µg/L	6.0566 ppb	04:33:31
3	Ni 231.604†	867.5	568.0	29.513 µg/L	29.513 ppb	04:33:31
3	P 214.914†	722.3	713.7	1367.1 µg/L	1367.1 ppb	04:33:31
3	Pb 220.353†	826.5	740.4	178.45 µg/L	178.45 ppb	04:33:31
3	S 181.975 Axial†	161.5	145.9	604.82 µg/L	604.82 ppb	04:33:31
3	Sb 206.836†	29.4	7.6	4.6275 µg/L	4.6275 ppb	04:33:31
3	Se 196.026†	-10.4	-25.5	126.97 µg/L	126.97 ppb	04:33:31
3	SiO2†	131715.5	131622.6	26358 µg/L	26358 ppb	04:33:10
3	Si 251.611†	161745.7	163160.9	12593 µg/L	12593 ppb	04:33:05
3	Sn 189.927†	-5.9	-10.7	-10.530 µg/L	-10.530 ppb	04:33:31
3	Ti 334.940†	938076.4	947844.4	2155.4 µg/L	2155.4 ppb	04:33:05
3	Tl 190.801†	-42.4	-20.6	17.096 µg/L	17.096 ppb	04:33:31
3	U 409.014†	37079.7	37472.1	3169.7 µg/L	3169.7 ppb	04:33:10
3	V 292.402†	7654.0	7830.8	88.461 µg/L	88.461 ppb	04:33:10
3	Zn 213.857†	14587.7	14239.9	332.22 µg/L	332.22 ppb	04:33:10

## Mean Data: 246336002|950379|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2077118.9	98.928	%	0.0760			0.08%
Sc RADIAL	58163.6	98.5	%	0.68			0.69%
Y 371.029	1465467.2	100.69	%	0.108			0.11%
Ag 328.068†	-673.5	-0.4590	µg/L	0.02580	-0.4590 ppb	0.02580	5.62%
Al 396.153Radial†	52994.3	39618	µg/L	202.2	39618 ppb	202.2	0.51%
As 188.979†	10.9	22.166	µg/L	4.2466	22.166 ppb	4.2466	19.16%
B 249.677†	629.8	-7.6385	µg/L	1.09118	-7.6385 ppb	1.09118	14.29%
Ba 233.527†	36015.9	882.73	µg/L	17.106	882.73 ppb	17.106	1.94%
Be 313.107†	8342.8	4.2041	µg/L	0.12870	4.2041 ppb	0.12870	3.06%
Ca 317.933Radial†	24732.8	22686	µg/L	13.1	22686 ppb	13.1	0.06%
Cd 226.502†	229.9	-1.4336	µg/L	0.20209	-1.4336 ppb	0.20209	14.10%
Co 228.616†	588.0	22.658	µg/L	1.2757	22.658 ppb	1.2757	5.63%
Cr 267.716†	1943.9	39.693	µg/L	1.8287	39.693 ppb	1.8287	4.61%
Cu 324.752†	16345.7	117.34	µg/L	2.682	117.34 ppb	2.682	2.29%
Fe 238.204 Radial†	7471.7	64139	µg/L	250.4	64139 ppb	250.4	0.39%
K 766.490 Radial†	11476.0	7891.1	µg/L	55.90	7891.1 ppb	55.90	0.71%
Mg 279.077 IEC†	891.6	8609.0	µg/L	66.03	8609.0 ppb	66.03	0.77%
Mn 257.610†	925582.0	2954.5	µg/L	35.47	2954.5 ppb	35.47	1.20%
Mo 202.031†	34.6	5.8994	µg/L	0.17997	5.8994 ppb	0.17997	3.05%
Na 589.592 Radial†	1184.8	387.36	µg/L	4.793	387.36 ppb	4.793	1.24%

Ni 231.604†	600.6	31.154 µg/L	1.4930	31.154 ppb	1.4930	4.79%
P 214.914†	747.6	1434.2 µg/L	61.02	1434.2 ppb	61.02	4.25%
Pb 220.353†	771.7	186.05 µg/L	6.583	186.05 ppb	6.583	3.54%
S 181.975 Axial†	153.9	638.07 µg/L	29.039	638.07 ppb	29.039	4.55%
Sb 206.836†	12.3	8.8802 µg/L	3.69990	8.8802 ppb	3.69990	41.66%
Se 196.026†	-34.0	114.77 µg/L	10.689	114.77 ppb	10.689	9.31%
SiO2†	134545.8	26943 µg/L	514.9	26943 ppb	514.9	1.91%
Si 251.611†	165141.7	12746 µg/L	132.4	12746 ppb	132.4	1.04%
Sn 189.927†	-8.8	-9.6971 µg/L	1.32127	-9.6971 ppb	1.32127	13.63%
Sr 421.552†	15764.5	155.05 µg/L	0.315	155.05 ppb	0.315	0.20%
Ti 334.940†	963061.1	2190.1 µg/L	29.98	2190.1 ppb	29.98	1.37%
Tl 190.801†	-26.2	10.063 µg/L	7.4379	10.063 ppb	7.4379	73.91%
U 409.014†	38528.4	3259.3 µg/L	78.07	3259.3 ppb	78.07	2.40%
V 292.402†	8033.3	90.529 µg/L	1.7919	90.529 ppb	1.7919	1.98%
Zn 213.857†	14586.9	340.42 µg/L	7.202	340.42 ppb	7.202	2.12%



Sequence No.: 93

Sample ID: 246336003|950379|1

Analyst: JWJ

Initial Sample Wt:

Dilution:

Autosampler Location: 417

Date Collected: 2/21/2010 04:33:41

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 246336003|950379|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	58606.4	58606.4	99.3 %		04:34:13
1	Al 396.153Radial†	59446.2	59898.5	44779 µg/L	44779 ppb	04:34:13
1	Ca 317.933Radial†	13598.3	13506.8	12389 µg/L	12389 ppb	04:34:34
1	Fe 238.204 Radial†	10168.0	10228.5	87804 µg/L	87804 ppb	04:34:34
1	K 766.490 Radial†	10160.4	10037.8	6902.2 µg/L	6902.2 ppb	04:34:13
1	Mg 279.077 IEC†	874.2	868.7	8360.8 µg/L	8360.8 ppb	04:34:34
1	Na 589.592 Radial†	1650.7	1189.3	388.82 µg/L	388.82 ppb	04:34:13
1	Sr 421.552†	11140.2	11182.0	109.98 µg/L	109.98 ppb	04:34:13
1	Sc 361.383	2085732.3	2085732.3	99.338 %		04:35:37
1	Y 371.029	1473401.8	1473401.8	101.23 %		04:35:37
1	Ag 328.068†	-1405.1	-951.4	-0.6879 µg/L	-0.6879 ppb	04:35:43
1	As 188.979†	10.9	11.2	24.658 µg/L	24.658 ppb	04:36:03
1	B 249.677†	829.5	509.5	-24.881 µg/L	-24.881 ppb	04:35:43
1	Ba 233.527†	29751.5	29968.1	734.62 µg/L	734.62 ppb	04:35:43
1	Be 313.107†	8593.9	12410.0	6.2669 µg/L	6.2669 ppb	04:35:43
1	Cd 226.502†	186.0	323.9	-1.7357 µg/L	-1.7357 ppb	04:36:03
1	Co 228.616†	737.5	739.8	27.534 µg/L	27.534 ppb	04:36:03
1	Cr 267.716†	2696.9	2762.2	56.416 µg/L	56.416 ppb	04:36:03
1	Cu 324.752†	11503.7	8710.7	69.987 µg/L	69.987 ppb	04:35:43
1	Mn 257.610†	703533.8	708525.2	2266.7 µg/L	2266.7 ppb	04:35:37
1	Mo 202.031†	40.5	44.1	7.7552 µg/L	7.7552 ppb	04:36:03
1	Ni 231.604†	1019.7	717.9	37.382 µg/L	37.382 ppb	04:36:03
1	P 214.914†	400.0	386.4	703.70 µg/L	703.70 ppb	04:36:03
1	Pb 220.353†	488.5	396.9	96.713 µg/L	96.713 ppb	04:36:03
1	S 181.975 Axial†	158.0	141.7	587.57 µg/L	587.57 ppb	04:36:03
1	Sb 206.836†	32.3	10.4	7.8584 µg/L	7.8584 ppb	04:36:03
1	Se 196.026†	-26.9	-42.1	171.39 µg/L	171.39 ppb	04:36:03
1	SiO2†	145906.4	145394.4	29115 µg/L	29115 ppb	04:35:43
1	Si 251.611†	178512.3	179408.5	13847 µg/L	13847 ppb	04:35:37
1	Sn 189.927†	-16.2	-21.1	-17.445 µg/L	-17.445 ppb	04:36:03
1	Ti 334.940†	1407939.7	1417181.6	3222.8 µg/L	3222.8 ppb	04:35:37
1	Tl 190.801†	-50.2	-28.3	14.231 µg/L	14.231 ppb	04:36:03
1	U 409.014†	-77.4	-77.1	-19.506 µg/L	-19.506 ppb	04:35:43
1	V 292.402†	13261.6	13446.0	143.50 µg/L	143.50 ppb	04:35:43
1	Zn 213.857†	12543.5	12125.1	281.26 µg/L	281.26 ppb	04:35:43
2	Sc RADIAL	58415.0	58415.0	98.9 %		04:34:39
2	Al 396.153Radial†	59629.7	60280.2	45065 µg/L	45065 ppb	04:34:39
2	Ca 317.933Radial†	13591.8	13545.1	12424 µg/L	12424 ppb	04:35:00
2	Fe 238.204 Radial†	10153.6	10247.5	87967 µg/L	87967 ppb	04:35:00
2	K 766.490 Radial†	10108.1	10018.5	6888.9 µg/L	6888.9 ppb	04:34:39
2	Mg 279.077 IEC†	872.5	869.8	8371.7 µg/L	8371.7 ppb	04:35:00
2	Na 589.592 Radial†	1596.8	1140.3	372.80 µg/L	372.80 ppb	04:34:39
2	Sr 421.552†	11148.4	11227.0	110.42 µg/L	110.42 ppb	04:34:39
2	Sc 361.383	2078931.3	2078931.3	99.014 %		04:36:11
2	Y 371.029	1467673.3	1467673.3	100.84 %		04:36:11
2	Ag 328.068†	-1455.6	-1007.0	-1.0845 µg/L	-1.0845 ppb	04:36:16
2	As 188.979†	15.1	15.6	32.478 µg/L	32.478 ppb	04:36:37
2	B 249.677†	806.7	489.2	-25.796 µg/L	-25.796 ppb	04:36:16
2	Ba 233.527†	29852.0	30167.6	739.52 µg/L	739.52 ppb	04:36:16
2	Be 313.107†	8557.8	12401.9	6.2615 µg/L	6.2615 ppb	04:36:16
2	Cd 226.502†	209.5	348.2	-1.1438 µg/L	-1.1438 ppb	04:36:37
2	Co 228.616†	740.1	744.9	27.765 µg/L	27.765 ppb	04:36:37
2	Cr 267.716†	2697.5	2771.8	56.612 µg/L	56.612 ppb	04:36:37
2	Cu 324.752†	11489.5	8734.2	70.166 µg/L	70.166 ppb	04:36:16
2	Mn 257.610†	700309.0	707585.2	2263.7 µg/L	2263.7 ppb	04:36:11
2	Mo 202.031†	37.9	41.6	7.5107 µg/L	7.5107 ppb	04:36:37
2	Ni 231.604†	1000.9	702.3	36.595 µg/L	36.595 ppb	04:36:37
2	P 214.914†	403.7	391.5	713.67 µg/L	713.67 ppb	04:36:37
2	Pb 220.353†	501.5	411.8	100.38 µg/L	100.38 ppb	04:36:37

2	S 181.975 Axial†	163.1	147.4	611.20 µg/L	611.20 ppb	04:36:37
2	Sb 206.836†	40.4	18.7	15.418 µg/L	15.418 ppb	04:36:37
2	Se 196.026†	-28.9	-44.2	168.91 µg/L	168.91 ppb	04:36:37
2	SiO2†	145946.7	145915.7	29220 µg/L	29220 ppb	04:36:16
2	Si 251.611†	177716.5	179192.7	13831 µg/L	13831 ppb	04:36:11
2	Sn 189.927†	-7.9	-12.7	-13.886 µg/L	-13.886 ppb	04:36:37
2	Ti 334.940†	1403907.6	1417746.0	3224.0 µg/L	3224.0 ppb	04:36:11
2	Tl 190.801†	-52.4	-30.7	11.071 µg/L	11.071 ppb	04:36:37
2	U 409.014†	-217.3	-218.7	-31.545 µg/L	-31.545 ppb	04:36:16
2	V 292.402†	13338.6	13567.4	144.71 µg/L	144.71 ppb	04:36:16
2	Zn 213.857†	12524.6	12147.3	281.78 µg/L	281.78 ppb	04:36:16
3	Sc RADIAL	57884.8	57884.8	98.0 %		04:35:05
3	Al 396.153Radial†	59240.3	60435.0	45181 µg/L	45181 ppb	04:35:05
3	Ca 317.933Radial†	13593.2	13672.3	12541 µg/L	12541 ppb	04:35:25
3	Fe 238.204 Radial†	10172.0	10360.3	88935 µg/L	88935 ppb	04:35:25
3	K 766.490 Radial†	10018.9	10021.0	6890.6 µg/L	6890.6 ppb	04:35:05
3	Mg 279.077 IEC†	878.8	884.3	8512.2 µg/L	8512.2 ppb	04:35:25
3	Na 589.592 Radial†	1591.1	1149.2	375.71 µg/L	375.71 ppb	04:35:05
3	Sr 421.552†	11032.0	11211.5	110.27 µg/L	110.27 ppb	04:35:05
3	Sc 361.383	2058019.8	2058019.8	98.018 %		04:36:44
3	Y 371.029	1452789.3	1452789.3	99.815 %		04:36:44
3	Ag 328.068†	-1342.6	-906.7	-0.3014 µg/L	-0.3014 ppb	04:36:49
3	As 188.979†	9.7	10.1	22.748 µg/L	22.748 ppb	04:37:10
3	B 249.677†	816.2	507.2	-25.573 µg/L	-25.573 ppb	04:36:49
3	Ba 233.527†	28897.3	29500.0	723.15 µg/L	723.15 ppb	04:36:49
3	Be 313.107†	8157.7	12081.5	6.0931 µg/L	6.0931 ppb	04:36:49
3	Cd 226.502†	170.9	311.0	-2.1894 µg/L	-2.1894 ppb	04:37:10
3	Co 228.616†	690.0	701.4	25.887 µg/L	25.887 ppb	04:37:10
3	Cr 267.716†	2489.1	2586.8	52.838 µg/L	52.838 ppb	04:37:10
3	Cu 324.752†	11152.0	8507.8	68.798 µg/L	68.798 ppb	04:36:49
3	Mn 257.610†	680401.2	694461.5	2222.1 µg/L	2222.1 ppb	04:36:44
3	Mo 202.031†	38.1	42.2	7.6047 µg/L	7.6047 ppb	04:37:10
3	Ni 231.604†	968.9	679.9	35.478 µg/L	35.478 ppb	04:37:10
3	P 214.914†	374.8	366.1	662.66 µg/L	662.66 ppb	04:37:10
3	Pb 220.353†	472.0	386.8	94.200 µg/L	94.200 ppb	04:37:10
3	S 181.975 Axial†	153.5	139.3	577.53 µg/L	577.53 ppb	04:37:10
3	Sb 206.836†	27.4	5.8	3.6836 µg/L	3.6836 ppb	04:37:10
3	Se 196.026†	-30.2	-45.8	169.19 µg/L	169.19 ppb	04:37:10
3	SiO2†	142037.2	143424.8	28721 µg/L	28721 ppb	04:36:49
3	Si 251.611†	173605.2	176822.0	13648 µg/L	13648 ppb	04:36:44
3	Sn 189.927†	-13.2	-18.2	-16.308 µg/L	-16.308 ppb	04:37:10
3	Ti 334.940†	1361395.3	1388781.2	3158.2 µg/L	3158.2 ppb	04:36:44
3	Tl 190.801†	-50.0	-28.8	13.010 µg/L	13.010 ppb	04:37:10
3	U 409.014†	-86.0	-87.0	-20.507 µg/L	-20.507 ppb	04:36:49
3	V 292.402†	12809.2	13164.2	140.83 µg/L	140.83 ppb	04:36:49
3	Zn 213.857†	12220.9	11966.1	277.46 µg/L	277.46 ppb	04:36:49

Mean Data: 246336003|950379|1

Analyte	Mean Corrected	Calib.	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity	Conc. Units		Conc. Units		
Sc 361.383	2074227.8	98.790 %	0.6879			0.70%
Sc RADIAL	58302.1	98.7 %	0.63			0.64%
Y 371.029	1464621.5	100.63 %	0.731			0.73%
Ag 328.068†	-955.0	-0.6913 µg/L	0.39156	-0.6913 ppb	0.39156	56.64%
Al 396.153Radial†	60204.6	45008 µg/L	206.5	45008 ppb	206.5	0.46%
As 188.979†	12.3	26.628 µg/L	5.1552	26.628 ppb	5.1552	19.36%
B 249.677†	502.0	-25.417 µg/L	0.4773	-25.417 ppb	0.4773	1.88%
Ba 233.527†	29878.6	732.43 µg/L	8.402	732.43 ppb	8.402	1.15%
Be 313.107†	12297.8	6.2072 µg/L	0.09882	6.2072 ppb	0.09882	1.59%
Ca 317.933Radial†	13574.7	12452 µg/L	79.5	12452 ppb	79.5	0.64%
Cd 226.502†	327.7	-1.6896 µg/L	0.52436	-1.6896 ppb	0.52436	31.03%
Co 228.616†	728.7	27.062 µg/L	1.0242	27.062 ppb	1.0242	3.78%
Cr 267.716†	2706.9	55.289 µg/L	2.1249	55.289 ppb	2.1249	3.84%
Cu 324.752†	8650.9	69.650 µg/L	0.7433	69.650 ppb	0.7433	1.07%
Fe 238.204 Radial†	10278.7	88236 µg/L	611.6	88236 ppb	611.6	0.69%
K 766.490 Radial†	10025.8	6893.9 µg/L	7.22	6893.9 ppb	7.22	0.10%
Mg 279.077 IEC†	874.3	8414.9 µg/L	84.44	8414.9 ppb	84.44	1.00%
Mn 257.610†	703524.0	2250.8 µg/L	24.95	2250.8 ppb	24.95	1.11%
Mo 202.031†	42.6	7.6235 µg/L	0.12333	7.6235 ppb	0.12333	1.62%
Na 589.592 Radial†	1159.6	379.11 µg/L	8.535	379.11 ppb	8.535	2.25%

Ni 231.604†	700.0	36.485 µg/L	0.9567	36.485 ppb	0.9567	2.62%
P 214.914†	381.3	693.34 µg/L	27.038	693.34 ppb	27.038	3.90%
Pb 220.353†	398.5	97.098 µg/L	3.1089	97.098 ppb	3.1089	3.20%
S 181.975 Axial†	142.8	592.10 µg/L	17.285	592.10 ppb	17.285	2.92%
Sb 206.836†	11.6	8.9867 µg/L	5.94812	8.9867 ppb	5.94812	66.19%
Se 196.026†	-44.0	169.83 µg/L	1.361	169.83 ppb	1.361	0.80%
SiO2†	144911.6	29019 µg/L	263.1	29019 ppb	263.1	0.91%
Si 251.611†	178474.4	13775 µg/L	110.8	13775 ppb	110.8	0.80%
Sn 189.927†	-17.3	-15.880 µg/L	1.8177	-15.880 ppb	1.8177	11.45%
Sr 421.552†	11206.8	110.22 µg/L	0.225	110.22 ppb	0.225	0.20%
Ti 334.940†	1407902.9	3201.6 µg/L	37.67	3201.6 ppb	37.67	1.18%
Tl 190.801†	-29.3	12.771 µg/L	1.5935	12.771 ppb	1.5935	12.48%
U 409.014†	-127.6	-23.853 µg/L	6.6805	-23.853 ppb	6.6805	28.01%
V 292.402†	13392.5	143.01 µg/L	1.981	143.01 ppb	1.981	1.39%
Zn 213.857†	12079.5	280.17 µg/L	2.361	280.17 ppb	2.361	0.84%

Sequence No.: 94

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 2/21/2010 04:37:19

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	57964.9	57964.9	98.2 %		04:37:58
1	Al 396.153Radial†	6913.1	7050.5	5260.1 µg/L	5260.1 ppb	04:37:58
1	Ca 317.933Radial†	5687.1	5600.0	5136.7 µg/L	5136.7 ppb	04:38:18
1	Fe 238.204 Radial†	614.5	610.5	5251.5 µg/L	5251.5 ppb	04:38:18
1	K 766.490 Radial†	7414.7	7354.3	5057.0 µg/L	5057.0 ppb	04:37:58
1	Mg 279.077 IEC†	548.6	546.7	5324.7 µg/L	5324.7 ppb	04:38:18
1	Na 589.592 Radial†	31704.4	31820.8	10403 µg/L	10403 ppb	04:37:58
1	Sr 421.552†	49681.0	50564.2	497.31 µg/L	497.31 ppb	04:37:58
1	Sc 361.383	2069155.9	2069155.9	98.548 %		04:39:22
1	Y 371.029	1425908.0	1425908.0	97.968 %		04:39:22
1	Ag 328.068†	65357.2	66783.0	501.84 µg/L	501.84 ppb	04:39:27
1	As 188.979†	280.3	284.7	511.46 µg/L	511.46 ppb	04:39:48
1	B 249.677†	12206.9	12061.2	491.49 µg/L	491.49 ppb	04:39:27
1	Ba 233.527†	20189.2	20504.9	503.39 µg/L	503.39 ppb	04:39:27
1	Be 313.107†	826325.3	842255.4	508.48 µg/L	508.48 ppb	04:39:22
1	Cd 226.502†	19572.7	19997.6	503.12 µg/L	503.12 ppb	04:39:27
1	Co 228.616†	10789.7	10946.0	506.25 µg/L	506.25 ppb	04:39:27
1	Cr 267.716†	24426.4	24833.6	506.77 µg/L	506.77 ppb	04:39:27
1	Cu 324.752†	77626.2	75899.9	504.21 µg/L	504.21 ppb	04:39:27
1	Mn 257.610†	158635.8	161275.0	513.85 µg/L	513.85 ppb	04:39:22
1	Mo 202.031†	5131.9	5210.8	522.30 µg/L	522.30 ppb	04:39:48
1	Ni 231.604†	10210.5	10052.3	507.50 µg/L	507.50 ppb	04:39:27
1	P 214.914†	1283.1	1285.8	2508.3 µg/L	2508.3 ppb	04:39:48
1	Pb 220.353†	2149.5	2086.4	513.57 µg/L	513.57 ppb	04:39:48
1	S 181.975 Axial†	261.1	247.7	1026.7 µg/L	1026.7 ppb	04:39:48
1	Sb 206.836†	574.2	560.5	514.08 µg/L	514.08 ppb	04:39:48
1	Se 196.026†	379.6	370.2	515.30 µg/L	515.30 ppb	04:39:48
1	SiO2†	28169.6	27100.1	5426.8 µg/L	5426.8 ppb	04:39:27
1	Si 251.611†	32706.2	32894.4	2538.9 µg/L	2538.9 ppb	04:39:27
1	Sn 189.927†	1208.2	1221.3	522.30 µg/L	522.30 ppb	04:39:48
1	Ti 334.940†	222251.4	225383.4	512.27 µg/L	512.27 ppb	04:39:22
1	Tl 190.801†	350.6	377.9	511.34 µg/L	511.34 ppb	04:39:48
1	U 409.014†	5939.7	6028.0	510.51 µg/L	510.51 ppb	04:39:27
1	V 292.402†	50117.0	50951.2	510.35 µg/L	510.35 ppb	04:39:27
1	Zn 213.857†	21719.0	21536.9	504.69 µg/L	504.69 ppb	04:39:27
2	Sc RADIAL	57814.6	57814.6	97.9 %		04:38:23
2	Al 396.153Radial†	6911.7	7067.3	5272.7 µg/L	5272.7 ppb	04:38:23
2	Ca 317.933Radial†	5643.7	5570.7	5109.8 µg/L	5109.8 ppb	04:38:44
2	Fe 238.204 Radial†	607.3	604.9	5203.2 µg/L	5203.2 ppb	04:38:44
2	K 766.490 Radial†	7463.7	7424.0	5104.9 µg/L	5104.9 ppb	04:38:23
2	Mg 279.077 IEC†	547.3	546.8	5325.6 µg/L	5325.6 ppb	04:38:44
2	Na 589.592 Radial†	31789.2	31991.3	10459 µg/L	10459 ppb	04:38:23
2	Sr 421.552†	49729.4	50745.1	499.09 µg/L	499.09 ppb	04:38:23
2	Sc 361.383	2054866.1	2054866.1	97.868 %		04:39:55
2	Y 371.029	1416211.9	1416211.9	97.302 %		04:39:55
2	Ag 328.068†	65765.1	67661.0	508.44 µg/L	508.44 ppb	04:40:00
2	As 188.979†	284.8	291.3	523.29 µg/L	523.29 ppb	04:40:21
2	B 249.677†	12331.8	12275.0	500.28 µg/L	500.28 ppb	04:40:00
2	Ba 233.527†	20384.3	20846.7	511.79 µg/L	511.79 ppb	04:40:00
2	Be 313.107†	820134.1	841760.3	508.18 µg/L	508.18 ppb	04:39:55
2	Cd 226.502†	19703.9	20269.7	509.98 µg/L	509.98 ppb	04:40:00
2	Co 228.616†	10913.3	11148.5	515.62 µg/L	515.62 ppb	04:40:00
2	Cr 267.716†	24753.9	25340.6	517.12 µg/L	517.12 ppb	04:40:00
2	Cu 324.752†	78171.4	77004.7	511.53 µg/L	511.53 ppb	04:40:00
2	Mn 257.610†	157417.9	161150.0	513.44 µg/L	513.44 ppb	04:39:55
2	Mo 202.031†	5099.5	5213.9	522.61 µg/L	522.61 ppb	04:40:21
2	Ni 231.604†	10303.9	10219.8	515.95 µg/L	515.95 ppb	04:40:00
2	P 214.914†	1287.9	1299.7	2535.3 µg/L	2535.3 ppb	04:40:21
2	Pb 220.353†	2146.9	2098.9	516.64 µg/L	516.64 ppb	04:40:21

2	S 181.975 Axial†	263.5	251.9	1044.3 µg/L	1044.3 ppb	04:40:21
2	Sb 206.836†	562.9	553.1	507.20 µg/L	507.20 ppb	04:40:21
2	Se 196.026†	377.4	370.7	515.82 µg/L	515.82 ppb	04:40:21
2	SiO2†	28431.4	27566.4	5520.2 µg/L	5520.2 ppb	04:40:00
2	Si 251.611†	33078.6	33505.8	2586.1 µg/L	2586.1 ppb	04:40:00
2	Sn 189.927†	1202.5	1224.0	523.45 µg/L	523.45 ppb	04:40:21
2	Ti 334.940†	220660.0	225325.6	512.14 µg/L	512.14 ppb	04:39:55
2	Tl 190.801†	355.5	385.5	521.43 µg/L	521.43 ppb	04:40:21
2	U 409.014†	5987.7	6118.9	518.23 µg/L	518.23 ppb	04:40:00
2	V 292.402†	50621.8	51820.7	518.98 µg/L	518.98 ppb	04:40:00
2	Zn 213.857†	21911.5	21886.9	512.90 µg/L	512.90 ppb	04:40:00
3	Sc RADIAL	57362.1	57362.1	97.2 %		04:38:49
3	Al 396.153Radial†	6856.4	7066.1	5273.6 µg/L	5273.6 ppb	04:38:49
3	Ca 317.933Radial†	5638.3	5610.6	5146.4 µg/L	5146.4 ppb	04:39:10
3	Fe 238.204 Radial†	606.5	608.9	5236.9 µg/L	5236.9 ppb	04:39:10
3	K 766.490 Radial†	7344.3	7361.2	5061.7 µg/L	5061.7 ppb	04:38:49
3	Mg 279.077 IEC†	542.4	546.2	5318.2 µg/L	5318.2 ppb	04:39:10
3	Na 589.592 Radial†	31621.8	32075.1	10486 µg/L	10486 ppb	04:38:49
3	Sr 421.552†	49451.5	50859.8	500.22 µg/L	500.22 ppb	04:38:49
3	Sc 361.383	2057021.9	2057021.9	97.971 %		04:40:28
3	Y 371.029	1418757.6	1418757.6	97.477 %		04:40:28
3	Ag 328.068†	62793.8	64557.7	484.98 µg/L	484.98 ppb	04:40:34
3	As 188.979†	241.5	246.8	443.44 µg/L	443.44 ppb	04:40:54
3	B 249.677†	11721.9	11639.2	474.16 µg/L	474.16 ppb	04:40:34
3	Ba 233.527†	18891.4	19301.1	473.82 µg/L	473.82 ppb	04:40:34
3	Be 313.107†	776167.5	796004.7	480.56 µg/L	480.56 ppb	04:40:28
3	Cd 226.502†	18199.0	18712.6	470.75 µg/L	470.75 ppb	04:40:34
3	Co 228.616†	10016.1	10221.0	472.67 µg/L	472.67 ppb	04:40:34
3	Cr 267.716†	22039.0	22543.0	460.03 µg/L	460.03 ppb	04:40:34
3	Cu 324.752†	71851.0	70469.7	468.19 µg/L	468.19 ppb	04:40:34
3	Mn 257.610†	149112.3	152503.8	485.93 µg/L	485.93 ppb	04:40:28
3	Mo 202.031†	4266.6	4358.3	436.89 µg/L	436.89 ppb	04:40:54
3	Ni 231.604†	9453.2	9340.4	471.56 µg/L	471.56 ppb	04:40:34
3	P 214.914†	1097.5	1104.0	2149.3 µg/L	2149.3 ppb	04:40:54
3	Pb 220.353†	1877.4	1821.5	448.26 µg/L	448.26 ppb	04:40:54
3	S 181.975 Axial†	229.7	217.2	900.37 µg/L	900.37 ppb	04:40:54
3	Sb 206.836†	490.3	478.3	438.20 µg/L	438.20 ppb	04:40:54
3	Se 196.026†	329.7	321.6	448.64 µg/L	448.64 ppb	04:40:54
3	SiO2†	26745.6	25815.3	5169.5 µg/L	5169.5 ppb	04:40:34
3	Si 251.611†	31019.8	31368.9	2421.2 µg/L	2421.2 ppb	04:40:34
3	Sn 189.927†	998.1	1014.0	433.68 µg/L	433.68 ppb	04:40:54
3	Ti 334.940†	207732.3	211893.8	481.59 µg/L	481.59 ppb	04:40:28
3	Tl 190.801†	316.4	345.2	467.20 µg/L	467.20 ppb	04:40:54
3	U 409.014†	5319.5	5430.5	459.81 µg/L	459.81 ppb	04:40:34
3	V 292.402†	46017.1	47066.3	471.10 µg/L	471.10 ppb	04:40:34
3	Zn 213.857†	20132.5	20047.6	469.75 µg/L	469.75 ppb	04:40:34

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2060348.0	98.129 %	0.3669			0.37%
Sc RADIAL	57713.9	97.7 %	0.53			0.54%
Y 371.029	1420292.5	97.582 %	0.3454			0.35%
Ag 328.068†	66333.9	498.42 µg/L	12.096	498.42 ppb	12.096	2.43%
QC value within limits for Ag 328.068 Recovery = 99.68%						
Al 396.153Radial†	7061.3	5268.8 µg/L	7.53	5268.8 ppb	7.53	0.14%
QC value within limits for Al 396.153Radial Recovery = 105.38%						
As 188.979†	274.3	492.73 µg/L	43.091	492.73 ppb	43.091	8.75%
QC value within limits for As 188.979 Recovery = 98.55%						
B 249.677†	11991.8	488.64 µg/L	13.290	488.64 ppb	13.290	2.72%
QC value within limits for B 249.677 Recovery = 97.73%						
Ba 233.527†	20217.6	496.33 µg/L	19.941	496.33 ppb	19.941	4.02%
QC value within limits for Ba 233.527 Recovery = 99.27%						
Be 313.107†	826673.4	499.07 µg/L	16.035	499.07 ppb	16.035	3.21%
QC value within limits for Be 313.107 Recovery = 99.81%						
Ca 317.933Radial†	5593.8	5130.9 µg/L	18.99	5130.9 ppb	18.99	0.37%
QC value within limits for Ca 317.933Radial Recovery = 102.62%						
Cd 226.502†	19660.0	494.61 µg/L	20.951	494.61 ppb	20.951	4.24%
QC value within limits for Cd 226.502 Recovery = 98.92%						
Co 228.616†	10771.8	498.18 µg/L	22.588	498.18 ppb	22.588	4.53%

QC value within limits for Co 228.616 Recovery = 99.64%							
Cr 267.716†	24239.1	494.64 µg/L	30.414	494.64 ppb	30.414	6.15%	
QC value within limits for Cr 267.716 Recovery = 98.93%							
Cu 324.752†	74458.1	494.64 µg/L	23.202	494.64 ppb	23.202	4.69%	
QC value within limits for Cu 324.752 Recovery = 98.93%							
Fe 238.204 Radial†	608.1	5230.5 µg/L	24.79	5230.5 ppb	24.79	0.47%	
QC value within limits for Fe 238.204 Radial Recovery = 104.61%							
K 766.490 Radial†	7379.9	5074.5 µg/L	26.39	5074.5 ppb	26.39	0.52%	
QC value within limits for K 766.490 Radial Recovery = 101.49%							
Mg 279.077 IEC†	546.6	5322.8 µg/L	4.03	5322.8 ppb	4.03	0.08%	
QC value within limits for Mg 279.077 IEC Recovery = 106.46%							
Mn 257.610†	158309.6	504.41 µg/L	16.005	504.41 ppb	16.005	3.17%	
QC value within limits for Mn 257.610 Recovery = 100.88%							
Mo 202.031†	4927.7	493.93 µg/L	49.404	493.93 ppb	49.404	10.00%	
QC value within limits for Mo 202.031 Recovery = 98.79%							
Na 589.592 Radial†	31962.4	10449 µg/L	42.4	10449 ppb	42.4	0.41%	
QC value within limits for Na 589.592 Radial Recovery = 104.49%							
Ni 231.604†	9870.8	498.34 µg/L	23.572	498.34 ppb	23.572	4.73%	
QC value within limits for Ni 231.604 Recovery = 99.67%							
P 214.914†	1229.8	2397.6 µg/L	215.46	2397.6 ppb	215.46	8.99%	
QC value within limits for P 214.914 Recovery = 95.91%							
Pb 220.353†	2002.3	492.82 µg/L	38.621	492.82 ppb	38.621	7.84%	
QC value within limits for Pb 220.353 Recovery = 98.56%							
S 181.975 Axial†	238.9	990.46 µg/L	78.518	990.46 ppb	78.518	7.93%	
QC value within limits for S 181.975 Axial Recovery = 99.05%							
Sb 206.836†	530.6	486.49 µg/L	41.964	486.49 ppb	41.964	8.63%	
QC value within limits for Sb 206.836 Recovery = 97.30%							
Se 196.026†	354.1	493.25 µg/L	38.637	493.25 ppb	38.637	7.83%	
QC value within limits for Se 196.026 Recovery = 98.65%							
SiO2†	26827.3	5372.2 µg/L	181.61	5372.2 ppb	181.61	3.38%	
QC value within limits for SiO2 Recovery = 100.46%							
Si 251.611†	32589.7	2515.4 µg/L	84.95	2515.4 ppb	84.95	3.38%	
QC value within limits for Si 251.611 Recovery = 100.62%							
Sn 189.927†	1153.1	493.15 µg/L	51.500	493.15 ppb	51.500	10.44%	
QC value within limits for Sn 189.927 Recovery = 98.63%							
Sr 421.552†	50723.1	498.87 µg/L	1.466	498.87 ppb	1.466	0.29%	
QC value within limits for Sr 421.552 Recovery = 99.77%							
Ti 334.940†	220867.6	502.00 µg/L	17.675	502.00 ppb	17.675	3.52%	
QC value within limits for Ti 334.940 Recovery = 100.40%							
Tl 190.801†	369.5	499.99 µg/L	28.843	499.99 ppb	28.843	5.77%	
QC value within limits for Tl 190.801 Recovery = 100.00%							
U 409.014†	5859.1	496.18 µg/L	31.738	496.18 ppb	31.738	6.40%	
QC value within limits for U 409.014 Recovery = 99.24%							
V 292.402†	49946.1	500.15 µg/L	25.519	500.15 ppb	25.519	5.10%	
QC value within limits for V 292.402 Recovery = 100.03%							
Zn 213.857†	21157.2	495.78 µg/L	22.910	495.78 ppb	22.910	4.62%	
QC value within limits for Zn 213.857 Recovery = 99.16%							
All analyte(s) passed QC.							

Sequence No.: 95

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 2/21/2010 04:41:05

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	56543.1	56543.1	95.8 %		04:41:39
1	Al 396.153Radial†	16.4	25.9	19.323 µg/L	19.323 ppb	04:41:39
1	Ca 317.933Radial†	191.1	6.5	5.9961 µg/L	5.9961 ppb	04:42:00
1	Fe 238.204 Radial†	15.9	1.2	10.459 µg/L	10.459 ppb	04:42:00
1	K 766.490 Radial†	206.5	17.2	11.838 µg/L	11.838 ppb	04:41:39
1	Mg 279.077 IEC†	9.9	-1.7	-17.011 µg/L	-17.011 ppb	04:42:00
1	Na 589.592 Radial†	429.1	-25.6	-8.3809 µg/L	-8.3809 ppb	04:41:39
1	Sr 421.552†	49.3	10.1	0.0994 µg/L	0.0994 ppb	04:41:39
1	Sc 361.383	2062096.5	2062096.5	98.212 %		04:43:02
1	Y 371.029	1426184.8	1426184.8	97.987 %		04:43:02
1	Ag 328.068†	-446.8	8.2	0.0637 µg/L	0.0637 ppb	04:43:08
1	As 188.979†	-3.5	-3.3	-5.9658 µg/L	-5.9658 ppb	04:43:28
1	B 249.677†	365.3	46.5	1.8963 µg/L	1.8963 ppb	04:43:28
1	Ba 233.527†	-8.8	9.4	0.2299 µg/L	0.2299 ppb	04:43:28
1	Be 313.107†	-3676.7	15.3	0.0092 µg/L	0.0092 ppb	04:43:08
1	Cd 226.502†	-137.4	-3.3	-0.0843 µg/L	-0.0843 ppb	04:43:28
1	Co 228.616†	12.3	10.0	0.4608 µg/L	0.4608 ppb	04:43:28
1	Cr 267.716†	-36.4	10.3	0.2112 µg/L	0.2112 ppb	04:43:08
1	Cu 324.752†	2873.8	56.3	0.3752 µg/L	0.3752 ppb	04:43:08
1	Mn 257.610†	-253.7	44.3	0.1431 µg/L	0.1431 ppb	04:43:28
1	Mo 202.031†	0.4	3.8	0.3785 µg/L	0.3785 ppb	04:43:28
1	Ni 231.604†	313.7	10.8	0.5454 µg/L	0.5454 ppb	04:43:28
1	P 214.914†	15.3	-0.7	-1.3834 µg/L	-1.3834 ppb	04:43:28
1	Pb 220.353†	88.9	-4.3	-1.0521 µg/L	-1.0521 ppb	04:43:28
1	S 181.975 Axial†	17.6	0.6	2.3928 µg/L	2.3928 ppb	04:43:28
1	Sb 206.836†	21.9	0.2	0.2120 µg/L	0.2120 ppb	04:43:28
1	Se 196.026†	12.2	-2.6	-3.4707 µg/L	-3.4707 ppb	04:43:28
1	SiO2†	1520.6	63.9	12.797 µg/L	12.797 ppb	04:43:08
1	Si 251.611†	411.2	125.1	9.6575 µg/L	9.6575 ppb	04:43:28
1	Sn 189.927†	4.7	0.1	0.0465 µg/L	0.0465 ppb	04:43:28
1	Ti 334.940†	201.2	63.2	0.1451 µg/L	0.1451 ppb	04:43:08
1	Tl 190.801†	-20.2	1.7	2.2429 µg/L	2.2429 ppb	04:43:28
1	U 409.014†	-0.4	0.4	0.0310 µg/L	0.0310 ppb	04:43:08
1	V 292.402†	-69.7	25.0	0.2519 µg/L	0.2519 ppb	04:43:08
1	Zn 213.857†	525.3	32.9	0.7748 µg/L	0.7748 ppb	04:43:28
2	Sc RADIAL	56472.5	56472.5	95.6 %		04:42:05
2	Al 396.153Radial†	-17.1	-9.2	-6.8488 µg/L	-6.8488 ppb	04:42:05
2	Ca 317.933Radial†	181.4	-3.3	-2.9956 µg/L	-2.9956 ppb	04:42:26
2	Fe 238.204 Radial†	16.5	1.9	16.256 µg/L	16.256 ppb	04:42:26
2	K 766.490 Radial†	152.6	-38.8	-26.684 µg/L	-26.684 ppb	04:42:05
2	Mg 279.077 IEC†	13.1	1.6	15.303 µg/L	15.303 ppb	04:42:26
2	Na 589.592 Radial†	410.4	-44.6	-14.578 µg/L	-14.578 ppb	04:42:05
2	Sr 421.552†	48.0	8.8	0.0868 µg/L	0.0868 ppb	04:42:05
2	Sc 361.383	2042281.2	2042281.2	97.268 %		04:43:34
2	Y 371.029	1412201.8	1412201.8	97.026 %		04:43:34
2	Ag 328.068†	-387.2	65.1	0.4881 µg/L	0.4881 ppb	04:43:40
2	As 188.979†	-0.0	0.3	0.5058 µg/L	0.5058 ppb	04:44:00
2	B 249.677†	367.4	52.2	2.1271 µg/L	2.1271 ppb	04:44:00
2	Ba 233.527†	-11.9	6.1	0.1492 µg/L	0.1492 ppb	04:44:00
2	Be 313.107†	-3710.0	-55.3	-0.0335 µg/L	-0.0335 ppb	04:43:40
2	Cd 226.502†	-147.1	-14.7	-0.3700 µg/L	-0.3700 ppb	04:44:00
2	Co 228.616†	0.9	-1.7	-0.0768 µg/L	-0.0768 ppb	04:44:00
2	Cr 267.716†	-57.8	-12.1	-0.2461 µg/L	-0.2461 ppb	04:43:40
2	Cu 324.752†	2864.0	74.7	0.4976 µg/L	0.4976 ppb	04:43:40
2	Mn 257.610†	-248.4	47.2	0.1517 µg/L	0.1517 ppb	04:44:00
2	Mo 202.031†	-0.6	2.7	0.2695 µg/L	0.2695 ppb	04:44:00
2	Ni 231.604†	310.3	10.3	0.5233 µg/L	0.5233 ppb	04:44:00
2	P 214.914†	14.8	-1.0	-2.1192 µg/L	-2.1192 ppb	04:44:00
2	Pb 220.353†	80.0	-12.5	-3.0809 µg/L	-3.0809 ppb	04:44:00

2	S 181.975 Axial†	15.8	-1.1	-4.4797 µg/L	-4.4797 ppb	04:44:00
2	Sb 206.836†	33.5	12.3	11.234 µg/L	11.234 ppb	04:44:00
2	Se 196.026†	18.1	3.6	4.9333 µg/L	4.9333 ppb	04:44:00
2	SiO2†	1533.7	92.3	18.488 µg/L	18.488 ppb	04:43:40
2	Si 251.611†	440.4	159.2	12.290 µg/L	12.290 ppb	04:44:00
2	Sn 189.927†	-0.2	-4.9	-2.0967 µg/L	-2.0967 ppb	04:44:00
2	Ti 334.940†	207.3	71.4	0.1612 µg/L	0.1612 ppb	04:43:40
2	Tl 190.801†	-26.3	-4.8	-6.3839 µg/L	-6.3839 ppb	04:44:00
2	U 409.014†	-83.7	-85.3	-7.2418 µg/L	-7.2418 ppb	04:43:40
2	V 292.402†	-68.9	25.2	0.2451 µg/L	0.2451 ppb	04:43:40
2	Zn 213.857†	519.9	32.5	0.7629 µg/L	0.7629 ppb	04:44:00
3	Sc RADIAL	56862.9	56862.9	96.3 %		04:42:31
3	Al 396.153Radial†	-8.1	0.3	0.2104 µg/L	0.2104 ppb	04:42:31
3	Ca 317.933Radial†	190.4	4.7	4.3022 µg/L	4.3022 ppb	04:42:52
3	Fe 238.204 Radial†	14.9	0.0	0.3978 µg/L	0.3978 ppb	04:42:52
3	K 766.490 Radial†	214.1	23.9	16.449 µg/L	16.449 ppb	04:42:31
3	Mg 279.077 IEC†	13.2	1.6	15.396 µg/L	15.396 ppb	04:42:52
3	Na 589.592 Radial†	391.0	-67.7	-22.148 µg/L	-22.148 ppb	04:42:31
3	Sr 421.552†	44.8	5.1	0.0503 µg/L	0.0503 ppb	04:42:31
3	Sc 361.383	2056881.8	2056881.8	97.964 %		04:44:06
3	Y 371.029	1422943.5	1422943.5	97.764 %		04:44:06
3	Ag 328.068†	-440.1	13.9	0.1045 µg/L	0.1045 ppb	04:44:12
3	As 188.979†	-0.3	-0.0	-0.0738 µg/L	-0.0738 ppb	04:44:32
3	B 249.677†	361.1	43.1	1.7614 µg/L	1.7614 ppb	04:44:32
3	Ba 233.527†	-11.3	6.8	0.1674 µg/L	0.1674 ppb	04:44:32
3	Be 313.107†	-3729.3	-47.9	-0.0291 µg/L	-0.0291 ppb	04:44:12
3	Cd 226.502†	-140.3	-6.6	-0.1664 µg/L	-0.1664 ppb	04:44:32
3	Co 228.616†	1.4	-1.1	-0.0530 µg/L	-0.0530 ppb	04:44:32
3	Cr 267.716†	-64.2	-18.2	-0.3701 µg/L	-0.3701 ppb	04:44:12
3	Cu 324.752†	2921.0	112.0	0.7432 µg/L	0.7432 ppb	04:44:12
3	Mn 257.610†	-242.6	54.9	0.1742 µg/L	0.1742 ppb	04:44:32
3	Mo 202.031†	-2.0	1.3	0.1319 µg/L	0.1319 ppb	04:44:32
3	Ni 231.604†	306.1	3.9	0.1949 µg/L	0.1949 ppb	04:44:32
3	P 214.914†	14.7	-1.2	-2.5049 µg/L	-2.5049 ppb	04:44:32
3	Pb 220.353†	92.8	-0.1	-0.0199 µg/L	-0.0199 ppb	04:44:32
3	S 181.975 Axial†	18.9	2.0	8.1060 µg/L	8.1060 ppb	04:44:32
3	Sb 206.836†	22.2	0.5	0.4763 µg/L	0.4763 ppb	04:44:32
3	Se 196.026†	9.2	-5.6	-7.6504 µg/L	-7.6504 ppb	04:44:32
3	SiO2†	1589.1	137.7	27.576 µg/L	27.576 ppb	04:44:12
3	Si 251.611†	444.8	160.5	12.391 µg/L	12.391 ppb	04:44:32
3	Sn 189.927†	-1.6	-6.3	-2.7023 µg/L	-2.7023 ppb	04:44:32
3	Ti 334.940†	267.4	131.3	0.2974 µg/L	0.2974 ppb	04:44:12
3	Tl 190.801†	-27.4	-5.7	-7.6763 µg/L	-7.6763 ppb	04:44:32
3	U 409.014†	-4.5	-3.8	-0.3223 µg/L	-0.3223 ppb	04:44:12
3	V 292.402†	-79.4	15.0	0.1483 µg/L	0.1483 ppb	04:44:12
3	Zn 213.857†	521.2	30.1	0.7084 µg/L	0.7084 ppb	04:44:32

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2053753.1	97.815 %	0.4892			0.50%
Sc RADIAL	56626.2	95.9 %	0.35			0.37%
Y 371.029	1420443.4	97.592 %	0.5029			0.52%
Ag 328.068†	29.1	0.2188 µg/L	0.23416	0.2188 ppb	0.23416	107.04%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	5.7	4.2282 µg/L	13.54068	4.2282 ppb	13.54068	320.24%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-1.0	-1.8446 µg/L	3.58081	-1.8446 ppb	3.58081	194.13%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	47.3	1.9283 µg/L	0.18494	1.9283 ppb	0.18494	9.59%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	7.4	0.1822 µg/L	0.04230	0.1822 ppb	0.04230	23.22%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-29.3	-0.0178 µg/L	0.02345	-0.0178 ppb	0.02345	131.83%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	2.7	2.4342 µg/L	4.77804	2.4342 ppb	4.77804	196.29%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-8.2	-0.2069 µg/L	0.14710	-0.2069 ppb	0.14710	71.10%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	2.4	0.1103 µg/L	0.30374	0.1103 ppb	0.30374	275.31%



Cr	267.716†	QC value within limits for Co 228.616 Recovery = Not calculated	-6.6	-0.1350 µg/L	0.30617	-0.1350 ppb	0.30617	226.76%
Cu	324.752†	QC value within limits for Cr 267.716 Recovery = Not calculated	81.0	0.5387 µg/L	0.18741	0.5387 ppb	0.18741	34.79%
Fe	238.204 Radial†	QC value within limits for Cu 324.752 Recovery = Not calculated	1.1	9.0375 µg/L	8.02395	9.0375 ppb	8.02395	88.78%
K	766.490 Radial†	QC value within limits for Fe 238.204 Radial Recovery = Not calculated	0.8	0.5343 µg/L	23.68411	0.5343 ppb	23.68411	>999.9%
Mg	279.077 IEC†	QC value within limits for K 766.490 Radial Recovery = Not calculated	0.5	4.5626 µg/L	18.68331	4.5626 ppb	18.68331	409.49%
Mn	257.610†	QC value within limits for Mg 279.077 IEC Recovery = Not calculated	48.8	0.1563 µg/L	0.01607	0.1563 ppb	0.01607	10.28%
Mo	202.031†	QC value within limits for Mn 257.610 Recovery = Not calculated	2.6	0.2599 µg/L	0.12360	0.2599 ppb	0.12360	47.55%
Na	589.592 Radial†	QC value within limits for Mo 202.031 Recovery = Not calculated	-46.0	-15.036 µg/L	6.8948	-15.036 ppb	6.8948	45.86%
Ni	231.604†	QC value within limits for Na 589.592 Radial Recovery = Not calculated	8.3	0.4212 µg/L	0.19631	0.4212 ppb	0.19631	46.61%
P	214.914†	QC value within limits for Ni 231.604 Recovery = Not calculated	-1.0	-2.0025 µg/L	0.56978	-2.0025 ppb	0.56978	28.45%
Pb	220.353†	QC value within limits for P 214.914 Recovery = Not calculated	-5.6	-1.3843 µg/L	1.55731	-1.3843 ppb	1.55731	112.50%
S	181.975 Axial†	QC value within limits for Pb 220.353 Recovery = Not calculated	0.5	2.0064 µg/L	6.30177	2.0064 ppb	6.30177	314.09%
Sb	206.836†	QC value within limits for S 181.975 Axial Recovery = Not calculated	4.3	3.9741 µg/L	6.28860	3.9741 ppb	6.28860	158.24%
Se	196.026†	QC value within limits for Sb 206.836 Recovery = Not calculated	-1.5	-2.0626 µg/L	6.40889	-2.0626 ppb	6.40889	310.72%
SiO2†		QC value within limits for Se 196.026 Recovery = Not calculated	98.0	19.620 µg/L	7.4543	19.620 ppb	7.4543	37.99%
Si	251.611†	QC value within limits for SiO2 Recovery = Not calculated	148.3	11.446 µg/L	1.5496	11.446 ppb	1.5496	13.54%
Sn	189.927†	QC value within limits for Si 251.611 Recovery = Not calculated	-3.7	-1.5841 µg/L	1.44430	-1.5841 ppb	1.44430	91.17%
Sr	421.552†	QC value within limits for Sn 189.927 Recovery = Not calculated	8.0	0.0788 µg/L	0.02553	0.0788 ppb	0.02553	32.39%
Ti	334.940†	QC value within limits for Sr 421.552 Recovery = Not calculated	88.6	0.2012 µg/L	0.08369	0.2012 ppb	0.08369	41.58%
Tl	190.801†	QC value within limits for Ti 334.940 Recovery = Not calculated	-2.9	-3.9391 µg/L	5.39263	-3.9391 ppb	5.39263	136.90%
U	409.014†	QC value within limits for Tl 190.801 Recovery = Not calculated	-29.6	-2.5110 µg/L	4.10075	-2.5110 ppb	4.10075	163.31%
V	292.402†	QC value within limits for U 409.014 Recovery = Not calculated	21.7	0.2151 µg/L	0.05796	0.2151 ppb	0.05796	26.94%
Zn	213.857†	QC value within limits for V 292.402 Recovery = Not calculated	31.9	0.7487 µg/L	0.03540	0.7487 ppb	0.03540	4.73%
QC value within limits for Zn 213.857 Recovery = Not calculated								
All analyte(s) passed QC.								

Sequence No.: 96

Sample ID: 246336004|950379|1

Analyst: JWJ

Initial Sample Wt:

Dilution:

Autosampler Location: 418

Date Collected: 2/21/2010 04:44:42

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 246336004|950379|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	58258.8	58258.8	98.7 %		04:45:21
1	Al 396.153Radial†	69727.6	70675.8	52836 µg/L	52836 ppb	04:45:21
1	Ca 317.933Radial†	19073.3	19137.3	17554 µg/L	17554 ppb	04:45:21
1	Fe 238.204 Radial†	10726.3	10855.4	93186 µg/L	93186 ppb	04:45:41
1	K 766.490 Radial†	11025.2	10975.4	7546.9 µg/L	7546.9 ppb	04:45:21
1	Mg 279.077 IEC†	958.3	959.1	9235.7 µg/L	9235.7 ppb	04:45:41
1	Na 589.592 Radial†	1981.6	1534.6	501.71 µg/L	501.71 ppb	04:45:21
1	Sr 421.552†	14614.5	14770.1	145.27 µg/L	145.27 ppb	04:45:21
1	Sc 361.383	2095221.0	2095221.0	99.790 %		04:46:45
1	Y 371.029	1488758.7	1488758.7	102.29 %		04:46:45
1	Ag 328.068†	-1498.1	-1038.1	-0.9900 µg/L	-0.9900 ppb	04:46:51
1	As 188.979†	9.7	10.0	22.509 µg/L	22.509 ppb	04:47:11
1	B 249.677†	902.0	578.4	-24.849 µg/L	-24.849 ppb	04:46:51
1	Ba 233.527†	29613.2	29693.9	727.91 µg/L	727.91 ppb	04:46:51
1	Be 313.107†	9325.0	13103.5	6.7419 µg/L	6.7419 ppb	04:46:51
1	Cd 226.502†	203.9	340.9	-1.9051 µg/L	-1.9051 ppb	04:47:11
1	Co 228.616†	664.3	663.1	24.295 µg/L	24.295 ppb	04:47:11
1	Cr 267.716†	3440.0	3494.7	71.354 µg/L	71.354 ppb	04:46:51
1	Cu 324.752†	11041.1	8194.7	67.312 µg/L	67.312 ppb	04:46:51
1	Mn 257.610†	659544.6	661236.1	2116.8 µg/L	2116.8 ppb	04:46:45
1	Mo 202.031†	93.3	96.8	13.244 µg/L	13.244 ppb	04:47:11
1	Ni 231.604†	1216.8	910.7	47.200 µg/L	47.200 ppb	04:47:11
1	P 214.914†	439.4	424.1	777.09 µg/L	777.09 ppb	04:47:11
1	Pb 220.353†	503.0	409.2	100.12 µg/L	100.12 ppb	04:47:11
1	S 181.975 Axial†	199.8	182.9	758.21 µg/L	758.21 ppb	04:47:11
1	Sb 206.836†	28.1	6.1	3.3533 µg/L	3.3533 ppb	04:47:11
1	Se 196.026†	-31.3	-46.3	178.06 µg/L	178.06 ppb	04:47:11
1	SiO2†	147650.7	146477.2	29332 µg/L	29332 ppb	04:46:51
1	Si 251.611†	179456.4	179540.8	13858 µg/L	13858 ppb	04:46:45
1	Sn 189.927†	1.3	-3.4	-10.402 µg/L	-10.402 ppb	04:47:11
1	Ti 334.940†	1349558.7	1352259.0	3075.1 µg/L	3075.1 ppb	04:46:45
1	Tl 190.801†	-58.1	-36.0	2.8037 µg/L	2.8037 ppb	04:47:11
1	U 409.014†	-1388.4	-1390.5	-132.03 µg/L	-132.03 ppb	04:46:51
1	V 292.402†	13413.9	13538.2	145.00 µg/L	145.00 ppb	04:46:51
1	Zn 213.857†	14169.3	13697.2	318.02 µg/L	318.02 ppb	04:46:51
2	Sc RADIAL	58634.0	58634.0	99.3 %		04:45:47
2	Al 396.153Radial†	69929.1	70426.4	52650 µg/L	52650 ppb	04:45:47
2	Ca 317.933Radial†	19091.9	19032.3	17458 µg/L	17458 ppb	04:45:47
2	Fe 238.204 Radial†	10665.5	10724.6	92063 µg/L	92063 ppb	04:46:07
2	K 766.490 Radial†	11147.3	11026.8	7582.2 µg/L	7582.2 ppb	04:45:47
2	Mg 279.077 IEC†	960.7	955.3	9199.7 µg/L	9199.7 ppb	04:46:07
2	Na 589.592 Radial†	1920.6	1460.3	477.42 µg/L	477.42 ppb	04:45:47
2	Sr 421.552†	14680.9	14742.2	144.99 µg/L	144.99 ppb	04:45:47
2	Sc 361.383	2104876.1	2104876.1	100.25 %		04:47:18
2	Y 371.029	1495633.8	1495633.8	102.76 %		04:47:18
2	Ag 328.068†	-1574.9	-1107.9	-1.5907 µg/L	-1.5907 ppb	04:47:24
2	As 188.979†	12.7	13.0	27.815 µg/L	27.815 ppb	04:47:44
2	B 249.677†	924.9	597.1	-23.497 µg/L	-23.497 ppb	04:47:24
2	Ba 233.527†	29367.4	29312.7	718.56 µg/L	718.56 ppb	04:47:24
2	Be 313.107†	9305.7	13041.4	6.7061 µg/L	6.7061 ppb	04:47:24
2	Cd 226.502†	213.1	349.1	-1.5725 µg/L	-1.5725 ppb	04:47:44
2	Co 228.616†	663.5	659.3	24.127 µg/L	24.127 ppb	04:47:44
2	Cr 267.716†	3473.0	3511.7	71.701 µg/L	71.701 ppb	04:47:24
2	Cu 324.752†	10969.7	8072.7	66.347 µg/L	66.347 ppb	04:47:24
2	Mn 257.610†	660663.0	659319.9	2110.6 µg/L	2110.6 ppb	04:47:18
2	Mo 202.031†	92.7	95.8	13.099 µg/L	13.099 ppb	04:47:44
2	Ni 231.604†	1208.8	897.2	46.503 µg/L	46.503 ppb	04:47:44
2	P 214.914†	437.0	419.7	769.20 µg/L	769.20 ppb	04:47:44
2	Pb 220.353†	494.0	398.0	97.382 µg/L	97.382 ppb	04:47:44

2	S 181.975 Axial†	198.0	180.2	746.93 µg/L	746.93 ppb	04:47:44
2	Sb 206.836†	32.7	10.5	7.4590 µg/L	7.4590 ppb	04:47:44
2	Se 196.026†	-32.2	-47.1	173.97 µg/L	173.97 ppb	04:47:44
2	SiO2†	146629.0	144779.4	28992 µg/L	28992 ppb	04:47:24
2	Si 251.611†	179971.0	179229.2	13834 µg/L	13834 ppb	04:47:18
2	Sn 189.927†	-8.0	-12.7	-14.231 µg/L	-14.231 ppb	04:47:44
2	Ti 334.940†	1353805.1	1350291.3	3070.6 µg/L	3070.6 ppb	04:47:18
2	Tl 190.801†	-51.3	-28.9	12.080 µg/L	12.080 ppb	04:47:44
2	U 409.014†	-1347.2	-1343.0	-127.84 µg/L	-127.84 ppb	04:47:24
2	V 292.402†	13326.8	13389.6	143.41 µg/L	143.41 ppb	04:47:24
2	Zn 213.857†	14125.0	13587.9	315.50 µg/L	315.50 ppb	04:47:24
3	Sc RADIAL	58876.0	58876.0	99.7 %		04:46:13
3	Al 396.153Radial†	70275.0	70483.8	52693 µg/L	52693 ppb	04:46:13
3	Ca 317.933Radial†	19171.9	19033.5	17459 µg/L	17459 ppb	04:46:13
3	Fe 238.204 Radial†	10704.0	10719.1	92015 µg/L	92015 ppb	04:46:33
3	K 766.490 Radial†	11181.1	11014.5	7573.8 µg/L	7573.8 ppb	04:46:13
3	Mg 279.077 IEC†	965.3	956.0	9206.3 µg/L	9206.3 ppb	04:46:33
3	Na 589.592 Radial†	1979.5	1511.4	494.12 µg/L	494.12 ppb	04:46:13
3	Sr 421.552†	14739.7	14740.4	144.97 µg/L	144.97 ppb	04:46:13
3	Sc 361.383	2105909.4	2105909.4	100.30 %		04:47:51
3	Y 371.029	1494683.6	1494683.6	102.69 %		04:47:51
3	Ag 328.068†	-1479.9	-1012.4	-0.9081 µg/L	-0.9081 ppb	04:47:57
3	As 188.979†	15.5	15.8	32.779 µg/L	32.779 ppb	04:48:17
3	B 249.677†	852.3	524.3	-26.457 µg/L	-26.457 ppb	04:47:57
3	Ba 233.527†	28531.5	28464.8	697.78 µg/L	697.78 ppb	04:47:57
3	Be 313.107†	8921.5	12653.8	6.5091 µg/L	6.5091 ppb	04:47:57
3	Cd 226.502†	171.8	307.9	-2.6065 µg/L	-2.6065 ppb	04:48:17
3	Co 228.616†	623.3	618.9	22.458 µg/L	22.458 ppb	04:48:17
3	Cr 267.716†	3285.2	3322.8	67.846 µg/L	67.846 ppb	04:47:57
3	Cu 324.752†	10641.4	7739.9	64.133 µg/L	64.133 ppb	04:47:57
3	Mn 257.610†	642389.0	640777.1	2051.6 µg/L	2051.6 ppb	04:47:51
3	Mo 202.031†	91.1	94.2	12.930 µg/L	12.930 ppb	04:48:17
3	Ni 231.604†	1166.1	854.0	44.321 µg/L	44.321 ppb	04:48:17
3	P 214.914†	419.1	401.6	733.53 µg/L	733.53 ppb	04:48:17
3	Pb 220.353†	486.4	390.1	95.457 µg/L	95.457 ppb	04:48:17
3	S 181.975 Axial†	183.9	166.1	688.37 µg/L	688.37 ppb	04:48:17
3	Sb 206.836†	30.6	8.4	5.5117 µg/L	5.5117 ppb	04:48:17
3	Se 196.026†	-28.6	-43.5	178.83 µg/L	178.83 ppb	04:48:17
3	SiO2†	142944.6	141034.2	28242 µg/L	28242 ppb	04:47:57
3	Si 251.611†	175595.0	174778.1	13490 µg/L	13490 ppb	04:47:51
3	Sn 189.927†	-1.1	-5.8	-11.310 µg/L	-11.310 ppb	04:48:17
3	Ti 334.940†	1311629.6	1307578.9	2973.5 µg/L	2973.5 ppb	04:47:51
3	Tl 190.801†	-51.2	-28.8	11.166 µg/L	11.166 ppb	04:48:17
3	U 409.014†	-1400.0	-1395.0	-132.24 µg/L	-132.24 ppb	04:47:57
3	V 292.402†	12918.4	12975.9	139.29 µg/L	139.29 ppb	04:47:57
3	Zn 213.857†	13694.6	13151.9	305.22 µg/L	305.22 ppb	04:47:57

Mean Data: 246336004|950379|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2102002.1	100.11 %	0.281			0.28%
Sc RADIAL	58589.6	99.2 %	0.53			0.53%
Y 371.029	1493025.4	102.58 %	0.256			0.25%
Ag 328.068†	-1052.8	-1.1629 µg/L	0.37275	-1.1629 ppb	0.37275	32.05%
Al 396.153Radial†	70528.6	52726 µg/L	97.6	52726 ppb	97.6	0.19%
As 188.979†	12.9	27.701 µg/L	5.1358	27.701 ppb	5.1358	18.54%
B 249.677†	566.6	-24.934 µg/L	1.4822	-24.934 ppb	1.4822	5.94%
Ba 233.527†	29157.1	714.75 µg/L	15.423	714.75 ppb	15.423	2.16%
Be 313.107†	12932.9	6.6524 µg/L	0.12540	6.6524 ppb	0.12540	1.89%
Ca 317.933Radial†	19067.7	17490 µg/L	55.3	17490 ppb	55.3	0.32%
Cd 226.502†	332.7	-2.0281 µg/L	0.52786	-2.0281 ppb	0.52786	26.03%
Co 228.616†	647.1	23.627 µg/L	1.0159	23.627 ppb	1.0159	4.30%
Cr 267.716†	3443.1	70.300 µg/L	2.1325	70.300 ppb	2.1325	3.03%
Cu 324.752†	8002.4	65.930 µg/L	1.6300	65.930 ppb	1.6300	2.47%
Fe 238.204 Radial†	10766.4	92421 µg/L	662.5	92421 ppb	662.5	0.72%
K 766.490 Radial†	11005.6	7567.6 µg/L	18.46	7567.6 ppb	18.46	0.24%
Mg 279.077 IEC†	956.8	9213.9 µg/L	19.16	9213.9 ppb	19.16	0.21%
Mn 257.610†	653777.7	2093.0 µg/L	36.02	2093.0 ppb	36.02	1.72%
Mo 202.031†	95.6	13.091 µg/L	0.1568	13.091 ppb	0.1568	1.20%
Na 589.592 Radial†	1502.1	491.08 µg/L	12.422	491.08 ppb	12.422	2.53%

Ni 231.604†	887.3	46.008 µg/L	1.5022	46.008 ppb	1.5022	3.27%
P 214.914†	415.2	759.94 µg/L	23.208	759.94 ppb	23.208	3.05%
Pb 220.353†	399.1	97.652 µg/L	2.3408	97.652 ppb	2.3408	2.40%
S 181.975 Axial†	176.4	731.17 µg/L	37.496	731.17 ppb	37.496	5.13%
Sb 206.836†	8.3	5.4413 µg/L	2.05373	5.4413 ppb	2.05373	37.74%
Se 196.026†	-45.6	176.95 µg/L	2.616	176.95 ppb	2.616	1.48%
SiO2†	144096.9	28856 µg/L	557.7	28856 ppb	557.7	1.93%
Si 251.611†	177849.3	13727 µg/L	205.6	13727 ppb	205.6	1.50%
Sn 189.927†	-7.3	-11.981 µg/L	2.0012	-11.981 ppb	2.0012	16.70%
Sr 421.552†	14750.9	145.08 µg/L	0.164	145.08 ppb	0.164	0.11%
Ti 334.940†	1336709.7	3039.7 µg/L	57.42	3039.7 ppb	57.42	1.89%
Tl 190.801†	-31.2	8.6831 µg/L	5.11220	8.6831 ppb	5.11220	58.88%
U 409.014†	-1376.2	-130.70 µg/L	2.484	-130.70 ppb	2.484	1.90%
V 292.402†	13301.2	142.57 µg/L	2.946	142.57 ppb	2.946	2.07%
Zn 213.857†	13479.0	312.91 µg/L	6.778	312.91 ppb	6.778	2.17%

Sequence No.: 97

Sample ID: 246336005|950379|1

Analyst: JWJ

Initial Sample Wt:

Dilution:

Autosampler Location: 419

Date Collected: 2/21/2010 04:48:26

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 246336005|950379|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	59051.4	59051.4	100 %		04:48:59
1	Al 396.153Radial†	62682.7	62683.3	46861 µg/L	46861 ppb	04:48:59
1	Ca 317.933Radial†	13574.3	13379.5	12273 µg/L	12273 ppb	04:49:19
1	Fe 238.204 Radial†	10809.7	10792.9	92649 µg/L	92649 ppb	04:49:19
1	K 766.490 Radial†	10991.5	10791.7	7420.5 µg/L	7420.5 ppb	04:48:59
1	Mg 279.077 IEC†	890.9	878.7	8453.1 µg/L	8453.1 ppb	04:49:19
1	Na 589.592 Radial†	2242.1	1768.1	578.04 µg/L	578.04 ppb	04:48:59
1	Sr 421.552†	12766.4	12723.4	125.14 µg/L	125.14 ppb	04:48:59
1	Sc 361.383	2097851.2	2097851.2	99.915 %		04:50:23
1	Y 371.029	1495754.0	1495754.0	102.77 %		04:50:23
1	Ag 328.068†	-1443.7	-981.8	-0.6294 µg/L	-0.6294 ppb	04:50:29
1	As 188.979†	7.5	7.8	18.804 µg/L	18.804 ppb	04:50:49
1	B 249.677†	831.3	506.5	-27.338 µg/L	-27.338 ppb	04:50:29
1	Ba 233.527†	31718.3	31763.6	778.62 µg/L	778.62 ppb	04:50:29
1	Be 313.107†	9402.6	13169.4	6.5937 µg/L	6.5937 ppb	04:50:29
1	Cd 226.502†	201.4	338.1	-1.8747 µg/L	-1.8747 ppb	04:50:49
1	Co 228.616†	641.1	639.1	22.147 µg/L	22.147 ppb	04:50:49
1	Cr 267.716†	8675.8	8730.5	178.13 µg/L	178.13 ppb	04:50:29
1	Cu 324.752†	8637.1	5774.8	51.185 µg/L	51.185 ppb	04:50:29
1	Mn 257.610†	613166.7	613990.1	1966.4 µg/L	1966.4 ppb	04:50:23
1	Mo 202.031†	37.8	41.1	7.6413 µg/L	7.6413 ppb	04:50:49
1	Ni 231.604†	2014.3	1707.3	87.456 µg/L	87.456 ppb	04:50:49
1	P 214.914†	314.6	298.7	528.01 µg/L	528.01 ppb	04:50:49
1	Pb 220.353†	443.4	349.0	84.856 µg/L	84.856 ppb	04:50:49
1	S 181.975 Axial†	81.8	64.6	267.86 µg/L	267.86 ppb	04:50:49
1	Sb 206.836†	39.6	17.6	13.014 µg/L	13.014 ppb	04:50:49
1	Se 196.026†	-30.2	-45.2	180.31 µg/L	180.31 ppb	04:50:49
1	SiO2†	134563.3	133193.2	26672 µg/L	26672 ppb	04:50:29
1	Si 251.611†	163431.4	163276.7	12602 µg/L	12602 ppb	04:50:23
1	Sn 189.927†	-0.9	-5.6	-11.347 µg/L	-11.347 ppb	04:50:49
1	Ti 334.940†	1568170.6	1569361.0	3568.9 µg/L	3568.9 ppb	04:50:23
1	Tl 190.801†	-58.7	-36.5	5.9792 µg/L	5.9792 ppb	04:50:49
1	U 409.014†	124.4	125.3	-2.9926 µg/L	-2.9926 ppb	04:50:23
1	V 292.402†	13039.5	13146.6	141.40 µg/L	141.40 ppb	04:50:29
1	Zn 213.857†	13200.7	12710.0	294.64 µg/L	294.64 ppb	04:50:29
2	Sc RADIAL	58862.2	58862.2	99.7 %		04:49:25
2	Al 396.153Radial†	62638.9	62840.7	46979 µg/L	46979 ppb	04:49:25
2	Ca 317.933Radial†	13598.0	13446.9	12334 µg/L	12334 ppb	04:49:45
2	Fe 238.204 Radial†	10818.7	10836.6	93024 µg/L	93024 ppb	04:49:45
2	K 766.490 Radial†	11010.4	10846.0	7457.9 µg/L	7457.9 ppb	04:49:25
2	Mg 279.077 IEC†	898.7	889.4	8557.0 µg/L	8557.0 ppb	04:49:45
2	Na 589.592 Radial†	2214.3	1747.4	571.29 µg/L	571.29 ppb	04:49:25
2	Sr 421.552†	12792.5	12790.5	125.80 µg/L	125.80 ppb	04:49:25
2	Sc 361.383	2089340.1	2089340.1	99.510 %		04:50:57
2	Y 371.029	1488640.4	1488640.4	102.28 %		04:50:57
2	Ag 328.068†	-1482.8	-1027.0	-0.9420 µg/L	-0.9420 ppb	04:51:03
2	As 188.979†	13.6	13.9	29.837 µg/L	29.837 ppb	04:51:23
2	B 249.677†	821.3	499.9	-27.805 µg/L	-27.805 ppb	04:51:03
2	Ba 233.527†	31817.8	31992.9	784.24 µg/L	784.24 ppb	04:51:03
2	Be 313.107†	9520.2	13325.9	6.6916 µg/L	6.6916 ppb	04:51:03
2	Cd 226.502†	198.4	335.9	-1.9712 µg/L	-1.9712 ppb	04:51:23
2	Co 228.616†	642.7	643.3	22.362 µg/L	22.362 ppb	04:51:23
2	Cr 267.716†	8671.4	8761.5	178.76 µg/L	178.76 ppb	04:51:03
2	Cu 324.752†	8702.1	5875.3	51.904 µg/L	51.904 ppb	04:51:03
2	Mn 257.610†	608664.3	611965.5	1960.0 µg/L	1960.0 ppb	04:50:57
2	Mo 202.031†	31.7	35.1	7.0563 µg/L	7.0563 ppb	04:51:23
2	Ni 231.604†	2024.2	1725.5	88.380 µg/L	88.380 ppb	04:51:23
2	P 214.914†	318.0	303.3	536.80 µg/L	536.80 ppb	04:51:23
2	Pb 220.353†	437.4	344.7	83.800 µg/L	83.800 ppb	04:51:23

