

Friday, February 19, 2010

Page 1 of 3
REQUEST NUMBER: 10-1951

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

These Samples are on:

General Engineering Laboratories, Inc., Charleston, SC.

LANL Request Number: 10-1951

2040 Savage Rd

Per Agreement Number: 126310011

Charleston, SC 29407

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 2/19/2010

TURNAROUND/REPORT DUE: 3/21/2010

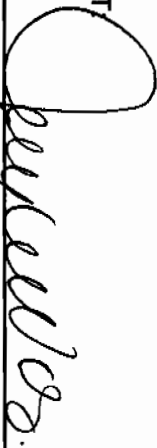
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT

Signature:



PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
EPA:300.0		1	RE15-10-8302	R	2/15/2010	
		1	RE15-10-8303	R	2/15/2010	
		1	RE15-10-8310	R	2/15/2010	
		1	RE15-10-8311	R	2/15/2010	
		1	RE15-10-8312	R	2/15/2010	
		1	RE15-10-8313	R	2/15/2010	
		1	RE15-10-8314	R	2/15/2010	
		1	RE15-10-8315	R	2/15/2010	
EPA:353.2		1	RE15-10-8329	W	2/15/2010	

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REQUEST NUMBER: 10-1951

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846;6010B	1	RE15-10-8302	R	2/15/2010	
		1	RE15-10-8303	R	2/15/2010	
		1	RE15-10-8310	R	2/15/2010	
		1	RE15-10-8311	R	2/15/2010	
		1	RE15-10-8312	R	2/15/2010	
		1	RE15-10-8313	R	2/15/2010	
		1	RE15-10-8314	R	2/15/2010	
		1	RE15-10-8315	R	2/15/2010	
		1	RE15-10-8302	R	2/15/2010	
		1	RE15-10-8303	R	2/15/2010	
	SW-846;6020	1	RE15-10-8310	R	2/15/2010	
		1	RE15-10-8311	R	2/15/2010	
		1	RE15-10-8312	R	2/15/2010	
		1	RE15-10-8313	R	2/15/2010	
		1	RE15-10-8314	R	2/15/2010	
		1	RE15-10-8315	R	2/15/2010	
		1	RE15-10-8329	W	2/15/2010	
		1	RE15-10-8302	R	2/15/2010	
		1	RE15-10-8303	R	2/15/2010	
		1	RE15-10-8310	R	2/15/2010	
	SW-846;7470A	1	RE15-10-8315	R	2/15/2010	
		1	RE15-10-8329	W	2/15/2010	
		1	RE15-10-8329	W	2/15/2010	
		1	RE15-10-8314	R	2/15/2010	
		1	RE15-10-8313	R	2/15/2010	
		1	RE15-10-8312	R	2/15/2010	
		1	RE15-10-8311	R	2/15/2010	
		1	RE15-10-8310	R	2/15/2010	
		1	RE15-10-8315	R	2/15/2010	
		1	RE15-10-8329	W	2/15/2010	

Friday, February 19, 2010

REQUEST NUMBER: 10-1951

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
SW-846:7471A						
		1	RE15-10-8303	R	2/15/2010	
		1	RE15-10-8310	R	2/15/2010	
		1	RE15-10-8311	R	2/15/2010	
		1	RE15-10-8312	R	2/15/2010	
		1	RE15-10-8313	R	2/15/2010	
		1	RE15-10-8314	R	2/15/2010	
		1	RE15-10-8315	R	2/15/2010	
SW-846:9012A						
		1	RE15-10-8302	R	2/15/2010	
		1	RE15-10-8303	R	2/15/2010	
		1	RE15-10-8310	R	2/15/2010	
		1	RE15-10-8311	R	2/15/2010	
		1	RE15-10-8312	R	2/15/2010	
		1	RE15-10-8313	R	2/15/2010	
		1	RE15-10-8314	R	2/15/2010	
		1	RE15-10-8315	R	2/15/2010	
		1	RE15-10-8329	W	2/15/2010	
SW-846:9045C						
		1	RE15-10-8302	R	2/15/2010	
		1	RE15-10-8303	R	2/15/2010	
		1	RE15-10-8310	R	2/15/2010	
		1	RE15-10-8311	R	2/15/2010	
		1	RE15-10-8312	R	2/15/2010	
		1	RE15-10-8313	R	2/15/2010	
		1	RE15-10-8314	R	2/15/2010	
		1	RE15-10-8315	R	2/15/2010	

Friday, February 19, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1951

LOS ALAMOS

REQUEST NUMBER: 10-1951

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/21/2010

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
RE15-10-8329	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8329	1	POLY	NO3NO2	Sulfuric Acid (Hydrogen Sulfate)	W
RE15-10-8329	1	POLY	SW-846:6850	Ice	W
RE15-10-8329	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8314	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8314	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8313	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8313	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8312	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8312	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8315	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8315	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8311	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8311	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8310	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8310	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8303	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8303	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8302	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8302	1	POLY	Perchlorate+CN+N03+pH	Ice	R

Relinquished By:  Date 2/19/10 Time 1400

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: _____

Printed Name

Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2506

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

SAMPLE ID: RE15-10-8302

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/15/2010		MEDIA:	OBT3	JR/2/15/10	Att File
TIME COLLECTED (HH:MM)		0845		SUB-MEDIA:	TUFF 1	NA	
PRS ID:	15-009(b)	OK		SAMPLE TECH CODE:	HA	DC	
LOCATION ID:	15-610830	↓		FIELD QC TYPE:	NA	OK	
LOCATION TYPE:	GENERIC	↓		FIELD PREP:	NA	↓	
TOP DEPTH:	0	7.0		SAMPLE USAGE:	INV	↓	
BOTTOM DEPTH:	0	8.0		SCREEN/PORT DESC:		NA	
FIELD MATRIX:	R	S		EXCAVATED:	YES/NO/NA		
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
BOREHOLE: YES/NO/NA	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:

Pinkish brown weathered Tuff and silty sand

FTB: RE 15-10-8334

SAMPLE COMMENTS: NA

LOCATION DESC: 73m 2/15/10
Below R45 Tank inlet, 9b-2

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 5 dpm
Beta/Gamma = 1983 dpmPID $\frac{\text{Ambient Reading}}{0.0} = 0.0$ ppm

COLLECTED BY (PRINT)

T. McFarland

REVIEWED BY (PRINT)

Jen Robertson

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Estevan Lucian	2/16/10	(Printed Name) Sheri Sherwood	2/16/10
(Signature) <i>E. Lucian</i>	08:22 AM	(Signature) <i>Sheri Sherwood</i>	0822
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: RE15-10-8303

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/15/2010		MEDIA:	OBT3		JR2/15/10 Attn: Fill
TIME COLLECTED (HH:MM)		0900		SUB-MEDIA:	TUFF 1		NA
PRS ID:	15-009(b)	OK		SAMPLE TECH CODE:	HA		DC
LOCATION ID:	15-610830	↓		FIELD QC TYPE:	NA		OK
LOCATION TYPE:	GENERIC	↓		FIELD PREP:	NA		↓
TOP DEPTH:	0	12.0		SAMPLE USAGE:	INV		↓
BOTTOM DEPTH:	0	13.0		SCREEN/PORT DESC:			NA
FIELD MATRIX:	R	5		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	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 brown weathered tuff and sandy silt

SAMPLE COMMENTS:

NA

LOCATION DESC:

5 ft below R45 tank inlet, 96-2

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 11 dpm
Beta/Gamma = 1879 dpm

PID $\frac{\text{Ambient}}{\text{Reading}} = \frac{0.0}{2.2} \text{ ppm}$

COLLECTED BY (PRINT)

TLMcFarlane

REVIEWED BY (PRINT)

Jim Robertson

RELINQUISHED BY (Printed Name) Estevan Lujan (Signature)	Date/Time 2/16/10 08:22 AM	RECEIVED BY (Printed Name) Sherin Sherwood (Signature)	Date/Time 2/16/10 0822
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: RE15-10-8310

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/15/2010		MEDIA:	OBT3		FILL
TIME COLLECTED (HH:MM)		0935		SUB-MEDIA:	TUFF 1		NA
PRS ID:	15-009(b)	OK		SAMPLE TECH CODE:	HA		DC
LOCATION ID:	15-610834	↓		FIELD QC TYPE:	NA		OK
LOCATION TYPE:	GENERIC	↓		FIELD PREP:	NA		↓
TOP DEPTH:	0	15.0		SAMPLE USAGE:	INV		↓
BOTTOM DEPTH:	0	16.0		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	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:

Pinkish gray weathered stiff fill

SAMPLE COMMENTS:

NA

LOCATION DESC:

Below tank, 9b-3

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 27 dpm
Beta/Gamma = 2120 dpm

PID $\frac{\text{Ambient Reading}}{0.6} = \frac{0.0}{0.6}$ ppm

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

Riley Evans

RELINQUISHED BY (Printed Name) Esterson Lugin (Signature) <i>E Lugin</i>	Date/Time 2/16/10 081231M	RECEIVED BY (Printed Name) Sherin Greenwood (Signature) <i>Sherin Greenwood</i>	Date/Time 2/16/10 0823
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: RE15-10-8311

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/15/2010		MEDIA:	OBT3		ok
TIME COLLECTED (HH:MM)		0949		SUB-MEDIA:	TUFF 1		↓
PRS ID:	15-009(b)	ok		SAMPLE TECH CODE:	HA		DC
LOCATION ID:	15-610834	↓		FIELD QC TYPE:	NA		ok
LOCATION TYPE:	GENERIC	↓		FIELD PREP:	NA		↓
TOP DEPTH:	0	17.0		SAMPLE USAGE:	INV		↓
BOTTOM DEPTH:	0	18.0		SCREEN/PORT DESC:			NA
FIELD MATRIX:	R	R		EXCAVATED:	YES/NO/NA		
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
				WATER FLOWING:	YES/NO/NA		
BOREHOLE:	YES/NO/NA			BOREHOLE DECLINATION:	NA		
				BOREHOLE DIRECTION:	NA		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	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: Pinkish gray stuff

Bingside collected: RE15-10-8329

SAMPLE COMMENTS:

NA

LOCATION DESC:

2
5 feet below tanks
1M
2/15/10

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha \leq 11 dpm
Beta/Gamma \leq 2080 dpmPID $\frac{\text{Ambient Reading}}{0.0} = 0.0$ ppm

COLLECTED BY (PRINT)

Th McFarlang

REVIEWED BY (PRINT)

Riley Evans

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Estevan Lujan	2/16/10	(Printed Name) Sheri Sherwood	2/16/10
(Signature)	08:23 AM	(Signature)	0823
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: RE15-10-8312

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/15/2010		MEDIA:	OBT3	3R2/15/10	NA F:11
TIME COLLECTED (HH:MM)		0850		SUB-MEDIA:	TUFF 1		NA
PRS ID:	15-009(b)	OK		SAMPLE TECH CODE:	HA		DC
LOCATION ID:	15-610835			FIELD QC TYPE:	NA		
LOCATION TYPE:	GENERIC	↓		FIELD PREP:	NA		
TOP DEPTH:	0	7.0		SAMPLE USAGE:	INV		↓
BOTTOM DEPTH:	0	8.0		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	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:

Pinkish gray weathered

SAMPLE COMMENTS:

NA

LOCATION DESC:

Below inlet pipe, 9b-1

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha \leq 16 dpm
Beta/Gamma \leq 1976 dpm

PID $\frac{\text{Ambient Reading}}{0.3} = 0.0$ ppm

COLLECTED BY (PRINT)

TLMCFarhad

REVIEWED BY (PRINT) Jon Roberson

RELINQUISHED BY (Printed Name) Estevan Lujan	Date/Time 2/16/10	RECEIVED BY (Printed Name) Sheri Sherwood	Date/Time 2/16/10
(Signature)	08:25 AM	(Signature)	0825
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: RE15-10-8313

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/15/2010		MEDIA:	OBT3	JR 2/15/10	
TIME COLLECTED (HH:MM)		0910		SUB-MEDIA:	TUFF 1	Att - Fill	
PRS ID:	15-009(b)	OK		SAMPLE TECH CODE:	HA	DC	
LOCATION ID:	15-610835			FIELD QC TYPE:	NA	OK	
LOCATION TYPE:	GENERIC	↓		FIELD PREP:	NA		
TOP DEPTH:	0	12.0		SAMPLE USAGE:	INV		
BOTTOM DEPTH:	0	13.0		SCREEN/PORT DESC:		NA	
FIELD MATRIX:	R	S		EXCAVATED:	YES/NO/NA		
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	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:

Pinkish brown weathered tuff and sandy silt

SAMPLE COMMENTS:

NA

LOCATION DESC:

5' Below inlet pipe, 9b-1

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha \leq 22 dpm
Beta/Gamma \leq 2120 dpm

PID $\frac{\text{Ambient Reading}}{0.8}$ 0.0 ppm

COLLECTED BY (PRINT)

ThMcFarlane

REVIEWED BY (PRINT) Jo. Robertson

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Estwan Lujan	2/16/10	(Printed Name) Sherri Sherwood	2/16/10
(Signature)	08:26 AM	(Signature)	0826
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: RE15-10-8314

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/15/2010		MEDIA:	OBT3	73m - ATTN FILL	
TIME COLLECTED (HH:MM)		0915		SUB-MEDIA:	TUFF 1	215110	NA
PRS ID:	15-009(b)	OK		SAMPLE TECH CODE:	HA		OC
LOCATION ID:	15-610836			FIELD QC TYPE:	NA		OK
LOCATION TYPE:	GENERIC			FIELD PREP:	NA		
TOP DEPTH:	0	7.0		SAMPLE USAGE:	INV		
BOTTOM DEPTH:	0	8.0		SCREEN/PORT DESC:			NA
FIELD MATRIX:	R	S FILL 811m 2/15/10		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:

Pinkish gray weathered tuff fill and tuff fragments

SAMPLE COMMENTS:

NA

LOCATION DESC:

Below outlet, 9b-4

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha \leq 22 dpm
 Beta/Gamma \leq 2280 dpm

PID $\frac{\text{Ambient}}{\text{Reading}} \frac{0.0}{0.1}$ ppm

COLLECTED BY (PRINT)

TLMcFarlane

REVIEWED BY (PRINT)

Riley Evans

RELINQUISHED BY (Printed Name) E. Lujan (Signature)	Date/Time 2/16/10 08:26 AM	RECEIVED BY (Printed Name) Sherry Sherwood (Signature)	Date/Time 2/16/10 0826
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: RE15-10-8315

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/15/2010		MEDIA:	OBT3	12m 2/15/10	ATTN FILL
TIME COLLECTED (HH:MM)		0921		SUB-MEDIA:	TUFF 1		NA
PRS ID:	15-009(b)	ok		SAMPLE TECH CODE:	HA		DC
LOCATION ID:	15-610836			FIELD QC TYPE:	NA		ok
LOCATION TYPE:	GENERIC			FIELD PREP:	NA		
TOP DEPTH:	0	12.0		SAMPLE USAGE:	INV		
BOTTOM DEPTH:	0	13.0		SCREEN/PORT DESC:			NA
FIELD MATRIX:	B	S FILL 12m 2/15/10		EXCAVATED:	YES/NO/NA		
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		WATER FLOWING: YES/NO/NA
BOREHOLE: YES/NO/NA	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:

Pinkish gray weathered tuff fill and tuff fragments

SAMPLE COMMENTS:

NA

LOCATION DESC:

5 ft below tank outlet, 9b-4

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha \leq 11 dpm
 Beta/Gamma \leq 2140 dpm

PID $\frac{\text{Ambient}}{\text{Reading}} = \frac{0.0}{0.2} \text{ ppm}$

COLLECTED BY (PRINT)

T. McFarland

REVIEWED BY (PRINT)

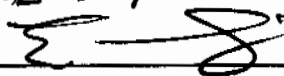
Riley Evans

RELINQUISHED BY

(Printed Name)

E. Lujan

(Signature)



Date/Time

2/16/10

08:26A

RECEIVED BY

(Printed Name)

Sheri Sherwood

(Signature)



Date/Time

2/16/10

0826

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: RE15-10-8329

WORK ORDER:

AS PLANNED	AS COLLECTED	AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):	02/15/2010	MEDIA:	NA
TIME COLLECTED (HH:MM)	10:50	SUB-MEDIA:	OTHER
PRS ID: 15-009(b)	OK	SAMPLE TECH CODE:	DC
LOCATION ID: UNK		FIELD QC TYPE:	FR
LOCATION TYPE: GENERIC		FIELD PREP:	UF
TOP DEPTH: 0		SAMPLE USAGE:	QC
BOTTOM DEPTH: 0		SCREEN/PORT DESC:	
FIELD MATRIX: W		EXCAVATED: YES/NO/NA	
COMPOSITE TYPE:	COMPOSITE TIME INTERVAL:	WATER FLOWING: YES/NO/NA	
BOREHOLE: YES/NO/NA	BOREHOLE DECLINATION:	BOREHOLE DIRECTION:	