2	S 181.975 Axial†	81.3	64.4	266.99 µg/L	266.99 ppb	04:51:23
2	Sb 206.836†	22.7	0.7	-2.4311 µg/L	-2.4311 ppb	04:51:23
2	Se 196.026†	-25.3	-40.4	187.81 µg/L	187.81 ppb	04:51:23
2	SiO2†	134634.7	133813.6	26796 µg/L	26796 ppb	04:51:03
2	Si 251.611†	162464.5	162971.3	12579 µg/L	12579 ppb	04:50:57
2	Sn 189.927†	-10.2	-15.0	-15.385 µg/L	-15.385 ppb	04:51:23
2	Ti 334.940†	1557877.7	1565410.8	3559.9 µg/L	3559.9 ppb	04:50:57
2	Tl 190.801†	-58.8	-36.9	5.3640 µg/L	5.3640 ppb	04:51:23
2	U 409.014†	139.0	140.4	-1.7653 µg/L	-1.7653 ppb	04:50:57
2	V 292.402†	12994.8	13154.9	141.53 µg/L	141.53 ppb	04:51:03
2	Zn 213.857†	13196.3	12759.4	295.77 µg/L	295.77 ppb	04:51:03
3	Sc RADIAL	58354.2	58354.2	98.8 %		04:49:51
3	Al 396.153Radial†	62440.6	63187.0	47238 µg/L	47238 ppb	04:49:51
3	Ca 317.933Radial†	13496.3	13462.8	12349 µg/L	12349 ppb	04:50:11
3	Fe 238.204 Radial†	10742.1	10853.6	93170 µg/L	93170 ppb	04:50:11
3	K 766.490 Radial†	10963.9	10895.1	7491.6 µg/L	7491.6 ppb	04:49:51
3	Mg 279.077 IEC†	884.8	883.2	8496.6 µg/L	8496.6 ppb	04:50:11
3	Na 589.592 Radial†	2267.4	1820.5	595.17 µg/L	595.17 ppb	04:49:51
3	Sr 421.552†	12772.2	12881.7	126.69 µg/L	126.69 ppb	04:49:51
3	Sc 361.383	2098920.2	2098920.2	99.966 %		04:51:31
3	Y 371.029	1495367.3	1495367.3	102.74 %		04:51:31
3	Ag 328.068†	-1484.1	-1021.5	-0.8901 µg/L	-0.8901 ppb	04:51:36
3	As 188.979†	10.4	10.7	24.060 µg/L	24.060 ppb	04:51:57
3	B 249.677†	797.7	472.5	-29.001 µg/L	-29.001 ppb	04:51:36
3	Ba 233.527†	31822.6	31851.8	780.78 µg/L	780.78 ppb	04:51:36
3	Be 313.107†	9558.4	13320.5	6.6900 µg/L	6.6900 ppb	04:51:36
3	Cd 226.502†	170.6	307.3	-2.7144 µg/L	-2.7144 ppb	04:51:57
3	Co 228.616†	597.0	594.7	20.117 µg/L	20.117 ppb	04:51:57
3	Cr 267.716†	8722.7	8773.1	179.00 µg/L	179.00 ppb	04:51:36
3	Cu 324.752†	8705.3	5838.5	51.680 µg/L	51.680 ppb	04:51:36
3	Mn 257.610†	611535.2	612045.5	1960.3 µg/L	1960.3 ppb	04:51:31
3	Mo 202.031†	37.8	41.2	7.6647 µg/L	7.6647 ppb	04:51:57
3	Ni 231.604†	1916.4	1608.4	82.467 µg/L	82.467 ppb	04:51:57
3	P 214.914†	295.1	278.9	488.43 µg/L	488.43 ppb	04:51:57
3	Pb 220.353†	425.9	331.2	80.493 µg/L	80.493 ppb	04:51:57
3	S 181.975 Axial†	74.3	57.0	236.37 µg/L	236.37 ppb	04:51:57
3	Sb 206.836†	38.8	16.7	12.202 µg/L	12.202 ppb	04:51:57
3	Se 196.026†	-33.6	-48.6	177.04 µg/L	177.04 ppb	04:51:57
3	SiO2†	134840.4	133401.8	26714 µg/L	26714 ppb	04:51:36
3	Si 251.611†	162945.6	162707.4	12558 µg/L	12558 ppb	04:51:31
3	Sn 189.927†	-0.3	-5.0	-11.126 µg/L	-11.126 ppb	04:51:57
3	Ti 334.940†	1563033.3	1563422.6	3555.4 µg/L	3555.4 ppb	04:51:31
3	Tl 190.801†	-55.2	-33.0	10.632 µg/L	10.632 ppb	04:51:57
3	U 409.014†	176.9	177.7	1.3742 µg/L	1.3742 ppb	04:51:31
3	V 292.402†	13077.1	13177.6	141.78 µg/L	141.78 ppb	04:51:36
3	Zn 213.857†	13221.6	12724.2	294.97 µg/L	294.97 ppb	04:51:36

Mean Data: 246336005|950379|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2095370.5	99.797 %	0.2500			0.25%
Sc RADIAL	58755.9	99.5 %	0.61			0.61%
Y 371.029	1493253.9	102.59 %	0.275			0.27%
Ag 328.068†	-1010.1	-0.8205 µg/L	0.16750	-0.8205 ppb	0.16750	20.42%
Al 396.153Radial†	62903.6	47026 µg/L	192.6	47026 ppb	192.6	0.41%
As 188.979†	10.8	24.234 µg/L	5.5186	24.234 ppb	5.5186	22.77%
B 249.677†	493.0	-28.048 µg/L	0.8579	-28.048 ppb	0.8579	3.06%
Ba 233.527†	31869.5	781.21 µg/L	2.835	781.21 ppb	2.835	0.36%
Be 313.107†	13271.9	6.6584 µg/L	0.05610	6.6584 ppb	0.05610	0.84%
Ca 317.933Radial†	13429.7	12319 µg/L	40.5	12319 ppb	40.5	0.33%
Cd 226.502†	327.1	-2.1868 µg/L	0.45947	-2.1868 ppb	0.45947	21.01%
Co 228.616†	625.7	21.542 µg/L	1.2384	21.542 ppb	1.2384	5.75%
Cr 267.716†	8755.0	178.63 µg/L	0.449	178.63 ppb	0.449	0.25%
Cu 324.752†	5829.5	51.590 µg/L	0.3680	51.590 ppb	0.3680	0.71%
Fe 238.204 Radial†	10827.7	92948 µg/L	269.1	92948 ppb	269.1	0.29%
K 766.490 Radial†	10844.2	7456.7 µg/L	35.57	7456.7 ppb	35.57	0.48%
Mg 279.077 IEC†	883.8	8502.2 µg/L	52.20	8502.2 ppb	52.20	0.61%
Mn 257.610†	612667.0	1962.2 µg/L	3.62	1962.2 ppb	3.62	0.18%
Mo 202.031†	39.1	7.4541 µg/L	0.34472	7.4541 ppb	0.34472	4.62%
Na 589.592 Radial†	1778.7	581.50 µg/L	12.307	581.50 ppb	12.307	2.12%

Ni 231.604†	1680.4	86.101 µg/L	3.1810	86.101 ppb	3.1810	3.69%
P 214.914†	293.6	517.75 µg/L	25.767	517.75 ppb	25.767	4.98%
Pb 220.353†	341.6	83.050 µg/L	2.2762	83.050 ppb	2.2762	2.74%
S 181.975 Axial†	62.0	257.07 µg/L	17.934	257.07 ppb	17.934	6.98%
Sb 206.836†	11.6	7.5949 µg/L	8.69221	7.5949 ppb	8.69221	114.45%
Se 196.026†	-44.7	181.72 µg/L	5.520	181.72 ppb	5.520	3.04%
SiO2†	133469.5	26727 µg/L	63.2	26727 ppb	63.2	0.24%
Si 251.611†	162985.1	12580 µg/L	22.0	12580 ppb	22.0	0.17%
Sn 189.927†	-8.5	-12.619 µg/L	2.3980	-12.619 ppb	2.3980	19.00%
Sr 421.552†	12798.6	125.88 µg/L	0.782	125.88 ppb	0.782	0.62%
Ti 334.940†	1566064.8	3561.4 µg/L	6.88	3561.4 ppb	6.88	0.19%
Tl 190.801†	-35.5	7.3251 µg/L	2.88032	7.3251 ppb	2.88032	39.32%
U 409.014†	147.8	-1.1279 µg/L	2.25206	-1.1279 ppb	2.25206	199.67%
V 292.402†	13159.7	141.57 µg/L	0.191	141.57 ppb	0.191	0.13%
Zn 213.857†	12731.2	295.13 µg/L	0.585	295.13 ppb	0.585	0.20%

Sequence No.: 98

Sample ID: 246336006|950379|1

Analyst: JWW

Initial Sample Wt:

Dilution:

Autosampler Location: 420

Date Collected: 2/21/2010 04:52:06

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 246336006|950379|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	57762.6	57762.6	97.8 %		04:52:39
1	Al 396.153Radial†	50137.2	51257.8	38320 µg/L	38320 ppb	04:52:39
1	Ca 317.933Radial†	10519.2	10559.5	9685.9 µg/L	9685.9 ppb	04:52:59
1	Fe 238.204 Radial†	8400.0	8570.9	73575 µg/L	73575 ppb	04:52:59
1	K 766.490 Radial†	10800.7	10841.9	7455.0 µg/L	7455.0 ppb	04:52:39
1	Mg 279.077 IEC†	781.4	786.7	7578.0 µg/L	7578.0 ppb	04:52:59
1	Na 589.592 Radial†	1485.9	1045.1	341.67 µg/L	341.67 ppb	04:52:39
1	Sr 421.552†	8138.0	8277.1	81.407 µg/L	81.407 ppb	04:52:39
1	Sc 361.383	2058494.6	2058494.6	98.041 %		04:54:03
1	Y 371.029	1452046.2	1452046.2	99.764 %		04:54:03
1	Ag 328.068†	-1244.7	-806.5	-0.8443 µg/L	-0.8443 ppb	04:54:08
1	As 188.979†	12.4	12.9	27.041 µg/L	27.041 ppb	04:54:29
1	B 249.677†	845.7	537.1	-16.244 µg/L	-16.244 ppb	04:54:08
1	Ba 233.527†	21775.5	22229.0	544.88 µg/L	544.88 ppb	04:54:08
1	Be 313.107†	6675.8	10568.0	5.3936 µg/L	5.3936 ppb	04:54:08
1	Cd 226.502†	118.4	257.4	-1.7725 µg/L	-1.7725 ppb	04:54:29
1	Co 228.616†	525.2	533.1	19.272 µg/L	19.272 ppb	04:54:29
1	Cr 267.716†	5231.4	5383.3	109.84 µg/L	109.84 ppb	04:54:08
1	Cu 324.752†	6768.7	4034.2	36.988 µg/L	36.988 ppb	04:54:08
1	Mn 257.610†	558142.9	569599.8	1822.6 µg/L	1822.6 ppb	04:54:03
1	Mo 202.031†	24.3	28.1	5.6122 µg/L	5.6122 ppb	04:54:29
1	Ni 231.604†	1550.6	1273.0	65.263 µg/L	65.263 ppb	04:54:29
1	P 214.914†	349.3	340.1	624.56 µg/L	624.56 ppb	04:54:29
1	Pb 220.353†	342.7	254.7	62.017 µg/L	62.017 ppb	04:54:29
1	S 181.975 Axial†	85.8	70.2	291.14 µg/L	291.14 ppb	04:54:29
1	Sb 206.836†	22.2	0.5	-1.5643 µg/L	-1.5643 ppb	04:54:29
1	Se 196.026†	-27.0	-42.5	133.35 µg/L	133.35 ppb	04:54:29
1	SiO2†	139436.9	140739.2	28183 µg/L	28183 ppb	04:54:08
1	Si 251.611†	169020.4	172104.7	13284 µg/L	13284 ppb	04:54:03
1	Sn 189.927†	-4.1	-8.9	-10.802 µg/L	-10.802 ppb	04:54:29
1	Ti 334.940†	1118935.1	1141155.1	2595.0 µg/L	2595.0 ppb	04:54:03
1	Tl 190.801†	-50.5	-29.3	3.2883 µg/L	3.2883 ppb	04:54:29
1	U 409.014†	-752.7	-767.0	-75.904 µg/L	-75.904 ppb	04:54:08
1	V 292.402†	7963.5	8218.7	90.166 µg/L	90.166 ppb	04:54:08
1	Zn 213.857†	11023.0	10741.3	249.25 µg/L	249.25 ppb	04:54:08
2	Sc RADIAL	58006.7	58006.7	98.2 %		04:53:05
2	Al 396.153Radial†	50529.3	51441.3	38457 µg/L	38457 ppb	04:53:05
2	Ca 317.933Radial†	10556.3	10552.0	9679.0 µg/L	9679.0 ppb	04:53:25
2	Fe 238.204 Radial†	8424.6	8559.8	73479 µg/L	73479 ppb	04:53:25
2	K 766.490 Radial†	10918.5	10915.3	7505.5 µg/L	7505.5 ppb	04:53:05
2	Mg 279.077 IEC†	789.4	791.4	7624.1 µg/L	7624.1 ppb	04:53:25
2	Na 589.592 Radial†	1495.6	1048.6	342.81 µg/L	342.81 ppb	04:53:05
2	Sr 421.552†	8222.1	8327.8	81.905 µg/L	81.905 ppb	04:53:05
2	Sc 361.383	2069894.8	2069894.8	98.584 %		04:54:36
2	Y 371.029	1460347.1	1460347.1	100.33 %		04:54:36
2	Ag 328.068†	-1219.5	-773.9	-0.6088 µg/L	-0.6088 ppb	04:54:42
2	As 188.979†	8.7	9.1	20.155 µg/L	20.155 ppb	04:55:02
2	B 249.677†	838.3	524.8	-16.694 µg/L	-16.694 ppb	04:54:42
2	Ba 233.527†	21987.6	22321.9	547.16 µg/L	547.16 ppb	04:54:42
2	Be 313.107†	6760.3	10616.3	5.4233 µg/L	5.4233 ppb	04:54:42
2	Cd 226.502†	126.5	264.9	-1.5723 µg/L	-1.5723 ppb	04:55:02
2	Co 228.616†	522.9	527.9	19.032 µg/L	19.032 ppb	04:55:02
2	Cr 267.716†	5304.6	5428.2	110.75 µg/L	110.75 ppb	04:54:42
2	Cu 324.752†	6778.0	4005.7	36.785 µg/L	36.785 ppb	04:54:42
2	Mn 257.610†	559704.7	568048.6	1817.7 µg/L	1817.7 ppb	04:54:36
2	Mo 202.031†	26.2	29.9	5.7875 µg/L	5.7875 ppb	04:55:02
2	Ni 231.604†	1551.6	1265.3	64.873 µg/L	64.873 ppb	04:55:02
2	P 214.914†	358.1	347.0	638.56 µg/L	638.56 ppb	04:55:02
2	Pb 220.353†	347.4	257.6	62.735 µg/L	62.735 ppb	04:55:02



2	S 181.975 Axial†	87.7	71.7	297.18 µg/L	297.18 ppb	04:55:02
2	Sb 206.836†	33.3	11.6	8.5605 µg/L	8.5605 ppb	04:55:02
2	Se 196.026†	-11.5	-26.6	154.81 µg/L	154.81 ppb	04:55:02
2	SiO2†	140483.7	141017.7	28239 µg/L	28239 ppb	04:54:42
2	Si 251.611†	169627.7	171771.2	13258 µg/L	13258 ppb	04:54:36
2	Sn 189.927†	-3.2	-7.9	-10.371 µg/L	-10.371 ppb	04:55:02
2	Ti 334.940†	1124552.2	1140567.1	2593.6 µg/L	2593.6 ppb	04:54:36
2	Tl 190.801†	-52.0	-30.6	1.5940 µg/L	1.5940 ppb	04:55:02
2	U 409.014†	-760.9	-771.1	-76.239 µg/L	-76.239 ppb	04:54:42
2	V 292.402†	7988.6	8199.4	89.967 µg/L	89.967 ppb	04:54:42
2	Zn 213.857†	11114.2	10771.9	249.98 µg/L	249.98 ppb	04:54:42
3	Sc RADIAL	58237.6	58237.6	98.6 %		04:53:30
3	Al 396.153Radial†	50737.7	51448.7	38463 µg/L	38463 ppb	04:53:30
3	Ca 317.933Radial†	10608.2	10562.1	9688.2 µg/L	9688.2 ppb	04:53:51
3	Fe 238.204 Radial†	8481.6	8583.6	73684 µg/L	73684 ppb	04:53:51
3	K 766.490 Radial†	10905.9	10858.5	7466.5 µg/L	7466.5 ppb	04:53:30
3	Mg 279.077 IEC†	790.0	788.9	7599.4 µg/L	7599.4 ppb	04:53:51
3	Na 589.592 Radial†	1538.3	1085.9	355.02 µg/L	355.02 ppb	04:53:30
3	Sr 421.552†	8266.9	8339.9	82.025 µg/L	82.025 ppb	04:53:30
3	Sc 361.383	2080652.9	2080652.9	99.096 %		04:55:09
3	Y 371.029	1467426.0	1467426.0	100.82 %		04:55:09
3	Ag 328.068†	-1154.6	-702.1	-0.0823 µg/L	-0.0823 ppb	04:55:15
3	As 188.979†	9.3	9.6	21.102 µg/L	21.102 ppb	04:55:35
3	B 249.677†	853.0	535.3	-16.382 µg/L	-16.382 ppb	04:55:15
3	Ba 233.527†	21292.2	21504.8	527.13 µg/L	527.13 ppb	04:55:15
3	Be 313.107†	6439.6	10257.2	5.2288 µg/L	5.2288 ppb	04:55:15
3	Cd 226.502†	113.0	250.6	-1.9593 µg/L	-1.9593 ppb	04:55:35
3	Co 228.616†	489.5	491.4	17.466 µg/L	17.466 ppb	04:55:35
3	Cr 267.716†	5063.2	5156.8	105.22 µg/L	105.22 ppb	04:55:15
3	Cu 324.752†	6587.6	3778.0	35.303 µg/L	35.303 ppb	04:55:15
3	Mn 257.610†	552530.9	557873.8	1785.3 µg/L	1785.3 ppb	04:55:09
3	Mo 202.031†	21.5	25.0	5.3071 µg/L	5.3071 ppb	04:55:35
3	Ni 231.604†	1486.4	1191.4	61.141 µg/L	61.141 ppb	04:55:35
3	P 214.914†	337.1	323.9	592.60 µg/L	592.60 ppb	04:55:35
3	Pb 220.353†	319.8	227.9	55.420 µg/L	55.420 ppb	04:55:35
3	S 181.975 Axial†	80.7	64.2	266.07 µg/L	266.07 ppb	04:55:35
3	Sb 206.836†	30.9	9.1	6.2986 µg/L	6.2986 ppb	04:55:35
3	Se 196.026†	-20.6	-35.8	142.81 µg/L	142.81 ppb	04:55:35
3	SiO2†	136167.3	135925.0	27219 µg/L	27219 ppb	04:55:15
3	Si 251.611†	168290.9	169532.6	13085 µg/L	13085 ppb	04:55:09
3	Sn 189.927†	-3.0	-7.7	-10.315 µg/L	-10.315 ppb	04:55:35
3	Ti 334.940†	1104745.0	1114681.1	2534.8 µg/L	2534.8 ppb	04:55:09
3	Tl 190.801†	-43.0	-21.2	13.506 µg/L	13.506 ppb	04:55:35
3	U 409.014†	-717.8	-723.6	-72.238 µg/L	-72.238 ppb	04:55:15
3	V 292.402†	7690.2	7856.4	86.585 µg/L	86.585 ppb	04:55:15
3	Zn 213.857†	10736.1	10332.1	239.61 µg/L	239.61 ppb	04:55:15

Mean Data: 246336006|950379|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2069680.8	98.573 %	0.5277			0.54%
Sc RADIAL	58002.3	98.2 %	0.40			0.41%
Y 371.029	1459939.8	100.31 %	0.529			0.53%
Ag 328.068†	-760.8	-0.5118 µg/L	0.39015	-0.5118 ppb	0.39015	76.23%
Al 396.153Radial†	51382.6	38413 µg/L	80.8	38413 ppb	80.8	0.21%
As 188.979†	10.6	22.766 µg/L	3.7324	22.766 ppb	3.7324	16.39%
B 249.677†	532.4	-16.440 µg/L	0.2301	-16.440 ppb	0.2301	1.40%
Ba 233.527†	22018.5	539.72 µg/L	10.966	539.72 ppb	10.966	2.03%
Be 313.107†	10480.5	5.3486 µg/L	0.10476	5.3486 ppb	0.10476	1.96%
Ca 317.933Radial†	10557.9	9684.4 µg/L	4.78	9684.4 ppb	4.78	0.05%
Cd 226.502†	257.7	-1.7680 µg/L	0.19353	-1.7680 ppb	0.19353	10.95%
Co 228.616†	517.5	18.590 µg/L	0.9809	18.590 ppb	0.9809	5.28%
Cr 267.716†	5322.8	108.60 µg/L	2.968	108.60 ppb	2.968	2.73%
Cu 324.752†	3939.3	36.359 µg/L	0.9198	36.359 ppb	0.9198	2.53%
Fe 238.204 Radial†	8571.4	73579 µg/L	102.3	73579 ppb	102.3	0.14%
K 766.490 Radial†	10871.9	7475.7 µg/L	26.47	7475.7 ppb	26.47	0.35%
Mg 279.077 IEC†	789.0	7600.5 µg/L	23.04	7600.5 ppb	23.04	0.30%
Mn 257.610†	565174.1	1808.5 µg/L	20.26	1808.5 ppb	20.26	1.12%
Mo 202.031†	27.7	5.5689 µg/L	0.24308	5.5689 ppb	0.24308	4.36%
Na 589.592 Radial†	1059.9	346.50 µg/L	7.399	346.50 ppb	7.399	2.14%

Ni 231.604†	1243.2	63.759 µg/L	2.2757	63.759 ppb	2.2757	3.57%
P 214.914†	337.0	618.57 µg/L	23.555	618.57 ppb	23.555	3.81%
Pb 220.353†	246.7	60.057 µg/L	4.0318	60.057 ppb	4.0318	6.71%
S 181.975 Axial†	68.7	284.80 µg/L	16.497	284.80 ppb	16.497	5.79%
Sb 206.836†	7.1	4.4316 µg/L	5.31433	4.4316 ppb	5.31433	119.92%
Se 196.026†	-35.0	143.66 µg/L	10.757	143.66 ppb	10.757	7.49%
SiO2†	139227.3	27880 µg/L	573.4	27880 ppb	573.4	2.06%
Si 251.611†	171136.2	13209 µg/L	108.0	13209 ppb	108.0	0.82%
Sn 189.927†	-8.2	-10.496 µg/L	0.2663	-10.496 ppb	0.2663	2.54%
Sr 421.552†	8314.9	81.779 µg/L	0.3275	81.779 ppb	0.3275	0.40%
Ti 334.940†	1132134.4	2574.5 µg/L	34.38	2574.5 ppb	34.38	1.34%
Tl 190.801†	-27.0	6.1294 µg/L	6.44408	6.1294 ppb	6.44408	105.13%
U 409.014†	-753.9	-74.794 µg/L	2.2196	-74.794 ppb	2.2196	2.97%
V 292.402†	8091.5	88.906 µg/L	2.0121	88.906 ppb	2.0121	2.26%
Zn 213.857†	10615.1	246.28 µg/L	5.789	246.28 ppb	5.789	2.35%

Sequence No.: 99

Sample ID: 246336007|950379|1

Analyst: JWJ

Initial Sample Wt:

Dilution:

Autosampler Location: 421

Date Collected: 2/21/2010 04:55:44

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 246336007|950379|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	57612.9	57612.9	97.6 %		04:56:17
1	Al 396.153Radial†	36881.8	37806.4	28264 µg/L	28264 ppb	04:56:17
1	Ca 317.933Radial†	8686.5	8709.2	7988.6 µg/L	7988.6 ppb	04:56:17
1	Fe 238.204 Radial†	9322.1	9538.2	81878 µg/L	81878 ppb	04:56:17
1	K 766.490 Radial†	6919.0	6892.4	4739.3 µg/L	4739.3 ppb	04:56:17
1	Mg 279.077 IEC†	520.7	521.6	4989.0 µg/L	4989.0 ppb	04:56:37
1	Na 589.592 Radial†	2185.1	1765.7	577.26 µg/L	577.26 ppb	04:56:17
1	Sr 421.552†	6955.8	7087.1	69.704 µg/L	69.704 ppb	04:56:17
1	Sc 361.383	2071067.7	2071067.7	98.640 %		04:57:41
1	Y 371.029	1493787.0	1493787.0	102.63 %		04:57:41
1	Ag 328.068†	-1277.3	-831.8	-0.6093 µg/L	-0.6093 ppb	04:57:47
1	As 188.979†	7.6	8.0	18.648 µg/L	18.648 ppb	04:58:07
1	B 249.677†	703.1	387.3	-26.738 µg/L	-26.738 ppb	04:57:47
1	Ba 233.527†	17709.8	17972.4	440.54 µg/L	440.54 ppb	04:57:47
1	Be 313.107†	7819.8	11686.5	5.8494 µg/L	5.8494 ppb	04:57:47
1	Cd 226.502†	156.0	294.7	-1.7831 µg/L	-1.7831 ppb	04:58:07
1	Co 228.616†	464.3	468.1	15.063 µg/L	15.063 ppb	04:58:07
1	Cr 267.716†	4203.6	4309.0	87.920 µg/L	87.920 ppb	04:57:47
1	Cu 324.752†	6431.4	3650.4	35.596 µg/L	35.596 ppb	04:57:47
1	Mn 257.610†	689497.0	699309.5	2236.7 µg/L	2236.7 ppb	04:57:41
1	Mo 202.031†	74.5	78.8	11.010 µg/L	11.010 ppb	04:58:07
1	Ni 231.604†	1339.6	1049.5	54.079 µg/L	54.079 ppb	04:58:07
1	P 214.914†	297.7	285.5	506.87 µg/L	506.87 ppb	04:58:07
1	Pb 220.353†	297.5	206.8	49.442 µg/L	49.442 ppb	04:58:07
1	S 181.975 Axial†	73.7	57.4	237.85 µg/L	237.85 ppb	04:58:07
1	Sb 206.836†	29.9	8.2	5.9689 µg/L	5.9689 ppb	04:58:07
1	Se 196.026†	-27.6	-43.0	158.17 µg/L	158.17 ppb	04:58:07
1	SiO2†	99921.2	99814.9	19988 µg/L	19988 ppb	04:57:47
1	Si 251.611†	119321.2	120673.5	9314.0 µg/L	9314.0 ppb	04:57:47
1	Sn 189.927†	12.0	7.4	-5.0007 µg/L	-5.0007 ppb	04:58:07
1	Ti 334.940†	1375849.2	1394684.1	3171.8 µg/L	3171.8 ppb	04:57:41
1	Tl 190.801†	-57.8	-36.4	0.9622 µg/L	0.9622 ppb	04:58:07
1	U 409.014†	-1584.7	-1605.8	-148.15 µg/L	-148.15 ppb	04:57:41
1	V 292.402†	6518.2	6704.1	76.076 µg/L	76.076 ppb	04:57:47
1	Zn 213.857†	14487.6	14185.5	330.34 µg/L	330.34 ppb	04:57:47
2	Sc RADIAL	57279.1	57279.1	97.0 %		04:56:43
2	Al 396.153Radial†	36810.9	37953.6	28374 µg/L	28374 ppb	04:56:43
2	Ca 317.933Radial†	8651.0	8724.5	8002.7 µg/L	8002.7 ppb	04:56:43
2	Fe 238.204 Radial†	9304.9	9576.1	82204 µg/L	82204 ppb	04:56:43
2	K 766.490 Radial†	6844.1	6856.6	4714.7 µg/L	4714.7 ppb	04:56:43
2	Mg 279.077 IEC†	525.0	529.0	5061.2 µg/L	5061.2 ppb	04:57:03
2	Na 589.592 Radial†	2186.8	1780.5	582.09 µg/L	582.09 ppb	04:56:43
2	Sr 421.552†	6974.4	7147.9	70.301 µg/L	70.301 ppb	04:56:43
2	Sc 361.383	2075625.4	2075625.4	98.857 %		04:58:15
2	Y 371.029	1496615.6	1496615.6	102.83 %		04:58:15
2	Ag 328.068†	-1271.4	-823.0	-0.5252 µg/L	-0.5252 ppb	04:58:20
2	As 188.979†	8.4	8.8	20.113 µg/L	20.113 ppb	04:58:41
2	B 249.677†	692.2	374.7	-27.424 µg/L	-27.424 ppb	04:58:20
2	Ba 233.527†	17687.0	17909.9	439.01 µg/L	439.01 ppb	04:58:20
2	Be 313.107†	7852.6	11702.3	5.8576 µg/L	5.8576 ppb	04:58:20
2	Cd 226.502†	152.8	291.2	-1.9096 µg/L	-1.9096 ppb	04:58:41
2	Co 228.616†	465.3	468.1	15.055 µg/L	15.055 ppb	04:58:41
2	Cr 267.716†	4174.4	4270.1	87.125 µg/L	87.125 ppb	04:58:20
2	Cu 324.752†	6338.3	3541.9	34.922 µg/L	34.922 ppb	04:58:20
2	Mn 257.610†	690822.1	699115.1	2236.1 µg/L	2236.1 ppb	04:58:15
2	Mo 202.031†	76.5	80.7	11.210 µg/L	11.210 ppb	04:58:41
2	Ni 231.604†	1332.3	1039.1	53.559 µg/L	53.559 ppb	04:58:41
2	P 214.914†	298.6	285.8	507.26 µg/L	507.26 ppb	04:58:41
2	Pb 220.353†	307.2	215.9	51.697 µg/L	51.697 ppb	04:58:41

2	S 181.975 Axial†	71.9	55.4	229.82 µg/L	229.82 ppb	04:58:41
2	Sb 206.836†	31.2	9.4	7.0410 µg/L	7.0410 ppb	04:58:41
2	Se 196.026†	-36.0	-51.4	147.48 µg/L	147.48 ppb	04:58:41
2	SiO2†	99987.9	99660.0	19957 µg/L	19957 ppb	04:58:20
2	Si 251.611†	119340.4	120427.2	9295.0 µg/L	9295.0 ppb	04:58:20
2	Sn 189.927†	7.6	3.0	-6.9368 µg/L	-6.9368 ppb	04:58:41
2	Ti 334.940†	1380461.4	1396286.8	3175.4 µg/L	3175.4 ppb	04:58:15
2	Tl 190.801†	-50.0	-28.4	11.776 µg/L	11.776 ppb	04:58:41
2	U 409.014†	-1591.0	-1608.7	-148.43 µg/L	-148.43 ppb	04:58:15
2	V 292.402†	6495.2	6666.3	75.740 µg/L	75.740 ppb	04:58:20
2	Zn 213.857†	14428.9	14093.9	328.16 µg/L	328.16 ppb	04:58:20
3	Sc RADIAL	57364.8	57364.8	97.2 %		04:57:09
3	Al 396.153Radial†	36941.5	38031.3	28432 µg/L	28432 ppb	04:57:09
3	Ca 317.933Radial†	8657.5	8717.9	7996.6 µg/L	7996.6 ppb	04:57:09
3	Fe 238.204 Radial†	9318.9	9576.2	82204 µg/L	82204 ppb	04:57:09
3	K 766.490 Radial†	6882.4	6885.4	4734.5 µg/L	4734.5 ppb	04:57:09
3	Mg 279.077 IEC†	520.4	523.6	5008.0 µg/L	5008.0 ppb	04:57:29
3	Na 589.592 Radial†	2204.0	1794.8	586.76 µg/L	586.76 ppb	04:57:09
3	Sr 421.552†	6972.9	7135.6	70.180 µg/L	70.180 ppb	04:57:09
3	Sc 361.383	2078603.9	2078603.9	98.998 %		04:58:48
3	Y 371.029	1498238.1	1498238.1	102.94 %		04:58:48
3	Ag 328.068†	-1280.9	-830.8	-0.6011 µg/L	-0.6011 ppb	04:58:54
3	As 188.979†	15.0	15.5	32.172 µg/L	32.172 ppb	04:59:14
3	B 249.677†	691.7	373.2	-27.494 µg/L	-27.494 ppb	04:58:54
3	Ba 233.527†	17039.7	17230.5	422.36 µg/L	422.36 ppb	04:58:54
3	Be 313.107†	7429.1	11263.1	5.6226 µg/L	5.6226 ppb	04:58:54
3	Cd 226.502†	136.5	274.5	-2.3337 µg/L	-2.3337 ppb	04:59:14
3	Co 228.616†	441.9	443.8	14.094 µg/L	14.094 ppb	04:59:14
3	Cr 267.716†	3967.2	4054.7	82.732 µg/L	82.732 ppb	04:58:54
3	Cu 324.752†	6283.3	3477.1	34.492 µg/L	34.492 ppb	04:58:54
3	Mn 257.610†	676732.8	683881.9	2187.6 µg/L	2187.6 ppb	04:58:48
3	Mo 202.031†	70.3	74.3	10.567 µg/L	10.567 ppb	04:59:14
3	Ni 231.604†	1250.9	954.9	49.303 µg/L	49.303 ppb	04:59:14
3	P 214.914†	283.2	269.8	475.43 µg/L	475.43 ppb	04:59:14
3	Pb 220.353†	290.3	198.4	47.371 µg/L	47.371 ppb	04:59:14
3	S 181.975 Axial†	68.6	52.0	215.41 µg/L	215.41 ppb	04:59:14
3	Sb 206.836†	34.7	13.0	10.335 µg/L	10.335 ppb	04:59:14
3	Se 196.026†	-30.9	-46.2	154.68 µg/L	154.68 ppb	04:59:14
3	SiO2†	96587.9	96080.7	19240 µg/L	19240 ppb	04:58:54
3	Si 251.611†	115465.5	116340.1	8979.5 µg/L	8979.5 ppb	04:58:54
3	Sn 189.927†	6.1	1.5	-7.5906 µg/L	-7.5906 ppb	04:59:14
3	Ti 334.940†	1347887.8	1361382.7	3096.0 µg/L	3096.0 ppb	04:58:48
3	Tl 190.801†	-49.8	-28.1	11.259 µg/L	11.259 ppb	04:59:14
3	U 409.014†	-1463.3	-1477.4	-137.29 µg/L	-137.29 ppb	04:58:48
3	V 292.402†	6234.8	6393.9	73.042 µg/L	73.042 ppb	04:58:54
3	Zn 213.857†	13971.8	13611.2	316.79 µg/L	316.79 ppb	04:58:54

Mean Data: 246336007|950379|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2075099.0	98.832 %	0.1808			0.18%
Sc RADIAL	57419.0	97.2 %	0.29			0.30%
Y 371.029	1496213.6	102.80 %	0.155			0.15%
Ag 328.068†	-828.5	-0.5785 µg/L	0.04634	-0.5785 ppb	0.04634	8.01%
Al 396.153Radial†	37930.4	28356 µg/L	85.4	28356 ppb	85.4	0.30%
As 188.979†	10.7	23.644 µg/L	7.4216	23.644 ppb	7.4216	31.39%
B 249.677†	378.4	-27.219 µg/L	0.4178	-27.219 ppb	0.4178	1.54%
Ba 233.527†	17704.2	433.97 µg/L	10.087	433.97 ppb	10.087	2.32%
Be 313.107†	11550.7	5.7765 µg/L	0.13338	5.7765 ppb	0.13338	2.31%
Ca 317.933Radial†	8717.2	7996.0 µg/L	7.05	7996.0 ppb	7.05	0.09%
Cd 226.502†	286.8	-2.0088 µg/L	0.28839	-2.0088 ppb	0.28839	14.36%
Co 228.616†	460.0	14.737 µg/L	0.5572	14.737 ppb	0.5572	3.78%
Cr 267.716†	4211.3	85.926 µg/L	2.7943	85.926 ppb	2.7943	3.25%
Cu 324.752†	3556.5	35.003 µg/L	0.5565	35.003 ppb	0.5565	1.59%
Fe 238.204 Radial†	9563.5	82096 µg/L	188.2	82096 ppb	188.2	0.23%
K 766.490 Radial†	6878.1	4729.5 µg/L	13.06	4729.5 ppb	13.06	0.28%
Mg 279.077 IEC†	524.7	5019.4 µg/L	37.43	5019.4 ppb	37.43	0.75%
Mn 257.610†	694102.2	2220.1 µg/L	28.16	2220.1 ppb	28.16	1.27%
Mo 202.031†	77.9	10.929 µg/L	0.3289	10.929 ppb	0.3289	3.01%
Na 589.592 Radial†	1780.3	582.03 µg/L	4.753	582.03 ppb	4.753	0.82%

Ni 231.604†	1014.5	52.313 µg/L	2.6202	52.313 ppb	2.6202	5.01%
P 214.914†	280.4	496.52 µg/L	18.269	496.52 ppb	18.269	3.68%
Pb 220.353†	207.0	49.503 µg/L	2.1637	49.503 ppb	2.1637	4.37%
S 181.975 Axial†	54.9	227.69 µg/L	11.368	227.69 ppb	11.368	4.99%
Sb 206.836†	10.2	7.7818 µg/L	2.27551	7.7818 ppb	2.27551	29.24%
Se 196.026†	-46.9	153.44 µg/L	5.455	153.44 ppb	5.455	3.55%
SiO2†	98518.5	19728 µg/L	423.1	19728 ppb	423.1	2.14%
Si 251.611†	119146.9	9196.2 µg/L	187.86	9196.2 ppb	187.86	2.04%
Sn 189.927†	3.9	-6.5093 µg/L	1.34684	-6.5093 ppb	1.34684	20.69%
Sr 421.552†	7123.5	70.062 µg/L	0.3160	70.062 ppb	0.3160	0.45%
Ti 334.940†	1384117.9	3147.8 µg/L	44.82	3147.8 ppb	44.82	1.42%
Tl 190.801†	-31.0	7.9990 µg/L	6.09950	7.9990 ppb	6.09950	76.25%
U 409.014†	-1564.0	-144.62 µg/L	6.353	-144.62 ppb	6.353	4.39%
V 292.402†	6588.1	74.953 µg/L	1.6633	74.953 ppb	1.6633	2.22%
Zn 213.857†	13963.5	325.10 µg/L	7.275	325.10 ppb	7.275	2.24%

Sequence No.: 100

Sample ID: 246336008|950379|1

Analyst: JWJ

Initial Sample Wt:

Dilution:

Autosampler Location: 422

Date Collected: 2/21/2010 04:59:24

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 246336008|950379|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	57447.2	57447.2	97.3 %		04:59:56
1	Al 396.153Radial†	9515.8	9788.9	7318.0 µg/L	7318.0 ppb	04:59:56
1	Ca 317.933Radial†	5068.4	5016.3	4601.2 µg/L	4601.2 ppb	05:00:16
1	Fe 238.204 Radial†	4330.2	4435.1	38072 µg/L	38072 ppb	05:00:16
1	K 766.490 Radial†	3538.7	3438.6	2364.4 µg/L	2364.4 ppb	04:59:56
1	Mg 279.077 IEC†	188.3	181.4	1725.1 µg/L	1725.1 ppb	05:00:16
1	Na 589.592 Radial†	1476.7	1044.0	341.33 µg/L	341.33 ppb	04:59:56
1	Sr 421.552†	2421.8	2447.8	24.074 µg/L	24.074 ppb	04:59:56
1	Sc 361.383	2068148.3	2068148.3	98.500 %		05:01:20
1	Y 371.029	1470794.7	1470794.7	101.05 %		05:01:20
1	Ag 328.068†	-863.3	-413.3	-0.5870 µg/L	-0.5870 ppb	05:01:26
1	As 188.979†	-1.2	-0.9	0.2571 µg/L	0.2571 ppb	05:01:46
1	B 249.677†	524.7	207.3	-11.321 µg/L	-11.321 ppb	05:01:26
1	Ba 233.527†	5342.2	5441.9	133.38 µg/L	133.38 ppb	05:01:46
1	Be 313.107†	2572.2	6370.2	3.1788 µg/L	3.1788 ppb	05:01:26
1	Cd 226.502†	3.3	140.0	-0.7587 µg/L	-0.7587 ppb	05:01:46
1	Co 228.616†	178.3	178.5	4.6049 µg/L	4.6049 ppb	05:01:46
1	Cr 267.716†	1959.8	2037.0	41.552 µg/L	41.552 ppb	05:01:46
1	Cu 324.752†	4462.0	1660.2	16.305 µg/L	16.305 ppb	05:01:26
1	Mn 257.610†	435318.3	442248.0	1412.7 µg/L	1412.7 ppb	05:01:20
1	Mo 202.031†	31.8	35.6	5.0126 µg/L	5.0126 ppb	05:01:46
1	Ni 231.604†	729.2	431.7	22.301 µg/L	22.301 ppb	05:01:46
1	P 214.914†	334.7	323.6	613.41 µg/L	613.41 ppb	05:01:46
1	Pb 220.353†	186.1	94.1	22.181 µg/L	22.181 ppb	05:01:46
1	S 181.975 Axial†	82.0	65.9	273.31 µg/L	273.31 ppb	05:01:46
1	Sb 206.836†	26.1	4.4	3.1811 µg/L	3.1811 ppb	05:01:46
1	Se 196.026†	-4.4	-19.4	74.588 µg/L	74.588 ppb	05:01:46
1	SiO2†	58045.4	57444.7	11503 µg/L	11503 ppb	05:01:26
1	Si 251.611†	68478.6	69227.5	5343.2 µg/L	5343.2 ppb	05:01:26
1	Sn 189.927†	4.9	0.3	-3.7506 µg/L	-3.7506 ppb	05:01:46
1	Ti 334.940†	759957.5	771385.2	1754.4 µg/L	1754.4 ppb	05:01:20
1	Tl 190.801†	-41.4	-19.8	-0.0364 µg/L	-0.0364 ppb	05:01:46
1	U 409.014†	-797.4	-808.8	-74.208 µg/L	-74.208 ppb	05:01:26
1	V 292.402†	1381.2	1498.2	19.354 µg/L	19.354 ppb	05:01:26
1	Zn 213.857†	9665.5	9310.7	217.72 µg/L	217.72 ppb	05:01:26
2	Sc RADIAL	57837.7	57837.7	98.0 %		05:00:22
2	Al 396.153Radial†	9481.5	9687.9	7242.5 µg/L	7242.5 ppb	05:00:22
2	Ca 317.933Radial†	5089.4	5002.6	4588.7 µg/L	4588.7 ppb	05:00:42
2	Fe 238.204 Radial†	4340.6	4415.7	37905 µg/L	37905 ppb	05:00:42
2	K 766.490 Radial†	3528.4	3403.5	2340.3 µg/L	2340.3 ppb	05:00:22
2	Mg 279.077 IEC†	183.5	175.2	1664.8 µg/L	1664.8 ppb	05:00:42
2	Na 589.592 Radial†	1496.6	1054.1	344.62 µg/L	344.62 ppb	05:00:22
2	Sr 421.552†	2456.0	2465.9	24.252 µg/L	24.252 ppb	05:00:22
2	Sc 361.383	2083953.9	2083953.9	99.253 %		05:01:53
2	Y 371.029	1482417.8	1482417.8	101.85 %		05:01:53
2	Ag 328.068†	-806.8	-349.7	-0.1225 µg/L	-0.1225 ppb	05:01:59
2	As 188.979†	7.5	7.9	16.116 µg/L	16.116 ppb	05:02:19
2	B 249.677†	529.1	207.6	-11.221 µg/L	-11.221 ppb	05:01:59
2	Ba 233.527†	5319.8	5378.2	131.82 µg/L	131.82 ppb	05:02:19
2	Be 313.107†	2520.7	6298.5	3.1403 µg/L	3.1403 ppb	05:01:59
2	Cd 226.502†	-0.8	135.8	-0.8445 µg/L	-0.8445 ppb	05:02:19
2	Co 228.616†	177.9	176.7	4.5512 µg/L	4.5512 ppb	05:02:19
2	Cr 267.716†	1954.7	2016.8	41.141 µg/L	41.141 ppb	05:02:19
2	Cu 324.752†	4429.5	1593.1	15.837 µg/L	15.837 ppb	05:01:59
2	Mn 257.610†	435560.0	439139.7	1402.8 µg/L	1402.8 ppb	05:01:53
2	Mo 202.031†	35.0	38.6	5.3033 µg/L	5.3033 ppb	05:02:19
2	Ni 231.604†	727.3	424.1	21.918 µg/L	21.918 ppb	05:02:19
2	P 214.914†	341.1	327.5	621.36 µg/L	621.36 ppb	05:02:19
2	Pb 220.353†	178.3	84.9	19.902 µg/L	19.902 ppb	05:02:19

2	S 181.975 Axial†	87.5	70.9	293.84 µg/L	293.84 ppb	05:02:19
2	Sb 206.836†	25.7	3.8	2.6357 µg/L	2.6357 ppb	05:02:19
2	Se 196.026†	-0.4	-15.4	79.764 µg/L	79.764 ppb	05:02:19
2	SiO2†	57985.0	56936.9	11402 µg/L	11402 ppb	05:01:59
2	Si 251.611†	68450.2	68671.7	5300.3 µg/L	5300.3 ppb	05:01:59
2	Sn 189.927†	10.8	6.2	-1.2226 µg/L	-1.2226 ppb	05:02:19
2	Ti 334.940†	760274.8	765853.3	1741.8 µg/L	1741.8 ppb	05:01:53
2	Tl 190.801†	-39.0	-17.1	3.4183 µg/L	3.4183 ppb	05:02:19
2	U 409.014†	-795.9	-801.2	-73.537 µg/L	-73.537 ppb	05:01:59
2	V 292.402†	1399.1	1505.6	19.409 µg/L	19.409 ppb	05:01:59
2	Zn 213.857†	9646.3	9216.9	215.52 µg/L	215.52 ppb	05:01:59
3	Sc RADIAL	57645.2	57645.2	97.6 %		05:00:48
3	Al 396.153Radial†	9580.2	9821.3	7342.2 µg/L	7342.2 ppb	05:00:48
3	Ca 317.933Radial†	5105.4	5036.3	4619.6 µg/L	4619.6 ppb	05:01:08
3	Fe 238.204 Radial†	4358.9	4449.2	38193 µg/L	38193 ppb	05:01:08
3	K 766.490 Radial†	3555.6	3443.5	2367.8 µg/L	2367.8 ppb	05:00:48
3	Mg 279.077 IEC†	181.8	174.2	1654.2 µg/L	1654.2 ppb	05:01:08
3	Na 589.592 Radial†	1506.8	1069.7	349.71 µg/L	349.71 ppb	05:00:48
3	Sr 421.552†	2435.6	2453.3	24.129 µg/L	24.129 ppb	05:00:48
3	Sc 361.383	2072015.6	2072015.6	98.685 %		05:02:26
3	Y 371.029	1473325.1	1473325.1	101.23 %		05:02:26
3	Ag 328.068†	-822.9	-370.7	-0.2657 µg/L	-0.2657 ppb	05:02:32
3	As 188.979†	0.7	0.9	3.6643 µg/L	3.6643 ppb	05:02:52
3	B 249.677†	548.8	230.7	-10.432 µg/L	-10.432 ppb	05:02:32
3	Ba 233.527†	4972.5	5057.2	123.95 µg/L	123.95 ppb	05:02:52
3	Be 313.107†	2327.0	6116.9	3.0400 µg/L	3.0400 ppb	05:02:32
3	Cd 226.502†	-11.2	125.3	-1.1430 µg/L	-1.1430 ppb	05:02:52
3	Co 228.616†	165.1	164.7	4.0480 µg/L	4.0480 ppb	05:02:52
3	Cr 267.716†	1806.2	1877.7	38.302 µg/L	38.302 ppb	05:02:52
3	Cu 324.752†	4391.4	1580.2	15.791 µg/L	15.791 ppb	05:02:32
3	Mn 257.610†	428646.8	434662.7	1388.6 µg/L	1388.6 ppb	05:02:26
3	Mo 202.031†	36.3	40.1	5.4649 µg/L	5.4649 ppb	05:02:52
3	Ni 231.604†	704.7	405.4	20.977 µg/L	20.977 ppb	05:02:52
3	P 214.914†	319.7	307.7	581.82 µg/L	581.82 ppb	05:02:52
3	Pb 220.353†	157.6	64.9	14.992 µg/L	14.992 ppb	05:02:52
3	S 181.975 Axial†	79.8	63.6	263.46 µg/L	263.46 ppb	05:02:52
3	Sb 206.836†	25.3	3.6	2.4765 µg/L	2.4765 ppb	05:02:52
3	Se 196.026†	-14.7	-29.9	60.653 µg/L	60.653 ppb	05:02:52
3	SiO2†	56687.5	55958.7	11206 µg/L	11206 ppb	05:02:32
3	Si 251.611†	66936.7	67535.3	5212.6 µg/L	5212.6 ppb	05:02:32
3	Sn 189.927†	5.1	0.5	-3.6924 µg/L	-3.6924 ppb	05:02:52
3	Ti 334.940†	745228.9	755020.3	1717.2 µg/L	1717.2 ppb	05:02:26
3	Tl 190.801†	-37.3	-15.5	5.2789 µg/L	5.2789 ppb	05:02:52
3	U 409.014†	-780.5	-790.1	-72.643 µg/L	-72.643 ppb	05:02:32
3	V 292.402†	1317.4	1431.0	18.700 µg/L	18.700 ppb	05:02:32
3	Zn 213.857†	9433.3	9057.1	211.74 µg/L	211.74 ppb	05:02:32

Mean Data: 246336008|950379|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2074705.9	98.813 %	%	0.3924			0.40%
Sc RADIAL	57643.4	97.6 %	%	0.33			0.34%
Y 371.029	1475512.5	101.38 %	%	0.420			0.41%
Ag 328.068†	-377.9	-0.3251 µg/L	µg/L	0.23786	-0.3251 ppb	0.23786	73.17%
Al 396.153Radial†	9766.0	7300.9 µg/L	µg/L	51.99	7300.9 ppb	51.99	0.71%
As 188.979†	2.6	6.6790 µg/L	µg/L	8.34810	6.6790 ppb	8.34810	124.99%
B 249.677†	215.2	-10.991 µg/L	µg/L	0.4873	-10.991 ppb	0.4873	4.43%
Ba 233.527†	5292.4	129.72 µg/L	µg/L	5.054	129.72 ppb	5.054	3.90%
Be 313.107†	6261.8	3.1197 µg/L	µg/L	0.07167	3.1197 ppb	0.07167	2.30%
Ca 317.933Radial†	5018.4	4603.2 µg/L	µg/L	15.58	4603.2 ppb	15.58	0.34%
Cd 226.502†	133.7	-0.9154 µg/L	µg/L	0.20172	-0.9154 ppb	0.20172	22.04%
Co 228.616†	173.3	4.4013 µg/L	µg/L	0.30719	4.4013 ppb	0.30719	6.98%
Cr 267.716†	1977.2	40.332 µg/L	µg/L	1.7696	40.332 ppb	1.7696	4.39%
Cu 324.752†	1611.2	15.977 µg/L	µg/L	0.2843	15.977 ppb	0.2843	1.78%
Fe 238.204 Radial†	4433.3	38057 µg/L	µg/L	144.6	38057 ppb	144.6	0.38%
K 766.490 Radial†	3428.5	2357.5 µg/L	µg/L	14.97	2357.5 ppb	14.97	0.64%
Mg 279.077 IEC†	176.9	1681.4 µg/L	µg/L	38.24	1681.4 ppb	38.24	2.27%
Mn 257.610†	438683.5	1401.4 µg/L	µg/L	12.13	1401.4 ppb	12.13	0.87%
Mo 202.031†	38.1	5.2603 µg/L	µg/L	0.22923	5.2603 ppb	0.22923	4.36%
Na 589.592 Radial†	1055.9	345.22 µg/L	µg/L	4.225	345.22 ppb	4.225	1.22%

Ni 231.604†	420.4	21.732 µg/L	0.6813	21.732 ppb	0.6813	3.13%
P 214.914†	319.6	605.53 µg/L	20.911	605.53 ppb	20.911	3.45%
Pb 220.353†	81.3	19.025 µg/L	3.6742	19.025 ppb	3.6742	19.31%
S 181.975 Axial†	66.8	276.87 µg/L	15.500	276.87 ppb	15.500	5.60%
Sb 206.836†	3.9	2.7645 µg/L	0.36955	2.7645 ppb	0.36955	13.37%
Se 196.026†	-21.6	71.668 µg/L	9.8845	71.668 ppb	9.8845	13.79%
SiO2†	56780.1	11370 µg/L	151.3	11370 ppb	151.3	1.33%
Si 251.611†	68478.2	5285.4 µg/L	66.57	5285.4 ppb	66.57	1.26%
Sn 189.927†	2.3	-2.8886 µg/L	1.44303	-2.8886 ppb	1.44303	49.96%
Sr 421.552†	2455.6	24.152 µg/L	0.0912	24.152 ppb	0.0912	0.38%
Ti 334.940†	764086.3	1737.8 µg/L	18.93	1737.8 ppb	18.93	1.09%
Tl 190.801†	-17.5	2.8869 µg/L	2.69717	2.8869 ppb	2.69717	93.43%
U 409.014†	-800.0	-73.463 µg/L	0.7851	-73.463 ppb	0.7851	1.07%
V 292.402†	1478.3	19.154 µg/L	0.3940	19.154 ppb	0.3940	2.06%
Zn 213.857†	9194.9	214.99 µg/L	3.024	214.99 ppb	3.024	1.41%



Sequence No.: 101

Sample ID: 246336009|950379|1

Analyst: JWJ

Initial Sample Wt:

Dilution:

Autosampler Location: 423

Date Collected: 2/21/2010 05:03:01

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 246336009|950379|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	58765.2	58765.2	99.5 %		05:03:34
1	Al 396.153Radial†	62740.7	63046.7	47133 µg/L	47133 ppb	05:03:34
1	Ca 317.933Radial†	13561.3	13432.6	12321 µg/L	12321 ppb	05:03:55
1	Fe 238.204 Radial†	9792.2	9823.2	84325 µg/L	84325 ppb	05:03:55
1	K 766.490 Radial†	10589.4	10441.1	7179.5 µg/L	7179.5 ppb	05:03:34
1	Mg 279.077 IEC†	891.1	883.3	8506.8 µg/L	8506.8 ppb	05:03:55
1	Na 589.592 Radial†	1682.3	1216.5	397.71 µg/L	397.71 ppb	05:03:34
1	Sr 421.552†	11179.6	11191.2	110.07 µg/L	110.07 ppb	05:03:34
1	Sc 361.383	2092823.7	2092823.7	99.676 %		05:04:58
1	Y 371.029	1474861.5	1474861.5	101.33 %		05:04:58
1	Ag 328.068†	-1384.6	-926.0	-0.7534 µg/L	-0.7534 ppb	05:05:04
1	As 188.979†	6.6	6.9	16.587 µg/L	16.587 ppb	05:05:24
1	B 249.677†	785.5	462.5	-24.985 µg/L	-24.985 ppb	05:05:04
1	Ba 233.527†	32829.5	32954.7	807.80 µg/L	807.80 ppb	05:05:04
1	Be 313.107†	8152.0	11937.4	6.0437 µg/L	6.0437 ppb	05:05:04
1	Cd 226.502†	184.9	322.1	-1.3867 µg/L	-1.3867 ppb	05:05:24
1	Co 228.616†	768.5	768.4	29.197 µg/L	29.197 ppb	05:05:24
1	Cr 267.716†	2783.7	2840.2	58.003 µg/L	58.003 ppb	05:05:24
1	Cu 324.752†	12613.2	9784.5	76.627 µg/L	76.627 ppb	05:05:04
1	Mn 257.610†	765896.4	768690.9	2457.7 µg/L	2457.7 ppb	05:04:58
1	Mo 202.031†	25.5	28.9	6.1033 µg/L	6.1033 ppb	05:05:24
1	Ni 231.604†	1037.4	732.2	38.056 µg/L	38.056 ppb	05:05:24
1	P 214.914†	410.8	395.9	725.29 µg/L	725.29 ppb	05:05:24
1	Pb 220.353†	523.5	430.4	105.06 µg/L	105.06 ppb	05:05:24
1	S 181.975 Axial†	163.7	146.9	609.09 µg/L	609.09 ppb	05:05:24
1	Sb 206.836†	29.2	7.2	4.9093 µg/L	4.9093 ppb	05:05:24
1	Se 196.026†	-21.2	-36.3	169.70 µg/L	169.70 ppb	05:05:24
1	SiO2†	159157.6	158191.0	31678 µg/L	31678 ppb	05:05:04
1	Si 251.611†	194083.9	194421.9	15006 µg/L	15006 ppb	05:04:58
1	Sn 189.927†	-8.3	-13.1	-13.632 µg/L	-13.632 ppb	05:05:24
1	Ti 334.940†	1341097.8	1345319.7	3059.3 µg/L	3059.3 ppb	05:04:58
1	Tl 190.801†	-51.1	-29.1	12.460 µg/L	12.460 ppb	05:05:24
1	U 409.014†	1515.1	1520.8	116.58 µg/L	116.58 ppb	05:05:04
1	V 292.402†	12760.2	12897.7	137.80 µg/L	137.80 ppb	05:05:04
1	Zn 213.857†	12233.7	11771.6	273.06 µg/L	273.06 ppb	05:05:04
2	Sc RADIAL	57929.8	57929.8	98.1 %		05:04:00
2	Al 396.153Radial†	63007.9	64228.1	48016 µg/L	48016 ppb	05:04:00
2	Ca 317.933Radial†	13615.5	13684.4	12552 µg/L	12552 ppb	05:04:21
2	Fe 238.204 Radial†	9821.9	9995.4	85803 µg/L	85803 ppb	05:04:21
2	K 766.490 Radial†	10579.2	10584.3	7277.9 µg/L	7277.9 ppb	05:04:00
2	Mg 279.077 IEC†	889.3	894.3	8612.4 µg/L	8612.4 ppb	05:04:21
2	Na 589.592 Radial†	1741.8	1301.6	425.54 µg/L	425.54 ppb	05:04:00
2	Sr 421.552†	11260.3	11435.5	112.47 µg/L	112.47 ppb	05:04:00
2	Sc 361.383	2087886.2	2087886.2	99.441 %		05:05:31
2	Y 371.029	1471924.4	1471924.4	101.13 %		05:05:31
2	Ag 328.068†	-1392.7	-937.4	-0.7411 µg/L	-0.7411 ppb	05:05:37
2	As 188.979†	16.4	16.8	34.542 µg/L	34.542 ppb	05:05:57
2	B 249.677†	807.4	486.5	-24.777 µg/L	-24.777 ppb	05:05:37
2	Ba 233.527†	32896.6	33100.0	811.36 µg/L	811.36 ppb	05:05:37
2	Be 313.107†	8185.9	11990.8	6.0740 µg/L	6.0740 ppb	05:05:37
2	Cd 226.502†	188.4	326.1	-1.4529 µg/L	-1.4529 ppb	05:05:57
2	Co 228.616†	770.6	772.4	29.372 µg/L	29.372 ppb	05:05:57
2	Cr 267.716†	2776.5	2839.5	57.989 µg/L	57.989 ppb	05:05:57
2	Cu 324.752†	12588.5	9789.6	76.866 µg/L	76.866 ppb	05:05:37
2	Mn 257.610†	765818.6	770429.9	2463.5 µg/L	2463.5 ppb	05:05:31
2	Mo 202.031†	37.2	40.7	7.3369 µg/L	7.3369 ppb	05:05:57
2	Ni 231.604†	1032.4	729.6	37.945 µg/L	37.945 ppb	05:05:57
2	P 214.914†	419.4	405.5	743.55 µg/L	743.55 ppb	05:05:57
2	Pb 220.353†	514.9	423.0	103.24 µg/L	103.24 ppb	05:05:57

2	S 181.975 Axial†	158.0	141.6	586.89 µg/L	586.89 ppb	05:05:57
2	Sb 206.836†	33.7	11.8	9.0584 µg/L	9.0584 ppb	05:05:57
2	Se 196.026†	-26.1	-41.2	166.86 µg/L	166.86 ppb	05:05:57
2	SiO2†	159530.9	158944.1	31829 µg/L	31829 ppb	05:05:37
2	Si 251.611†	193969.4	194767.2	15033 µg/L	15033 ppb	05:05:31
2	Sn 189.927†	-5.7	-10.4	-12.649 µg/L	-12.649 ppb	05:05:57
2	Ti 334.940†	1340236.4	1347635.2	3064.6 µg/L	3064.6 ppb	05:05:31
2	Tl 190.801†	-56.1	-34.2	5.8999 µg/L	5.8999 ppb	05:05:57
2	U 409.014†	1500.3	1509.5	115.41 µg/L	115.41 ppb	05:05:37
2	V 292.402†	12792.5	12960.5	138.60 µg/L	138.60 ppb	05:05:37
2	Zn 213.857†	12264.1	11831.1	274.39 µg/L	274.39 ppb	05:05:37
3	Sc RADIAL	58399.2	58399.2	98.9 %		05:04:26
3	Al 396.153Radial†	63159.9	63865.6	47745 µg/L	47745 ppb	05:04:26
3	Ca 317.933Radial†	13638.0	13595.5	12471 µg/L	12471 ppb	05:04:46
3	Fe 238.204 Radial†	9795.3	9888.0	84881 µg/L	84881 ppb	05:04:46
3	K 766.490 Radial†	10638.4	10557.5	7259.5 µg/L	7259.5 ppb	05:04:26
3	Mg 279.077 IEC†	889.5	887.2	8544.2 µg/L	8544.2 ppb	05:04:46
3	Na 589.592 Radial†	1704.5	1249.6	408.54 µg/L	408.54 ppb	05:04:26
3	Sr 421.552†	11216.2	11298.6	111.12 µg/L	111.12 ppb	05:04:26
3	Sc 361.383	2085320.8	2085320.8	99.318 %		05:06:04
3	Y 371.029	1470188.0	1470188.0	101.01 %		05:06:04
3	Ag 328.068†	-1320.4	-866.3	-0.3046 µg/L	-0.3046 ppb	05:06:10
3	As 188.979†	10.7	11.1	24.191 µg/L	24.191 ppb	05:06:31
3	B 249.677†	795.5	475.5	-24.752 µg/L	-24.752 ppb	05:06:10
3	Ba 233.527†	31975.4	32213.2	789.62 µg/L	789.62 ppb	05:06:10
3	Be 313.107†	7757.9	11570.0	5.8402 µg/L	5.8402 ppb	05:06:10
3	Cd 226.502†	157.1	294.8	-2.1382 µg/L	-2.1382 ppb	05:06:31
3	Co 228.616†	716.7	719.0	27.011 µg/L	27.011 ppb	05:06:31
3	Cr 267.716†	2555.3	2620.3	53.515 µg/L	53.515 ppb	05:06:31
3	Cu 324.752†	12291.8	9506.4	74.859 µg/L	74.859 ppb	05:06:10
3	Mn 257.610†	753745.1	759220.9	2427.7 µg/L	2427.7 ppb	05:06:04
3	Mo 202.031†	28.6	32.1	6.4448 µg/L	6.4448 ppb	05:06:31
3	Ni 231.604†	989.7	687.9	35.827 µg/L	35.827 ppb	05:06:31
3	P 214.914†	380.5	366.9	667.53 µg/L	667.53 ppb	05:06:31
3	Pb 220.353†	502.7	411.3	100.39 µg/L	100.39 ppb	05:06:31
3	S 181.975 Axial†	165.8	149.7	620.43 µg/L	620.43 ppb	05:06:31
3	Sb 206.836†	23.6	1.6	-0.1674 µg/L	-0.1674 ppb	05:06:31
3	Se 196.026†	-28.9	-44.1	160.51 µg/L	160.51 ppb	05:06:31
3	SiO2†	155517.7	155100.7	31059 µg/L	31059 ppb	05:06:10
3	Si 251.611†	191551.6	192572.8	14863 µg/L	14863 ppb	05:06:04
3	Sn 189.927†	-5.4	-10.2	-12.460 µg/L	-12.460 ppb	05:06:31
3	Ti 334.940†	1315219.8	1324105.0	3011.1 µg/L	3011.1 ppb	05:06:04
3	Tl 190.801†	-53.5	-31.7	8.5686 µg/L	8.5686 ppb	05:06:31
3	U 409.014†	1405.2	1415.6	107.58 µg/L	107.58 ppb	05:06:10
3	V 292.402†	12236.5	12416.5	133.09 µg/L	133.09 ppb	05:06:10
3	Zn 213.857†	11938.2	11518.2	267.06 µg/L	267.06 ppb	05:06:10

Mean Data: 246336009|950379|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2088676.9	99.478 %	0.1816			0.18%
Sc RADIAL	58364.8	98.9 %	0.71			0.72%
Y 371.029	1472324.6	101.16 %	0.162			0.16%
Ag 328.068†	-909.9	-0.5997 µg/L	0.25566	-0.5997 ppb	0.25566	42.63%
Al 396.153Radial†	63713.5	47632 µg/L	452.5	47632 ppb	452.5	0.95%
As 188.979†	11.6	25.107 µg/L	9.0122	25.107 ppb	9.0122	35.90%
B 249.677†	474.9	-24.838 µg/L	0.1282	-24.838 ppb	0.1282	0.52%
Ba 233.527†	32756.0	802.93 µg/L	11.660	802.93 ppb	11.660	1.45%
Be 313.107†	11832.7	5.9860 µg/L	0.12714	5.9860 ppb	0.12714	2.12%
Ca 317.933Radial†	13570.8	12448 µg/L	117.1	12448 ppb	117.1	0.94%
Cd 226.502†	314.3	-1.6593 µg/L	0.41611	-1.6593 ppb	0.41611	25.08%
Co 228.616†	753.3	28.527 µg/L	1.3157	28.527 ppb	1.3157	4.61%
Cr 267.716†	2766.6	56.502 µg/L	2.5870	56.502 ppb	2.5870	4.58%
Cu 324.752†	9693.5	76.117 µg/L	1.0960	76.117 ppb	1.0960	1.44%
Fe 238.204 Radial†	9902.2	85003 µg/L	746.6	85003 ppb	746.6	0.88%
K 766.490 Radial†	10527.6	7239.0 µg/L	52.32	7239.0 ppb	52.32	0.72%
Mg 279.077 IEC†	888.3	8554.5 µg/L	53.55	8554.5 ppb	53.55	0.63%
Mn 257.610†	766113.9	2449.6 µg/L	19.23	2449.6 ppb	19.23	0.79%
Mo 202.031†	33.9	6.6283 µg/L	0.63691	6.6283 ppb	0.63691	9.61%
Na 589.592 Radial†	1255.9	410.60 µg/L	14.025	410.60 ppb	14.025	3.42%

Ni 231.604†	716.5	37.276 µg/L	1.2559	37.276 ppb	1.2559	3.37%
P 214.914†	389.4	712.12 µg/L	39.681	712.12 ppb	39.681	5.57%
Pb 220.353†	421.6	102.89 µg/L	2.355	102.89 ppb	2.355	2.29%
S 181.975 Axial†	146.1	605.47 µg/L	17.060	605.47 ppb	17.060	2.82%
Sb 206.836†	6.9	4.6001 µg/L	4.62069	4.6001 ppb	4.62069	100.45%
Se 196.026†	-40.5	165.69 µg/L	4.709	165.69 ppb	4.709	2.84%
SiO2†	157411.9	31522 µg/L	407.8	31522 ppb	407.8	1.29%
Si 251.611†	193920.6	14967 µg/L	91.1	14967 ppb	91.1	0.61%
Sn 189.927†	-11.2	-12.914 µg/L	0.6293	-12.914 ppb	0.6293	4.87%
Sr 421.552†	11308.4	111.22 µg/L	1.204	111.22 ppb	1.204	1.08%
Ti 334.940†	1339019.9	3045.0 µg/L	29.49	3045.0 ppb	29.49	0.97%
Tl 190.801†	-31.6	8.9761 µg/L	3.29886	8.9761 ppb	3.29886	36.75%
U 409.014†	1482.0	113.19 µg/L	4.896	113.19 ppb	4.896	4.33%
V 292.402†	12758.2	136.50 µg/L	2.979	136.50 ppb	2.979	2.18%
Zn 213.857†	11707.0	271.50 µg/L	3.902	271.50 ppb	3.902	1.44%

Sequence No.: 104

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 2/21/2010 05:13:56

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	57715.1	57715.1	97.7 %		05:14:33
1	Al 396.153Radial†	6823.7	6989.5	5214.5 µg/L	5214.5 ppb	05:14:33
1	Ca 317.933Radial†	5675.7	5613.4	5149.0 µg/L	5149.0 ppb	05:14:54
1	Fe 238.204 Radial†	615.4	614.2	5283.5 µg/L	5283.5 ppb	05:14:54
1	K 766.490 Radial†	7342.0	7312.6	5028.3 µg/L	5028.3 ppb	05:14:33
1	Mg 279.077 IEC†	550.2	550.8	5364.3 µg/L	5364.3 ppb	05:14:54
1	Na 589.592 Radial†	31323.7	31571.0	10321 µg/L	10321 ppb	05:14:33
1	Sr 421.552†	48997.6	50084.1	492.59 µg/L	492.59 ppb	05:14:33
1	Sc 361.383	2076836.9	2076836.9	98.914 %		05:15:57
1	Y 371.029	1433327.7	1433327.7	98.478 %		05:15:57
1	Ag 328.068†	65704.5	66888.9	502.63 µg/L	502.63 ppb	05:16:03
1	As 188.979†	285.2	288.6	518.58 µg/L	518.58 ppb	05:16:23
1	B 249.677†	12264.9	12074.0	492.00 µg/L	492.00 ppb	05:16:03
1	Ba 233.527†	20332.2	20573.7	505.08 µg/L	505.08 ppb	05:16:03
1	Be 313.107†	827186.2	840024.6	507.13 µg/L	507.13 ppb	05:15:57
1	Cd 226.502†	19698.9	20051.7	504.47 µg/L	504.47 ppb	05:16:03
1	Co 228.616†	10865.7	10982.4	507.94 µg/L	507.94 ppb	05:16:03
1	Cr 267.716†	24672.4	24990.6	509.98 µg/L	509.98 ppb	05:16:03
1	Cu 324.752†	77904.6	75890.0	504.15 µg/L	504.15 ppb	05:16:03
1	Mn 257.610†	158845.8	160891.9	512.63 µg/L	512.63 ppb	05:15:57
1	Mo 202.031†	5164.6	5224.6	523.68 µg/L	523.68 ppb	05:16:23
1	Ni 231.604†	10256.2	10060.1	507.89 µg/L	507.89 ppb	05:16:03
1	P 214.914†	1303.5	1301.6	2539.7 µg/L	2539.7 ppb	05:16:23
1	Pb 220.353†	2162.5	2091.4	514.82 µg/L	514.82 ppb	05:16:23
1	S 181.975 Axial†	270.3	255.9	1060.9 µg/L	1060.9 ppb	05:16:23
1	Sb 206.836†	571.6	555.8	509.75 µg/L	509.75 ppb	05:16:23
1	Se 196.026†	385.1	374.3	521.01 µg/L	521.01 ppb	05:16:23
1	SiO2†	28196.8	27021.9	5411.2 µg/L	5411.2 ppb	05:16:03
1	Si 251.611†	32774.2	32840.4	2534.7 µg/L	2534.7 ppb	05:16:03
1	Sn 189.927†	1220.4	1229.0	525.62 µg/L	525.62 ppb	05:16:23
1	Ti 334.940†	221535.0	223825.0	508.72 µg/L	508.72 ppb	05:15:57
1	Tl 190.801†	360.0	386.2	522.28 µg/L	522.28 ppb	05:16:23
1	U 409.014†	5944.5	6010.5	509.03 µg/L	509.03 ppb	05:16:03
1	V 292.402†	50425.3	51074.8	511.59 µg/L	511.59 ppb	05:16:03
1	Zn 213.857†	21846.8	21584.7	505.81 µg/L	505.81 ppb	05:16:03
2	Sc RADIAL	57887.0	57887.0	98.0 %		05:14:59
2	Al 396.153Radial†	6870.6	7016.6	5235.0 µg/L	5235.0 ppb	05:14:59
2	Ca 317.933Radial†	5706.7	5627.7	5162.1 µg/L	5162.1 ppb	05:15:20
2	Fe 238.204 Radial†	612.9	609.8	5245.3 µg/L	5245.3 ppb	05:15:20
2	K 766.490 Radial†	7424.5	7374.5	5070.8 µg/L	5070.8 ppb	05:14:59
2	Mg 279.077 IEC†	548.2	547.1	5328.0 µg/L	5328.0 ppb	05:15:20
2	Na 589.592 Radial†	31777.8	31939.1	10442 µg/L	10442 ppb	05:14:59
2	Sr 421.552†	49774.8	50728.1	498.92 µg/L	498.92 ppb	05:14:59
2	Sc 361.383	2088394.2	2088394.2	99.465 %		05:16:30
2	Y 371.029	1440290.3	1440290.3	98.956 %		05:16:30
2	Ag 328.068†	66184.1	67003.4	503.50 µg/L	503.50 ppb	05:16:36
2	As 188.979†	281.3	283.1	508.69 µg/L	508.69 ppb	05:16:57
2	B 249.677†	12377.6	12118.7	493.85 µg/L	493.85 ppb	05:16:36
2	Ba 233.527†	20532.5	20661.3	507.23 µg/L	507.23 ppb	05:16:36
2	Be 313.107†	831332.2	839565.0	506.85 µg/L	506.85 ppb	05:16:30
2	Cd 226.502†	19908.3	20152.0	507.00 µg/L	507.00 ppb	05:16:36
2	Co 228.616†	10980.5	11037.1	510.47 µg/L	510.47 ppb	05:16:36
2	Cr 267.716†	24859.8	25041.0	511.00 µg/L	511.00 ppb	05:16:36
2	Cu 324.752†	78479.0	76031.6	505.08 µg/L	505.08 ppb	05:16:36
2	Mn 257.610†	159744.3	160906.5	512.67 µg/L	512.67 ppb	05:16:30
2	Mo 202.031†	5106.6	5137.4	514.95 µg/L	514.95 ppb	05:16:57
2	Ni 231.604†	10327.7	10074.7	508.63 µg/L	508.63 ppb	05:16:36
2	P 214.914†	1292.3	1283.1	2502.7 µg/L	2502.7 ppb	05:16:57
2	Pb 220.353†	2158.6	2075.5	510.87 µg/L	510.87 ppb	05:16:57

2	S 181.975 Axial†	261.0	245.1	1016.2 µg/L	1016.2 ppb	05:16:57
2	Sb 206.836†	569.3	550.2	504.55 µg/L	504.55 ppb	05:16:57
2	Se 196.026†	376.6	363.6	506.26 µg/L	506.26 ppb	05:16:57
2	SiO2†	28510.0	27179.0	5442.6 µg/L	5442.6 ppb	05:16:36
2	Si 251.611†	33140.3	33025.1	2549.0 µg/L	2549.0 ppb	05:16:36
2	Sn 189.927†	1200.6	1202.4	514.22 µg/L	514.22 ppb	05:16:57
2	Ti 334.940†	222690.1	223746.9	508.55 µg/L	508.55 ppb	05:16:30
2	Tl 190.801†	349.7	373.9	505.80 µg/L	505.80 ppb	05:16:57
2	U 409.014†	5927.3	5959.9	504.74 µg/L	504.74 ppb	05:16:36
2	V 292.402†	50860.6	51230.3	513.06 µg/L	513.06 ppb	05:16:36
2	Zn 213.857†	22041.2	21657.9	507.53 µg/L	507.53 ppb	05:16:36
3	Sc RADIAL	57725.8	57725.8	97.8 %		05:15:25
3	Al 396.153Radial†	6858.8	7024.1	5242.3 µg/L	5242.3 ppb	05:15:25
3	Ca 317.933Radial†	5683.1	5619.8	5154.9 µg/L	5154.9 ppb	05:15:45
3	Fe 238.204 Radial†	612.2	610.8	5252.8 µg/L	5252.8 ppb	05:15:45
3	K 766.490 Radial†	7424.5	7395.6	5085.4 µg/L	5085.4 ppb	05:15:25
3	Mg 279.077 IEC†	549.0	549.4	5349.4 µg/L	5349.4 ppb	05:15:45
3	Na 589.592 Radial†	31771.3	32022.9	10469 µg/L	10469 ppb	05:15:25
3	Sr 421.552†	49771.8	50866.8	500.29 µg/L	500.29 ppb	05:15:25
3	Sc 361.383	2093359.2	2093359.2	99.701 %		05:17:04
3	Y 371.029	1444139.0	1444139.0	99.220 %		05:17:04
3	Ag 328.068†	62461.5	63111.8	474.12 µg/L	474.12 ppb	05:17:09
3	As 188.979†	244.7	245.8	441.56 µg/L	441.56 ppb	05:17:30
3	B 249.677†	11651.7	11361.1	462.75 µg/L	462.75 ppb	05:17:09
3	Ba 233.527†	18747.0	18821.5	462.05 µg/L	462.05 ppb	05:17:09
3	Be 313.107†	782254.4	788357.7	475.94 µg/L	475.94 ppb	05:17:04
3	Cd 226.502†	18147.6	18338.6	461.32 µg/L	461.32 ppb	05:17:09
3	Co 228.616†	9942.4	9969.6	461.03 µg/L	461.03 ppb	05:17:09
3	Cr 267.716†	21932.0	22045.1	449.87 µg/L	449.87 ppb	05:17:09
3	Cu 324.752†	71414.0	68758.3	456.84 µg/L	456.84 ppb	05:17:09
3	Mn 257.610†	150548.7	151302.5	482.10 µg/L	482.10 ppb	05:17:04
3	Mo 202.031†	4270.2	4286.3	429.67 µg/L	429.67 ppb	05:17:30
3	Ni 231.604†	9425.7	9145.3	461.72 µg/L	461.72 ppb	05:17:09
3	P 214.914†	1097.9	1084.9	2112.5 µg/L	2112.5 ppb	05:17:30
3	Pb 220.353†	1876.3	1787.1	439.80 µg/L	439.80 ppb	05:17:30
3	S 181.975 Axial†	234.8	218.2	904.52 µg/L	904.52 ppb	05:17:30
3	Sb 206.836†	482.3	461.6	422.95 µg/L	422.95 ppb	05:17:30
3	Se 196.026†	341.4	327.4	456.70 µg/L	456.70 ppb	05:17:30
3	SiO2†	26546.5	25141.7	5034.6 µg/L	5034.6 ppb	05:17:09
3	Si 251.611†	30745.5	30544.1	2357.5 µg/L	2357.5 ppb	05:17:09
3	Sn 189.927†	995.3	993.5	424.91 µg/L	424.91 ppb	05:17:30
3	Ti 334.940†	208641.3	209125.0	475.29 µg/L	475.29 ppb	05:17:04
3	Tl 190.801†	313.7	336.8	456.04 µg/L	456.04 ppb	05:17:30
3	U 409.014†	5413.2	5430.1	459.77 µg/L	459.77 ppb	05:17:09
3	V 292.402†	45717.1	45950.1	459.98 µg/L	459.98 ppb	05:17:09
3	Zn 213.857†	20113.1	19671.5	460.94 µg/L	460.94 ppb	05:17:09

## Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2086196.8	99.360 %	0.4038			0.41%
Sc RADIAL	57776.0	97.9 %	0.16			0.17%
Y 371.029	1439252.3	98.885 %	0.3765			0.38%
Ag 328.068†	65668.0	493.42 µg/L	16.716	493.42 ppb	16.716	3.39%
QC value within limits for Ag 328.068 Recovery = 98.68%						
Al 396.153Radial†	7010.1	5230.6 µg/L	14.38	5230.6 ppb	14.38	0.27%
QC value within limits for Al 396.153Radial Recovery = 104.61%						
As 188.979†	272.5	489.61 µg/L	41.906	489.61 ppb	41.906	8.56%
QC value within limits for As 188.979 Recovery = 97.92%						
B 249.677†	11851.3	482.87 µg/L	17.444	482.87 ppb	17.444	3.61%
QC value within limits for B 249.677 Recovery = 96.57%						
Ba 233.527†	20018.9	491.46 µg/L	25.486	491.46 ppb	25.486	5.19%
QC value within limits for Ba 233.527 Recovery = 98.29%						
Be 313.107†	822649.1	496.64 µg/L	17.929	496.64 ppb	17.929	3.61%
QC value within limits for Be 313.107 Recovery = 99.33%						
Ca 317.933Radial†	5620.3	5155.3 µg/L	6.59	5155.3 ppb	6.59	0.13%
QC value within limits for Ca 317.933Radial Recovery = 103.11%						
Cd 226.502†	19514.1	490.93 µg/L	25.675	490.93 ppb	25.675	5.23%
QC value within limits for Cd 226.502 Recovery = 98.19%						
Co 228.616†	10663.0	493.15 µg/L	27.841	493.15 ppb	27.841	5.65%

QC value within limits for Co 228.616 Recovery = 98.63%							
Cr 267.716†	24025.5	490.28 µg/L	35.001	490.28 ppb	35.001	7.14%	
QC value within limits for Cr 267.716 Recovery = 98.06%							
Cu 324.752†	73560.0	488.69 µg/L	27.589	488.69 ppb	27.589	5.65%	
QC value within limits for Cu 324.752 Recovery = 97.74%							
Fe 238.204 Radial†	611.6	5260.5 µg/L	20.24	5260.5 ppb	20.24	0.38%	
QC value within limits for Fe 238.204 Radial Recovery = 105.21%							
K 766.490 Radial†	7360.9	5061.5 µg/L	29.67	5061.5 ppb	29.67	0.59%	
QC value within limits for K 766.490 Radial Recovery = 101.23%							
Mg 279.077 IEC†	549.1	5347.2 µg/L	18.28	5347.2 ppb	18.28	0.34%	
QC value within limits for Mg 279.077 IEC Recovery = 106.94%							
Mn 257.610†	157700.3	502.47 µg/L	17.638	502.47 ppb	17.638	3.51%	
QC value within limits for Mn 257.610 Recovery = 100.49%							
Mo 202.031†	4882.8	489.43 µg/L	51.941	489.43 ppb	51.941	10.61%	
QC value within limits for Mo 202.031 Recovery = 97.89%							
Na 589.592 Radial†	31844.3	10411 µg/L	78.6	10411 ppb	78.6	0.75%	
QC value within limits for Na 589.592 Radial Recovery = 104.11%							
Ni 231.604†	9760.0	492.75 µg/L	26.874	492.75 ppb	26.874	5.45%	
QC value within limits for Ni 231.604 Recovery = 98.55%							
P 214.914†	1223.2	2385.0 µg/L	236.67	2385.0 ppb	236.67	9.92%	
QC value within limits for P 214.914 Recovery = 95.40%							
Pb 220.353†	1984.7	488.50 µg/L	42.217	488.50 ppb	42.217	8.64%	
QC value within limits for Pb 220.353 Recovery = 97.70%							
S 181.975 Axial†	239.8	993.85 µg/L	80.534	993.85 ppb	80.534	8.10%	
QC value within limits for S 181.975 Axial Recovery = 99.39%							
Sb 206.836†	522.6	479.08 µg/L	48.679	479.08 ppb	48.679	10.16%	
QC value within limits for Sb 206.836 Recovery = 95.82%							
Se 196.026†	355.1	494.66 µg/L	33.689	494.66 ppb	33.689	6.81%	
QC value within limits for Se 196.026 Recovery = 98.93%							
SiO2†	26447.5	5296.1 µg/L	227.01	5296.1 ppb	227.01	4.29%	
QC value within limits for SiO2 Recovery = 99.04%							
Si 251.611†	32136.6	2480.4 µg/L	106.68	2480.4 ppb	106.68	4.30%	
QC value within limits for Si 251.611 Recovery = 99.22%							
Sn 189.927†	1141.7	488.25 µg/L	55.148	488.25 ppb	55.148	11.29%	
QC value within limits for Sn 189.927 Recovery = 97.65%							
Sr 421.552†	50559.7	497.27 µg/L	4.107	497.27 ppb	4.107	0.83%	
QC value within limits for Sr 421.552 Recovery = 99.45%							
Ti 334.940†	218899.0	497.52 µg/L	19.252	497.52 ppb	19.252	3.87%	
QC value within limits for Ti 334.940 Recovery = 99.50%							
Tl 190.801†	365.6	494.71 µg/L	34.488	494.71 ppb	34.488	6.97%	
QC value within limits for Tl 190.801 Recovery = 98.94%							
U 409.014†	5800.2	491.18 µg/L	27.281	491.18 ppb	27.281	5.55%	
QC value within limits for U 409.014 Recovery = 98.24%							
V 292.402†	49418.4	494.88 µg/L	30.230	494.88 ppb	30.230	6.11%	
QC value within limits for V 292.402 Recovery = 98.98%							
Zn 213.857†	20971.4	491.43 µg/L	26.419	491.43 ppb	26.419	5.38%	
QC value within limits for Zn 213.857 Recovery = 98.29%							
All analyte(s) passed QC.							

Sequence No.: 105

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 2/21/2010 05:17:39

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	57729.0	57729.0	97.8 %		05:18:14
1	Al 396.153Radial†	4.8	13.6	10.127 µg/L	10.127 ppb	05:18:14
1	Ca 317.933Radial†	198.2	9.8	8.9659 µg/L	8.9659 ppb	05:18:35
1	Fe 238.204 Radial†	16.3	1.2	10.720 µg/L	10.720 ppb	05:18:35
1	K 766.490 Radial†	193.9	-0.0	-0.0248 µg/L	-0.0248 ppb	05:18:14
1	Mg 279.077 IEC†	13.7	1.9	18.342 µg/L	18.342 ppb	05:18:35
1	Na 589.592 Radial†	433.4	-30.4	-9.9415 µg/L	-9.9415 ppb	05:18:14
1	Sr 421.552†	32.4	-8.2	-0.0807 µg/L	-0.0807 ppb	05:18:14
1	Sc 361.383	2098624.4	2098624.4	99.952 %		05:19:36
1	Y 371.029	1452781.0	1452781.0	99.814 %		05:19:36
1	Ag 328.068†	-398.7	64.2	0.4817 µg/L	0.4817 ppb	05:19:42
1	As 188.979†	1.5	1.8	3.1645 µg/L	3.1645 ppb	05:20:02
1	B 249.677†	344.3	19.0	0.7704 µg/L	0.7704 ppb	05:20:02
1	Ba 233.527†	-9.3	9.1	0.2228 µg/L	0.2228 ppb	05:20:02
1	Be 313.107†	-3553.7	203.5	0.1228 µg/L	0.1228 ppb	05:19:42
1	Cd 226.502†	-128.3	8.2	0.2051 µg/L	0.2051 ppb	05:20:02
1	Co 228.616†	3.0	0.4	0.0196 µg/L	0.0196 ppb	05:20:02
1	Cr 267.716†	-38.1	9.3	0.1897 µg/L	0.1897 ppb	05:19:42
1	Cu 324.752†	2877.5	9.2	0.0625 µg/L	0.0625 ppb	05:19:42
1	Mn 257.610†	-199.0	103.4	0.3300 µg/L	0.3300 ppb	05:20:02
1	Mo 202.031†	8.2	11.6	1.1580 µg/L	1.1580 ppb	05:20:02
1	Ni 231.604†	307.5	-1.0	-0.0496 µg/L	-0.0496 ppb	05:20:02
1	P 214.914†	16.3	0.0	0.0498 µg/L	0.0498 ppb	05:20:02
1	Pb 220.353†	92.4	-2.4	-0.5803 µg/L	-0.5803 ppb	05:20:02
1	S 181.975 Axial†	18.8	1.6	6.4668 µg/L	6.4668 ppb	05:20:02
1	Sb 206.836†	27.4	5.3	4.8486 µg/L	4.8486 ppb	05:20:02
1	Se 196.026†	16.5	1.5	2.0251 µg/L	2.0251 ppb	05:20:02
1	SiO2†	1514.9	31.3	6.2619 µg/L	6.2619 ppb	05:19:42
1	Si 251.611†	382.7	89.3	6.8942 µg/L	6.8942 ppb	05:20:02
1	Sn 189.927†	2.1	-2.6	-1.1035 µg/L	-1.1035 ppb	05:20:02
1	Ti 334.940†	291.6	150.1	0.3401 µg/L	0.3401 ppb	05:19:42
1	Tl 190.801†	-23.8	-1.6	-2.1665 µg/L	-2.1665 ppb	05:20:02
1	U 409.014†	-10.2	-9.4	-0.8008 µg/L	-0.8008 ppb	05:19:42
1	V 292.402†	-67.8	28.1	0.2881 µg/L	0.2881 ppb	05:19:42
1	Zn 213.857†	523.3	21.6	0.5089 µg/L	0.5089 ppb	05:20:02
2	Sc RADIAL	57613.8	57613.8	97.6 %		05:18:40
2	Al 396.153Radial†	-13.4	-5.0	-3.7848 µg/L	-3.7848 ppb	05:18:40
2	Ca 317.933Radial†	200.5	12.5	11.509 µg/L	11.509 ppb	05:19:00
2	Fe 238.204 Radial†	16.9	2.0	16.904 µg/L	16.904 ppb	05:19:00
2	K 766.490 Radial†	189.5	-4.2	-2.8923 µg/L	-2.8923 ppb	05:18:40
2	Mg 279.077 IEC†	13.6	1.9	18.162 µg/L	18.162 ppb	05:19:00
2	Na 589.592 Radial†	408.3	-55.3	-18.074 µg/L	-18.074 ppb	05:18:40
2	Sr 421.552†	43.2	2.9	0.0288 µg/L	0.0288 ppb	05:18:40
2	Sc 361.383	2103203.5	2103203.5	100.17 %		05:20:08
2	Y 371.029	1456446.8	1456446.8	100.07 %		05:20:08
2	Ag 328.068†	-420.3	43.5	0.3281 µg/L	0.3281 ppb	05:20:14
2	As 188.979†	-1.9	-1.7	-2.9917 µg/L	-2.9917 ppb	05:20:35
2	B 249.677†	351.1	25.0	1.0133 µg/L	1.0133 ppb	05:20:35
2	Ba 233.527†	-17.0	1.4	0.0358 µg/L	0.0358 ppb	05:20:35
2	Be 313.107†	-3666.0	99.1	0.0597 µg/L	0.0597 ppb	05:20:14
2	Cd 226.502†	-147.2	-10.3	-0.2621 µg/L	-0.2621 ppb	05:20:35
2	Co 228.616†	9.6	7.0	0.3263 µg/L	0.3263 ppb	05:20:35
2	Cr 267.716†	-57.9	-10.4	-0.2123 µg/L	-0.2123 ppb	05:20:14
2	Cu 324.752†	2849.8	-24.7	-0.1616 µg/L	-0.1616 ppb	05:20:14
2	Mn 257.610†	-214.5	88.4	0.2830 µg/L	0.2830 ppb	05:20:35
2	Mo 202.031†	3.2	6.5	0.6538 µg/L	0.6538 ppb	05:20:35
2	Ni 231.604†	312.8	3.6	0.1814 µg/L	0.1814 ppb	05:20:35
2	P 214.914†	11.3	-4.9	-9.8466 µg/L	-9.8466 ppb	05:20:35
2	Pb 220.353†	93.2	-1.7	-0.4174 µg/L	-0.4174 ppb	05:20:35

2	S 181.975 Axial†	13.2	-4.1	-17.020 µg/L	-17.020 ppb	05:20:35
2	Sb 206.836†	31.5	9.3	8.5171 µg/L	8.5171 ppb	05:20:35
2	Se 196.026†	19.3	4.3	5.8638 µg/L	5.8638 ppb	05:20:35
2	SiO2†	1539.7	52.7	10.557 µg/L	10.557 ppb	05:20:14
2	Si 251.611†	389.2	95.0	7.3361 µg/L	7.3361 ppb	05:20:35
2	Sn 189.927†	3.1	-1.6	-0.6955 µg/L	-0.6955 ppb	05:20:35
2	Ti 334.940†	249.8	107.7	0.2438 µg/L	0.2438 ppb	05:20:14
2	Tl 190.801†	-21.9	0.4	0.5007 µg/L	0.5007 ppb	05:20:35
2	U 409.014†	-8.3	-7.5	-0.6403 µg/L	-0.6403 ppb	05:20:14
2	V 292.402†	-56.0	40.1	0.4025 µg/L	0.4025 ppb	05:20:14
2	Zn 213.857†	517.7	14.9	0.3482 µg/L	0.3482 ppb	05:20:35
3	Sc RADIAL	57496.3	57496.3	97.4 %		05:19:06
3	Al 396.153Radial†	-1.1	7.5	5.6113 µg/L	5.6113 ppb	05:19:06
3	Ca 317.933Radial†	199.5	11.9	10.874 µg/L	10.874 ppb	05:19:26
3	Fe 238.204 Radial†	14.8	-0.2	-1.6305 µg/L	-1.6305 ppb	05:19:26
3	K 766.490 Radial†	207.0	14.2	9.7708 µg/L	9.7708 ppb	05:19:06
3	Mg 279.077 IEC†	11.7	-0.1	-0.8004 µg/L	-0.8004 ppb	05:19:26
3	Na 589.592 Radial†	449.3	-12.3	-4.0192 µg/L	-4.0192 ppb	05:19:06
3	Sr 421.552†	64.6	25.0	0.2460 µg/L	0.2460 ppb	05:19:06
3	Sc 361.383	2090561.1	2090561.1	99.568 %		05:20:41
3	Y 371.029	1448573.1	1448573.1	99.525 %		05:20:41
3	Ag 328.068†	-390.4	71.1	0.5319 µg/L	0.5319 ppb	05:20:46
3	As 188.979†	-2.1	-1.8	-3.2999 µg/L	-3.2999 ppb	05:21:07
3	B 249.677†	348.8	24.9	1.0178 µg/L	1.0178 ppb	05:21:07
3	Ba 233.527†	-15.6	2.7	0.0669 µg/L	0.0669 ppb	05:21:07
3	Be 313.107†	-3609.8	133.4	0.0804 µg/L	0.0804 ppb	05:20:46
3	Cd 226.502†	-138.1	-2.1	-0.0526 µg/L	-0.0526 ppb	05:21:07
3	Co 228.616†	-3.3	-5.9	-0.2726 µg/L	-0.2726 ppb	05:21:07
3	Cr 267.716†	-45.8	1.4	0.0290 µg/L	0.0290 ppb	05:20:46
3	Cu 324.752†	2819.1	-38.4	-0.2547 µg/L	-0.2547 ppb	05:20:46
3	Mn 257.610†	-226.9	74.7	0.2375 µg/L	0.2375 ppb	05:21:07
3	Mo 202.031†	4.2	7.5	0.7506 µg/L	0.7506 ppb	05:21:07
3	Ni 231.604†	301.0	-6.3	-0.3190 µg/L	-0.3190 ppb	05:21:07
3	P 214.914†	3.6	-12.7	-25.156 µg/L	-25.156 ppb	05:21:07
3	Pb 220.353†	80.5	-13.9	-3.4169 µg/L	-3.4169 ppb	05:21:07
3	S 181.975 Axial†	16.0	-1.2	-5.0402 µg/L	-5.0402 ppb	05:21:07
3	Sb 206.836†	21.7	-0.3	-0.2963 µg/L	-0.2963 ppb	05:21:07
3	Se 196.026†	21.9	7.0	9.5315 µg/L	9.5315 ppb	05:21:07
3	SiO2†	1537.2	59.4	11.904 µg/L	11.904 ppb	05:20:46
3	Si 251.611†	396.7	104.9	8.0935 µg/L	8.0935 ppb	05:21:07
3	Sn 189.927†	1.8	-2.9	-1.2526 µg/L	-1.2526 ppb	05:21:07
3	Ti 334.940†	324.1	183.8	0.4183 µg/L	0.4183 ppb	05:20:46
3	Tl 190.801†	-24.9	-2.8	-3.7735 µg/L	-3.7735 ppb	05:21:07
3	U 409.014†	-32.7	-32.1	-2.7206 µg/L	-2.7206 ppb	05:20:46
3	V 292.402†	-67.5	28.2	0.2814 µg/L	0.2814 ppb	05:20:46
3	Zn 213.857†	513.7	14.0	0.3318 µg/L	0.3318 ppb	05:21:07

## Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2097463.0	99.897 %	0.3048			0.31%
Sc RADIAL	57613.0	97.6 %	0.20			0.20%
Y 371.029	1452600.3	99.802 %	0.2707			0.27%
Ag 328.068†	59.6	0.4472 µg/L	0.10622	0.4472 ppb	0.10622	23.75%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	5.4	3.9846 µg/L	7.09730	3.9846 ppb	7.09730	178.12%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-0.6	-1.0424 µg/L	3.64649	-1.0424 ppb	3.64649	349.82%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	22.9	0.9338 µg/L	0.14157	0.9338 ppb	0.14157	15.16%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	4.4	0.1085 µg/L	0.10024	0.1085 ppb	0.10024	92.39%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	145.3	0.0876 µg/L	0.03213	0.0876 ppb	0.03213	36.66%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	11.4	10.450 µg/L	1.3237	10.450 ppb	1.3237	12.67%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-1.4	-0.0365 µg/L	0.23400	-0.0365 ppb	0.23400	640.85%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	0.5	0.0244 µg/L	0.29947	0.0244 ppb	0.29947	>999.9%



QC value within limits for Co 228.616	Recovery = Not calculated		
Cr 267.716†	0.1	0.0021 µg/L	0.20235 0.0021 ppb 0.20235 >999.9%
QC value within limits for Cr 267.716	Recovery = Not calculated		
Cu 324.752†	-18.0	-0.1179 µg/L	0.16308 -0.1179 ppb 0.16308 138.27%
QC value within limits for Cu 324.752	Recovery = Not calculated		
Fe 238.204 Radial†	1.0	8.6644 µg/L	9.43654 8.6644 ppb 9.43654 108.91%
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
K 766.490 Radial†	3.3	2.2845 µg/L	6.63990 2.2845 ppb 6.63990 290.64%
QC value within limits for K 766.490 Radial	Recovery = Not calculated		
Mg 279.077 IEC†	1.2	11.901 µg/L	11.0002 11.901 ppb 11.0002 92.43%
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
Mn 257.610†	88.8	0.2835 µg/L	0.04626 0.2835 ppb 0.04626 16.32%
QC value within limits for Mn 257.610	Recovery = Not calculated		
Mo 202.031†	8.5	0.8541 µg/L	0.26755 0.8541 ppb 0.26755 31.32%
QC value within limits for Mo 202.031	Recovery = Not calculated		
Na 589.592 Radial†	-32.7	-10.678 µg/L	7.0565 -10.678 ppb 7.0565 66.08%
QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
Ni 231.604†	-1.2	-0.0624 µg/L	0.25041 -0.0624 ppb 0.25041 401.14%
QC value within limits for Ni 231.604	Recovery = Not calculated		
P 214.914†	-5.9	-11.651 µg/L	12.6995 -11.651 ppb 12.6995 109.00%
QC value within limits for P 214.914	Recovery = Not calculated		
Pb 220.353†	-6.0	-1.4715 µg/L	1.68673 -1.4715 ppb 1.68673 114.62%
QC value within limits for Pb 220.353	Recovery = Not calculated		
S 181.975 Axial†	-1.3	-5.1978 µg/L	11.74417 -5.1978 ppb 11.74417 225.95%
QC value within limits for S 181.975 Axial	Recovery = Not calculated		
Sb 206.836†	4.8	4.3565 µg/L	4.42725 4.3565 ppb 4.42725 101.63%
QC value within limits for Sb 206.836	Recovery = Not calculated		
Se 196.026†	4.2	5.8068 µg/L	3.75354 5.8068 ppb 3.75354 64.64%
QC value within limits for Se 196.026	Recovery = Not calculated		
SiO2†	47.8	9.5744 µg/L	2.94659 9.5744 ppb 2.94659 30.78%
QC value within limits for SiO2	Recovery = Not calculated		
Si 251.611†	96.4	7.4413 µg/L	0.60650 7.4413 ppb 0.60650 8.15%
QC value within limits for Si 251.611	Recovery = Not calculated		
Sn 189.927†	-2.4	-1.0172 µg/L	0.28840 -1.0172 ppb 0.28840 28.35%
QC value within limits for Sn 189.927	Recovery = Not calculated		
Sr 421.552†	6.6	0.0647 µg/L	0.16628 0.0647 ppb 0.16628 257.12%
QC value within limits for Sr 421.552	Recovery = Not calculated		
Ti 334.940†	147.2	0.3340 µg/L	0.08740 0.3340 ppb 0.08740 26.17%
QC value within limits for Ti 334.940	Recovery = Not calculated		
Tl 190.801†	-1.4	-1.8131 µg/L	2.15888 -1.8131 ppb 2.15888 119.07%
QC value within limits for Tl 190.801	Recovery = Not calculated		
U 409.014†	-16.3	-1.3872 µg/L	1.15748 -1.3872 ppb 1.15748 83.44%
QC value within limits for U 409.014	Recovery = Not calculated		
V 292.402†	32.1	0.3240 µg/L	0.06804 0.3240 ppb 0.06804 21.00%
QC value within limits for V 292.402	Recovery = Not calculated		
Zn 213.857†	16.8	0.3963 µg/L	0.09787 0.3963 ppb 0.09787 24.70%
QC value within limits for Zn 213.857	Recovery = Not calculated		

All analyte(s) passed QC.

## ICPMS #5 Daily Performance Report

### Sample ID: Sample

Sample Date/Time: Thursday, February 25, 2010 10:21:12

Sample Description:

Method File: c:\elandata\Method\Daily2.mth

Dataset File: c:\elandata\Dataset\default\Sample.587

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	7667.7	7667.657	92.696	1.2
Mg	24.0	65438.4	65438.352	810.719	1.2
Co	58.9	148768.2	148768.250	1242.721	0.8
Rh	102.9	281248.6	281248.630	3259.965	1.2
In	114.9	364299.1	364299.123	3937.746	1.1
Pb	208.0	327198.7	327198.660	900.422	0.3
[> Ba	137.9	337284.3	337284.262	1053.536	0.3
[ Ba++	69.0	6381.2	0.019	0.000	1.2
[> Ce	139.9	411857.7	411857.650	5034.814	1.2
[ CeO	155.9	10883.8	0.026	0.000	1.5
Bkgd	220.0	24.6	24.600	6.358	25.8

### Current Optimization File Data

Current Value	Description
0.87	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	13	5.8	7423.9
Co	59	13	6.3	140852.6
In	115	13	6.8	347281.8

## 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	589	2072	0.604
Be	9.0	9.0	2056	2088	0.598
Mg	24.0	24.0	5695	2100	0.591
Mg	25.0	25.0	5935	2100	0.577
Mg	26.0	26.0	6177	2100	0.596
Co	58.9	59.0	14189	2125	0.594
Rh	102.9	102.9	24878	2180	0.579
In	114.9	114.9	27792	2200	0.585
Ce	139.9	139.9	33864	2220	0.581
Pb	206.0	206.0	49948	2305	0.587
Pb	207.0	207.0	50159	2240	0.631
Pb	208.0	208.0	50451	2265	0.710
U	238.1	238.1	57732	2275	0.744

## ICPMS#5 - Summary Report

Sample ID: Blank

Sample Date/Time: Friday, February 26, 2010 01:05:32

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\Blank.509

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7		ug/L		121	
Be	9		ug/L		24	
B	11		ug/L		696	
Na	23		ug/L		36048	
Mg	24		ug/L		3001	
Al	27		ug/L		6335	
P	31		ug/L		9169	
K	39		ug/L		780470	
Ca	43		ug/L		594	
> Sc	45		ug/L		576876	
Ti	47		ug/L		604	
V	51		ug/L		12127	
Cr	52		ug/L		-2912	
Cr	53		ug/L		231014	
Mn	55		ug/L		2037	
Fe	57		ug/L		8819	
Co	59		ug/L		120	
Ni	60		ug/L		325	
Cu	63		ug/L		1621	
Cu	65		ug/L		792	
Zn	66		ug/L		1077	
Zn	67		ug/L		22992	
Zn	68		ug/L		2211	
> Ge	74		ug/L		653120	
As	75		ug/L		1148	
Se	77		ug/L		16872	
Se	82		ug/L		-19	
Kr	83		ug/L		215	
Sr	88		ug/L		278	
Y	89		ug/L		93	
Mo	98		ug/L		110	
Ag	107		ug/L		67	
Cd	111		ug/L		16	
Cd	114		ug/L		53	
> In	115		ug/L		348749	
Sn	120		ug/L		325	
Sb	121		ug/L		379	
Sb	123		ug/L		303	
Ba	135		ug/L		52	
Ba	137		ug/L		64	
Ho	165		ug/L		33	
> Lu	175		ug/L		500780	
Tl	205		ug/L		5290	
Pb	208		ug/L		531	
Bi	209		ug/L		382	
Th	232		ug/L		657	
U	238		ug/L		383	

Sample ID: Blank

Report Date/Time: Friday, February 26, 2010 01:08:16

Page 1

## 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	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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9998

Sample ID: Blank

Report Date/Time: Friday, February 26, 2010 01:08:16

Page 2

## 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

## ICPMS#5 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Friday, February 26, 2010 01:11:39

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\Standard 1.510

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	10.000	ug/L	2.569	19717	0.034
Be	9	10.000	ug/L	3.408	5395	0.009
B	11	20.000	ug/L	3.192	12354	0.020
Na	23	1000.000	ug/L	3.871	6003512	10.236
Mg	24	1000.000	ug/L	17.335	4358645	7.490
Al	27	1000.000	ug/L	8.896	6092521	10.451
P	31	1000.000	ug/L	0.528	424310	0.712
K	39	1000.000	ug/L	4.362	8794016	13.747
Ca	43	1000.000	ug/L	2.900	20901	0.035
> Sc	45		ug/L		582664	582663.690
Ti	47	10.000	ug/L	2.591	10506	0.017
V	51	10.000	ug/L	6.139	132962	0.207
Cr	52	10.000	ug/L	2.291	92051	0.163
Cr	53		ug/L		237209	0.007
Mn	55	10.000	ug/L	3.182	155786	0.264
Fe	57	1000.000	ug/L	1.596	308828	0.515
Co	59	10.000	ug/L	1.538	111518	0.191
Ni	60	10.000	ug/L	0.810	23472	0.040
Cu	63		ug/L		56206	0.094
Cu	65	10.000	ug/L	1.061	28202	0.047
Zn	66	10.000	ug/L	1.452	18668	0.027
Zn	67		ug/L		25633	0.004
Zn	68		ug/L		16063	0.021
> Ge	74		ug/L		654838	654837.557
As	75	10.000	ug/L	5.574	21283	0.031
Se	77		ug/L		18107	0.002
Se	82	10.000	ug/L	1.139	1879	0.003
Kr	83		ug/L		196	-0.000
Sr	88	10.000	ug/L	2.723	239446	0.686
Y	89		ug/L		131	0.000
Mo	98	10.000	ug/L	3.258	55789	0.160
Ag	107	10.000	ug/L	0.920	89392	0.256
Cd	111	10.000	ug/L	1.963	21428	0.061
Cd	114		ug/L		50296	0.144
> In	115		ug/L		348820	348819.742
Sn	120	10.000	ug/L	2.594	88637	0.253
Sb	121	10.000	ug/L	4.017	72453	0.207
Sb	123		ug/L		56421	0.161
Ba	135		ug/L		22017	0.044
Ba	137	10.000	ug/L	0.306	38752	0.077
Ho	165		ug/L		41	0.000
> Lu	175		ug/L		499413	499412.816
Tl	205	10.000	ug/L	2.186	231698	0.453
Pb	208	10.000	ug/L	1.192	412354	0.825
Bi	209		ug/L		394	0.000
Th	232	10.000	ug/L	2.687	515260	1.031
U	238	10.000	ug/L	1.444	527987	1.057

Sample ID: Standard 1

Report Date/Time: Friday, February 26, 2010 01:14:20

Page 1

## 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: Friday, February 26, 2010 01:14:20

Page 2



## 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				
	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: Standard 2

Sample Date/Time: Friday, February 26, 2010 01:17:42

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\Standard 2.511

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	99.998	ug/L	2.778	192774	0.335
Be	9	99.994	ug/L	0.870	52659	0.092
B	11	200.025	ug/L	2.769	117074	0.203
Na	23	10001.327	ug/L	10.882	59587397	103.755
Mg	24	9996.478	ug/L	4.649	41561680	72.325
Al	27	10008.114	ug/L	3.592	65430699	113.833
P	31	10001.769	ug/L	1.562	4175843	7.253
K	39	10007.285	ug/L	1.506	86029478	148.377
Ca	43	9998.449	ug/L	1.765	197641	0.343
> Sc	45		ug/L		574538	574537.749
Ti	47	99.987	ug/L	0.929	96898	0.168
V	51	99.906	ug/L	3.007	1099488	1.893
Cr	52	99.936	ug/L	1.455	876823	1.531
Cr	53		ug/L		309930	0.139
Mn	55	99.907	ug/L	0.164	1388460	2.413
Fe	57	10003.632	ug/L	0.911	3079377	5.344
Co	59	99.912	ug/L	0.278	1008780	1.756
Ni	60	99.980	ug/L	1.254	223914	0.389
Cu	63		ug/L		520643	0.903
Cu	65	99.959	ug/L	0.957	260365	0.452
Zn	66	99.987	ug/L	1.377	173594	0.265
Zn	67		ug/L		52091	0.045
Zn	68		ug/L		138126	0.209
> Ge	74		ug/L		650646	650645.911
As	75	99.980	ug/L	0.290	197175	0.301
Se	77		ug/L		29640	0.020
Se	82	100.002	ug/L	0.595	18868	0.029
Kr	83		ug/L		248	0.000
Sr	88	99.913	ug/L	0.532	2180591	6.302
Y	89		ug/L		332	0.001
Mo	98	99.982	ug/L	1.854	542532	1.568
Ag	107	99.929	ug/L	1.906	826969	2.390
Cd	111	99.986	ug/L	2.414	209490	0.606
Cd	114		ug/L		483680	1.398
> In	115		ug/L		345985	345985.245
Sn	120	99.951	ug/L	0.925	835069	2.413
Sb	121	99.983	ug/L	2.478	703569	2.033
Sb	123		ug/L		550674	1.591
Ba	135		ug/L		215168	0.422
Ba	137	99.957	ug/L	1.595	378813	0.743
Ho	165		ug/L		42	0.000
> Lu	175		ug/L		509967	509966.703
Tl	205	99.792	ug/L	1.744	1916286	3.747
Pb	208	99.835	ug/L	1.089	3603086	7.065
Bi	209		ug/L		655	0.001
Th	232	99.835	ug/L	2.303	4505269	8.834
U	238	99.814	ug/L	0.957	4534840	8.892

Sample ID: Standard 2

Report Date/Time: Friday, February 26, 2010 01:20:23

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9998

Sample ID: Standard 2

Report Date/Time: Friday, February 26, 2010 01:20:23

Page 2

## 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

## ICPMS#5 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Friday, February 26, 2010 01:23:46

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 1.512

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	52.963	ug/L	1.205	101527	0.178
Be	9	52.283	ug/L	1.014	27371	0.048
B	11	108.135	ug/L	2.228	63214	0.110
Na	23	5187.483	ug/L	8.932	30770541	53.816
Mg	24	4767.091	ug/L	5.462	19697559	34.490
Al	27	4921.309	ug/L	4.280	31954527	55.975
P	31	4416.489	ug/L	1.186	1837397	3.203
K	39	5255.133	ug/L	8.668	45268358	77.917
Ca	43	4928.876	ug/L	2.389	97095	0.169
> Sc	45		ug/L		570873	570873.235
Ti	47	51.304	ug/L	0.239	49697	0.086
V	51	52.333	ug/L	1.677	577988	0.992
Cr	52	53.289	ug/L	1.487	463257	0.817
Cr	53		ug/L		258081	0.052
Mn	55	54.416	ug/L	0.256	752341	1.314
Fe	57	4397.552	ug/L	1.529	1349830	2.349
Co	59	52.404	ug/L	1.154	525776	0.921
Ni	60	51.934	ug/L	1.164	115725	0.202
Cu	63		ug/L		270299	0.471
Cu	65	52.767	ug/L	0.962	136948	0.239
Zn	66	52.768	ug/L	1.692	92187	0.140
Zn	67		ug/L		37480	0.022
Zn	68		ug/L		73872	0.110
> Ge	74		ug/L		651229	651228.565
As	75	48.817	ug/L	0.717	96944	0.147
Se	77		ug/L		22021	0.008
Se	82	50.741	ug/L	2.821	9572	0.015
Kr	83		ug/L		212	-0.000
Sr	88	51.218	ug/L	1.301	1121031	3.230
Y	89		ug/L		175	0.000
Mo	98	49.284	ug/L	1.129	268266	0.773
Ag	107	52.245	ug/L	0.992	433651	1.250
Cd	111	50.852	ug/L	0.213	106874	0.308
Cd	114		ug/L		248835	0.717
> In	115		ug/L		346964	346964.041
Sn	120	51.463	ug/L	1.241	431296	1.242
Sb	121	52.210	ug/L	2.267	368663	1.062
Sb	123		ug/L		286209	0.824
Ba	135		ug/L		109805	0.217
Ba	137	51.121	ug/L	0.967	192068	0.380
Ho	165		ug/L		60	0.000
> Lu	175		ug/L		505514	505513.678
Tl	205	53.992	ug/L	0.583	1030228	2.027
Pb	208	55.329	ug/L	0.315	1979720	3.915
Bi	209		ug/L		690	0.001
Th	232	52.646	ug/L	1.166	2355442	4.658
U	238	54.893	ug/L	0.867	2472465	4.890

Sample ID: QC Std 1

Report Date/Time: Friday, February 26, 2010 01:26:28

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
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	105.926				
Be	9	104.566				
B	11	108.135				
Na	23	103.750				
Mg	24	95.342				
Al	27	97.452				
P	31	88.330				
K	39	105.103				
Ca	43	98.578				
> Sc	45		99.0			
Ti	47	102.608				
V	51	104.665				
Cr	52	106.577				
Cr	53					
Mn	55	108.833				
Fe	57	87.951				
Co	59	104.808				
Ni	60	103.869				
Cu	63					
Cu	65	105.534				
Zn	66	105.537				
Zn	67					
Zn	68					
> Ge	74		99.7			
As	75	97.634				
Se	77					
Se	82	101.482				
Kr	83					
Sr	88	102.437				
Y	89					
Mo	98	98.568				
Ag	107	104.490				
Cd	111	101.704				
Cd	114					
> In	115		99.5			
Sn	120	102.926				
Sb	121	104.419				
Sb	123					
Ba	135					
Ba	137	102.241				
Ho	165					
> Lu	175		100.9			
Tl	205	107.983				
Pb	208	110.657				
Bi	209					
Th	232	105.291				
U	238	109.787				

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	P	31	ICV is out of limits (+/- 10%)
QC Std 1	Fe	57	ICV is out of limits (+/- 10%)
QC Std 1	Pb	208	ICV is out of limits (+/- 10%)

## QC Action

Sample ID: QC Std 1  
 Report Date/Time: Friday, February 26, 2010 01:26:28  
 Page 3

QC Action Line: Continue



## ICPMS#5 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Friday, February 26, 2010 01:29:54

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 2.513

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.002	ug/L	172.312	124	0.000
Be	9	-0.004	ug/L	209.752	21	-0.000
B	11	4.700	ug/L	19.999	3406	0.005
Na	23	-1.347	ug/L	65.024	27694	-0.014
Mg	24	-0.477	ug/L	0.733	1000	-0.003
Al	27	-0.144	ug/L	126.806	5334	-0.002
P	31	-0.357	ug/L	390.152	8936	-0.000
K	39	-0.555	ug/L	788.270	768860	-0.008
Ca	43	-2.397	ug/L	51.197	541	-0.000
> Sc	45		ug/L		571567	571566.590
Ti	47	0.044	ug/L	39.078	640	0.000
V	51	0.345	ug/L	236.766	15671	0.007
Cr	52	0.335	ug/L	12.711	55	0.005
Cr	53		ug/L		196843	-0.056
Mn	55	-0.008	ug/L	42.196	1914	-0.000
Fe	57	0.329	ug/L	84.028	8838	0.000
Co	59	0.006	ug/L	33.150	180	0.000
Ni	60	-0.007	ug/L	136.857	307	-0.000
Cu	63		ug/L		1573	-0.000
Cu	65	-0.008	ug/L	349.254	764	-0.000
Zn	66	0.008	ug/L	63.396	1066	0.000
Zn	67		ug/L		20716	-0.003
Zn	68		ug/L		2258	0.000
> Ge	74		ug/L		638193	638193.257
As	75	-0.214	ug/L	100.893	711	-0.001
Se	77		ug/L		13891	-0.004
Se	82	0.080	ug/L	115.787	-3	0.000
Kr	83		ug/L		197	-0.000
Sr	88	0.001	ug/L	71.651	302	0.000
Y	89		ug/L		97	0.000
Mo	98	0.035	ug/L	22.373	298	0.001
Ag	107	0.002	ug/L	16.268	80	0.000
Cd	111	0.006	ug/L	117.399	28	0.000
Cd	114		ug/L		56	0.000
> In	115		ug/L		343427	343427.259
Sn	120	0.024	ug/L	30.865	521	0.001
Sb	121	0.414	ug/L	17.373	3261	0.008
Sb	123		ug/L		2552	0.007
Ba	135		ug/L		79	0.000
Ba	137	0.004	ug/L	63.292	78	0.000
Ho	165		ug/L		33	-0.000
> Lu	175		ug/L		506894	506894.490
Tl	205	0.321	ug/L	25.879	11460	0.012
Pb	208	0.002	ug/L	60.781	622	0.000
Bi	209		ug/L		411	0.000
Th	232	0.038	ug/L	17.019	2386	0.003
U	238	0.004	ug/L	23.419	590	0.000

Sample ID: QC Std 2

Report Date/Time: Friday, February 26, 2010 01:32:38

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
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		99.1			
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		97.7			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		98.5			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		101.2			
Tl	205					
Pb	208					
Bi	209					
Th	232					
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: Friday, February 26, 2010 01:36:00

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 3.514

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	12.005	ug/L	0.324	22845	0.040
Be	9	0.549	ug/L	6.040	307	0.001
B	11	17.861	ug/L	1.806	10893	0.018
Na	23	265.557	ug/L	8.973	1591074	2.755
Mg	24	14.891	ug/L	18.066	63812	0.108
Al	27	37.150	ug/L	11.391	244764	0.423
P	31	55.068	ug/L	4.921	31509	0.040
K	39	302.180	ug/L	7.590	3291632	4.480
Ca	43	218.700	ug/L	6.836	4813	0.008
> Sc	45		ug/L		564412	564411.817
Ti	47	9.304	ug/L	1.036	9395	0.016
V	51	12.082	ug/L	4.183	141081	0.229
Cr	52	11.657	ug/L	2.417	97970	0.179
Cr	53		ug/L		214941	-0.020
Mn	55	6.032	ug/L	1.804	84234	0.146
Fe	57	103.636	ug/L	0.963	39879	0.055
Co	59	1.173	ug/L	0.376	11750	0.021
Ni	60	2.201	ug/L	0.771	5154	0.009
Cu	63		ug/L		6720	0.009
Cu	65	1.009	ug/L	1.189	3349	0.005
Zn	66	11.247	ug/L	1.781	19987	0.030
Zn	67		ug/L		24492	0.003
Zn	68		ug/L		16746	0.023
> Ge	74		ug/L		635048	635047.757
As	75	5.340	ug/L	5.286	11334	0.016
Se	77		ug/L		15281	-0.002
Se	82	5.918	ug/L	4.895	1073	0.002
Kr	83		ug/L		187	-0.000
Sr	88	11.797	ug/L	3.615	256404	0.744
Y	89		ug/L		96	0.000
Mo	98	0.541	ug/L	1.847	3029	0.008
Ag	107	1.101	ug/L	2.755	9130	0.026
Cd	111	1.096	ug/L	3.340	2302	0.007
Cd	114		ug/L		5270	0.015
> In	115		ug/L		344319	344319.041
Sn	120	5.639	ug/L	0.392	47191	0.136
Sb	121	3.343	ug/L	1.575	23772	0.068
Sb	123		ug/L		18345	0.052
Ba	135		ug/L		4671	0.009
Ba	137	2.135	ug/L	2.048	8102	0.016
Ho	165		ug/L		32	-0.000
> Lu	175		ug/L		506752	506752.103
Tl	205	1.272	ug/L	3.726	29562	0.048
Pb	208	2.541	ug/L	0.550	91668	0.180
Bi	209		ug/L		362	-0.000
Th	232	1.324	ug/L	2.121	60012	0.117
U	238	0.291	ug/L	3.052	13531	0.026

Sample ID: QC Std 3

Report Date/Time: Friday, February 26, 2010 01:38:42

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
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	120.049				
Be	9	109.732				
B	11	119.076				
Na	23	106.223				
Mg	24	99.273				
Al	27	123.835				
P	31	110.136				
K	39	100.727				
Ca	43	109.350				
> Sc	45		97.8			
Ti	47	93.044				
V	51	120.819				
Cr	52	116.570				
Cr	53					
Mn	55	120.641				
Fe	57	103.636				
Co	59	117.287				
Ni	60	110.061				
Cu	63					
Cu	65	100.907				
Zn	66	112.473				
Zn	67					
Zn	68					
> Ge	74		97.2			
As	75	106.797				
Se	77					
Se	82	118.363				
Kr	83					
Sr	88	117.971				
Y	89					
Mo	98	108.162				
Ag	107	110.064				
Cd	111	109.625				
Cd	114					
> In	115		98.7			
Sn	120	112.789				
Sb	121	111.418				
Sb	123					
Ba	135					
Ba	137	106.737				
Ho	165					
> Lu	175		101.2			
Tl	205	127.238				
Pb	208	127.069				
Bi	209					
Th	232	132.357				
U	238	145.574				

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Th	232	CRDL is out of limits
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: Friday, February 26, 2010 01:42:06

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 4.515

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.086	ug/L	22.018	252	0.000
Be	9	0.108	ug/L	7.889	71	0.000
B	11	1.745	ug/L	10.124	1503	0.002
Na	23	91827.857	ug/L	5.090	481583391	952.638
Mg	24	90049.176	ug/L	1.826	329045088	651.507
Al	27	90247.310	ug/L	1.319	518500246	1026.478
P	31	84350.714	ug/L	1.980	30917420	61.171
K	39	91976.089	ug/L	4.415	689215656	1363.723
Ca	43	86798.605	ug/L	0.386	1504593	2.977
> Sc	45		ug/L		505166	505166.284
Ti	47	1577.073	ug/L	2.047	1336356	2.644
V	51	0.073	ug/L	332.554	11301	0.001
Cr	52	2.837	ug/L	1.223	19411	0.043
Cr	53		ug/L		141149	-0.121
Mn	55	6.241	ug/L	0.266	77936	0.151
Fe	57	97076.488	ug/L	1.394	26202863	51.862
Co	59	0.323	ug/L	2.122	2973	0.006
Ni	60	3.382	ug/L	2.527	6933	0.013
Cu	63		ug/L		12351	0.022
Cu	65	3.183	ug/L	4.580	7959	0.014
Zn	66	3.876	ug/L	2.792	6909	0.010
Zn	67		ug/L		17691	-0.005
Zn	68		ug/L		2943	0.002
> Ge	74		ug/L		579354	579354.464
As	75	-0.435	ug/L	64.566	259	-0.001
Se	77		ug/L		13227	-0.003
Se	82	-1.125	ug/L	19.059	-206	-0.000
Kr	83		ug/L		495	0.001
Sr	88	3.033	ug/L	1.770	61975	0.191
Y	89		ug/L		746	0.002
Mo	98	1855.214	ug/L	0.792	9386215	29.095
Ag	107	0.126	ug/L	10.701	1035	0.003
Cd	111	0.548	ug/L	14.458	1085	0.003
Cd	114		ug/L		14555	0.045
> In	115		ug/L		322601	322601.166
Sn	120	0.259	ug/L	2.000	2319	0.006
Sb	121	0.180	ug/L	27.521	1532	0.004
Sb	123		ug/L		1219	0.003
Ba	135		ug/L		1494	0.003
Ba	137	0.692	ug/L	1.924	2542	0.005
Ho	165		ug/L		11021	0.023
> Lu	175		ug/L		482796	482795.731
Tl	205	-0.058	ug/L	5.943	4046	-0.002
Pb	208	0.233	ug/L	1.796	8471	0.016
Bi	209		ug/L		6309	0.012
Th	232	0.051	ug/L	40.420	2816	0.005
U	238	-0.004	ug/L	10.823	216	-0.000

Sample ID: QC Std 4

Report Date/Time: Friday, February 26, 2010 01:44:49

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
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					
Be	9					
B	11					
Na	23	91.828				
Mg	24	90.049				
Al	27	90.247				
P	31	84.351				
K	39	91.976				
Ca	43	86.799				
> Sc	45		87.6			
Ti	47	78.854				
V	51					
Cr	52	85.982				
Cr	53					
Mn	55	107.609				
Fe	57	97.076				
Co	59	137.486				
Ni	60	102.167				
Cu	63					
Cu	65	95.312				
Zn	66	103.076				
Zn	67					
Zn	68					
> Ge	74		88.7			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88	102.482				
Y	89					
Mo	98	92.761				
Ag	107					
Cd	111	123.325				
Cd	114					
> In	115		92.5			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137	86.657				
Ho	165					
> Lu	175		96.4			
Tl	205					
Pb	208	123.283				
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message  
 QC Std 4 Ti 47ICSA is out of limits

## QC Action

QC Action Line: Continue

## ICPMS#5 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Friday, February 26, 2010 01:48:12

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 5.516

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	23.404	ug/L	4.261	38390	0.078
Be	9	20.145	ug/L	4.243	9022	0.018
B	11	19.090	ug/L	4.306	10019	0.019
Na	23	85352.613	ug/L	8.015	431601613	885.463
Mg	24	84615.133	ug/L	8.272	298372931	612.191
Al	27	85537.673	ug/L	9.539	474182360	972.910
P	31	82548.596	ug/L	2.708	29212047	59.864
K	39	89587.936	ug/L	4.455	648675000	1328.314
Ca	43	85742.488	ug/L	3.163	1435348	2.941
> Sc	45		ug/L		488051	488050.981
Ti	47	1581.123	ug/L	2.592	1293585	2.651
V	51	21.917	ug/L	5.033	212755	0.415
Cr	52	23.685	ug/L	2.574	174600	0.363
Cr	53		ug/L		149538	-0.094
Mn	55	28.442	ug/L	3.299	336823	0.687
Fe	57	100286.689	ug/L	3.259	26141379	53.577
Co	59	21.713	ug/L	2.660	186232	0.382
Ni	60	23.809	ug/L	2.505	45495	0.093
Cu	63		ug/L		99869	0.202
Cu	65	23.374	ug/L	3.352	52207	0.106
Zn	66	22.964	ug/L	2.142	35867	0.061
Zn	67		ug/L		22286	0.004
Zn	68		ug/L		25205	0.041
> Ge	74		ug/L		573539	573538.636
As	75	19.449	ug/L	3.171	34619	0.059
Se	77		ug/L		14149	-0.001
Se	82	19.667	ug/L	2.177	3258	0.006
Kr	83		ug/L		465	0.000
Sr	88	23.989	ug/L	1.340	489185	1.513
Y	89		ug/L		711	0.002
Mo	98	1825.054	ug/L	1.665	9249351	28.622
Ag	107	19.492	ug/L	1.004	150731	0.466
Cd	111	19.549	ug/L	1.834	38279	0.118
Cd	114		ug/L		102202	0.316
> In	115		ug/L		323164	323164.433
Sn	120	20.458	ug/L	0.769	159883	0.494
Sb	121	21.127	ug/L	0.595	139170	0.430
Sb	123		ug/L		107518	0.332
Ba	135		ug/L		40208	0.082
Ba	137	19.301	ug/L	1.090	70497	0.143
Ho	165		ug/L		11000	0.022
> Lu	175		ug/L		491197	491197.105
Tl	205	21.054	ug/L	1.311	393514	0.791
Pb	208	21.659	ug/L	0.689	753318	1.533
Bi	209		ug/L		7161	0.014
Th	232	22.523	ug/L	2.285	979425	1.993
U	238	23.620	ug/L	2.336	1033867	2.104

Sample ID: QC Std 5

Report Date/Time: Friday, February 26, 2010 01:50:55

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
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	117.018				
Be	9	100.725				
B	11	95.451				
Na	23	85.353				
Mg	24	84.615				
Al	27	85.538				
P	31	82.549				
K	39	89.588				
Ca	43	85.742				
> Sc	45		84.6			
Ti	47	79.056				
V	51	109.587				
Cr	52	101.653				
Cr	53					
Mn	55	110.242				
Fe	57	100.287				
Co	59	107.306				
Ni	60	102.142				
Cu	63					
Cu	65	100.147				
Zn	66	96.649				
Zn	67					
Zn	68					
> Ge	74		87.8			
As	75	97.244				
Se	77					
Se	82	98.335				
Kr	83					
Sr	88	104.482				
Y	89					
Mo	98	91.253				
Ag	107	97.460				
Cd	111	95.624				
Cd	114					
> In	115		92.7			
Sn	120	102.291				
Sb	121	105.637				
Sb	123					
Ba	135					
Ba	137	92.802				
Ho	165					
> Lu	175		98.1			
Tl	205	105.270				
Pb	208	107.281				
Bi	209					
Th	232	112.616				
U	238	118.102				

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Ti	47	ICSAB is out of limits

## QC Action

QC Action Line: Continue

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Friday, February 26, 2010 01:54:20

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 6.517

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	56.005	ug/L	3.026	105803	0.188
Be	9	51.651	ug/L	0.795	26649	0.047
B	11	100.230	ug/L	0.852	57802	0.102
Na	23	4821.372	ug/L	7.902	28165628	50.018
Mg	24	4378.014	ug/L	2.360	17825922	31.675
Al	27	4488.073	ug/L	8.393	28721033	51.048
P	31	3932.385	ug/L	0.788	1613467	2.852
K	39	4395.811	ug/L	3.768	37429682	65.176
Ca	43	4494.589	ug/L	1.170	87320	0.154
> Sc	45		ug/L		562628	562628.061
Ti	47	49.547	ug/L	2.085	47316	0.083
V	51	49.083	ug/L	4.767	534915	0.930
Cr	52	49.126	ug/L	1.233	420701	0.753
Cr	53		ug/L		216892	-0.015
Mn	55	51.208	ug/L	1.098	697855	1.237
Fe	57	4245.405	ug/L	2.383	1284495	2.268
Co	59	51.014	ug/L	1.315	504422	0.896
Ni	60	51.375	ug/L	1.015	112828	0.200
Cu	63		ug/L		263662	0.466
Cu	65	51.442	ug/L	0.937	131591	0.233
Zn	66	51.565	ug/L	2.241	89971	0.137
Zn	67		ug/L		34652	0.018
Zn	68		ug/L		70023	0.104
> Ge	74		ug/L		650208	650207.601
As	75	46.372	ug/L	1.345	92004	0.140
Se	77		ug/L		17928	0.002
Se	82	48.907	ug/L	1.117	9211	0.014
Kr	83		ug/L		178	-0.000
Sr	88	47.702	ug/L	2.065	1082110	3.009
Y	89		ug/L		186	0.000
Mo	98	45.310	ug/L	2.051	255620	0.711
Ag	107	49.663	ug/L	1.386	427257	1.188
Cd	111	48.395	ug/L	2.921	105403	0.293
Cd	114		ug/L		242930	0.675
> In	115		ug/L		359658	359657.849
Sn	120	47.992	ug/L	0.600	416977	1.158
Sb	121	48.501	ug/L	1.931	354991	0.986
Sb	123		ug/L		278083	0.772
Ba	135		ug/L		105344	0.194
Ba	137	46.101	ug/L	2.345	186077	0.343
Ho	165		ug/L		64	0.000
> Lu	175		ug/L		543054	543053.913
Tl	205	50.607	ug/L	1.883	1037716	1.900
Pb	208	52.579	ug/L	0.754	2021127	3.721
Bi	209		ug/L		804	0.001
Th	232	49.787	ug/L	1.594	2393074	4.405
U	238	52.483	ug/L	1.892	2539370	4.675

Sample ID: QC Std 6

Report Date/Time: Friday, February 26, 2010 01:57:03

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
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	112.010				
Be	9	103.303				
B	11	100.230				
Na	23	96.427				
Mg	24	87.560				
Al	27	88.873				
P	31	78.648				
K	39	87.916				
Ca	43	89.892				
> Sc	45		97.5			
Ti	47	99.093				
V	51	98.165				
Cr	52	98.252				
Cr	53					
Mn	55	102.417				
Fe	57	84.908				
Co	59	102.027				
Ni	60	102.749				
Cu	63					
Cu	65	102.884				
Zn	66	103.130				
Zn	67					
Zn	68					
> Ge	74		99.6			
As	75	92.744				
Se	77					
Se	82	97.813				
Kr	83					
Sr	88	95.405				
Y	89					
Mo	98	90.619				
Ag	107	99.326				
Cd	111	96.791				
Cd	114					
> In	115		103.1			
Sn	120	95.985				
Sb	121	97.003				
Sb	123					
Ba	135					
Ba	137	92.201				
Ho	165					
> Lu	175		108.4			
Tl	205	101.215				
Pb	208	105.159				
Bi	209					
Th	232	99.573				
U	238	104.966				

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	7CCV is out of limits (+/- 10%)
QC Std 6	Mg	24	24CCV is out of limits (+/- 10%)
QC Std 6	Al	27	27CCV is out of limits (+/- 10%)
QC Std 6	P	31	31CCV is out of limits (+/- 10%)
QC Std 6	K	39	39CCV is out of limits (+/- 10%)
QC Std 6	Ca	43	43CCV is out of limits (+/- 10%)
QC Std 6	Fe	57	57CCV is out of limits (+/- 10%)

Sample ID: QC Std 6  
Report Date/Time: Friday, February 26, 2010 01:57:03  
Page 3

## QC Action

QC Action Line: Continue



## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Friday, February 26, 2010 02:00:27

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 7.518

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	-0.017	ug/L	17.812	81	-0.000
Be	9	-0.003	ug/L	172.953	21	-0.000
B	11	2.914	ug/L	19.463	2230	0.003
Na	23	-1.821	ug/L	54.376	23353	-0.019
Mg	24	0.312	ug/L	78.805	4001	0.002
Al	27	-0.252	ug/L	77.955	4334	-0.003
P	31	-1.841	ug/L	81.086	7801	-0.001
K	39	-1.706	ug/L	310.305	711335	-0.025
Ca	43	-1.353	ug/L	94.811	527	-0.000
> Sc	45		ug/L		535538	535537.536
Ti	47	-0.018	ug/L	305.540	545	-0.000
V	51	-0.280	ug/L	130.469	8449	-0.005
Cr	52	0.091	ug/L	58.388	-1955	0.001
Cr	53		ug/L		166816	-0.089
Mn	55	-0.020	ug/L	13.975	1631	-0.000
Fe	57	-0.307	ug/L	118.679	8099	-0.000
Co	59	0.004	ug/L	33.537	153	0.000
Ni	60	0.015	ug/L	23.285	333	0.000
Cu	63		ug/L		1486	-0.000
Cu	65	0.026	ug/L	10.159	798	0.000
Zn	66	-0.012	ug/L	37.454	1004	-0.000
Zn	67		ug/L		18582	-0.005
Zn	68		ug/L		2102	-0.000
> Ge	74		ug/L		621518	621518.482
As	75	-0.662	ug/L	31.583	-147	-0.002
Se	77		ug/L		11202	-0.008
Se	82	-0.011	ug/L	1231.871	-20	-0.000
Kr	83		ug/L		196	-0.000
Sr	88	-0.001	ug/L	236.037	258	-0.000
Y	89		ug/L		71	-0.000
Mo	98	0.051	ug/L	8.084	387	0.001
Ag	107	0.000	ug/L	1786.651	67	0.000
Cd	111	0.004	ug/L	215.084	24	0.000
Cd	114		ug/L		60	0.000
> In	115		ug/L		345457	345457.412
Sn	120	0.019	ug/L	23.519	479	0.000
Sb	121	0.169	ug/L	21.808	1566	0.003
Sb	123		ug/L		1234	0.003
Ba	135		ug/L		50	-0.000
Ba	137	0.003	ug/L	41.507	74	0.000
Ho	165		ug/L		33	-0.000
> Lu	175		ug/L		504656	504656.087
Tl	205	0.427	ug/L	30.466	13435	0.016
Pb	208	0.002	ug/L	56.187	598	0.000
Bi	209		ug/L		389	0.000
Th	232	0.039	ug/L	17.562	2422	0.003
U	238	0.005	ug/L	25.788	603	0.000

Sample ID: QC Std 7

Report Date/Time: Friday, February 26, 2010 02:03:11

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
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		92.8			
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		95.2			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		99.1			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		100.8			
Tl	205					
Pb	208					
Bi	209					
Th	232					
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 10

Sample Date/Time: Friday, February 26, 2010 02:06:34

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 10.519

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	1072.056	ug/L	1.042	1686172	3.596
Be	9	1014.422	ug/L	1.099	435900	0.929
B	11	1.582	ug/L	8.311	1317	0.002
Na	23	48751.131	ug/L	2.592	237209940	505.753
Mg	24	46426.787	ug/L	4.928	157535100	335.898
Al	27	45069.181	ug/L	4.178	240419777	512.619
P	31	21852.421	ug/L	1.064	7438436	15.847
K	39	49978.429	ug/L	4.739	348037249	741.026
Ca	43	46750.208	ug/L	0.345	752462	1.604
> Sc	45		ug/L		468923	468923.055
Ti	47	43.081	ug/L	1.766	34358	0.072
V	51	963.861	ug/L	0.828	8573557	18.262
Cr	52	914.837	ug/L	1.067	6571217	14.019
Cr	53		ug/L		962798	1.653
Mn	55	997.087	ug/L	0.858	11295393	24.083
Fe	57	49165.976	ug/L	1.017	12324390	26.266
Co	59	912.151	ug/L	1.282	7515906	16.028
Ni	60	884.605	ug/L	0.474	1614964	3.443
Cu	63		ug/L		3800212	8.102
Cu	65	852.956	ug/L	0.239	1808529	3.855
Zn	66	2426.624	ug/L	0.434	3566790	6.435
Zn	67		ug/L		574607	1.002
Zn	68		ug/L		2713143	4.893
> Ge	74		ug/L		554156	554155.602
As	75	829.359	ug/L	1.589	1385994	2.499
Se	77		ug/L		69401	0.099
Se	82	477.583	ug/L	0.741	76804	0.139
Kr	83		ug/L		295	0.000
Sr	88	966.541	ug/L	1.571	18533719	60.960
Y	89		ug/L		668	0.002
Mo	98	943.192	ug/L	2.365	4496781	14.792
Ag	107	222.905	ug/L	2.227	1621089	5.332
Cd	111	862.356	ug/L	2.238	1587812	5.223
Cd	114		ug/L		3858882	12.692
> In	115		ug/L		304062	304062.056
Sn	120	897.426	ug/L	1.653	6586058	21.662
Sb	121	226.151	ug/L	1.713	1398215	4.598
Sb	123		ug/L		1119143	3.680
Ba	135		ug/L		1602268	3.361
Ba	137	851.502	ug/L	2.117	3016546	6.327
Ho	165		ug/L		169	0.000
> Lu	175		ug/L		476900	476899.614
Tl	205	481.997	ug/L	1.229	8635510	18.099
Pb	208	4757.224	ug/L	1.192	160522243	336.637
Bi	209		ug/L		5149	0.010
Th	232	2504.981	ug/L	0.874	105699612	221.655
U	238	5375.325	ug/L	1.932	228324923	478.856

Sample ID: QC Std 10

Report Date/Time: Friday, February 26, 2010 02:09:15

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
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	107.206				
Be	9	101.442				
B	11					
Na	23	97.502				
Mg	24	92.854				
Al	27	90.138				
P	31	87.410				
K	39	99.957				
Ca	43	93.500				
> Sc	45		81.3			
Ti	47					
V	51	96.386				
Cr	52	91.484				
Cr	53					
Mn	55	99.709				
Fe	57	98.332				
Co	59	91.215				
Ni	60	88.460				
Cu	63					
Cu	65	85.296				
Zn	66	97.065				
Zn	67					
Zn	68					
> Ge	74		84.8			
As	75	82.936				
Se	77					
Se	82	95.517				
Kr	83					
Sr	88	96.654				
Y	89					
Mo	98	94.319				
Ag	107	89.162				
Cd	111	86.236				
Cd	114					
> In	115		87.2			
Sn	120	89.743				
Sb	121	90.460				
Sb	123					
Ba	135					
Ba	137	85.150				
Ho	165					
> Lu	175		95.2			
Tl	205	96.399				
Pb	208	95.144				
Bi	209					
Th	232	100.199				
U	238	107.507				

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	P	31	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%)
QC Std 10	Cd	111	LRS is out of limits (+/- 10%)
QC Std 10	Sn	120	LRS is out of limits (+/- 10%)

QC Std 10

Ba

137LRS is out of limits (+/- 10%)

## QC Action

QC Action Line: Continue

---

Sample ID: QC Std 10

Report Date/Time: Friday, February 26, 2010 02:09:15

Page 4

## ICPMS#5 - Summary Report

Sample ID: QC Std 11

Sample Date/Time: Friday, February 26, 2010 02:12:38

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 11.520

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	60.274	ug/L	2.129	105167	0.202
Be	9	56.058	ug/L	2.189	26714	0.051
B	11	107.957	ug/L	4.183	57435	0.109
Na	23	5155.893	ug/L	0.827	27840013	53.488
Mg	24	4925.265	ug/L	3.517	18526368	35.634
Al	27	5405.021	ug/L	6.558	31954527	61.477
P	31	4240.772	ug/L	1.562	1606783	3.075
K	39	5372.244	ug/L	8.161	42132888	79.654
Ca	43	4935.213	ug/L	1.496	88515	0.169
> Sc	45		ug/L		519827	519827.054
Ti	47	52.023	ug/L	0.978	45872	0.087
V	51	52.934	ug/L	4.428	531916	1.003
Cr	52	52.074	ug/L	1.707	412083	0.798
Cr	53		ug/L		205386	-0.005
Mn	55	54.785	ug/L	0.424	689667	1.323
Fe	57	4522.681	ug/L	2.144	1263563	2.416
Co	59	53.757	ug/L	1.856	491018	0.945
Ni	60	53.886	ug/L	1.228	109311	0.210
Cu	63		ug/L		259451	0.496
Cu	65	55.236	ug/L	0.384	130491	0.250
Zn	66	54.839	ug/L	0.217	88214	0.145
Zn	67		ug/L		35074	0.023
Zn	68		ug/L		69012	0.112
> Ge	74		ug/L		599830	599830.165
As	75	48.791	ug/L	1.809	89254	0.147
Se	77		ug/L		15827	0.001
Se	82	51.946	ug/L	1.454	9026	0.015
Kr	83		ug/L		202	0.000
Sr	88	50.090	ug/L	1.128	1055060	3.159
Y	89		ug/L		129	0.000
Mo	98	47.767	ug/L	1.523	250206	0.749
Ag	107	51.982	ug/L	1.857	415188	1.243
Cd	111	50.482	ug/L	1.079	102109	0.306
Cd	114		ug/L		239377	0.717
> In	115		ug/L		333918	333918.285
Sn	120	51.491	ug/L	2.054	415253	1.243
Sb	121	52.896	ug/L	1.794	359423	1.075
Sb	123		ug/L		279482	0.836
Ba	135		ug/L		104522	0.209
Ba	137	49.371	ug/L	1.494	183751	0.367
Ho	165		ug/L		61	0.000
> Lu	175		ug/L		500760	500760.277
Tl	205	55.248	ug/L	0.393	1044130	2.075
Pb	208	56.912	ug/L	1.139	2017029	4.027
Bi	209		ug/L		711	0.001
Th	232	55.848	ug/L	1.921	2474943	4.942
U	238	58.044	ug/L	2.483	2589194	5.171

Sample ID: QC Std 11

Report Date/Time: Friday, February 26, 2010 02:15:20

Page 1



## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
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	120.547				
Be	9	112.117				
B	11	107.957				
Na	23	103.118				
Mg	24	98.505				
Al	27	107.030				
P	31	84.815				
K	39	107.445				
Ca	43	98.704				
> Sc	45		90.1			
Ti	47	104.045				
V	51	105.868				
Cr	52	104.148				
Cr	53					
Mn	55	109.571				
Fe	57	90.454				
Co	59	107.513				
Ni	60	107.771				
Cu	63					
Cu	65	110.472				
Zn	66	109.679				
Zn	67					
Zn	68					
> Ge	74		91.8			
As	75	97.583				
Se	77					
Se	82	103.892				
Kr	83					
Sr	88	100.181				
Y	89					
Mo	98	95.534				
Ag	107	103.965				
Cd	111	100.965				
Cd	114					
> In	115		95.7			
Sn	120	102.982				
Sb	121	105.791				
Sb	123					
Ba	135					
Ba	137	98.742				
Ho	165					
> Lu	175		100.0			
Tl	205	110.496				
Pb	208	113.823				
Bi	209					
Th	232	111.696				
U	238	116.088				

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Li	7	7CCV is out of limits (+/- 10%)
QC Std 11	Be	9	9CCV is out of limits (+/- 10%)
QC Std 11	P	31	31CCV is out of limits (+/- 10%)
QC Std 11	Cu	65	65CCV is out of limits (+/- 10%)
QC Std 11	Tl	205	205CCV is out of limits (+/- 10%)
QC Std 11	Pb	208	208CCV is out of limits (+/- 10%)
QC Std 11	Th	232	232CCV is out of limits (+/- 10%)

Sample ID: QC Std 11

Report Date/Time: Friday, February 26, 2010 02:15:20

Page 3

QC Std 11

U

238CCV is out of limits (+/- 10%)

## QC Action

QC Action Line: Continue

---

Sample ID: QC Std 11

Report Date/Time: Friday, February 26, 2010 02:15:20

Page 4

## ICPMS#5 - Summary Report

Sample ID: QC Std 12

Sample Date/Time: Friday, February 26, 2010 02:18:44

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 12.521

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.045	ug/L	25.568	190	0.000
Be	9	0.003	ug/L	214.064	23	0.000
B	11	3.097	ug/L	25.445	2289	0.003
Na	23	-1.589	ug/L	104.758	24356	-0.016
Mg	24	-0.371	ug/L	107.521	1333	-0.003
Al	27	-0.021	ug/L	890.310	5668	-0.000
P	31	-0.287	ug/L	222.915	8280	-0.000
K	39	-6.272	ug/L	26.506	664783	-0.093
Ca	43	-2.786	ug/L	67.705	493	-0.000
> Sc	45		ug/L		527733	527732.968
Ti	47	-0.129	ug/L	7.291	439	-0.000
V	51	-0.366	ug/L	57.757	7414	-0.007
Cr	52	0.188	ug/L	24.322	-1142	0.003
Cr	53		ug/L		155219	-0.106
Mn	55	-0.019	ug/L	39.710	1615	-0.000
Fe	57	-2.709	ug/L	2.425	7305	-0.001
Co	59	0.010	ug/L	8.784	200	0.000
Ni	60	0.002	ug/L	71.970	302	0.000
Cu	63		ug/L		1663	0.000
Cu	65	0.052	ug/L	38.235	847	0.000
Zn	66	0.021	ug/L	45.255	1026	0.000
Zn	67		ug/L		18974	-0.004
Zn	68		ug/L		2224	0.000
> Ge	74		ug/L		601848	601847.630
As	75	-0.509	ug/L	14.775	135	-0.002
Se	77		ug/L		9515	-0.010
Se	82	0.009	ug/L	1925.815	-16	0.000
Kr	83		ug/L		188	-0.000
Sr	88	0.002	ug/L	25.331	304	0.000
Y	89		ug/L		74	-0.000
Mo	98	0.099	ug/L	12.007	626	0.002
Ag	107	0.002	ug/L	77.300	82	0.000
Cd	111	0.009	ug/L	7.028	33	0.000
Cd	114		ug/L		66	0.000
> In	115		ug/L		336600	336599.562
Sn	120	0.103	ug/L	8.361	1153	0.002
Sb	121	0.908	ug/L	14.549	6569	0.018
Sb	123		ug/L		5136	0.014
Ba	135		ug/L		58	0.000
Ba	137	0.006	ug/L	25.392	89	0.000
Ho	165		ug/L		32	-0.000
> Lu	175		ug/L		508514	508514.141
Tl	205	0.519	ug/L	20.375	15294	0.020
Pb	208	0.014	ug/L	3.760	1061	0.001
Bi	209		ug/L		347	-0.000
Th	232	0.080	ug/L	8.838	4259	0.007
U	238	0.037	ug/L	8.288	2070	0.003

Sample ID: QC Std 12

Report Date/Time: Friday, February 26, 2010 02:21:28

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9998

Sample ID: QC Std 12

Report Date/Time: Friday, February 26, 2010 02:21:28

Page 2

## 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		91.5			
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		92.1			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		96.5			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		101.5			
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 8

Sample Date/Time: Friday, February 26, 2010 03:08:01

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 8.529

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	64.959	ug/L	0.629	103232	0.218
Be	9	56.932	ug/L	2.125	24710	0.052
B	11	103.883	ug/L	1.556	50382	0.105
Na	23	4453.413	ug/L	7.547	21897554	46.200
Mg	24	4837.024	ug/L	1.790	16566821	34.996
Al	27	4283.162	ug/L	6.135	23062419	48.717
P	31	4012.201	ug/L	0.804	1384789	2.910
K	39	5048.416	ug/L	13.337	36057913	74.852
Ca	43	4741.976	ug/L	3.219	77472	0.163
> Sc	45		ug/L		473360	473359.546
Ti	47	50.413	ug/L	1.164	40499	0.085
V	51	51.799	ug/L	1.446	474520	0.981
Cr	52	52.591	ug/L	1.570	379089	0.806
Cr	53		ug/L		189613	0.000
Mn	55	54.325	ug/L	0.755	622765	1.312
Fe	57	4627.085	ug/L	2.903	1177251	2.472
Co	59	55.419	ug/L	1.194	461048	0.974
Ni	60	55.958	ug/L	1.348	103369	0.218
Cu	63		ug/L		240708	0.506
Cu	65	55.950	ug/L	0.312	120360	0.253
Zn	66	53.816	ug/L	1.723	82244	0.143
Zn	67		ug/L		30517	0.018
Zn	68		ug/L		63534	0.108
> Ge	74		ug/L		569768	569768.288
As	75	47.847	ug/L	2.074	83148	0.144
Se	77		ug/L		15776	0.002
Se	82	51.076	ug/L	2.312	8430	0.015
Kr	83		ug/L		176	-0.000
Sr	88	48.467	ug/L	1.666	989182	3.057
Y	89		ug/L		202	0.000
Mo	98	46.049	ug/L	1.370	233741	0.722
Ag	107	51.403	ug/L	1.042	397861	1.230
Cd	111	50.270	ug/L	1.893	98509	0.304
Cd	114		ug/L		229279	0.709
> In	115		ug/L		323553	323552.592
Sn	120	50.514	ug/L	2.343	394760	1.219
Sb	121	50.892	ug/L	2.002	335092	1.035
Sb	123		ug/L		265944	0.821
Ba	135		ug/L		100022	0.198
Ba	137	46.608	ug/L	1.602	174521	0.346
Ho	165		ug/L		59	0.000
> Lu	175		ug/L		503802	503801.882
Tl	205	54.375	ug/L	0.866	1034025	2.042
Pb	208	56.454	ug/L	1.252	2012994	3.995
Bi	209		ug/L		766	0.001
Th	232	54.671	ug/L	1.030	2437702	4.838
U	238	57.059	ug/L	1.814	2560960	5.083

Sample ID: QC Std 8

Report Date/Time: Friday, February 26, 2010 03:10:44

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9998

Sample ID: QC Std 8

Report Date/Time: Friday, February 26, 2010 03:10:44

Page 2



## QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Li	7	129.918				
Be	9	113.864				
B	11	103.883				
Na	23	89.068				
Mg	24	96.740				
Al	27	84.815				
P	31	80.244				
K	39	100.968				
Ca	43	94.840				
> Sc	45		82.1			
Ti	47	100.826				
V	51	103.598				
Cr	52	105.183				
Cr	53					
Mn	55	108.649				
Fe	57	92.542				
Co	59	110.839				
Ni	60	111.915				
Cu	63					
Cu	65	111.901				
Zn	66	107.632				
Zn	67					
Zn	68					
> Ge	74		87.2			
As	75	95.693				
Se	77					
Se	82	102.153				
Kr	83					
Sr	88	96.933				
Y	89					
Mo	98	92.099				
Ag	107	102.806				
Cd	111	100.540				
Cd	114					
> In	115		92.8			
Sn	120	101.028				
Sb	121	101.785				
Sb	123					
Ba	135					
Ba	137	93.216				
Ho	165					
> Lu	175		100.6			
Tl	205	108.750				
Pb	208	112.907				
Bi	209					
Th	232	109.342				
U	238	114.118				

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Li	7	7CCV is out of limits (+/- 10%)
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	Al	27	27CCV is out of limits (+/- 10%)
QC Std 8	P	31	31CCV is out of limits (+/- 10%)
QC Std 8	Co	59	59CCV is out of limits (+/- 10%)
QC Std 8	Ni	60	60CCV is out of limits (+/- 10%)

Sample ID: QC Std 8

Report Date/Time: Friday, February 26, 2010 03:10:44

Page 3

QC Std 8	Cu	65CCV is out of limits (+/- 10%)
QC Std 8	Pb	208CCV is out of limits (+/- 10%)
QC Std 8	U	238CCV is out of limits (+/- 10%)