#	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	normal	SW-846:6850	250 ML POLY	Ice	y	
1	↓	TCN	500 ML POLY	Sodium Hydroxide	y	

SAMPLE DESC: QC Sample of RE15-10-834

SAMPLE COMMENTS: none

LOCATION DESC: Run tank

FIELD SCREENING/MEASUREMENT RESULTS:

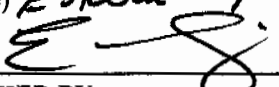

NA

COLLECTED BY (PRINT)

Jon Robertson

REVIEWED BY (PRINT)

Nicholas Gallegos

RELINQUISHED BY (Printed Name) Estevan Lyman (Signature) 	Date/Time 2/16/10 13:21 AM	RECEIVED BY (Printed Name) Sheri Sherwood (Signature) 	Date/Time 2/16/10 0821
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: RE15-10-8334

WORK ORDER:

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/15/2010	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		0840	SUB-MEDIA:	OTHER	
PRS ID:	15-009(b)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	15-010830	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	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 2 3	Normal	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE 15-10-8307

SAMPLE COMMENTS:

FTB

LOCATION DESC:

NA

FIELD SCREENING/MEASUREMENT RESULTS:

NA

COLLECTED BY (PRINT)

T. McFarlane

REVIEWED BY (PRINT)

Riley Evans

RELINQUISHED BY (Printed Name) Estwan Lujan (Signature) [Signature]	Date/Time 2/16/10 08:28 AM	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) [Signature]	Date/Time 2/16/10 0828
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time



2809 North River Road, Port Allen, Louisiana 70767
1 (800) 461-4277 FAX (225) 381-2996

1 of 2

ARS Sample Delivery Group: ARS1-10-00262
Analysis Description: Gross Alpha/Beta in (Soil, Sludge, Waste, Sediment (SO))
Analysis Test Method: GPC-A-003

Request or PO Number: N/A
Date Received: 2/17/2010
Report Date: 02/18/10 12:34

ARS Sample ID	Client Sample ID	Isotope	Analysis Results	Analysis Error +/- 2 s	MDC	DLC	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery	Sample Matrix	Collection Date
ARS1-10-00262-001	RE15-10-8302	GROSS ALPHA	6.817	4.732	14.397	4.405	U	pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-001	RE15-10-8302	GROSS BETA	25.135	4.841	7.848	3.393		pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-002	RE15-10-8303	GROSS ALPHA	5.392	3.976	12.127	3.443	U	pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-002	RE15-10-8303	GROSS BETA	32.960	5.742	8.016	3.483		pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-003	RE15-10-8310	GROSS ALPHA	4.815	3.949	13.061	3.913	U	pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-003	RE15-10-8310	GROSS BETA	28.560	5.211	7.666	3.298		pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-004	RE15-10-8311	GROSS ALPHA	16.706	6.638	13.740	4.170		pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-004	RE15-10-8311	GROSS BETA	31.065	5.505	7.578	3.274		pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-005	RE15-10-8312	GROSS ALPHA	9.299	5.281	13.981	4.169	U	pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-005	RE15-10-8312	GROSS BETA	41.326	6.770	7.991	3.448		pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-006	RE15-10-8313	GROSS ALPHA	7.489	4.853	13.949	4.119	U	pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-006	RE15-10-8313	GROSS BETA	43.056	6.963	7.921	3.412		pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-007	RE15-10-8314	GROSS ALPHA	5.109	4.119	13.539	4.037	U	pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-007	RE15-10-8314	GROSS BETA	24.911	4.797	7.864	3.408		pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-008	RE15-10-8315	GROSS ALPHA	-4.587	0.925	16.695	5.307	U	pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-008	RE15-10-8315	GROSS BETA	41.335	6.715	8.074	3.495		pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-009	RE15-10-8254	GROSS ALPHA	9.792	5.179	12.801	3.634	U	pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-009	RE15-10-8254	GROSS BETA	24.323	4.794	8.108	3.525		pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-010	RE15-10-8268	GROSS ALPHA	8.073	5.086	14.434	4.219	U	pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-010	RE15-10-8268	GROSS BETA	26.329	5.062	8.262	3.585		pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-011	RE15-10-8253	GROSS ALPHA	3.451	3.582	13.136	3.819	U	pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-011	RE15-10-8253	GROSS BETA	32.688	5.715	7.891	3.407		pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-012	RE15-10-8252	GROSS ALPHA	2.746	3.546	13.798	4.188	U	pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-012	RE15-10-8252	GROSS BETA	35.047	6.091	8.879	3.904		pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-013	RE15-10-8264	GROSS ALPHA	18.758	7.035	13.380	3.990		pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-013	RE15-10-8264	GROSS BETA	37.384	6.327	7.991	3.459		pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-014	RE15-10-8251	GROSS ALPHA	9.207	4.947	12.428	3.572	U	pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-014	RE15-10-8251	GROSS BETA	28.501	5.280	8.199	3.569		pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-015	RE15-10-8250	GROSS ALPHA	9.265	5.182	13.645	4.049	U	pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-015	RE15-10-8250	GROSS BETA	36.111	6.111	7.756	3.345		pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-016	RE15-10-8249	GROSS ALPHA	3.355	4.301	16.569	5.426	U	pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-016	RE15-10-8249	GROSS BETA	27.286	5.120	8.204	3.568		pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-017	RE15-10-8248	GROSS ALPHA	2.496	3.730	14.783	4.559	U	pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-017	RE15-10-8248	GROSS BETA	31.617	5.622	8.177	3.548		pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-018	RE15-10-8247	GROSS ALPHA	3.909	4.426	16.310	5.230	U	pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-018	RE15-10-8247	GROSS BETA	30.943	5.717	9.264	4.075		pCi/g	2/18/2010	CR	N/A	SO	



2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-10-00262
Analysis Description: Gross Alpha/Beta in (Soil, Sludge, Waste, Sediment (SO))
Analysis Test Method: GPC-A-003

Request or PO Number: N/A
Date Received: 2/17/2010
Report Date: 02/18/10 12:34

ARS Sample ID	Client Sample ID	Isotope	Analysis Results	Analysis Error +/- 2 s	MDC	DLC	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Trace/Chem Recovery	Sample Matrix	Collection Date
ARS1-10-00262-019	RE15-10-8894	GROSS ALPHA	7.676	5.176	15.661	5.050	U	pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-019	RE15-10-8894	GROSS BETA	23.779	4.717	7.870	3.391		pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-020	RE15-10-8349	GROSS ALPHA	14.120	6.531	15.732	5.045	U	pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-020	RE15-10-8349	GROSS BETA	38.731	6.505	8.084	3.491		pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-021	RE15-10-8348	GROSS ALPHA	12.891	6.315	15.594	5.082	U	pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-021	RE15-10-8348	GROSS BETA	42.571	6.852	7.546	3.242		pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-022	RE16-10-1514	GROSS ALPHA	1.837	3.758	15.319	4.839	U	pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-022	RE16-10-1514	GROSS BETA	45.190	7.195	8.022	3.465		pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-023	RE16-10-1314	GROSS ALPHA	-1.251	2.802	15.097	5.002	U	pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-023	RE16-10-1314	GROSS BETA	26.989	4.999	7.752	3.346		pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-024	RE16-10-1314	GROSS ALPHA	9.142	5.361	14.808	4.762	U	pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-024	RE16-10-1314	GROSS BETA	35.501	6.042	7.756	3.343		pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-025	RE16-10-1314	GROSS ALPHA	8.291	5.673	16.892	5.656	U	pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-025	RE16-10-1314	GROSS BETA	37.273	6.288	7.980	3.444		pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-026	RE16-10-1314	GROSS ALPHA	5.527	5.069	17.198	6.082	U	pCi/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-026	RE16-10-1314	GROSS BETA	32.272	5.756	8.540	3.729		pCi/g	2/18/2010	CR	N/A	SO	
NOTES:													

Project Manager Review

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

LELAP Certificate# 01949

NELAP Certificate # E87558

DATA VALIDATION COVER SHEET**5121-1****Data Validation Cover Sheet**

Records Use only

**Section I.**REQUEST NUMBER: 10-1951 VALIDATION DATE: 04/01/10 LAB CODE: GELCONTRACT LABORATORY NAME: GEL Laboratories LLCVALIDATOR: Kevin A. Lambert ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- | | | | |
|--|--|---|---|
| <input type="checkbox"/> TPH-GRO | <input type="checkbox"/> HIGH EXPLOSIVES | <input type="checkbox"/> DIOXIN FURANS | <input checked="" type="checkbox"/> LCMSMS PERCHLORATES |
| <input type="checkbox"/> TPH-DRO | <input type="checkbox"/> METALS | <input type="checkbox"/> PCB CONGENERS | <input type="checkbox"/> ORGANOCHLORINE |
| <input type="checkbox"/> GENERAL CHEMISTRY | <input type="checkbox"/> RADIOCHEMISTRY | <input type="checkbox"/> LCMSMS HIGH EXPLOSIVES | 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 water MSD %R for perchlorate was >the laboratory UAL. The associated sample result was a ND and, thus, was not qualified.
2. It should be noted that the water MS/MSD analyses were on a LANL sample from another RN, and the parent sample raw data was not included in the data package. No sample data were qualified.


Reviewed by: Mary DonovanLevel: IDate: 04/02/10

VALIDATOR'S SIGNATURE: _____


Kevin A. LambertDATE: 04/01/10

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

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

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

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R, PERC7f
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
<input checked="" type="checkbox"/>	<input 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	
5121-2	Records Use only
LC/MS/MS Perchlorate Analytical Data Validation Checklist	

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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: 257436
 Extraction Type: Filter/DAI
 Client Sample No. RE15-10-8329
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1951
 GEL Sample ID: 247560001
 Date Filtered: 25-FEB-10
 Injection Volume (uL): 20
 Sample Volume/Weight: 10.0 mL
 Concentrated Extract Volume: 10.0

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	02-MAR-10 04:56	per0301114a
	Perchlorate Isotope Ratio						1	02-MAR-10 04:56	per0301114a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	02-MAR-10 04:56	per0301114a
	Perchlorate-O(18)			0.480	ug/L		1	02-MAR-10 04:56	per0301114a

[^] 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: 964159
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE15-10-8314
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1951-1
 GEL Sample ID: 247561001
 Date Filtered: 11-MAR-10
 Injection Volume (uL): 20
 %Solids: 97.3

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.514	2.06	2.47	ug/kg		1	12-MAR-10 05:34	per0311069a
	Perchlorate Isotope Ratio			3.05			1	12-MAR-10 05:34	per0311069a
14797-73-0	Perchlorate-101	.514	2.06	2.32	ug/kg		1	12-MAR-10 05:34	per0311069a
	Perchlorate-O(18)			6.00	ug/kg		1	12-MAR-10 05:34	per0311069a

[^] 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: 964159
 Extraction Type: Solid Prep
 Client Sample No. RE15-10-8313
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1951-1
 GEL Sample ID: 247561002
 Date Filtered: 11-MAR-10
 Injection Volume (uL): 20
 Sample Volume/Weight: 2.00 g
 % Solids: 96.4
 Concentrated Extract Volume: 20.0

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.07	0.519	ug/kg	U	1	12-MAR-10 06:01	per0311072a
	Perchlorate Isotope Ratio						1	12-MAR-10 06:01	per0311072a
14797-73-0	Perchlorate-101	.519	2.07	0.519	ug/kg	U	1	12-MAR-10 06:01	per0311072a
	Perchlorate-O(18)			5.36	ug/kg		1	12-MAR-10 06:01	per0311072a

[^] 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: 964152
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE15-10-8312
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1951-1
 GEL Sample ID: 247561003
 Date Filtered: 11-MAR-10
 Injection Volume (uL): 20
 %Solids: 94.8

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.527	2.11	0.527	ug/kg	U	1	12-MAR-10 06:10	per0311073a
	Perchlorate Isotope Ratio						1	12-MAR-10 06:10	per0311073a
14797-73-0	Perchlorate-101	.527	2.11	0.527	ug/kg	U	1	12-MAR-10 06:10	per0311073a
	Perchlorate-O(18)			5.59	ug/kg		1	12-MAR-10 06:10	per0311073a

^ 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 $\frac{1}{\% \text{Solids}}$
 Aliquot

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC Client Sample No. RE15-10-8315

Lab Code: GEL Date Received: 20-FEB-10

Instrument: LCMSMS GEL Job No (SDG): 10-1951-1

Method: SW846 6850 Modified GEL Sample ID: 247561004

Matrix: SOIL Date Filtered: 11-MAR-10

Extraction Batch ID: 264152 Injection Volume (uL): 20

Extraction Type: Solid Prep %Solids: 96.6

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.517	2.07	1.06	ug/kg	J	1	12-MAR-10 10:44	per0312014a
	Perchlorate Isotope Ratio			3.02			1	12-MAR-10 10:44	per0312014a
14797-73-0	Perchlorate-101	.517	2.07	1.07	ug/kg	J	1	12-MAR-10 10:44	per0312014a
	Perchlorate-O(18)			5.47	ug/kg		1	12-MAR-10 10:44	per0312014a

[^] 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: 964152
 Extraction Type: Solid Prep
 Client Sample No. RE15-10-8311
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1951-1
 GEL Sample ID: 247561005
 Date Filtered: 11-MAR-10
 Injection Volume (uL): 20
 Sample Volume/Weight: 2.00 g
 %Solids: 96.3

Concentrated Extract Volume: 20.0

CAS No.	Analyte ^a	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.08	0.519	ug/kg	U	1	12-MAR-10 10:53	per0312015a
	Perchlorate Isotope Ratio						1	12-MAR-10 10:53	per0312015a
14797-73-0	Perchlorate-101	.519	2.08	0.519	ug/kg	U	1	12-MAR-10 10:53	per0312015a
	Perchlorate-O(18)			5.30	ug/kg		1	12-MAR-10 10:53	per0312015a

^a 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 $\frac{1}{\% \text{Solids}}$
 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: 964159
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE15-10-8310
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1951-1
 GEL Sample ID: 247561006
 Date Filtered: 11-MAR-10
 Injection Volume (uL): 20
 %Solids: 96.3

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.08	0.621	ug/kg	J	1	12-MAR-10 11:02	per0312016a
	Perchlorate Isotope Ratio			3.05			1	12-MAR-10 11:02	per0312016a
14797-73-0	Perchlorate-101	.519	2.08	0.620	ug/kg	J	1	12-MAR-10 11:02	per0312016a
	Perchlorate-O(18)			5.52	ug/kg		1	12-MAR-10 11:02	per0312016a

[^] 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: 964159
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE15-10-8303
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1951-1
 GEL Sample ID: 247561007
 Date Filtered: 11-MAR-10
 Injection Volume (uL): 20
 %Solids: 96.8

CAS No.	Analyte ^a	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.516	2.07	0.516	ug/kg	U	1	12-MAR-10 11:11	per0312017a
	Perchlorate Isotope Ratio						1	12-MAR-10 11:11	per0312017a
14797-73-0	Perchlorate-101	.516	2.07	0.516	ug/kg	U	1	12-MAR-10 11:11	per0312017a
	Perchlorate-O(18)			5.36	ug/kg		1	12-MAR-10 11:11	per0312017a

^a 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: 264159
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE15-10-8302
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1951-1
 GEL Sample ID: 247561008
 Date Filtered: 11-MAR-10
 Injection Volume (uL): 20
 %Solids: 94.8

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.527	2.11	0.527	ug/kg	U	1	12-MAR-10 11:20	per0312018a
	Perchlorate Isotope Ratio						1	12-MAR-10 11:20	per0312018a
14797-73-0	Perchlorate-101	.527	2.11	0.527	ug/kg	U	1	12-MAR-10 11:20	per0312018a
	Perchlorate-O(18)			5.60	ug/kg		1	12-MAR-10 11:20	per0312018a

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

*Concentration =

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

DATA VALIDATION COVER SHEET	
<div style="display: flex; justify-content: space-between;"> <div>5118-1</div> <div style="text-align: center;">Data Validation Cover Sheet</div> </div>	<div style="text-align: center;">Records Use only</div> <div style="text-align: center;">  </div>


Section I.		
REQUEST NUMBER: 10-1951	VALIDATION DATE: 04/01/10	LAB CODE: GEL
CONTRACT LABORATORY NAME: GEL Laboratories LLC		
VALIDATOR: Kevin A. Lambert ORGANIZATION: Analytical Quality Associates, Inc.		
ANALYTICAL SUITE (CHECK ALL THAT APPLY):		
<input type="checkbox"/> TPH-GRO	<input type="checkbox"/> HIGH EXPLOSIVES	<input type="checkbox"/> DIOXIN FURANS
<input type="checkbox"/> TPH-DRO	<input checked="" type="checkbox"/> METALS	<input type="checkbox"/> PCB CONGENERS
<input type="checkbox"/> GENERAL CHEMISTRY	<input type="checkbox"/> RADIOCHEMISTRY	<input type="checkbox"/> LCMSMS HIGH EXPLOSIVES
<input type="checkbox"/> OTHER (DESCRIBE):		<input type="checkbox"/> LCMSMS PERCHLORATES
		<input type="checkbox"/> ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS

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


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

1. In the water ICB/CCB, Tl and Zn was detected. The Zn result was a detect $\leq 5X$ the greatest ICB/CCB concentration and, thus, was qualified U,I4b. The Tl result was a ND and, thus, was not qualified.
In the soil ICB/CCB, Sb was detected. The Sb results for samples RE15-10-8313, -8312, -8310, and -8302 were detects $\leq 5X$ the greatest ICB/CCB concentration and, thus, were qualified U,I4b. The other associated sample results were NDs and, thus, were not qualified.
2. In the FR blank, sample -8329, associated with all field samples, Ca, Cu, Fe, Mn, K, and Na were detected. The Cu results for samples -8314 and -8311 and the Na results for samples -8312 and -8302 were detects $\leq 5X$ the FR blank concentrations and, thus, were qualified U,I4d. All other associated sample results were detects $> 5X$ the FR blank concentrations and, thus, were not qualified.
3. The soil MS %R for Se was $<$ the laboratory LAL but $\geq 10\%$ and the soil MS %Rs for Al, Ca, Fe, Mg, Mn, K, and Na were $>$ the laboratory UAL. However, the associated parent sample concentrations for Al, Fe, and Mn were $> 4X$ the spike concentrations. Thus, no sample data were qualified as result, based on professional judgment. The Se results were NDs and, thus, were qualified UJ,I6a. The Na results for samples -8312 and -8302 were qualified NDs and, thus, were qualified UJ,I6b. All other associated sample results were detects and, thus, were qualified J+,I6b.
4. The soil duplicate RPD value for U was $> 35\%$, and both the parent sample and duplicate results were $\geq 5X$ the PQL. All associated sample results were detects and, thus, were qualified J,I10a.
5. It should be noted that the parent samples for the water matrix QC analyses and the soil CVAA matrix QC analyses


DATA VALIDATION COVER SHEET	
5118-1	Records Use only
Data Validation Cover Sheet	
were LANL samples from other RNs, and the parent sample raw data were not included in the data package. No sample data were qualified.	
Reviewed by: <u>Mary Donovan</u> Level: <u>I</u> Date: <u>04/02/10</u>	
VALIDATOR'S SIGNATURE: <u><i>Kevin A. Lambert</i></u> DATE: <u>04/01/10</u>	
Form 5118-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

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


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

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

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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 type="checkbox"/>	<input checked="" 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 Metals Analytical Data Validation Checklist	Records Use only 

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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 Metals Analytical Data Validation Checklist	Records Use only 

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input 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: 10-1951

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247560001

BASIS: As Received

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8329

LEVEL: Low

DATE RECEIVED 20-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	200	ug/L	U	68	200	200	1	P	HSC	03/17/10 23:46	031710-1	955808
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	SKJ	03/19/10 02:11	100318-3	955810
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	03/17/10 23:46	031710-1	955808
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	03/17/10 23:46	031710-1	955808
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	SKJ	03/19/10 02:11	100318-3	955810
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	SKJ	03/19/10 02:11	100318-3	955810
7440-70-2	Calcium	113	ug/L	J	50	200	200	1	P	HSC	03/17/10 23:46	031710-1	955808
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	03/17/10 23:46	031710-1	955808
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	03/17/10 23:46	031710-1	955808
7440-50-8	Copper	7.27	ug/L	J	3	10	10	1	P	HSC	03/17/10 23:46	031710-1	955808
7439-89-6	Iron	53.2	ug/L	J	30	100	100	1	P	HSC	03/17/10 23:46	031710-1	955808
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	PRB	03/20/10 18:09	100319-4	955810
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	03/17/10 23:46	031710-1	955808
7439-96-5	Manganese	1.58	ug/L	J	1	5	5	1	MS	SKJ	03/19/10 02:11	100318-3	955810
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/25/10 13:39	022510W1-5	957034
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	03/17/10 23:46	031710-1	955808
7440-09-7	Potassium	327	ug/L		50	150	150	1	P	HSC	03/17/10 23:46	031710-1	955808
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	03/17/10 23:46	031710-1	955808
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	03/17/10 23:46	031710-1	955808
7440-23-5	Sodium	329	ug/L		100	300	300	1	P	HSC	03/17/10 23:46	031710-1	955808
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	PRB	03/20/10 18:09	100319-4	955810
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	PRB	03/21/10 10:19	100320-2	955810
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	03/17/10 23:46	031710-1	955808
7440-66-6	Zinc U,14b	6.53	ug/L	J	3.3	10	10	1	P	HSC	03/17/10 23:46	031710-1	955808

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955808	955807	SW846 3005A	50	mL	50	mL	02/24/10	BXA1
955810	955809	SW846 3005A	50	mL	50	mL	02/24/10	BXA1
957034	957032	SW846 7470A Prep	20	mL	20	mL	02/24/10	TXB3

KAL
04/01/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1951-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247561001

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8314

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 97.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2580000	ug/Kg		6670	19600	19600	1	P	HSC	03/19/10 07:37	031910D-1	955816
7440-36-0	Antimony	981	ug/Kg	U	324	981	981	1	P	HSC	03/19/10 07:37	031910D-1	955816
7440-38-2	Arsenic	0.942	mg/kg	J	0.204	1.02	1.02	2	MS	SKJ	03/19/10 18:12	100319-3	955818
7440-39-3	Barium	35900	ug/Kg		98.1	491	491	1	P	HSC	03/19/10 07:37	031910D-1	955816
7440-41-7	Beryllium	0.447	mg/kg		0.0204	0.102	0.102	2	MS	SKJ	03/19/10 18:12	100319-3	955818
7440-43-9	Cadmium	112	ug/Kg	J	98.1	491	491	1	P	HSC	03/19/10 07:37	031910D-1	955816
7440-70-2	Calcium J+,I6b	954000	ug/Kg	*N	7850	24500	24500	1	P	HSC	03/19/10 07:37	031910D-1	955816
7440-47-3	Chromium	2160	ug/Kg		147	491	491	1	P	HSC	03/19/10 07:37	031910D-1	955816
7440-48-4	Cobalt	862	ug/Kg		147	491	491	1	P	HSC	03/19/10 07:37	031910D-1	955816
7440-50-8	Copper U,I4d	2730	ug/Kg		294	981	981	1	P	HSC	03/19/10 07:37	031910D-1	955816
7439-89-6	Iron	7670000	ug/Kg	*	7850	24500	24500	1	P	HSC	03/19/10 07:37	031910D-1	955816
7439-92-1	Lead	5380	ug/Kg		245	981	981	1	P	HSC	03/19/10 07:37	031910D-1	955816
7439-95-4	Magnesium J+,I6b	459000	ug/Kg	N	8340	29400	29400	1	P	HSC	03/19/10 07:37	031910D-1	955816
7439-96-5	Manganese	229000	ug/Kg		196	981	981	1	P	HSC	03/19/10 07:37	031910D-1	955816
7439-97-6	Mercury	10.8	ug/kg	U	3.67	10.8	10.8	1	AV	JXL1	03/02/10 15:05	030210S1-4	958657
7440-02-0	Nickel	2.31	mg/kg		0.102	0.409	0.409	2	MS	SKJ	03/19/10 18:12	100319-3	955818
7440-09-7	Potassium J+,I6b	624000	ug/Kg	N	6280	24500	24500	1	P	HSC	03/19/10 07:37	031910D-1	955816
7782-49-2	Selenium UJ,I6a	1.02	mg/kg	UN	0.511	1.02	1.02	2	MS	SKJ	03/19/10 05:20	100318-2	955818
7440-22-4	Silver	491	ug/Kg	U	98.1	491	491	1	P	HSC	03/19/10 07:37	031910D-1	955816
7440-23-5	Sodium J+,I6b	269000	ug/Kg	N	6870	24500	24500	1	P	HSC	03/19/10 07:37	031910D-1	955816
7440-28-0	Thallium	0.0732	mg/kg	J	0.0613	0.204	0.204	2	MS	SKJ	03/19/10 05:20	100318-2	955818
7440-61-1	Uranium J,I10a	1.37	mg/kg	*	0.0135	0.0409	0.0409	2	MS	SKJ	03/19/10 18:12	100319-3	955818
7440-62-2	Vanadium	5680	ug/Kg		98.1	491	491	1	P	HSC	03/19/10 07:37	031910D-1	955816
7440-66-6	Zinc	33800	ug/Kg	*	324	981	981	1	P	HSC	03/19/10 07:37	031910D-1	955816

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955816	955815	SW846 3050B	0.524	g	50	mL	02/25/10	AXG2
955818	955817	SW846 3050B	0.503	g	50	mL	02/25/10	AXG2
958657	958644	SW846 7471A Prep	0.571	g	30	mL	03/01/10	TXB3

KAL
04/01/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1951-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247561002

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8313

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 96.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2630000	ug/Kg		6590	19400	19400	1	P	HSC	03/19/10 08:03	031910D-1	955816
7440-36-0	Antimony U,14b	530	ug/Kg	J	320	969	969	1	P	HSC	03/19/10 08:03	031910D-1	955816
7440-38-2	Arsenic	0.897	mg/kg	J	0.207	1.03	1.03	2	MS	SKJ	03/19/10 18:36	100319-3	955818
7440-39-3	Barium	36100	ug/Kg		96.9	485	485	1	P	HSC	03/19/10 08:03	031910D-1	955816
7440-41-7	Beryllium	0.368	mg/kg		0.0207	0.103	0.103	2	MS	SKJ	03/19/10 18:36	100319-3	955818
7440-43-9	Cadmium	147	ug/Kg	J	96.9	485	485	1	P	HSC	03/19/10 08:03	031910D-1	955816
7440-70-2	Calcium J+,16b	2100000	ug/Kg	*N	7750	24200	24200	1	P	HSC	03/19/10 08:03	031910D-1	955816
7440-47-3	Chromium	2110	ug/Kg		145	485	485	1	P	HSC	03/19/10 08:03	031910D-1	955816
7440-48-4	Cobalt	817	ug/Kg		145	485	485	1	P	HSC	03/19/10 08:03	031910D-1	955816
7440-50-8	Copper	3650	ug/Kg		291	969	969	1	P	HSC	03/19/10 08:03	031910D-1	955816
7439-89-6	Iron	7910000	ug/Kg	*	7750	24200	24200	1	P	HSC	03/19/10 08:03	031910D-1	955816
7439-92-1	Lead	8810	ug/Kg		242	969	969	1	P	HSC	03/19/10 08:03	031910D-1	955816
7439-95-4	Magnesium J+,16b	470000	ug/Kg	N	8240	29100	29100	1	P	HSC	03/19/10 08:03	031910D-1	955816
7439-96-5	Manganese	196000	ug/Kg		194	969	969	1	P	HSC	03/19/10 08:03	031910D-1	955816
7439-97-6	Mercury	4.22	ug/kg	J	3.95	11.6	11.6	1	AV	JXL1	03/02/10 15:07	030210S1-4	958657
7440-02-0	Nickel	2.44	mg/kg		0.103	0.413	0.413	2	MS	SKJ	03/19/10 18:36	100319-3	955818
7440-09-7	Potassium J+,16b	464000	ug/Kg	N	6200	24200	24200	1	P	HSC	03/19/10 08:03	031910D-1	955816
7782-49-2	Selenium UJ,16a	1.03	mg/kg	UN	0.517	1.03	1.03	2	MS	SKJ	03/19/10 05:38	100318-2	955818
7440-22-4	Silver	117	ug/Kg	J	96.9	485	485	1	P	HSC	03/19/10 08:03	031910D-1	955816
7440-23-5	Sodium J+,16b	192000	ug/Kg	N	6790	24200	24200	1	P	HSC	03/19/10 08:03	031910D-1	955816
7440-28-0	Thallium	0.207	mg/kg	U	0.062	0.207	0.207	2	MS	SKJ	03/19/10 05:38	100318-2	955818
7440-61-1	Uranium J,110a	4.7	mg/kg	*	0.0136	0.0413	0.0413	2	MS	SKJ	03/19/10 18:36	100319-3	955818
7440-62-2	Vanadium	5470	ug/Kg		96.9	485	485	1	P	HSC	03/19/10 08:03	031910D-1	955816
7440-66-6	Zinc	45800	ug/Kg	*	320	969	969	1	P	HSC	03/19/10 08:03	031910D-1	955816

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955816	955815	SW846 3050B	0.535	g	50	mL	02/25/10	AXG2
955818	955817	SW846 3050B	0.502	g	50	mL	02/25/10	AXG2
958657	958644	SW846 7471A Prep	0.535	g	30	mL	03/01/10	TXB3

KAL
04/01/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1951-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247561003

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8312

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 94.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3580000	ug/Kg		7040	20700	20700	1	P	HSC	03/19/10 08:07	031910D-1	955816
7440-36-0	Antimony U,14b	800	ug/Kg	J	342	1040	1040	1	P	HSC	03/19/10 08:07	031910D-1	955816
7440-38-2	Arsenic	1.03	mg/kg		0.199	0.995	0.995	2	MS	SKJ	03/19/10 18:39	100319-3	955818
7440-39-3	Barium	49200	ug/Kg		104	518	518	1	P	HSC	03/19/10 08:07	031910D-1	955816
7440-41-7	Beryllium	0.452	mg/kg		0.0199	0.0995	0.0995	2	MS	SKJ	03/19/10 18:39	100319-3	955818
7440-43-9	Cadmium	188	ug/Kg	J	104	518	518	1	P	HSC	03/19/10 08:07	031910D-1	955816
7440-70-2	Calcium J+,16b	2670000	ug/Kg	*N	8290	25900	25900	1	P	HSC	03/19/10 08:07	031910D-1	955816
7440-47-3	Chromium	3000	ug/Kg		155	518	518	1	P	HSC	03/19/10 08:07	031910D-1	955816
7440-48-4	Cobalt	1090	ug/Kg		155	518	518	1	P	HSC	03/19/10 08:07	031910D-1	955816
7440-50-8	Copper	4210	ug/Kg		311	1040	1040	1	P	HSC	03/19/10 08:07	031910D-1	955816
7439-89-6	Iron	9080000	ug/Kg	*	8290	25900	25900	1	P	HSC	03/19/10 08:07	031910D-1	955816
7439-92-1	Lead	9490	ug/Kg		259	1040	1040	1	P	HSC	03/19/10 08:07	031910D-1	955816
7439-95-4	Magnesium J+,16b	619000	ug/Kg	N	8800	31100	31100	1	P	HSC	03/19/10 08:07	031910D-1	955816
7439-96-5	Manganese	248000	ug/Kg		207	1040	1040	1	P	HSC	03/19/10 08:07	031910D-1	955816
7439-97-6	Mercury	11.7	ug/kg	U	3.99	11.7	11.7	1	AV	JXLi	03/02/10 15:09	030210S1-4	958657
7440-02-0	Nickel	4.02	mg/kg		0.0995	0.398	0.398	2	MS	SKJ	03/19/10 18:39	100319-3	955818
7440-09-7	Potassium J+,16b	592000	ug/Kg	N	6630	25900	25900	1	P	HSC	03/19/10 08:07	031910D-1	955816
7782-49-2	Selenium UJ,16a	0.995	mg/kg	UN	0.497	0.995	0.995	2	MS	SKJ	03/19/10 05:49	100318-2	955818
7440-22-4	Silver	112	ug/Kg	J	104	518	518	1	P	HSC	03/19/10 08:07	031910D-1	955816
7440-23-5	Sodium U,14d	153000	ug/Kg	N	7250	25900	25900	1	P	HSC	03/19/10 08:07	031910D-1	955816
7440-28-0	Thallium	0.199	mg/kg	U	0.0597	0.199	0.199	2	MS	SKJ	03/19/10 05:49	100318-2	955818
7440-61-1	Uranium J,110a	2.48	mg/kg	*	0.0131	0.0398	0.0398	2	MS	SKJ	03/19/10 18:39	100319-3	955818
7440-62-2	Vanadium	6770	ug/Kg		104	518	518	1	P	HSC	03/19/10 08:07	031910D-1	955816
7440-66-6	Zinc	76400	ug/Kg	*	342	1040	1040	1	P	HSC	03/19/10 08:07	031910D-1	955816

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955816	955815	SW846 3050B	0.509	g	50	mL	02/25/10	AXG2
955818	955817	SW846 3050B	0.53	g	50	mL	02/25/10	AXG2
958657	958644	SW846 7471A Prep	0.539	g	30	mL	03/01/10	TXB3

KAL
04/01/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1951-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247561004