## QC Action

QC Action Line: Continue

## ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Friday, February 26, 2010 03:14:09

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 9.530

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.011	ug/L	109.979	123	0.000
Be	9	-0.002	ug/L	626.956	20	-0.000
B	11	2.790	ug/L	19.309	2009	0.003
Na	23	-2.214	ug/L	30.813	19681	-0.023
Mg	24	-0.351	ug/L	119.875	1333	-0.003
Al	27	-0.258	ug/L	120.062	4001	-0.003
P	31	-3.249	ug/L	36.812	6740	-0.002
K	39	-12.578	ug/L	20.683	580920	-0.186
Ca	43	-3.866	ug/L	22.504	447	-0.000
> Sc	45		ug/L		497990	497989.912
Ti	47	-0.117	ug/L	15.816	423	-0.000
V	51	-0.753	ug/L	25.694	3371	-0.014
Cr	52	0.502	ug/L	11.696	1313	0.008
Cr	53		ug/L		143407	-0.113
Mn	55	-0.021	ug/L	3.759	1500	-0.001
Fe	57	-2.087	ug/L	17.745	7058	-0.001
Co	59	0.005	ug/L	13.030	145	0.000
Ni	60	-0.004	ug/L	353.696	273	-0.000
Cu	63		ug/L		1353	-0.000
Cu	65	0.009	ug/L	79.000	704	0.000
Zn	66	-0.034	ug/L	75.627	915	-0.000
Zn	67		ug/L		16528	-0.007
Zn	68		ug/L		1784	-0.000
> Ge	74		ug/L		586489	586489.281
As	75	-0.831	ug/L	42.667	-435	-0.003
Se	77		ug/L		9417	-0.010
Se	82	0.095	ug/L	145.471	-1	0.000
Kr	83		ug/L		175	-0.000
Sr	88	-0.002	ug/L	36.445	233	-0.000
Y	89		ug/L		88	-0.000
Mo	98	0.023	ug/L	14.044	228	0.000
Ag	107	0.001	ug/L	119.986	74	0.000
Cd	111	0.005	ug/L	122.140	26	0.000
Cd	114		ug/L		52	0.000
> In	115		ug/L		336018	336018.393
Sn	120	0.020	ug/L	22.223	476	0.000
Sb	121	0.196	ug/L	7.961	1707	0.004
Sb	123		ug/L		1305	0.003
Ba	135		ug/L		51	-0.000
Ba	137	0.001	ug/L	760.729	70	0.000
Ho	165		ug/L		32	-0.000
> Lu	175		ug/L		534490	534489.714
Tl	205	0.260	ug/L	27.751	10888	0.010
Pb	208	0.002	ug/L	95.346	633	0.000
Bi	209		ug/L		346	-0.000
Th	232	0.030	ug/L	16.020	2133	0.003
U	238	0.006	ug/L	7.324	700	0.001

Sample ID: QC Std 9

Report Date/Time: Friday, February 26, 2010 03:16:53

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
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		86.3			
	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		89.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		106.7			
	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 8

Sample Date/Time: Friday, February 26, 2010 03:51:06

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 8.536

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	69.897	ug/L	1.252	98236	0.234
Be	9	61.582	ug/L	1.053	23640	0.056
B	11	106.362	ug/L	1.177	45607	0.108
Na	23	4088.979	ug/L	13.952	17779044	42.420
Mg	24	4519.510	ug/L	5.235	13688471	32.699
Al	27	4346.182	ug/L	1.869	20696738	49.434
P	31	3857.603	ug/L	2.423	1177664	2.798
K	39	4487.039	ug/L	1.687	28415203	66.529
Ca	43	4636.339	ug/L	1.934	67001	0.159
> Sc	45		ug/L		418624	418624.422
Ti	47	48.316	ug/L	2.728	34347	0.081
V	51	52.067	ug/L	2.032	421730	0.986
Cr	52	52.385	ug/L	1.923	333932	0.803
Cr	53		ug/L		157952	-0.023
Mn	55	54.357	ug/L	1.152	551125	1.313
Fe	57	4663.732	ug/L	0.737	1049397	2.492
Co	59	56.294	ug/L	1.111	414165	0.989
Ni	60	56.883	ug/L	1.896	92926	0.221
Cu	63		ug/L		217853	0.518
Cu	65	56.452	ug/L	0.493	107393	0.255
Zn	66	53.917	ug/L	1.771	73155	0.143
Zn	67		ug/L		26341	0.017
Zn	68		ug/L		55554	0.106
> Ge	74		ug/L		505890	505889.642
As	75	48.271	ug/L	0.827	74484	0.145
Se	77		ug/L		12890	-0.000
Se	82	52.782	ug/L	2.029	7735	0.015
Kr	83		ug/L		161	-0.000
Sr	88	47.382	ug/L	1.939	899681	2.988
Y	89		ug/L		226	0.000
Mo	98	44.766	ug/L	1.832	211398	0.702
Ag	107	50.936	ug/L	1.614	366768	1.218
Cd	111	50.533	ug/L	1.652	92131	0.306
Cd	114		ug/L		216392	0.719
> In	115		ug/L		301029	301029.109
Sn	120	50.674	ug/L	1.480	368439	1.223
Sb	121	51.600	ug/L	3.209	316055	1.049
Sb	123		ug/L		246516	0.818
Ba	135		ug/L		93555	0.181
Ba	137	43.098	ug/L	0.645	165082	0.320
Ho	165		ug/L		64	0.000
> Lu	175		ug/L		515326	515326.414
Tl	205	53.887	ug/L	1.208	1048223	2.024
Pb	208	55.762	ug/L	1.059	2033935	3.946
Bi	209		ug/L		743	0.001
Th	232	54.119	ug/L	0.713	2468460	4.789
U	238	57.704	ug/L	1.657	2649477	5.141

Sample ID: QC Std 8

Report Date/Time: Friday, February 26, 2010 03:53:49

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
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	139.794				
Be	9	123.164				
B	11	106.362				
Na	23	81.780				
Mg	24	90.390				
Al	27	86.063				
P	31	77.152				
K	39	89.741				
Ca	43	92.727				
> Sc	45		72.6			
Ti	47	96.633				
V	51	104.135				
Cr	52	104.770				
Cr	53					
Mn	55	108.714				
Fe	57	93.275				
Co	59	112.588				
Ni	60	113.766				
Cu	63					
Cu	65	112.904				
Zn	66	107.834				
Zn	67					
Zn	68					
> Ge	74		77.5			
As	75	96.542				
Se	77					
Se	82	105.565				
Kr	83					
Sr	88	94.763				
Y	89					
Mo	98	89.533				
Ag	107	101.872				
Cd	111	101.066				
Cd	114					
> In	115		86.3			
Sn	120	101.349				
Sb	121	103.200				
Sb	123					
Ba	135					
Ba	137	86.196				
Ho	165					
> Lu	175		102.9			
Tl	205	107.774				
Pb	208	111.524				
Bi	209					
Th	232	108.238				
U	238	115.408				

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Li	7	7CCV is out of limits (+/- 10%)
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	Al	27	27CCV is out of limits (+/- 10%)
QC Std 8	P	31	31CCV is out of limits (+/- 10%)
QC Std 8	K	39	39CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC Sc		45	

Sample ID: QC Std 8

Report Date/Time: Friday, February 26, 2010 03:53:49

Page 3



QC Std 8	Co	59CCV is out of limits (+/- 10%)
QC Std 8	Ni	60CCV is out of limits (+/- 10%)
QC Std 8	Cu	65CCV is out of limits (+/- 10%)
Ge 74 Int Std for QC	Ge	74
QC Std 8	Mo	98CCV is out of limits (+/- 10%)
QC Std 8	Ba	137CCV is out of limits (+/- 10%)
QC Std 8	Pb	208CCV is out of limits (+/- 10%)
QC Std 8	U	238CCV is out of limits (+/- 10%)

## QC Action

QC Action Line: Continue

## ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Friday, February 26, 2010 03:57:15

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 9.537

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.043	ug/L	40.875	145	0.000
Be	9	0.024	ug/L	58.937	26	0.000
B	11	2.890	ug/L	20.005	1701	0.003
Na	23	-3.043	ug/L	35.485	12673	-0.032
Mg	24	-0.605	ug/L	32.524	333	-0.004
Al	27	-0.323	ug/L	68.064	3000	-0.004
P	31	-2.867	ug/L	34.748	5674	-0.002
K	39	-7.214	ug/L	36.698	512025	-0.107
Ca	43	-3.708	ug/L	44.854	371	-0.000
> Sc	45		ug/L		410868	410867.859
Ti	47	-0.064	ug/L	50.824	386	-0.000
V	51	-0.648	ug/L	64.974	3564	-0.012
Cr	52	0.239	ug/L	37.310	-576	0.004
Cr	53		ug/L		125222	-0.096
Mn	55	-0.012	ug/L	12.801	1331	-0.000
Fe	57	-0.029	ug/L	1512.287	6275	-0.000
Co	59	0.007	ug/L	21.074	139	0.000
Ni	60	0.014	ug/L	65.519	254	0.000
Cu	63		ug/L		1220	0.000
Cu	65	0.014	ug/L	75.392	589	0.000
Zn	66	0.008	ug/L	223.382	835	0.000
Zn	67		ug/L		14727	-0.006
Zn	68		ug/L		1549	-0.000
> Ge	74		ug/L		500151	500151.354
As	75	-0.796	ug/L	46.238	-314	-0.002
Se	77		ug/L		7605	-0.011
Se	82	0.099	ug/L	65.422	0	0.000
Kr	83		ug/L		163	-0.000
Sr	88	-0.000	ug/L	777.505	235	-0.000
Y	89		ug/L		85	0.000
Mo	98	0.026	ug/L	30.045	214	0.000
Ag	107	0.003	ug/L	59.209	78	0.000
Cd	111	0.010	ug/L	16.511	31	0.000
Cd	114		ug/L		56	0.000
> In	115		ug/L		296823	296823.102
Sn	120	0.015	ug/L	49.134	388	0.000
Sb	121	0.179	ug/L	20.308	1405	0.004
Sb	123		ug/L		1108	0.003
Ba	135		ug/L		49	-0.000
Ba	137	-0.001	ug/L	209.122	62	-0.000
Ho	165		ug/L		33	-0.000
> Lu	175		ug/L		506476	506476.174
Tl	205	0.269	ug/L	50.507	10469	0.010
Pb	208	0.002	ug/L	28.693	620	0.000
Bi	209		ug/L		322	-0.000
Th	232	0.033	ug/L	22.822	2145	0.003
U	238	0.007	ug/L	29.503	702	0.001

Sample ID: QC Std 9

Report Date/Time: Friday, February 26, 2010 03:59:59

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
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		71.2			
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		76.6			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		85.1			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		101.1			
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 QC Sc		45	
Ge 74 Int Std for QC Ge		74	

### QC Action

QC Action Line: Continue

Sample ID: QC Std 9  
Report Date/Time: Friday, February 26, 2010 03:59:59  
Page 3

## ICPMS#5 - Summary Report

Sample ID: 1202036669

Sample Date/Time: Friday, February 26, 2010 04:03:25

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 950387|2|baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\1202036669.538

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.025	ug/L	1.618	121	0.000
Be	9	0.035	ug/L	37.530	30	0.000
B	11	0.819	ug/L	27.784	840	0.001
Na	23	5.387	ug/L	23.036	48750	0.056
Mg	24	2.299	ug/L	50.407	9003	0.017
Al	27	5.099	ug/L	56.108	28365	0.058
P	31	15.577	ug/L	10.310	11205	0.011
K	39	-13.277	ug/L	34.043	476856	-0.197
Ca	43	10.200	ug/L	2.718	569	0.000
> Sc	45		ug/L		412234	412233.911
Ti	47	0.454	ug/L	8.026	745	0.001
V	51	-0.621	ug/L	30.829	3805	-0.012
Cr	52	0.662	ug/L	10.634	2096	0.010
Cr	53		ug/L		98945	-0.161
Mn	55	0.274	ug/L	2.726	4179	0.007
Fe	57	23.427	ug/L	6.357	11465	0.013
Co	59	0.020	ug/L	5.921	231	0.000
Ni	60	0.045	ug/L	24.740	304	0.000
Cu	63		ug/L		797	-0.001
Cu	65	-0.075	ug/L	12.553	425	-0.000
Zn	66	0.926	ug/L	3.538	2005	0.002
Zn	67		ug/L		12022	-0.011
Zn	68		ug/L		2311	0.001
> Ge	74		ug/L		488565	488565.482
As	75	-0.674	ug/L	30.611	-133	-0.002
Se	77		ug/L		5663	-0.014
Se	82	0.266	ug/L	52.627	24	0.000
Kr	83		ug/L		134	-0.000
Sr	88	0.051	ug/L	2.241	1219	0.003
Y	89		ug/L		157	0.000
Mo	98	0.043	ug/L	23.106	297	0.001
Ag	107	0.010	ug/L	13.137	132	0.000
Cd	111	0.019	ug/L	59.266	48	0.000
Cd	114		ug/L		75	0.000
> In	115		ug/L		301335	301335.381
Sn	120	0.564	ug/L	4.158	4385	0.014
Sb	121	0.016	ug/L	56.561	422	0.000
Sb	123		ug/L		341	0.000
Ba	135		ug/L		225	0.000
Ba	137	0.079	ug/L	10.366	373	0.001
Ho	165		ug/L		36	0.000
> Lu	175		ug/L		525830	525830.219
Tl	205	0.037	ug/L	59.345	6276	0.001
Pb	208	0.016	ug/L	12.372	1144	0.001
Bi	209		ug/L		514	0.000
Th	232	0.034	ug/L	33.025	2259	0.003
U	238	0.000	ug/L	169.924	416	0.000

Sample ID: 1202036669

Report Date/Time: Friday, February 26, 2010 04:06:10

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
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		71.5			
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		74.8			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		86.4			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		105.0			
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: 1202036674

Sample Date/Time: Friday, February 26, 2010 04:09:37

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 950387|40|baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\1202036674.539

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	3.470	ug/L	3.294	4894	0.012
Be	9	24.048	ug/L	1.080	9117	0.022
B	11	39.032	ug/L	1.654	16825	0.040
Na	23	227.975	ug/L	6.339	1002762	2.365
Mg	24	889.574	ug/L	8.206	2659993	6.436
Al	27	2460.372	ug/L	2.337	11560929	27.984
P	31	168.703	ug/L	1.608	57091	0.122
K	39	874.995	ug/L	4.348	5915751	12.973
Ca	43	2303.055	ug/L	1.275	33052	0.079
> Sc	45		ug/L		412985	412984.942
Ti	47	113.532	ug/L	3.663	79024	0.190
V	51	32.030	ug/L	1.950	259289	0.607
Cr	52	61.778	ug/L	0.850	388873	0.947
Cr	53		ug/L		170118	0.011
Mn	55	136.931	ug/L	1.722	1367281	3.307
Fe	57	3849.799	ug/L	1.063	855673	2.057
Co	59	26.973	ug/L	1.794	195830	0.474
Ni	60	39.522	ug/L	1.243	63767	0.154
Cu	63		ug/L		188115	0.453
Cu	65	49.849	ug/L	1.373	93617	0.225
Zn	66	157.076	ug/L	0.156	210411	0.417
Zn	67		ug/L		46849	0.058
Zn	68		ug/L		157433	0.309
> Ge	74		ug/L		503175	503174.810
As	75	25.207	ug/L	1.947	39108	0.076
Se	77		ug/L		15933	0.006
Se	82	75.411	ug/L	1.084	10999	0.022
Kr	83		ug/L		159	-0.000
Sr	88	52.164	ug/L	0.409	986850	3.290
Y	89		ug/L		53168	0.177
Mo	98	11.655	ug/L	1.770	54901	0.183
Ag	107	5.391	ug/L	1.537	38724	0.129
Cd	111	15.444	ug/L	1.931	28060	0.094
Cd	114		ug/L		66263	0.221
> In	115		ug/L		299888	299888.431
Sn	120	6.918	ug/L	1.672	50348	0.167
Sb	121	15.587	ug/L	2.140	95342	0.317
Sb	123		ug/L		74502	0.248
Ba	135		ug/L		86128	0.167
Ba	137	39.283	ug/L	0.798	150577	0.292
Ho	165		ug/L		3545	0.007
> Lu	175		ug/L		515691	515690.541
Tl	205	35.139	ug/L	1.863	685824	1.319
Pb	208	24.722	ug/L	1.013	902647	1.749
Bi	209		ug/L		8156	0.015
Th	232	2.761	ug/L	1.853	126669	0.244
U	238	0.646	ug/L	2.154	30073	0.058

Sample ID: 1202036674

Report Date/Time: Friday, February 26, 2010 04:12:23

Page 1



## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9998

Sample ID: 1202036674

Report Date/Time: Friday, February 26, 2010 04:12:23

Page 2

## 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		71.6			
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		77.0			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		86.0			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		103.0			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEETi		47	Sample is out of limits (over linear range)

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 246336001

Sample Date/Time: Friday, February 26, 2010 04:15:48

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950387[2]baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\1100224\246336001.540

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	26.084	ug/L	0.862	39008	0.087
Be	9	2.085	ug/L	3.281	868	0.002
B	11	6.700	ug/L	1.823	3554	0.007
Na	23	368.746	ug/L	10.290	1727639	3.825
Mg	24	2479.677	ug/L	9.014	7971471	17.940
Al	27	19075.619	ug/L	6.069	96434198	216.967
P	31	228.470	ug/L	4.914	80720	0.166
K	39	2359.707	ug/L	1.507	16161147	34.987
Ca	43	4132.545	ug/L	2.658	63491	0.142
> Sc	45		ug/L		444816	444815.753
Ti	47	635.782	ug/L	1.276	474542	1.066
V	51	32.096	ug/L	3.304	279744	0.608
Cr	52	13.193	ug/L	4.005	87632	0.202
Cr	53		ug/L		91324	-0.195
Mn	55	415.531	ug/L	0.511	4465964	10.037
Fe	57	24981.609	ug/L	1.779	5942819	13.346
Co	59	7.451	ug/L	2.949	58309	0.131
Ni	60	9.361	ug/L	2.749	16453	0.036
Cu	63		ug/L		67166	0.148
Cu	65	16.466	ug/L	1.709	33711	0.074
Zn	66	116.943	ug/L	0.582	141627	0.310
Zn	67		ug/L		32946	0.037
Zn	68		ug/L		106186	0.230
> Ge	74		ug/L		454285	454285.439
As	75	8.291	ug/L	3.798	12150	0.025
Se	77		ug/L		4291	-0.016
Se	82	2.885	ug/L	11.516	368	0.001
Kr	83		ug/L		267	0.000
Sr	88	32.241	ug/L	0.534	577787	2.033
Y	89		ug/L		753409	2.652
Mo	98	3.478	ug/L	1.319	15584	0.055
Ag	107	0.248	ug/L	3.300	1737	0.006
Cd	111	0.975	ug/L	13.054	1691	0.006
Cd	114		ug/L		1234	0.004
> In	115		ug/L		284030	284030.472
Sn	120	2.175	ug/L	0.821	15177	0.052
Sb	121	0.347	ug/L	4.022	2311	0.007
Sb	123		ug/L		1833	0.006
Ba	135		ug/L		278723	0.529
Ba	137	123.880	ug/L	1.691	484688	0.920
Ho	165		ug/L		51600	0.098
> Lu	175		ug/L		526571	526571.441
Tl	205	0.439	ug/L	13.578	14237	0.016
Pb	208	55.791	ug/L	0.411	2079393	3.948
Bi	209		ug/L		12426	0.023
Th	232	18.966	ug/L	1.064	884358	1.678
U	238	196.062	ug/L	1.280	9196858	17.466

Sample ID: 246336001

Report Date/Time: Friday, February 26, 2010 04:18:32

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9998

Sample ID: 246336001

Report Date/Time: Friday, February 26, 2010 04:18:32

Page 2

## 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		77.1			
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		69.6			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		81.4			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		105.2			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE Ti		47	Sample is out of limits (over linear range)

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202036670

Sample Date/Time: Friday, February 26, 2010 04:21:58

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 950387|2|baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\1202036670.541

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	28.210	ug/L	0.685	42109	0.095
Be	9	2.301	ug/L	3.643	954	0.002
B	11	7.292	ug/L	2.705	3815	0.007
Na	23	417.551	ug/L	12.561	1950574	4.332
Mg	24	2647.210	ug/L	4.862	8507440	19.153
Al	27	20972.911	ug/L	2.596	105944474	238.547
P	31	249.993	ug/L	1.243	87564	0.181
K	39	2593.566	ug/L	2.440	17673767	38.455
Ca	43	4612.557	ug/L	2.045	70719	0.158
> Sc	45		ug/L		444038	444037.684
Ti	47	631.887	ug/L	0.962	470844	1.059
V	51	32.097	ug/L	3.684	279328	0.608
Cr	52	14.993	ug/L	1.032	99770	0.230
Cr	53		ug/L		85648	-0.208
Mn	55	525.293	ug/L	0.413	5635316	12.688
Fe	57	24866.102	ug/L	1.737	5905179	13.284
Co	59	9.738	ug/L	1.787	76070	0.171
Ni	60	11.271	ug/L	1.378	19732	0.044
Cu	63		ug/L		79596	0.176
Cu	65	19.300	ug/L	0.546	39347	0.087
Zn	66	120.469	ug/L	1.283	141866	0.319
Zn	67		ug/L		32664	0.039
Zn	68		ug/L		108527	0.242
> Ge	74		ug/L		441846	441846.276
As	75	8.588	ug/L	3.033	12211	0.026
Se	77		ug/L		3831	-0.017
Se	82	3.527	ug/L	25.231	440	0.001
Kr	83		ug/L		255	0.000
Sr	88	37.248	ug/L	2.610	663898	2.349
Y	89		ug/L		841220	2.977
Mo	98	3.661	ug/L	0.581	16310	0.057
Ag	107	0.309	ug/L	3.027	2146	0.007
Cd	111	1.154	ug/L	3.576	1987	0.007
Cd	114		ug/L		1819	0.006
> In	115		ug/L		282561	282561.290
Sn	120	1.967	ug/L	0.974	13677	0.047
Sb	121	1.941	ug/L	2.503	11458	0.039
Sb	123		ug/L		8936	0.031
Ba	135		ug/L		329735	0.618
Ba	137	145.127	ug/L	1.332	575513	1.078
Ho	165		ug/L		59669	0.112
> Lu	175		ug/L		533735	533735.104
Tl	205	0.602	ug/L	2.433	17695	0.023
Pb	208	67.477	ug/L	0.768	2548895	4.775
Bi	209		ug/L		14615	0.027
Th	232	21.361	ug/L	1.305	1009405	1.890
U	238	338.178	ug/L	1.472	16077247	30.126

Sample ID: 1202036670

Report Date/Time: Friday, February 26, 2010 04:24:42

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
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		77.0			
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		67.7			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		81.0			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		106.6			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE Ti		47	Sample is out of limits (over linear range)

## QC Action

QC Action Line: No QC out of limits detected



## ICPMS#5 - Summary Report

Sample ID: 1202036672

Sample Date/Time: Friday, February 26, 2010 04:28:08

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 950387|2|baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\1202036672.542

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	60.064	ug/L	2.945	84962	0.201
Be	9	27.469	ug/L	1.702	10622	0.025
B	11	49.923	ug/L	2.121	21818	0.051
Na	23	1033.999	ug/L	7.256	4545879	10.727
Mg	24	3431.773	ug/L	3.929	10464151	24.829
Al	27	21431.356	ug/L	1.108	102710981	243.761
P	31	808.429	ug/L	0.790	253721	0.586
K	39	3122.146	ug/L	4.975	20074361	46.292
Ca	43	4601.262	ug/L	3.067	66931	0.158
> Sc	45		ug/L		421365	421365.415
Ti	47	682.065	ug/L	0.744	482215	1.143
V	51	56.468	ug/L	0.911	459648	1.070
Cr	52	34.756	ug/L	1.188	222311	0.533
Cr	53		ug/L		97497	-0.169
Mn	55	525.206	ug/L	2.766	5345985	12.686
Fe	57	26785.326	ug/L	0.202	6036100	14.310
Co	59	33.524	ug/L	1.255	248293	0.589
Ni	60	32.591	ug/L	1.674	53691	0.127
Cu	63		ug/L		149805	0.353
Cu	65	39.376	ug/L	2.453	75564	0.178
Zn	66	133.761	ug/L	1.784	157845	0.355
Zn	67		ug/L		34884	0.044
Zn	68		ug/L		119645	0.267
> Ge	74		ug/L		442964	442964.241
As	75	42.267	ug/L	0.994	57202	0.127
Se	77		ug/L		4376	-0.016
Se	82	10.154	ug/L	6.104	1293	0.003
Kr	83		ug/L		261	0.000
Sr	88	51.411	ug/L	2.891	913332	3.243
Y	89		ug/L		726826	2.581
Mo	98	23.269	ug/L	2.813	102850	0.365
Ag	107	22.935	ug/L	2.065	154558	0.549
Cd	111	5.776	ug/L	4.450	9862	0.035
Cd	114		ug/L		19321	0.068
> In	115		ug/L		281713	281712.522
Sn	120	18.385	ug/L	1.951	125246	0.444
Sb	121	58.949	ug/L	2.677	337815	1.199
Sb	123		ug/L		264397	0.938
Ba	135		ug/L		309875	0.580
Ba	137	136.709	ug/L	1.177	542315	1.016
Ho	165		ug/L		52761	0.099
> Lu	175		ug/L		533835	533834.524
Tl	205	50.593	ug/L	2.112	1019866	1.900
Pb	208	146.010	ug/L	1.003	5515877	10.332
Bi	209		ug/L		12801	0.023
Th	232	42.497	ug/L	1.235	2008229	3.760
U	238	301.576	ug/L	0.407	14341862	26.866

Sample ID: 1202036672

Report Date/Time: Friday, February 26, 2010 04:30:53

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
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		73.0			
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		67.8			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		80.8			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		106.6			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEETi		47	Sample is out of limits (over linear range)

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202036673

Sample Date/Time: Friday, February 26, 2010 04:34:19

Sample Type:

Sample Description: LANL 6020 MSD

Number of Replicates: 3

Batch ID: 950387[2]baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\1202036673.543

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	61.745	ug/L	0.348	89016	0.207
Be	9	27.356	ug/L	2.087	10781	0.025
B	11	49.343	ug/L	2.014	21979	0.050
Na	23	1005.322	ug/L	3.595	4505178	10.429
Mg	24	3659.833	ug/L	4.994	11371611	26.479
Al	27	28777.709	ug/L	10.665	140561879	327.319
P	31	791.690	ug/L	1.836	253350	0.574
K	39	3073.908	ug/L	4.247	20150911	45.577
Ca	43	4594.814	ug/L	0.471	68119	0.158
> Sc	45		ug/L		429388	429388.462
Ti	47	728.551	ug/L	1.767	524887	1.221
V	51	58.690	ug/L	1.620	486491	1.112
Cr	52	36.048	ug/L	1.032	235021	0.552
Cr	53		ug/L		98963	-0.170
Mn	55	467.376	ug/L	1.319	4848872	11.289
Fe	57	31261.942	ug/L	0.176	7177945	16.701
Co	59	29.322	ug/L	1.290	221325	0.515
Ni	60	33.121	ug/L	1.255	55602	0.129
Cu	63		ug/L		158526	0.366
Cu	65	40.524	ug/L	2.195	79241	0.183
Zn	66	159.167	ug/L	2.458	184487	0.422
Zn	67		ug/L		39094	0.055
Zn	68		ug/L		139285	0.317
> Ge	74		ug/L		435435	435434.905
As	75	42.524	ug/L	2.281	56562	0.128
Se	77		ug/L		4332	-0.016
Se	82	9.600	ug/L	6.380	1201	0.003
Kr	83		ug/L		278	0.000
Sr	88	52.200	ug/L	0.628	910538	3.292
Y	89		ug/L		799488	2.891
Mo	98	23.771	ug/L	2.434	103154	0.373
Ag	107	22.517	ug/L	1.395	148977	0.539
Cd	111	5.807	ug/L	1.406	9737	0.035
Cd	114		ug/L		18934	0.068
> In	115		ug/L		276500	276499.566
Sn	120	17.585	ug/L	0.940	117621	0.424
Sb	121	53.577	ug/L	2.463	301463	1.089
Sb	123		ug/L		236903	0.856
Ba	135		ug/L		319688	0.603
Ba	137	140.663	ug/L	2.308	554238	1.045
Ho	165		ug/L		56926	0.107
> Lu	175		ug/L		530392	530391.658
Tl	205	49.718	ug/L	1.089	995676	1.867
Pb	208	154.613	ug/L	2.083	5802088	10.941
Bi	209		ug/L		13015	0.024
Th	232	44.611	ug/L	1.367	2094017	3.947
U	238	338.418	ug/L	1.903	15986746	30.148

Sample ID: 1202036673

Report Date/Time: Friday, February 26, 2010 04:37:04

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
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		74.4			
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		66.7			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		79.3			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		105.9			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EETi		47	Sample is out of limits (over linear range)

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 1202036671

Sample Date/Time: Friday, February 26, 2010 04:40:30

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 950387|10|baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\1202036671.544

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	6.040	ug/L	2.110	7360	0.020
Be	9	0.484	ug/L	4.462	174	0.000
B	11	3.038	ug/L	14.657	1540	0.003
Na	23	81.331	ug/L	13.944	326058	0.844
Mg	24	534.460	ug/L	2.531	1392421	3.867
Al	27	4065.813	ug/L	2.738	16634067	46.245
P	31	53.013	ug/L	2.520	19539	0.038
K	39	509.071	ug/L	6.581	3199772	7.548
Ca	43	911.757	ug/L	2.994	11614	0.031
> Sc	45		ug/L		359552	359552.331
Ti	47	140.127	ug/L	0.812	84834	0.235
V	51	6.207	ug/L	14.120	49807	0.118
Cr	52	2.658	ug/L	1.995	12832	0.041
Cr	53		ug/L		93053	-0.142
Mn	55	96.925	ug/L	2.103	842901	2.341
Fe	57	5252.025	ug/L	3.050	1014203	2.806
Co	59	1.705	ug/L	0.957	10848	0.030
Ni	60	2.044	ug/L	6.419	3063	0.008
Cu	63		ug/L		12888	0.033
Cu	65	3.651	ug/L	2.771	6427	0.017
Zn	66	24.053	ug/L	0.602	28594	0.064
Zn	67		ug/L		15767	0.001
Zn	68		ug/L		22196	0.047
> Ge	74		ug/L		437009	437008.938
As	75	1.362	ug/L	20.871	2562	0.004
Se	77		ug/L		4569	-0.015
Se	82	1.943	ug/L	8.016	234	0.001
Kr	83		ug/L		150	0.000
Sr	88	6.076	ug/L	1.750	107166	0.383
Y	89		ug/L		141881	0.508
Mo	98	0.646	ug/L	3.265	2917	0.010
Ag	107	0.044	ug/L	1.918	345	0.001
Cd	111	0.180	ug/L	10.598	317	0.001
Cd	114		ug/L		252	0.001
> In	115		ug/L		279109	279109.398
Sn	120	0.420	ug/L	3.332	3092	0.010
Sb	121	0.069	ug/L	9.639	697	0.001
Sb	123		ug/L		537	0.001
Ba	135		ug/L		52633	0.102
Ba	137	24.458	ug/L	1.087	94061	0.182
Ho	165		ug/L		9996	0.019
> Lu	175		ug/L		517258	517258.167
Tl	205	0.028	ug/L	87.049	6012	0.001
Pb	208	11.702	ug/L	1.536	428847	0.828
Bi	209		ug/L		2717	0.004
Th	232	3.945	ug/L	0.627	181234	0.349
U	238	39.811	ug/L	0.952	1834857	3.547

Sample ID: 1202036671

Report Date/Time: Friday, February 26, 2010 04:43:15

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
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		62.3			
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		66.9			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		80.0			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		103.3			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE Ti		47	Sample is out of limits (over linear range)

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 246336002

Sample Date/Time: Friday, February 26, 2010 04:46:42

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950387[2]baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\246336002.545

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	30.296	ug/L	1.132	39081	0.102
Be	9	2.511	ug/L	4.538	899	0.002
B	11	11.644	ug/L	4.315	4988	0.012
Na	23	326.417	ug/L	5.029	1322905	3.386
Mg	24	3509.758	ug/L	7.164	9741019	25.393
Al	27	18783.052	ug/L	5.118	81978579	213.640
P	31	394.101	ug/L	2.911	115762	0.286
K	39	3391.098	ug/L	9.699	19792659	50.280
Ca	43	8903.679	ug/L	2.435	117588	0.305
> Sc	45		ug/L		383844	383844.324
Ti	47	594.446	ug/L	1.541	382855	0.997
V	51	29.402	ug/L	2.256	221851	0.557
Cr	52	14.275	ug/L	2.114	82003	0.219
Cr	53		ug/L		78595	-0.196
Mn	55	973.730	ug/L	1.965	9026612	23.519
Fe	57	21554.064	ug/L	2.951	4424037	11.515
Co	59	9.598	ug/L	1.809	64806	0.169
Ni	60	15.231	ug/L	3.242	22969	0.059
Cu	63		ug/L		195949	0.508
Cu	65	55.800	ug/L	0.649	97343	0.252
Zn	66	135.916	ug/L	0.923	145345	0.360
Zn	67		ug/L		32796	0.046
Zn	68		ug/L		112205	0.276
> Ge	74		ug/L		401478	401478.297
As	75	6.342	ug/L	5.748	8382	0.019
Se	77		ug/L		3497	-0.017
Se	82	1.613	ug/L	9.578	177	0.000
Kr	83		ug/L		215	0.000
Sr	88	67.510	ug/L	1.535	1107525	4.258
Y	89		ug/L		676837	2.603
Mo	98	1.784	ug/L	1.811	7360	0.028
Ag	107	0.223	ug/L	4.133	1441	0.005
Cd	111	1.531	ug/L	3.785	2423	0.009
Cd	114		ug/L		3551	0.014
> In	115		ug/L		260107	260106.572
Sn	120	1.528	ug/L	1.795	9833	0.037
Sb	121	0.436	ug/L	1.723	2588	0.009
Sb	123		ug/L		2155	0.007
Ba	135		ug/L		633216	1.228
Ba	137	275.601	ug/L	0.226	1056253	2.048
Ho	165		ug/L		50428	0.098
> Lu	175		ug/L		515795	515794.558
Tl	205	0.362	ug/L	1.665	12468	0.014
Pb	208	84.444	ug/L	0.262	3082653	5.976
Bi	209		ug/L		30790	0.059
Th	232	19.290	ug/L	2.017	880986	1.707
U	238	940.219	ug/L	2.489	43201777	83.759

Sample ID: 246336002

Report Date/Time: Friday, February 26, 2010 04:49:28

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
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		66.5			
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		61.5			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		74.6			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		103.0			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE Ti		47	Sample is out of limits (over linear range)

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Friday, February 26, 2010 04:52:52

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 8.546

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	77.484	ug/L	2.117	87040	0.260
Be	9	68.453	ug/L	0.917	21007	0.063
B	11	108.473	ug/L	4.706	37198	0.110
Na	23	4105.772	ug/L	1.536	14281235	42.594
Mg	24	4599.834	ug/L	5.020	11144746	33.280
Al	27	4136.129	ug/L	9.551	15745451	47.045
P	31	3700.656	ug/L	1.945	903873	2.684
K	39	4255.641	ug/L	3.997	21583919	63.098
Ca	43	4564.844	ug/L	1.427	52751	0.157
> Sc	45		ug/L		334732	334732.148
Ti	47	49.049	ug/L	0.412	27876	0.082
V	51	50.921	ug/L	1.755	329922	0.965
Cr	52	52.594	ug/L	0.343	268075	0.806
Cr	53		ug/L		134013	-0.000
Mn	55	56.398	ug/L	0.481	457137	1.362
Fe	57	4934.548	ug/L	1.474	887719	2.636
Co	59	58.476	ug/L	1.576	343960	1.028
Ni	60	59.213	ug/L	0.761	77351	0.230
Cu	63		ug/L		181245	0.539
Cu	65	58.827	ug/L	0.230	89463	0.266
Zn	66	53.421	ug/L	1.192	61490	0.142
Zn	67		ug/L		21819	0.016
Zn	68		ug/L		46012	0.104
> Ge	74		ug/L		429055	429055.107
As	75	48.280	ug/L	1.030	63172	0.145
Se	77		ug/L		10406	-0.002
Se	82	53.343	ug/L	2.068	6632	0.015
Kr	83		ug/L		147	0.000
Sr	88	45.716	ug/L	2.053	770295	2.883
Y	89		ug/L		181	0.000
Mo	98	44.421	ug/L	0.685	186146	0.697
Ag	107	50.434	ug/L	0.939	322259	1.206
Cd	111	50.476	ug/L	2.388	81660	0.306
Cd	114		ug/L		190714	0.714
> In	115		ug/L		267087	267087.383
Sn	120	51.144	ug/L	0.862	329972	1.235
Sb	121	51.658	ug/L	2.322	280802	1.050
Sb	123		ug/L		220590	0.825
Ba	135		ug/L		82992	0.166
Ba	137	39.495	ug/L	1.127	146749	0.293
Ho	165		ug/L		62	0.000
> Lu	175		ug/L		499877	499877.301
Tl	205	53.963	ug/L	1.333	1018109	2.026
Pb	208	56.751	ug/L	0.675	2007915	4.016
Bi	209		ug/L		701	0.001
Th	232	55.405	ug/L	1.526	2451063	4.903
U	238	59.312	ug/L	1.489	2641403	5.284

Sample ID: QC Std 8

Report Date/Time: Friday, February 26, 2010 04:55:35

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
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	154.968				
Be	9	136.906				
B	11	108.473				
Na	23	82.115				
Mg	24	91.997				
Al	27	81.904				
P	31	74.013				
K	39	85.113				
Ca	43	91.297				
Sc	45		58.0			
Ti	47	98.099				
V	51	101.842				
Cr	52	105.187				
Cr	53					
Mn	55	112.797				
Fe	57	98.691				
Co	59	116.953				
Ni	60	118.427				
Cu	63					
Cu	65	117.654				
Zn	66	106.843				
Zn	67					
Zn	68					
Ge	74		65.7			
As	75	96.560				
Se	77					
Se	82	106.687				
Kr	83					
Sr	88	91.432				
Y	89					
Mo	98	88.841				
Ag	107	100.868				
Cd	111	100.952				
Cd	114					
In	115		76.6			
Sn	120	102.288				
Sb	121	103.316				
Sb	123					
Ba	135					
Ba	137	78.989				
Ho	165					
Lu	175		99.8			
Tl	205	107.926				
Pb	208	113.502				
Bi	209					
Th	232	110.809				
U	238	118.625				

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Li	7	7CCV is out of limits (+/- 10%)
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	Al	27	27CCV is out of limits (+/- 10%)
QC Std 8	P	31	31CCV is out of limits (+/- 10%)
QC Std 8	K	39	39CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC Sc		45	

Sample ID: QC Std 8  
Report Date/Time: Friday, February 26, 2010 04:55:35  
Page 3

QC Std 8	Mn	55CCV is out of limits (+/- 10%)
QC Std 8	Co	59CCV is out of limits (+/- 10%)
QC Std 8	Ni	60CCV is out of limits (+/- 10%)
QC Std 8	Cu	65CCV is out of limits (+/- 10%)
Ge 74 Int Std for QC	Ge	74
QC Std 8	Mo	98CCV is out of limits (+/- 10%)
In 115 Int Std for QC	In	115
QC Std 8	Ba	137CCV is out of limits (+/- 10%)
QC Std 8	Pb	208CCV is out of limits (+/- 10%)
QC Std 8	Th	232CCV is out of limits (+/- 10%)
QC Std 8	U	238CCV is out of limits (+/- 10%)

## QC Action

QC Action Line: Continue

4



## ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Friday, February 26, 2010 04:59:00

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 9.547

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.050	ug/L	9.994	123	0.000
Be	9	0.053	ug/L	22.843	29	0.000
B	11	3.233	ug/L	18.711	1460	0.003
Na	23	-2.678	ug/L	63.140	11339	-0.028
Mg	24	0.127	ug/L	326.482	2000	0.001
Al	27	0.471	ug/L	115.933	5334	0.005
P	31	-2.947	ug/L	66.335	4478	-0.002
K	39	-1.922	ug/L	363.051	430750	-0.028
Ca	43	-3.152	ug/L	83.917	300	-0.000
> Sc	45		ug/L		325434	325434.379
Ti	47	-0.006	ug/L	953.285	338	-0.000
V	51	-1.065	ug/L	52.427	307	-0.020
Cr	52	0.020	ug/L	274.160	-1548	0.000
Cr	53		ug/L		105308	-0.077
Mn	55	0.005	ug/L	12.529	1186	0.000
Fe	57	0.656	ug/L	42.306	5089	0.000
Co	59	0.008	ug/L	15.427	112	0.000
Ni	60	0.034	ug/L	27.047	226	0.000
Cu	63		ug/L		996	0.000
Cu	65	0.056	ug/L	41.157	529	0.000
Zn	66	-0.043	ug/L	41.858	640	-0.000
Zn	67		ug/L		12364	-0.006
Zn	68		ug/L		1295	-0.000
> Ge	74		ug/L		417245	417244.837
As	75	-0.633	ug/L	25.682	-62	-0.002
Se	77		ug/L		5886	-0.012
Se	82	0.355	ug/L	49.979	31	0.000
Kr	83		ug/L		129	-0.000
Sr	88	-0.000	ug/L	210.503	203	-0.000
Y	89		ug/L		67	-0.000
Mo	98	0.022	ug/L	31.847	173	0.000
Ag	107	0.001	ug/L	232.502	60	0.000
Cd	111	0.008	ug/L	86.528	25	0.000
Cd	114		ug/L		48	0.000
> In	115		ug/L		263206	263206.276
Sn	120	0.018	ug/L	32.098	360	0.000
Sb	121	0.136	ug/L	25.591	1015	0.003
Sb	123		ug/L		754	0.002
Ba	135		ug/L		52	0.000
Ba	137	0.002	ug/L	132.683	68	0.000
Ho	165		ug/L		30	-0.000
> Lu	175		ug/L		492642	492641.798
Tl	205	0.316	ug/L	52.603	11039	0.012
Pb	208	0.004	ug/L	51.127	657	0.000
Bi	209		ug/L		309	-0.000
Th	232	0.041	ug/L	25.924	2443	0.004
U	238	0.015	ug/L	21.561	1051	0.001

Sample ID: QC Std 9

Report Date/Time: Friday, February 26, 2010 05:01:44

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
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		56.4			
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		63.9			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		75.5			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		98.4			
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 QC Sc		45	
Ge 74 Int Std for QC Ge		74	
In 115 Int Std for QC In		115	

## QC Action

Sample ID: QC Std 9  
 Report Date/Time: Friday, February 26, 2010 05:01:44  
 Page 3

QC Action Line: Continue

## ICPMS#5 - Summary Report

Sample ID: 246336003

Sample Date/Time: Friday, February 26, 2010 05:05:11

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950387|2|baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\246336003.548

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	50.259	ug/L	2.133	63588	0.169
Be	9	3.157	ug/L	2.632	1105	0.003
B	11	10.321	ug/L	2.453	4394	0.010
Na	23	295.972	ug/L	5.003	1180598	3.070
Mg	24	4422.669	ug/L	6.816	12060714	31.998
Al	27	31646.265	ug/L	1.007	135616535	359.946
P	31	244.612	ug/L	2.579	72819	0.177
K	39	3680.314	ug/L	3.120	21069506	54.568
Ca	43	4666.593	ug/L	0.907	60700	0.160
> Sc	45		ug/L		376770	376770.259
Ti	47	846.428	ug/L	0.290	535014	1.419
V	51	49.547	ug/L	0.534	361617	0.939
Cr	52	20.755	ug/L	1.976	117920	0.318
Cr	53		ug/L		83959	-0.178
Mn	55	1007.288	ug/L	0.093	9168062	24.330
Fe	57	31972.498	ug/L	0.726	6441236	17.081
Co	59	14.086	ug/L	2.340	93331	0.248
Ni	60	18.515	ug/L	0.764	27367	0.072
Cu	63		ug/L		111874	0.294
Cu	65	32.741	ug/L	0.636	56277	0.148
Zn	66	105.732	ug/L	1.479	109534	0.280
Zn	67		ug/L		27452	0.035
Zn	68		ug/L		86534	0.219
> Ge	74		ug/L		388410	388410.294
As	75	9.612	ug/L	1.142	11933	0.029
Se	77		ug/L		3396	-0.017
Se	82	0.964	ug/L	29.120	98	0.000
Kr	83		ug/L		274	0.000
Sr	88	51.412	ug/L	2.701	834684	3.243
Y	89		ug/L		656651	2.551
Mo	98	2.469	ug/L	1.982	10046	0.039
Ag	107	0.324	ug/L	5.647	2044	0.008
Cd	111	1.327	ug/L	7.710	2080	0.008
Cd	114		ug/L		1860	0.007
> In	115		ug/L		257393	257392.968
Sn	120	1.471	ug/L	1.351	9376	0.035
Sb	121	0.413	ug/L	2.866	2441	0.008
Sb	123		ug/L		1880	0.006
Ba	135		ug/L		578075	1.121
Ba	137	257.921	ug/L	2.225	988213	1.916
Ho	165		ug/L		50703	0.098
> Lu	175		ug/L		515731	515731.393
Tl	205	0.639	ug/L	2.914	17827	0.024
Pb	208	59.968	ug/L	1.524	2188780	4.244
Bi	209		ug/L		22580	0.043
Th	232	27.156	ug/L	1.202	1239834	2.403
U	238	59.600	ug/L	1.738	2738181	5.309

Sample ID: 246336003

Report Date/Time: Friday, February 26, 2010 05:07:57

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
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						
	Be	9						
	B	11						
	Na	23						
	Mg	24						
	Al	27						
	P	31						
	K	39						
	Ca	43						
>	Sc	45			65.3			
	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			59.5			
	As	75						
	Se	77						
	Se	82						
	Kr	83						
	Sr	88						
	Y	89						
	Mo	98						
	Ag	107						
	Cd	111						
	Cd	114						
>	In	115			73.8			
	Sn	120						
	Sb	121						
	Sb	123						
	Ba	135						
	Ba	137						
	Ho	165						
>	Lu	175			103.0			
	Tl	205						
	Pb	208						
	Bi	209						
	Th	232						
	U	238						

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)

## QC Action

QC Action Line: Continue

## ICPMS#5 - Summary Report

Sample ID: 246336004

Sample Date/Time: Friday, February 26, 2010 05:11:23

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950387|2|baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\246336004.549

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	45.222	ug/L	0.967	56510	0.152
Be	9	2.795	ug/L	4.481	968	0.003
B	11	9.155	ug/L	1.078	3899	0.009
Na	23	318.244	ug/L	4.117	1251973	3.302
Mg	24	3874.494	ug/L	2.292	10430121	28.032
Al	27	27735.612	ug/L	2.785	117356806	315.466
P	31	237.477	ug/L	1.940	69981	0.172
K	39	3463.207	ug/L	10.257	19596692	51.349
Ca	43	5536.854	ug/L	0.755	71046	0.190
> Sc	45		ug/L		372070	372069.894
Ti	47	697.035	ug/L	2.493	435070	1.169
V	51	39.394	ug/L	2.132	285475	0.746
Cr	52	31.259	ug/L	1.946	176322	0.479
Cr	53		ug/L		87614	-0.165
Mn	55	592.898	ug/L	2.863	5328297	14.321
Fe	57	27857.007	ug/L	2.549	5541825	14.882
Co	59	9.574	ug/L	2.214	62662	0.168
Ni	60	23.409	ug/L	2.037	34109	0.091
Cu	63		ug/L		113246	0.302
Cu	65	33.772	ug/L	0.931	57305	0.153
Zn	66	103.522	ug/L	1.368	105972	0.275
Zn	67		ug/L		25817	0.032
Zn	68		ug/L		82598	0.212
> Ge	74		ug/L		383747	383746.657
As	75	6.511	ug/L	5.462	8205	0.020
Se	77		ug/L		3108	-0.018
Se	82	0.796	ug/L	64.953	78	0.000
Kr	83		ug/L		240	0.000
Sr	88	56.639	ug/L	0.325	905871	3.572
Y	89		ug/L		671826	2.650
Mo	98	3.888	ug/L	0.431	15538	0.061
Ag	107	0.306	ug/L	1.929	1904	0.007
Cd	111	1.135	ug/L	4.799	1754	0.007
Cd	114		ug/L		1228	0.005
> In	115		ug/L		253530	253530.100
Sn	120	1.419	ug/L	0.589	8919	0.034
Sb	121	0.390	ug/L	1.771	2288	0.008
Sb	123		ug/L		1773	0.006
Ba	135		ug/L		555407	1.086
Ba	137	248.475	ug/L	3.165	944454	1.846
Ho	165		ug/L		51841	0.101
> Lu	175		ug/L		511778	511778.093
Tl	205	0.477	ug/L	5.119	14561	0.018
Pb	208	42.458	ug/L	2.078	1537683	3.004
Bi	209		ug/L		16324	0.031
Th	232	25.251	ug/L	3.045	1143679	2.234
U	238	17.129	ug/L	2.221	781056	1.526

Sample ID: 246336004

Report Date/Time: Friday, February 26, 2010 05:14:07

Page 1



## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9998

## QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		64.5			
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		58.8			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		72.7			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		102.2			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEETi		47	Sample is out of limits (over linear range)

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 246336005

Sample Date/Time: Friday, February 26, 2010 05:17:33

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950387|2|ba|

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\246336005.550

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	59.287	ug/L	1.949	74741	0.199
Be	9	3.713	ug/L	0.805	1293	0.003
B	11	9.422	ug/L	3.187	4038	0.010
Na	23	403.824	ug/L	8.250	1596476	4.189
Mg	24	4868.469	ug/L	2.515	13226233	35.223
Al	27	31023.913	ug/L	6.754	132573247	352.868
P	31	168.719	ug/L	1.618	51911	0.122
K	39	4360.406	ug/L	7.838	24768381	64.651
Ca	43	5014.175	ug/L	0.616	64973	0.172
> Sc	45		ug/L		375531	375531.246
Ti	47	1013.928	ug/L	1.517	638618	1.700
V	51	49.321	ug/L	2.130	358765	0.934
Cr	52	22.311	ug/L	3.278	126478	0.342
Cr	53		ug/L		79659	-0.188
Mn	55	846.635	ug/L	1.518	7679551	20.449
Fe	57	35025.812	ug/L	0.743	7032219	18.712
Co	59	11.988	ug/L	1.699	79184	0.211
Ni	60	19.358	ug/L	1.094	28509	0.075
Cu	63		ug/L		76790	0.202
Cu	65	22.587	ug/L	1.965	38847	0.102
Zn	66	120.709	ug/L	2.140	123350	0.320
Zn	67		ug/L		28920	0.040
Zn	68		ug/L		95415	0.245
> Ge	74		ug/L		383469	383469.003
As	75	7.722	ug/L	1.897	9597	0.023
Se	77		ug/L		3056	-0.018
Se	82	0.342	ug/L	108.629	27	0.000
Kr	83		ug/L		292	0.000
Sr	88	59.616	ug/L	0.651	945749	3.760
Y	89		ug/L		883277	3.512
Mo	98	2.237	ug/L	2.383	8902	0.035
Ag	107	0.324	ug/L	2.778	1999	0.008
Cd	111	1.221	ug/L	2.217	1871	0.007
Cd	114		ug/L		1058	0.004
> In	115		ug/L		251486	251485.958
Sn	120	2.041	ug/L	1.873	12626	0.049
Sb	121	0.274	ug/L	0.829	1677	0.006
Sb	123		ug/L		1359	0.005
Ba	135		ug/L		572830	1.109
Ba	137	256.635	ug/L	2.493	984742	1.907
Ho	165		ug/L		68952	0.133
> Lu	175		ug/L		516514	516513.985
Tl	205	0.529	ug/L	1.034	15722	0.020
Pb	208	50.379	ug/L	1.559	1841699	3.565
Bi	209		ug/L		18615	0.035
Th	232	30.663	ug/L	1.084	1401987	2.713
U	238	14.969	ug/L	3.406	689004	1.334

Sample ID: 246336005

Report Date/Time: Friday, February 26, 2010 05:20:18

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9998

Sample ID: 246336005

Report Date/Time: Friday, February 26, 2010 05:20:18

Page 2

## 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		65.1			
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		58.7			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		72.1			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		103.1			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 246336006

Sample Date/Time: Friday, February 26, 2010 05:23:44

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950387[2]baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\246336006.551

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	44.522	ug/L	3.062	52925	0.149
Be	9	2.636	ug/L	2.858	869	0.002
B	11	8.588	ug/L	0.546	3506	0.009
Na	23	235.057	ug/L	6.417	884964	2.439
Mg	24	3388.604	ug/L	7.861	8680424	24.517
Al	27	22963.618	ug/L	5.784	92439883	261.190
P	31	172.186	ug/L	1.864	49826	0.125
K	39	3551.073	ug/L	3.923	19115961	52.651
Ca	43	3521.721	ug/L	1.880	43126	0.121
> Sc	45		ug/L		354014	354014.065
Ti	47	658.371	ug/L	2.461	391012	1.104
V	51	29.299	ug/L	0.782	203944	0.555
Cr	52	17.992	ug/L	2.986	95788	0.276
Cr	53		ug/L		75245	-0.188
Mn	55	568.974	ug/L	1.787	4865643	13.743
Fe	57	23239.926	ug/L	0.519	4400768	12.416
Co	59	8.543	ug/L	2.337	53206	0.150
Ni	60	16.387	ug/L	2.695	22777	0.064
Cu	63		ug/L		56621	0.157
Cu	65	17.507	ug/L	2.998	28492	0.079
Zn	66	73.053	ug/L	0.855	74593	0.194
Zn	67		ug/L		20223	0.018
Zn	68		ug/L		58416	0.150
> Ge	74		ug/L		381813	381812.828
As	75	3.809	ug/L	6.430	5054	0.011
Se	77		ug/L		2932	-0.018
Se	82	0.352	ug/L	40.888	28	0.000
Kr	83		ug/L		209	0.000
Sr	88	36.219	ug/L	0.517	584621	2.284
Y	89		ug/L		509459	1.991
Mo	98	1.089	ug/L	1.409	4449	0.017
Ag	107	0.219	ug/L	1.127	1392	0.005
Cd	111	0.785	ug/L	17.493	1229	0.005
Cd	114		ug/L		686	0.003
> In	115		ug/L		255836	255836.312
Sn	120	1.329	ug/L	3.001	8446	0.032
Sb	121	0.203	ug/L	4.564	1336	0.004
Sb	123		ug/L		1026	0.003
Ba	135		ug/L		402725	0.777
Ba	137	181.724	ug/L	1.636	699892	1.350
Ho	165		ug/L		40740	0.079
> Lu	175		ug/L		518326	518326.056
Tl	205	0.311	ug/L	6.752	11526	0.012
Pb	208	30.373	ug/L	0.994	1114517	2.149
Bi	209		ug/L		12462	0.023
Th	232	20.890	ug/L	2.219	958661	1.848
U	238	42.583	ug/L	0.729	1966632	3.793

Sample ID: 246336006

Report Date/Time: Friday, February 26, 2010 05:26:29

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9998

Sample ID: 246336006

Report Date/Time: Friday, February 26, 2010 05:26:29

Page 2

## 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		61.4			
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		58.5			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		73.4			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		103.5			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEETi		47	Sample is out of limits (over linear range)

## QC Action

QC Action Line: No QC out of limits detected



## ICPMS#5 - Summary Report

Sample ID: 246336007

Sample Date/Time: Friday, February 26, 2010 05:29:56

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950387|2|baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\246336007.552

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	42.664	ug/L	1.257	50185	0.143
Be	9	3.061	ug/L	1.501	996	0.003
B	11	6.972	ug/L	4.535	2896	0.007
Na	23	433.602	ug/L	10.491	1598746	4.498
Mg	24	2733.993	ug/L	7.149	6930728	19.780
Al	27	19731.991	ug/L	6.857	78554880	224.433
P	31	177.103	ug/L	1.012	50541	0.128
K	39	2858.861	ug/L	7.090	15312978	42.388
Ca	43	3338.227	ug/L	2.659	40451	0.115
> Sc	45		ug/L		350201	350201.198
Ti	47	824.758	ug/L	2.858	484440	1.383
V	51	27.611	ug/L	2.060	190525	0.523
Cr	52	17.084	ug/L	2.098	89905	0.262
Cr	53		ug/L		72405	-0.194
Mn	55	830.921	ug/L	1.827	7028455	20.070
Fe	57	27646.121	ug/L	2.971	5176258	14.770
Co	59	7.242	ug/L	2.630	44634	0.127
Ni	60	16.296	ug/L	1.951	22408	0.063
Cu	63		ug/L		61625	0.173
Cu	65	19.217	ug/L	0.651	30897	0.087
Zn	66	115.668	ug/L	2.526	112782	0.307
Zn	67		ug/L		25752	0.035
Zn	68		ug/L		86003	0.232
> Ge	74		ug/L		365885	365885.033
As	75	5.501	ug/L	2.169	6707	0.017
Se	77		ug/L		2756	-0.018
Se	82	0.532	ug/L	49.384	46	0.000
Kr	83		ug/L		233	0.000
Sr	88	35.751	ug/L	2.469	553557	2.255
Y	89		ug/L		940272	3.831
Mo	98	2.656	ug/L	0.512	10302	0.042
Ag	107	0.318	ug/L	4.953	1913	0.008
Cd	111	1.131	ug/L	5.439	1692	0.007
Cd	114		ug/L		732	0.003
> In	115		ug/L		245458	245458.410
Sn	120	2.938	ug/L	1.556	17632	0.071
Sb	121	0.380	ug/L	4.026	2163	0.008
Sb	123		ug/L		1697	0.006
Ba	135		ug/L		366304	0.717
Ba	137	166.082	ug/L	1.262	630465	1.234
Ho	165		ug/L		74407	0.146
> Lu	175		ug/L		510905	510904.777
Tl	205	0.304	ug/L	3.210	11226	0.011
Pb	208	29.212	ug/L	1.337	1056529	2.067
Bi	209		ug/L		10721	0.020
Th	232	27.012	ug/L	2.066	1221594	2.390
U	238	13.689	ug/L	2.077	623296	1.219

Sample ID: 246336007

Report Date/Time: Friday, February 26, 2010 05:32:41

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9998

Sample ID: 246336007

Report Date/Time: Friday, February 26, 2010 05:32:41

Page 2

## 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		60.7			
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		56.0			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		70.4			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		102.0			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEETi		47	Sample is out of limits (over linear range)

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 246336008

Sample Date/Time: Friday, February 26, 2010 05:36:08

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950387|2|baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\246336008.553

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	15.504	ug/L	1.704	16639	0.052
Be	9	2.157	ug/L	4.523	643	0.002
B	11	3.753	ug/L	3.867	1596	0.004
Na	23	596.990	ug/L	6.789	1993668	6.193
Mg	24	1221.928	ug/L	3.687	2818798	8.841
Al	27	6617.700	ug/L	1.984	23989671	75.270
P	31	266.512	ug/L	1.118	66650	0.193
K	39	2180.917	ug/L	8.190	10732251	32.336
Ca	43	2888.756	ug/L	2.387	31903	0.099
> Sc	45		ug/L		318654	318653.970
Ti	47	481.345	ug/L	0.554	257460	0.807
V	51	8.709	ug/L	1.145	59278	0.165
Cr	52	6.808	ug/L	2.762	31632	0.104
Cr	53		ug/L		62624	-0.204
Mn	55	746.674	ug/L	1.234	5747732	18.035
Fe	57	14617.143	ug/L	3.662	2492875	7.809
Co	59	2.497	ug/L	1.846	14045	0.044
Ni	60	6.408	ug/L	3.065	8127	0.025
Cu	63		ug/L		36806	0.113
Cu	65	12.464	ug/L	1.347	18391	0.056
Zn	66	88.956	ug/L	2.377	84810	0.236
Zn	67		ug/L		20210	0.021
Zn	68		ug/L		63039	0.173
> Ge	74		ug/L		357060	357059.720
As	75	1.572	ug/L	12.319	2320	0.005
Se	77		ug/L		2714	-0.018
Se	82	0.358	ug/L	67.820	27	0.000
Kr	83		ug/L		182	0.000
Sr	88	17.386	ug/L	2.280	265072	1.097
Y	89		ug/L		734011	3.039
Mo	98	1.961	ug/L	1.302	7508	0.031
Ag	107	0.203	ug/L	3.631	1222	0.005
Cd	111	0.875	ug/L	7.359	1291	0.005
Cd	114		ug/L		1098	0.004
> In	115		ug/L		241603	241602.588
Sn	120	3.183	ug/L	3.858	18780	0.077
Sb	121	0.344	ug/L	3.414	1953	0.007
Sb	123		ug/L		1582	0.006
Ba	135		ug/L		150668	0.293
Ba	137	68.769	ug/L	0.991	262748	0.511
Ho	165		ug/L		57659	0.112
> Lu	175		ug/L		514097	514096.921
Tl	205	-0.019	ug/L	21.546	5058	-0.001
Pb	208	16.392	ug/L	0.873	596857	1.160
Bi	209		ug/L		4115	0.007
Th	232	15.192	ug/L	0.779	691765	1.344
U	238	6.473	ug/L	1.466	296849	0.577

Sample ID: 246336008

Report Date/Time: Friday, February 26, 2010 05:38:53

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9998

Sample ID: 246336008

Report Date/Time: Friday, February 26, 2010 05:38:53

Page 2

## QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		55.2			
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		54.7			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		69.3			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		102.7			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: 246336009

Sample Date/Time: Friday, February 26, 2010 05:42:20

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950387|2|baj

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\246336009.554

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	50.516	ug/L	1.835	57959	0.169
Be	9	3.039	ug/L	1.135	965	0.003
B	11	9.546	ug/L	3.750	3715	0.010
Na	23	286.951	ug/L	11.986	1038006	2.977
Mg	24	4279.183	ug/L	7.602	10577584	30.960
Al	27	29382.348	ug/L	8.792	114123312	334.197
P	31	232.699	ug/L	3.521	63079	0.169
K	39	3919.094	ug/L	8.472	20319320	58.108
Ca	43	4811.409	ug/L	2.114	56738	0.165
> Sc	45		ug/L		341699	341699.383
Ti	47	790.795	ug/L	2.098	453340	1.326
V	51	41.238	ug/L	1.035	274140	0.781
Cr	52	21.041	ug/L	2.518	108427	0.322
Cr	53		ug/L		71853	-0.190
Mn	55	875.116	ug/L	2.239	7223257	21.137
Fe	57	28599.047	ug/L	1.352	5225521	15.279
Co	59	13.217	ug/L	3.240	79406	0.232
Ni	60	18.326	ug/L	2.265	24565	0.071
Cu	63		ug/L		123498	0.359
Cu	65	39.162	ug/L	0.893	60956	0.177
Zn	66	100.999	ug/L	1.212	95198	0.268
Zn	67		ug/L		23535	0.031
Zn	68		ug/L		75201	0.209
> Ge	74		ug/L		353288	353287.616
As	75	7.050	ug/L	0.429	8127	0.021
Se	77		ug/L		2628	-0.018
Se	82	0.140	ug/L	140.399	4	0.000
Kr	83		ug/L		229	0.000
Sr	88	52.843	ug/L	0.595	788050	3.333
Y	89		ug/L		578395	2.447
Mo	98	1.919	ug/L	0.988	7187	0.030
Ag	107	0.317	ug/L	0.940	1838	0.008
Cd	111	1.244	ug/L	6.469	1791	0.008
Cd	114		ug/L		1692	0.007
> In	115		ug/L		236388	236388.299
Sn	120	1.257	ug/L	2.036	7390	0.030
Sb	121	0.345	ug/L	1.755	1914	0.007
Sb	123		ug/L		1531	0.006
Ba	135		ug/L		629192	1.259
Ba	137	289.757	ug/L	1.581	1075577	2.153
Ho	165		ug/L		47243	0.095
> Lu	175		ug/L		499562	499562.032
Tl	205	0.461	ug/L	3.360	13932	0.017
Pb	208	57.220	ug/L	0.370	2023291	4.049
Bi	209		ug/L		24286	0.048
Th	232	27.146	ug/L	1.168	1200627	2.402
U	238	213.975	ug/L	0.898	9522874	19.062

Sample ID: 246336009

Report Date/Time: Friday, February 26, 2010 05:45:06

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
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		59.2			
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		54.1			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		67.8			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		99.8			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

## QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message  
 Ti 47 Upper, S, EEE Ti 47 Sample is out of limits (over linear range)

## QC Action

QC Action Line: No QC out of limits detected

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Friday, February 26, 2010 06:00:55

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 6.557

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	74.335	ug/L	1.260	78800	0.249
Be	9	64.867	ug/L	2.127	18780	0.059
B	11	100.105	ug/L	3.573	32392	0.101
Na	23	3788.193	ug/L	3.243	12429304	39.299
Mg	24	3858.327	ug/L	1.608	8819379	27.915
Al	27	3742.048	ug/L	6.247	13439209	42.562
P	31	3500.130	ug/L	2.375	806460	2.538
K	39	4428.854	ug/L	12.896	21155241	65.666
Ca	43	4352.460	ug/L	0.289	47477	0.149
> Sc	45		ug/L		315822	315821.601
Ti	47	46.874	ug/L	4.158	25139	0.079
V	51	49.627	ug/L	3.593	303477	0.940
Cr	52	51.187	ug/L	3.368	246040	0.784
Cr	53		ug/L		132016	0.018
Mn	55	55.452	ug/L	2.368	424036	1.339
Fe	57	4811.533	ug/L	0.403	816618	2.571
Co	59	57.813	ug/L	2.902	320805	1.016
Ni	60	57.634	ug/L	1.797	71019	0.224
Cu	63		ug/L		167638	0.528
Cu	65	57.705	ug/L	1.699	82800	0.261
Zn	66	50.744	ug/L	0.592	56424	0.135
Zn	67		ug/L		19680	0.012
Zn	68		ug/L		42556	0.099
> Ge	74		ug/L		414234	414234.495
As	75*	45.949	ug/L	1.742	58086	0.138
Se	77		ug/L		10494	-0.000
Se	82	50.430	ug/L	1.102	6052	0.015
Kr	83		ug/L		125	-0.000
Sr	88	43.303	ug/L	0.724	725961	2.731
Y	89		ug/L		184	0.000
Mo	98	42.351	ug/L	2.054	176578	0.664
Ag	107	48.192	ug/L	1.210	306377	1.153
Cd	111	47.641	ug/L	1.158	76686	0.289
Cd	114		ug/L		179047	0.674
> In	115		ug/L		265736	265736.407
Sn	120	48.201	ug/L	1.313	309422	1.163
Sb	121	49.580	ug/L	2.140	268156	1.008
Sb	123		ug/L		210976	0.793
Ba	135		ug/L		78561	0.157
Ba	137	37.373	ug/L	3.156	139100	0.278
Ho	165		ug/L		55	0.000
> Lu	175		ug/L		500918	500917.910
Tl	205	53.301	ug/L	2.876	1007474	2.002
Pb	208	54.941	ug/L	1.744	1947526	3.888
Bi	209		ug/L		696	0.001
Th	232	54.555	ug/L	3.076	2417705	4.827
U	238	57.872	ug/L	2.706	2581855	5.155

Sample ID: QC Std 6

Report Date/Time: Friday, February 26, 2010 06:03:38

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9998

Sample ID: QC Std 6

Report Date/Time: Friday, February 26, 2010 06:03:38

Page 2

## QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7	148.669				
Be	9	129.734				
B	11	100.105				
Na	23	75.764				
Mg	24	77.167				
Al	27	74.100				
P	31	70.003				
K	39	88.577				
Ca	43	87.049				
> Sc	45		54.7			
Ti	47	93.747				
V	51	99.254				
Cr	52	102.375				
Cr	53					
Mn	55	110.904				
Fe	57	96.231				
Co	59	115.627				
Ni	60	115.268				
Cu	63					
Cu	65	115.411				
Zn	66	101.489				
Zn	67					
Zn	68					
> Ge	74		63.4			
As	75	91.898				
Se	77					
Se	82	100.860				
Kr	83					
Sr	88	86.605				
Y	89					
Mo	98	84.703				
Ag	107	96.385				
Cd	111	95.282				
Cd	114					
> In	115		76.2			
Sn	120	96.402				
Sb	121	99.159				
Sb	123					
Ba	135					
Ba	137	74.746				
Ho	165					
> Lu	175		100.0			
Tl	205	106.603				
Pb	208	109.882				
Bi	209					
Th	232	109.109				
U	238	115.743				

## QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	7CCV is out of limits (+/- 10%)
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	Mg	24	24CCV is out of limits (+/- 10%)
QC Std 6	Al	27	27CCV is out of limits (+/- 10%)
QC Std 6	P	31	31CCV is out of limits (+/- 10%)
QC Std 6	K	39	39CCV is out of limits (+/- 10%)

Sample ID: QC Std 6

Report Date/Time: Friday, February 26, 2010 06:03:38

Page 3

QC Std 6	Ca	43CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC Sc		45
QC Std 6	Mn	55CCV is out of limits (+/- 10%)
QC Std 6	Co	59CCV is out of limits (+/- 10%)
QC Std 6	Ni	60CCV is out of limits (+/- 10%)
QC Std 6	Cu	65CCV is out of limits (+/- 10%)
Ge 74 Int Std for QC Ge		74
QC Std 6	Sr	88CCV is out of limits (+/- 10%)
QC Std 6	Mo	98CCV is out of limits (+/- 10%)
In 115 Int Std for QC In		115
QC Std 6	Ba	137CCV is out of limits (+/- 10%)
QC Std 6	U	238CCV is out of limits (+/- 10%)

## QC Action

QC Action Line: Continue

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Friday, February 26, 2010 06:07:03

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020 2.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 7.558

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.053	ug/L	14.436	117	0.000
Be	9	0.040	ug/L	51.149	23	0.000
B	11	2.703	ug/L	20.911	1190	0.003
Na	23	-3.146	ug/L	46.054	9003	-0.033
Mg	24	0.346	ug/L	302.476	2334	0.003
Al	27	-0.090	ug/L	320.378	3000	-0.001
P	31	-2.786	ug/L	17.454	4182	-0.002
K	39	-5.352	ug/L	69.161	383755	-0.079
Ca	43	-2.041	ug/L	254.138	289	-0.000
> Sc	45		ug/L		301444	301443.570
Ti	47	0.005	ug/L	1521.240	318	0.000
V	51	-0.766	ug/L	16.899	1954	-0.015
Cr	52	0.123	ug/L	46.568	-955	0.002
Cr	53		ug/L		100905	-0.066
Mn	55	0.010	ug/L	45.538	1136	0.000
Fe	57	1.764	ug/L	45.931	4892	0.001
Co	59	0.009	ug/L	23.244	110	0.000
Ni	60	0.031	ug/L	59.452	207	0.000
Cu	63		ug/L		961	0.000
Cu	65	0.031	ug/L	30.938	456	0.000
Zn	66	-0.069	ug/L	53.568	583	-0.000
Zn	67		ug/L		10608	-0.009
Zn	68		ug/L		1166	-0.000
> Ge	74		ug/L		397782	397782.160
As	75	-0.610	ug/L	45.634	-29	-0.002
Se	77		ug/L		5764	-0.011
Se	82	0.390	ug/L	21.266	34	0.000
Kr	83		ug/L		143	0.000
Sr	88	-0.001	ug/L	187.254	189	-0.000
Y	89		ug/L		71	0.000
Mo	98	0.023	ug/L	36.094	173	0.000
Ag	107	0.002	ug/L	22.705	65	0.000
Cd	111	0.007	ug/L	52.202	23	0.000
Cd	114		ug/L		52	0.000
> In	115		ug/L		256038	256038.443
Sn	120	0.020	ug/L	16.971	363	0.000
Sb	121	0.126	ug/L	21.617	933	0.003
Sb	123		ug/L		717	0.002
Ba	135		ug/L		48	-0.000
Ba	137	-0.002	ug/L	47.289	58	-0.000
Ho	165		ug/L		27	-0.000
> Lu	175		ug/L		502913	502912.563
Tl	205	0.193	ug/L	40.938	8965	0.007
Pb	208	0.003	ug/L	16.367	626	0.000
Bi	209		ug/L		291	-0.000
Th	232	0.036	ug/L	19.632	2258	0.003
U	238	0.008	ug/L	13.633	728	0.001

Sample ID: QC Std 7

Report Date/Time: Friday, February 26, 2010 06:09:47

Page 1

## 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	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9998

Sample ID: QC Std 7

Report Date/Time: Friday, February 26, 2010 06:09:47

Page 2

## 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		52.3			
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		60.9			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		73.4			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		100.4			
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 QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	
In 115 Int Std for QC	In	115	

## QC Action

Sample ID: QC Std 7  
Report Date/Time: Friday, February 26, 2010 06:09:47  
Page 3



QC Action Line: Continue

## ICPMS #5 Daily Performance Report

### Sample ID: Sample

Sample Date/Time: Friday, February 26, 2010 11:18:31

### Sample Description:

Method File: c:\elandata\Method\Daily2.mth

Dataset File: c:\elandata\Dataset\default\Sample.603

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	6234.4	6234.361	127.289	2.0
Mg	24.0	57804.7	57804.724	634.808	1.1
Co	58.9	120145.6	120145.644	2214.442	1.8
Rh	102.9	237714.5	237714.452	3759.446	1.6
In	114.9	317715.9	317715.886	6439.940	2.0
Pb	208.0	252739.1	252739.143	1341.129	0.5
[> Ba	137.9	282978.7	282978.675	4411.050	1.6
[ Ba++	69.0	4776.7	0.017	0.000	0.9
[> Ce	139.9	348109.3	348109.319	4167.249	1.2
[ CeO	155.9	9142.5	0.026	0.001	2.6
Bkgd	220.0	25.3	25.300	3.094	12.2

### Current Optimization File Data

Current Value	Description
0.87	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	13	6.0	6386.8
Co	59	13	6.3	120406.0
In	115	13	6.8	326979.4

## 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	2050	0.662
Be	9.0	9.0	2055	2075	0.632
Mg	24.0	24.0	5681	2080	0.603
Mg	25.0	25.0	5945	2080	0.611
Mg	26.0	26.0	6169	2080	0.626
Co	58.9	58.9	14187	2110	0.616
Rh	102.9	102.9	24877	2160	0.614
In	114.9	114.9	27791	2180	0.628
Ce	139.9	139.9	33863	2200	0.619
Pb	206.0	206.0	49948	2295	0.596
Pb	207.0	207.0	50159	2240	0.629
Pb	208.0	208.0	50451	2265	0.689
U	238.1	238.0	57722	2275	0.723

## ICPMS#5 - Summary Report

Sample ID: Blank

Sample Date/Time: Friday, February 26, 2010 14:16:43

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni as and se.mth

Dataset File: c:\elandata\Dataset\100224\Blank.661

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9		ug/L			12
> Sc	45		ug/L		440108	
Ni	60		ug/L		91	
> Ge	74		ug/L		595578	
As	75		ug/L		-479	
Se	77		ug/L		3961	
Se	82		ug/L		41	
Kr	83		ug/L		150	

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	

### QC Calculated Values

Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
Be	9								
> Sc	45								
Ni	60								
> Ge	74								
As	75								
Se	77								
Se	82								
Kr	83								

### 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: Blank

Report Date/Time: Friday, February 26, 2010 14:17:16

Page 1

## ICPMS#5 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Friday, February 26, 2010 14:19:14

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni as and se.mth

Dataset File: c:\elandata\Dataset\100224\Standard 1.662

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	10.000	ug/L	1.333	5633	0.013
> Sc	45		ug/L		447506	447505.761
Ni	60	10.000	ug/L	0.650	21497	0.048
> Ge	74		ug/L		591931	591931.309
As	75	10.000	ug/L	2.240	16317	0.028
Se	77		ug/L		8354	0.007
Se	82	10.000	ug/L	3.570	1866	0.003
Kr	83		ug/L		137	-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
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	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
> Sc	45					
Ni	60					
> Ge	74					
As	75					
Se	77					
Se	82					
Kr	83					