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8315

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 96.6

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2330000	ug/Kg		6610	19400	19400	1	P	HSC	03/19/10 08:10	031910D-1	955816
7440-36-0	Antimony	972	ug/Kg	U	321	972	972	1	P	HSC	03/19/10 08:10	031910D-1	955816
7440-38-2	Arsenic	1.15	mg/kg		0.204	1.02	1.02	2	MS	SKJ	03/19/10 18:42	100319-3	955818
7440-39-3	Barium	37200	ug/Kg		97.2	486	486	1	P	HSC	03/19/10 08:10	031910D-1	955816
7440-41-7	Beryllium	0.526	mg/kg		0.0204	0.102	0.102	2	MS	SKJ	03/19/10 18:42	100319-3	955818
7440-43-9	Cadmium	140	ug/Kg	J	97.2	486	486	1	P	HSC	03/19/10 08:10	031910D-1	955816
7440-70-2	Calcium J+,16b	1740000	ug/Kg	*N	7780	24300	24300	1	P	HSC	03/19/10 08:10	031910D-1	955816
7440-47-3	Chromium	2100	ug/Kg		146	486	486	1	P	HSC	03/19/10 08:10	031910D-1	955816
7440-48-4	Cobalt	768	ug/Kg		146	486	486	1	P	HSC	03/19/10 08:10	031910D-1	955816
7440-50-8	Copper	4040	ug/Kg		292	972	972	1	P	HSC	03/19/10 08:10	031910D-1	955816
7439-89-6	Iron	8720000	ug/Kg	*	7780	24300	24300	1	P	HSC	03/19/10 08:10	031910D-1	955816
7439-92-1	Lead	13400	ug/Kg		243	972	972	1	P	HSC	03/19/10 08:10	031910D-1	955816
7439-95-4	Magnesium J+,16b	409000	ug/Kg	N	8270	29200	29200	1	P	HSC	03/19/10 08:10	031910D-1	955816
7439-96-5	Manganese	232000	ug/Kg		194	972	972	1	P	HSC	03/19/10 08:10	031910D-1	955816
7439-97-6	Mercury	11.7	ug/kg	U	3.98	11.7	11.7	1	AV	JXL1	03/02/10 15:11	030210S1-4	958657
7440-02-0	Nickel	2.95	mg/kg		0.102	0.408	0.408	2	MS	SKJ	03/19/10 18:42	100319-3	955818
7440-09-7	Potassium J+,16b	558000	ug/Kg	N	6220	24300	24300	1	P	HSC	03/19/10 08:10	031910D-1	955816
7782-49-2	Selenium UJ,16a	1.02	mg/kg	UN	0.51	1.02	1.02	2	MS	SKJ	03/19/10 05:52	100318-2	955818
7440-22-4	Silver	486	ug/Kg	U	97.2	486	486	1	P	HSC	03/19/10 08:10	031910D-1	955816
7440-23-5	Sodium J+,16b	268000	ug/Kg	N	6810	24300	24300	1	P	HSC	03/19/10 08:10	031910D-1	955816
7440-28-0	Thallium	0.0694	mg/kg	J	0.0612	0.204	0.204	2	MS	SKJ	03/19/10 05:52	100318-2	955818
7440-61-1	Uranium J,110a	1.1	mg/kg	*	0.0135	0.0408	0.0408	2	MS	SKJ	03/19/10 18:42	100319-3	955818
7440-62-2	Vanadium	5030	ug/Kg		97.2	486	486	1	P	HSC	03/19/10 08:10	031910D-1	955816
7440-66-6	Zinc	39300	ug/Kg	*	321	972	972	1	P	HSC	03/19/10 08:10	031910D-1	955816

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955816	955815	SW846 3050B	0.532	g	50	mL	02/25/10	AXG2
955818	955817	SW846 3050B	0.507	g	50	mL	02/25/10	AXC2
958657	958644	SW846 7471A Prep	0.53	g	30	mL	03/01/10	TXB3

KAL
04/01/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1951-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247561005

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8311

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 96.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2400000	ug/Kg		6760	19900	19900	1	P	HSC	03/19/10 08:14	031910D-1	955816
7440-36-0	Antimony	994	ug/Kg	U	328	994	994	1	P	HSC	03/19/10 08:14	031910D-1	955816
7440-38-2	Arsenic	0.712	mg/kg	J	0.199	0.996	0.996	2	MS	SKJ	03/19/10 18:46	100319-3	955818
7440-39-3	Barium	29500	ug/Kg		99.4	497	497	1	P	HSC	03/19/10 08:14	031910D-1	955816
7440-41-7	Beryllium	0.398	mg/kg		0.0199	0.0996	0.0996	2	MS	SKJ	03/19/10 18:46	100319-3	955818
7440-43-9	Cadmium	100	ug/Kg	J	99.4	497	497	1	P	HSC	03/19/10 08:14	031910D-1	955816
7440-70-2	Calcium J+,16b	1000000	ug/Kg	*N	7960	24900	24900	1	P	HSC	03/19/10 08:14	031910D-1	955816
7440-47-3	Chromium	2100	ug/Kg		149	497	497	1	P	HSC	03/19/10 08:14	031910D-1	955816
7440-48-4	Cobalt	693	ug/Kg		149	497	497	1	P	HSC	03/19/10 08:14	031910D-1	955816
7440-50-8	Copper U,14d	2890	ug/Kg		298	994	994	1	P	HSC	03/19/10 08:14	031910D-1	955816
7439-89-6	Iron	8020000	ug/Kg	*	7960	24900	24900	1	P	HSC	03/19/10 08:14	031910D-1	955816
7439-92-1	Lead	6590	ug/Kg		249	994	994	1	P	HSC	03/19/10 08:14	031910D-1	955816
7439-95-4	Magnesium J+,16b	382000	ug/Kg	N	8450	29800	29800	1	P	HSC	03/19/10 08:14	031910D-1	955816
7439-96-5	Manganese	211000	ug/Kg		199	994	994	1	P	HSC	03/19/10 08:14	031910D-1	955816
7439-97-6	Mercury	12.1	ug/kg	U	4.11	12.1	12.1	1	AV	JXL1	03/02/10 15:13	030210S1-4	958657
7440-02-0	Nickel	1.64	mg/kg		0.0996	0.399	0.399	2	MS	SKJ	03/19/10 18:46	100319-3	955818
7440-09-7	Potassium J+,16b	542000	ug/Kg	N	6360	24900	24900	1	P	HSC	03/19/10 08:14	031910D-1	955816
7782-49-2	Selenium UJ,16a	0.996	mg/kg	UN	0.498	0.996	0.996	2	MS	SKJ	03/19/10 05:56	100318-2	955818
7440-22-4	Silver	497	ug/Kg	U	99.4	497	497	1	P	HSC	03/19/10 08:14	031910D-1	955816
7440-23-5	Sodium J+,16b	274000	ug/Kg	N	6960	24900	24900	1	P	HSC	03/19/10 08:14	031910D-1	955816
7440-28-0	Thallium	0.199	mg/kg	U	0.0598	0.199	0.199	2	MS	SKJ	03/19/10 05:56	100318-2	955818
7440-61-1	Uranium J,110a	1.2	mg/kg	*	0.0132	0.0399	0.0399	2	MS	SKJ	03/19/10 18:46	100319-3	955818
7440-62-2	Vanadium	4730	ug/Kg		99.4	497	497	1	P	HSC	03/19/10 08:14	031910D-1	955816
7440-66-6	Zinc	42000	ug/Kg	*	328	994	994	1	P	HSC	03/19/10 08:14	031910D-1	955816

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt/vol.	Units	Final wt/vol.	Units	Date	Analyst
955816	955815	SW846 3050B	0.522	g	50	mL	02/25/10	AXG2
955818	955817	SW846 3050B	0.521	g	50	mL	02/25/10	AXG2
958657	958644	SW846 7471A Prep	0.515	g	30	mL	03/01/10	TXB3

KAL
04/01/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1951-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247561006

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8310

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 96.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3570000	ug/Kg		6610	19400	19400	1	P	HSC	03/19/10 08:18	031910D-1	955816
7440-36-0	Antimony U,14b	445	ug/Kg	J	321	972	972	1	P	HSC	03/19/10 08:18	031910D-1	955816
7440-38-2	Arsenic	1.02	mg/kg	J	0.205	1.03	1.03	2	MS	SKJ	03/19/10 18:49	100319-3	955818
7440-39-3	Barium	51000	ug/Kg		97.2	486	486	1	P	HSC	03/19/10 08:18	031910D-1	955816
7440-41-7	Beryllium	0.386	mg/kg		0.0205	0.103	0.103	2	MS	SKJ	03/19/10 18:49	100319-3	955818
7440-43-9	Cadmium	209	ug/Kg	J	97.2	486	486	1	P	HSC	03/19/10 08:18	031910D-1	955816
7440-70-2	Calcium J+,16b	3000000	ug/Kg	*N	7770	24300	24300	1	P	HSC	03/19/10 08:18	031910D-1	955816
7440-47-3	Chromium	2900	ug/Kg		146	486	486	1	P	HSC	03/19/10 08:18	031910D-1	955816
7440-48-4	Cobalt	1170	ug/Kg		146	486	486	1	P	HSC	03/19/10 08:18	031910D-1	955816
7440-50-8	Copper	4330	ug/Kg		292	972	972	1	P	HSC	03/19/10 08:18	031910D-1	955816
7439-89-6	Iron	9810000	ug/Kg	*	7770	24300	24300	1	P	HSC	03/19/10 08:18	031910D-1	955816
7439-92-1	Lead	12900	ug/Kg		243	972	972	1	P	HSC	03/19/10 08:18	031910D-1	955816
7439-95-4	Magnesium J+,16b	625000	ug/Kg	N	8260	29200	29200	1	P	HSC	03/19/10 08:18	031910D-1	955816
7439-96-5	Manganese	262000	ug/Kg		194	972	972	1	P	HSC	03/19/10 08:18	031910D-1	955816
7439-97-6	Mercury	11.1	ug/kg	U	3.79	11.1	11.1	1	AV	JXL1	03/02/10 15:15	030210S1-4	958657
7440-02-0	Nickel	2.64	mg/kg		0.103	0.41	0.41	2	MS	SKJ	03/19/10 18:49	100319-3	955818
7440-09-7	Potassium J+,16b	614000	ug/Kg	N	6220	24300	24300	1	P	HSC	03/19/10 08:18	031910D-1	955816
7782-49-2	Selenium UJ,16a	1.03	mg/kg	UN	0.513	1.03	1.03	2	MS	SKJ	03/19/10 06:00	100318-2	955818
7440-22-4	Silver	107	ug/Kg	J	97.2	486	486	1	P	HSC	03/19/10 08:18	031910D-1	955816
7440-23-5	Sodium J+,16b	208000	ug/Kg	N	6800	24300	24300	1	P	HSC	03/19/10 08:18	031910D-1	955816
7440-28-0	Thallium	0.205	mg/kg	U	0.0615	0.205	0.205	2	MS	SKJ	03/19/10 06:00	100318-2	955818
7440-61-1	Uranium J,110a	2.32	mg/kg	*	0.0135	0.041	0.041	2	MS	SKJ	03/19/10 18:49	100319-3	955818
7440-62-2	Vanadium	7060	ug/Kg		97.2	486	486	1	P	HSC	03/19/10 08:18	031910D-1	955816
7440-66-6	Zinc	54400	ug/Kg	*	321	972	972	1	P	HSC	03/19/10 08:18	031910D-1	955816

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955816	955815	SW846 3050B	0.534	g	50	mL	02/25/10	AXG2
955818	955817	SW846 3050B	0.506	g	50	mL	02/25/10	AXG2
958657	958644	SW846 7471A Prep	0.559	g	30	mL	03/01/10	TXB3

KAL
04/01/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1951-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247561007

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8303

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 96.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3180000	ug/Kg		6820	20100	20100	1	P	HSC	03/19/10 08:21	031910D-1	955816
7440-36-0	Antimony	1000	ug/Kg	U	331	1000	1000	1	P	HSC	03/19/10 08:21	031910D-1	955816
7440-38-2	Arsenic	0.763	mg/kg	J	0.189	0.946	0.946	2	MS	SKJ	03/19/10 18:53	100319-3	955818
7440-39-3	Barium	47200	ug/Kg		100	501	501	1	P	HSC	03/19/10 08:21	031910D-1	955816
7440-41-7	Beryllium	0.361	mg/kg		0.0189	0.0946	0.0946	2	MS	SKJ	03/19/10 18:53	100319-3	955818
7440-43-9	Cadmium	191	ug/Kg	J	100	501	501	1	P	HSC	03/19/10 08:21	031910D-1	955816
7440-70-2	Calcium J+,16b	2420000	ug/Kg	*N	8020	25100	25100	1	P	HSC	03/19/10 08:21	031910D-1	955816
7440-47-3	Chromium	2860	ug/Kg		150	501	501	1	P	HSC	03/19/10 08:21	031910D-1	955816
7440-48-4	Cobalt	1220	ug/Kg		150	501	501	1	P	HSC	03/19/10 08:21	031910D-1	955816
7440-50-8	Copper	4790	ug/Kg		301	1000	1000	1	P	HSC	03/19/10 08:21	031910D-1	955816
7439-89-6	Iron	9570000	ug/Kg	*	8020	25100	25100	1	P	HSC	03/19/10 08:21	031910D-1	955816
7439-92-1	Lead	8530	ug/Kg		251	1000	1000	1	P	HSC	03/19/10 08:21	031910D-1	955816
7439-95-4	Magnesium J+,16b	551000	ug/Kg	N	8520	30100	30100	1	P	HSC	03/19/10 08:21	031910D-1	955816
7439-96-5	Manganese	270000	ug/Kg		201	1000	1000	1	P	HSC	03/19/10 08:21	031910D-1	955816
7439-97-6	Mercury	12	ug/kg	U	4.08	12	12	1	AV	JXL1	03/02/10 15:17	030210S1-4	958657
7440-02-0	Nickel	2.22	mg/kg		0.0946	0.378	0.378	2	MS	SKJ	03/19/10 18:53	100319-3	955818
7440-09-7	Potassium J+,16b	529000	ug/Kg	N	6420	25100	25100	1	P	HSC	03/19/10 08:21	031910D-1	955816
7782-49-2	Selenium UJ,16a	0.946	mg/kg	UN	0.473	0.946	0.946	2	MS	SKJ	03/19/10 06:03	100318-2	955818
7440-22-4	Silver	115	ug/Kg	J	100	501	501	1	P	HSC	03/19/10 08:21	031910D-1	955816
7440-23-5	Sodium J+,16b	190000	ug/Kg	N	7020	25100	25100	1	P	HSC	03/19/10 08:21	031910D-1	955816
7440-28-0	Thallium	0.189	mg/kg	U	0.0567	0.189	0.189	2	MS	SKJ	03/19/10 06:03	100318-2	955818
7440-61-1	Uranium J,110a	1.74	mg/kg	*	0.0125	0.0378	0.0378	2	MS	SKJ	03/19/10 18:53	100319-3	955818
7440-62-2	Vanadium	7100	ug/Kg		100	501	501	1	P	HSC	03/19/10 08:21	031910D-1	955816
7440-66-6	Zinc	53100	ug/Kg	*	331	1000	1000	1	P	HSC	03/19/10 08:21	031910D-1	955816

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955816	955815	SW846 3050B	0.515	g	50	mL	02/25/10	AXG2
955818	955817	SW846 3050B	0.546	g	50	mL	02/25/10	AXG2
958657	958644	SW846 7471A Prep	0.517	g	30	mL	03/01/10	TXB3

KAL
04/01/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1951-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247561008

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8302

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 94.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3710000	ug/Kg		7020	20600	20600	1	P	HSC	03/19/10 08:25	031910D-1	955816
7440-36-0	Antimony U,14b	498	ug/Kg	J	341	1030	1030	1	P	HSC	03/19/10 08:25	031910D-1	955816
7440-38-2	Arsenic	1.09	mg/kg		0.204	1.02	1.02	2	MS	SKJ	03/19/10 18:56	100319-3	955818
7440-39-3	Barium	49300	ug/Kg		103	516	516	1	P	HSC	03/19/10 08:25	031910D-1	955816
7440-41-7	Beryllium	0.435	mg/kg		0.0204	0.102	0.102	2	MS	SKJ	03/19/10 18:56	100319-3	955818
7440-43-9	Cadmium	257	ug/Kg	J	103	516	516	1	P	HSC	03/19/10 08:25	031910D-1	955816
7440-70-2	Calcium J+,16b	6640000	ug/Kg	*N	8260	25800	25800	1	P	HSC	03/19/10 08:25	031910D-1	955816
7440-47-3	Chromium	3920	ug/Kg		155	516	516	1	P	HSC	03/19/10 08:25	031910D-1	955816
7440-48-4	Cobalt	1160	ug/Kg		155	516	516	1	P	HSC	03/19/10 08:25	031910D-1	955816
7440-50-8	Copper	10600	ug/Kg		310	1030	1030	1	P	HSC	03/19/10 08:25	031910D-1	955816
7439-89-6	Iron	9380000	ug/Kg	*	8260	25800	25800	1	P	HSC	03/19/10 08:25	031910D-1	955816
7439-92-1	Lead	12500	ug/Kg		258	1030	1030	1	P	HSC	03/19/10 08:25	031910D-1	955816
7439-95-4	Magnesium J+,16b	659000	ug/Kg	N	8770	31000	31000	1	P	HSC	03/19/10 08:25	031910D-1	955816
7439-96-5	Manganese	226000	ug/Kg		206	1030	1030	1	P	HSC	03/19/10 08:25	031910D-1	955816
7439-97-6	Mercury	11.8	ug/kg	U	4.02	11.8	11.8	1	AV	JXL1	03/02/10 15:19	030210S1-4	958657
7440-02-0	Nickel	3.32	mg/kg		0.102	0.407	0.407	2	MS	SKJ	03/19/10 18:56	100319-3	955818
7440-09-7	Potassium J+,16b	599000	ug/Kg	N	6600	25800	25800	1	P	HSC	03/19/10 08:25	031910D-1	955816
7782-49-2	Selenium UJ,16a	1.02	mg/kg	UN	0.509	1.02	1.02	2	MS	SKJ	03/19/10 06:07	100318-2	955818
7440-22-4	Silver	123	ug/Kg	J	103	516	516	1	P	HSC	03/19/10 08:25	031910D-1	955816
7440-23-5	Sodium U,14d	151000	ug/Kg	N	7220	25800	25800	1	P	HSC	03/19/10 08:25	031910D-1	955816
7440-28-0	Thallium	0.204	mg/kg	U	0.0611	0.204	0.204	2	MS	SKJ	03/19/10 06:07	100318-2	955818
7440-61-1	Uranium J,110a	1.95	mg/kg	*	0.0134	0.0407	0.0407	2	MS	SKJ	03/19/10 18:56	100319-3	955818
7440-62-2	Vanadium	8000	ug/Kg		103	516	516	1	P	HSC	03/19/10 08:25	031910D-1	955816
7440-66-6	Zinc	114000	ug/Kg	*	341	1030	1030	1	P	HSC	03/19/10 08:25	031910D-1	955816

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955816	955815	SW846 3050B	0.511	g	50	mL	02/25/10	AXG2
955818	955817	SW846 3050B	0.518	g	50	mL	02/25/10	AXG2
958657	958644	SW846 7471A Prep	0.535	g	30	mL	03/01/10	TXB3

KAL
04/01/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

**Section I.**REQUEST NUMBER: 10-1951 VALIDATION DATE: 04/01/10 LAB CODE: GELCONTRACT LABORATORY NAME: GEL Laboratories LLCVALIDATOR: Kevin A. Lambert ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

1. In the soil ICB/CCB, nitrate as nitrogen was detected. The nitrate as nitrogen results for samples RE15-10-8314 and -8303 were NDs and, thus, were not qualified. The other associated sample results were a detects $\leq 5X$ the greatest ICB/CCB concentration and, thus, were qualified U,I4b.
2. The water MS %R for nitrate/nitrite as nitrogen was $<$ the laboratory LAL but $\geq 10\%$. The associated sample result was a detect and, thus, was qualified J-,I6a.
3. It should be noted that the parent samples for water and soil matrix QC analyses were LANL samples from other RNs. No sample data were qualified as a result.


Reviewed by: Mary DonovanLevel: IDate: 04/02/10

VALIDATOR'S SIGNATURE: _____


Kevin A. LambertDATE: 04/01/10

Form 5120-1, Revision 0.0


LOS ALAMOS
Environmental Restoration Project

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

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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	
5120-2	Records Use only
General Chemistry Analytical Data Validation Checklist 	

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
<input 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	
5120-2 General Chemistry Analytical Data Validation Checklist	Records Use only 

Yes No N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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: March 12, 2010

Client SDG: 10-1951

Client Sample ID: RE15-10-8329
Sample ID: 247560001
Matrix: W
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "As Received"</i>											
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2	02/23/10	1355	955981	1
Nutrient Analysis											
<i>EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"</i>											
Nitrogen, Nitrate/Nitrite	J	0.248	J-,16a	0.050	mg/L	5	AXH3	02/25/10	1407	956483	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/23/10	1200	955979

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	
2	EPA 353.2	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 18, 2010

Client SDG: 10-1951-1

Client Sample ID:	RE15-10-8314	Project:	LANL01004
Sample ID:	247561001	Client ID:	LANL010
Matrix:	R		
Collect Date:	15-FEB-10 12:00		
Receive Date:	20-FEB-10		
Collector:	Client		
Moisture:	2.74%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.5C	H	8.58	0.010	0.100	SU	1	TXT1	02/22/10	1501	956097	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	67.2	247	ug/kg	1	AXC2	03/01/10	1534	955989	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	0.308	1.03	mg/kg	1	MAR103/09/10	0915	957722		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	03/08/10	1300	957719
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/26/10	1540	955988

The following Analytical Methods were performed

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 18, 2010

Client SDG: 10-1951-1

Client Sample ID: RE15-10-8313
Sample ID: 247561002
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 3.59%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.1C	H	9.54	0.010	0.100	SU	1	TXT1	02/22/10	1504	956097	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	69.1	254	ug/kg	1	AXC2	03/01/10	1535	955989	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		1.22	U,14b	0.311	1.04	mg/kg	1	MAR103/09/10	0944	957722	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	03/08/10	1300	957719
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/26/10	1540	955988

The following Analytical Methods were performed

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

Certificate of Analysis

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

Report Date: March 18, 2010

Client SDG: 10-1951-1

Client Sample ID: RE15-10-8312
Sample ID: 247561003
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 5.16%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.1C	H	10.2	0.010	0.100	SU	1	TXT1	02/22/10	1505	956097	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	68.9	253	ug/kg	1	AXC2	03/01/10	1539	955989	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	J	1.05	U, lab	0.316	1.05	mg/kg	1	MAR1	03/09/10	1110	957722 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	03/08/10	1300	957719
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/26/10	1540	955988

The following Analytical Methods were performed

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

Certificate of Analysis

Company : Los Alamos National Laboratory
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 18, 2010

Client SDG: 10-1951-1

Client Sample ID:	RE15-10-8315	Project:	LANL01004
Sample ID:	247561004	Client ID:	LANL010
Matrix:	R		
Collect Date:	15-FEB-10 12:00		
Receive Date:	20-FEB-10		
Collector:	Client		
Moisture:	3.35%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.1C	H	9.69	0.010	0.100	SU	1	TXT1	02/22/10	1509	956097	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	67.7	249	ug/kg	1	AXC2	03/01/10	1540	955989	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	J	1.02	U, lab	0.310	1.03	mg/kg	1	MAR103/09/10	1139	957722	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	03/08/10	1300	957719
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/26/10	1540	955988

The following Analytical Methods were performed

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

Certificate of Analysis

Company : Los Alamos National Laboratory
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: March 18, 2010

Client SDG: 10-1951-1

Client Sample ID: RE15-10-8311
Sample ID: 247561005
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 3.68%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.4C	H	9.14	0.010	0.100	SU	1	TXT1	02/22/10	1510	956097	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	65.4	240	ug/kg	1	AXC2	03/01/10	1541	955989	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	J	0.992	U,14b	0.311	1.04	mg/kg	1	MAR1	03/09/10	1208	957722 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	03/08/10	1300	957719
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/26/10	1540	955988

The following Analytical Methods were performed

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

Certificate of Analysis

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

Report Date: March 18, 2010

Client SDG: 10-1951-1

Client Sample ID:	RE15-10-8310	Project:	LANL01004
Sample ID:	247561006	Client ID:	LANL010
Matrix:	R		
Collect Date:	15-FEB-10 12:00		
Receive Date:	20-FEB-10		
Collector:	Client		
Moisture:	3.65%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.3C	H	10.3	0.010	0.100	SU	1	TXT1	02/22/10	1511	956097	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	61.9	228	ug/kg	1	AXC2	03/01/10	1542	955989	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		1.25	U,14b	0.311	1.04	mg/kg	1	MAR103/09/10	1237	957722	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	03/08/10	1300	957719
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/26/10	1540	955988

The following Analytical Methods were performed

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

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: **LANLER Project**

Report Date: March 18, 2010

Client SDG: 10-1951-1

Client Sample ID: RE15-10-8303
Sample ID: 247561007
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 3.17%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.2C	H	9.16	0.010	0.100	SU	1	TX1	02/22/10	1512	956097	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	61.6	226	ug/kg	1	AXC2	03/01/10	1543	955989	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	0.310	1.03	mg/kg	1	MAR1	03/09/10	1306	957722	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	03/08/10	1300	957719
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/26/10	1540	955988

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 18, 2010

Client SDG: 10-1951-1

Client Sample ID: RE15-10-8302
Sample ID: 247561008
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 5.18%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.3C	H	10.3	0.010	0.100	SU	1	TXT1	02/22/10	1514	956097	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	65.2	240	ug/kg	1	AXC2	03/01/10	1544	955989	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		1.27	U,lab	0.316	1.05	mg/kg	1	MAR1	03/09/10	1334	957722 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	03/08/10	1300	957719
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/26/10	1540	955988

The following Analytical Methods were performed

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

Friday, February 19, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1951

LOS ALAMOS

REQUEST NUMBER: 10-1951

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/21/2010

General Engineering Laboratories, Inc.,
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

247560%, 247561%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8329	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8329	1	POLY	NO3NO2	Sulfuric Acid (Hydrogen Sulfate)	W
RE15-10-8329	1	POLY	SW-846-6850	Ice	W
RE15-10-8329	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8314	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8314	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8313	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8313	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8312	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8312	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8315	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8315	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8311	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8311	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8310	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8310	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8303	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8303	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8302	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8302	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:

Printed Name

Signature

Friday, February 19, 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: 2/19/2010

TURNAROUND/REPORT DUE: 3/21/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT

Signature: 

Page 1 of 3

REQUEST NUMBER: 10-1951

These Samples are on:

LANL Request Number: 10-1951

Per Agreement Number: 126310011

Project Cost Code: MFR3A05529E00

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA-300.0	1	RE15-10-8302	R	2/15/2010	
		1	RE15-10-8303	R	2/15/2010	
		1	RE15-10-8310	R	2/15/2010	
		1	RE15-10-8311	R	2/15/2010	
		1	RE15-10-8312	R	2/15/2010	
		1	RE15-10-8313	R	2/15/2010	
		1	RE15-10-8314	R	2/15/2010	
		1	RE15-10-8315	R	2/15/2010	
	EPA-353.2	1	RE15-10-8329	WV	2/15/2010	

Friday, February 19, 2010 Page 2 of 3
 REQUEST NUMBER: 10-1951

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846-60108	1	RE15-10-8302	R	2/15/2010	
		1	RE15-10-8303	R	2/15/2010	
		1	RE15-10-8310	R	2/15/2010	
		1	RE15-10-8311	R	2/15/2010	
		1	RE15-10-8312	R	2/15/2010	
		1	RE15-10-8313	R	2/15/2010	
		1	RE15-10-8314	R	2/15/2010	
		1	RE15-10-8315	R	2/15/2010	
	SW-846-6020	1	RE15-10-8302	R	2/15/2010	
		1	RE15-10-8303	R	2/15/2010	
		1	RE15-10-8310	R	2/15/2010	
		1	RE15-10-8311	R	2/15/2010	
		1	RE15-10-8312	R	2/15/2010	
		1	RE15-10-8313	R	2/15/2010	
		1	RE15-10-8314	R	2/15/2010	
		1	RE15-10-8315	R	2/15/2010	
		1	RE15-10-8329	W	2/15/2010	
	SW-846-6850	1	RE15-10-8302	R	2/15/2010	
		1	RE15-10-8303	R	2/15/2010	
		1	RE15-10-8310	R	2/15/2010	
		1	RE15-10-8311	R	2/15/2010	
		1	RE15-10-8312	R	2/15/2010	
		1	RE15-10-8313	R	2/15/2010	
		1	RE15-10-8314	R	2/15/2010	
		1	RE15-10-8315	R	2/15/2010	
		1	RE15-10-8329	W	2/15/2010	
	SW-846-7470A	1	RE15-10-8329	W	2/15/2010	
		1	RE15-10-8329	W	2/15/2010	

Friday, February 19, 2010

Page 3 of 3

REQUEST NUMBER: 10-1951

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:7471A	1	RE15-10-8303	R	2/15/2010	
		1	RE15-10-8310	R	2/15/2010	
		1	RE15-10-8311	R	2/15/2010	
		1	RE15-10-8312	R	2/15/2010	
		1	RE15-10-8313	R	2/15/2010	
		1	RE15-10-8314	R	2/15/2010	
		1	RE15-10-8315	R	2/15/2010	
	SW-846:9012A	1	RE15-10-8302	R	2/15/2010	
		1	RE15-10-8303	R	2/15/2010	
		1	RE15-10-8310	R	2/15/2010	
		1	RE15-10-8311	R	2/15/2010	
		1	RE15-10-8312	R	2/15/2010	
		1	RE15-10-8313	R	2/15/2010	
		1	RE15-10-8314	R	2/15/2010	
		1	RE15-10-8315	R	2/15/2010	
		1	RE15-10-8329	W	2/15/2010	
	SW-846:9045C	1	RE15-10-8302	R	2/15/2010	
		1	RE15-10-8303	R	2/15/2010	
		1	RE15-10-8310	R	2/15/2010	
		1	RE15-10-8311	R	2/15/2010	
		1	RE15-10-8312	R	2/15/2010	
		1	RE15-10-8313	R	2/15/2010	
		1	RE15-10-8314	R	2/15/2010	
		1	RE15-10-8315	R	2/15/2010	

Final Page of REQUEST NUMBER 10-1951



February 24, 2010

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: 247560 247561
SDG: 10-1951

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 20, 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: 10-1951
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 247560 and 247561
SDG: 10-1951

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Case Narrative

**Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 247560 and 247561
SDG # : 10-1951**

February 24, 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 20, 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 received a NO3NO2 container for sample RE15-10-8329 as indicated on the COC. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

<u>Laboratory ID</u>	<u>Client ID</u>
247560001	RE15-10-8329
247561001	RE15-10-8314
247561002	RE15-10-8313
247561003	RE15-10-8312
247561004	RE15-10-8315
247561005	RE15-10-8311
247561006	RE15-10-8310
247561007	RE15-10-8303
247561008	RE15-10-8302

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.



Valerie Davis
Project Manager

List of current GEL Certifications as of 24 February 2010

State	Certification
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

Friday, February 19, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1951

LOS ALAMOS

REQUEST NUMBER: 10-1951

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/21/2010

General Engineering Laboratories, Inc.,
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

247560%, 247561%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8329	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8329	1	POLY	NO3NO2	Sulfuric Acid (Hydrogen Sulfate)	W
RE15-10-8329	1	POLY	SW-846:6850	Ice	W
RE15-10-8329	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8314	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8314	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8313	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8313	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8312	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8312	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8315	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8315	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8311	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8311	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8310	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8310	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8303	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8303	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE15-10-8302	1	POLY	METALS+U-GEL	Ice	R
RE15-10-8302	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:

Printed Name

Signature

Friday, February 19, 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: 2/19/2010

TURNAROUND/REPORT DUE: 3/21/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT

Signature: 

Page 1 of 3

REQUEST NUMBER: 10-1951

These Samples are on:

LANL Request Number: 10-1951

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE15-10-8302	R	2/15/2010	
		1	RE15-10-8303	R	2/15/2010	
		1	RE15-10-8310	R	2/15/2010	
		1	RE15-10-8311	R	2/15/2010	
		1	RE15-10-8312	R	2/15/2010	
		1	RE15-10-8313	R	2/15/2010	
		1	RE15-10-8314	R	2/15/2010	
		1	RE15-10-8315	R	2/15/2010	
	EPA:353.2	1	RE15-10-8329	W	2/15/2010	

Friday, February 19, 2010

Page 2 of 3

REQUEST NUMBER: 10-1951

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE15-10-8302	R	2/15/2010	
		1	RE15-10-8303	R	2/15/2010	
		1	RE15-10-8310	R	2/15/2010	
		1	RE15-10-8311	R	2/15/2010	
		1	RE15-10-8312	R	2/15/2010	
		1	RE15-10-8313	R	2/15/2010	
		1	RE15-10-8314	R	2/15/2010	
		1	RE15-10-8315	R	2/15/2010	
	SW-846:6020	1	RE15-10-8302	R	2/15/2010	
		1	RE15-10-8303	R	2/15/2010	
		1	RE15-10-8310	R	2/15/2010	
		1	RE15-10-8311	R	2/15/2010	
		1	RE15-10-8312	R	2/15/2010	
		1	RE15-10-8313	R	2/15/2010	
		1	RE15-10-8314	R	2/15/2010	
		1	RE15-10-8315	R	2/15/2010	
	SW-846:6650	1	RE15-10-8329	W	2/15/2010	
		1	RE15-10-8302	R	2/15/2010	
		1	RE15-10-8303	R	2/15/2010	
		1	RE15-10-8310	R	2/15/2010	
		1	RE15-10-8311	R	2/15/2010	
		1	RE15-10-8312	R	2/15/2010	
		1	RE15-10-8313	R	2/15/2010	
		1	RE15-10-8314	R	2/15/2010	
		1	RE15-10-8315	R	2/15/2010	
		1	RE15-10-8329	W	2/15/2010	
	SW-846:7470A	1	RE15-10-8329	W	2/15/2010	
	SW-846:7474A	1	RE15-10-8329	W	2/15/2010	