### 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: Friday, February 26, 2010 14:19:44

Page 1

## ICPMS#5 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Friday, February 26, 2010 14:21:42

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni as and se.mth

Dataset File: c:\elandata\Dataset\100224\Standard 2.663

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	99.946	ug/L	1.248	53501	0.119
> Sc	45		ug/L		449222	449221.869
Ni	60	99.976	ug/L	1.083	209880	0.467
> Ge	74		ug/L		601463	601462.654
As	75	100.007	ug/L	1.072	171274	0.286
Se	77		ug/L		21527	0.029
Se	82	99.959	ug/L	2.826	17849	0.030
Kr	83		ug/L		175	0.000

### 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	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
Be	9						
> Sc	45						
Ni	60						
> Ge	74						
As	75						
Se	77						
Se	82						
Kr	83						

### 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 2

Report Date/Time: Friday, February 26, 2010 14:22:13

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Friday, February 26, 2010 14:24:11

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni as and se.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 1.664

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	49.464	ug/L	2.041	27689	0.059
Sc	45		ug/L		469847	469846.596
Ni	60	50.261	ug/L	1.962	110377	0.235
Ge	74		ug/L		619794	619793.714
As	75	48.061	ug/L	1.521	84585	0.137
Se	77		ug/L		14949	0.017
Se	82	48.914	ug/L	1.231	9027	0.014
Kr	83		ug/L		162	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
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	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9	98.928				
Sc	45		106.8			
Ni	60	100.522				
Ge	74		104.1			
As	75	96.121				
Se	77					
Se	82	97.828				
Kr	83					

### 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: Friday, February 26, 2010 14:24:43

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Friday, February 26, 2010 14:26:43

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni as and se.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 2.665

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.008	ug/L	84.469	17	0.000
> Sc	45		ug/L		464617	464616.753
Ni	60	0.005	ug/L	87.623	108	0.000
> Ge	74		ug/L		636426	636425.839
As	75	0.247	ug/L	109.309	-57	0.001
Se	77		ug/L		5068	0.001
Se	82	0.006	ug/L	2219.353	45	0.000
Kr	83		ug/L		165	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
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	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Be	9					
> Sc	45		105.6			
Ni	60					
> Ge	74		106.9			
As	75					
Se	77					
Se	82					
Kr	83					

### 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: Friday, February 26, 2010 14:27:16

Page 1



## ICPMS#5 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Friday, February 26, 2010 14:29:15

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni as and se.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 3.666

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.532	ug/L	8.633	305	0.001
Sc	45		ug/L		461742	461741.691
Ni	60	2.208	ug/L	0.830	4856	0.010
Ge	74		ug/L		619692	619691.792
As	75	5.836	ug/L	5.671	9835	0.017
Se	77		ug/L		9806	0.009
Se	82	5.744	ug/L	2.469	1097	0.002
Kr	83		ug/L		140	-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
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	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9	106.312				
Sc	45		104.9			
Ni	60	110.376				
Ge	74		104.0			
As	75	116.722				
Se	77					
Se	82	114.882				
Kr	83					

### 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: Friday, February 26, 2010 14:29:46

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Friday, February 26, 2010 14:31:45

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni as and se.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 4.667

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.098	ug/L	8.763	59	0.000
> Sc	45		ug/L		410454	410453.952
Ni	60	3.543	ug/L	0.616	6877	0.017
> Ge	74		ug/L		564508	564507.947
As	75	0.757	ug/L	52.204	766	0.002
Se	77		ug/L		11184	0.013
Se	82	-0.059	ug/L	310.277	29	-0.000
Kr	83		ug/L		453	0.001

### 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
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	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
> Sc	45		93.3			
Ni	60	107.039				
> Ge	74		94.8			
As	75					
Se	77					
Se	82					
Kr	83					

### 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 4

Report Date/Time: Friday, February 26, 2010 14:32:17

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Friday, February 26, 2010 14:34:16

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni as and se.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 5.668

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	17.832	ug/L	3.054	8354	0.021
>	Sc	45		ug/L		392853	392853.061
[	Ni	60	23.418	ug/L	2.365	43049	0.109
[>	Ge	74		ug/L		541022	541021.941
	As	75	20.798	ug/L	2.734	31708	0.059
	Se	77		ug/L		13920	0.019
	Se	82	20.260	ug/L	4.659	3285	0.006
[	Kr	83		ug/L		471	0.001

### 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
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	

### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[	Be	9	89.162					
>	Sc	45		89.3				
[	Ni	60	100.463					
[>	Ge	74		90.8				
	As	75	103.990					
	Se	77						
	Se	82	101.302					
[	Kr	83						

### 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 5

Report Date/Time: Friday, February 26, 2010 14:34:48

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Friday, February 26, 2010 14:36:47

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni as and se.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 6.669

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	48.277	ug/L	2.784	25660	0.058
Sc	45		ug/L		446043	446042.880
Ni	60	51.676	ug/L	0.415	107761	0.241
Ge	74		ug/L		605463	605462.934
As	75	47.269	ug/L	2.436	81249	0.135
Se	77		ug/L		16034	0.020
Se	82	50.199	ug/L	2.237	9050	0.015
Kr	83		ug/L		163	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
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	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9	96.553					
Sc	45		101.3				
Ni	60	103.352					
Ge	74		101.7				
As	75	94.537					
Se	77						
Se	82	100.398					
Kr	83						

### 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: Friday, February 26, 2010 14:37:20

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Friday, February 26, 2010 14:39:20

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni as and se.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 7.670

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.015	ug/L	37.774	20	0.000
Sc	45		ug/L		432754	432753.908
Ni	60	0.002	ug/L	185.585	92	0.000
Ge	74		ug/L		604228	604227.586
As	75	0.273	ug/L	53.099	-14	0.001
Se	77		ug/L		6080	0.003
Se	82	-0.100	ug/L	55.674	23	-0.000
Kr	83		ug/L		158	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
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	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dilution	Duplicate Rel. % Difference
Be	9					
Sc	45		98.3			
Ni	60					
Ge	74		101.5			
As	75					
Se	77					
Se	82					
Kr	83					

### 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: Friday, February 26, 2010 14:39:53

Page 1

## ICPMS#5 - Summary Report

Sample ID: 1202036669

Sample Date/Time: Friday, February 26, 2010 14:41:55

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 950387|2|baj

Method File: c:\elandata\Method\be ni as and se.mth

Dataset File: c:\elandata\Dataset\100224\1202036669.671

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.026	ug/L	60.581	26	0.000
> Sc	45		ug/L		441526	441525.674
Ni	60	0.137	ug/L	5.142	374	0.001
> Ge	74		ug/L		596486	596485.959
As	75	0.039	ug/L	538.725	-412	0.000
Se	77		ug/L		7010	0.005
Se	82	0.325	ug/L	29.697	98	0.000
Kr	83		ug/L		142	-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
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	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
> Sc	45		100.3			
Ni	60					
> Ge	74		100.2			
As	75					
Se	77					
Se	82					
Kr	83					

### 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: 1202036669

Report Date/Time: Friday, February 26, 2010 14:42:29

Page 1

## ICPMS#5 - Summary Report

Sample ID: 1202036674

Sample Date/Time: Friday, February 26, 2010 14:44:31

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 950387|40|baj

Method File: c:\elandata\Method\be ni as and se.mth

Dataset File: c:\elandata\Dataset\100224\1202036674.672

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	19.824	ug/L	2.378	10750	0.024
Sc	45		ug/L		454775	454775.230
Ni	60	36.642	ug/L	4.824	77902	0.171
Ge	74		ug/L		607684	607683.956
As	75	27.218	ug/L	2.036	46738	0.078
Se	77		ug/L		18611	0.024
Se	82	74.956	ug/L	0.525	13542	0.022
Kr	83		ug/L		163	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
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	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		103.3			
Ni	60					
Ge	74		102.0			
As	75					
Se	77					
Se	82					
Kr	83					

### 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: 1202036674

Report Date/Time: Friday, February 26, 2010 14:45:06

Page 1

## ICPMS#5 - Summary Report

Sample ID: 246336001

Sample Date/Time: Friday, February 26, 2010 14:47:06

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950387|2|baj

Method File: c:\elandata\Method\be ni as and se.mth

Dataset File: c:\elandata\Dataset\100224\246336001.673

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	1.640	ug/L	2.369	992	0.002
> Sc	45		ug/L		500381	500380.508
Ni	60	8.815	ug/L	1.744	20706	0.041
> Ge	74		ug/L		558283	558282.986
As	75	9.804	ug/L	4.026	15181	0.028
Se	77		ug/L		5436	0.003
Se	82	2.755	ug/L	5.338	494	0.001
Kr	83		ug/L		293	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
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	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
> Sc	45		113.7			
Ni	60					
> Ge	74		93.7			
As	75					
Se	77					
Se	82					
Kr	83					

### 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: 246336001

Report Date/Time: Friday, February 26, 2010 14:47:40

Page 1



## ICPMS#5 - Summary Report

Sample ID: 1202036670

Sample Date/Time: Friday, February 26, 2010 14:49:40

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 950387|2|baj

Method File: c:\elandata\Method\be ni as and se.mth

Dataset File: c:\elandata\Dataset\100224\1202036670.674

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	1.776	ug/L	3.525	1072	0.002
Sc	45		ug/L		499901	499901.334
Ni	60	10.516	ug/L	1.930	24660	0.049
Ge	74		ug/L		536839	536839.074
As	75	10.303	ug/L	1.624	15364	0.029
Se	77		ug/L		4705	0.002
Se	82	3.930	ug/L	4.616	662	0.001
Kr	83		ug/L		295	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
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	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		113.6			
Ni	60					
Ge	74		90.1			
As	75					
Se	77					
Se	82					
Kr	83					

### 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: 1202036670

Report Date/Time: Friday, February 26, 2010 14:50:14

Page 1

## ICPMS#5 - Summary Report

Sample ID: 1202036672

Sample Date/Time: Friday, February 26, 2010 14:52:15

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 950387|2|baj

Method File: c:\elandata\Method\be ni as and se.mth

Dataset File: c:\elandata\Dataset\100224\1202036672.675

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	22.461	ug/L	1.861	12768	0.027
Sc	45		ug/L		476784	476783.921
Ni	60	30.757	ug/L	1.657	68587	0.144
Ge	74		ug/L		528653	528652.542
As	75	47.645	ug/L	1.378	71504	0.136
Se	77		ug/L		5352	0.003
Se	82	11.634	ug/L	1.001	1859	0.003
Kr	83		ug/L		291	0.000

### 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	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		108.3			
Ni	60					
Ge	74		88.8			
As	75					
Se	77					
Se	82					
Kr	83					

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202036672

Report Date/Time: Friday, February 26, 2010 14:52:49

Page 1

## ICPMS#5 - Summary Report

Sample ID: 1202036673

Sample Date/Time: Friday, February 26, 2010 14:54:50

Sample Type:

Sample Description: LANL 6020 MSD

Number of Replicates: 3

Batch ID: 950387[2]baj

Method File: c:\elandata\Method\be ni as and se.mth

Dataset File: c:\elandata\Dataset\100224\1202036673.676

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9	21.756	ug/L	3.178	12631	0.026
> Sc	45		ug/L		487167	487166.815
[ Ni	60	30.654	ug/L	2.521	69821	0.143
> Ge	74		ug/L		533806	533805.590
As	75	47.321	ug/L	1.227	71712	0.135
Se	77		ug/L		5350	0.003
Se	82	10.295	ug/L	1.183	1665	0.003
[ Kr	83		ug/L		332	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
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	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel.	% Difference
[ Be	9						
> Sc	45		110.7				
[ Ni	60						
> Ge	74		89.6				
As	75						
Se	77						
Se	82						
[ Kr	83						

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202036673

Report Date/Time: Friday, February 26, 2010 14:55:25

Page 1

## ICPMS#5 - Summary Report

Sample ID: 1202036671

Sample Date/Time: Friday, February 26, 2010 14:57:26

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 950387|10|baj

Method File: c:\elandata\Method\be ni as and se.mth

Dataset File: c:\elandata\Dataset\100224\1202036671.677

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.405	ug/L	7.412	215	0.000
> Sc	45		ug/L		420814	420813.713
Ni	60	1.996	ug/L	1.954	4010	0.009
> Ge	74		ug/L		546298	546298.235
As	75	2.151	ug/L	8.295	2921	0.006
Se	77		ug/L		5378	0.003
Se	82	1.547	ug/L	4.303	288	0.000
Kr	83		ug/L		147	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
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	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
> Sc	45		95.6			
Ni	60					
> Ge	74		91.7			
As	75					
Se	77					
Se	82					
Kr	83					

### 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: 1202036671

Report Date/Time: Friday, February 26, 2010 14:58:01

Page 1

## ICPMS#5 - Summary Report

Sample ID: 246336002

Sample Date/Time: Friday, February 26, 2010 15:00:03

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950387|2|baj

Method File: c:\elandata\Method\be ni as and se.mth

Dataset File: c:\elandata\Dataset\100224\246336002.678

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	1.983	ug/L	3.149	1115	0.002
Sc	45		ug/L		466733	466733.264
Ni	60	14.028	ug/L	2.696	30671	0.066
Ge	74		ug/L		523467	523467.242
As	75	7.763	ug/L	2.304	11187	0.022
Se	77		ug/L		4435	0.002
Se	82	1.632	ug/L	13.442	289	0.000
Kr	83		ug/L		281	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
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	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		106.0			
Ni	60					
Ge	74		87.9			
As	75					
Se	77					
Se	82					
Kr	83					

### 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: 246336002

Report Date/Time: Friday, February 26, 2010 15:00:38

Page 1

## ICPMS#5 - Summary Report

Sample ID: 246336003

Sample Date/Time: Friday, February 26, 2010 15:02:40

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950387[2]baj

Method File: c:\elandata\Method\be ni as and se.mth

Dataset File: c:\elandata\Dataset\100224\246336003.679

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ Be	9	2.363	ug/L	6.319	1398	0.003
> Sc	45		ug/L		491724	491723.942
[ Ni	60	16.736	ug/L	0.482	38543	0.078
> Ge	74		ug/L		527708	527708.351
As	75	11.369	ug/L	2.192	16714	0.032
Se	77		ug/L		4145	0.001
Se	82	1.508	ug/L	24.435	272	0.000
[ Kr	83		ug/L		327	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
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	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[ Be	9						
> Sc	45		111.7				
[ Ni	60						
> Ge	74		88.6				
As	75						
Se	77						
Se	82						
[ Kr	83						

### QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

### QC Action

QC Action Line: No QC out of limits detected

Sample ID: 246336003

Report Date/Time: Friday, February 26, 2010 15:03:16

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Friday, February 26, 2010 15:05:15

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni as and se.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 6.680

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	49.657	ug/L	3.176	24352	0.059
> Sc	45		ug/L		411714	411713.935
Ni	60	50.760	ug/L	0.636	97699	0.237
> Ge	74		ug/L		557659	557658.758
As	75	47.304	ug/L	1.021	74901	0.135
Se	77		ug/L		12402	0.016
Se	82	48.985	ug/L	1.893	8133	0.015
Kr	83		ug/L		149	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
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	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9	99.313				
> Sc	45		93.5			
Ni	60	101.519				
> Ge	74		93.6			
As	75	94.609				
Se	77					
Se	82	97.971				
Kr	83					

### 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: Friday, February 26, 2010 15:05:47

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Friday, February 26, 2010 15:07:47

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni as and se.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 7.681

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.013	ug/L	92.478	17	0.000
Sc	45		ug/L		401573	401572.919
Ni	60	0.007	ug/L	47.499	95	0.000
Ge	74		ug/L		568554	568553.962
As	75	0.431	ug/L	53.813	244	0.001
Se	77		ug/L		4128	0.001
Se	82	0.124	ug/L	103.764	60	0.000
Kr	83		ug/L		149	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
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	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		91.2			
Ni	60					
Ge	74		95.5			
As	75					
Se	77					
Se	82					
Kr	83					

### 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: Friday, February 26, 2010 15:08:21

Page 1



## ICPMS#5 - Summary Report

Sample ID: 246336004

Sample Date/Time: Friday, February 26, 2010 15:10:21

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950387[2]baj

Method File: c:\elandata\Method\be ni as and se.mth

Dataset File: c:\elandata\Dataset\100224\246336004.682

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	2.166	ug/L	1.358	1260	0.003
Sc	45		ug/L		483031	483031.188
Ni	60	20.692	ug/L	3.008	46782	0.097
Ge	74		ug/L		512298	512297.817
As	75	8.034	ug/L	5.494	11333	0.023
Se	77		ug/L		4389	0.002
Se	82	1.285	ug/L	8.790	230	0.000
Kr	83		ug/L		317	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
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	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		109.8			
Ni	60					
Ge	74		86.0			
As	75					
Se	77					
Se	82					
Kr	83					

### 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: 246336004

Report Date/Time: Friday, February 26, 2010 15:10:55

Page 1

## ICPMS#5 - Summary Report

Sample ID: 246336005

Sample Date/Time: Friday, February 26, 2010 15:12:55

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950387[2]baj

Method File: c:\elandata\Method\be ni as and se.mth

Dataset File: c:\elandata\Dataset\100224\246336005.683

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	2.712	ug/L	1.608	1600	0.003
> Sc	45		ug/L		491004	491004.201
Ni	60	17.751	ug/L	1.876	40809	0.083
> Ge	74		ug/L		514036	514035.839
As	75	9.585	ug/L	4.052	13658	0.027
Se	77		ug/L		4079	0.001
Se	82	0.795	ug/L	4.207	156	0.000
Kr	83		ug/L		387	0.001

### 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
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	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
> Sc	45		111.6			
Ni	60					
> Ge	74		86.3			
As	75					
Se	77					
Se	82					
Kr	83					

### 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: 246336005

Report Date/Time: Friday, February 26, 2010 15:13:30

Page 1

## ICPMS#5 - Summary Report

Sample ID: 246336006

Sample Date/Time: Friday, February 26, 2010 15:15:31

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 9503872|ba|

Method File: c:\elandata\Method\be ni as and se.mth

Dataset File: c:\elandata\Dataset\100224\246336006.684

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	1.919	ug/L	3.255	1070	0.002
> Sc	45		ug/L		462569	462569.041
Ni	60	15.207	ug/L	1.038	32955	0.071
> Ge	74		ug/L		513583	513583.404
As	75	5.291	ug/L	5.758	7351	0.015
Se	77		ug/L		3852	0.001
Se	82	0.552	ug/L	12.327	119	0.000
Kr	83		ug/L		280	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
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	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
> Sc	45		105.1			
Ni	60					
> Ge	74		86.2			
As	75					
Se	77					
Se	82					
Kr	83					

### 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: 246336006

Report Date/Time: Friday, February 26, 2010 15:16:05

Page 1

## ICPMS#5 - Summary Report

Sample ID: 246336007

Sample Date/Time: Friday, February 26, 2010 15:18:06

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950387|2|baj

Method File: c:\elandata\Method\be ni as and se.mth

Dataset File: c:\elandata\Dataset\100224\246336007.685

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	2.220	ug/L	1.157	1246	0.003
Sc	45		ug/L		466335	466335.133
Ni	60	14.862	ug/L	3.258	32455	0.069
Ge	74		ug/L		517056	517056.380
As	75	7.092	ug/L	1.374	10056	0.020
Se	77		ug/L		3867	0.001
Se	82	0.909	ug/L	20.899	175	0.000
Kr	83		ug/L		309	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
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	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		106.0			
Ni	60					
Ge	74		86.8			
As	75					
Se	77					
Se	82					
Kr	83					

### 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: 246336007

Report Date/Time: Friday, February 26, 2010 15:18:41

Page 1

## ICPMS#5 - Summary Report

Sample ID: 246336008

Sample Date/Time: Friday, February 26, 2010 15:20:43

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950387|2|baj

Method File: c:\elandata\Method\be ni as and se.mth

Dataset File: c:\elandata\Dataset\100224\246336008.686

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	1.639	ug/L	4.508	846	0.002
Sc	45		ug/L		427467	427467.061
Ni	60	5.833	ug/L	3.201	11736	0.027
Ge	74		ug/L		494804	494803.635
As	75	2.884	ug/L	6.551	3677	0.008
Se	77		ug/L		3724	0.001
Se	82	0.713	ug/L	11.651	138	0.000
Kr	83		ug/L		232	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
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	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
Sc	45		97.1				
Ni	60						
Ge	74		83.1				
As	75						
Se	77						
Se	82						
Kr	83						

### 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: 246336008

Report Date/Time: Friday, February 26, 2010 15:21:18

Page 1

## ICPMS#5 - Summary Report

Sample ID: 246336009

Sample Date/Time: Friday, February 26, 2010 15:23:20

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950387|2|baj

Method File: c:\elandata\Method\be ni as and se.mth

Dataset File: c:\elandata\Dataset\100224\246336009.687

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	2.369	ug/L	6.144	1324	0.003
Sc	45		ug/L		464223	464222.585
Ni	60	16.809	ug/L	1.688	36537	0.079
Ge	74		ug/L		502670	502670.247
As	75	8.305	ug/L	6.420	11525	0.024
Se	77		ug/L		3677	0.001
Se	82	0.248	ug/L	32.945	71	0.000
Kr	83		ug/L		326	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
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	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
Sc	45		105.5				
Ni	60						
Ge	74		84.4				
As	75						
Se	77						
Se	82						
Kr	83						

### 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: 246336009

Report Date/Time: Friday, February 26, 2010 15:23:56

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Friday, February 26, 2010 15:31:07

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni as and se.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 6.690

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	48.108	ug/L	2.665	23989	0.057
Sc	45		ug/L		418514	418513.546
Ni	60	51.055	ug/L	2.902	99903	0.238
Ge	74		ug/L		587754	587753.854
As	75	47.661	ug/L	3.010	79541	0.136
Se	77		ug/L		14133	0.017
Se	82	47.483	ug/L	1.191	8312	0.014
Kr	83		ug/L		147	-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
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	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Be	9	96.217				
Sc	45		95.1			
Ni	60	102.110				
Ge	74		98.7			
As	75	95.322				
Se	77					
Se	82	94.966				
Kr	83					

### 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: Friday, February 26, 2010 15:31:40

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Friday, February 26, 2010 15:33:40

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\be ni as and se.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 7.691

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.012	ug/L	106.364	17	0.000
> Sc	45		ug/L		405909	405908.512
Ni	60	0.003	ug/L	334.612	89	0.000
> Ge	74		ug/L		576697	576697.326
As	75	0.236	ug/L	62.703	-74	0.001
Se	77		ug/L		4715	0.002
Se	82	-0.029	ug/L	549.018	35	-0.000
Kr	83		ug/L		156	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
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	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
> Sc	45		92.2				
Ni	60						
> Ge	74		96.8				
As	75						
Se	77						
Se	82						
Kr	83						

### 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: Friday, February 26, 2010 15:34:14

Page 1



## ICPMS#5 - Summary Report

Sample ID: Blank

Sample Date/Time: Friday, February 26, 2010 16:21:35

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: c:\elandata\Dataset\100224\Blank.718

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		653329	
[ U	238		ug/L		680	

### Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[> Lu	175					
[ 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: Blank

Report Date/Time: Friday, February 26, 2010 16:21:47

Page 1

## ICPMS#5 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Friday, February 26, 2010 16:23:15

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: c:\elandata\Dataset\100224\Standard 1.719

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		663108	663108.368
[ U	238	10.000	ug/L	1.116	601577	0.906

### 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 % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[> Lu	175					
[ 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: Friday, February 26, 2010 16:23:24

Page 1

## ICPMS#5 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Friday, February 26, 2010 16:24:51

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: c:\elandata\Dataset\100224\Standard 2.720

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		607657	607656.690
[ U	238	99.900	ug/L	0.234	5001886	8.230

### 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 % Dil	Duplicate Rel. % Difference
[> Lu	175					
[ 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: Friday, February 26, 2010 16:26:29

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 1.721

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		657853	657853.112
[ U	238	47.945	ug/L	0.827	2599074	3.950

### 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 % Dil	Duplicate Rel. % Difference
[> Lu	175			100.7		
[ U	238	95.890				

### 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: Friday, February 26, 2010 16:26:39

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Friday, February 26, 2010 16:28:09

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 2.722

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		652487	652486.881
[ U	238	0.013	ug/L	6.266	1396	0.001

### 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 % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[> Lu	175		99.9			
[ 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

Sample ID: QC Std 2

Report Date/Time: Friday, February 26, 2010 16:28:21

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Friday, February 26, 2010 16:29:50

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 3.723

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		666748	666747.583
[	U	238	0.213	ug/L	0.309	12385	0.018

### 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 % Dil	Duplicate Rel.	% Difference
[>	Lu	175			102.1			
[	U	238	106.420					

### 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 3

Report Date/Time: Friday, February 26, 2010 16:30:02

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Friday, February 26, 2010 16:31:30

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 4.724

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		564796	564796.001
[	U	238	-0.007	ug/L	4.081	257	-0.001

### 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 % Dil	Duplicate Rel.	% Difference
[>	Lu	175			86.4			
[	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 4

Report Date/Time: Friday, February 26, 2010 16:31:41

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Friday, February 26, 2010 16:33:10

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 5.725

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		663786	663785.736
[ U	238	20.200	ug/L	1.864	1105236	1.664

### 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 % Dil	Duplicate Rel. % Difference
[> Lu	175			101.6		
[ U	238	101.001				

### 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 5

Report Date/Time: Friday, February 26, 2010 16:33:20

Page 1



## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Friday, February 26, 2010 16:34:49

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 6.726

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		646968	646967.599
[	U	238	48.497	ug/L	1.075	2585692	3.995

### 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 % Dil	Duplicate Rel.	% Difference
[>	Lu	175			99.0			
[	U	238	96.994					

### 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: Friday, February 26, 2010 16:35:00

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Friday, February 26, 2010 16:36:30

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 7.727

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		622510	622510.141
[ U	238	0.012	ug/L	9.880	1253	0.001

### 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 % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[> Lu	175		95.3			
[ 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: Friday, February 26, 2010 16:36:42

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Friday, February 26, 2010 16:49:53

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 6.735

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[ >	Lu	175		ug/L		648252	648252.493
[	U	238	48.531	ug/L	1.082	2592627	3.998

### 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 % Recovery	Dilution %	Duplicate Rel. % Difference
[ >	Lu	175			99.2		
[	U	238	97.062				

### 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: Friday, February 26, 2010 16:50:04

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Friday, February 26, 2010 16:51:34

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 7.736

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		614229	614228.876
[ U	238	0.003	ug/L	17.130	778	0.000

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[> Lu	175		94.0			
[ 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: Friday, February 26, 2010 16:51:46

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Friday, February 26, 2010 17:01:36

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 6.742

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		649099	649098.900
[	U	238	48.536	ug/L	1.963	2595850	3.999

### 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	% Dil	Duplicate	Rel. % Difference
[>	Lu	175					99.4					
[	U	238		97.072								

### 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 7

Sample Date/Time: Friday, February 26, 2010 17:03:16

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 7.743

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		613101	613100.830
[ U	238	0.003	ug/L	24.213	807	0.000

### 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 % Dil	Duplicate Rel. % Difference
[> Lu	175		93.8			
[ 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: Friday, February 26, 2010 17:03:28

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Friday, February 26, 2010 17:17:12

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 6.751

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		621885	621885.294
[ U	238	51.234	ug/L	1.503	2625398	4.221

### 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 % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[> Lu	175			95.2		
[ U	238	102.468				

### 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 7

Sample Date/Time: Friday, February 26, 2010 17:18:53

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 7.752

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		620955	620955.328
[ U	238	0.003	ug/L	22.293	794	0.000

### 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		95.0				
[ 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: Friday, February 26, 2010 17:19:05

Page 1



## ICPMS#5 - Summary Report

Sample ID: 1202036669

Sample Date/Time: Friday, February 26, 2010 17:21:41

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 950387|2|baj

Method File: c:\elandata\Method\only.mth

Dataset File: c:\elandata\Dataset\100224\1202036669.753

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		635376	635375.855
[ U	238	-0.001	ug/L	29.758	605	-0.000

### 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 % Dil	Duplicate Rel. % Difference
[> Lu	175			97.3		
[ 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: 1202036669

Report Date/Time: Friday, February 26, 2010 17:21:54

Page 1

## ICPMS#5 - Summary Report

Sample ID: 1202036674

Sample Date/Time: Friday, February 26, 2010 17:23:25

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 950387|40|baj

Method File: c:\elandata\Method\lu only.mth

Dataset File: c:\elandata\Dataset\100224\1202036674.754

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		628092	628091.745
[ U	238	0.597	ug/L	0.501	31552	0.049

### 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 % Dil	Duplicate Rel. % Difference
[> Lu	175		96.1			
[ 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

Sample ID: 1202036674

Report Date/Time: Friday, February 26, 2010 17:23:39

Page 1

## ICPMS#5 - Summary Report

Sample ID: 246336003

Sample Date/Time: Friday, February 26, 2010 17:29:43

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950387|2|baj

Method File: c:\elandata\Method\only.mth

Dataset File: c:\elandata\Dataset\100224\246336003.756

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		637287	637287.356
[	U	238	54.378	ug/L	1.484	2855341	4.480

### 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 % Recovery	Dilution %	Duplicate Rel. % Difference
[>	Lu	175			97.5		
[	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

Sample ID: 246336003

Report Date/Time: Friday, February 26, 2010 17:29:57

Page 1

## ICPMS#5 - Summary Report

Sample ID: 246336004

Sample Date/Time: Friday, February 26, 2010 17:31:28

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950387[2]baj

Method File: c:\elandata\Method\only.mth

Dataset File: c:\elandata\Dataset\100224\246336004.757

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		630106	630106.078
[ U	238	15.673	ug/L	1.221	814246	1.291

### 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 % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[> Lu	175			96.4		
[ 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: 246336004

Report Date/Time: Friday, February 26, 2010 17:31:40

Page 1

## ICPMS#5 - Summary Report

Sample ID: 246336005

Sample Date/Time: Friday, February 26, 2010 17:33:11

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950387|2|baj

Method File: c:\elandata\Method\only.mth

Dataset File: c:\elandata\Dataset\100224\246336005.758

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		634649	634649.067
[ U	238	13.717	ug/L	1.023	717852	1.130

### 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 % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[> Lu	175		97.1			
[ 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

Sample ID: 246336005

Report Date/Time: Friday, February 26, 2010 17:33:23

Page 1

## ICPMS#5 - Summary Report

Sample ID: 246336006

Sample Date/Time: Friday, February 26, 2010 17:34:54

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950387|2|baj

Method File: c:\elandata\Method\only.mth

Dataset File: c:\elandata\Dataset\100224\246336006.759

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		632218	632218.057
[ U	238	38.481	ug/L	1.363	2004872	3.170

### 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 % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[> Lu	175			96.8		
[ 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: 246336006

Report Date/Time: Friday, February 26, 2010 17:35:07

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Friday, February 26, 2010 17:36:36

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 6.760

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		650669	650668.691
[	U	238	48.335	ug/L	1.280	2591578	3.982

### 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 % Dil	Duplicate Rel.	% Difference
[>	Lu	175		99.6				
[	U	238	96.671					

### 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: Friday, February 26, 2010 17:36:47

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Friday, February 26, 2010 17:38:17

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 7.761

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		595774	595773.555
[	U	238	0.004	ug/L	6.725	831	0.000

### 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					91.2					
[	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: 246336007

Sample Date/Time: Friday, February 26, 2010 17:40:29

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950387|2|baj

Method File: c:\elandata\Method\only.mth

Dataset File: c:\elandata\Dataset\100224\246336007.762

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		646505	646505.350
[ U	238	12.390	ug/L	0.303	660601	1.021

### 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 % Dil	Duplicate Rel.	% Difference
[> Lu	175		99.0				
[ 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: 246336007

Report Date/Time: Friday, February 26, 2010 17:40:43

Page 1

## ICPMS#5 - Summary Report

Sample ID: 246336008

Sample Date/Time: Friday, February 26, 2010 17:42:14

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950387|2|baj

Method File: c:\elandata\Method\only.mth

Dataset File: c:\elandata\Dataset\100224\246336008.763

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
> Lu	175		ug/L		643976	643976.404
[ U	238	5.927	ug/L	0.836	315154	0.488

### 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 % Recovery	Dilution % Dil	Duplicate Rel. % Difference
> Lu	175			98.6		
[ 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: 246336008

Report Date/Time: Friday, February 26, 2010 17:42:28

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Friday, February 26, 2010 17:47:26

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 6.766

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		652888	652888.301
[	U	238	47.913	ug/L	0.532	2577896	3.947

### 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 % Dil	Duplicate Rel. % Difference
[>	Lu	175		99.9			
[	U	238	95.826				

### 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: Friday, February 26, 2010 17:47:37

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Friday, February 26, 2010 17:49:07

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 7.767

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		603921	603920.519
[ U	238	0.004	ug/L	7.541	826	0.000

### 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 % Dil	Duplicate Rel. % Difference
[> Lu	175		92.4			
[ 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: Friday, February 26, 2010 17:49:19

Page 1

## ICPMS#5 - Summary Report

Sample ID: 246336001

Sample Date/Time: Friday, February 26, 2010 17:50:49

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950387|20|baj

Method File: c:\elandata\Method\only.mth

Dataset File: c:\elandata\Dataset\100224\246336001.768

### Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu 175		ug/L		617192	617192.039
[	U 238	21.440	ug/L	0.225	1090846	1.766

### Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

### QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Lu 175		94.5			
[	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: 246336001

Report Date/Time: Friday, February 26, 2010 17:51:01

Page 1

## ICPMS#5 - Summary Report

Sample ID: 1202036670

Sample Date/Time: Friday, February 26, 2010 17:52:32

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 950387|20|baj

Method File: c:\elandata\Method\only.mth

Dataset File: c:\elandata\Dataset\100224\1202036670.769

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		621178	621178.413
[	U	238	32.903	ug/L	1.237	1684410	2.711

### 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		95.1			
[	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

Sample ID: 1202036670

Report Date/Time: Friday, February 26, 2010 17:52:44

Page 1

## ICPMS#5 - Summary Report

Sample ID: 1202036672

Sample Date/Time: Friday, February 26, 2010 17:54:15

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 950387|20|baj

Method File: c:\elandata\Method\lu only.mth

Dataset File: c:\elandata\Dataset\100224\1202036672.770

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		610788	610788.261
[ U	238	31.432	ug/L	1.007	1582342	2.590

### 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 % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[> Lu	175		93.5			
[ 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

Sample ID: 1202036672

Report Date/Time: Friday, February 26, 2010 17:54:27

Page 1

## ICPMS#5 - Summary Report

Sample ID: 1202036673

Sample Date/Time: Friday, February 26, 2010 17:55:58

Sample Type:

Sample Description: LANL 6020 MSD

Number of Replicates: 3

Batch ID: 950387|20|baj

Method File: c:\elandata\Method\lu only.mth

Dataset File: c:\elandata\Dataset\100224\1202036673.771

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		605393	605392.905
[ U	238	34.636	ug/L	0.957	1727943	2.854

### 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 % Dil	Duplicate Rel. % Difference
[> Lu	175		92.7			
[ 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: 1202036673

Report Date/Time: Friday, February 26, 2010 17:56:11

Page 1



## ICPMS#5 - Summary Report

Sample ID: 1202036671

Sample Date/Time: Friday, February 26, 2010 17:57:43

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 950387|100|baj

Method File: c:\elandata\Method\lu only.mth

Dataset File: c:\elandata\Dataset\100224\1202036671.772

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		596821	596821.000
[	U	238	4.628	ug/L	1.783	228138	0.381

### 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 % Dil	Duplicate Rel. % Difference
[>	Lu	175		91.4			
[	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: 1202036671

Report Date/Time: Friday, February 26, 2010 17:57:56

Page 1

## ICPMS#5 - Summary Report

Sample ID: 246336002

Sample Date/Time: Friday, February 26, 2010 17:59:27

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950387[50]baj

Method File: c:\elandata\Method\lu only.mth

Dataset File: c:\elandata\Dataset\100224\246336002.773

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		641741	641741.383
[ U	238	77.367	ug/L	1.420	4090573	6.374

### 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 % Dil	Duplicate Rel. % Difference
[> Lu	175		98.2			
[ 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: 246336002

Report Date/Time: Friday, February 26, 2010 17:59:41

Page 1

## ICPMS#5 - Summary Report

Sample ID: 246336009

Sample Date/Time: Friday, February 26, 2010 18:01:13

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 950387[20]baj

Method File: c:\elandata\Method\only.mth

Dataset File: c:\elandata\Dataset\100224\246336009.774

### Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		638804	638804.348
[	U	238	20.740	ug/L	1.315	1092075	1.709

### 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 % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175			97.8		
[	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: 246336009

Report Date/Time: Friday, February 26, 2010 18:01:27

Page 1

## ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Friday, February 26, 2010 18:02:56

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 6.775

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		596271	596271.427
[ U	238	52.845	ug/L	1.186	2596581	4.354

### 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 % Dil	Duplicate Rel.	% Difference
[> Lu	175		91.3				
[ U	238	105.691					

### 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 7

Sample Date/Time: Friday, February 26, 2010 18:04:37

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\w only.mth

Dataset File: c:\elandata\Dataset\100224\QC Std 7.776

### Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		626749	626748.843
[ U	238	0.005	ug/L	7.185	892	0.000

### 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		95.9			
[ 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

Sample ID: QC Std 7

Report Date/Time: Friday, February 26, 2010 18:04:49

Page 1

=====  
Analysis BegunLogged In Analyst: Administrator  
Spectrometer Model: FIMS-100, S/N B050-9550Technique: AA FIMS-MHS  
Autosampler Model: S10

Sample Information File: C:\data-AA\Administrator\Sample Information\022210S1.SIF

Batch ID:

Results Data Set: 022210S1

Results Library: C:\data-AA\Administrator\Results\Results.mdb

=====  
Method Loaded

Method Name: SOIL

Method Last Saved: 1/4/2010 13:53:20

Method Description: 7471A, ILM04 ANALYST JXL

Sequence No.: 1

Sample ID: Calib Blank

Analyst:

Autosampler Location: 1

Date Collected: 2/22/2010 09:10:53

Data Type: Original

-----  
Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0004	0.0039	0.0004	09:11:45	Yes
2		[0.00]	0.0002	0.0015	0.0002	09:12:15	Yes
Mean:		[0.00]	0.0003				
SD:		0.00	0.0002				
%RSD:		0.00	53.64				

  
Auto-zero performed.

Sequence No.: 2

Sample ID: S0.2

Analyst:

Autosampler Location: 2

Date Collected: 2/22/2010 09:12:34

Data Type: Original

-----  
Replicate Data: S0.2

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0025	0.0130	0.0028	09:13:24	Yes
2		[0.2]	0.0024	0.0118	0.0027	09:13:54	Yes
Mean:		[0.2]	0.0025				
SD:		0.0	0.0001				
%RSD:		0.0	2.95				

  
Standard number 1 applied. [0.2]  
Correlation Coef.: 1.000000 Slope: 0.01227 Intercept: 0.00000

Sequence No.: 3

Sample ID: S0.5

Analyst:

Autosampler Location: 3

Date Collected: 2/22/2010 09:14:13

Data Type: Original

-----  
Replicate Data: S0.5

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0064	0.0296	0.0067	09:15:04	Yes
2		[0.5]	0.0064	0.0296	0.0067	09:15:34	Yes
Mean:		[0.5]	0.0064				
SD:		0.0	0.0000				
%RSD:		0.0	0.76				

  
Standard number 2 applied. [0.5]  
Correlation Coef.: 0.999833 Slope: 0.01281 Intercept: -0.00004

Sequence No.: 4

Sample ID: S2.0

Analyst:

Autosampler Location: 4

Date Collected: 2/22/2010 09:15:53

Data Type: Original

-----  
Replicate Data: S2.0

Repl #	SampleConc ug/L	StdndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0266	0.1214	0.0270	09:16:44	Yes
2		[2.0]	0.0268	0.1221	0.0271	09:17:14	Yes
Mean:		[2.0]	0.0267				
SD:		0.0	0.0001				
%RSD:		0.0	0.39				

Standard number 3 applied. [2.0]  
Correlation Coef.: 0.999935 Slope: 0.01342 Intercept: -0.00017

Sequence No.: 5  
Sample ID: S5.0  
Analyst:

Autosampler Location: 5  
Date Collected: 2/22/2010 09:17:34  
Data Type: Original

-----  
Replicate Data: S5.0

Repl #	SampleConc ug/L	StdndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0658	0.2999	0.0661	09:18:25	Yes
2		[5.0]	0.0654	0.2990	0.0657	09:18:55	Yes
Mean:		[5.0]	0.0656				
SD:		0.0	0.0003				
%RSD:		0.0	0.39				

Standard number 4 applied. [5.0]  
Correlation Coef.: 0.999956 Slope: 0.01315 Intercept: -0.00003

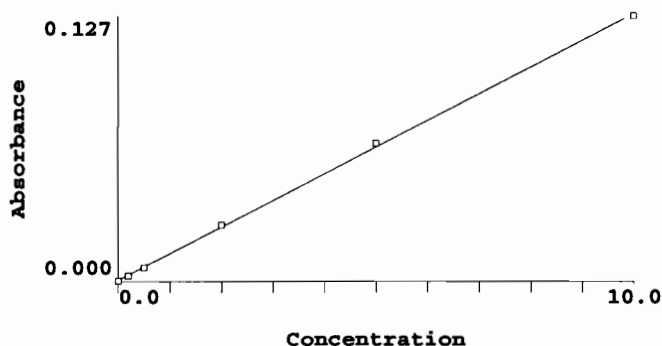
Sequence No.: 6  
Sample ID: S10.0  
Analyst:

Autosampler Location: 6  
Date Collected: 2/22/2010 09:19:16  
Data Type: Original

-----  
Replicate Data: S10.0

Repl #	SampleConc ug/L	StdndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1267	0.5827	0.1270	09:20:06	Yes
2		[10.0]	0.1264	0.5788	0.1267	09:20:36	Yes
Mean:		[10.0]	0.1266				
SD:		0.0	0.0002				
%RSD:		0.0	0.18				

Standard number 5 applied. [10.0]  
Correlation Coef.: 0.999803 Slope: 0.01270 Intercept: 0.00049

-----  
Calibration data for Hg 253.7

Equation: Linear, Calculated Intercept

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.038	0.00	53.6
S0.2	0.0025	0.2	0.155	0.00	2.9
S0.5	0.0064	0.5	0.465	0.00	0.8
S2.0	0.0267	2.0	2.066	0.00	0.4

S5.0	0.0656	5.0	5.126	0.00	0.4
S10.0	0.1266	10.0	9.926	0.00	0.2

Correlation Coef.: 0.999803    Slope: 0.01270    Intercept: 0.00049

Sequence No.: 7

Autosampler Location: 9

Sample ID: ICV

Date Collected: 2/22/2010 09:20:55

Analyst:

Data Type: Original

## Replicate Data: ICV

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.163	5.163	0.0661	0.3028	0.0664	09:21:46	Yes
2	5.137	5.137	0.0657	0.3006	0.0660	09:22:15	Yes
Mean:	5.150	5.150	0.0659				
SD:	0.019	0.019	0.0002				
%RSD:	0.366	0.366	0.36				

QC value within limits for Hg 253.7    Recovery = 103.00%  
All analyte(s) passed QC.

Sequence No.: 8

Autosampler Location: 10

Sample ID: ICB

Date Collected: 2/22/2010 09:22:35

Analyst:

Data Type: Original

## Replicate Data: ICB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.059	-0.059	-0.0003	-0.0018	0.0001	09:23:26	Yes
2	-0.054	-0.054	-0.0002	-0.0015	0.0001	09:23:56	Yes
Mean:	-0.056	-0.056	-0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	6.211	6.211	19.49				

QC value within limits for Hg 253.7    Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 9

Autosampler Location: 11

Sample ID: CRDL

Date Collected: 2/22/2010 09:24:16

Analyst:

Data Type: Original

## Replicate Data: CRDL

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.155	0.155	0.0025	0.0117	0.0028	09:25:07	Yes
2	0.147	0.147	0.0024	0.0106	0.0027	09:25:37	Yes
Mean:	0.151	0.151	0.0024				
SD:	0.006	0.006	0.0001				
%RSD:	3.846	3.846	3.07				

QC value within limits for Hg 253.7    Recovery = 75.56%  
All analyte(s) passed QC.

Sequence No.: 10

Autosampler Location: 7

Sample ID: CCV

Date Collected: 2/22/2010 09:25:57

Analyst:

Data Type: Original

## Replicate Data: CCV

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.065	5.065	0.0648	0.2977	0.0651	09:26:47	Yes
2	5.044	5.044	0.0645	0.2946	0.0649	09:27:17	Yes
Mean:	5.055	5.055	0.0647				
SD:	0.015	0.015	0.0002				
%RSD:	0.296	0.296	0.29				

QC value within limits for Hg 253.7    Recovery = 101.09%  
All analyte(s) passed QC.



Sequence No.: 11

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 2/22/2010 09:27:36

Data Type: Original

## Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.057	-0.057	-0.0002	-0.0011	0.0001	09:28:26	Yes
2	-0.063	-0.063	-0.0003	-0.0019	0.0000	09:28:56	Yes
Mean:	-0.060	-0.060	-0.0003				
SD:	0.004	0.004	0.0000				
%RSD:	6.512	6.512	17.97				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 12

Sample ID: 1202039119|951482|1

Analyst: JXL

Autosampler Location: 12

Date Collected: 2/22/2010 09:29:16

Data Type: Original

## Replicate Data: 1202039119|951482|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.060	-0.060	-0.0003	-0.0016	0.0000	09:30:08	Yes
2	-0.057	-0.057	-0.0002	-0.0007	0.0001	09:30:37	Yes
Mean:	-0.058	-0.058	-0.0003				
SD:	0.003	0.003	0.0000				
%RSD:	4.517	4.517	13.10				

Sequence No.: 13

Sample ID: 1202039120|951482|10

Analyst: JXL

Autosampler Location: 13

Date Collected: 2/22/2010 09:30:58

Data Type: Original

## Replicate Data: 1202039120|951482|10

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	3.981	3.981	0.0510	0.2348	0.0514	09:31:50	Yes
2	3.964	3.964	0.0508	0.2328	0.0511	09:32:20	Yes
Mean:	3.972	3.972	0.0509				
SD:	0.012	0.012	0.0002				
%RSD:	0.302	0.302	0.30				

Sequence No.: 14

Sample ID: 246354001|951482|1

Analyst: JXL

Autosampler Location: 14

Date Collected: 2/22/2010 09:32:40

Data Type: Original

## Replicate Data: 246354001|951482|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.212	0.212	0.0032	0.0151	0.0035	09:33:31	Yes
2	0.210	0.210	0.0031	0.0144	0.0035	09:34:01	Yes
Mean:	0.211	0.211	0.0032				
SD:	0.002	0.002	0.0000				
%RSD:	0.960	0.960	0.81				

Sequence No.: 15

Sample ID: 246354002|951482|1

Analyst: JXL

Autosampler Location: 15

Date Collected: 2/22/2010 09:34:20

Data Type: Original

## Replicate Data: 246354002|951482|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
------	------------	---------	---------	------	------	------	------

-----  
Replicate Data: 246354007|951482|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.215	0.215	0.0032	0.0155	0.0035	09:43:28	Yes
2	0.217	0.217	0.0032	0.0156	0.0036	09:43:58	Yes
Mean:	0.216	0.216	0.0032				
SD:	0.002	0.002	0.0000				
%RSD:	0.955	0.955	0.81				

Sequence No.: 21

Autosampler Location: 21

Sample ID: 246354008|951482|1

Date Collected: 2/22/2010 09:44:17

Analyst: JXL

Data Type: Original

-----  
Replicate Data: 246354008|951482|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.193	0.193	0.0029	0.0149	0.0032	09:45:08	Yes
2	0.196	0.196	0.0030	0.0157	0.0033	09:45:38	Yes
Mean:	0.195	0.195	0.0030				
SD:	0.003	0.003	0.0000				
%RSD:	1.377	1.377	1.15				

Sequence No.: 22

Autosampler Location: 7

Sample ID: CCV

Date Collected: 2/22/2010 09:45:58

Analyst:

Data Type: Original

-----  
Replicate Data: CCV

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.013	5.013	0.0641	0.2931	0.0645	09:46:48	Yes
2	4.982	4.982	0.0638	0.2911	0.0641	09:47:18	Yes
Mean:	4.997	4.997	0.0639				
SD:	0.022	0.022	0.0003				
%RSD:	0.441	0.441	0.44				

QC value within limits for Hg 253.7 Recovery = 99.94%  
All analyte(s) passed QC.

Sequence No.: 23

Autosampler Location: 8

Sample ID: CCB

Date Collected: 2/22/2010 09:47:37

Analyst:

Data Type: Original

-----  
Replicate Data: CCB

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.050	-0.050	-0.0001	0.0008	0.0002	09:48:28	Yes
2	-0.048	-0.048	-0.0001	0.0011	0.0002	09:48:58	Yes
Mean:	-0.049	-0.049	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	2.111	2.111	9.57				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 24

Autosampler Location: 22

Sample ID: 246354009|951482|1

Date Collected: 2/22/2010 09:49:17

Analyst: JXL

Data Type: Original

-----  
Replicate Data: 246354009|951482|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.192	0.192	0.0029	0.0145	0.0032	09:50:09	Yes
2	0.189	0.189	0.0029	0.0142	0.0032	09:50:39	Yes

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.186	2.186	0.0283	0.1317	0.0286	09:58:34	Yes
2	2.176	2.176	0.0281	0.1305	0.0284	09:59:04	Yes
Mean:	2.181	2.181	0.0282				
SD:	0.008	0.008	0.0001				
%RSD:	0.344	0.344	0.34				

Sequence No.: 30

Autosampler Location: 28

Sample ID: 1202039129|951482|1

Date Collected: 2/22/2010 09:59:23

Analyst: JXL

Data Type: Original

Replicate Data: 1202039129|951482|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.225	2.225	0.0287	0.1337	0.0291	10:00:14	Yes
2	2.228	2.228	0.0288	0.1333	0.0291	10:00:44	Yes
Mean:	2.227	2.227	0.0288				
SD:	0.002	0.002	0.0000				
%RSD:	0.072	0.072	0.07				

Sequence No.: 31

Autosampler Location: 29

Sample ID: 1202039128|951482|5

Date Collected: 2/22/2010 10:01:03

Analyst: JXL

Data Type: Original

Replicate Data: 1202039128|951482|5

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.013	-0.013	0.0003	0.0020	0.0006	10:01:54	Yes
2	-0.008	-0.008	0.0004	0.0029	0.0007	10:02:23	Yes
Mean:	-0.011	-0.011	0.0003				
SD:	0.003	0.003	0.0000				
%RSD:	30.67	30.67	12.01				

Sequence No.: 32

Autosampler Location: 30

Sample ID: 246452002|951482|1

Date Collected: 2/22/2010 10:02:43

Analyst: JXL

Data Type: Original

Replicate Data: 246452002|951482|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.266	0.266	0.0039	0.0191	0.0042	10:03:33	Yes
2	0.265	0.265	0.0038	0.0189	0.0042	10:04:03	Yes
Mean:	0.266	0.266	0.0039				
SD:	0.001	0.001	0.0000				
%RSD:	0.492	0.492	0.43				

Sequence No.: 33

Autosampler Location: 31

Sample ID: 246452003|951482|1

Date Collected: 2/22/2010 10:04:22

Analyst: JXL

Data Type: Original

Replicate Data: 246452003|951482|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.614	0.614	0.0083	0.0391	0.0086	10:05:13	Yes
2	0.615	0.615	0.0083	0.0390	0.0086	10:05:43	Yes
Mean:	0.615	0.615	0.0083				
SD:	0.001	0.001	0.0000				
%RSD:	0.120	0.120	0.11				

Sequence No.: 34

Autosampler Location: 7

Sample ID: CCV

Date Collected: 2/22/2010 10:06:02

Analyst:

Data Type: Original

-----  
Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.056	5.056	0.0647	0.2940	0.0650	10:06:53	Yes
2	5.026	5.026	0.0643	0.2919	0.0646	10:07:23	Yes
Mean:	5.041	5.041	0.0645				
SD:	0.021	0.021	0.0003				
%RSD:	0.413	0.413	0.41				

QC value within limits for Hg 253.7 Recovery = 100.82%  
All analyte(s) passed QC.

=====

Sequence No.: 35

Autosampler Location: 8

Sample ID: CCB

Date Collected: 2/22/2010 10:07:42

Analyst:

Data Type: Original

-----  
Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.045	-0.045	-0.0001	0.0014	0.0002	10:08:32	Yes
2	-0.052	-0.052	-0.0002	0.0004	0.0001	10:09:02	Yes
Mean:	-0.049	-0.049	-0.0001				
SD:	0.005	0.005	0.0001				
%RSD:	10.34	10.34	49.00				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

=====

Sequence No.: 36

Autosampler Location: 32

Sample ID: 246452004|951482|1

Date Collected: 2/22/2010 10:09:21

Analyst: JXL

Data Type: Original

-----  
Replicate Data: 246452004|951482|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.312	0.312	0.0044	0.0217	0.0048	10:10:13	Yes
2	0.306	0.306	0.0044	0.0208	0.0047	10:10:43	Yes
Mean:	0.309	0.309	0.0044				
SD:	0.004	0.004	0.0000				
%RSD:	1.188	1.188	1.06				

=====

Sequence No.: 37

Autosampler Location: 33

Sample ID: 246452005|951482|1

Date Collected: 2/22/2010 10:11:02

Analyst: JXL

Data Type: Original

-----  
Replicate Data: 246452005|951482|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.291	0.291	0.0042	0.0201	0.0045	10:11:53	Yes
2	0.292	0.292	0.0042	0.0201	0.0045	10:12:23	Yes
Mean:	0.291	0.291	0.0042				
SD:	0.001	0.001	0.0000				
%RSD:	0.301	0.301	0.27				

=====

Sequence No.: 38

Autosampler Location: 34

Sample ID: 246452006|951482|1

Date Collected: 2/22/2010 10:12:43

Analyst: JXL

Data Type: Original

-----  
Replicate Data: 246452006|951482|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.195	0.195	0.0030	0.0152	0.0033	10:13:34	Yes

## Replicate Data: 1202039279|951546|10

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	3.679	3.679	0.0472	0.2153	0.0475	10:21:59	Yes
2	3.681	3.681	0.0472	0.2140	0.0476	10:22:29	Yes
Mean:	3.680	3.680	0.0472				
SD:	0.002	0.002	0.0000				
%RSD:	0.043	0.043	0.04				

Sequence No.: 44

Sample ID: 246055001|951546|1

Analyst: JXL

Autosampler Location: 40

Date Collected: 2/22/2010 10:22:49

Data Type: Original

## Replicate Data: 246055001|951546|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.235	0.235	0.0035	0.0168	0.0038	10:23:39	Yes
2	0.234	0.234	0.0035	0.0169	0.0038	10:24:09	Yes
Mean:	0.235	0.235	0.0035				
SD:	0.000	0.000	0.0000				
%RSD:	0.079	0.079	0.07				

Sequence No.: 45

Sample ID: 1202039280|951546|1

Analyst: JXL

Autosampler Location: 41

Date Collected: 2/22/2010 10:24:29

Data Type: Original

## Replicate Data: 1202039280|951546|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.078	0.078	0.0015	0.0080	0.0018	10:25:20	Yes
2	0.078	0.078	0.0015	0.0078	0.0018	10:25:50	Yes
Mean:	0.078	0.078	0.0015				
SD:	0.000	0.000	0.0000				
%RSD:	0.484	0.484	0.33				

Sequence No.: 46

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 2/22/2010 10:26:09

Data Type: Original

## Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.123	5.123	0.0656	0.2977	0.0659	10:27:00	Yes
2	5.104	5.104	0.0653	0.2968	0.0656	10:27:30	Yes
Mean:	5.114	5.114	0.0654				
SD:	0.014	0.014	0.0002				
%RSD:	0.275	0.275	0.27				

QC value within limits for Hg 253.7 Recovery = 102.27%  
All analyte(s) passed QC.

Sequence No.: 47

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 2/22/2010 10:27:49

Data Type: Original

## Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.050	-0.050	-0.0002	0.0007	0.0002	10:28:39	Yes
2	-0.052	-0.052	-0.0002	0.0004	0.0001	10:29:09	Yes
Mean:	-0.051	-0.051	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	1.698	1.698	6.85				

QC value within limits for Hg 253.7 Recovery = Not calculated

-----  
Replicate Data: 246055008|951546|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.143	0.143	0.0023	0.0118	0.0026	10:45:29	Yes
2	0.146	0.146	0.0023	0.0124	0.0027	10:45:59	Yes
Mean:	0.144	0.144	0.0023				
SD:	0.002	0.002	0.0000				
%RSD:	1.723	1.723	1.36				

Sequence No.: 58

Autosampler Location: 7

Sample ID: CCV

Date Collected: 2/22/2010 10:46:18

Analyst:

Data Type: Original  
-----

## Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.173	5.173	0.0662	0.2986	0.0665	10:47:08	Yes
2	5.219	5.219	0.0668	0.2990	0.0671	10:47:38	Yes
Mean:	5.196	5.196	0.0665				
SD:	0.033	0.033	0.0004				
%RSD:	0.630	0.630	0.63				

QC value within limits for Hg 253.7 Recovery = 103.92%  
All analyte(s) passed QC.  
-----

Sequence No.: 59

Autosampler Location: 8

Sample ID: CCB

Date Collected: 2/22/2010 10:47:57

Analyst:

Data Type: Original  
-----

## Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.047	-0.047	-0.0001	0.0014	0.0002	10:48:48	Yes
2	-0.049	-0.049	-0.0001	0.0010	0.0002	10:49:18	Yes
Mean:	-0.048	-0.048	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	3.335	3.335	16.87				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.  
-----

Sequence No.: 60

Autosampler Location: 52

Sample ID: 246055009|951546|1

Date Collected: 2/22/2010 10:49:37

Analyst: JXL

Data Type: Original  
-----

## Replicate Data: 246055009|951546|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.293	0.293	0.0042	0.0202	0.0045	10:50:28	Yes
2	0.291	0.291	0.0042	0.0196	0.0045	10:50:58	Yes
Mean:	0.292	0.292	0.0042				
SD:	0.002	0.002	0.0000				
%RSD:	0.666	0.666	0.59				

Sequence No.: 61

Autosampler Location: 53

Sample ID: 1202039295|951551|1

Date Collected: 2/22/2010 10:51:17

Analyst: JXL

Data Type: Original  
-----

## Replicate Data: 1202039295|951551|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.050	-0.050	-0.0001	0.0009	0.0002	10:52:08	Yes
2	-0.047	-0.047	-0.0001	0.0014	0.0002	10:52:38	Yes
Mean:	-0.049	-0.049	-0.0001				

#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.421	2.421	0.0312	0.1398	0.0315	11:00:33	Yes
2	2.409	2.409	0.0311	0.1392	0.0314	11:01:03	Yes
Mean:	2.415	2.415	0.0312				
SD:	0.008	0.008	0.0001				
%RSD:	0.333	0.333	0.33				

Sequence No.: 67  
Sample ID: 1202039299|951551|5  
Analyst: JXL  
Autosampler Location: 59  
Date Collected: 2/22/2010 11:01:22  
Data Type: Original

## Replicate Data: 1202039299|951551|5

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.000	0.000	0.0005	0.0034	0.0008	11:02:14	Yes
2	0.003	0.003	0.0005	0.0034	0.0008	11:02:44	Yes
Mean:	0.001	0.001	0.0005				
SD:	0.002	0.002	0.0000				
%RSD:	149.8	149.8	5.53				

Sequence No.: 68  
Sample ID: 246066002|951551|1  
Analyst: JXL  
Autosampler Location: 60  
Date Collected: 2/22/2010 11:03:04  
Data Type: Original

## Replicate Data: 246066002|951551|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.208	0.208	0.0031	0.0155	0.0034	11:03:56	Yes
2	0.208	0.208	0.0031	0.0152	0.0034	11:04:26	Yes
Mean:	0.208	0.208	0.0031				
SD:	0.000	0.000	0.0000				
%RSD:	0.196	0.196	0.17				

Sequence No.: 69  
Sample ID: 246066003|951551|1  
Analyst: JXL  
Autosampler Location: 61  
Date Collected: 2/22/2010 11:04:46  
Data Type: Original

## Replicate Data: 246066003|951551|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.196	0.196	0.0030	0.0147	0.0033	11:05:38	Yes
2	0.189	0.189	0.0029	0.0144	0.0032	11:06:08	Yes
Mean:	0.193	0.193	0.0029				
SD:	0.005	0.005	0.0001				
%RSD:	2.670	2.670	2.23				

Sequence No.: 70  
Sample ID: CCV  
Analyst:  
Autosampler Location: 7  
Date Collected: 2/22/2010 11:06:28  
Data Type: Original

## Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.198	5.198	0.0665	0.2949	0.0668	11:07:18	Yes
2	5.157	5.157	0.0660	0.2914	0.0663	11:07:48	Yes
Mean:	5.177	5.177	0.0662				
SD:	0.029	0.029	0.0004				
%RSD:	0.555	0.555	0.55				

QC value within limits for Hg 253.7 Recovery = 103.54%  
All analyte(s) passed QC.

Sequence No.: 71  
Autosampler Location: 8

Sample ID: CCB  
Analyst:

Date Collected: 2/22/2010 11:08:07  
Data Type: Original

-----  
Replicate Data: CCB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.051	-0.051	-0.0002	0.0008	0.0002	11:08:58	Yes
2	-0.059	-0.059	-0.0003	-0.0005	0.0001	11:09:28	Yes
Mean:	-0.055	-0.055	-0.0002				
SD:	0.006	0.006	0.0001				
%RSD:	10.73	10.73	35.82				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

## =====

Sequence No.: 72  
Sample ID: 246066004|951551|1  
Analyst: JXL

Autosampler Location: 62  
Date Collected: 2/22/2010 11:09:47  
Data Type: Original

-----  
Replicate Data: 246066004|951551|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.397	0.397	0.0055	0.0260	0.0058	11:10:38	Yes
2	0.396	0.396	0.0055	0.0259	0.0058	11:11:08	Yes
Mean:	0.397	0.397	0.0055				
SD:	0.001	0.001	0.0000				
%RSD:	0.217	0.217	0.20				

## =====

Sequence No.: 73  
Sample ID: 246066005|951551|1  
Analyst: JXL

Autosampler Location: 63  
Date Collected: 2/22/2010 11:11:28  
Data Type: Original

-----  
Replicate Data: 246066005|951551|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.055	0.055	0.0012	0.0065	0.0015	11:12:19	Yes
2	0.058	0.058	0.0012	0.0067	0.0015	11:12:49	Yes
Mean:	0.056	0.056	0.0012				
SD:	0.002	0.002	0.0000				
%RSD:	3.337	3.337	1.99				

## =====

Sequence No.: 74  
Sample ID: 246066006|951551|1  
Analyst: JXL

Autosampler Location: 64  
Date Collected: 2/22/2010 11:13:09  
Data Type: Original

-----  
Replicate Data: 246066006|951551|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.544	0.544	0.0074	0.0341	0.0077	11:14:00	Yes
2	0.536	0.536	0.0073	0.0334	0.0076	11:14:29	Yes
Mean:	0.540	0.540	0.0073				
SD:	0.005	0.005	0.0001				
%RSD:	0.997	0.997	0.93				

## =====

Sequence No.: 75  
Sample ID: 246066007|951551|1  
Analyst: JXL

Autosampler Location: 65  
Date Collected: 2/22/2010 11:14:49  
Data Type: Original

-----  
Replicate Data: 246066007|951551|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	0.0005	0.0037	0.0008	11:15:40	Yes
2	-0.006	-0.006	0.0004	0.0030	0.0007	11:16:10	Yes



Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.221	0.221	0.0033	0.0163	0.0036	11:24:05	Yes
2	0.222	0.222	0.0033	0.0160	0.0036	11:24:35	Yes
Mean:	0.222	0.222	0.0033				
SD:	0.001	0.001	0.0000				
%RSD:	0.315	0.315	0.27				

Sequence No.: 81

Sample ID: 246066013|951551|1

Analyst: JXL

Autosampler Location: 71

Date Collected: 2/22/2010 11:24:55

Data Type: Original

Replicate Data: 246066013|951551|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.231	0.231	0.0034	0.0169	0.0037	11:25:46	Yes
2	0.231	0.231	0.0034	0.0169	0.0037	11:26:16	Yes
Mean:	0.231	0.231	0.0034				
SD:	0.000	0.000	0.0000				
%RSD:	0.178	0.178	0.15				

Sequence No.: 82

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 2/22/2010 11:26:36

Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.134	5.134	0.0657	0.2970	0.0660	11:27:26	Yes
2	5.183	5.183	0.0663	0.2978	0.0666	11:27:56	Yes
Mean:	5.158	5.158	0.0660				
SD:	0.035	0.035	0.0004				
%RSD:	0.675	0.675	0.67				

QC value within limits for Hg 253.7 Recovery = 103.17%

All analyte(s) passed QC.

Sequence No.: 83

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 2/22/2010 11:28:15

Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.051	-0.051	-0.0002	0.0004	0.0002	11:29:06	Yes
2	-0.051	-0.051	-0.0002	0.0006	0.0001	11:29:36	Yes
Mean:	-0.051	-0.051	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	0.992	0.992	3.97				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 84

Sample ID: 246066014|951551|1

Analyst: JXL

Autosampler Location: 72

Date Collected: 2/22/2010 11:29:55

Data Type: Original

Replicate Data: 246066014|951551|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.276	0.276	0.0040	0.0192	0.0043	11:30:47	Yes
2	0.275	0.275	0.0040	0.0193	0.0043	11:31:17	Yes
Mean:	0.275	0.275	0.0040				
SD:	0.001	0.001	0.0000				
%RSD:	0.223	0.223	0.20				

2	0.359	0.359	0.0050	0.0246	0.0054	11:39:44	Yes
Mean:	0.358	0.358	0.0050				
SD:	0.001	0.001	0.0000				
%RSD:	0.399	0.399	0.36				

Sequence No.: 90

Autosampler Location: 78

Sample ID: 246066020|951551|1

Date Collected: 2/22/2010 11:40:04

Analyst: JXL

Data Type: Original

Replicate Data: 246066020|951551|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.204	0.204	0.0031	0.0155	0.0034	11:40:56	Yes
2	0.203	0.203	0.0031	0.0153	0.0034	11:41:26	Yes
Mean:	0.203	0.203	0.0031				
SD:	0.001	0.001	0.0000				
%RSD:	0.295	0.295	0.25				

Sequence No.: 91

Autosampler Location: 79

Sample ID: 1202039372|951590|1

Date Collected: 2/22/2010 11:41:46

Analyst: JXL

Data Type: Original

Replicate Data: 1202039372|951590|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.049	-0.049	-0.0001	0.0008	0.0002	11:42:37	Yes
2	-0.050	-0.050	-0.0001	0.0008	0.0002	11:43:07	Yes
Mean:	-0.049	-0.049	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	1.906	1.906	8.54				

Sequence No.: 92

Autosampler Location: 80

Sample ID: 1202039373|951590|10

Date Collected: 2/22/2010 11:43:27

Analyst: JXL

Data Type: Original

Replicate Data: 1202039373|951590|10

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.482	3.482	0.0447	0.2028	0.0450	11:44:18	Yes
2	3.463	3.463	0.0445	0.2014	0.0448	11:44:48	Yes
Mean:	3.472	3.472	0.0446				
SD:	0.013	0.013	0.0002				
%RSD:	0.380	0.380	0.38				

Sequence No.: 93

Autosampler Location: 81

Sample ID: 246315001|951590|1

Date Collected: 2/22/2010 11:45:08

Analyst: JXL

Data Type: Original

Replicate Data: 246315001|951590|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.268	0.268	0.0039	0.0189	0.0042	11:45:59	Yes
2	0.268	0.268	0.0039	0.0192	0.0042	11:46:29	Yes
Mean:	0.268	0.268	0.0039				
SD:	0.000	0.000	0.0000				
%RSD:	0.025	0.025	0.02				

Sequence No.: 94

Autosampler Location: 7

Sample ID: CCV

Date Collected: 2/22/2010 11:46:49

Analyst:

Data Type: Original

## Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.179	5.179	0.0663	0.2999	0.0666	11:47:39	Yes
2	5.174	5.174	0.0662	0.2995	0.0665	11:48:09	Yes
Mean:	5.176	5.176	0.0662				
SD:	0.004	0.004	0.0000				
%RSD:	0.068	0.068	0.07				

QC value within limits for Hg 253.7 Recovery = 103.53%

All analyte(s) passed QC.

Sequence No.: 95

Autosampler Location: 8

Sample ID: CCB

Date Collected: 2/22/2010 11:48:28

Analyst:

Data Type: Original

## Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.047	-0.047	-0.0001	0.0010	0.0002	11:49:18	Yes
2	-0.050	-0.050	-0.0001	0.0011	0.0002	11:49:48	Yes
Mean:	-0.048	-0.048	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	4.622	4.622	22.49				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 96

Autosampler Location: 82

Sample ID: 246315002|951590|1

Date Collected: 2/22/2010 11:50:07

Analyst: JXL

Data Type: Original

## Replicate Data: 246315002|951590|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.392	0.392	0.0055	0.0259	0.0058	11:50:59	Yes
2	0.393	0.393	0.0055	0.0259	0.0058	11:51:29	Yes
Mean:	0.392	0.392	0.0055				
SD:	0.000	0.000	0.0000				
%RSD:	0.024	0.024	0.02				

Sequence No.: 97

Autosampler Location: 83

Sample ID: 246315003|951590|1

Date Collected: 2/22/2010 11:51:49

Analyst: JXL

Data Type: Original

## Replicate Data: 246315003|951590|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	1.153	1.153	0.0151	0.0705	0.0154	11:52:41	Yes
2	1.142	1.142	0.0150	0.0688	0.0153	11:53:11	Yes
Mean:	1.147	1.147	0.0151				
SD:	0.008	0.008	0.0001				
%RSD:	0.668	0.668	0.65				

Sequence No.: 98

Autosampler Location: 84

Sample ID: 246322001|951590|1

Date Collected: 2/22/2010 11:53:31

Analyst: JXL

Data Type: Original

## Replicate Data: 246322001|951590|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.027	-0.027	0.0001	0.0018	0.0005	11:54:23	Yes
2	-0.027	-0.027	0.0001	0.0018	0.0005	11:54:52	Yes
Mean:	-0.027	-0.027	0.0001				
SD:	0.001	0.001	0.0000				

1	0.125	0.125	0.0021	0.0107	0.0024	12:02:50	Yes
2	0.123	0.123	0.0020	0.0102	0.0024	12:03:20	Yes
Mean:	0.124	0.124	0.0021				
SD:	0.002	0.002	0.0000				
%RSD:	1.423	1.423	1.09				

Sequence No.: 104

Autosampler Location: 90

Sample ID: 246322007|951590|1

Date Collected: 2/22/2010 12:03:40

Analyst: JXL

Data Type: Original

Replicate Data: 246322007|951590|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.003	0.003	0.0005	0.0040	0.0008	12:04:31	Yes
2	0.001	0.001	0.0005	0.0036	0.0008	12:05:01	Yes
Mean:	0.002	0.002	0.0005				
SD:	0.002	0.002	0.0000				
%RSD:	67.73	67.73	3.83				

Sequence No.: 105

Autosampler Location: 91

Sample ID: 246322008|951590|1

Date Collected: 2/22/2010 12:05:22

Analyst: JXL

Data Type: Original

Replicate Data: 246322008|951590|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.053	0.053	0.0012	0.0071	0.0015	12:06:14	Yes
2	0.053	0.053	0.0012	0.0069	0.0015	12:06:43	Yes
Mean:	0.053	0.053	0.0012				
SD:	0.000	0.000	0.0000				
%RSD:	0.089	0.089	0.05				

Sequence No.: 106

Autosampler Location: 7

Sample ID: CCV

Date Collected: 2/22/2010 12:07:04

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.198	5.198	0.0665	0.3022	0.0668	12:07:54	Yes
2	5.174	5.174	0.0662	0.3001	0.0665	12:08:24	Yes
Mean:	5.186	5.186	0.0663				
SD:	0.018	0.018	0.0002				
%RSD:	0.339	0.339	0.34				

QC value within limits for Hg 253.7 Recovery = 103.72%  
All analyte(s) passed QC.

Sequence No.: 107

Autosampler Location: 8

Sample ID: CCB

Date Collected: 2/22/2010 12:08:43

Analyst:

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.052	-0.052	-0.0002	0.0005	0.0001	12:09:33	Yes
2	-0.051	-0.051	-0.0002	0.0008	0.0002	12:10:03	Yes
Mean:	-0.051	-0.051	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	1.688	1.688	6.65				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.120	2.120	0.0274	0.1247	0.0277	12:26:31	Yes
2	2.114	2.114	0.0273	0.1239	0.0276	12:27:01	Yes
Mean:	2.117	2.117	0.0274				
SD:	0.005	0.005	0.0001				
%RSD:	0.226	0.226	0.22				

Sequence No.: 118

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 2/22/2010 12:27:21

Data Type: Original

## Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.178	5.178	0.0662	0.3008	0.0666	12:28:12	Yes
2	5.147	5.147	0.0658	0.2988	0.0662	12:28:42	Yes
Mean:	5.162	5.162	0.0660				
SD:	0.022	0.022	0.0003				
%RSD:	0.427	0.427	0.42				

QC value within limits for Hg 253.7 Recovery = 103.25%  
All analyte(s) passed QC.