Friday, February 19, 2010

Page 3 of 3

REQUEST NUMBER: 10-1951

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:7471A	1	RE15-10-8303	R	2/15/2010	
		1	RE15-10-8310	R	2/15/2010	
		1	RE15-10-8311	R	2/15/2010	
		1	RE15-10-8312	R	2/15/2010	
		1	RE15-10-8313	R	2/15/2010	
		1	RE15-10-8314	R	2/15/2010	
		1	RE15-10-8315	R	2/15/2010	
	SW-846:9012A	1	RE15-10-8302	R	2/15/2010	
		1	RE15-10-8303	R	2/15/2010	
		1	RE15-10-8310	R	2/15/2010	
		1	RE15-10-8311	R	2/15/2010	
		1	RE15-10-8312	R	2/15/2010	
		1	RE15-10-8313	R	2/15/2010	
		1	RE15-10-8314	R	2/15/2010	
		1	RE15-10-8315	R	2/15/2010	
		1	RE15-10-8329	W	2/15/2010	
	SW-846:9045C	1	RE15-10-8302	R	2/15/2010	
		1	RE15-10-8303	R	2/15/2010	
		1	RE15-10-8310	R	2/15/2010	
		1	RE15-10-8311	R	2/15/2010	
		1	RE15-10-8312	R	2/15/2010	
		1	RE15-10-8313	R	2/15/2010	
		1	RE15-10-8314	R	2/15/2010	
		1	RE15-10-8315	R	2/15/2010	

Final Page of REQUEST NUMBER 10-1951



SAMPLE RECEIPT & REVIEW FORM

Client: LANL		SDG/ARCO/Work Order: 10-1951	
Received By: Greg Tyler		Date Received: 2/20/10	
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*: 40cpm
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 2-6C 12C
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: No time on Chain of Custody.
11	Number of containers received match number indicated on COC?			X	Sample ID's affected: RE15-10-8329 The lab did not receive the (1) 250 ML Poly container for N03N02 as indicated on COC.
12	COC form is properly signed in relinquished/received sections?	X			

Comments:

Fed Ex Tracking Numbers:

7209 7850 1448 2C 7209 7850 1404 12C
 7209 7850 1426 2C
 7209 7850 1437 3C
 7209 7850 1460 4C
 7209 7850 1470 6C
 7209 7850 1459 6C
 7209 7850 1415 5C
 7209 7850 1390 12C

PM (or PMA) review: Initials

Date

2/22/10

Subject: Sample Receipt for 2/20/10

From: Dionne Francis <Dionne.Francis@gel.com>

Date: Tue, 23 Feb 2010 10:12:28 -0500

To: "Keith R. Greene" <kgreene@lanl.gov>, Joylene Valdez <joylenev@lanl.gov>, Valerie Davis <vsd@gel.com>

Keith,

RN 10-1951: the lab did not receive a ^{NOSNG2} ~~per~~ container for sample RE15-10-8329. An aliquot will be taken from the perchlorate container and preserved prior to analysis.

RN 10-1921: the Metals container for sample WST16-10-9899 will be preserved prior to analysis.

RN 10-1953: the matrix for the trip blank is a water not a soil as listed on the COC.

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
Web: www.gel.com

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

ORIGIN ID: SARA (005) 555-9969

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TAGG BLDG 1237 DPU 03

LOS ALAMOS NM 87545
UNITED STATES US

SHIP DATE: 19FEB10
ACTWGT: 68.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

ORIGIN ID: SARA (005) 555-9969

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TAGG BLDG 1237 DPU 03

LOS ALAMOS NM 87545
UNITED STATES US

ORIGIN ID: SARA (005) 555-9969
ACTWGT: 68.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 555-9171

REF: 68010AMR3A0532VA00

FedEx
Express



TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 555-9171

REF: 68010AMR3A05529E00

FedEx
Express



2 of 2
MPSH 1209 7850 1448
0263
Matr-N 7209 7850 1437 0201

SATURDAY ###
PRIORITY OVERNIGHT

29407
SC-US
CHS

X0 CHSA

2 of 2
MPSH 1209 7850 1426
0263
Matr-N 7209 7850 1415 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X0 CHSA

ORIGIN ID: SARA (005) 555-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TAGG BLDG 1237 DPU 03

LOS ALAMOS NM 87545
UNITED STATES US

SHIP DATE: 19FEB10
ACTWGT: 68.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 555-9171

REF: 68010AMR3A0532VA00

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1 of 2
TRKH 7209 7850 1437
0201
NN MASTER NN

SATURDAY ### A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X0 CHSA

ORIGIN ID: SARA (005) 555-9969

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TAGG BLDG 1237 DPU 03

LOS ALAMOS NM 87545
UNITED STATES US

ORIGIN ID: SARA (005) 555-9969

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TAGG BLDG 1237 DPU 03

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 555-9171

REF: 68010AMR3A0532VA00

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2 of 2
MPSH 7209 7850 1460
0263
Matr-N 7209 7850 1450 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X0 CHSA

WRIGHT ID: SAFA (505) 865-9906
JOYLENE VALLEY
LOS ALAMOS NATL LAB
TRAC BLOC 1287 DPU 83
LOS ALAMOS NM 87545
UNITED STATES US

SHIP DATE: 18FEB10
ACTWGT: 59.0 LB MAN
CRD: 0014176/CAFE2450

BILL SENDER

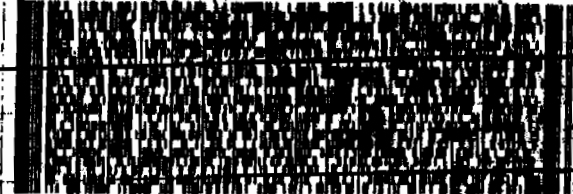
TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 866-8171
REF: 6B010AMR3A05529E00

12°

NOT POSTAGE NECESSARY IF MAILED IN THE UNITED STATES



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2 of 3
NPSN 7209 7850 1390
MatrN 7209 7850 1389

SATURDAY ### A1
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CHS



LOS ALAMOS NM 87545
UNITED STATES US

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TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 866-8171
REF: 6B010AMR3A05529E00

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3 of 3
NPSN 7209 7850 1404
MatrN 7209 7850 1389

SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

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 10-1951**

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: 957439

Prep Batch Number: 957436

Sample Analysis

Sample ID	Client ID
247560001	RE15-10-8329
1202052909	Interference Check Sample (ICS)
1202052905	Method Blank (MB)
1202052906	Laboratory Control Sample (LCS)
1202052907	247807001(RE46-10-13371) Matrix Spike (MS)
1202052908	247807001(RE46-10-13371) 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.

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.

10-1951-PERLCMS

Page 1 of 4

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 247807001 (RE46-10-13371) from SDG 10-1991-1 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 recovered Perchlorate at 130% and the acceptance range is 75-125%. The high recovery may be the result of sample matrix, since similar recovery was observed in the MS. Please see data exception report 797970.

MS/MSD Relative Percent Difference (RPD) Statement

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

Retention Time Standard Area Acceptance

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

Retention Time

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

Technical Information

Holding Time Specifications

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

Preparation/Analytical Method Verification

All procedures were performed as stated in the SOP.

10-1951-PERLCMS

Page 2 of 4

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 report 797970 was generated for this SDG.

The MSD recovered Perchlorate at 130% and the acceptance range is 75-125%. The high recovery may be the result of sample matrix, since similar recovery was observed in the MS.

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: Herbert Mauer Date: 07/06/10

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: 957436

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.

RE15-10-8329

Date Received: 20-FEB-10

GEL Job No (SDG): 10-1951

GEL Sample ID: 247560001

Date Filtered: 25-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	02-MAR-10 04:56	per0301114a
	Perchlorate Isotope Ratio						1	02-MAR-10 04:56	per0301114a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	02-MAR-10 04:56	per0301114a
	Perchlorate-O(18)			0.480	ug/L		1	02-MAR-10 04:56	per0301114a

[^] 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 $\frac{1}{\% \text{Solids}}$
Aliquot

QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL GEL Job No. (SDG): 10-1951

Extract Batch Code: 957436 Date Filtered: 25-FEB-10

Matrix: WATER Sample ID: 1202052906

Analyte [^]	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.219	ug/L	109		85 - 115
Perchlorate Isotope Ratio		3.02				-
Perchlorate-101	0.200	.217	ug/L	109		85 - 115
Perchlorate-O(18)		.464	ug/L			-

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

Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10-1951

Extract Batch Code: 957436

Date Filtered: 25-FEB-10

Matrix: WATER

Sample ID: 1202052902

Analyte [^]	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.207	ug/L	103		70 - 130
Perchlorate Isotope Ratio		3.29				
Perchlorate-101	0.200	.189	ug/L	94.3		70 - 130
Perchlorate-O(18)		.455	ug/L			

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

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

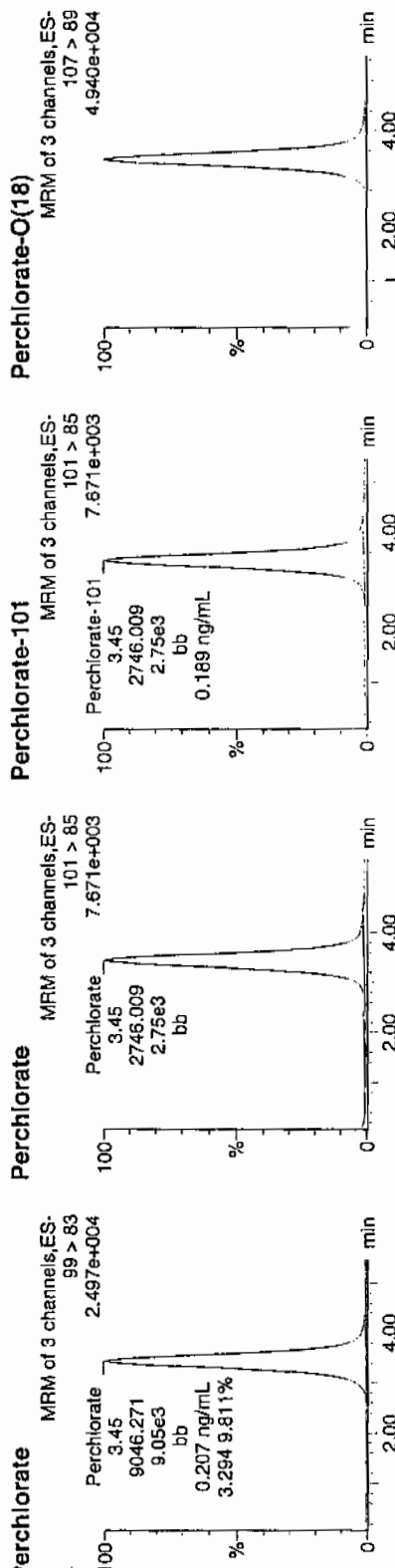
Dataset: C:\MassLynx\Perchlorate.PRO\per030110a.qld

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: per0301101a
Date: 02-Mar-2010
Time: 03:05:14
ID: 1202052909
Lot: 3:1,C

C-3
03-02-10

LANU | 957439 | 220 | 703 | 1 |



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202052909	Perchlorate	99 > 83	9046.271	9046.271	bb			0.2067	103.37	3.37	1270.8...	3.29
202052909	Perchlorate-101	101 > 85	2746.009	2746.009	bb			0.1885	94.27	-5.73	356.936	
202052909	Perchlorate-O(18)	107 > 89	17763.203	17763.203	bb			0.4545	90.90	-9.10	2182.9...	

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

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

Extract Batch Code: 957436

GEL Job No (SDG): 10-1951

Date Extracted: 25-FEB-10

GEL MS/PS ID: 1202052907

Client ID: RE46-10-13371

GEL MSD/PSD ID: 1202052908

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	0.00257	ug/L	0.249	123		.263	130	*	5.6		30	75 - 125
Perchlorate Isotope Ratio	0	0.00		3.17			3.36			0			-
Perchlorate-101	0.200	0.00208	ug/L	0.236	117		.235	117		352		30	75 - 125
Perchlorate-O(18)	0	0.504	ug/L	0.504			.527			4.53			-

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

Comments:

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1951

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
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: Charles W. Wilson

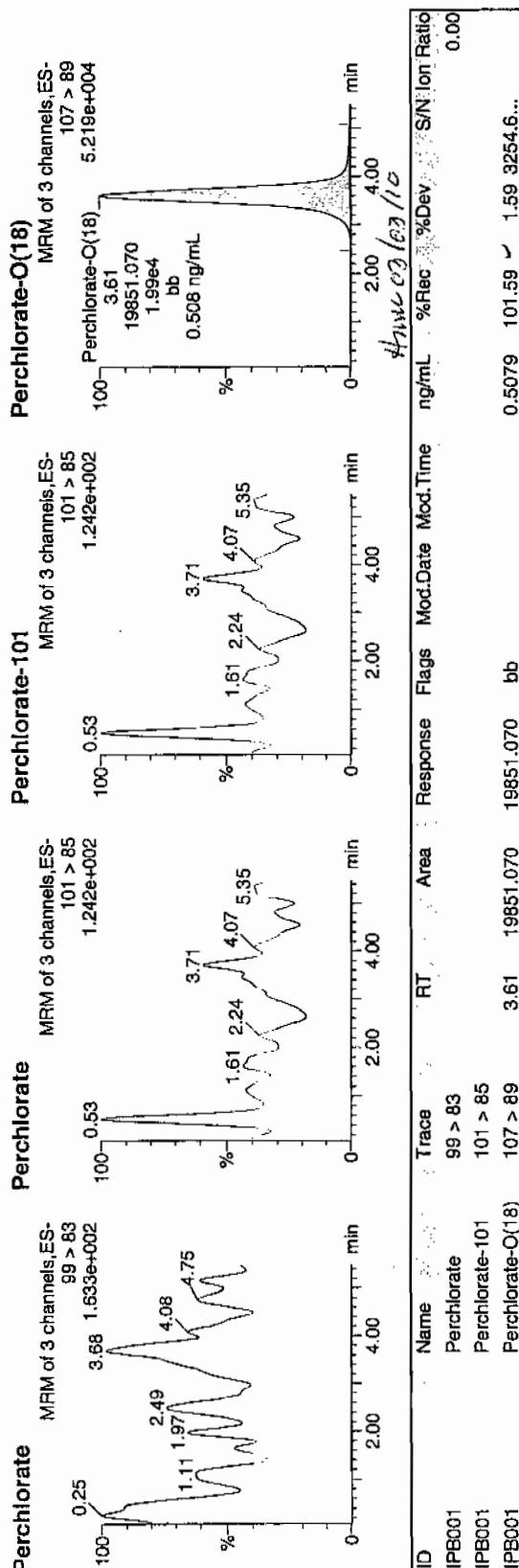
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Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

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

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

03-03-10



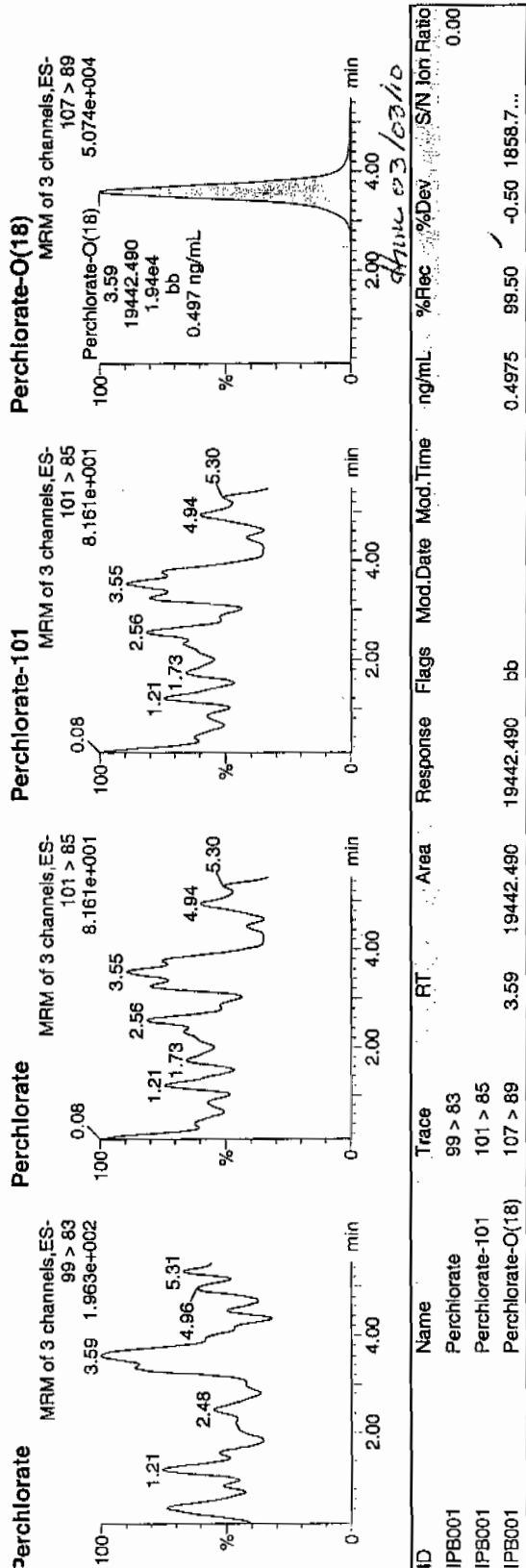
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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

03-02-10



Perchlorate Continuing Calibration Blank

GEL Job No.(SDG): 10-1951

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	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	0.00	0	NA	01-MAR-10	per0301042a	IPB007
Perchlorate-101	0.00	0	NA	01-MAR-10	per0301042a	IPB007
Perchlorate	0.00	0	NA	01-MAR-10	per0301055a	IPB008

Perchlorate Continuing Calibration Blank

GEL Job No.(SDG): 10-1951

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	01-MAR-10	per0301055a	IPB008
Perchlorate	0.00	0	NA	01-MAR-10	per0301068a	IPB009
Perchlorate-101	0.00	0	NA	01-MAR-10	per0301068a	IPB009
Perchlorate	0.00	0	NA	02-MAR-10	per0301081a	IPB010
Perchlorate-101	0.00	0	NA	02-MAR-10	per0301081a	IPB010
Perchlorate	0.00	0	NA	02-MAR-10	per0301094a	IPB011
Perchlorate-101	0.00	0	NA	02-MAR-10	per0301094a	IPB011
Perchlorate	0.00	0	NA	02-MAR-10	per0301098a	IPB012
Perchlorate-101	0.00	0	NA	02-MAR-10	per0301098a	IPB012
Perchlorate	0.00	0	NA	02-MAR-10	per0301107a	IPB013
Perchlorate-101	0.00	0	NA	02-MAR-10	per0301107a	IPB013
Perchlorate	0.00	0	NA	02-MAR-10	per0301120a	IPB014
Perchlorate-101	0.00	0	NA	02-MAR-10	per0301120a	IPB014

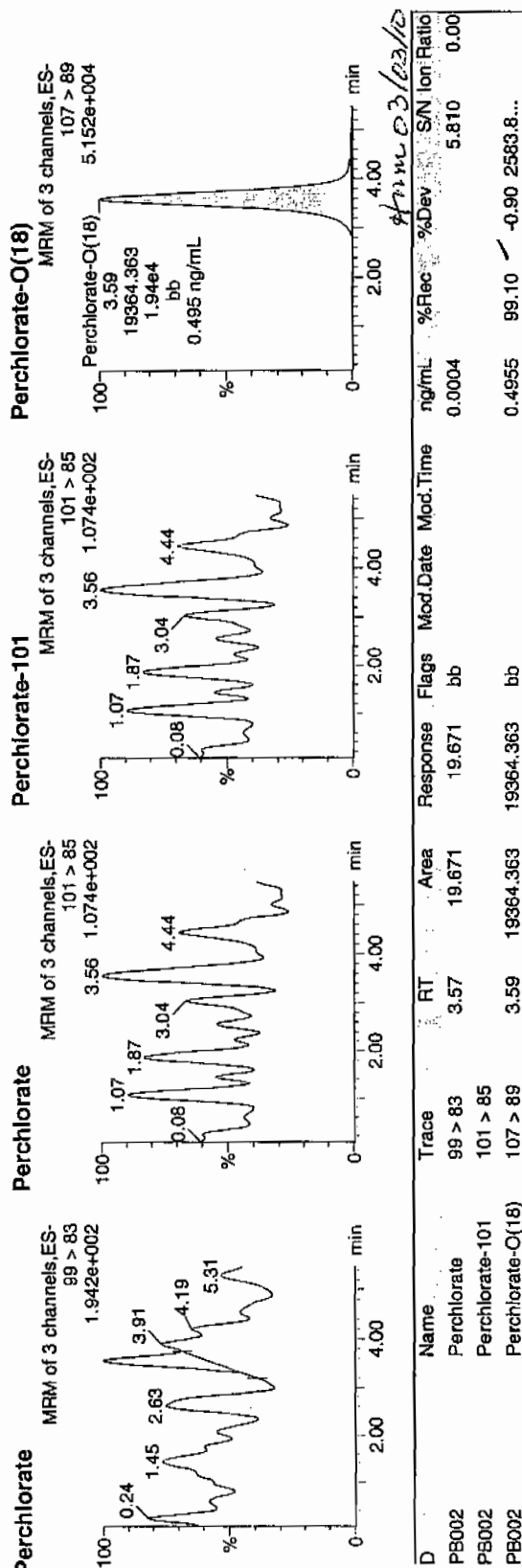
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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: Charfers W. Wilson

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

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

Sample: per0301010a

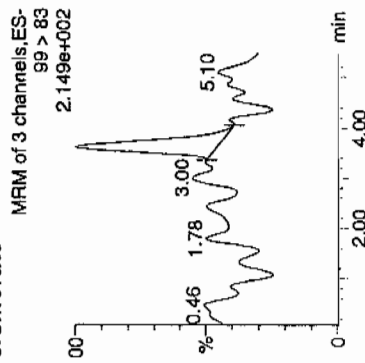
Date: 01-Mar-2010

Time: 14:04:26

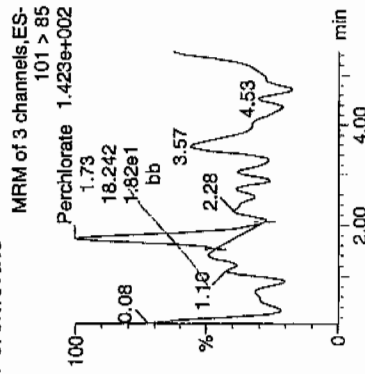
File: IPB003

Label: 1:1,A

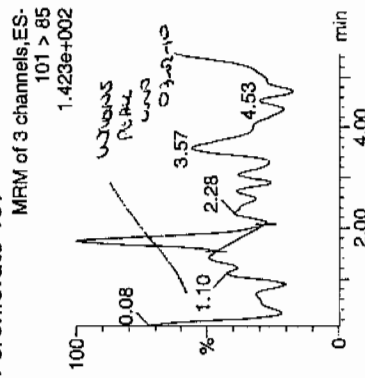
Perchlorate



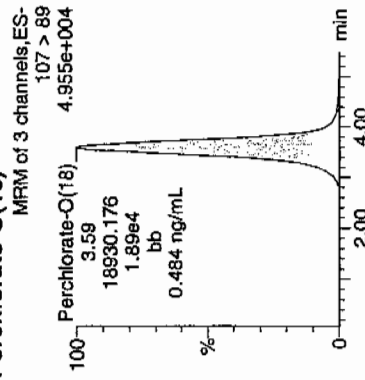
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
B003	Perchlorate	99 > 83	3.63	32.539	bb			0.0007	9.481	1.78		
B003	Perchlorate-101	101 > 85	1.73	18.242	bb			0.0013	11.792			
B003	Perchlorate-O(18)	107 > 89	3.59	18930.176	bb			0.4844	96.88	-3.12	730.850	

4.955e+004
 4.955
 4.955

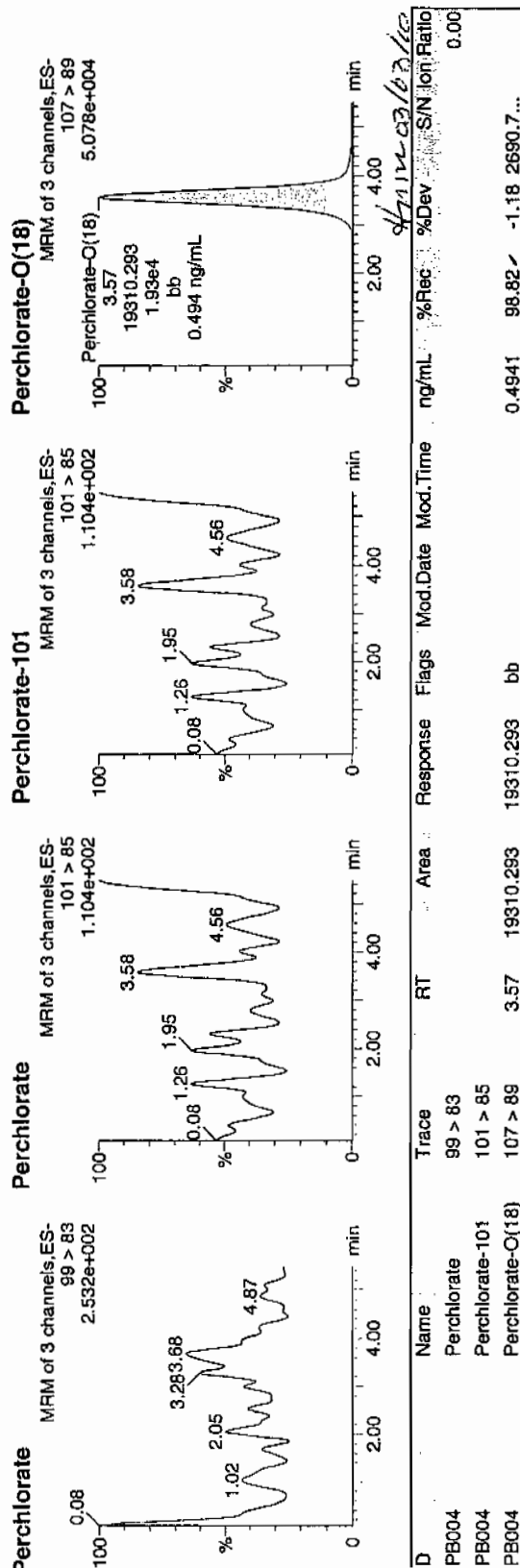
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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

Obs
03-02-10



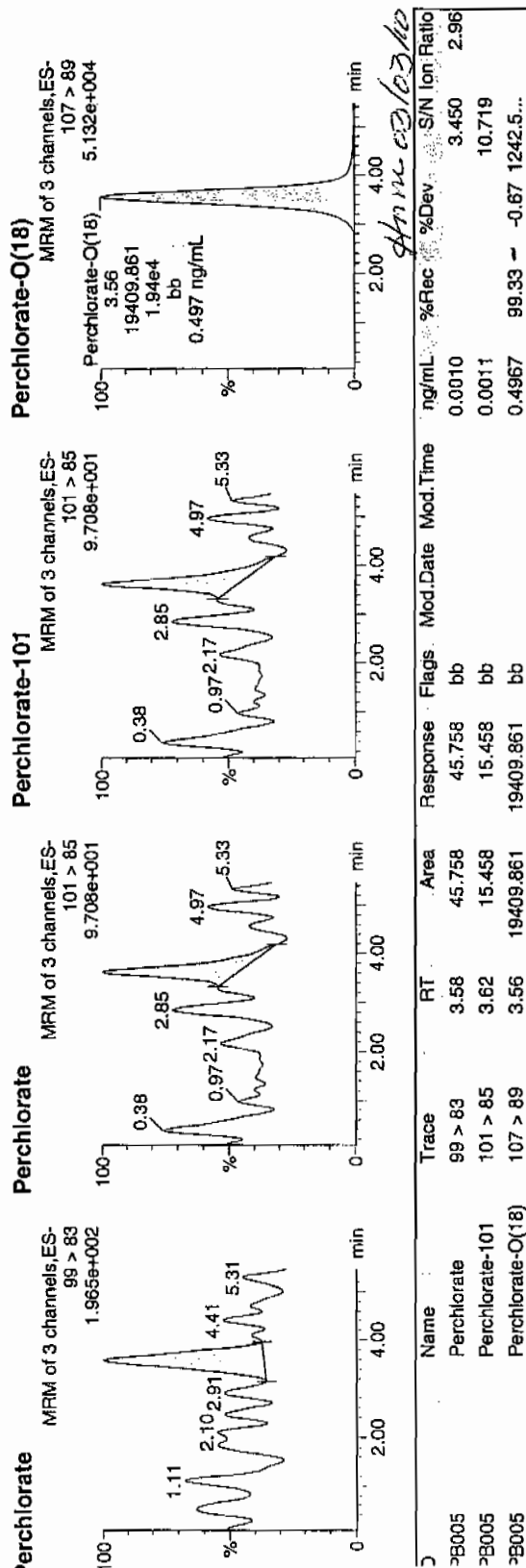
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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: per0301030a
Date: 01-Mar-2010
Time: 16:55:24
D: IPB005
/lat: 1:1,A

03-07-10



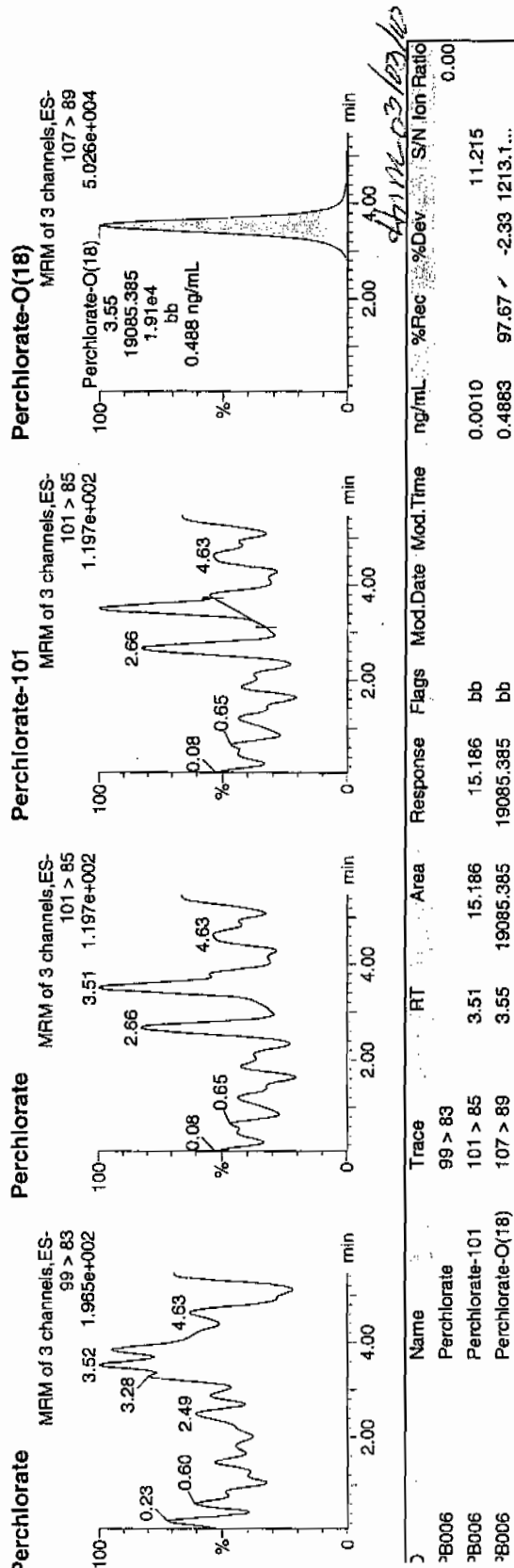
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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: per0301035a
Date: 01-Mar-2010
Time: 17:38:34
D: IPB006
/ial: 1:1,A