Sequence No.: 119

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 2/22/2010 12:29:01

Data Type: Original

## Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.051	-0.051	-0.0002	0.0004	0.0001	12:29:52	Yes
2	-0.051	-0.051	-0.0002	0.0005	0.0002	12:30:22	Yes
Mean:	-0.051	-0.051	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.586	0.586	2.33				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 120

Sample ID: 1202039377|951590|1

Analyst: JXL

Autosampler Location: 102

Date Collected: 2/22/2010 12:30:41

Data Type: Original

## Replicate Data: 1202039377|951590|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.109	2.109	0.0273	0.1243	0.0276	12:31:33	Yes
2	2.116	2.116	0.0274	0.1251	0.0277	12:32:03	Yes
Mean:	2.112	2.112	0.0273				
SD:	0.005	0.005	0.0001				
%RSD:	0.216	0.216	0.21				

Sequence No.: 121

Sample ID: 1202039376|951590|5

Analyst: JXL

Autosampler Location: 103

Date Collected: 2/22/2010 12:32:24

Data Type: Original

## Replicate Data: 1202039376|951590|5

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.039	-0.039	-0.0000	0.0016	0.0003	12:33:15	Yes
2	-0.045	-0.045	-0.0001	0.0009	0.0002	12:33:45	Yes
Mean:	-0.042	-0.042	-0.0000				
SD:	0.004	0.004	0.0001				
%RSD:	9.835	9.835	108.28				

Sequence No.: 122

Sample ID: 246338002|951590|1

Analyst: JXL

Autosampler Location: 104

Date Collected: 2/22/2010 12:34:05

Data Type: Original

Replicate Data: 246338002|951590|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.232	0.232	0.0034	0.0168	0.0037	12:34:58	Yes
2	0.235	0.235	0.0035	0.0171	0.0038	12:35:28	Yes
Mean:	0.234	0.234	0.0035				
SD:	0.002	0.002	0.0000				
%RSD:	0.829	0.829	0.71				

Sequence No.: 123

Sample ID: 1202039383|951598|1

Analyst: JXL

Autosampler Location: 105

Date Collected: 2/22/2010 12:35:48

Data Type: Original

Replicate Data: 1202039383|951598|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.050	-0.050	-0.0001	0.0007	0.0002	12:36:40	Yes
2	-0.050	-0.050	-0.0002	0.0009	0.0002	12:37:10	Yes
Mean:	-0.050	-0.050	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.262	0.262	1.11				

Sequence No.: 124

Sample ID: 1202039384|951598|10

Analyst: JXL

Autosampler Location: 106

Date Collected: 2/22/2010 12:37:30

Data Type: Original

Replicate Data: 1202039384|951598|10

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	3.669	3.669	0.0471	0.2150	0.0474	12:38:22	Yes
2	3.651	3.651	0.0469	0.2135	0.0472	12:38:52	Yes
Mean:	3.660	3.660	0.0470				
SD:	0.013	0.013	0.0002				
%RSD:	0.353	0.353	0.35				

Sequence No.: 125

Sample ID: 246336001|951598|1

Analyst: JXL

Autosampler Location: 107

Date Collected: 2/22/2010 12:39:12

Data Type: Original

Replicate Data: 246336001|951598|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.180	0.180	0.0028	0.0137	0.0031	12:40:04	Yes
2	0.176	0.176	0.0027	0.0135	0.0030	12:40:34	Yes
Mean:	0.178	0.178	0.0028				
SD:	0.003	0.003	0.0000				
%RSD:	1.719	1.719	1.42				

Sequence No.: 126

Sample ID: 246336002|951598|1

Analyst: JXL

Autosampler Location: 108

Date Collected: 2/22/2010 12:40:54

Data Type: Original

Replicate Data: 246336002|951598|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.192	0.192	0.0029	0.0146	0.0032	12:41:47	Yes
2	0.192	0.192	0.0029	0.0151	0.0032	12:42:16	Yes

Mean: 0.192      0.192      0.0029  
SD: 0.000      0.000      0.0000  
%RSD: 0.083      0.083      0.07

Sequence No.: 127

Autosampler Location: 109

Sample ID: 246336003|951598|1

Date Collected: 2/22/2010 12:42:37

Analyst: JXL

Data Type: Original

Replicate Data: 246336003|951598|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.183	0.183	0.0028	0.0143	0.0031	12:43:29	Yes
2	0.183	0.183	0.0028	0.0139	0.0031	12:43:59	Yes
Mean:	0.183	0.183	0.0028				
SD:	0.000	0.000	0.0000				
%RSD:	0.080	0.080	0.07				

Sequence No.: 128

Autosampler Location: 110

Sample ID: 246336004|951598|1

Date Collected: 2/22/2010 12:44:20

Analyst: JXL

Data Type: Original

Replicate Data: 246336004|951598|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.175	0.175	0.0027	0.0135	0.0030	12:45:11	Yes
2	0.172	0.172	0.0027	0.0133	0.0030	12:45:41	Yes
Mean:	0.174	0.174	0.0027				
SD:	0.002	0.002	0.0000				
%RSD:	1.074	1.074	0.88				

Sequence No.: 129

Autosampler Location: 111

Sample ID: 246336005|951598|1

Date Collected: 2/22/2010 12:46:02

Analyst: JXL

Data Type: Original

Replicate Data: 246336005|951598|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.116	0.116	0.0020	0.0105	0.0023	12:46:54	Yes
2	0.110	0.110	0.0019	0.0092	0.0022	12:47:24	Yes
Mean:	0.113	0.113	0.0019				
SD:	0.004	0.004	0.0001				
%RSD:	3.562	3.562	2.66				

Sequence No.: 130

Autosampler Location: 7

Sample ID: CCV

Date Collected: 2/22/2010 12:47:45

Analyst:

Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.237	5.237	0.0670	0.3056	0.0673	12:48:35	Yes
2	5.224	5.224	0.0668	0.3039	0.0671	12:49:05	Yes
Mean:	5.231	5.231	0.0669				
SD:	0.009	0.009	0.0001				
%RSD:	0.172	0.172	0.17				

QC value within limits for Hg 253.7 Recovery = 104.62%  
All analyte(s) passed QC.

Sequence No.: 131

Autosampler Location: 8

Sample ID: CCB

Date Collected: 2/22/2010 12:49:24

Analyst:

Data Type: Original

-----  
Replicate Data: CCB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.056	-0.056	-0.0002	-0.0003	0.0001	12:50:15	Yes
2	-0.052	-0.052	-0.0002	0.0005	0.0001	12:50:45	Yes
Mean:	-0.054	-0.054	-0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	5.414	5.414	18.81				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

=====

Sequence No.: 132  
Sample ID: 246336006|951598|1  
Analyst: JXL

Autosampler Location: 112  
Date Collected: 2/22/2010 12:51:04  
Data Type: Original

-----  
Replicate Data: 246336006|951598|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.115	0.115	0.0019	0.0104	0.0023	12:51:56	Yes
2	0.113	0.113	0.0019	0.0097	0.0022	12:52:26	Yes
Mean:	0.114	0.114	0.0019				
SD:	0.001	0.001	0.0000				
%RSD:	0.825	0.825	0.62				

=====

Sequence No.: 133  
Sample ID: 246336007|951598|1  
Analyst: JXL

Autosampler Location: 113  
Date Collected: 2/22/2010 12:52:47  
Data Type: Original

-----  
Replicate Data: 246336007|951598|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.140	0.140	0.0023	0.0120	0.0026	12:53:39	Yes
2	0.134	0.134	0.0022	0.0114	0.0025	12:54:09	Yes
Mean:	0.137	0.137	0.0022				
SD:	0.004	0.004	0.0001				
%RSD:	3.085	3.085	2.41				

=====

Sequence No.: 134  
Sample ID: 246336008|951598|1  
Analyst: JXL

Autosampler Location: 114  
Date Collected: 2/22/2010 12:54:29  
Data Type: Original

-----  
Replicate Data: 246336008|951598|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.038	0.038	0.0010	0.0060	0.0013	12:55:22	Yes
2	0.037	0.037	0.0010	0.0057	0.0013	12:55:52	Yes
Mean:	0.038	0.038	0.0010				
SD:	0.001	0.001	0.0000				
%RSD:	2.468	2.468	1.22				

=====

Sequence No.: 135  
Sample ID: 246336009|951598|1  
Analyst: JXL

Autosampler Location: 115  
Date Collected: 2/22/2010 12:56:12  
Data Type: Original

-----  
Replicate Data: 246336009|951598|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.193	0.193	0.0029	0.0143	0.0032	12:57:05	Yes
2	0.196	0.196	0.0030	0.0148	0.0033	12:57:34	Yes
Mean:	0.194	0.194	0.0030				
SD:	0.002	0.002	0.0000				
%RSD:	1.158	1.158	0.97				



Sequence No.: 136

Sample ID: 246344001|951598|1

Analyst: JXL

Autosampler Location: 116

Date Collected: 2/22/2010 12:57:55

Data Type: Original

Replicate Data: 246344001|951598|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.136	0.136	0.0022	0.0115	0.0025	12:58:47	Yes
2	0.132	0.132	0.0022	0.0109	0.0025	12:59:17	Yes
Mean:	0.134	0.134	0.0022				
SD:	0.003	0.003	0.0000				
%RSD:	2.496	2.496	1.94				

Sequence No.: 137

Sample ID: 1202039385|951598|1

Analyst: JXL

Autosampler Location: 117

Date Collected: 2/22/2010 12:59:37

Data Type: Original

Replicate Data: 1202039385|951598|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.118	0.118	0.0020	0.0098	0.0023	13:00:30	Yes
2	0.124	0.124	0.0021	0.0105	0.0024	13:01:00	Yes
Mean:	0.121	0.121	0.0020				
SD:	0.004	0.004	0.0001				
%RSD:	3.520	3.520	2.67				

Sequence No.: 138

Sample ID: 1202039386|951598|1

Analyst: JXL

Autosampler Location: 118

Date Collected: 2/22/2010 13:01:20

Data Type: Original

Replicate Data: 1202039386|951598|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.271	2.271	0.0293	0.1352	0.0296	13:02:13	Yes
2	2.268	2.268	0.0293	0.1344	0.0296	13:02:42	Yes
Mean:	2.270	2.270	0.0293				
SD:	0.002	0.002	0.0000				
%RSD:	0.106	0.106	0.10				

Sequence No.: 139

Sample ID: 1202039388|951598|1

Analyst: JXL

Autosampler Location: 119

Date Collected: 2/22/2010 13:03:03

Data Type: Original

Replicate Data: 1202039388|951598|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.365	2.365	0.0305	0.1412	0.0308	13:03:55	Yes
2	2.366	2.366	0.0305	0.1404	0.0308	13:04:25	Yes
Mean:	2.365	2.365	0.0305				
SD:	0.001	0.001	0.0000				
%RSD:	0.031	0.031	0.03				

Sequence No.: 140

Sample ID: 1202039387|951598|5

Analyst: JXL

Autosampler Location: 120

Date Collected: 2/22/2010 13:04:45

Data Type: Original

Replicate Data: 1202039387|951598|5

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.017	-0.017	0.0003	0.0022	0.0006	13:05:37	Yes

2	-0.015	-0.015	0.0003	0.0023	0.0006	13:06:07	Yes
Mean:	-0.016	-0.016	0.0003				
SD:	0.002	0.002	0.0000				
%RSD:	11.88	11.88	8.57				

Sequence No.: 141

Autosampler Location: 121

Sample ID: 246344002|951598|1

Date Collected: 2/22/2010 13:06:27

Analyst: JXL

Data Type: Original

Replicate Data: 246344002|951598|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.120	0.120	0.0020	0.0104	0.0023	13:07:20	Yes
2	0.119	0.119	0.0020	0.0102	0.0023	13:07:50	Yes
Mean:	0.120	0.120	0.0020				
SD:	0.001	0.001	0.0000				
%RSD:	0.877	0.877	0.66				

Sequence No.: 142

Autosampler Location: 7

Sample ID: CCV

Date Collected: 2/22/2010 13:08:10

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.299	5.299	0.0678	0.3099	0.0681	13:09:00	Yes
2	5.304	5.304	0.0678	0.3088	0.0682	13:09:30	Yes
Mean:	5.301	5.301	0.0678				
SD:	0.004	0.004	0.0000				
%RSD:	0.072	0.072	0.07				

QC value within limits for Hg 253.7 Recovery = 106.03%  
All analyte(s) passed QC.

Sequence No.: 143

Autosampler Location: 8

Sample ID: CCB

Date Collected: 2/22/2010 13:09:49

Analyst:

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.053	-0.053	-0.0002	0.0001	0.0001	13:10:40	Yes
2	-0.053	-0.053	-0.0002	0.0003	0.0001	13:11:10	Yes
Mean:	-0.053	-0.053	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.007	0.007	0.03				

QC value within limits for Hg 253.7 Recovery = Not calculated  
All analyte(s) passed QC.

Sequence No.: 144

Autosampler Location: 122

Sample ID: 246344003|951598|1

Date Collected: 2/22/2010 13:11:30

Analyst: JXL

Data Type: Original

Replicate Data: 246344003|951598|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.026	0.026	0.0008	0.0048	0.0011	13:12:22	Yes
2	0.022	0.022	0.0008	0.0044	0.0011	13:12:52	Yes
Mean:	0.024	0.024	0.0008				
SD:	0.003	0.003	0.0000				
%RSD:	11.40	11.40	4.40				

Sequence No.: 145

Autosampler Location: 123

# Miscellaneous

# Prep LogBook

Analyst: FGA  
 Batch: 950377  
 Lab SOP: GL-MA-E-009 REV# 19

Verified by: \_\_\_\_\_

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202036655	UI062540-I	.501	g
MS	1202036653	UI100120-01	.25	mL
MS	1202036653	UI100120-06	.25	mL
MSD	1202036654	UI100120-01	.25	mL
MSD	1202036654	UI100120-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202036650		SW846 3050B	17-FEB-2010 13:00	0.517 g	50 mL	96.7118	SOIL
LCS	1202036655		SW846 3050B	17-FEB-2010 13:00	0.501 g	50 mL	99.8004	SOIL
SAMPLE	246336001		SW846 3050B	17-FEB-2010 13:00	0.537 g	50 mL	93.10987	SOIL
DUP	1202036651	246336001	SW846 3050B	17-FEB-2010 13:00	0.53 g	50 mL	94.33962	SOIL
SDILT	1202036652	246336001	SW846 3050B	17-FEB-2010 13:00	0.533 g	50 mL	93.80863	SOIL
MS	1202036653	246336001	SW846 3050B	17-FEB-2010 13:00	0.558 g	50 mL	89.60573	SOIL
MSD	1202036654	246336001	SW846 3050B	17-FEB-2010 13:00	0.527 g	50 mL	94.87666	SOIL
SAMPLE	246336002		SW846 3050B	17-FEB-2010 13:00	0.536 g	50 mL	93.28358	SOIL
SAMPLE	246336003		SW846 3050B	17-FEB-2010 13:00	0.511 g	50 mL	97.84736	SOIL
SAMPLE	246336004		SW846 3050B	17-FEB-2010 13:00	0.526 g	50 mL	95.05703	SOIL
SAMPLE	246336005		SW846 3050B	17-FEB-2010 13:00	0.523 g	50 mL	95.60229	SOIL
SAMPLE	246336006		SW846 3050B	17-FEB-2010 13:00	0.536 g	50 mL	93.28358	SOIL
SAMPLE	246336007		SW846 3050B	17-FEB-2010 13:00	0.526 g	50 mL	95.05703	SOIL
SAMPLE	246336008		SW846 3050B	17-FEB-2010 13:00	0.5 g	50 mL	100	SOIL
SAMPLE	246336009		SW846 3050B	17-FEB-2010 13:00	0.504 g	50 mL	99.20635	SOIL
SAMPLE	246338001		SW846 3050B	17-FEB-2010 13:00	0.524 g	50 mL	95.41985	SOIL
SAMPLE	246338002		SW846 3050B	17-FEB-2010 13:00	0.502 g	50 mL	99.60159	SOIL

Comments Brown,clumpy soil.

Reagent/Solvent Lot ID	Amount	Description
1265209	10 mL	HYDROCHLORIC ACID
1268732	1.25 mL	Nitric Acid CONC.

Prep Data Logbook Version 1:1

GEL Laboratories LLC

Page# \_\_\_\_\_

# Prep LogBook

Analyst: FGA  
 Batch: 950380  
 Lab SOP: GL-MA-E-009 REV# 19

Verified by: \_\_\_\_\_

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Spike Amount	Spike Units
MB	1202036669		SW846 3050B	17-FEB-2010 13:00	0.551 g	50 mL	90.7441	.5	g
LCS	1202036674		SW846 3050B	17-FEB-2010 13:00	0.5 g	50 mL	100	.5	mL
SAMPLE	246336001		SW846 3050B	17-FEB-2010 13:00	0.517 g	50 mL	96.7118	.5	mL
DUP	1202036670	246336001	SW846 3050B	17-FEB-2010 13:00	0.551 g	50 mL	90.7441	.5	mL
SDILT	1202036671	246336001	SW846 3050B	17-FEB-2010 13:00	0.517 g	50 mL	96.7118	.5	mL
MS	1202036672	246336001	SW846 3050B	17-FEB-2010 13:00	0.507 g	50 mL	98.61933	.5	mL
MSD	1202036673	246336001	SW846 3050B	17-FEB-2010 13:00	0.505 g	50 mL	99.0099	.5	mL
SAMPLE	246336002		SW846 3050B	17-FEB-2010 13:00	0.51 g	50 mL	98.03922	.5	mL
SAMPLE	246336003		SW846 3050B	17-FEB-2010 13:00	0.504 g	50 mL	99.20635	.5	mL
SAMPLE	246336004		SW846 3050B	17-FEB-2010 13:00	0.506 g	50 mL	98.81423	.5	mL
SAMPLE	246336005		SW846 3050B	17-FEB-2010 13:00	0.5 g	50 mL	100	.5	mL
SAMPLE	246336006		SW846 3050B	17-FEB-2010 13:00	0.5 g	50 mL	100	.5	mL
SAMPLE	246336007		SW846 3050B	17-FEB-2010 13:00	0.503 g	50 mL	99.40358	.5	mL
SAMPLE	246336008		SW846 3050B	17-FEB-2010 13:00	0.569 g	50 mL	87.87346	.5	mL
SAMPLE	246336009		SW846 3050B	17-FEB-2010 13:00	0.508 g	50 mL	98.4252	.5	mL
SAMPLE	246338001		SW846 3050B	17-FEB-2010 13:00	0.518 g	50 mL	96.5251	.5	mL
SAMPLE	246338002		SW846 3050B	17-FEB-2010 13:00	0.521 g	50 mL	95.96929	.5	mL

Reagent/Solvent Lot ID 1250038-02  
 1268732

Amount 1.5 mL  
 5 mL

Description Hydrogen Peroxide 30%  
 Nitric Acid CONC.

Comments Brown,clumpy soil.

# Prep LogBook

Analyst: TXB3  
 Batch: 951597  
 Lab SOP: GL-MA-E-010 REV# 23

Verified by:

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Type	Sample Id	Lot. Id	Spike Amount	Spike Units
MB	1202039383		SW846 7471A Prep	19-FEB-2010 14:00	LCS	1202039384	U1031809A	.2	g
LCS	1202039384		SW846 7471A Prep	19-FEB-2010 14:00	MS	1202039386	WHG100219-14	.3	mL
SAMPLE	246336001		SW846 7471A Prep	19-FEB-2010 14:00	MSD	1202039388	WHG100219-14	.3	mL
SAMPLE	246336002		SW846 7471A Prep	19-FEB-2010 14:00					
SAMPLE	246336003		SW846 7471A Prep	19-FEB-2010 14:00					
SAMPLE	246336004		SW846 7471A Prep	19-FEB-2010 14:00					
SAMPLE	246336005		SW846 7471A Prep	19-FEB-2010 14:00					
SAMPLE	246336006		SW846 7471A Prep	19-FEB-2010 14:00					
SAMPLE	246336007		SW846 7471A Prep	19-FEB-2010 14:00					
SAMPLE	246336008		SW846 7471A Prep	19-FEB-2010 14:00					
SAMPLE	246336009		SW846 7471A Prep	19-FEB-2010 14:00					
SAMPLE	246344001		SW846 7471A Prep	19-FEB-2010 14:00					
DUP	1202039385	246344001	SW846 7471A Prep	19-FEB-2010 14:00					
MS	1202039386	246344001	SW846 7471A Prep	19-FEB-2010 14:00					
MSD	1202039388	246344001	SW846 7471A Prep	19-FEB-2010 14:00					
SDILT	1202039387	246344001	SW846 7471A Prep	19-FEB-2010 14:00					
SAMPLE	246344002		SW846 7471A Prep	19-FEB-2010 14:00					
SAMPLE	246344003		SW846 7471A Prep	19-FEB-2010 14:00					
SAMPLE	246344004		SW846 7471A Prep	19-FEB-2010 14:00					
SAMPLE	246344005		SW846 7471A Prep	19-FEB-2010 14:00					

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
WHG100219-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG100219-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5
WHG100219-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG100219-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG100219-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG100219-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

Comments Sample 246344001 is a muddy brown soil.  
 Digestion Start Date: 19-FEB-10 14:00  
 Digestion End Date: 19-FEB-10 14:30

### DATA EXCEPTION REPORT

<b>Mo. Day Yr.</b> 21-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> 950379	<b>Sample Numbers:</b> See Below		

Potentially affected work order(s)(SDG): 246336(10-1568-1),246338(10-1605)

**Application Issues:**

Failed Recovery for MS/PS  
Container scanning event for custody missed  
Failed RPD for DUP  
Failed Recovery for MSD/PSD

**Specification and Requirements  
Exception Description:**

**DER Disposition:**

1. Failed Recovery for MS/PS:  
QC 1202036653MS
2. Failed RPD for DUP:  
QC 1202036651DUP
3. Failed Recovery for MSD/PSD:  
QC 1202036654MSD
4. Container scanning event for custody missed

1. The matrix spike recovery failed outside of the control limits for magnesium and antimony 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 chromium, cobalt and lead 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 duplicate recovery failed outside of the control limits for chromium, magnesium and antimony 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.
4. The samples were in the custody of the analyst at the time of analysis. The samples were inadvertently not scanned in the LIMS system. Data reported as is.

**Originator's Name:**

Jerry Wigfall 22-FEB-10

**Data Validator/Group Leader:**

Helen Camello 25-FEB-10

**DATA EXCEPTION REPORT**

<b>Mo.Day Yr.</b> 27-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> 950387	<b>Sample Numbers:</b> See Below		
<b>Potentially affected work order(s)(SDG):</b> 246336(10-1568-1),246338(10-1605) <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 1202036670DUP		The sample and sample duplicate % RPD failed outside the control limits for U 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:**

Elizabeth Janssen 28-FEB-10

**Data Validator/Group Leader:**

Jamie Johnson 28-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:** Q2SI  
**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:** Q2si  
**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:** 01-MAR-10      **Lot Number :** 1017098  
**Employee:** Helen Camello      **Solvent :** 1%HNO3  
**Supplier:** Q2SI  
**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%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:** 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:** 02si  
**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

<b>Analyte</b>	<b>Concentration</b>	<b>Analyte</b>	<b>Concentration</b>
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

<b>Analyte</b>	<b>Concentration</b>	<b>Analyte</b>	<b>Concentration</b>
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

<b>Analyte</b>	<b>Concentration</b>	<b>Analyte</b>	<b>Concentration</b>
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

<b>Analyte</b>	<b>Concentration</b>	<b>Analyte</b>	<b>Concentration</b>
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 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

<b>Analyte</b>	<b>Concentration</b>	<b>Analyte</b>	<b>Concentration</b>
Sodium	500000 ug/L	Uranium	15000 ug/L

**Serial ID:** UI100217-49.3      **Opened:** 20-FEB-10      **Amount :** 100 ml  
**Name:** Trace ICP ICSAB      **Received:** 17-FEB-10      **Catalog Number :** 160066-04  
**Type:** Source Material      **Expires:** 15-AUG-10      **Lot Number :** 1018879  
**Employee:** Louise Smith      **Solvent :** 3% HCl + 1% HNO3  
**Supplier:** o2si  
**Description:** Trace ICP Inteferent Check Standard AB  
**Comments:** None

<b>Analyte</b>	<b>Concentration</b>	<b>Analyte</b>	<b>Concentration</b>
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:** O2SI  
**Description:** ICP-MS ICSA Master A  
**Comments:** None

<b>Analyte</b>	<b>Concentration</b>	<b>Analyte</b>	<b>Concentration</b>
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:** UI100219-60      **Opened:** 19-FEB-10      **Amount :** .5 mL  
**Name:** ICPMS High Range Standard      **Received:** 19-FEB-10      **Catalog Number :** 160212-02-01  
**Type:** Source Material      **Expires:** 19-FEB-11      **Lot Number :** 1018890  
**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		

**Serial ID:** UI100219-61      **Opened:** 19-FEB-10      **Amount :** .5 mL  
**Name:** ICPMS High Range Standard      **Received:** 19-FEB-10      **Catalog Number :** 160212-02-01  
**Type:** Source Material      **Expires:** 19-FEB-11      **Lot Number :** 1018890  
**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:** 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:** IHG100219-01      **Opened:** 19-FEB-10      **Instrument Id :** Mercury  
**Name:** MHGINTER1      **Received:** 19-FEB-10      **Pipet Id :** Minou1  
**Type:** Intermediate      **Expires:** 20-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:** IHG100219-02      **Opened:** 19-FEB-10      **Pipet Id :** Minou1  
**Name:** MHGINTER2      **Received:** 19-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Intermediate      **Expires:** 20-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:** WHG100219-07      **Opened:** 19-FEB-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCALS0.2CRA      **Received:** 19-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 26-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.
IHG100219-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

**Serial ID:** WHG100219-08      **Opened:** 19-FEB-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCALS0.5      **Received:** 19-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 26-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.
IHG100219-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

**Serial ID:** WHG100219-09      **Opened:** 19-FEB-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCALS2.0      **Received:** 19-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 26-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.
IHG100219-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

**Serial ID:** WHG100219-10      **Opened:** 19-FEB-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCALS5.0CCV      **Received:** 19-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 26-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.
IHG100219-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

**Serial ID:** WHG100219-11      **Opened:** 19-FEB-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKCALS10.0      **Received:** 19-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 26-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.
IHG100219-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

**Serial ID:** WHG100219-12      **Opened:** 19-FEB-10      **Pipet Id :** Hg1289245  
**Name:** MHGWORKS5.0ICV      **Received:** 19-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 26-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.
IHG100219-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

**Serial ID:** WHG100219-14      **Opened:** 19-FEB-10      **Pipet Id :** Hg1289245  
**Name:** MHGSOILMSSPIKE      **Received:** 19-FEB-10      **Solvent :** 2% HNO3-1257474  
**Type:** Working      **Expires:** 26-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:** WI100220-42      **Opened:** 20-FEB-10      **Balance Id :** 216  
**Name:** TRACE ICP 0.1 PPM STD.      **Received:** 02-NOV-10      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 21-FEB-10      **Solvent :** 3%HCL and 1%HNO3 -1270010  
**Employee:** Louise Smith  
**Supplier:** GEL  
**Description:** TRACE ICP 0.1 PPM CALIBRATION STD.  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100220-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100220-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100220-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100220-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100220-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100220-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100220-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100220-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100220-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100220-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100220-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

# Standard Logbook

**Serial ID:** WI100220-43      **Opened:** 20-FEB-10      **Balance Id :** 216  
**Name:** TRACE ICP 0.5/CCV STD.      **Received:** 02-NOV-10      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 21-FEB-10      **Solvent :** 3%HCL and 1%HNO3 -1270010  
**Employee:** Louise Smith  
**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:** WI100220-44      **Opened:** 20-FEB-10      **Balance Id :** 216  
**Name:** TRACE ICP SCAL 1.0      **Received:** 02-NOV-10      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 21-FEB-10      **Solvent :** 3%HCL and 1 %HNO3-1270010  
**Employee:** Louise Smith  
**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
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:** WI100220-45      **Opened:** 20-FEB-10      **Balance Id :** 216  
**Name:** TRACE ICP S-10 STD      **Received:** 22-APR-10      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 21-FEB-10      **Solvent :** 3%HCL and 1%HNO3 -1270010  
**Employee:** Louise Smith  
**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:** WI100220-46      **Opened:** 20-FEB-10      **Balance Id :** 216  
**Name:** ICP TRACE ICV      **Received:** 25-SEP-10      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 21-FEB-10      **Solvent :** 3%HCL AND 1%HNO3-1270010  
**Employee:** Louise Smith  
**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:** WI100220-47      **Opened:** 20-FEB-10      **Balance Id :** 216  
**Name:** PQL Working Standard      **Received:** 30-JUN-10      **Pipet Id :** 3581809  
**Type:** Working      **Expires:** 21-FEB-10      **Solvent :** 3%HCL & 1%HNO3-1270010  
**Employee:** Louise Smith  
**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:** WMS100224-04B      **Opened:** 24-FEB-10      **Amount :** 50 mL  
**Name:** ICPMS Cal Standard 100      **Received:** 24-FEB-10      **Balance Id :** 40245216  
**Type:** Working      **Expires:** 25-FEB-10      **Pipet Id :** 1758088  
**Employee:** Rose Jenkins      **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	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
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

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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:** WMS100225-04      **Opened:** 25-FEB-10      **Amount :** 50 mL  
**Name:** ICPMS Cal Standard 100      **Received:** 25-FEB-10      **Balance Id :** 4025216  
**Type:** Working      **Expires:** 26-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
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

# Standard Logbook

<b>Parent Material</b>	<b>Analyte</b>	<b>Parent Conc.</b>	<b>Aliquot</b>	<b>Final Vol.</b>	<b>Final Conc.</b>
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

<b>Serial ID:</b> <u>WMS100225-04A</u>	<b>Opened:</b> <u>25-FEB-10</u>	<b>Balance Id :</b> <u>4025216</u>
<b>Name:</b> <u>ICPMS Cal Standard 10</u>	<b>Received:</b> <u>25-FEB-10</u>	<b>Pipet Id :</b> <u>3541598</u>
<b>Type:</b> <u>Working</u>	<b>Expires:</b> <u>26-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 Calibration Standard (10 ppb)</u>		
<b>Comments:</b> <u>None</u>		

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100224-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100224-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100224-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l



# Standard Logbook

**Serial ID:** WMS100225-05      **Opened:** 25-FEB-10      **Balance Id :** 40245216  
**Name:** ICPMS ICV      **Received:** 25-FEB-10      **Pipet Id :** 3541598  
**Type:** Working      **Expires:** 26-FEB-10      **Solvent :** 2%HNO3/1%HCl - 1272768  
**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
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:** WMS100225-06      **Opened:** 25-FEB-10      **Balance Id :** 40245216  
**Name:** ICPMS CRDL      **Received:** 25-FEB-10      **Pipet Id :** 3820544  
**Type:** Working      **Expires:** 26-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:** WMS100225-07      **Opened:** 25-FEB-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSA      **Received:** 25-FEB-10      **Lot Number :** 1010773  
**Type:** Working      **Expires:** 26-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:** WMS100225-08      **Opened:** 25-FEB-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSAB      **Received:** 25-FEB-10      **Pipet Id :** 1758088  
**Type:** Working      **Expires:** 26-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:** WMS100225-70      **Opened:** 25-FEB-10      **Balance Id :** 40245216  
**Name:** ICPMS LINEAR RANGE ST      **Received:** 25-FEB-10      **Pipet Id :** 1758088  
**Type:** Working      **Expires:** 26-FEB-10      **Solvent :** 2%HNO3/1%HCl - 1272768  
**Employee:** Paul Boyd  
**Supplier:** 02SI  
**Description:** ICPMS LINEAR RANGE STANDARD  
**Comments:** None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100219-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

**Serial ID:** WMS100226-04      **Opened:** 26-FEB-10      **Amount :** 50 mL  
**Name:** ICPMS Cal Standard 100      **Received:** 26-FEB-10      **Balance Id :** 4025216  
**Type:** Working      **Expires:** 27-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

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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:** WMS100226-04A      **Opened:** 26-FEB-10      **Balance Id :** 4025216  
**Name:** ICPMS Cal Standard 10      **Received:** 26-FEB-10      **Pipet Id :** 3541598  
**Type:** Working      **Expires:** 27-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.
WMS100226-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100226-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100226-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100226-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100226-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100226-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100226-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100226-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100226-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100226-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

**Serial ID:** WMS100226-05      **Opened:** 26-FEB-10      **Balance Id :** 40245216  
**Name:** ICPMS ICV      **Received:** 26-FEB-10      **Pipet Id :** 3541598  
**Type:** Working      **Expires:** 27-FEB-10      **Solvent :** 2%HNO3/1%HCl - 1272768  
**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

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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:** WMS100226-06      **Opened:** 26-FEB-10      **Balance Id :** 40245216  
**Name:** ICPMS CRDL      **Received:** 26-FEB-10      **Pipet Id :** 3820544  
**Type:** Working      **Expires:** 27-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



# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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:** WMS100226-07      **Opened:** 26-FEB-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSA      **Received:** 26-FEB-10      **Lot Number :** 1010773  
**Type:** Working      **Expires:** 27-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:** WMS100226-08      **Opened:** 26-FEB-10      **Balance Id :** 40245216  
**Name:** ICPMS ICSAB      **Received:** 26-FEB-10      **Pipet Id :** 1758088  
**Type:** Working      **Expires:** 27-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

# Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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
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

# Standard Logbook

**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

**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

# 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:** 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

**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

## Standard Logbook

**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:** 01-MAR-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 10-1568**

**Method/Analysis Information**

**Product:** Cyanide, Total

**Analytical Batch:** 949511      **Method:** SW9012A Cyanide and Total

**Prep Batch :** 949509      **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>
246334001	RE15-10-8328
1202034323	Method Blank (MB)
1202034324	245934002(CASA-10-9412) Sample Duplicate (DUP)
1202034325	246064001(CASA-10-9111) Sample Duplicate (DUP)
1202034326	245934002(CASA-10-9412) Matrix Spike (MS)
1202034327	246064001(CASA-10-9111) Matrix Spike (MS)
1202034328	245934002(CASA-10-9412) Matrix Spike Duplicate (MSD)
1202034329	246064001(CASA-10-9111) Matrix Spike Duplicate (MSD)
1202034330	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: 245934002 (CASA-10-9412) and 246064001 (CASA-10-9111).

**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. 1202034324 (CASA-10-9412) and 1202034325 (CASA-10-9111).

**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 samples in this SDG did not require re-analysis.

### **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: 04March10

# Sample Data Summary

## GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - [www.gel.com](http://www.gel.com)

### Certificate of Analysis Report for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1568 GEL Work Order: 246334

**The Qualifiers in this report are defined as follows:**

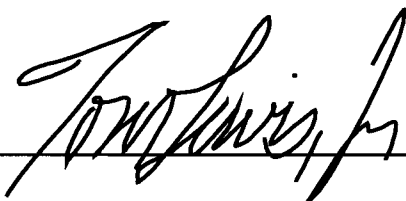
- \* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- \*\* Indicates the analyte is a surrogate compound.

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 Davis, 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 18, 2010

Client SDG: 10-1568

Client Sample ID: RE15-10-8328  
Sample ID: 246334001  
Matrix: W  
Collect Date: 01-FEB-10 12:00  
Receive Date: 05-FEB-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	U	ND	1.66	5.00	ug/L	1	AXC2	02/11/10	1033	949511	1

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	0838	949509

### 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 18, 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: 246334

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Flow Injection Analysis</b>											
Batch	949511										
QC1202034324	245934002	DUP									
Cyanide, Total		J	2.66	J	4.23	ug/L	45.6 ^	(+/-5.00)	AXC2	02/11/10	10:07
QC1202034325	246064001	DUP									
Cyanide, Total		U	ND	J	2.13	ug/L	200	(+/-5.00)		02/11/10	10:12
QC1202034330	LCS										
Cyanide, Total	50.0				48.1	ug/L		96.2 (90%-110%)		02/11/10	10:06
QC1202034323	MB										
Cyanide, Total				U	5.00	ug/L				02/11/10	10:05
QC1202034326	245934002	MS									
Cyanide, Total	100	J	2.66		105	ug/L		102 (60%-144%)		02/11/10	10:08
QC1202034327	246064001	MS									
Cyanide, Total	100	U	ND		104	ug/L		102 (60%-144%)		02/11/10	10:13
QC1202034328	245934002	MSD									
Cyanide, Total	100	J	2.66		92.5	ug/L	12.7	89.8 (0%-20%)		02/11/10	10:09
QC1202034329	246064001	MSD									
Cyanide, Total	100	U	ND		104	ug/L	0.00	102 (0%-20%)		02/11/10	10:17

### 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

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.



## GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

### QC Summary

Workorder: 246334

Page 2 of 2

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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: 18-FEB-2010 16:31

**GEL Laboratories LLC**

**Contract: LANL01004**

**SDG #: 10-1568**

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>11-FEB-2010 09:59:47</b>	<b>OM_2-11-2010_09-49-17</b>	<b>146</b>	<b>150</b>	<b>97.3</b>	<b>(90%-110%)</b>	<b>Yes</b>
CCV	11-FEB-2010 10:14:05	OM_2-11-2010_09-49-17	102	100	102	(90%-110%)	Yes
CCV	11-FEB-2010 10:26:31	OM_2-11-2010_09-49-17	103	100	103	(90%-110%)	Yes
CCV	11-FEB-2010 10:37:09	OM_2-11-2010_09-49-17	103	100	103	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
<b>ICB</b>	<b>11-FEB-2010 10:01:38</b>	<b>OM_2-11-2010_09-49-17</b>	<b>-1.07</b>	<b>10</b>	<b>Yes</b>
CCB	11-FEB-2010 10:15:55	OM_2-11-2010_09-49-17	-0.943	10	Yes
CCB	11-FEB-2010 10:28:21	OM_2-11-2010_09-49-17	-1.02	10	Yes
CCB	11-FEB-2010 10:38:59	OM_2-11-2010_09-49-17	-0.764	10	Yes

# Cyanide, Total

# Prep Logbook

## Cyanide Sample Distillation

Batch ID: 949509.0		Verified by:										
Analyst: Alan Stanley												
Method: SW846 9010B Prep EPA 335.4												
Lab SOP: GL-GC-E-067 REV# 13												
Instrument: Sartorius Balance B-001												
Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check	Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
1202034323 MB	11-FEB-2010 08:38:00	Water	25	25	1	>12	LCS	1202034330	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.0125	mL
1202034330 LCS	11-FEB-2010 08:38:00	Water	25	25	1	>12						
245934002	11-FEB-2010 08:38:00	Water	25	25	1	>12	MS	1202034326	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
1202034324 DUP (245934002)	11-FEB-2010 08:38:00	Water	25	25	1	>12						
1202034326 MS (245934002)	11-FEB-2010 08:38:00	Water	25	25	1	>12	MS	1202034327	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
1202034328 MSD (245934002)	11-FEB-2010 08:38:00	Water	25	25	1	>12	MSD	1202034328	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
245934003	11-FEB-2010 08:38:00	Water	25	25	1	>12						
246064001	11-FEB-2010 08:38:00	Surface Water	25	25	1	>12	MSD	1202034329	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
1202034325 DUP (246064001)	11-FEB-2010 08:38:00	Surface Water	25	25	1	>12						
1202034327 MS (246064001)	11-FEB-2010 08:38:00	Surface Water	25	25	1	>12						
1202034329 MSD (246064001)	11-FEB-2010 08:38:00	Surface Water	25	25	1	>12						
246064005	11-FEB-2010 08:38:00	Surface Water	25	25	1	>12						
246064009	11-FEB-2010 08:38:00	Surface Water	25	25	1	>12						
246225002	11-FEB-2010 08:38:00	Waste Water	25	25	1	>12						
246264001	11-FEB-2010 08:38:00	Water	25	25	1	>12						
246269001	11-FEB-2010 08:38:00	Water	25	25	1	>12						
246278001	11-FEB-2010 08:38:00	Water	25	25	1	>12						
246292001	11-FEB-2010 08:38:00	Water	25	25	1	>12						
246292002	11-FEB-2010 08:38:00	Water	25	25	1	>12						
246293001	11-FEB-2010 08:38:00	Water	25	25	1	>12						

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC

# Prep Logbook

**Batch ID:** 949509.0  
**Analyst:** Alan Stanley  
**Method:** SW846 9010B Prep EPA 335.4  
**Lab SOP:** GL-GC-E-067 REV# 13  
**Instrument:** Sartorius Balance B-001

Verified by:

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202034330	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.0125	mL
MS	1202034326	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MS	1202034327	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MSD	1202034328	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MSD	1202034329	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
246293003	11-FEB-2010 08:38:00	Water	25	25	1	>12
246306001	11-FEB-2010 08:38:00	Water	25	25	1	>12
246313001	11-FEB-2010 08:38:00	Water	25	25	1	>12
246323001	11-FEB-2010 08:38:00	Water	25	25	1	>12
246334001	11-FEB-2010 08:38:00	Water	25	25	1	>12
246436001	11-FEB-2010 08:38:00	Water	25	25	1	>12
246448001	11-FEB-2010 08:38:00	Water	25	25	1	>12
246472001	11-FEB-2010 08:38:00	Water	25	25	1	>12

Comments:

Reagent/Solvent Lot ID	Description	Amount
100210-C	0.25N Sodium Hydroxide Solution	25 mL
1176724-C	0.8N H3NO3S	1.25 mL
1176778-C	51% MgCl2 Soln	1 mL
1238142-C	Bismuth Nitrate Solution	1.25 mL
1260189-C	50% H2SO4 CN Prep	2.5 mL
WCN100210-07	150 ppb CN Distilled ICV Standard	.0375 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	2/11/2010 9:52:37	OM_2-11-2010_09-49-17
150 ppb		1	axc2	2/11/2010 9:53:30	OM_2-11-2010_09-49-17
100 ppb		1	axc2	2/11/2010 9:54:22	OM_2-11-2010_09-49-17
50 ppb		1	axc2	2/11/2010 9:55:15	OM_2-11-2010_09-49-17
10 ppb		1	axc2	2/11/2010 9:56:08	OM_2-11-2010_09-49-17
CRDL 5.0 ppb		1	axc2	2/11/2010 9:57:02	OM_2-11-2010_09-49-17
ICAL-00		1	axc2	2/11/2010 9:57:56	OM_2-11-2010_09-49-17
ICV		1	axc2	2/11/2010 9:59:47	OM_2-11-2010_09-49-17
ICB		1	axc2	2/11/2010 10:01:38	OM_2-11-2010_09-49-17
		1	axc2	2/11/2010 10:03:27	OM_2-11-2010_09-49-17
1202034323	949511	1	axc2	2/11/2010 10:05:17	OM_2-11-2010_09-49-17
1202034330	949511	1	axc2	2/11/2010 10:06:10	OM_2-11-2010_09-49-17
245934002	949511	1	axc2	2/11/2010 10:07:04	OM_2-11-2010_09-49-17
1202034324	949511	1	axc2	2/11/2010 10:07:57	OM_2-11-2010_09-49-17
1202034326	949511	1	axc2	2/11/2010 10:08:50	OM_2-11-2010_09-49-17
1202034328	949511	1	axc2	2/11/2010 10:09:43	OM_2-11-2010_09-49-17
245934003	949511	1	axc2	2/11/2010 10:10:35	OM_2-11-2010_09-49-17
246064001	949511	1	axc2	2/11/2010 10:11:28	OM_2-11-2010_09-49-17
1202034325	949511	1	axc2	2/11/2010 10:12:20	OM_2-11-2010_09-49-17
1202034327	949511	1	axc2	2/11/2010 10:13:12	OM_2-11-2010_09-49-17
CCV		1	axc2	2/11/2010 10:14:05	OM_2-11-2010_09-49-17
CCB		1	axc2	2/11/2010 10:15:55	OM_2-11-2010_09-49-17
1202034329	949511	1	axc2	2/11/2010 10:17:43	OM_2-11-2010_09-49-17
246064005	949511	1	axc2	2/11/2010 10:18:36	OM_2-11-2010_09-49-17
246064009	949511	1	axc2	2/11/2010 10:19:27	OM_2-11-2010_09-49-17
246225002	949511	1	axc2	2/11/2010 10:20:19	OM_2-11-2010_09-49-17
246264001	949511	1	axc2	2/11/2010 10:21:11	OM_2-11-2010_09-49-17
246269001	949511	1	axc2	2/11/2010 10:22:05	OM_2-11-2010_09-49-17
246278001	949511	1	axc2	2/11/2010 10:22:58	OM_2-11-2010_09-49-17
246292001	949511	1	axc2	2/11/2010 10:23:52	OM_2-11-2010_09-49-17
246292002	949511	1	axc2	2/11/2010 10:24:45	OM_2-11-2010_09-49-17
246293001	949511	1	axc2	2/11/2010 10:25:38	OM_2-11-2010_09-49-17
CCV		1	axc2	2/11/2010 10:26:31	OM_2-11-2010_09-49-17
CCB		1	axc2	2/11/2010 10:28:21	OM_2-11-2010_09-49-17
246293003	949511	1	axc2	2/11/2010 10:30:10	OM_2-11-2010_09-49-17
246306001	949511	1	axc2	2/11/2010 10:31:03	OM_2-11-2010_09-49-17
246313001	949511	1	axc2	2/11/2010 10:31:55	OM_2-11-2010_09-49-17
246323001	949511	1	axc2	2/11/2010 10:32:47	OM_2-11-2010_09-49-17
246334001	949511	1	axc2	2/11/2010 10:33:40	OM_2-11-2010_09-49-17
246436001	949511	1	axc2	2/11/2010 10:34:33	OM_2-11-2010_09-49-17
246448001	949511	1	axc2	2/11/2010 10:35:25	OM_2-11-2010_09-49-17
246472001	949511	1	axc2	2/11/2010 10:36:17	OM_2-11-2010_09-49-17
CCV		1	axc2	2/11/2010 10:37:09	OM_2-11-2010_09-49-17
CCB		1	axc2	2/11/2010 10:38:59	OM_2-11-2010_09-49-17

Original Run Filename: OM\_2-11-2010\_09-49-17.OMN created 2/11/2010 09:49:17  
 Original Run Author's Signature: [axc2]  
 Current Run Filename: OM\_2-11-2010\_09-49-17.OMN last modified 2/11/2010 10:40:05  
 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)				
WCN100211-01	1	S1	200	8.83	2/11/2010@09:52:37			200 ppb
WCN100211-02	1	S2	150	6.63	2/11/2010@09:53:30			150 ppb
WCN100211-03	1	S3	100	4.36	2/11/2010@09:54:22			100 ppb
WCN100211-04	1	S4	50.0	2.20	2/11/2010@09:55:15			50 ppb
WCN100211-05	1	S5	10.0	0.540	2/11/2010@09:56:08			10 ppb
WCN100211-06	1	S6	5.00	0.362	2/11/2010@09:57:02			CRDL 5.0 ppb
WCN100211-08	1	S7	0.00	0.0328	2/11/2010@09:57:56			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
Result:			0.99988 > 0.99500					
Message			Pass					
Action			Continue					
WCN100211-07	1	S8	146	6.43	2/11/2010@09:59:47			ICV
Known Conc:			150					
DQM Test: > + Percent Relative Difference								
Result:			-2.8 < 10.0					
Message			ICV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-2.8 < 10.0					
Message			ICV Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
WCN100211-08	1	S7	-1.07	0.0209	2/11/2010@10:01:38			ICB/CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.07 < 5.01					
Message			ICB/CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.07 > -5.01					
Message			ICB/CCB Passed					
Action			Continue					
WCN100211-06	1	S6	6.35	0.345	2/11/2010@10:03:27			
Known Conc:			5.00					
DQM Test: > + Concentration Limit								
Result:			6.35 < 7.50					
Message			CRDL Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			6.35 > 2.50					
Message			Pass					
Action			None					
1202034323 949511 MB	1	1	-1.45	0.00419	2/11/2010@10:05:17			
1202034330 LCS	1	2	48.1	2.17	2/11/2010@10:06:10			
245934002	1	3	2.66	0.183	2/11/2010@10:07:04			
1202034324 DUP	1	4	4.23	0.252	2/11/2010@10:07:57			
1202034326 MS	1	5	105	4.65	2/11/2010@10:08:50			
1202034328 MSD	1	6	92.5	4.10	2/11/2010@10:09:43			
245934003	1	7	-0.642	0.0396	2/11/2010@10:10:35			
246064001	1	8	1.58	0.136	2/11/2010@10:11:28			
1202034325 DUP	1	9	2.13	0.161	2/11/2010@10:12:20			
1202034327 MS	1	10	104	4.59	2/11/2010@10:13:12			
WCN100211-03	1	S3	102	4.52	2/11/2010@10:14:05			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			2.1 < 10.0					



		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	-0.943	0.0264	2/11/2010@10:15:55			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.943 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.943 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202034329  MSD	1	11	104	4.62	2/11/2010@10:17:43			
246064005	1	12	2.07	0.158	2/11/2010@10:18:36			
246064009	1	13	0.264	0.0791	2/11/2010@10:19:27			
246225002	1	14	39.6	1.80	2/11/2010@10:20:19			
246264001	1	15	-0.705	0.0368	2/11/2010@10:21:11			
246269001	1	16	0.112	0.0725	2/11/2010@10:22:05			
246278001	1	17	-1.45	0.00411	2/11/2010@10:22:58			
246292001	1	18	-0.826	0.0315	2/11/2010@10:23:52			
246292002	1	19	-1.37	0.00769	2/11/2010@10:24:45			
246293001	1	20	0.188	0.0758	2/11/2010@10:25:38			
WCN100211-03	1	S3	103	4.55	2/11/2010@10:26:31			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	-1.02	0.0233	2/11/2010@10:28:21			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.02 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.02 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246293003	1	21	-0.359	0.0519	2/11/2010@10:30:10			
246306001	1	22	-0.770	0.0340	2/11/2010@10:31:03			
246313001	1	23	-1.08	0.0206	2/11/2010@10:31:55			
246323001	1	24	-0.601	0.0413	2/11/2010@10:32:47			
246334001	1	25	-2.72	-0.0512	2/11/2010@10:33:40			
246436001	1	26	-0.864	0.0299	2/11/2010@10:34:33			
246448001	1	27	-1.37	0.00777	2/11/2010@10:35:25			
246472001	1	28	-0.472	0.0470	2/11/2010@10:36:17			
WCN100211-03	1	S3	103	4.55	2/11/2010@10:37:09			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	-0.764	0.0342	2/11/2010@10:38:59			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.764 < 5.00					

Message	CCB Passed				
Action	Continue				
DQM Test: < - Concentration Limit					
Result:	-0.764 > -5.00				
Message	CCB Passed				
Action	Continue				

Analyte Properties Table for OM\_2-11-2010\_09-49-17.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

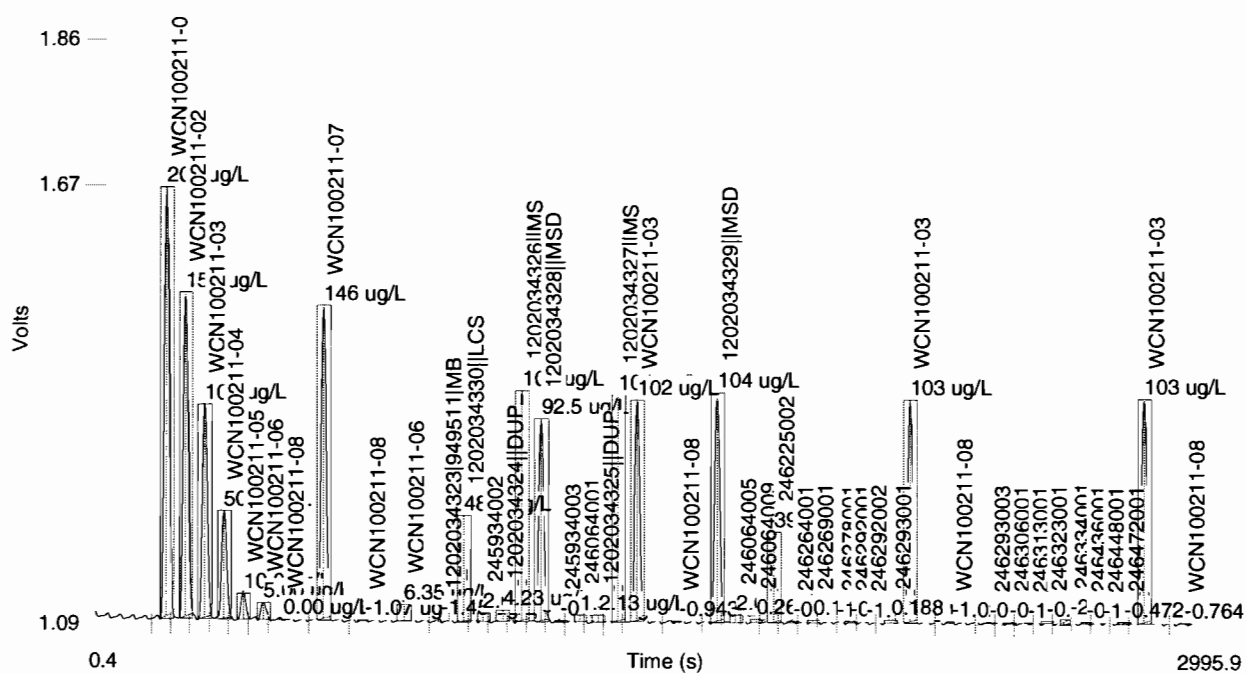
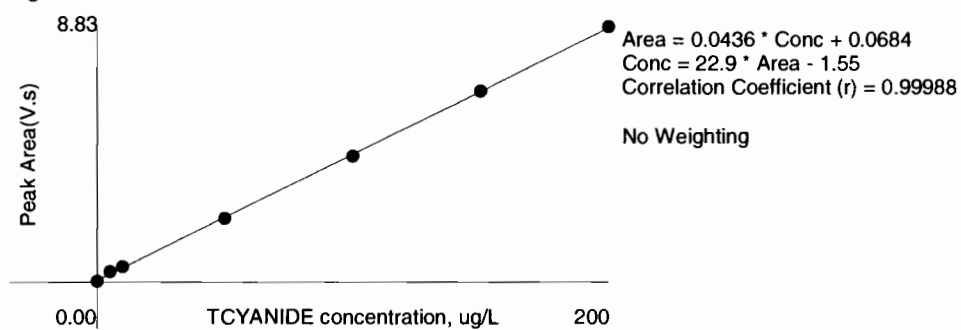


Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.83	0.563	-0.4	2/11/2010	09:53:41
2	150	1	6.63	0.424	-0.2	2/11/2010	09:54:33
3	100	1	4.36	0.279	1.6	2/11/2010	09:55:25
4	50.0	1	2.20	0.140	2.4	2/11/2010	09:56:18
5	10.0	1	0.540	0.0343	-7.1	2/11/2010	09:57:11
6	5.00	1	0.362	0.0225	-26.4	2/11/2010	09:58:05
7	0.00	1	0.0328	0.00101		2/11/2010	09:58:59

Figure 1: TCYANIDE



# **General Chemistry Analysis**

# Case Narrative

**General Chemistry Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-1568-1**

**Method/Analysis Information**

**Product:** pH  
**Analytical Batch:** 950202 **Method:** SW9045C pH

**Sample Analysis**

The following samples were analyzed using the analytical protocol as established in SW846 9045C/9045D:

<b>Sample ID</b>	<b>Client ID</b>
246336001	RE15-10-8304
246336002	RE15-10-8305
246336003	RE15-10-8306
246336004	RE15-10-8307
246336005	RE15-10-8309
246336006	RE15-10-8308
246336007	RE15-10-8301
246336008	RE15-10-8300
246336009	RE15-10-8324
1202036070	246336001(RE15-10-8304) Sample Duplicate (DUP)
1202036071	246336002(RE15-10-8305) Sample Duplicate (DUP)
1202036072	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-008 REV# 17.

**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 Electrode analysis was performed on a PerpHect pH Meter Orion 370.

**Initial Calibration**

All initial calibration requirements have been met for this SDG.

**Calibration Verification Information (CCV)**

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

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

#### **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: 246336001 (RE15-10-8304) and 246336002 (RE15-10-8305).

#### **Duplicate Relative Percent Difference (RPD) Statement**

The RPD between the sample and its duplicate met the acceptance limits.

### **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**

The following samples from this sample group were received by the lab outside of the method specified holding time: 1202036070 (RE15-10-8304), 1202036071 (RE15-10-8305), 246336001 (RE15-10-8304), 246336002 (RE15-10-8305), 246336003 (RE15-10-8306), 246336004 (RE15-10-8307), 246336005 (RE15-10-8309), 246336006 (RE15-10-8308), 246336007 (RE15-10-8301), 246336008 (RE15-10-8300) and 246336009 (RE15-10-8324).

#### **Sample Re-analysis**

The samples in this SDG did not require re-analysis.

### **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.

### **Method/Analysis Information**

**Product:** Cyanide, Total  
**Analytical Batch:** 950196      **Method:** SW9012A Cyanide and Total  
**Prep Batch :** 950195      **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>
246336001	RE15-10-8304
246336002	RE15-10-8305
246336003	RE15-10-8306
246336004	RE15-10-8307
246336005	RE15-10-8309
246336006	RE15-10-8308
246336007	RE15-10-8301
246336008	RE15-10-8300
246336009	RE15-10-8324
1202036020	Method Blank (MB)
1202036021	246262002(RE16-10-1151) Sample Duplicate (DUP)
1202036022	246322001(RE15-10-7332) Sample Duplicate (DUP)
1202036023	246262002(RE16-10-1151) Matrix Spike (MS)
1202036024	246322001(RE15-10-7332) Matrix Spike (MS)
1202036025	246262002(RE16-10-1151) Matrix Spike Duplicate (MSD)
1202036026	246322001(RE15-10-7332) Matrix Spike Duplicate (MSD)
1202036027	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 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: 246262002 (RE16-10-1151) and 246322001 (RE15-10-7332).

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The matrix spike falls outside of the client specified acceptance limits due to matrix interference. 1202036024 (RE15-10-7332).

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

The matrix spike duplicate falls outside of the client specified acceptance limits due to matrix interference. 1202036026 (RE15-10-7332).

**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. 1202036021 (RE16-10-1151).

**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 sample in this sample group was diluted due to high concentration: 1202036027 (LCS).

**Sample Re-analysis**

The samples in this SDG did not require re-analysis.

**Miscellaneous Information****Data Exception (DER) Documentation**

The following DER was generated for this SDG: 791360 1202036024 (RE15-10-7332) and 1202036026 (RE15-10-7332).

**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.

### **Method/Analysis Information**

**Product:** Ion Chromatography  
**Analytical Batch:** 950804 **Method:** EPA 300.0 Nitrate in Soil  
**Prep Batch :** 950802 **Method:** EPA 300.0 PREP

### **Sample Analysis**

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

<b>Sample ID</b>	<b>Client ID</b>
246336001	RE15-10-8304
246336002	RE15-10-8305
246336003	RE15-10-8306
246336004	RE15-10-8307
246336005	RE15-10-8309
246336006	RE15-10-8308
246336007	RE15-10-8301
246336008	RE15-10-8300
246336009	RE15-10-8324
1202037585	Method Blank (MB)
1202037586	246336001(RE15-10-8304) Sample Duplicate (DUP)
1202037587	246336001(RE15-10-8304) Matrix Spike (MS)
1202037588	246336001(RE15-10-8304) Matrix Spike Duplicate (MSD)
1202037589	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-086 REV# 17.

### **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 Ion Chromatography analysis was performed on a Dionex ICS-3000 Ion Chromatograph.

### **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 sample was selected for QC analysis: 246336001 (RE15-10-8304).

**Matrix Spike (MS)/Post Spike (PS) Recovery Statement**

The spike recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202037587 (RE15-10-8304).

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

The spike duplicate recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202037588 (RE15-10-8304).

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

The RPD between the spike and spike duplicate met the acceptance limits.

**Duplicate Relative Percent Difference (RPD) Statement**

The RPD between the sample and its duplicate met the acceptance limits.

**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 Dilutions**

The samples in this SDG did not require dilutions.

**Sample Re-analysis**

The samples in this SDG did not require re-analysis.

**Miscellaneous Information****Data Exception (DER) Documentation**

The following DER was generated for this SDG: 796091 1202037587 (RE15-10-8304) and 1202037588

(RE15-10-8304).

**Manual Integrations**

Manual integrations were not required for the samples in 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:**\_\_\_\_\_

# 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: 10-1568-1 GEL Work Order: 246336

**The Qualifiers in this report are defined as follows:**

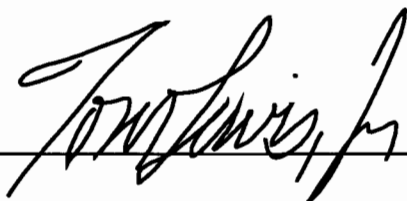
- \* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- \*\* Indicates the analyte is a surrogate compound.

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 Davis, 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: March 2, 2010

Client SDG: 10-1568-1

Client Sample ID: RE15-10-8304  
Sample ID: 246336001  
Matrix: R  
Collect Date: 01-FEB-10 12:00  
Receive Date: 05-FEB-10  
Collector: Client  
Moisture: 20.3%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.2C	H	6.47	0.010	0.100	SU	1	EXF1	02/08/10	1318	950202	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	79.0	291	ug/kg	1	AXC2	02/15/10	1320	950196	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		1.75	0.377	1.26	mg/kg	1	MAR1	02/24/10	1756	950804	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	02/24/10	1330	950802
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1535	950195

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

# 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: March 2, 2010

Client SDG: 10-1568-1

Client Sample ID: RE15-10-8305  
Sample ID: 246336002  
Matrix: R  
Collect Date: 01-FEB-10 12:00  
Receive Date: 05-FEB-10  
Collector: Client  
Moisture: 38.4%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.1C	H	6.23	0.010	0.100	SU	1	EXF1	02/08/10	1322	950202	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		1220	100	369	ug/kg	1	AXC2	02/15/10	1321	950196	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	0.482	1.61	mg/kg	1	MAR1	02/24/10	1952	950804	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	02/24/10	1330	950802
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1535	950195

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

# 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: March 2, 2010

Client SDG: 10-1568-1

Client Sample ID: RE15-10-8306  
Sample ID: 246336003  
Matrix: R  
Collect Date: 01-FEB-10 12:00  
Receive Date: 05-FEB-10  
Collector: Client  
Moisture: 21.2%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.1C	H	5.98	0.010	0.100	SU	1	EXF1	02/08/10	1327	950202	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	75.7	278	ug/kg	1	AXC2	02/15/10	1325	950196	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		2.76	0.381	1.27	mg/kg	1	MAR1	02/24/10	2021	950804	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	02/24/10	1330	950802
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1535	950195

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

# 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: March 2, 2010

Client SDG: 10-1568-1

Client Sample ID: RE15-10-8307  
Sample ID: 246336004  
Matrix: R  
Collect Date: 01-FEB-10 12:00  
Receive Date: 05-FEB-10  
Collector: Client  
Moisture: 14.4%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.0C	H	5.47	0.010	0.100	SU	1	EXF1	02/08/10	1329	950202	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	79.5	292	ug/kg	1	AXC2	02/15/10	1326	950196	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	0.351	1.17	mg/kg	1	MAR10	02/24/10	2050	950804	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	02/24/10	1330	950802
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1535	950195

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

# 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: March 2, 2010

Client SDG: 10-1568-1

Client Sample ID: RE15-10-8309  
Sample ID: 246336005  
Matrix: R  
Collect Date: 01-FEB-10 12:00  
Receive Date: 05-FEB-10  
Collector: Client  
Moisture: 10.6%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.0C	H	7.09	0.010	0.100	SU	1	EXF1	02/08/10	1331	950202	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	74.6	274	ug/kg	1	AXC2	02/15/10	1327	950196	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	0.336	1.12	mg/kg	1	MAR1	02/24/10	2118	950804	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	02/24/10	1330	950802
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1535	950195

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

# 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: March 2, 2010

Client SDG: 10-1568-1

Client Sample ID: RE15-10-8308  
Sample ID: 246336006  
Matrix: R  
Collect Date: 01-FEB-10 12:00  
Receive Date: 05-FEB-10  
Collector: Client  
Moisture: 27.6%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.1C	H	6.80	0.010	0.100	SU	1	EXF1	02/08/10	1332	950202	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	88.6	326	ug/kg	1	AXC2	02/15/10	1328	950196	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	0.411	1.37	mg/kg	1	MAR1	02/24/10	2245	950804	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	02/24/10	1330	950802
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1535	950195

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

# 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: March 2, 2010

Client SDG: 10-1568-1

Client Sample ID: RE15-10-8301  
Sample ID: 246336007  
Matrix: R  
Collect Date: 01-FEB-10 12:00  
Receive Date: 05-FEB-10  
Collector: Client  
Moisture: 5.98%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.4C	H	6.82	0.010	0.100	SU	1	EXF1	02/08/10	1335	950202	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	65.8	242	ug/kg	1	AXC2	02/15/10	1329	950196	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		1.30	0.319	1.06	mg/kg	1	MAR1	02/24/10	2314	950804	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	02/24/10	1330	950802
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1535	950195

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

# 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: March 2, 2010

Client SDG: 10-1568-1

Client Sample ID: RE15-10-8300  
Sample ID: 246336008  
Matrix: R  
Collect Date: 01-FEB-10 12:00  
Receive Date: 05-FEB-10  
Collector: Client  
Moisture: 30.6%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.3C	H	6.19	0.010	0.100	SU	1	EXF1	02/08/10	1338	950202	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	98.0	360	ug/kg	1	AXC2	02/15/10	1330	950196	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	0.433	1.44	mg/kg	1	MAR1	02/24/10	2343	950804	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	02/24/10	1330	950802
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1535	950195

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	



# 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: March 2, 2010

Client SDG: 10-1568-1

Client Sample ID: RE15-10-8324  
Sample ID: 246336009  
Matrix: R  
Collect Date: 01-FEB-10 12:00  
Receive Date: 05-FEB-10  
Collector: Client  
Moisture: 20.9%

Project: LANL01004  
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Electrode Analysis</b>											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.3C	H	6.03	0.010	0.100	SU	1	EXF1	02/08/10	1340	950202	1
<b>Flow Injection Analysis</b>											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	86.0	316	ug/kg	1	AXC2	02/15/10	1331	950196	2
<b>Ion Chromatography</b>											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		2.40	0.379	1.26	mg/kg	1	MAR1	02/25/10	0012	950804	3

### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	02/24/10	1330	950802
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1535	950195

### The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9045C/9045D	
2	SW846 9012A	
3	EPA 300.0	

# **Quality Control Summary**

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Report Date: March 2, 2010

Page 1 of 2

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

Contact:

Workorder: 246336

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Electrode Analysis</b>											
Batch	950202										
QC1202036070	246336001	DUP									
pH		H	6.47	H	6.52	SU	0.770	(0%-10%)	EXF1	02/08/10	13:21
QC1202036071	246336002	DUP									
pH		H	6.23	H	6.24	SU	0.160	(0%-10%)		02/08/10	13:24
QC1202036072	LCS										
pH	7.00				6.95	SU		99.3	(95%-105%)		02/08/10 13:17
<b>Flow Injection Analysis</b>											
Batch	950196										
QC1202036021	246262002	DUP									
Cyanide, Total		U	ND	U	ND	ug/kg	N/A		AXC2	02/15/10	13:03
QC1202036022	246322001	DUP									
Cyanide, Total		U	ND	U	ND	ug/kg	N/A			02/15/10	13:07
QC1202036027	LCS										
Cyanide, Total	67900				32500	ug/kg		47.9	(32%-157%)		02/15/10 13:01
QC1202036020	MB										
Cyanide, Total				U	250	ug/kg					02/15/10 13:00
QC1202036023	246262002	MS									
Cyanide, Total	5590	U	ND		5380	ug/kg		96.3	(26%-158%)		02/15/10 13:04
QC1202036024	246322001	MS									
Cyanide, Total	4610	U	ND		3350	ug/kg		72.7	(26%-158%)		02/15/10 13:07
QC1202036025	246262002	MSD									
Cyanide, Total	5700	U	ND		5680	ug/kg	5.51	99.8	(0%-30%)		02/15/10 13:05
QC1202036026	246322001	MSD									
Cyanide, Total	4950	U	ND		3510	ug/kg	4.78	71	(0%-30%)		02/15/10 13:08
<b>Ion Chromatography</b>											
Batch	950804										
QC1202037586	246336001	DUP									
Nitrate-N			1.75		1.76	mg/kg	0.500 ^	(+/-1.26)	MAR1	02/24/10	18:25
QC1202037589	LCS										
Nitrate-N	50.0				50.3	mg/kg		101	(90%-110%)		02/24/10 17:27
QC1202037585	MB										
Nitrate-N				U	1.00	mg/kg					02/24/10 16:58
QC1202037587	246336001	MS									
Nitrate-N	62.8		1.75		56.6	mg/kg		87.4 *	(90%-110%)		02/24/10 18:54
QC1202037588	246336001	MSD									
Nitrate-N	62.8		1.75		57.4	mg/kg	1.48	88.7 *	(0%-20%)		02/24/10 19:23

### 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

## GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

### QC Summary

Workorder: 246336

Page 2 of 2

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
>	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.										
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: 02-MAR-2010 17:36

**GEL Laboratories LLC**

**Contract: LANL01004**

**SDG #: 10-1568-1**

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>15-FEB-2010 12:55:26</b>	<b>OM_2-15-2010_12-44-53</b>	<b>156</b>	<b>150</b>	<b>104</b>	<b>(90%-110%)</b>	<b>Yes</b>
CCV	15-FEB-2010 13:09:44	OM_2-15-2010_12-44-53	104	100	104	(90%-110%)	Yes
CCV	15-FEB-2010 13:22:09	OM_2-15-2010_12-44-53	105	100	105	(90%-110%)	Yes
CCV	15-FEB-2010 13:34:32	OM_2-15-2010_12-44-53	106	100	106	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
<b>ICB</b>	<b>15-FEB-2010 12:57:16</b>	<b>OM_2-15-2010_12-44-53</b>	<b>-1.47</b>	<b>10</b>	<b>Yes</b>
CCB	15-FEB-2010 13:11:34	OM_2-15-2010_12-44-53	-1.5	10	Yes
CCB	15-FEB-2010 13:23:59	OM_2-15-2010_12-44-53	-1.72	10	Yes
CCB	15-FEB-2010 13:36:22	OM_2-15-2010_12-44-53	-1.5	10	Yes

# INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 02-MAR-2010 17:36

**GEL Laboratories LLC**

**Contract: LANL01004**

**SDG #: 10-1568-1**

Ion Chromatography

Method: EPA 300.0

Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Nitrate-N

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
<b>ICV</b>	<b>24-FEB-2010 08:43:00</b>	<b>100224</b>	<b>4.8378</b>	<b>5</b>	<b>96.8</b>	<b>(90%-110%)</b>	<b>Yes</b>
CCV	24-FEB-2010 16:00:00	100224	5.0137	5	100	(90%-110%)	Yes
CCV	24-FEB-2010 21:47:00	100224	7.9319	7.5	106	(90%-110%)	Yes
CCV	25-FEB-2010 00:41:00	100224	5.0929	5	102	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
<b>ICB</b>	<b>24-FEB-2010 09:12:00</b>	<b>100224</b>	<b>0</b>	<b>0.1</b>	<b>Yes</b>
CCB	24-FEB-2010 16:29:00	100224	0	0.1	Yes
CCB	24-FEB-2010 22:16:00	100224	0	0.1	Yes
CCB	25-FEB-2010 01:10:00	100224	0	0.1	Yes

# Cyanide, Total



# Prep LogBook

Analyst: AXS5  
 Batch: 950195  
 Lab SOP: GL-GC-E-067 REV# 13

Verified by: \_\_\_\_\_

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Spike Amount	Spike Units
MB	1202036020		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.5 g	25 mL	50	SOIL	
LCS	1202036027		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.25 g	25 mL	100	SOIL	
SAMPLE	246262002		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.51 g	25 mL	49.01961	SOIL	
DUP	1202036021	246262002	SW846 9010B Prep	12-FEB-2010 15:35	>12	0.52 g	25 mL	48.07692	SOIL	
MS	1202036023	246262002	SW846 9010B Prep	12-FEB-2010 15:35	>12	0.52 g	25 mL	48.07692	SOIL	
MSD	1202036025	246262002	SW846 9010B Prep	12-FEB-2010 15:35	>12	0.51 g	25 mL	49.01961	SOIL	
SAMPLE	246322001		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.55 g	25 mL	45.45455	SOIL	
DUP	1202036022	246322001	SW846 9010B Prep	12-FEB-2010 15:35	>12	0.5 g	25 mL	50	SOIL	
MS	1202036024	246322001	SW846 9010B Prep	12-FEB-2010 15:35	>12	0.58 g	25 mL	43.10345	SOIL	
MSD	1202036026	246322001	SW846 9010B Prep	12-FEB-2010 15:35	>12	0.54 g	25 mL	46.2963	SOIL	
SAMPLE	246322002		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.5 g	25 mL	50	SOIL	
SAMPLE	246322003		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.52 g	25 mL	48.07692	SOIL	
SAMPLE	246322004		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.57 g	25 mL	43.85965	SOIL	
SAMPLE	246322005		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.54 g	25 mL	46.2963	SOIL	
SAMPLE	246322006		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.56 g	25 mL	44.64286	SOIL	
SAMPLE	246322007		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.52 g	25 mL	48.07692	SOIL	
SAMPLE	246322008		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.53 g	25 mL	47.16981	SOIL	
SAMPLE	246322009		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.52 g	25 mL	48.07692	SOIL	
SAMPLE	246336001		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.54 g	25 mL	46.2963	SOIL	
SAMPLE	246336002		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.55 g	25 mL	45.45455	SOIL	
SAMPLE	246336003		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.57 g	25 mL	43.85965	SOIL	
SAMPLE	246336004		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.5 g	25 mL	50	SOIL	
SAMPLE	246336005		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.51 g	25 mL	49.01961	SOIL	
SAMPLE	246336006		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.53 g	25 mL	47.16981	SOIL	
SAMPLE	246336007		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.55 g	25 mL	45.45455	SOIL	
SAMPLE	246336008		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.5 g	25 mL	50	SOIL	
SAMPLE	246336009		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.5 g	25 mL	50	SOIL	
SAMPLE	246344001		SW846 9010B Prep	12-FEB-2010 15:35	>12	0.5 g	25 mL	50	SOIL	

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description	Comments
100210-C	25 mL	0.25N Sodium Hydroxide Solution	
WCN100212-07	.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	2/15/2010 12:48:16	OM_2-15-2010_12-44-53
150 ppb		1	axc2	2/15/2010 12:49:08	OM_2-15-2010_12-44-53
100 ppb		1	axc2	2/15/2010 12:50:01	OM_2-15-2010_12-44-53
50 ppb		1	axc2	2/15/2010 12:50:53	OM_2-15-2010_12-44-53
10 ppb		1	axc2	2/15/2010 12:51:47	OM_2-15-2010_12-44-53
CRDL 5.0 ppb		1	axc2	2/15/2010 12:52:40	OM_2-15-2010_12-44-53
ICAL-00		1	axc2	2/15/2010 12:53:35	OM_2-15-2010_12-44-53
ICV		1	axc2	2/15/2010 12:55:26	OM_2-15-2010_12-44-53
ICB		1	axc2	2/15/2010 12:57:16	OM_2-15-2010_12-44-53
		1	axc2	2/15/2010 12:59:06	OM_2-15-2010_12-44-53
1202036020	950196	1	axc2	2/15/2010 13:00:56	OM_2-15-2010_12-44-53
1202036027	950196	25	axc2	2/15/2010 13:01:49	OM_2-15-2010_12-44-53
246262002	950196	1	axc2	2/15/2010 13:02:43	OM_2-15-2010_12-44-53
1202036021	950196	1	axc2	2/15/2010 13:03:35	OM_2-15-2010_12-44-53
1202036023	950196	1	axc2	2/15/2010 13:04:29	OM_2-15-2010_12-44-53
1202036025	950196	1	axc2	2/15/2010 13:05:21	OM_2-15-2010_12-44-53
246322001	950196	1	axc2	2/15/2010 13:06:14	OM_2-15-2010_12-44-53
1202036022	950196	1	axc2	2/15/2010 13:07:06	OM_2-15-2010_12-44-53
1202036024	950196	1	axc2	2/15/2010 13:07:59	OM_2-15-2010_12-44-53
1202036026	950196	1	axc2	2/15/2010 13:08:51	OM_2-15-2010_12-44-53
CCV		1	axc2	2/15/2010 13:09:44	OM_2-15-2010_12-44-53
CCB		1	axc2	2/15/2010 13:11:34	OM_2-15-2010_12-44-53
246322002	950196	1	axc2	2/15/2010 13:13:22	OM_2-15-2010_12-44-53
246322003	950196	1	axc2	2/15/2010 13:14:14	OM_2-15-2010_12-44-53
246322004	950196	1	axc2	2/15/2010 13:15:06	OM_2-15-2010_12-44-53
246322005	950196	1	axc2	2/15/2010 13:15:58	OM_2-15-2010_12-44-53
246322006	950196	1	axc2	2/15/2010 13:16:49	OM_2-15-2010_12-44-53
246322007	950196	1	axc2	2/15/2010 13:17:43	OM_2-15-2010_12-44-53
246322008	950196	1	axc2	2/15/2010 13:18:37	OM_2-15-2010_12-44-53
246322009	950196	1	axc2	2/15/2010 13:19:30	OM_2-15-2010_12-44-53
246336001	950196	1	axc2	2/15/2010 13:20:23	OM_2-15-2010_12-44-53
246336002	950196	1	axc2	2/15/2010 13:21:17	OM_2-15-2010_12-44-53
CCV		1	axc2	2/15/2010 13:22:09	OM_2-15-2010_12-44-53
CCB		1	axc2	2/15/2010 13:23:59	OM_2-15-2010_12-44-53
246336003	950196	1	axc2	2/15/2010 13:25:48	OM_2-15-2010_12-44-53
246336004	950196	1	axc2	2/15/2010 13:26:42	OM_2-15-2010_12-44-53
246336005	950196	1	axc2	2/15/2010 13:27:34	OM_2-15-2010_12-44-53
246336006	950196	1	axc2	2/15/2010 13:28:27	OM_2-15-2010_12-44-53
246336007	950196	1	axc2	2/15/2010 13:29:19	OM_2-15-2010_12-44-53
246336008	950196	1	axc2	2/15/2010 13:30:12	OM_2-15-2010_12-44-53
246336009	950196	1	axc2	2/15/2010 13:31:05	OM_2-15-2010_12-44-53
246344001	950196	1	axc2	2/15/2010 13:31:56	OM_2-15-2010_12-44-53
1202036028	950198	1	axc2	2/15/2010 13:32:48	OM_2-15-2010_12-44-53
1202036035	950198	25	axc2	2/15/2010 13:33:40	OM_2-15-2010_12-44-53
CCV		1	axc2	2/15/2010 13:34:32	OM_2-15-2010_12-44-53
CCB		1	axc2	2/15/2010 13:36:22	OM_2-15-2010_12-44-53
246315001	950198	1	axc2	2/15/2010 13:38:12	OM_2-15-2010_12-44-53
246315002	950198	1	axc2	2/15/2010 13:39:06	OM_2-15-2010_12-44-53
246315003	950198	1	axc2	2/15/2010 13:40:00	OM_2-15-2010_12-44-53
246325001	950198	1	axc2	2/15/2010 13:40:53	OM_2-15-2010_12-44-53
246325002	950198	1	axc2	2/15/2010 13:41:47	OM_2-15-2010_12-44-53
246325003	950198	1	axc2	2/15/2010 13:42:40	OM_2-15-2010_12-44-53
246325004	950198	1	axc2	2/15/2010 13:43:33	OM_2-15-2010_12-44-53
246325005	950198	1	axc2	2/15/2010 13:44:25	OM_2-15-2010_12-44-53
246325006	950198	1	axc2	2/15/2010 13:45:18	OM_2-15-2010_12-44-53
246344002	950198	1	axc2	2/15/2010 13:46:12	OM_2-15-2010_12-44-53
CCV		1	axc2	2/15/2010 13:47:03	OM_2-15-2010_12-44-53
CCB		1	axc2	2/15/2010 13:48:54	OM_2-15-2010_12-44-53

1202036029	950198	1	axc2	2/15/2010	13:50:43	OM_2-15-2010_12-44-53
1202036031	950198	1	axc2	2/15/2010	13:51:35	OM_2-15-2010_12-44-53
1202036033	950198	1	axc2	2/15/2010	13:52:27	OM_2-15-2010_12-44-53
246344003	950198	1	axc2	2/15/2010	13:53:19	OM_2-15-2010_12-44-53
1202036030	950198	1	axc2	2/15/2010	13:54:12	OM_2-15-2010_12-44-53
1202036032	950198	1	axc2	2/15/2010	13:55:05	OM_2-15-2010_12-44-53
1202036034	950198	1	axc2	2/15/2010	13:56:00	OM_2-15-2010_12-44-53
246344004	950198	1	axc2	2/15/2010	13:56:54	OM_2-15-2010_12-44-53
246344005	950198	1	axc2	2/15/2010	13:57:47	OM_2-15-2010_12-44-53
246447001	950198	1	axc2	2/15/2010	13:58:41	OM_2-15-2010_12-44-53
CCV		1	axc2	2/15/2010	13:59:33	OM_2-15-2010_12-44-53
CCB		1	axc2	2/15/2010	14:01:23	OM_2-15-2010_12-44-53
246447002	950198	1	axc2	2/15/2010	14:03:13	OM_2-15-2010_12-44-53
246447003	950198	1	axc2	2/15/2010	14:04:06	OM_2-15-2010_12-44-53
246466001	950198	1	axc2	2/15/2010	14:05:00	OM_2-15-2010_12-44-53
246466002	950198	1	axc2	2/15/2010	14:05:53	OM_2-15-2010_12-44-53
246466003	950198	1	axc2	2/15/2010	14:06:45	OM_2-15-2010_12-44-53
246466004	950198	1	axc2	2/15/2010	14:07:38	OM_2-15-2010_12-44-53
CCV		1	axc2	2/15/2010	14:08:30	OM_2-15-2010_12-44-53
CCB		1	axc2	2/15/2010	14:10:21	OM_2-15-2010_12-44-53

Author: axc2

Date : 2/15/2010

Original Run Filename: OM\_2-15-2010\_12-44-53.OMN created 2/15/2010 12:44:53  
 Original Run Author's Signature: [axc2]  
 Current Run Filename: OM\_2-15-2010\_12-44-53.OMN last modified 2/15/2010 14:11:25  
 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 TCYANIDE		Detection Time	ADF	MDF	Description
			Conc. (ug/L)	Area (Vs)				
WCN100215-01	1	S1	200	10.4	2/15/2010@12:48:16			200 ppb
WCN100215-02	1	S2	150	7.79	2/15/2010@12:49:08			150 ppb
WCN100215-03	1	S3	100	5.26	2/15/2010@12:50:01			100 ppb
WCN100215-04	1	S4	50.0	2.78	2/15/2010@12:50:53			50 ppb
WCN100215-05	1	S5	10.0	0.645	2/15/2010@12:51:47			10 ppb
WCN100215-06	1	S6	5.00	0.365	2/15/2010@12:52:40			CRDL 5.0 ppb
WCN100215-08	1	S7	0.00	0.0118	2/15/2010@12:53:35			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
Result:			0.99990 > 0.99500					
Message			Pass					
Action			Continue					
WCN100215-07	1	S8	156	8.13	2/15/2010@12:55:26			ICV
Known Conc:			150					
DQM Test: > + Percent Relative Difference								
Result:			3.8 < 10.0					
Message			ICV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			3.8 < 10.0					
Message			ICV Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
WCN100215-08	1	S7	-1.47	0.0264	2/15/2010@12:57:16			ICB/CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.47 < 5.01					
Message			ICB/CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.47 > -5.01					
Message			ICB/CCB Passed					
Action			Continue					
WCN100215-06	1	S6	4.83	0.352	2/15/2010@12:59:06			
Known Conc:			5.00					
DQM Test: > + Concentration Limit								
Result:			4.83 < 7.50					
Message			CRDL Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			4.83 > 2.50					
Message			Pass					
Action			None					
1202036020 950196 MB	1	1	-2.01	-0.00105	2/15/2010@13:00:56			
1202036027  LCS	1	2	13.0	0.772	2/15/2010@13:01:49		25.00	
246262002	1	3	-1.29	0.0358	2/15/2010@13:02:43			
1202036021  DUP	1	4	-2.14	-0.00794	2/15/2010@13:03:35			
1202036023  MS	1	5	96.3	5.07	2/15/2010@13:04:29			
1202036025  MSD	1	6	99.8	5.25	2/15/2010@13:05:21			
246322001	1	7	-0.994	0.0512	2/15/2010@13:06:14			
1202036022  DUP	1	8	-1.21	0.0399	2/15/2010@13:07:06			
1202036024  MS	1	9	72.7	3.85	2/15/2010@13:07:59			
1202036026  MSD	1	10	71.0	3.77	2/15/2010@13:08:51			
WCN100215-03	1	S3	104	5.49	2/15/2010@13:09:44			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				
WCN100215-08	1	S7		-1.50	0.0251	2/15/2010@13:11:34		CCB
			Known Conc:	0.00				
DQM Test: > + Concentration Limit								
			Result:	-1.50 < 5.00				
			Message	CCB Passed				
			Action	Continue				
DQM Test: < - Concentration Limit								
			Result:	-1.50 > -5.00				
			Message	CCB Passed				
			Action	Continue				
246322002	1	11		-1.41	0.0299	2/15/2010@13:13:22		
246322003	1	12		-1.57	0.0213	2/15/2010@13:14:14		
246322004	1	13		-1.44	0.0280	2/15/2010@13:15:06		
246322005	1	14		-1.16	0.0424	2/15/2010@13:15:58		
246322006	1	15		-1.49	0.0255	2/15/2010@13:16:49		
246322007	1	16		-0.265	0.0888	2/15/2010@13:17:43		
246322008	1	17		-1.33	0.0341	2/15/2010@13:18:37		
246322009	1	18		-1.33	0.0340	2/15/2010@13:19:30		
246336001	1	19		0.626	0.135	2/15/2010@13:20:23		
246336002	1	20		16.5	0.952	2/15/2010@13:21:17		
WCN100215-03	1	S3		105	5.53	2/15/2010@13:22:09		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				
WCN100215-08	1	S7		-1.72	0.0139	2/15/2010@13:23:59		CCB
			Known Conc:	0.00				
DQM Test: > + Concentration Limit								
			Result:	-1.72 < 5.00				
			Message	CCB Passed				
			Action	Continue				
DQM Test: < - Concentration Limit								
			Result:	-1.72 > -5.00				
			Message	CCB Passed				
			Action	Continue				
246336003	1	21		-0.0779	0.0984	2/15/2010@13:25:48		
246336004	1	22		1.02	0.155	2/15/2010@13:26:42		
246336005	1	23		-1.32	0.0345	2/15/2010@13:27:34		
246336006	1	24		-1.08	0.0469	2/15/2010@13:28:27		
246336007	1	25		-1.29	0.0360	2/15/2010@13:29:19		
246336008	1	26		-0.178	0.0932	2/15/2010@13:30:12		
246336009	1	27		-0.449	0.0793	2/15/2010@13:31:05		
246344001	1	28		-1.02	0.0498	2/15/2010@13:31:56		
1202036028 950198 MB	1	29		-1.43	0.0287	2/15/2010@13:32:48		
1202036035 LCS	1	30		30.1	1.66	2/15/2010@13:33:40	25.00	
WCN100215-03	1	S3		106	5.57	2/15/2010@13:34:32		CCV
			Known Conc:	100				
DQM Test: > + Percent Relative Difference								
			Result:	6.0 < 10.0				
			Message	CCV Passed				
			Action	Continue				
DQM Test: < - Percent Relative Difference								
			Result:	6.0 < 10.0				
			Message	CCV Passed				
			Action	Continue				
WCN100215-08	1	S7		-1.50	0.0250	2/15/2010@13:36:22		CCB
			Known Conc:	0.00				

DQM Test: > + Concentration Limit							
Result:		-1.50 < 5.00					
Message		CCB Passed					
Action		Continue					
DQM Test: < - Concentration Limit							
Result:		-1.50 > -5.00					
Message		CCB Passed					
Action		Continue					
246315001	1	31	-1.12	0.0448	2/15/2010@13:38:12		
246315002	1	32	-1.43	0.0288	2/15/2010@13:39:06		
246315003	1	33	0.565	0.132	2/15/2010@13:40:00		
246325001	1	34	-1.99	-1.99e-4	2/15/2010@13:40:53		
246325002	1	35	-1.44	0.0280	2/15/2010@13:41:47		
246325003	1	36	-2.17	-0.00943	2/15/2010@13:42:40		
246325004	1	37	-1.47	0.0264	2/15/2010@13:43:33		
246325005	1	38	-1.91	0.00401	2/15/2010@13:44:25		
246325006	1	39	-2.00	-7.90e-4	2/15/2010@13:45:18		
246344002	1	40	-0.652	0.0688	2/15/2010@13:46:12		
WCN100215-03	1	S3	106	5.59	2/15/2010@13:47:03		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:		6.4 < 10.0					
Message		CCV Passed					
Action		Continue					
DQM Test: < - Percent Relative Difference							
Result:		6.4 < 10.0					
Message		CCV Passed					
Action		Continue					
WCN100215-08	1	S7	-1.70	0.0149	2/15/2010@13:48:54		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:		-1.70 < 5.00					
Message		CCB Passed					
Action		Continue					
DQM Test: < - Concentration Limit							
Result:		-1.70 > -5.00					
Message		CCB Passed					
Action		Continue					
1202036029  DUP	1	41	-0.396	0.0820	2/15/2010@13:50:43		
1202036031  MS	1	42	91.8	4.84	2/15/2010@13:51:35		
1202036033  MSD	1	43	103	5.39	2/15/2010@13:52:27		
246344003	1	44	-0.871	0.0575	2/15/2010@13:53:19		
1202036030  DUP	1	45	-1.24	0.0383	2/15/2010@13:54:12		
1202036032  MS	1	46	104	5.48	2/15/2010@13:55:05		
1202036034  MSD	1	47	100	5.26	2/15/2010@13:56:00		
246344004	1	48	-0.460	0.0787	2/15/2010@13:56:54		
246344005	1	49	6.38	0.431	2/15/2010@13:57:47		
246447001	1	50	-2.24	-0.0131	2/15/2010@13:58:41		
WCN100215-03	1	S3	106	5.59	2/15/2010@13:59:33		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:		6.4 < 10.0					
Message		CCV Passed					
Action		Continue					
DQM Test: < - Percent Relative Difference							
Result:		6.4 < 10.0					
Message		CCV Passed					
Action		Continue					
WCN100215-08	1	S7	-1.66	0.0170	2/15/2010@14:01:23		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:		-1.66 < 5.00					
Message		CCB Passed					
Action		Continue					
DQM Test: < - Concentration Limit							
Result:		-1.66 > -5.00					
Message		CCB Passed					
Action		Continue					

246447002	1	51	-1.48	0.0262	2/15/2010@14:03:13			
246447003	1	52	-1.46	0.0273	2/15/2010@14:04:06			
246466001	1	53	-1.20	0.0407	2/15/2010@14:05:00			
246466002	1	54	-1.31	0.0347	2/15/2010@14:05:53			
246466003	1	55	-1.68	0.0158	2/15/2010@14:06:45			
246466004	1	56	-1.02	0.0498	2/15/2010@14:07:38			
WCN100215-03	1	S3	107	5.60	2/15/2010@14:08:30			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			6.6 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			6.6 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100215-08	1	S7	-1.66	0.0166	2/15/2010@14:10:21			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.66 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.66 > -5.00					
Message			CCB Passed					
Action			Continue					

Analyte Properties Table for OM\_2-15-2010\_12-44-53.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

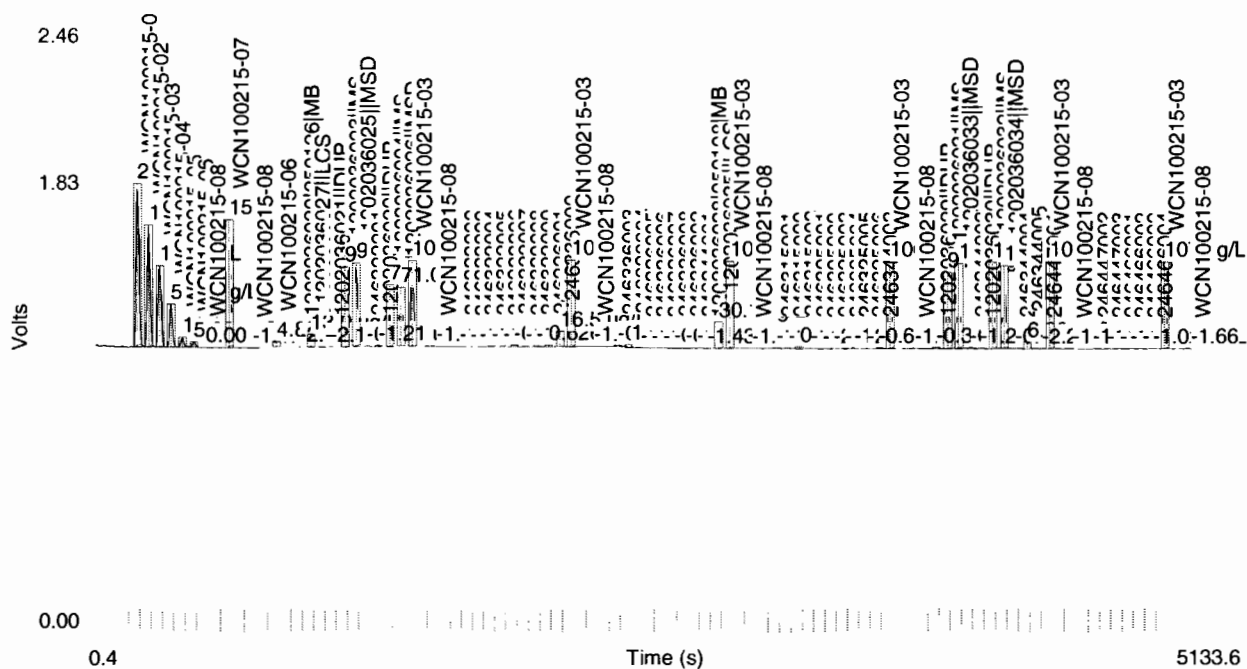
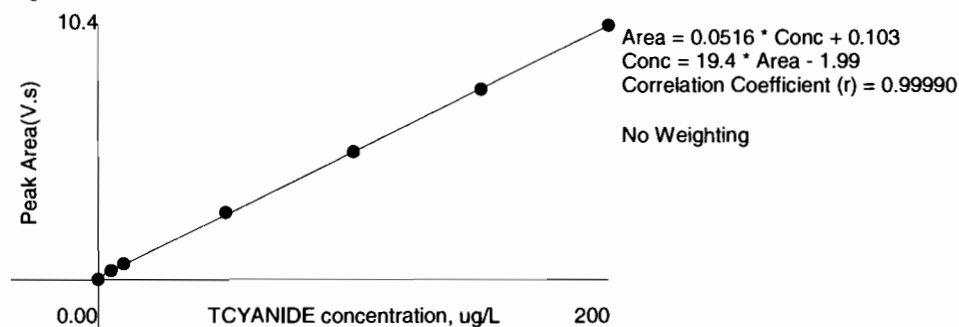


Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.4	0.678	-0.1	2/15/2010	12:49:19
2	150	1	7.79	0.509	0.6	2/15/2010	12:50:11
3	100	1	5.26	0.340	0.0	2/15/2010	12:51:04
4	50.0	1	2.78	0.180	-3.7	2/15/2010	12:51:57
5	10.0	1	0.645	0.0416	-4.2	2/15/2010	12:52:50
6	5.00	1	0.365	0.0237	-1.2	2/15/2010	12:53:44
7	0.00	1	0.0118	0.00242		2/15/2010	12:54:38

Figure 1: TCYANIDE



# **Ion Chromatography**

# Prep LogBook

Analyst: MAR1  
 Batch: 950802  
 Lab SOP: GL-GC-E-086 REV# 17

Verified by: \_\_\_\_\_

Type      Sample Id      Lot. Id      Spike Amount      Spike Units  
 LCS      1202037589      UIC100224SPK      .8      mL  
 MS      1202037587      UIC100224SPK      .8      mL  
 MSD      1202037588      UIC100224SPK      .8      mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202037585		EPA 300.0 PREP	24-FEB-2010 13:30	4 g	40 mL	10	SOIL
LCS	1202037589		EPA 300.0 PREP	24-FEB-2010 13:30	4 g	40 mL	10	SOIL
SAMPLE	246336001		EPA 300.0 PREP	24-FEB-2010 13:30	4 g	40 mL	10	SOIL
DUP	1202037586	246336001	EPA 300.0 PREP	24-FEB-2010 13:30	4 g	40 mL	10	SOIL
MS	1202037587	246336001	EPA 300.0 PREP	24-FEB-2010 13:30	4 g	40 mL	10	SOIL
MSD	1202037588	246336001	EPA 300.0 PREP	24-FEB-2010 13:30	4 g	40 mL	10	SOIL
SAMPLE	246336002		EPA 300.0 PREP	24-FEB-2010 13:30	4.04 g	40 mL	9.90099	SOIL
SAMPLE	246336003		EPA 300.0 PREP	24-FEB-2010 13:30	4 g	40 mL	10	SOIL
SAMPLE	246336004		EPA 300.0 PREP	24-FEB-2010 13:30	4 g	40 mL	10	SOIL
SAMPLE	246336005		EPA 300.0 PREP	24-FEB-2010 13:30	4 g	40 mL	10	SOIL
SAMPLE	246336006		EPA 300.0 PREP	24-FEB-2010 13:30	4.03 g	40 mL	9.92556	SOIL
SAMPLE	246336007		EPA 300.0 PREP	24-FEB-2010 13:30	4 g	40 mL	10	SOIL
SAMPLE	246336008		EPA 300.0 PREP	24-FEB-2010 13:30	4 g	40 mL	10	SOIL
SAMPLE	246336009		EPA 300.0 PREP	24-FEB-2010 13:30	4 g	40 mL	10	SOIL

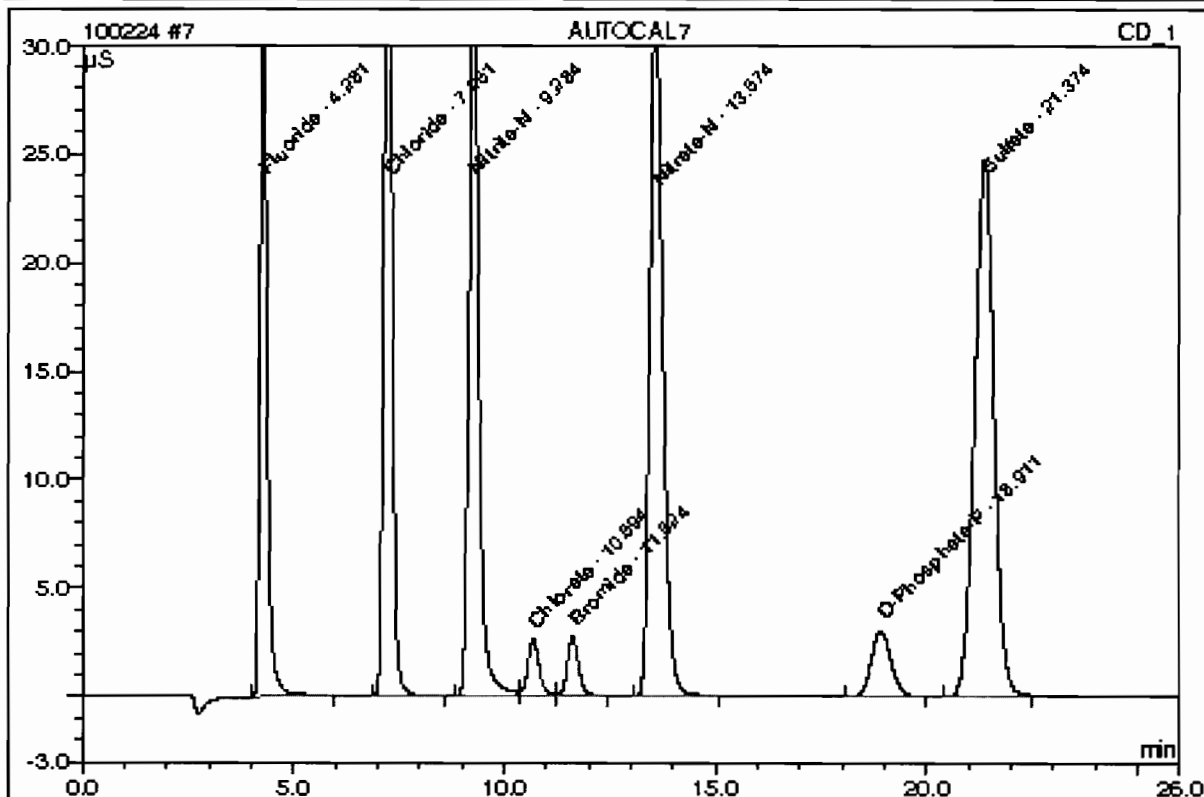
Comments

This is runlog for Sequence 100224.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
ICAL-07	02/03/10 14:51		1	100224	MAR1
ICAL-06	02/03/10 15:20		1	100224	MAR1
ICAL-05	02/03/10 15:49		1	100224	MAR1
ICAL-04	02/03/10 16:18		1	100224	MAR1
ICAL-03	02/03/10 16:47		1	100224	MAR1
ICAL-02	02/03/10 17:16		1	100224	MAR1
ICAL-01	02/03/10 17:45		1	100224	MAR1

**7 AUTOCAL7**

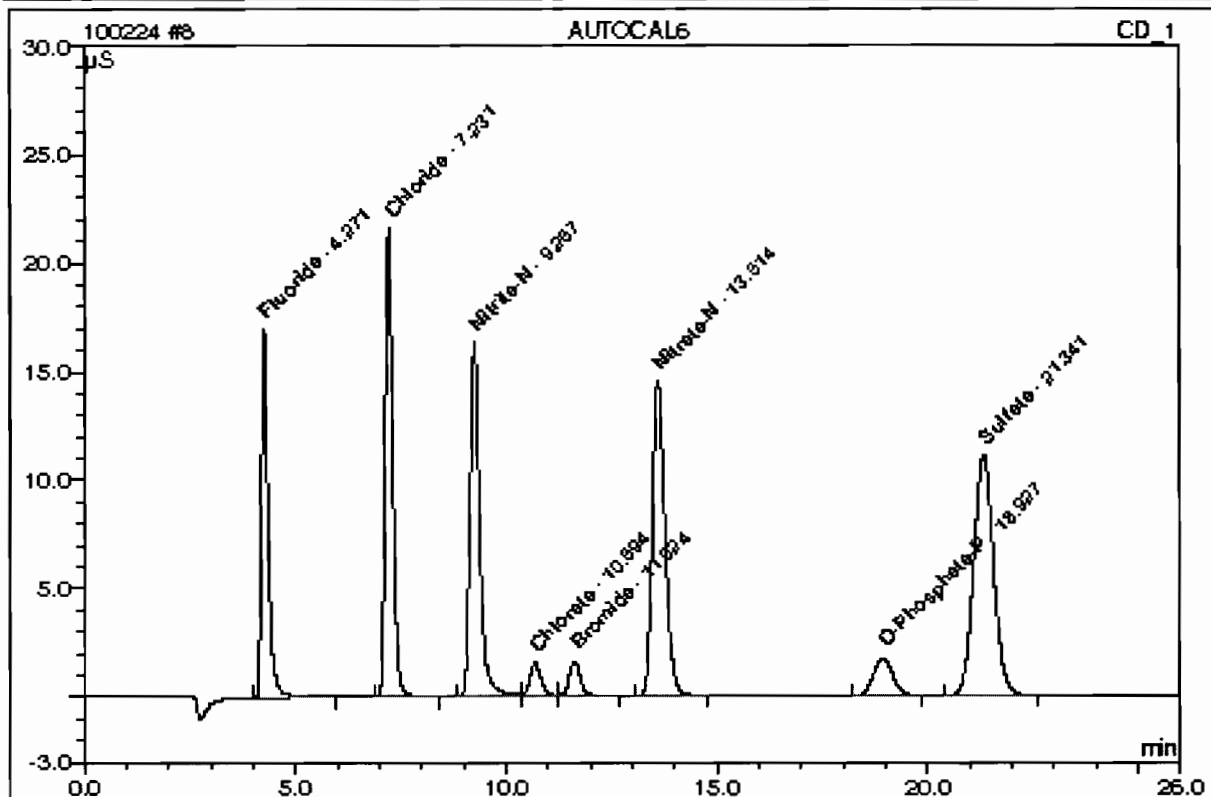
Sample Name:	AUTOCAL7	Injection Volume:	1.0
Vial Number:	2	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/3/2010 14:51	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area μS*min	Rel.Area %
1	4.28	Fluoride	10.0000	10.0789		6.36361	12.07
2	7.25	Chloride	20.0000	20.3251		9.51272	18.04
3	9.28	Nitrate-N	10.0000	10.0955		9.30956	17.66
4	10.69	Chlorate	5.0000	5.0882		0.81636	1.55
5	11.62	Bromide	5.0000	5.0072		0.83672	1.59
6	13.57	Nitrate-N	10.0000	10.1822		11.20457	21.25
7	18.91	O-Phosphate-P	5.0000	5.0928		1.61745	3.07
8	21.37	Sulfate	40.0000	40.6145		13.05755	24.77
Total:				106.4844	0.000	52.719	100.00

**8 AUTOCL6**

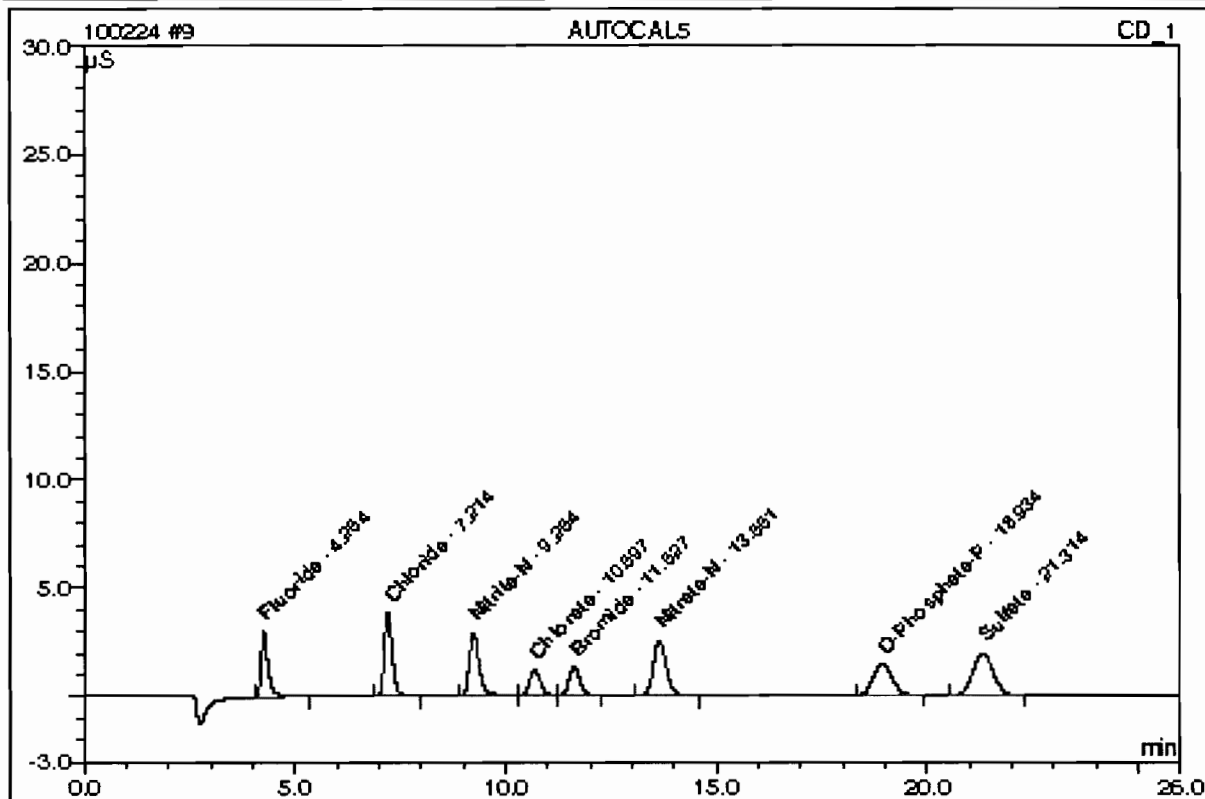
Sample Name:	AUTOCL6	Injection Volume:	1.0
Vial Number:	3	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/3/2010 15:20	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;8056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.27	Fluoride	5.0000	4.8505		3.04271	12.30
2	7.23	Chloride	10.0000	9.3656		4.33939	17.55
3	9.27	Nitrite-N	5.0000	4.8181		4.41022	17.83
4	10.89	Chlorate	3.0000	2.9971		0.47650	1.93
5	11.62	Bromide	3.0000	3.0679		0.51071	2.06
6	13.61	Nitrate-N	5.0000	4.6446		5.04710	20.41
7	18.93	O-Phosphate-P	3.0000	2.9374		0.91837	3.71
8	21.34	Sulfate	20.0000	18.8112		5.98714	24.21
Total:				51.4925	0.000	24.732	100.00

**9 AUTOCAL5**

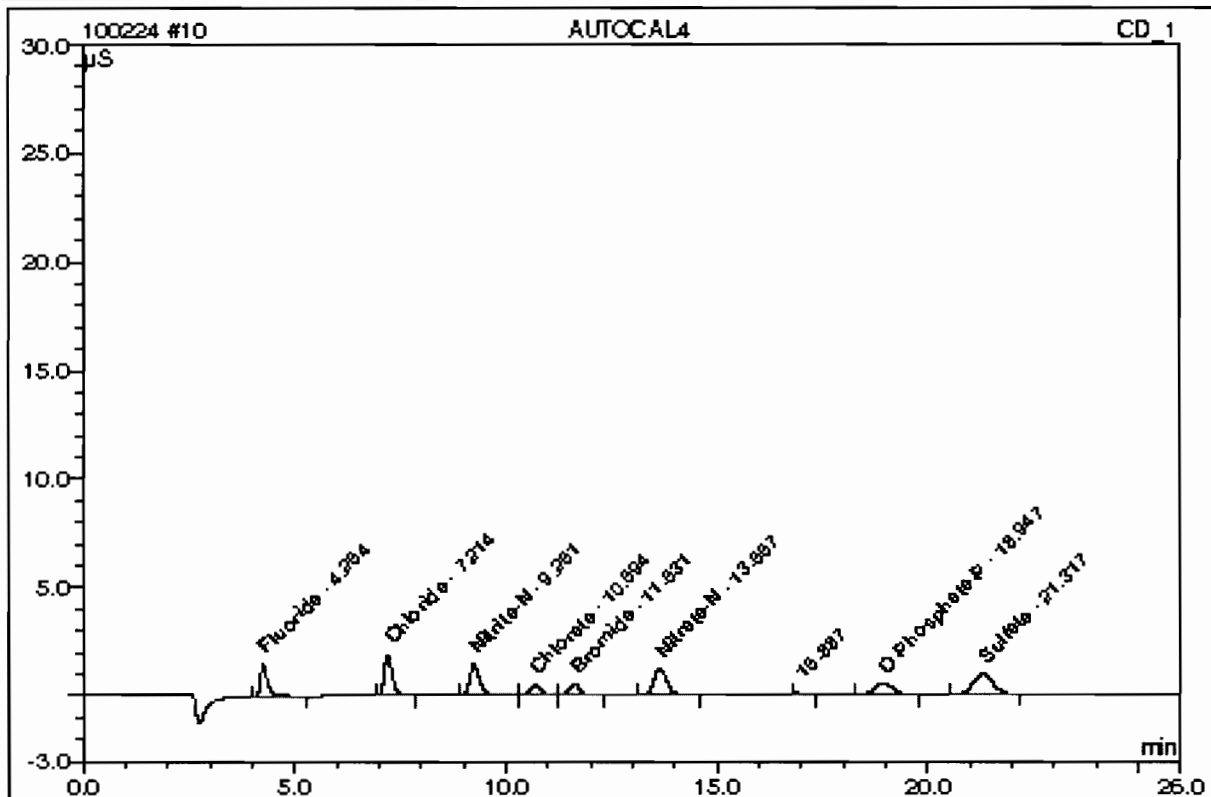
Sample Name:	AUTOCAL5	Injection Volume:	1.0
Vial Number:	4	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/3/2010 15:49	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC E086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.26	Fluoride	1.0000	0.9515		0.56618	9.92
2	7.21	Chloride	2.0000	1.8779		0.80490	14.10
3	9.25	Nitrite-N	1.0000	0.9432		0.81286	14.24
4	10.70	Chlorate	2.5000	2.3297		0.36803	6.45
5	11.63	Bromide	2.5000	2.4133		0.40066	7.02
6	13.65	Nitrate-N	1.0000	0.9296		0.91623	16.05
7	18.93	O-Phosphate-P	2.5000	2.4061		0.74604	13.07
8	21.31	Sulfate	4.0000	3.7213		1.09374	19.16
Total:				15.5726	0.000	5.709	100.00

**10 AUTOCAL4**

Sample Name:	AUTOCAL4	Injection Volume:	1.0
Vial Number:	5	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/3/2010 16:18	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC E086;300;9056

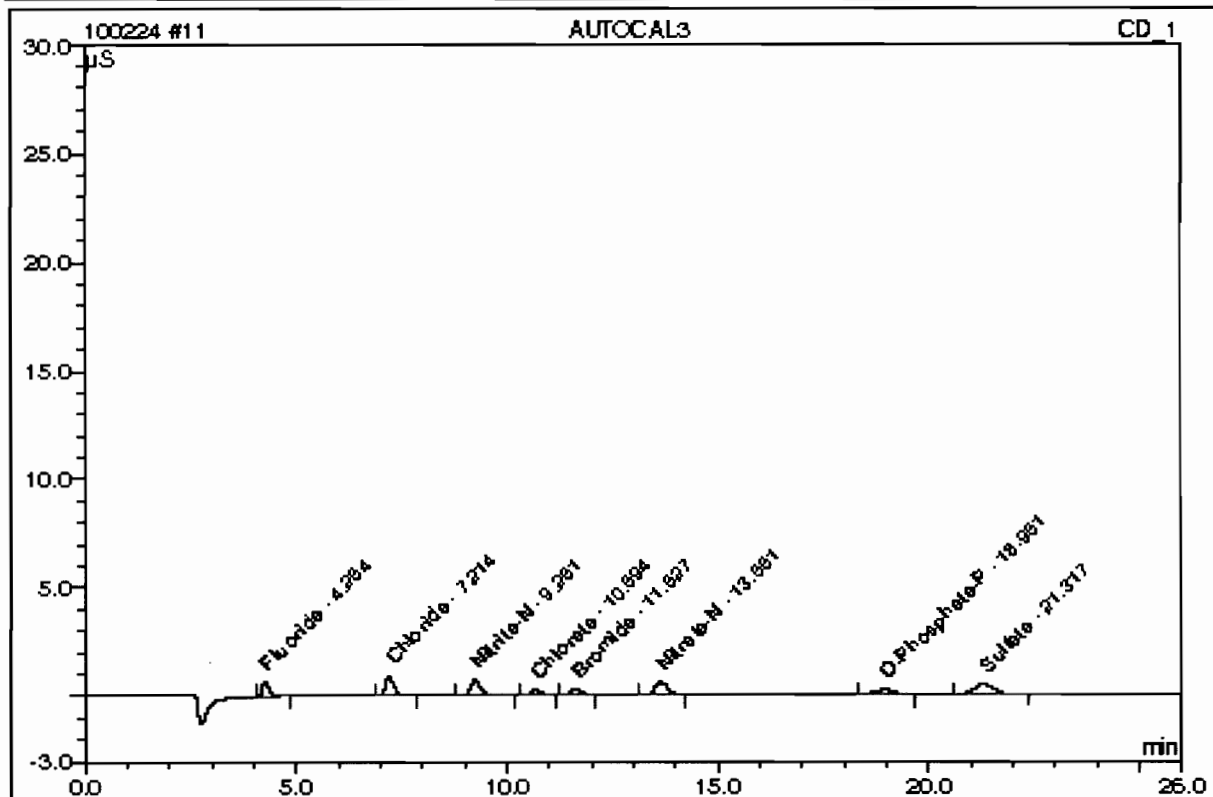


No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.28	Fluoride	0.5000	0.4971		0.27757	10.42
2	7.21	Chloride	1.0000	1.0089		0.39471	14.82
3	9.25	Nitrite-N	0.5000	0.4969		0.39851	14.97
4	10.89	Chlorate	1.0000	0.9855		0.14957	5.62
5	11.63	Bromide	1.0000	0.9805		0.15979	6.00
6	13.86	Nitrate-N	0.5000	0.5103		0.45001	16.90
8	18.95	O-Phosphate-P	1.0000	0.9640		0.27829	10.45
9	21.32	Sulfate	2.0000	1.9928		0.53323	20.03
Total:				7.4361	0.000	2.642	99.22



**11 AUTOCAL3**

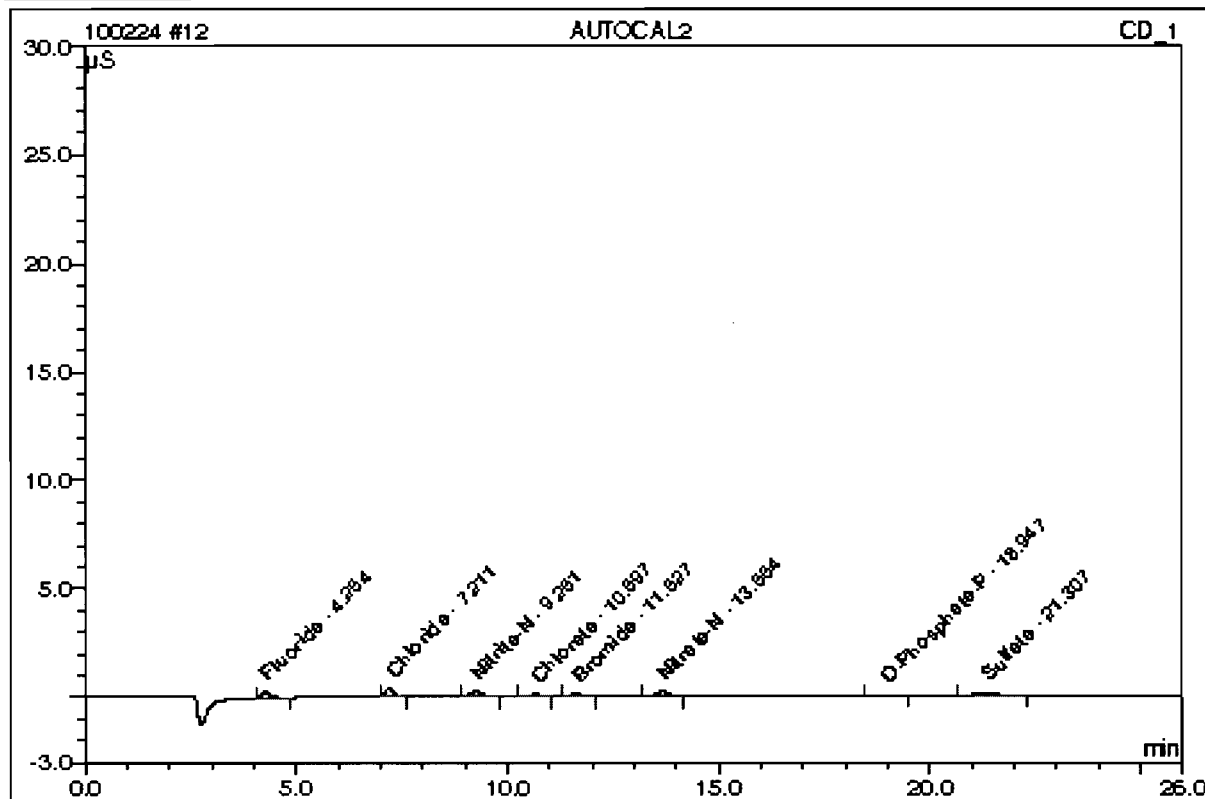
Sample Name:	AUTOCAL3	Injection Volume:	1.0
Vial Number:	6	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/3/2010 16:47	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCED86;300;Ø056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.26	Fluoride	0.2500	0.2665		0.13108	10.19
2	7.21	Chloride	0.5000	0.5938		0.19877	15.45
3	9.25	Nitrite-N	0.2500	0.2798		0.19699	15.31
4	10.69	Chlorate	0.5000	0.5043		0.07135	5.55
5	11.63	Bromide	0.5000	0.4866		0.07676	5.97
6	13.66	Nitrate-N	0.2500	0.2967		0.21243	16.51
7	18.95	O-Phosphate-P	0.5000	0.4866		0.12344	9.60
8	21.32	Sulfate	1.0000	1.1986		0.27569	21.43
Total:				4.1128	0.000	1.287	100.00

**12 AUTOCAL2**

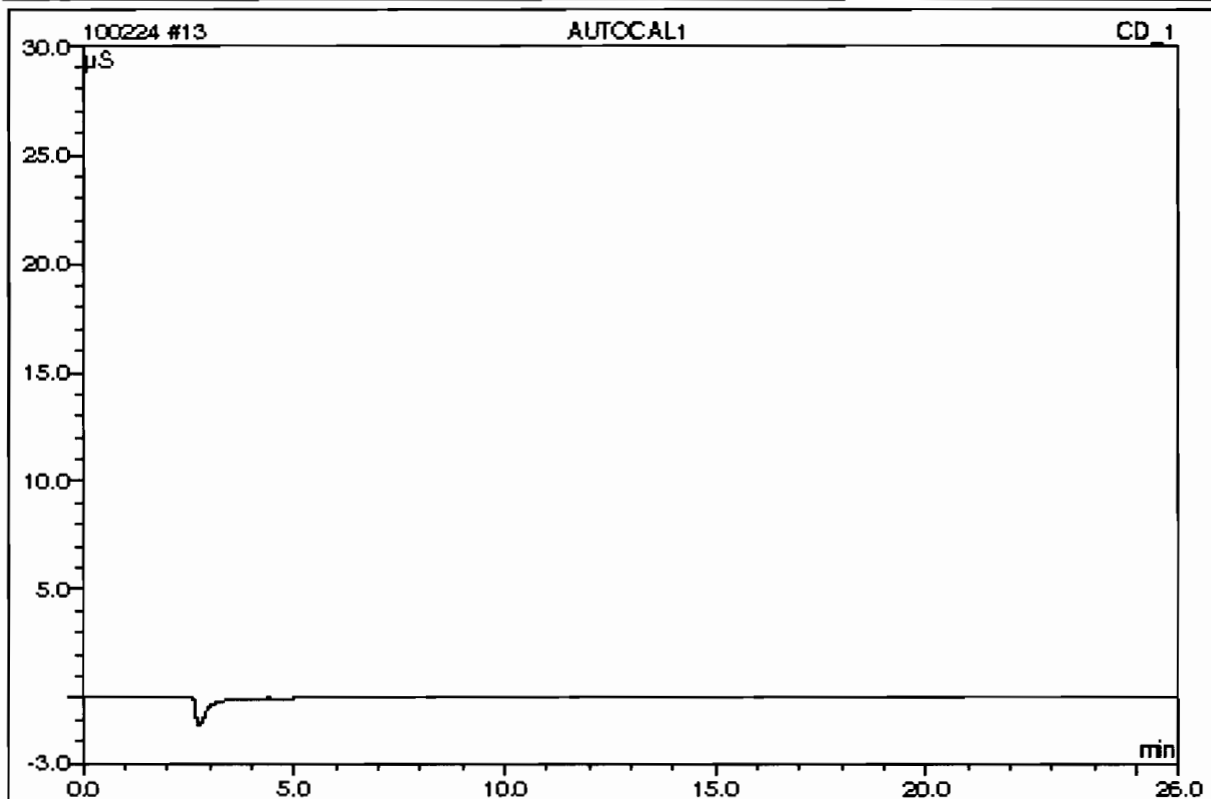
Sample Name:	AUTOCAL2	Injection Volume:	1.0
Vial Number:	7	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/3/2010 17:16	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC E086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.26	Fluoride	0.1000	0.1453		0.05408	10.63
2	7.21	Chloride	0.2000	0.3561		0.08657	17.02
3	9.25	Nitrate-N	0.1000	0.1488		0.07532	14.81
4	10.70	Chlorate	0.2000	0.2300		0.02676	5.26
5	11.83	Bromide	0.2000	0.2145		0.03102	6.10
6	13.86	Nitrate-N	0.1000	0.1809		0.08368	16.46
7	18.95	O-Phosphate-P	0.2000	0.2072		0.03283	6.46
8	21.31	Sulfate	0.4000	0.7131		0.11824	23.25
Total:				2.1958	0.000	0.509	100.00

**13 AUTOCAL1**

Sample Name:	AUTOCAL1	Injection Volume:	1.0
Vial Number:	8	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/3/2010 17:45	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;9056

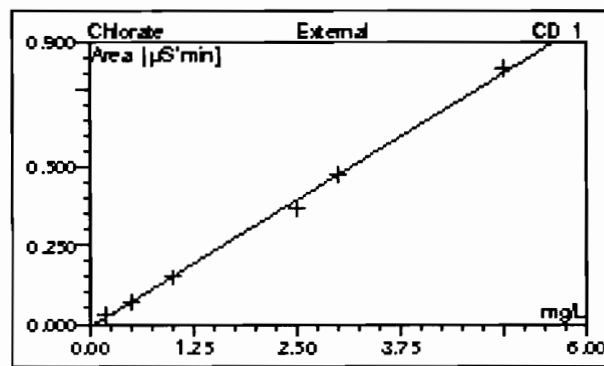
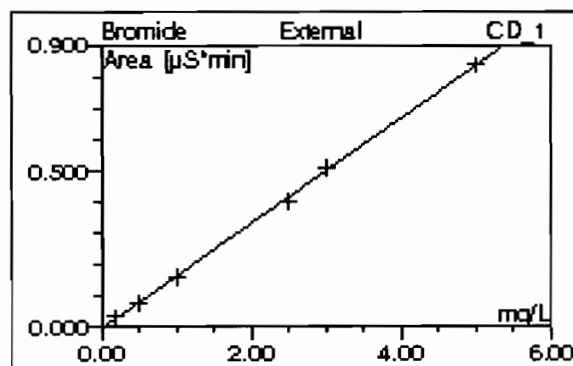
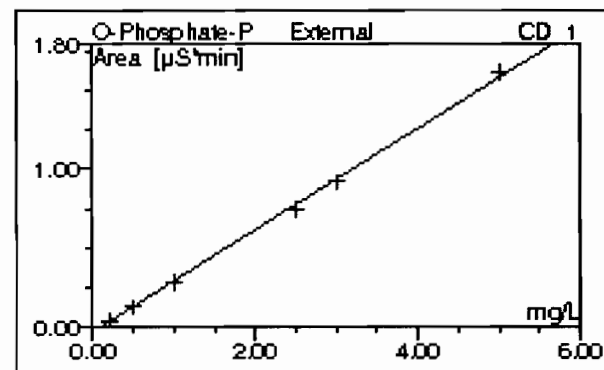
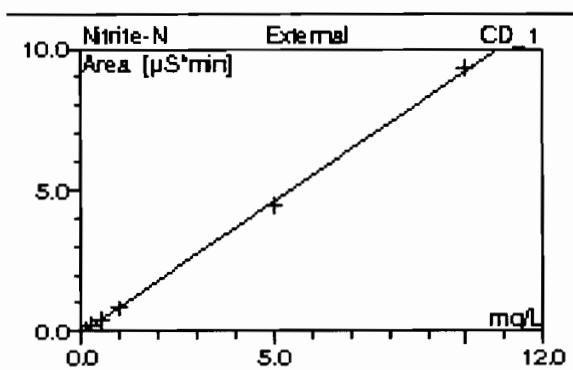
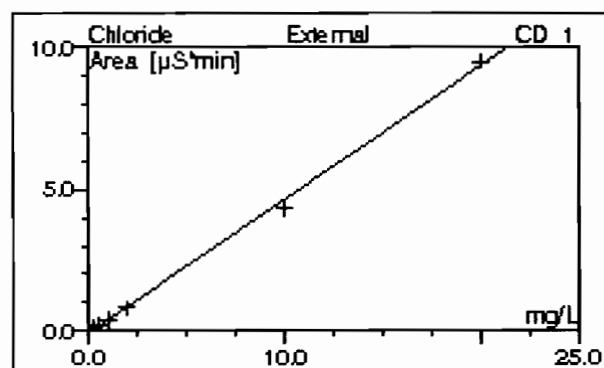
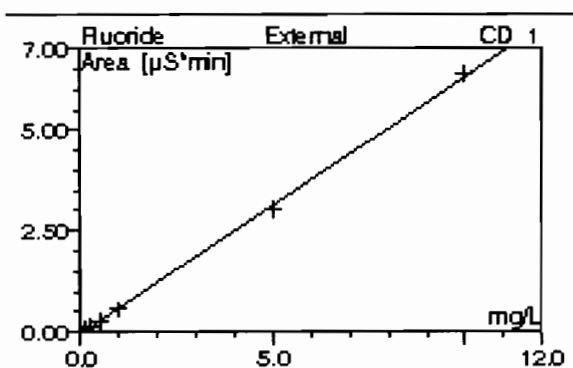


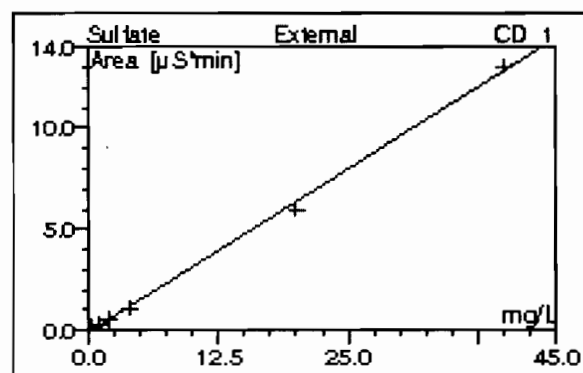
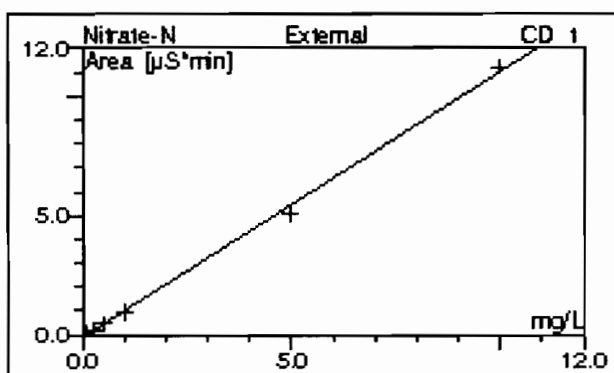
No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

**13 AUTOCAL1**

Sample Name: AUTOCAL1  
Vial Number: 8  
Sample Type: standard  
Control Program: AS23  
Quantif. Method: 100203an  
Recording Time: 2/3/2010 17:45  
Run Time (min): 26.00

Injection Volume: 1.0  
Channel: CD\_1  
Dilution Factor: 1.0000  
Sample Weight: 1.0000  
Sample Amount: 1.0000  
Analyst: MAR1  
Column: AS23-002712; GL GC E086;300;9056

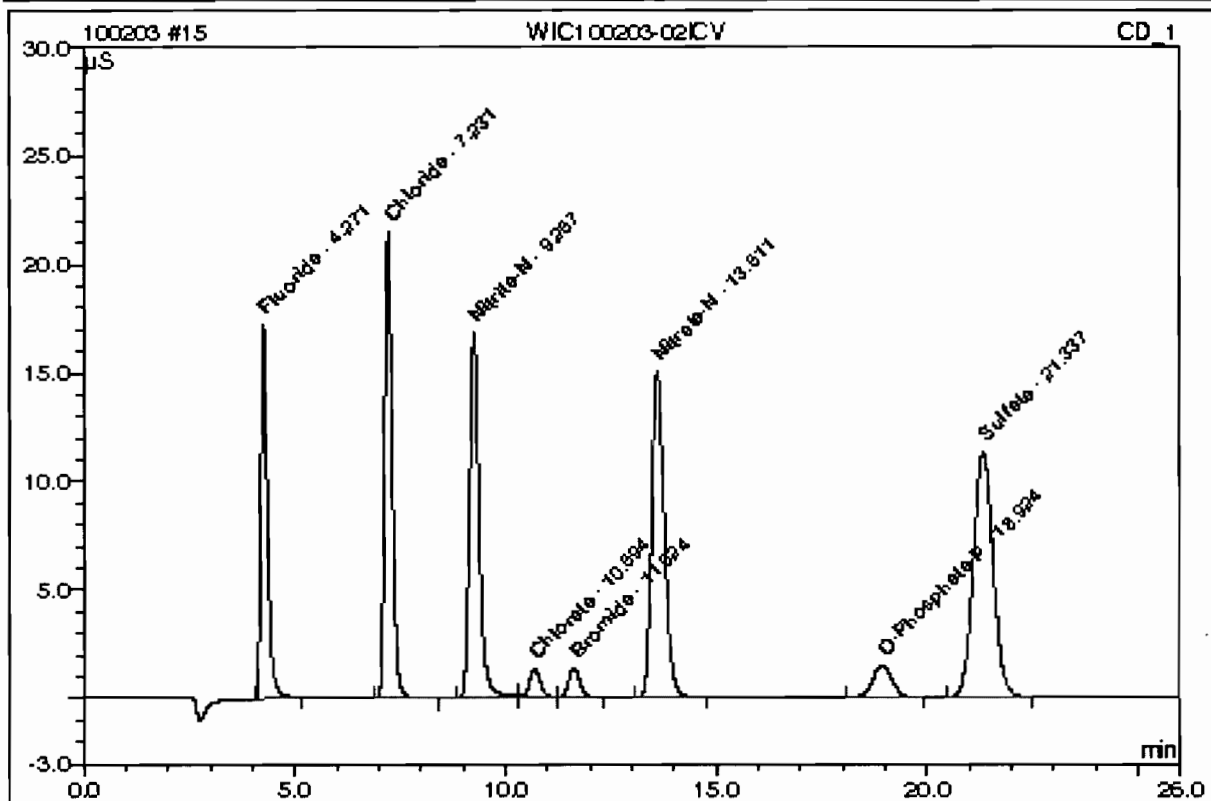




No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
n.a.	n.a.	Fluoride	OLO#	99.9581	-0.0382	0.6352	0.0000
n.a.	n.a.	Chloride	OLO#	99.8253	-0.0815	0.4720	0.0000
n.a.	n.a.	Nitrite-N	OLO#	99.9387	-0.0628	0.9284	0.0000
n.a.	n.a.	Chlorate	OLO#	99.7775	-0.0106	0.1625	0.0000
n.a.	n.a.	Bromide	OLO#	99.9232	-0.0050	0.1681	0.0000
n.a.	n.a.	Nitrate-N	OLO#	99.7828	-0.1175	1.1119	0.0000
n.a.	n.a.	O-Phosphate-P	OLO#	99.8669	-0.0344	0.3243	0.0000
n.a.	n.a.	Sulfate	OLO#	99.8425	-0.1130	0.3243	0.0000
Average:				99.8644	-0.0579	0.5158	0.0000

**15 WIC100203-02ICV**

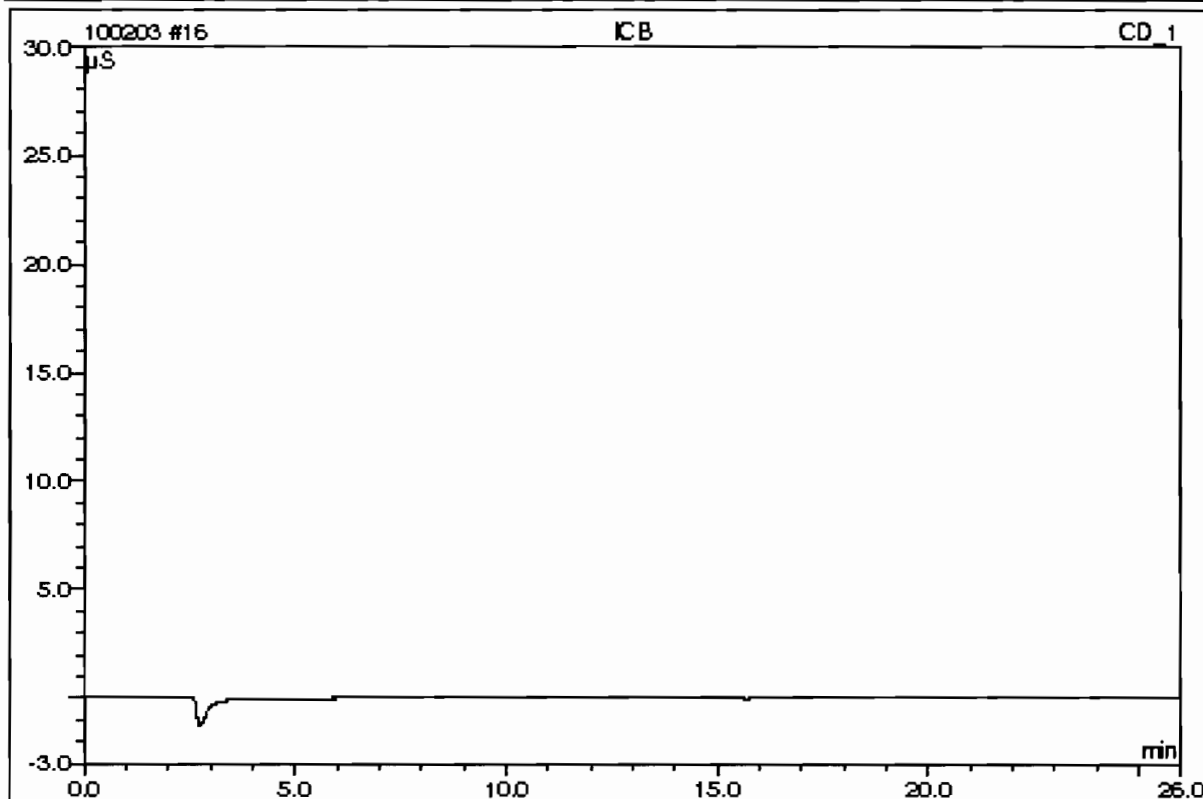
Sample Name:	WIC100203-02ICV	Injection Volume:	1.0
Vial Number:	9	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/3/2010 18:14	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC E086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.27	Fluoride	n.a.	4.8343		3.03244	12.24
2	7.23	Chloride	n.a.	9.3469		4.33058	17.48
3	9.27	Nitrite-N	n.a.	4.9162		4.50127	18.17
4	10.69	Chlorate	n.a.	2.5483		0.40356	1.63
5	11.62	Bromide	n.a.	2.4935		0.41414	1.67
6	13.61	Nitrate-N	n.a.	4.7629		5.17662	20.90
7	18.92	O-Phosphate-P	n.a.	2.5894		0.80548	3.25
8	21.34	Sulfate	n.a.	19.1845		6.10818	24.66
Total:				50.6760	0.000	24.774	100.00

**16 ICB**

Sample Name:	ICB	Injection Volume:	1.0
Vial Number:	10	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/3/2010 18:43	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC ED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

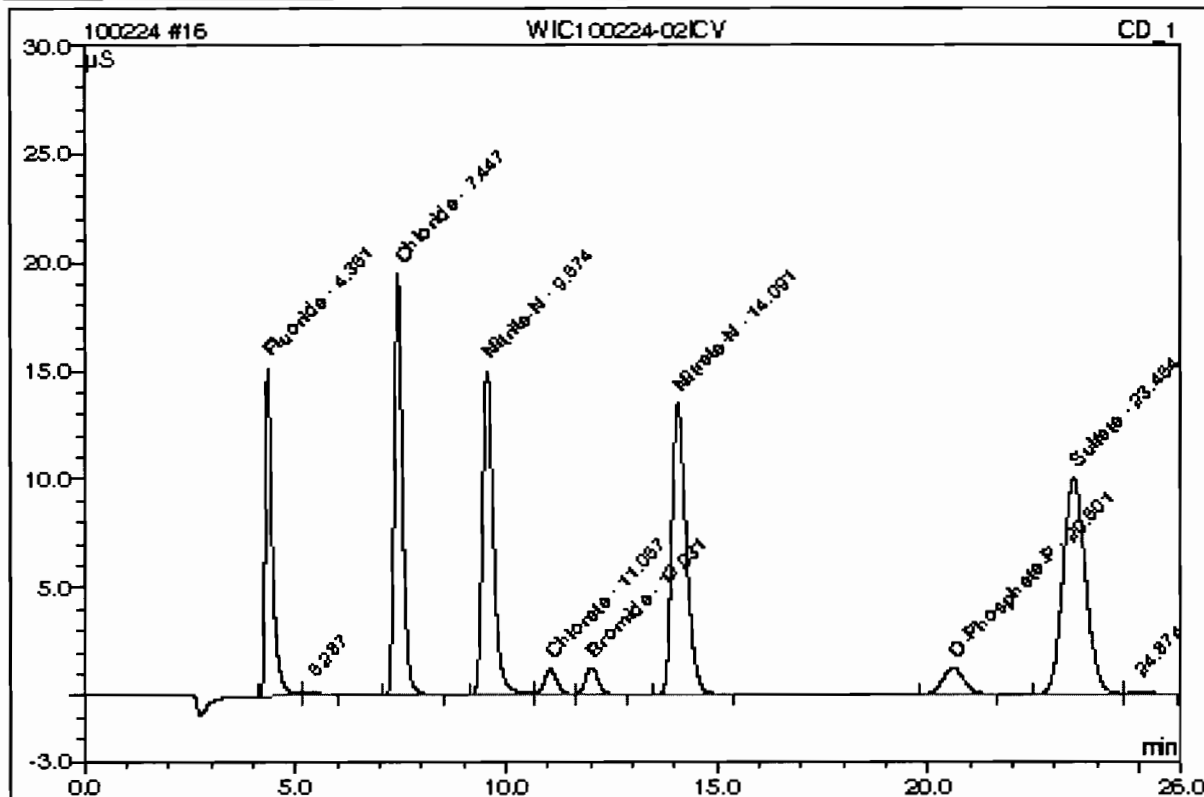
This is runlog for Sequence 100224.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	02/24/10 07:15		1	100224	MAR1
BLK	02/24/10 07:43		1	100224	MAR1
ICV	02/24/10 08:43		1	100224	MAR1
ICB	02/24/10 09:12		1	100224	MAR1
CVH	02/24/10 13:36		1	100224	MAR1
CCB	02/24/10 14:05		1	100224	MAR1
246317002	02/24/10 14:34	953330	5	100224	MAR1
246470006	02/24/10 15:03	954186	2	100224	MAR1
246470008	02/24/10 15:31	954186	2	100224	MAR1
CCV	02/24/10 16:00		1	100224	MAR1
CCB	02/24/10 16:29		1	100224	MAR1
1202037585	02/24/10 16:58	950804	1	100224	MAR1
1202037589	02/24/10 17:27	950804	1	100224	MAR1
246336001	02/24/10 17:56	950804	1	100224	MAR1
1202037586	02/24/10 18:25	950804	1	100224	MAR1
1202037587	02/24/10 18:54	950804	1	100224	MAR1
1202037588	02/24/10 19:23	950804	1	100224	MAR1
246336002	02/24/10 19:52	950804	1	100224	MAR1
246336003	02/24/10 20:21	950804	1	100224	MAR1
246336004	02/24/10 20:50	950804	1	100224	MAR1
246336005	02/24/10 21:18	950804	1	100224	MAR1
CVH	02/24/10 21:47		1	100224	MAR1
CCB	02/24/10 22:16		1	100224	MAR1
246336006	02/24/10 22:45	950804	1	100224	MAR1
246336007	02/24/10 23:14	950804	1	100224	MAR1
246336008	02/24/10 23:43	950804	1	100224	MAR1



**16 WIC100224-02ICV**

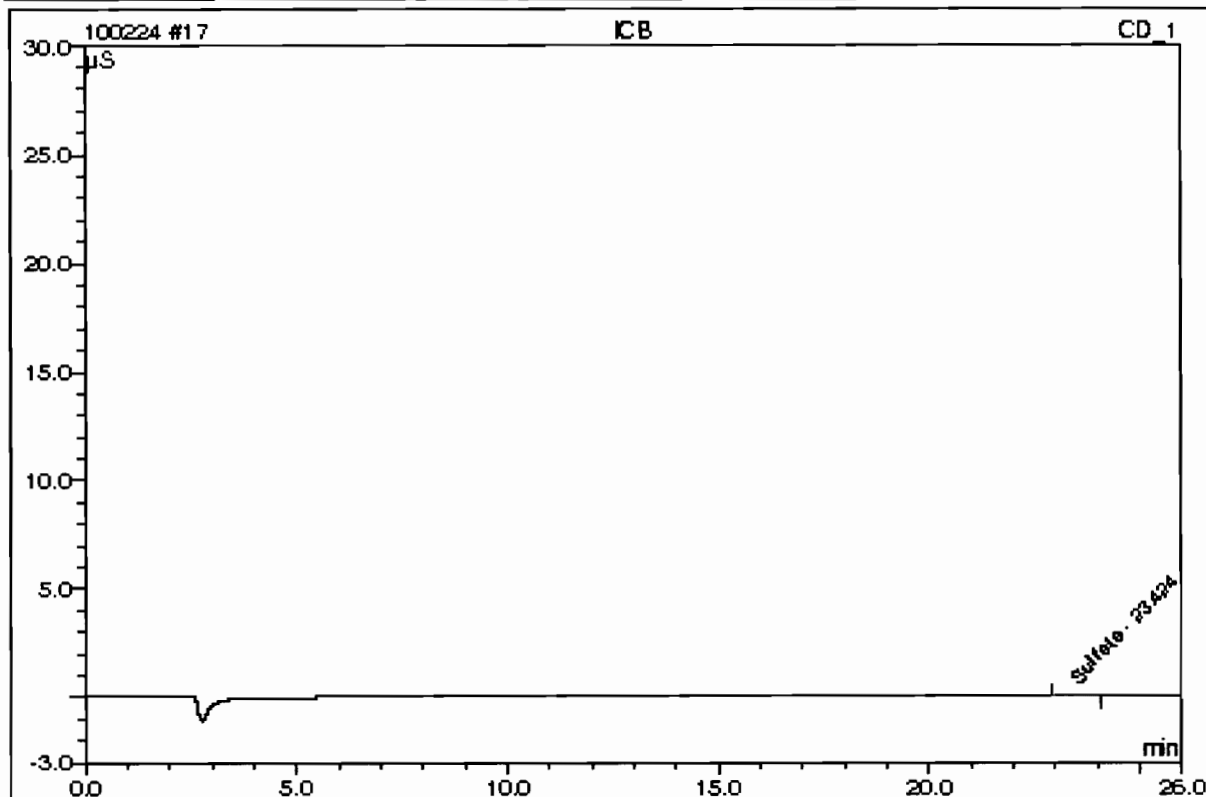
Sample Name:	WIC100224-02ICV	Injection Volume:	1.0
Vial Number:	3	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/24/2010 8:43	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC ED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.36	Fluoride	n.a.	4.8585		3.04778	12.14
3	7.45	Chloride	n.a.	9.5326		4.41822	17.60
4	9.57	Nitrate-N	n.a.	4.9031		4.48911	17.88
5	11.06	Chlorate	n.a.	2.5653		0.40632	1.62
6	12.03	Bromide	n.a.	2.5913		0.43057	1.71
7	14.09	Nitrate-N	n.a.	4.8378		5.26193	20.96
8	20.60	O-Phosphate-P	n.a.	2.3630		0.73205	2.92
9	23.46	Sulfate	n.a.	19.4383		6.19047	24.66
Total:				51.0898	0.000	24.976	99.48

**17 ICB**

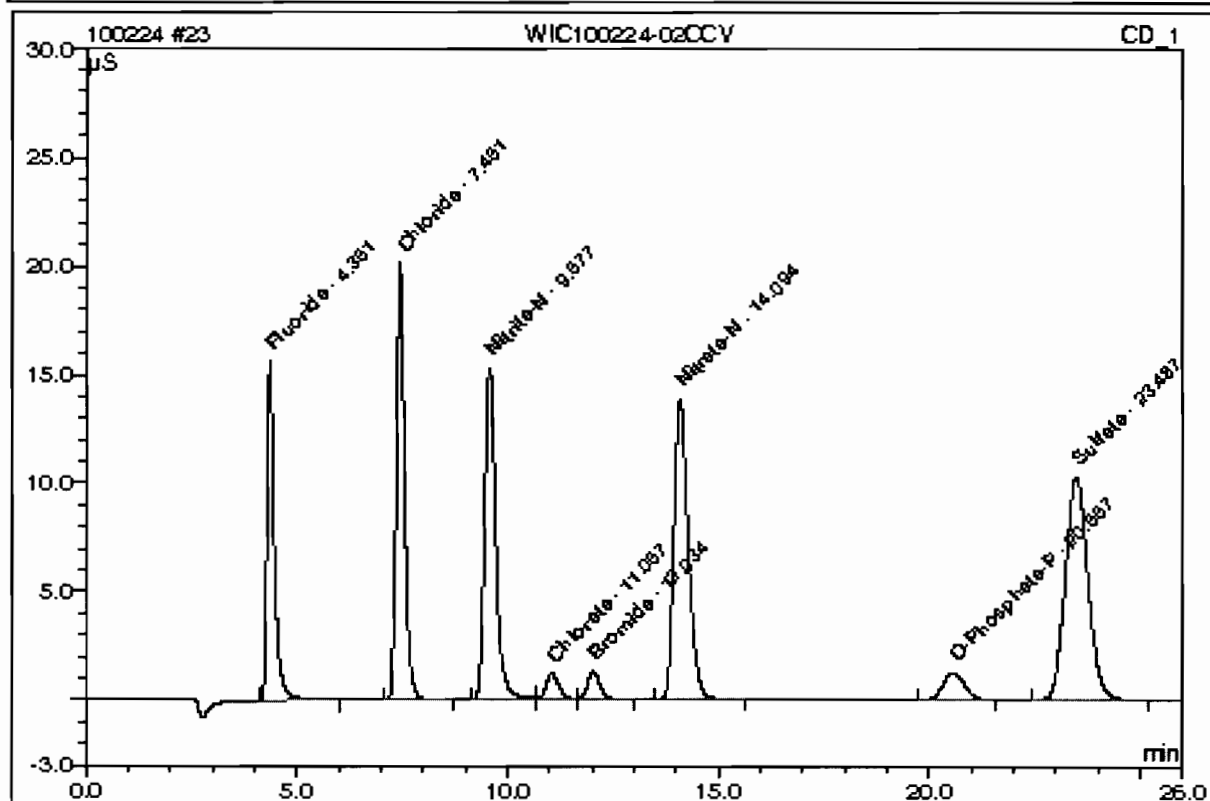
Sample Name:	ICB	Injection Volume:	1.0
Vial Number:	4	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/24/2010 9:12	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
1	23.42	Sulfate	n.a.	0.4114		0.02041	100.00
Total:				0.4114	0.000	0.020	100.00

**23 WIC100224-02CCV**

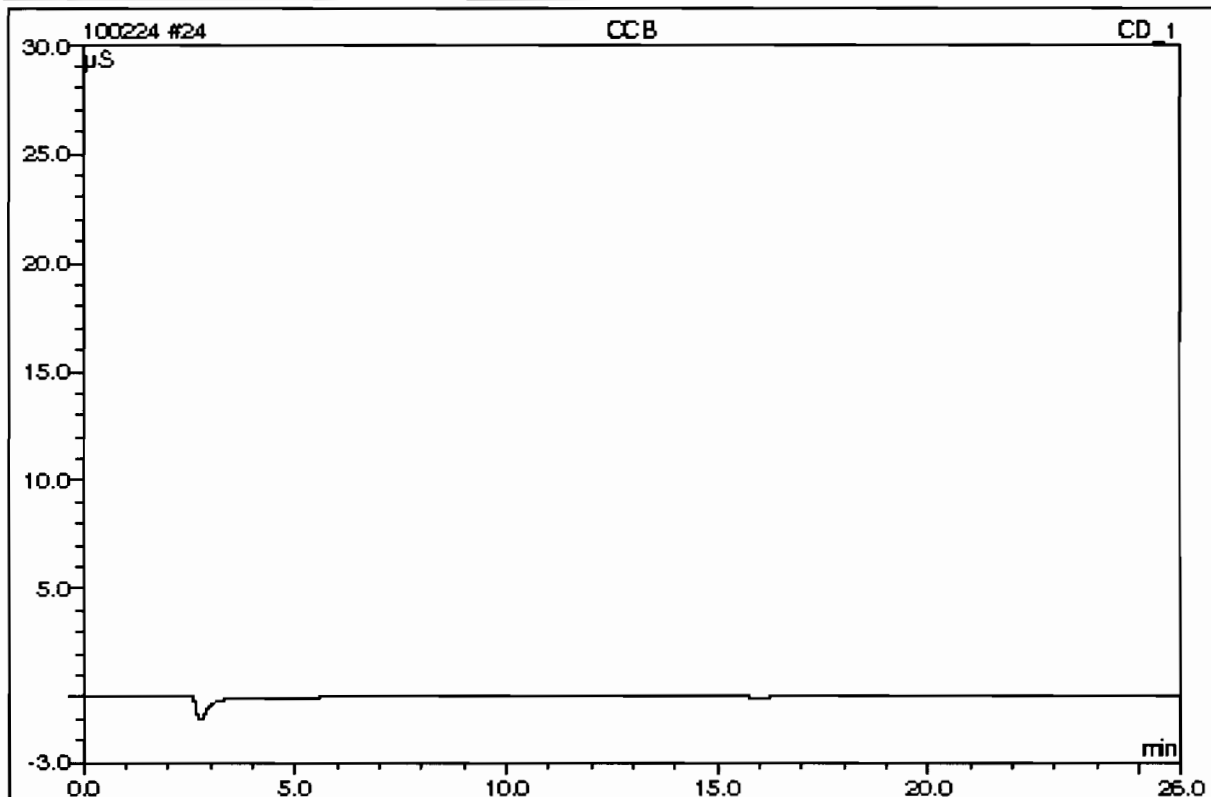
Sample Name:	WIC100224-02CCV	Injection Volume:	1.0
Vial Number:	10	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/24/2010 16:00	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area μS*min	Rel. Area %
1	4.36	Fluoride	n.a.	5.0880		3.19358	12.35
2	7.45	Chloride	n.a.	9.8749		4.57983	17.71
3	9.58	Nitrite-N	n.a.	5.0268		4.60396	17.81
4	11.06	Chlorate	n.a.	2.6543		0.42079	1.63
5	12.03	Bromide	n.a.	2.6884		0.44691	1.73
6	14.09	Nitrate-N	n.a.	5.0137		5.45747	21.11
7	20.57	O-Phosphate-P	n.a.	2.4196		0.75041	2.90
8	23.49	Sulfate	n.a.	20.0847		6.40011	24.76
Total:				52.8505	0.000	25.853	100.00

**24 CCB**

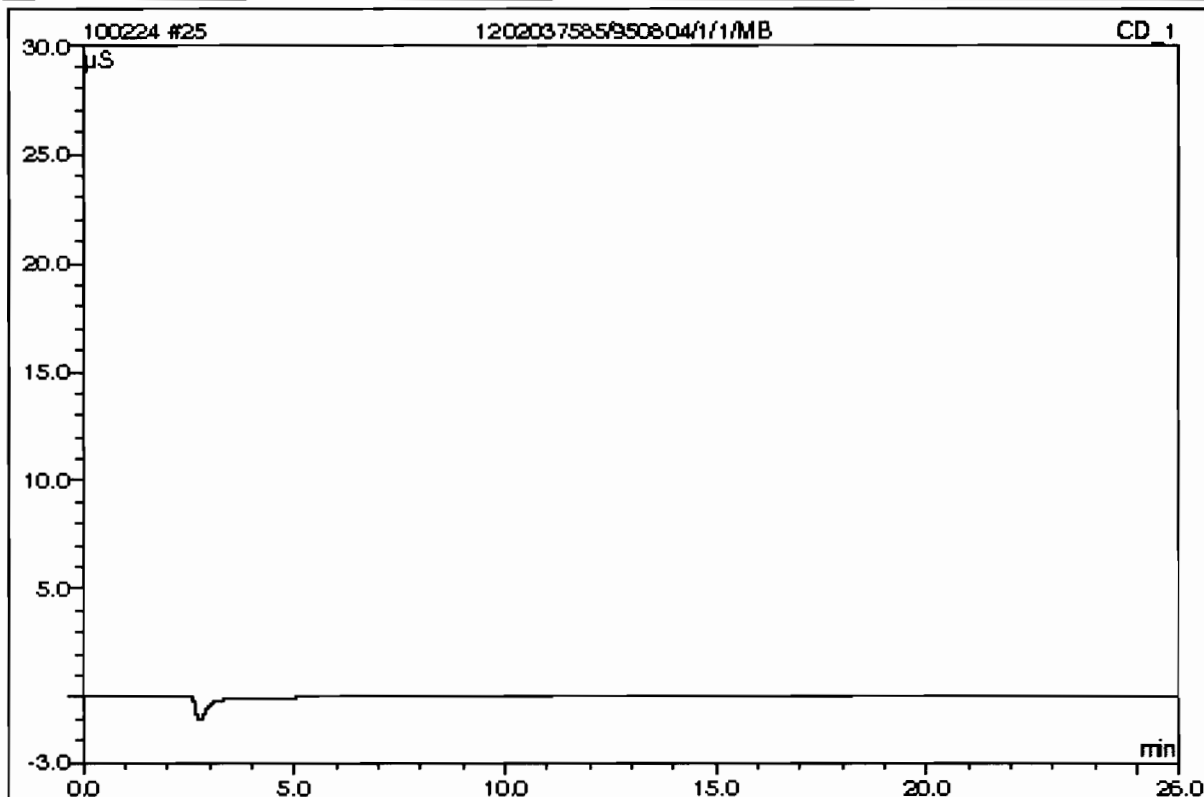
Sample Name:	CCB	Injection Volume:	1.0
Vial Number:	11	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/24/2010 16:29	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;8056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

**25 1202037585/950804/1/1/MB**

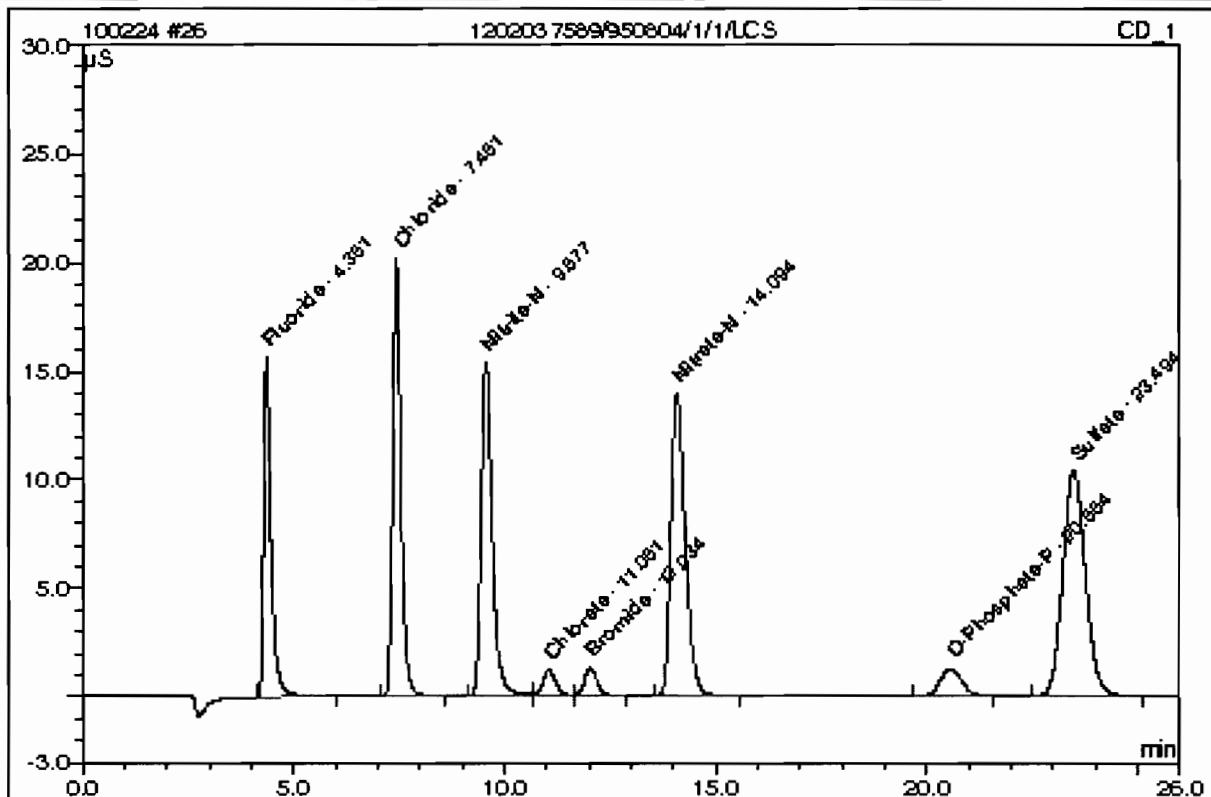
Sample Name:	1202037585/950804/1/1/MB	Injection Volume:	1.0
Vial Number:	12	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/24/2010 16:58	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

**26 1202037589/950804/1/1/LCS**

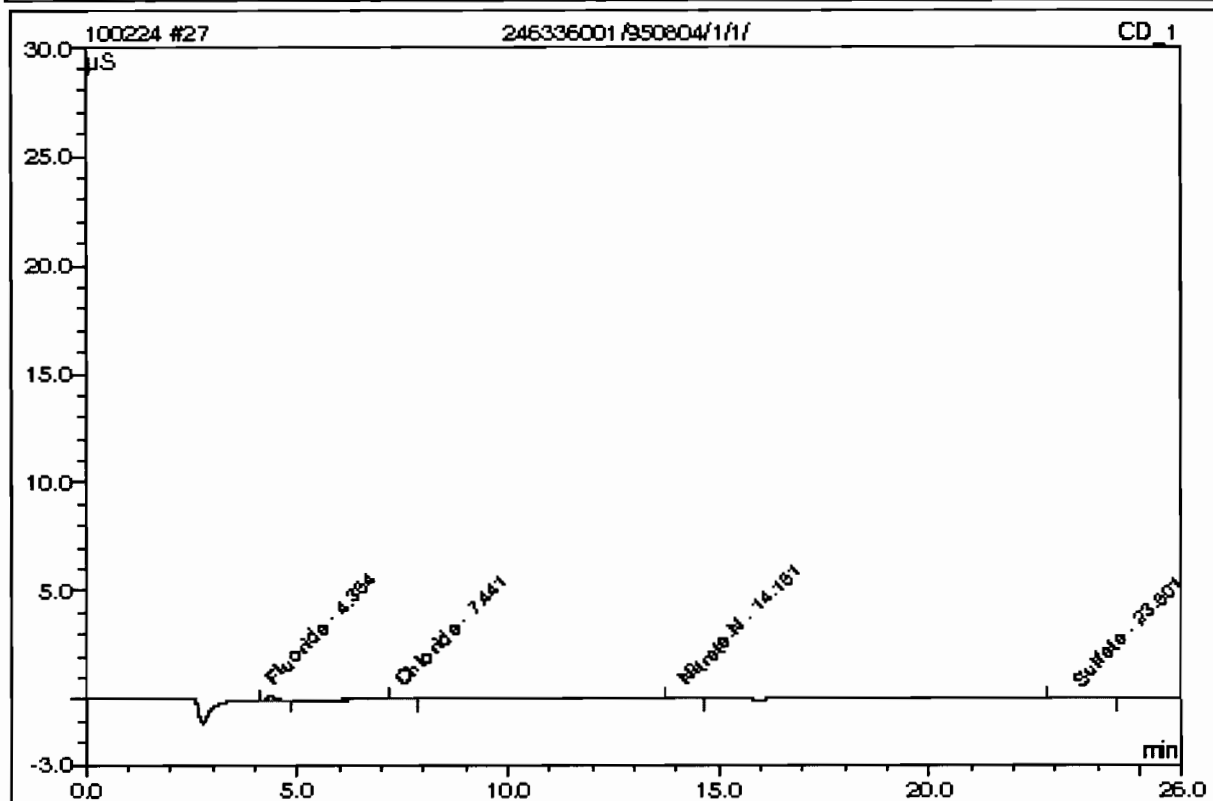
Sample Name:	1202037589/950804/1/1/LCS	Injection Volume:	1.0
Vial Number:	13	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/24/2010 17:27	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC E086,300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.36	Fluoride	n.a.	5.1026		3.20283	12.34
2	7.45	Chloride	n.a.	9.9184		4.60035	17.73
3	9.58	Nitrite-N	n.a.	5.0550		4.63013	17.84
4	11.06	Chlorate	n.a.	2.6627		0.42215	1.63
5	12.03	Bromide	n.a.	2.6653		0.44302	1.71
6	14.09	Nitrate-N	n.a.	5.0296		5.47518	21.10
7	20.56	O-Phosphate-P	n.a.	2.4381		0.75641	2.91
8	23.49	Sulfate	n.a.	20.1572		6.42361	24.75
Total:				53.0289	0.000	25.954	100.00

**27 246336001/950804/1/1/**

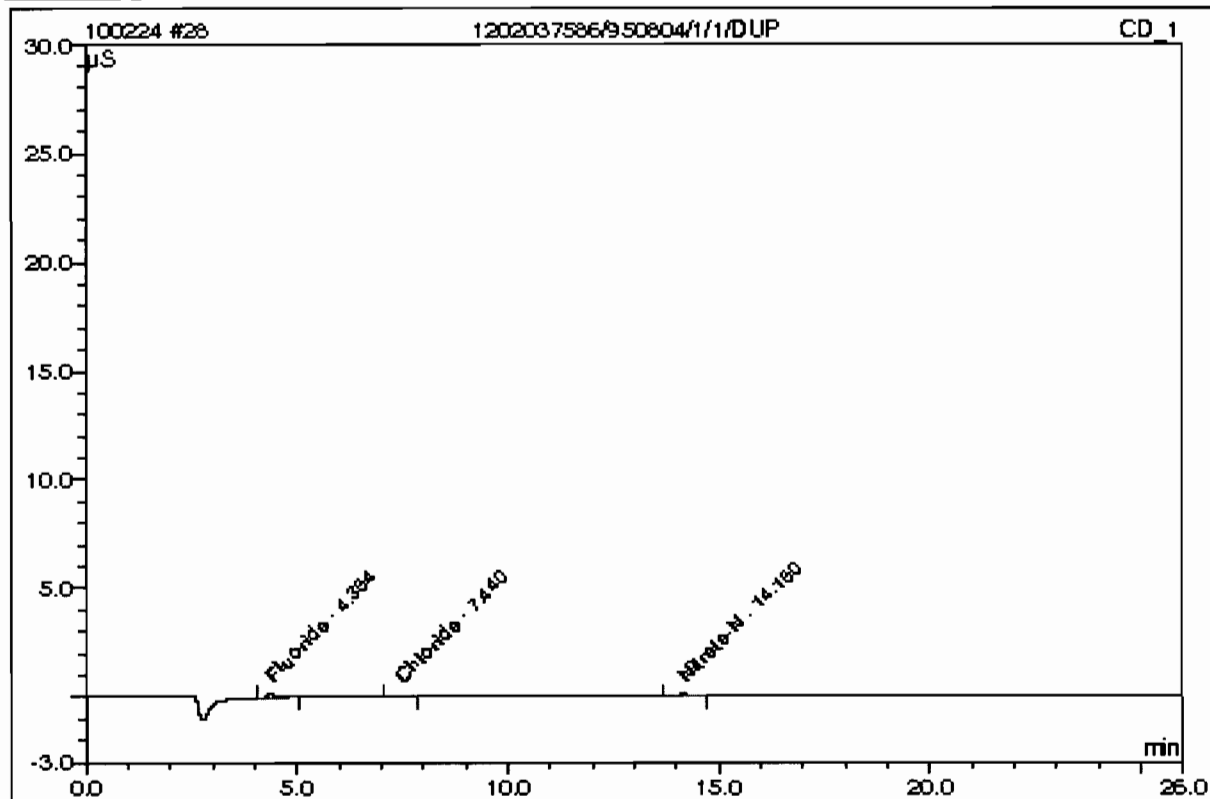
Sample Name:	246336001/950804/1/1/	Injection Volume:	1.0
Vial Number:	14	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/24/2010 17:56	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC E086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.36	Fluoride	n.a.	0.1379		0.04937	31.82
2	7.44	Chloride	n.a.	0.2187		0.02172	14.00
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	14.16	Nitrate-N	n.a.	0.1397		0.03791	24.43
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.50	Sulfate	n.a.	0.4908		0.04615	29.75
Total:				0.9871	0.000	0.155	100.00

**28 1202037586/950804/1/1/DUP**

Sample Name:	1202037586/950804/1/1/DUP	Injection Volume:	1.0
Vial Number:	15	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/24/2010 18:25	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCED86;300;9058

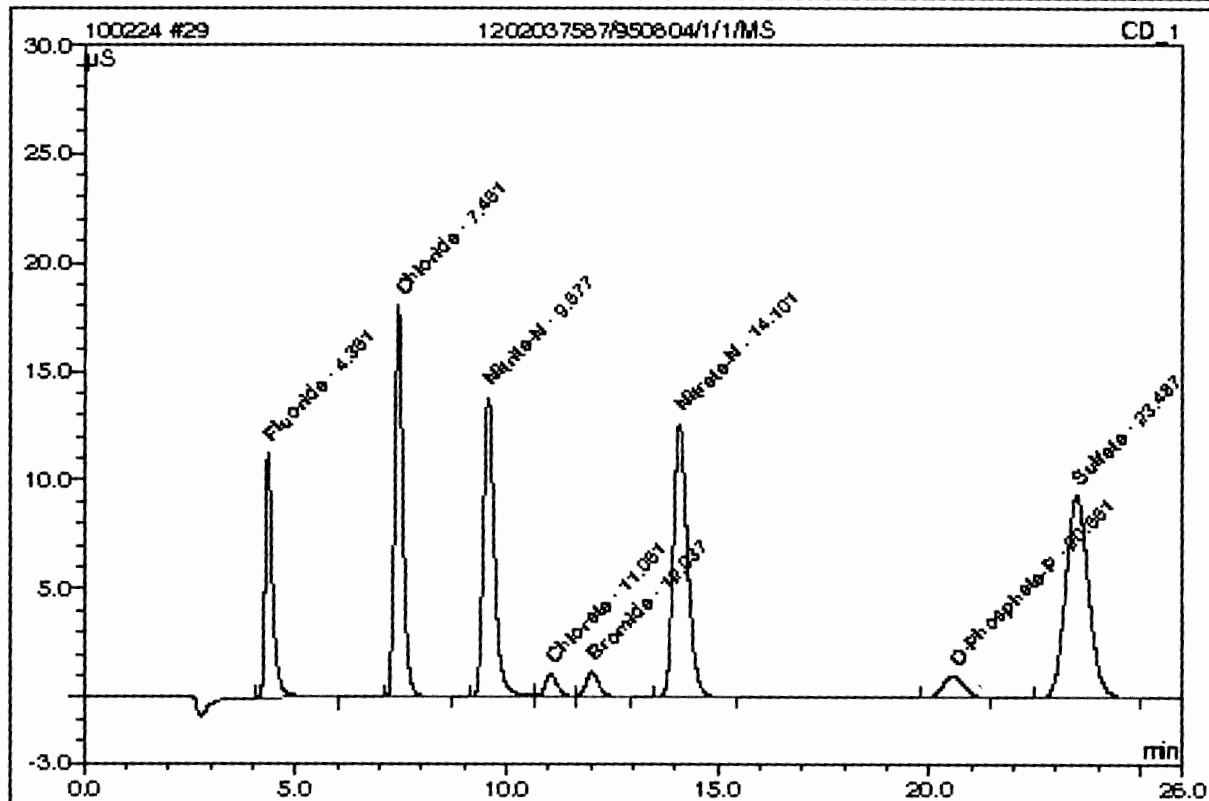


No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.36	Fluoride	n.a.	0.1404		0.05095	45.46
2	7.44	Chloride	n.a.	0.2203		0.02245	20.03
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	14.15	Nitrate-N	n.a.	0.1404		0.03866	34.50
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.5010	0.000	0.112	100.00



**29 1202037587/950804/1/1/MS**

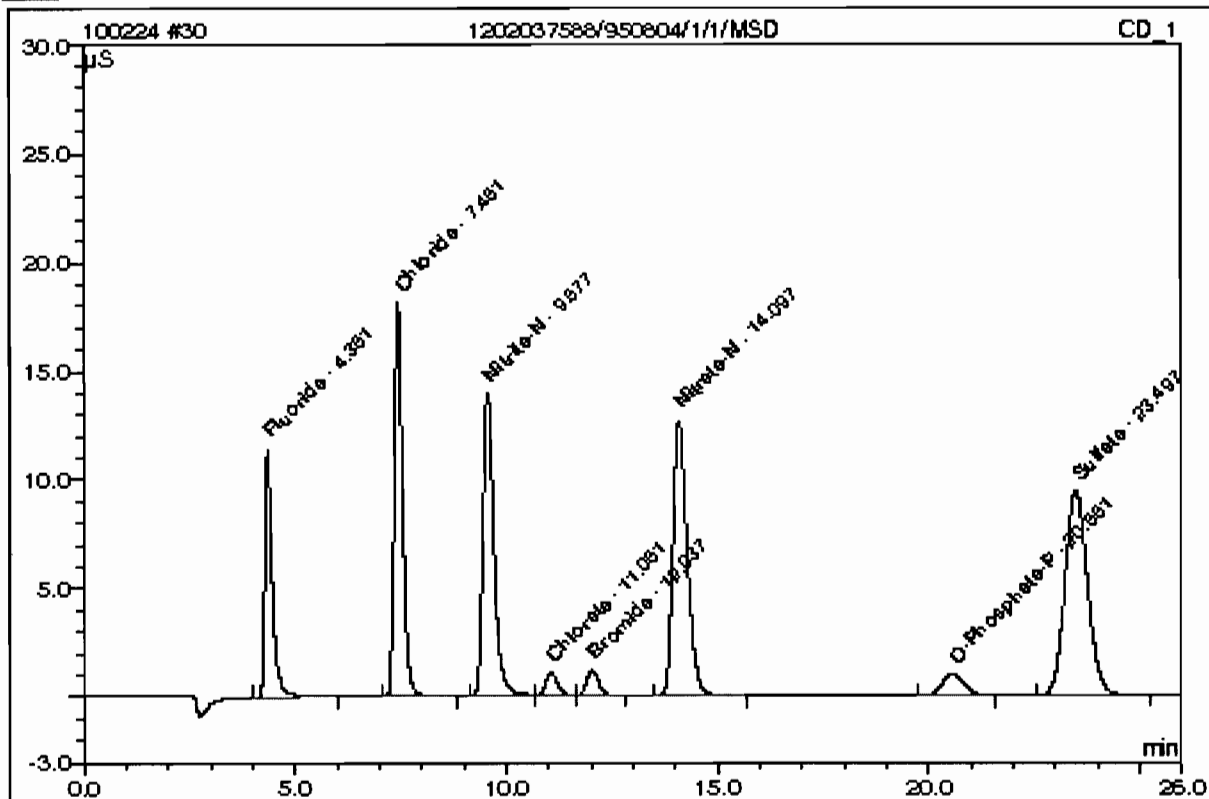
Sample Name:	1202037587/950804/1/1/MS	Injection Volume:	1.0
Vial Number:	16	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/24/2010 18:54	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC E086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.36	Fluoride	n.a.	3.7415		2.33832	10.32
2	7.45	Chloride	n.a.	8.8782		4.10934	18.14
3	9.58	Nitrate-N	n.a.	4.5444		4.15608	18.34
4	11.06	Chlorate	n.a.	2.4030		0.37994	1.68
5	12.04	Bromide	n.a.	2.4099		0.40008	1.77
6	14.10	Nitrate-N	n.a.	4.5075		4.89458	21.60
7	20.56	O-Phosphate-P	n.a.	1.9275		0.59080	2.61
8	23.49	Sulfate	n.a.	18.1950		5.78730	25.54
Total:				46.6069	0.000	22.656	100.00

**30 1202037588/950804/1/1/MSD**

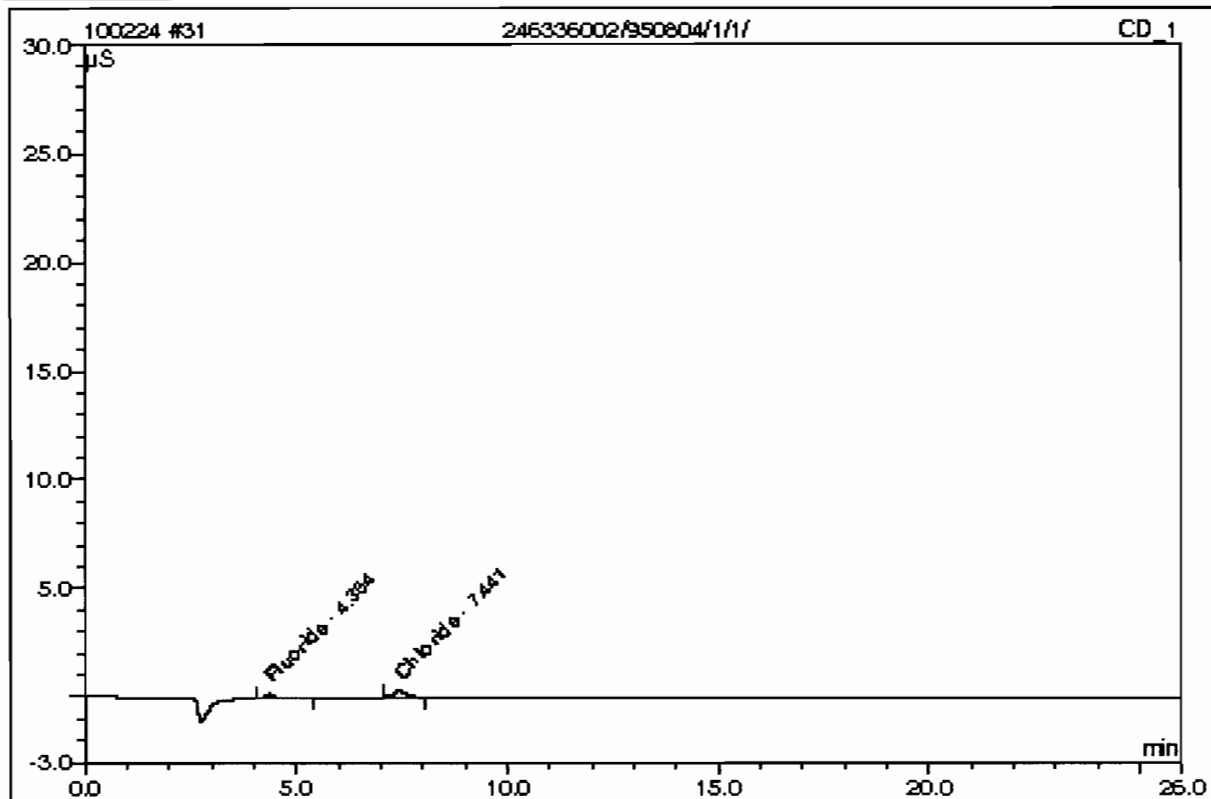
Sample Name:	1202037588/950804/1/1/MSD	Injection Volume:	1.0
Vial Number:	17	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/24/2010 19:23	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.36	Fluoride	n.a.	3.8007		2.37589	10.35
2	7.45	Chloride	n.a.	8.9996		4.16663	18.15
3	9.58	Nitrite-N	n.a.	4.5905		4.19886	18.29
4	11.06	Chlorate	n.a.	2.3773		0.37577	1.64
5	12.04	Bromide	n.a.	2.4014		0.39866	1.74
6	14.10	Nitrate-N	n.a.	4.5747		4.96939	21.64
7	20.56	O-Phosphate-P	n.a.	1.9792		0.60758	2.65
8	23.50	Sulfate	n.a.	18.4473		5.86913	25.56
Total:				47.1707	0.000	22.962	100.00

**31 246336002/950804/1/1/**

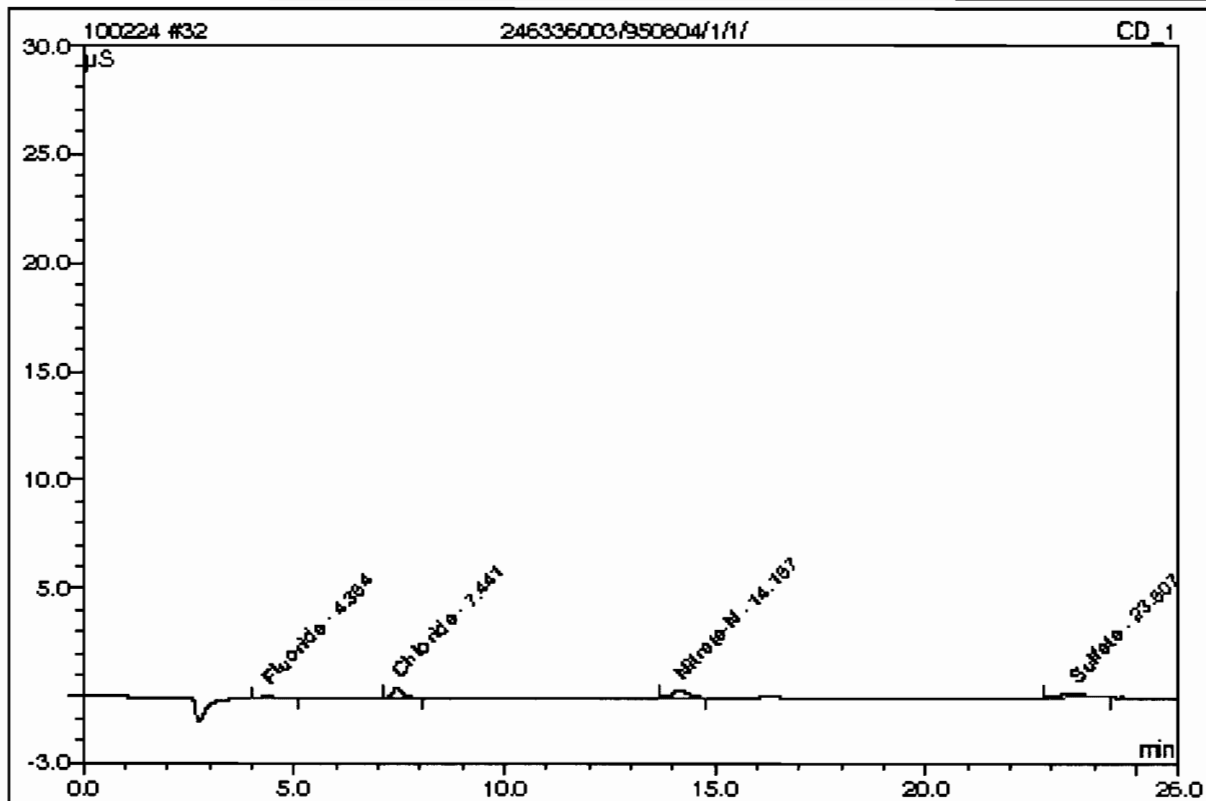
Sample Name:	246336002/950804/1/1/	Injection Volume:	1.0
Vial Number:	18	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/24/2010 19:52	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;0056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.36	Fluoride	n.a.	0.1425		0.05228	36.86
2	7.44	Chloride	n.a.	0.3625		0.08957	63.14
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.5049	0.000	0.142	100.00

**32 246336003/950804/1/1/**

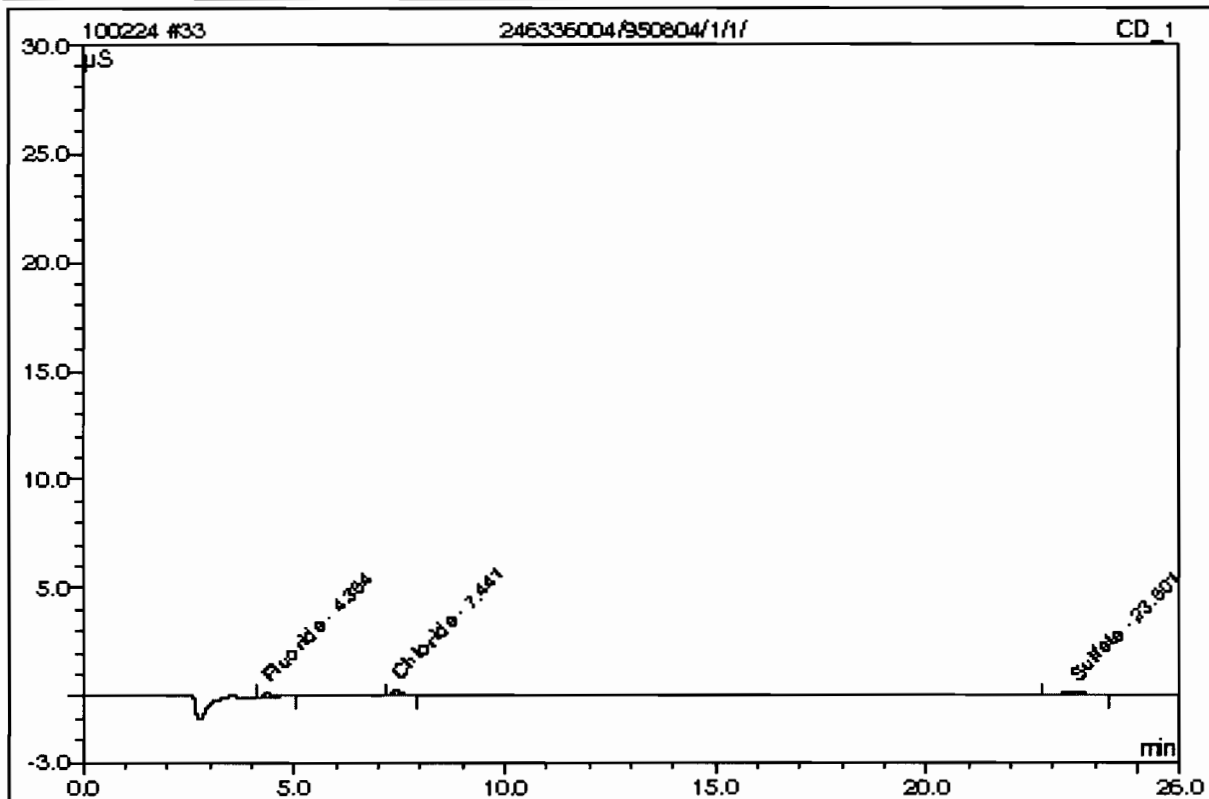
Sample Name:	246336003/950804/1/1/	Injection Volume:	1.0
Vial Number:	19	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/24/2010 20:21	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.36	Fluoride	n.a.	0.1117		0.03277	8.21
2	7.44	Chloride	n.a.	0.3987		0.10668	26.71
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	14.16	Nitrate-N	n.a.	0.2176		0.12455	31.19
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.51	Sulfate	n.a.	0.7658		0.13534	33.89
Total:				1.4939	0.000	0.399	100.00

**33 246336004/950804/1/1/**

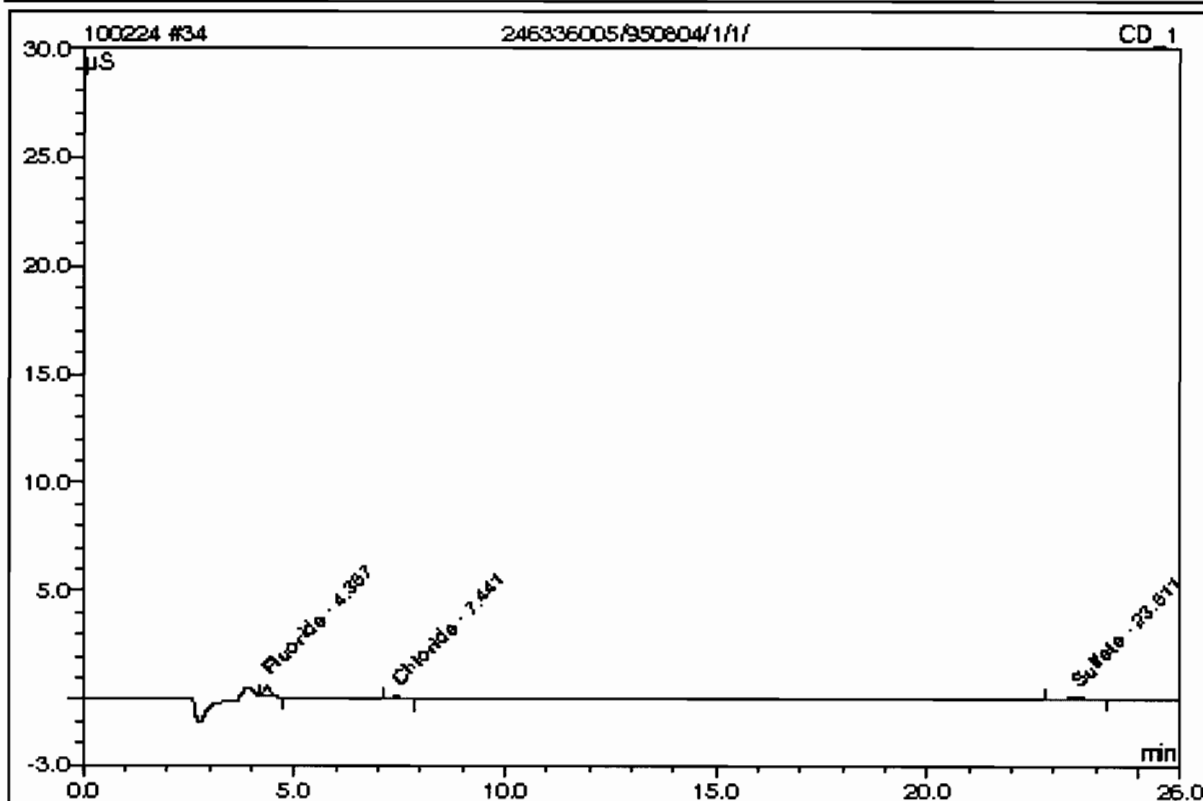
Sample Name:	246336004/950804/1/1/	Injection Volume:	1.0
Vial Number:	20	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/24/2010 20:50	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.36	Fluoride	n.a.	0.1241		0.04063	19.66
2	7.44	Chloride	n.a.	0.3147		0.06705	32.44
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	23.50	Sulfate	n.a.	0.6537		0.09899	47.90
Total:				1.0926	0.000	0.207	100.00

**34 246336005/950804/1/1/**

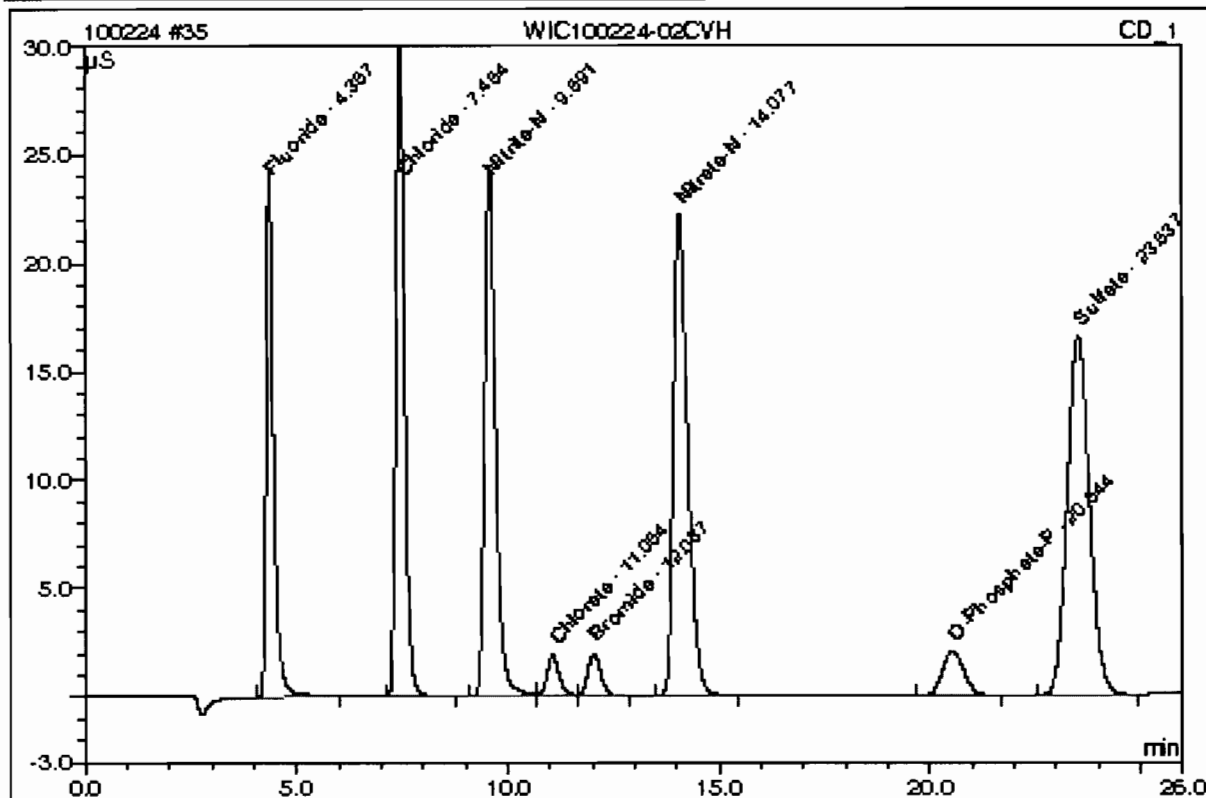
Sample Name:	246336005/950804/1/1/	Injection Volume:	1.0
Vial Number:	21	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/24/2010 21:18	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;0056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.36	Fluoride	n.a.	0.1911		0.08320	48.10
2	7.44	Chloride	n.a.	0.2295		0.02680	15.49
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	23.51	Sulfate	n.a.	0.5427		0.06297	36.40
Total:				0.9633	0.000	0.173	100.00

**35 WIC100224-02CVH**

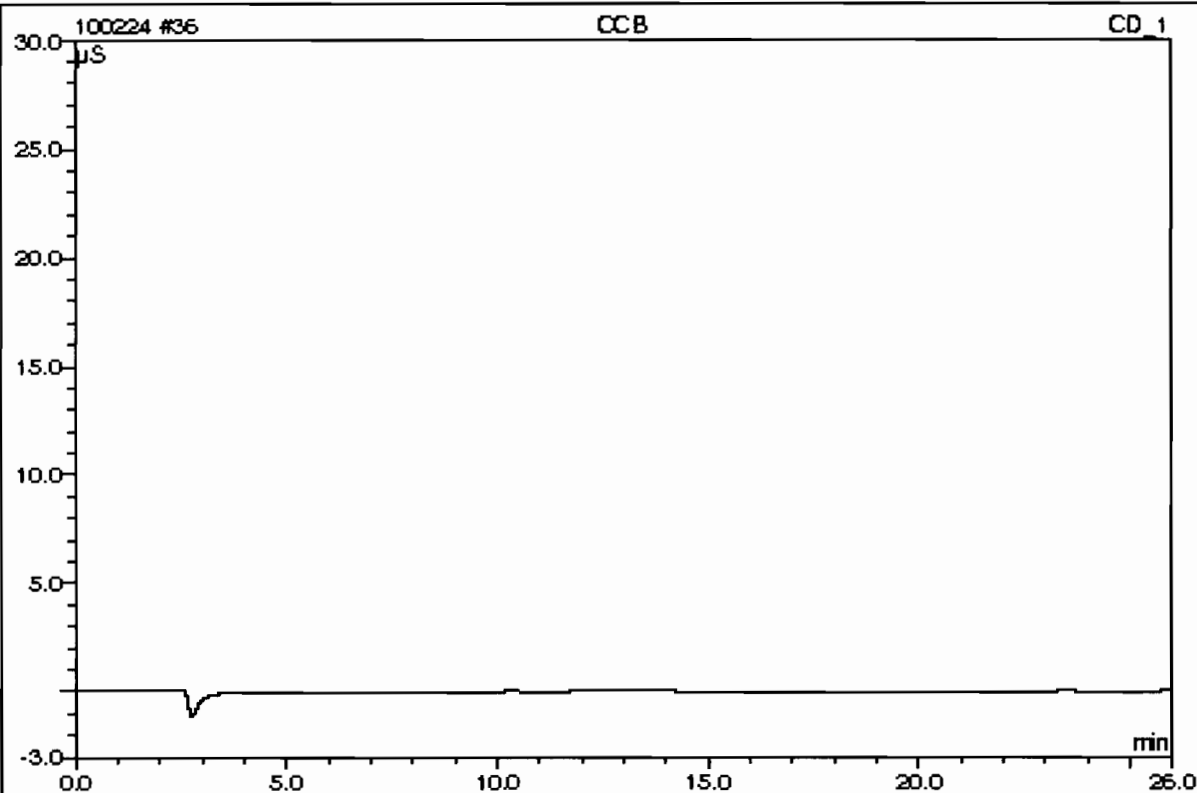
Sample Name:	WIC100224-02CVH	Injection Volume:	1.0
Vial Number:	22	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/24/2010 21:47	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.37	Fluoride	n.a.	7.9108		4.98655	12.18
2	7.46	Chloride	n.a.	15.8109		7.38183	18.03
3	9.59	Nitrite-N	n.a.	7.8274		7.20395	17.60
4	11.06	Chlorate	n.a.	4.0188		0.64255	1.57
5	12.04	Bromide	n.a.	4.0845		0.68160	1.66
6	14.08	Nitrate-N	n.a.	7.9319		8.70237	21.26
7	20.54	O-Phosphate-P	n.a.	3.8970		1.22962	3.00
8	23.54	Sulfate	n.a.	31.5322		10.11231	24.70
Total:				83.0136	0.000	40.941	100.00

**36 CCB**

Sample Name:	CCB	Injection Volume:	1.0
Vial Number:	23	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/24/2010 22:16	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GLGCED86;300;9056

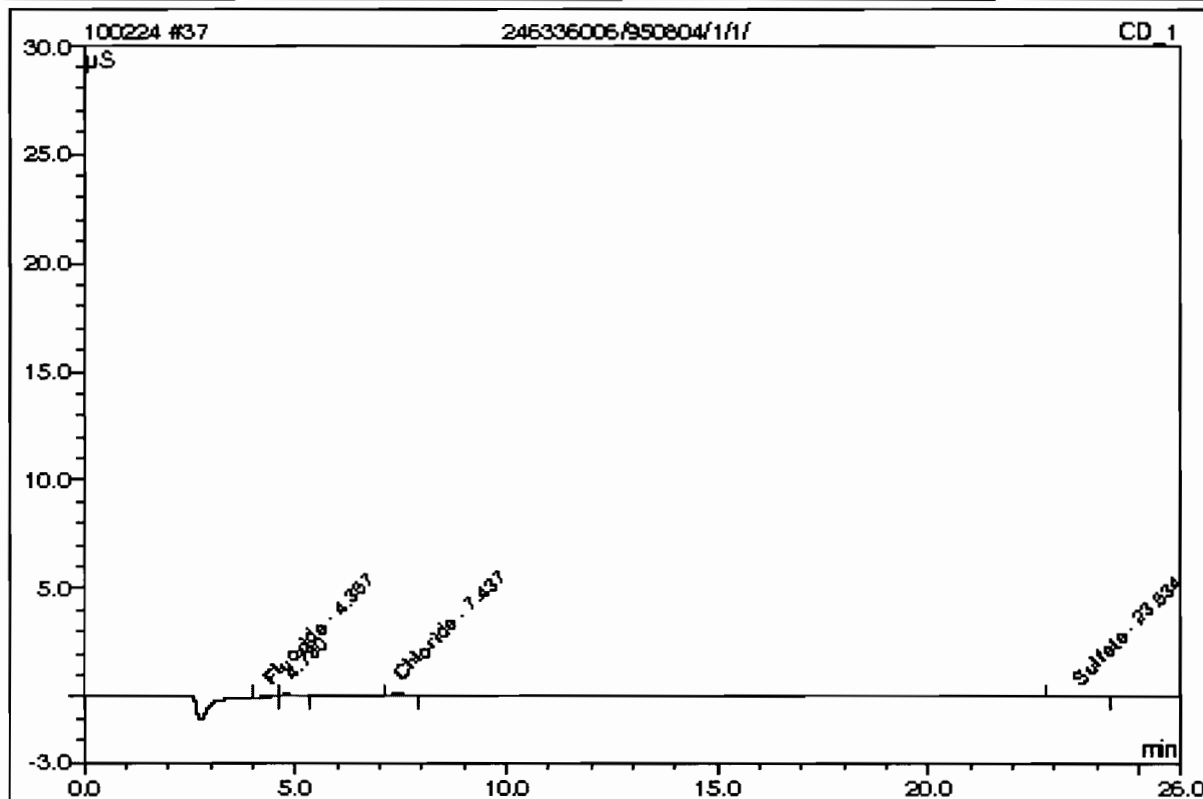


No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00



**37 246336006/950804/1/1/**

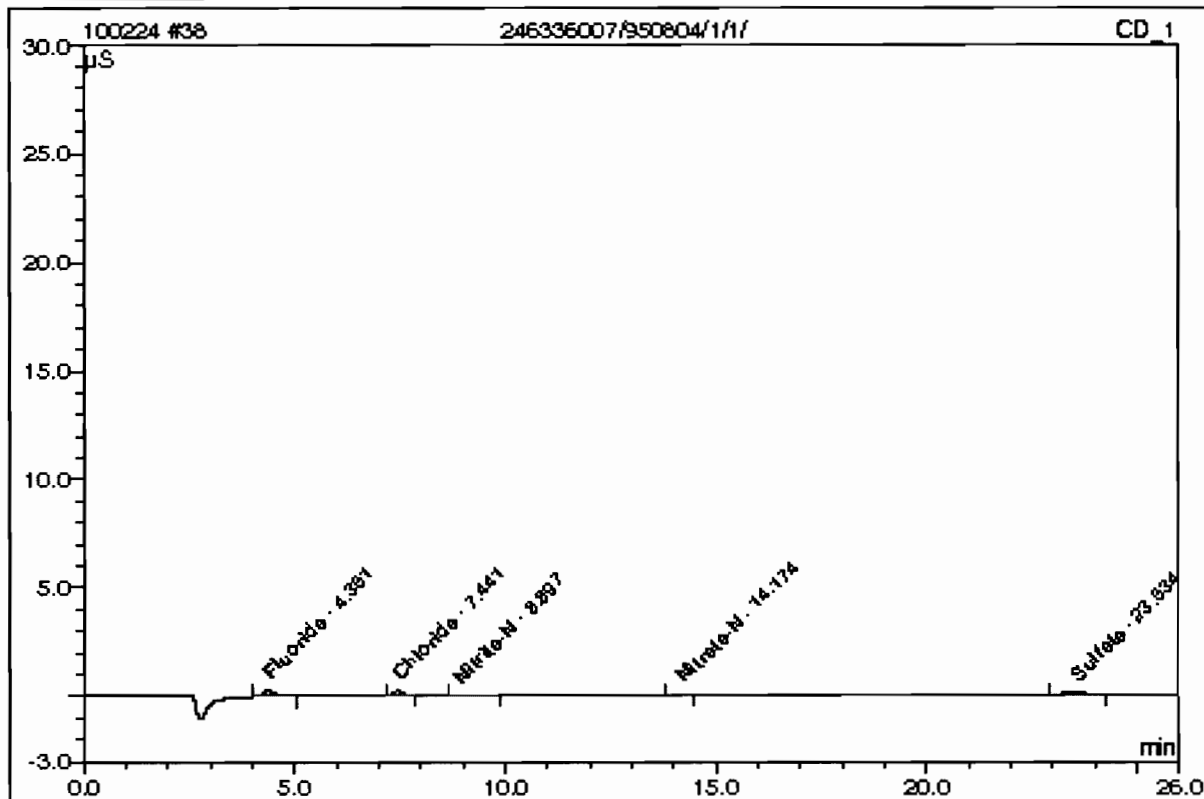
Sample Name:	246336006/950804/1/1/	Injection Volume:	1.0
Vial Number:	24	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/24/2010 22:45	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area μS*min	Rel. Area %
1	4.37	Fluoride	n.a.	0.0940		0.02148	15.32
3	7.44	Chloride	n.a.	0.2767		0.04910	35.02
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.53	Sulfate	n.a.	0.4675		0.03861	27.53
Total:				0.8382	0.000	0.109	77.86

**38 246336007/950804/1/1/**

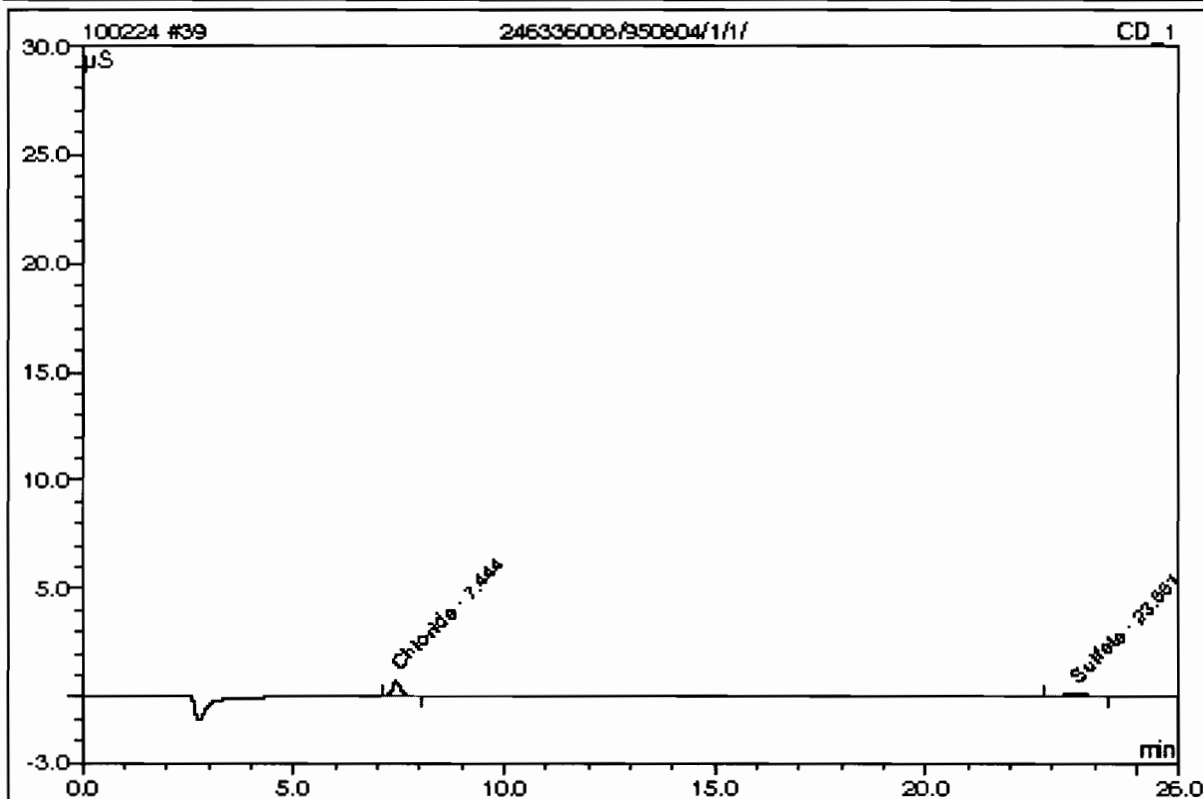
Sample Name:	246336007/950804/1/1/	Injection Volume:	1.0
Vial Number:	25	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/24/2010 23:14	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC ED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area μS*min	Rel. Area %
1	4.36	Fluoride	n.a.	0.1839		0.07862	32.11
2	7.44	Chloride	n.a.	0.2818		0.05151	21.04
3	8.90	Nitrite-N	n.a.	0.0932		0.02369	9.68
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
4	14.17	Nitrate-N	n.a.	0.1221		0.01836	7.50
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	23.53	Sulfate	n.a.	0.5725		0.07264	29.67
Total:				1.2535	0.000	0.245	100.00

**39 246336008/950804/1/1/**

Sample Name:	246336008/950804/1/1/	Injection Volume:	1.0
Vial Number:	26	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/24/2010 23:43	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC ED86;300;9056



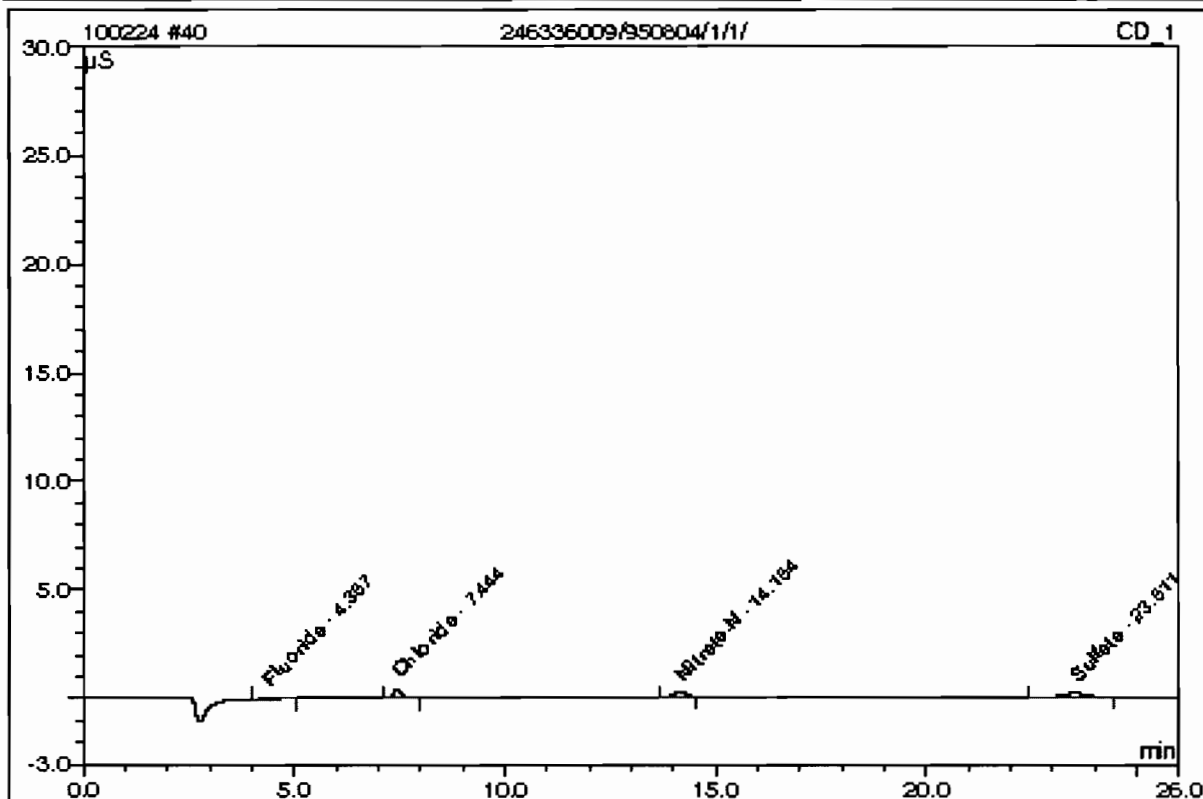
No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.44	Chloride	n.a.	0.5271		0.16730	66.74
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
2	23.55	Sulfate	n.a.	0.6056		0.08338	33.26
Total:				1.1327	0.000	0.251	100.00

This is runlog for Sequence 100224.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
246336009	02/25/10 00:12	950804	1	100224	MAR1
CCV	02/25/10 00:41		1	100224	MAR1
CCB	02/25/10 01:10		1	100224	MAR1
1202037590	02/25/10 01:39	950809	1	100224	MAR1
1202037594	02/25/10 02:08	950809	1	100224	MAR1
246432001	02/25/10 02:37	950809	1	100224	MAR1
1202037591	02/25/10 03:05	950809	1	100224	MAR1
1202037592	02/25/10 03:34	950809	1	100224	MAR1
1202037593	02/25/10 04:03	950809	1	100224	MAR1
246432002	02/25/10 04:32	950809	1	100224	MAR1
246432003	02/25/10 05:01	950809	1	100224	MAR1
246432004	02/25/10 05:30	950809	1	100224	MAR1
246432005	02/25/10 05:59	950809	1	100224	MAR1
CVH	02/25/10 06:28		1	100224	MAR1
CCB	02/25/10 06:57		1	100224	MAR1
246432006	02/25/10 07:26	950809	1	100224	MAR1
246432007	02/25/10 07:55	950809	1	100224	MAR1
246432008	02/25/10 08:24	950809	1	100224	MAR1
246432009	02/25/10 08:52	950809	1	100224	MAR1
246432010	02/25/10 09:21	950809	1	100224	MAR1
246470006	02/25/10 09:50	954186	5	100224	MAR1
1202037590	02/25/10 10:19	950809	1	100224	MAR1
1202037594	02/25/10 10:48	950809	1	100224	MAR1
1202037592	02/25/10 11:17	950809	1	100224	MAR1
1202037593	02/25/10 11:46	950809	1	100224	MAR1
CCV	02/25/10 12:15		1	100224	MAR1
CCB	02/25/10 12:44		1	100224	MAR1

**40 246336009/950804/1/1/**

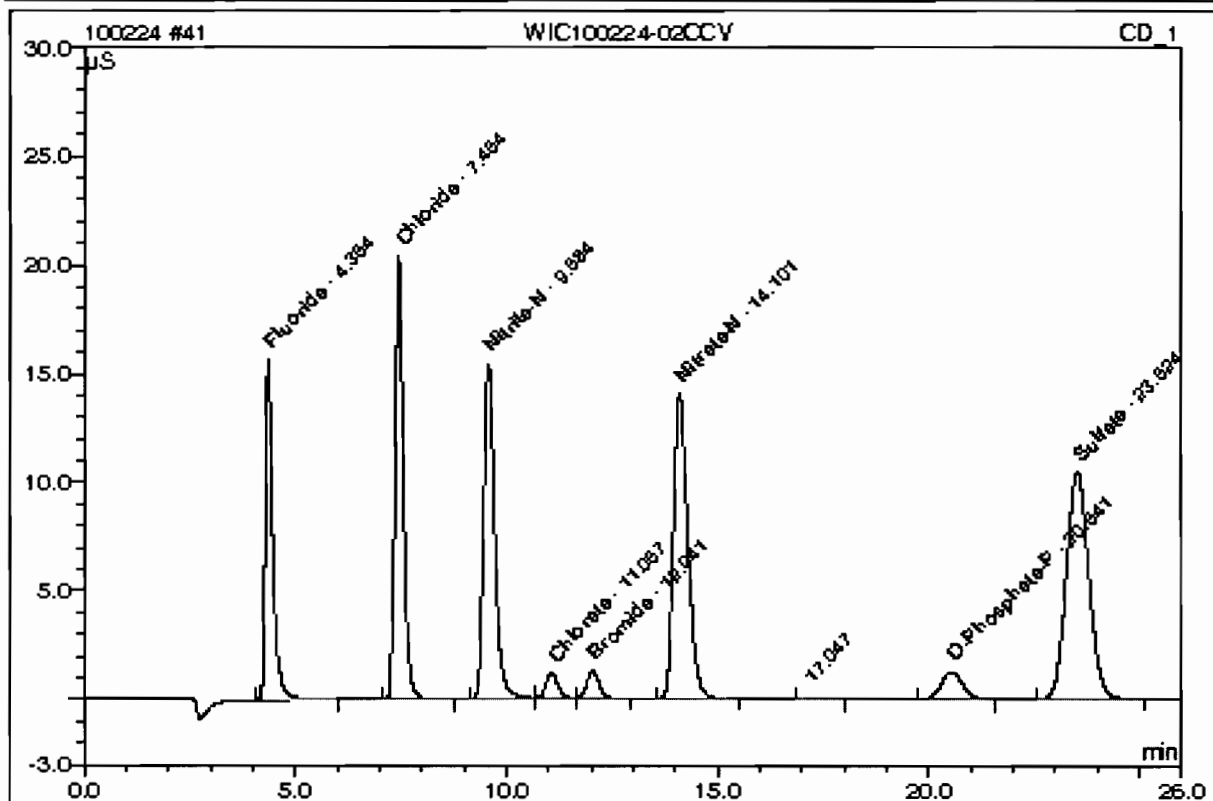
Sample Name:	246336009/950804/1/1/	Injection Volume:	1.0
Vial Number:	27	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/25/2010 0:12	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.37	Fluoride	n.a.	0.1076		0.03017	8.19
2	7.44	Chloride	n.a.	0.3908		0.10297	27.96
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	14.16	Nitrate-N	n.a.	0.1897		0.09353	25.40
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.51	Sulfate	n.a.	0.7850		0.14156	38.44
Total:				1.4732	0.000	0.368	100.00

**41 WIC100224-02CCV**

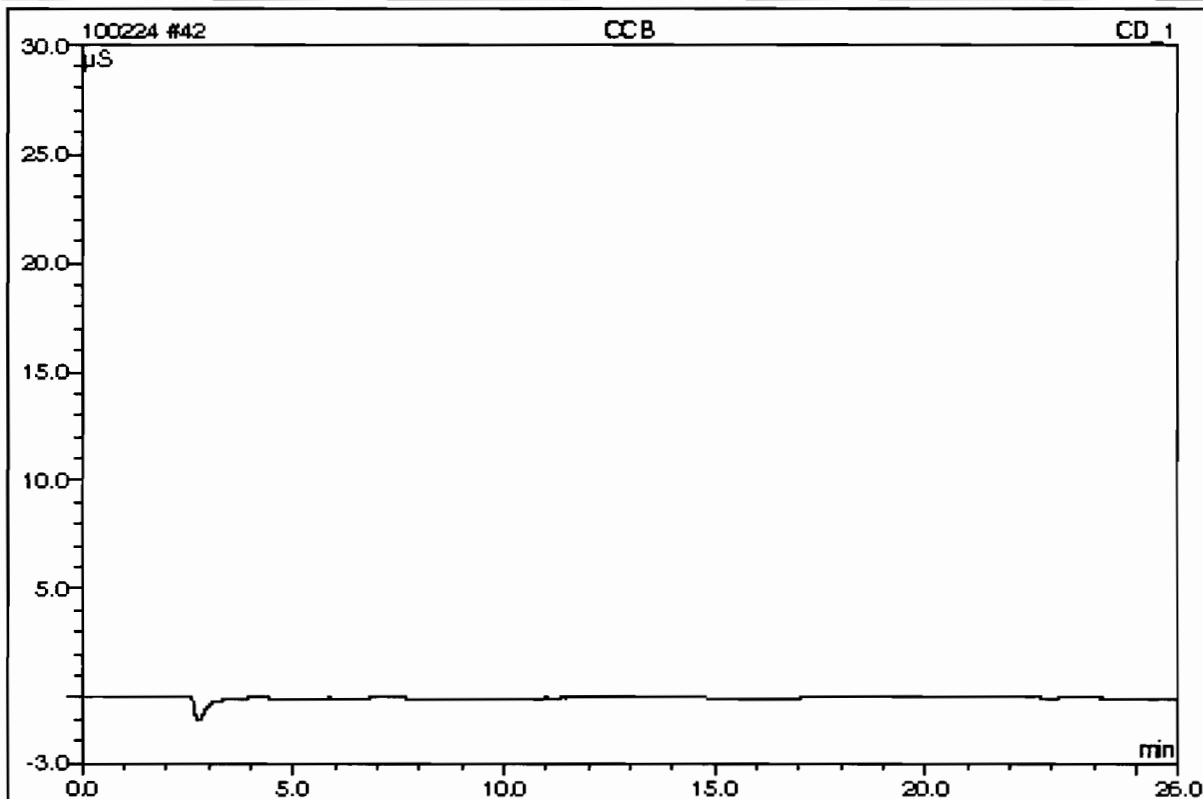
Sample Name:	WIC100224-02CCV	Injection Volume:	1.0
Vial Number:	28	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/25/2010 0:41	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.36	Fluoride	n.a.	5.1656		3.24283	12.33
2	7.45	Chloride	n.a.	10.0608		4.66755	17.74
3	9.58	Nitrite-N	n.a.	5.0881		4.66083	17.72
4	11.07	Chlorate	n.a.	2.7283		0.43281	1.65
5	12.04	Bromide	n.a.	2.7700		0.46062	1.75
6	14.10	Nitrate-N	n.a.	5.0929		5.54555	21.08
8	20.54	O-Phosphate-P	n.a.	2.4799		0.76997	2.93
9	23.52	Sulfate	n.a.	20.4089		6.50523	24.73
Total:				53.7944	0.000	26.285	99.92

**42 CCB**

Sample Name:	CCB	Injection Volume:	1.0
Vial Number:	29	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100203an	Sample Amount:	1.0000
Recording Time:	2/25/2010 1:10	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

**pH**



# pH / Corrosivity LogBook

Analyst: EXF1  
 Batch: 950202  
 Lab SOP: GL-GC-E-008 REV# 17  
 Description: pH  
 Method: SW846 9045C/9045D

Type Sample Id Serial Number Description

CCV 240 IMM091029-PH PH 7 BUFFER FOR PH  
 LCS 1202036072 IMM091221-01 LCS BUFFER SOLUTION

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parname	Initial W(g)	Final Vol(mL)	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
1202036072 LCS		Soil	12:10	12:15	08-FEB-10 13:17	pH	20	20	6.95	21.0°C	7	99.286	
1202036072 LCS		Soil	12:10	12:15	08-FEB-10 13:17	pH 2	20	20	6.95	21.0°C	7	99.286	
246336001		Soil	12:10	12:15	08-FEB-10 13:18	pH	20	20	6.47	20.2°C			
246336001		Soil	12:10	12:15	08-FEB-10 13:18	pH 2	20	20	6.47	20.2°C			
1202036070 DUP	246336001	Soil	12:10	12:15	08-FEB-10 13:21	pH	20	20	6.52	20.0°C			.77
1202036070 DUP	246336001	Soil	12:10	12:15	08-FEB-10 13:21	pH 2	20	20	6.53	20.0°C			.923
246336002		Soil	12:10	12:15	08-FEB-10 13:22	pH	20	20	6.23	20.1°C			
246336002		Soil	12:10	12:15	08-FEB-10 13:22	pH 2	20	20	6.24	20.1°C			
1202036071 DUP	246336002	Soil	12:10	12:15	08-FEB-10 13:24	pH	20	20	6.24	20.1°C			.16
1202036071 DUP	246336002	Soil	12:10	12:15	08-FEB-10 13:24	pH 2	20	20	6.25	20.1°C			.16
CCV			12:10	12:15	08-FEB-10 13:26	pH	20	20	7	20.8°C	7	100	
CCV			12:10	12:15	08-FEB-10 13:26	pH 2	20	20	7	20.8°C	7	100	
246336003		Soil	12:10	12:15	08-FEB-10 13:27	pH	20	20	5.98	20.1°C			
246336003		Soil	12:10	12:15	08-FEB-10 13:27	pH 2	20	20	5.99	20.1°C			
246336004		Soil	12:10	12:15	08-FEB-10 13:29	pH	20	20	5.47	20.0°C			
246336004		Soil	12:10	12:15	08-FEB-10 13:29	pH 2	20	20	5.47	20.0°C			
246336005		Soil	12:10	12:15	08-FEB-10 13:31	pH	20	20	7.09	20.0°C			
246336005		Soil	12:10	12:15	08-FEB-10 13:31	pH 2	20	20	7.09	20.1°C			
246336006		Soil	12:10	12:15	08-FEB-10 13:32	pH	20	20	6.8	20.1°C			
246336006		Soil	12:10	12:15	08-FEB-10 13:32	pH 2	20	20	6.8	20.2°C			
246336007		Soil	12:10	12:15	08-FEB-10 13:35	pH	20	20	6.82	20.4°C			
246336007		Soil	12:10	12:15	08-FEB-10 13:35	pH 2	20	20	6.82	20.4°C			
CCV			12:10	12:15	08-FEB-10 13:36	pH	20	20	7.01	20.9°C	7	100.143	
CCV			12:10	12:15	08-FEB-10 13:36	pH 2	20	20	7	20.9°C	7	100	
246336008		Soil	12:10	12:15	08-FEB-10 13:38	pH	20	20	6.19	20.3°C			
246336008		Soil	12:10	12:15	08-FEB-10 13:38	pH 2	20	20	6.21	20.3°C			
246336009		Soil	12:10	12:15	08-FEB-10 13:40	pH	20	20	6.03	20.3°C			
246336009		Soil	12:10	12:15	08-FEB-10 13:40	pH 2	20	20	6.03	20.3°C			

GEL Laboratories LLC

Page# \_\_\_\_\_

# pH / Corrosivity LogBook

Analyst: EXF1  
 Batch: 950202  
 Lab SOP: GL-GC-E-008 REV# 17  
 Description: pH  
 Method: SW846 9045C/9045D

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parname	Initial Wt(g)	Final Vol(ml)	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)	Description	
														Type	Serial Number
246437001		Soil	12:10	12:15	08-FEB-10 13:42	pH	20	20	6.81	20.3°C				CCV	IMM091029-PH
246437001		Soil	12:10	12:15	08-FEB-10 13:42	pH 2	20	20	6.82	20.3°C					PH 7 BUFFER FOR PH
246437002		Soil	12:10	12:15	08-FEB-10 13:44	pH	20	20	7.04	20.3°C					LCS BUFFER SOLUTION
246437002		Soil	12:10	12:15	08-FEB-10 13:44	pH 2	20	20	7.05	20.3°C					
246437003		Soil	12:10	12:15	08-FEB-10 13:45	pH	20	20	6.76	20.1°C					
246437003		Soil	12:10	12:15	08-FEB-10 13:45	pH 2	20	20	6.77	20.1°C					
CCV			12:10	12:15	08-FEB-10 13:48	pH	20	20	7	20.8°C	7	100			
CCV			12:10	12:15	08-FEB-10 13:48	pH 2	20	20	7	20.8°C	7	100			
246437004		Soil	12:10	12:15	08-FEB-10 13:49	pH	20	20	7.12	20.3°C					
246437004		Soil	12:10	12:15	08-FEB-10 13:49	pH 2	20	20	7.13	20.3°C					
246437005		Soil	12:10	12:15	08-FEB-10 13:51	pH	20	20	7.21	20.2°C					
246437005		Soil	12:10	12:15	08-FEB-10 13:51	pH 2	20	20	7.22	20.3°C					
246437006		Soil	12:10	12:15	08-FEB-10 13:53	pH	20	20	7.24	20.5°C					
246437006		Soil	12:10	12:15	08-FEB-10 13:53	pH 2	20	20	7.25	20.5°C					
246437007		Soil	12:10	12:15	08-FEB-10 13:55	pH	20	20	7.25	20.4°C					
246437007		Soil	12:10	12:15	08-FEB-10 13:55	pH 2	20	20	7.27	20.4°C					
246437008		Soil	12:10	12:15	08-FEB-10 13:57	pH	20	20	7.41	20.2°C					
246437008		Soil	12:10	12:15	08-FEB-10 13:57	pH 2	20	20	7.39	20.2°C					
CCV			12:10	12:15	08-FEB-10 13:58	pH	20	20	7.01	20.7°C	7	100.143			
CCV			12:10	12:15	08-FEB-10 13:58	pH 2	20	20	7	20.7°C	7	100			
246437009		Soil	12:10	12:15	08-FEB-10 14:00	pH	20	20	6.6	20.2°C					
246437009		Soil	12:10	12:15	08-FEB-10 14:00	pH 2	20	20	6.62	20.2°C					
246437010		Soil	12:10	12:15	08-FEB-10 14:03	pH	20	20	7.29	20.2°C					
246437010		Soil	12:10	12:15	08-FEB-10 14:03	pH 2	20	20	7.3	20.1°C					
246437011		Soil	12:10	12:15	08-FEB-10 14:05	pH	20	20	6.88	20.0°C					
246437011		Soil	12:10	12:15	08-FEB-10 14:05	pH 2	20	20	6.89	20.1°C					
CCV			12:10	12:15	08-FEB-10 14:07	pH	20	20	7	20.7°C	7	100			
CCV			12:10	12:15	08-FEB-10 14:07	pH 2	20	20	7	20.7°C	7	100			

pH / Corrosivity LogBook

Calibration Information:

Run Date: 08-FEB-10 10:46  
Instrument: PHX370  
Analyst: EXF1

Comments:

Standard	Observed	Theoretical	C	%Recovery
10:46 IMM100208-PH1	4.01	4	21.3	100.25
10:46 IMM100208-PH-	7.02	7	21.3	100.29
10:46 UPH100208-a	9.97	10	21.3	99.7
10:46 UPH100208-02c-	2.05	2	21.3	102.5
10:46 100208-a	12.02	12	21.3	100.17
10:46 IMM100208-01a	6.96	7	21.3	99.429

# Miscellaneous

**DATA EXCEPTION REPORT**

<b>Mo.Day Yr.</b> 26-FEB-10	<b>Division:</b> Industrial	<b>Quality Criteria:</b> Specifications	<b>Type:</b> Process
<b>Instrument Type:</b> IC	<b>Test / Method:</b> EPA 300.0	<b>Matrix Type:</b> Solid	<b>Client Code:</b> LANL
<b>Batch ID:</b> 950804	<b>Sample Numbers:</b> See Below		
<b>Potentially affected work order(s)(SDG): 246336(10-1568-1)</b>			
<b>Application Issues:</b> Failed Recovery for MSD/PSD Failed Recovery for MS/PS			
<b>Specification and Requirements Exception Description:</b>		<b>DER Disposition:</b>	
1. Failed Recovery for MS/MSD:  QC 1202037587MS, QC 1202037588MSD		1. The MS and MSD recoveries fall outside of the GEL acceptance limits but within the client specified limits.	

**Originator's Name:**

Mary Sherwood 26-FEB-10

**Data Validator/Group Leader:**

Julia Hamilton 26-FEB-10

### DATA EXCEPTION REPORT

<b>Mo.Day Yr.</b> 16-FEB-10	<b>Division:</b> Federal	<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> 950196	<b>Sample Numbers:</b> See Below		
<b>Potentially affected work order(s)(SDG):</b> 246262(10-1573),246322(10-1565),246336(10-1568-1),246344(10-1570) <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 1202036024MS 1202036026MSD		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.	

**Originator's Name:**  
Ashley Earl 16-FEB-10

**Data Validator/Group Leader:**  
Elzbieta Szulc 22-FEB-10