03-07-10



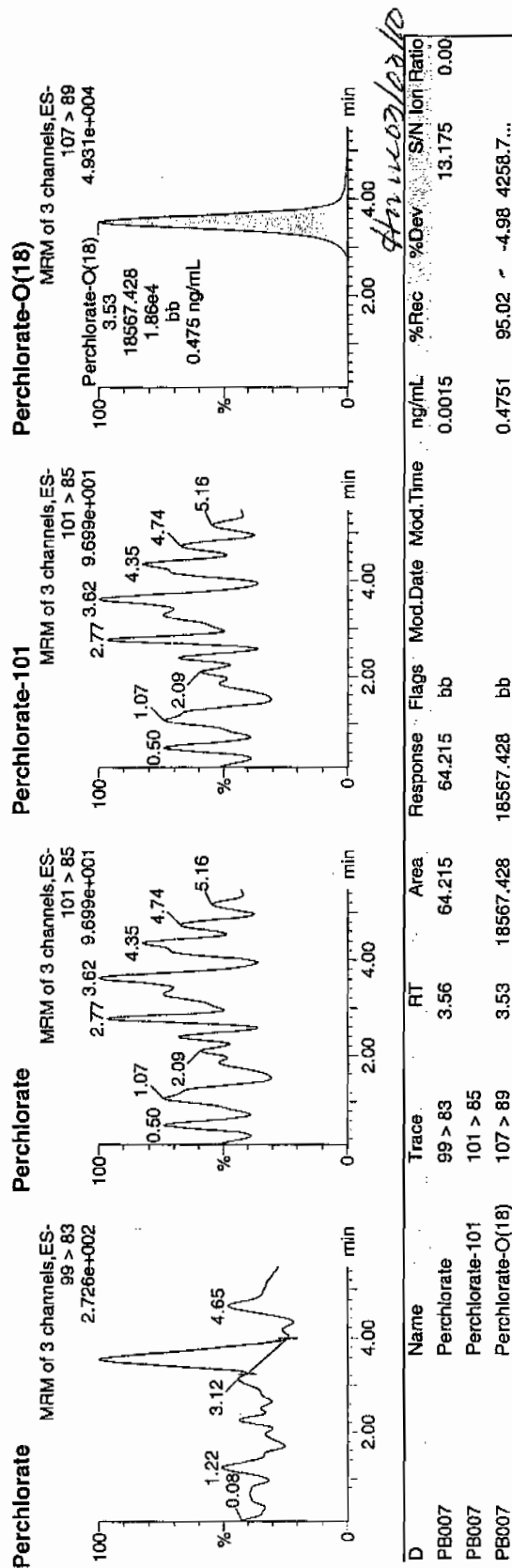
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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

W3-02-10



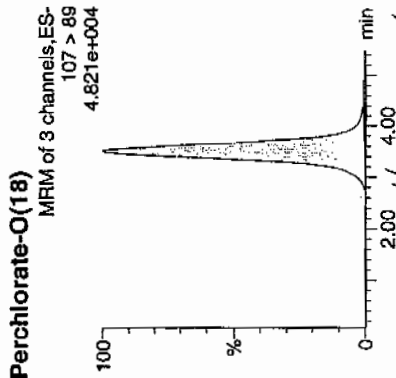
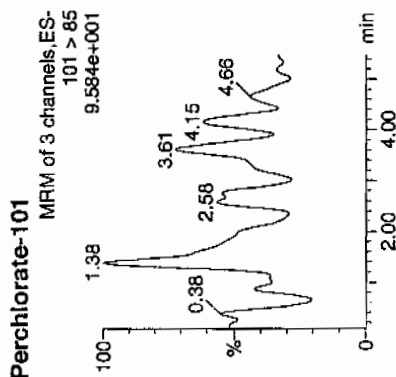
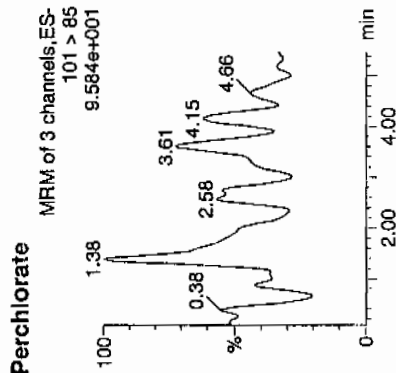
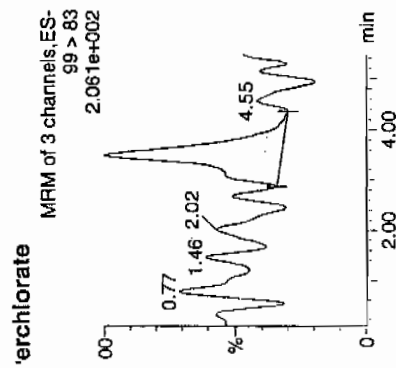
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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

Sample: per0301055a
Date: 01-Mar-2010
Time: 20:30:13
ID: IPB008
Label: 1:1,A

03-07-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
Perchlorate	99 > 83	3.50	68.146	68.146	bb			0.0016			10.065	0.00
Perchlorate-101	101 > 85											
Perchlorate-O(18)	107 > 89	3.51	18113.168	18113.168	bb			0.4535	92.69	-7.31	1421.2...	

Amu 03/02/10

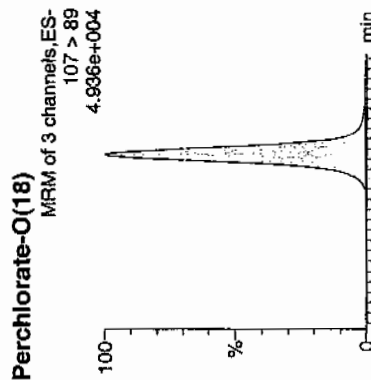
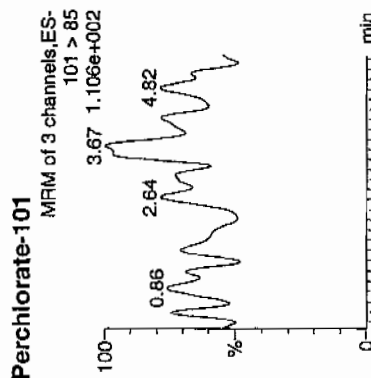
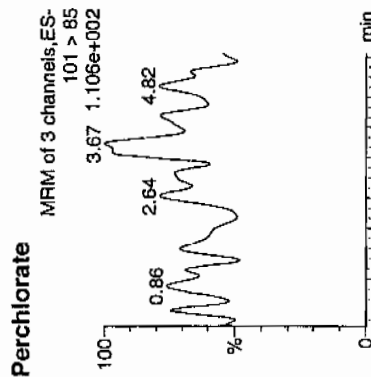
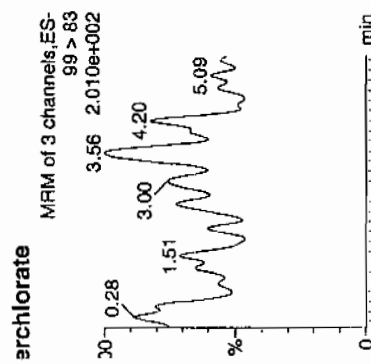
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charfers W. Wilson

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

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

ame: per0301068a
ate: 01-Mar-2010
ime: 22:21:37
: IPB009
ial: 1:1,A

03-02-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
B009	Perchlorate	99 > 83										0.00
B009	Perchlorate-101	101 > 85										
B009	Perchlorate-O(18)	107 > 89	3.50	18350.500	bb	18350.500		0.4695	93.91	-6.09	2021.7...	

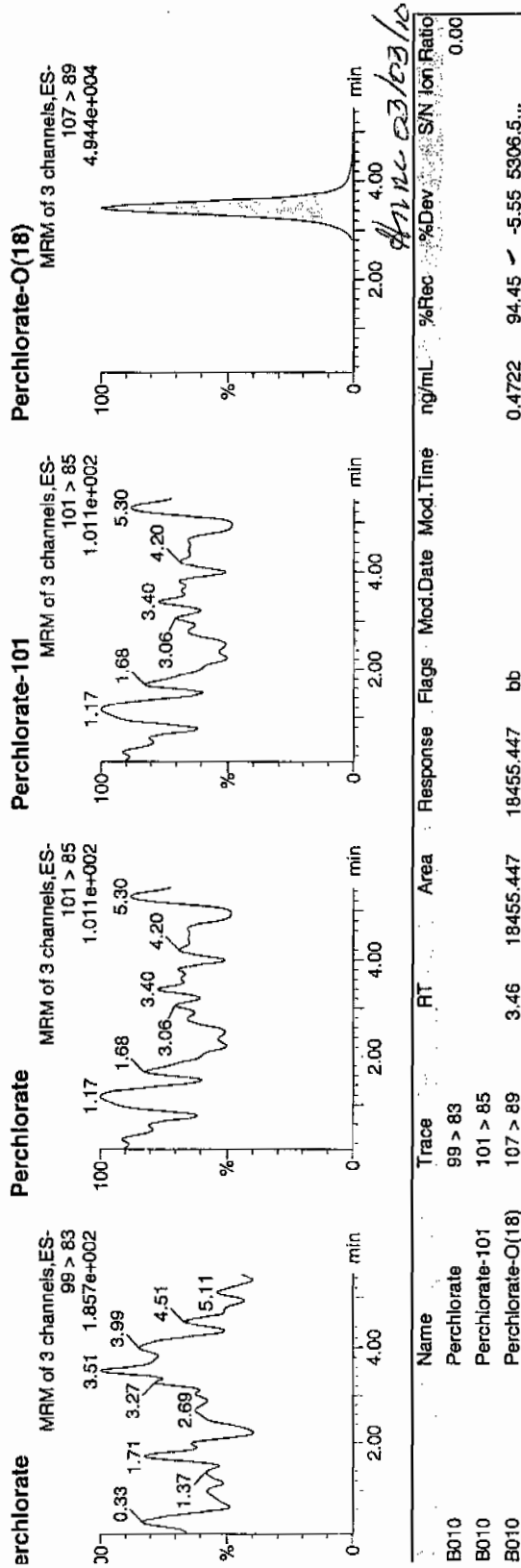
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles W. Wilson

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

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

ame: per0301081a
ate: 02-Mar-2010
ime: 00:13:07
): IPB010
ial: 1:1,A

03-02-10



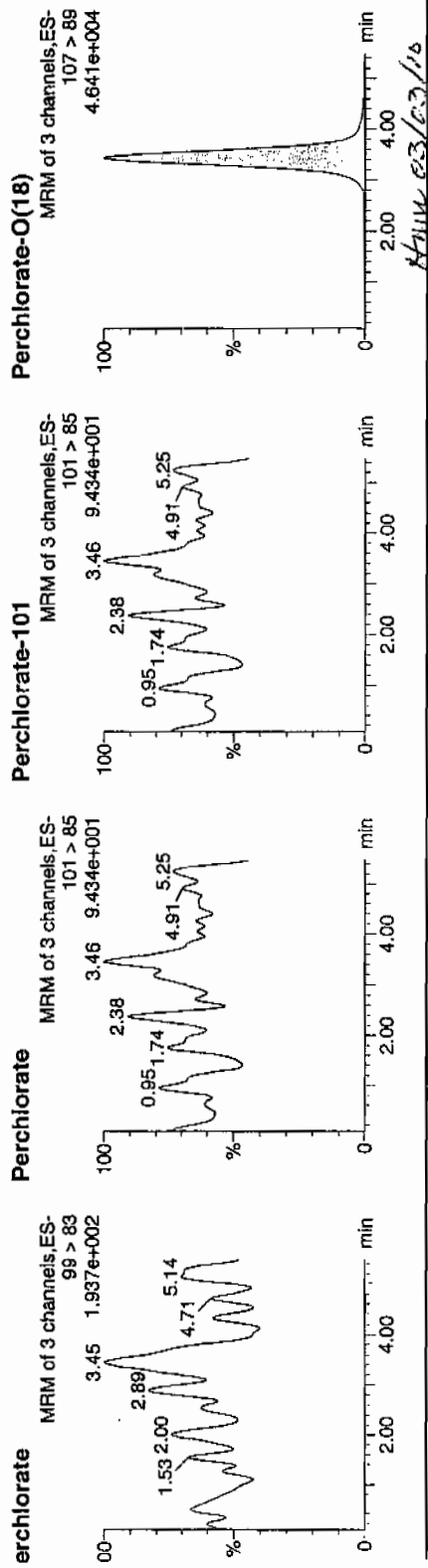
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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

Sample Name: per0301094a
Date: 02-Mar-2010
Time: 02:04:50
Lab: IPB011
Label: 1:1,A

03-02-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
B011	Perchlorate	99 > 83										0.00
B011	Perchlorate-101	101 > 85										
B011	Perchlorate-O(18)	107 > 89	3.43	17432.324	bb	17432.324		0.4461	89.21	✓ -10.79	2108.5...	

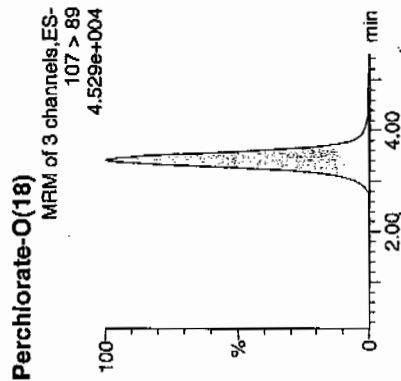
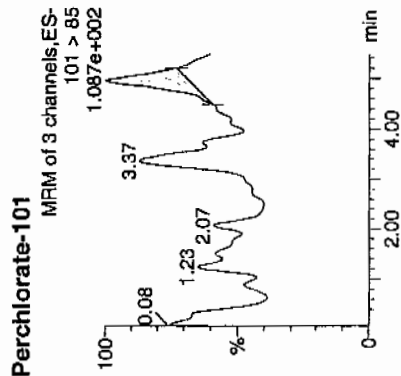
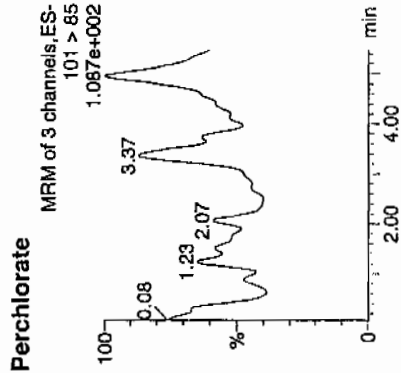
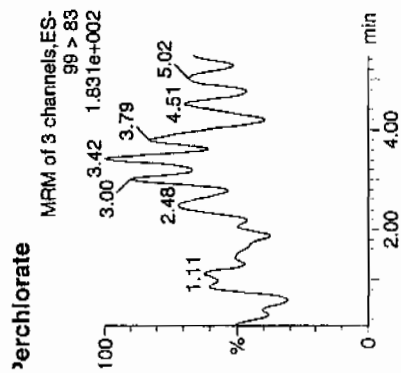
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles W. Wilson

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: per0301098a
Date: 02-Mar-2010
Time: 02:39:12
D: IPB012
/lal: 1:1,A

03-07-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
Perchlorate	99 > 83											
Perchlorate-101	101 > 85	4.96	9.993	9.993	bb			0.0007			4.625	
Perchlorate-O(18)	107 > 89	3.42	16832.818	16832.818	bb			0.4307	86.14	-13.86	5321.7...	

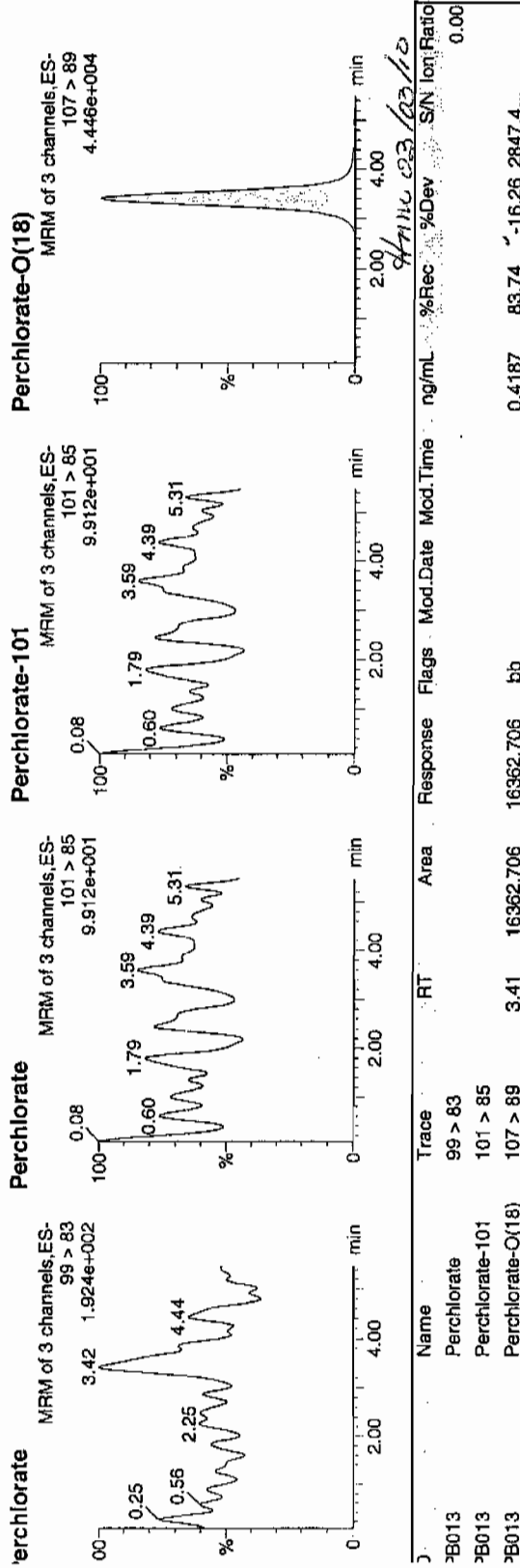
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charfers W. Wilson

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

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

Sample Name: per0301107a
Date: 02-Mar-2010
Time: 03:56:35
ID: IPB013
Label: 1:1,A

02-03-10



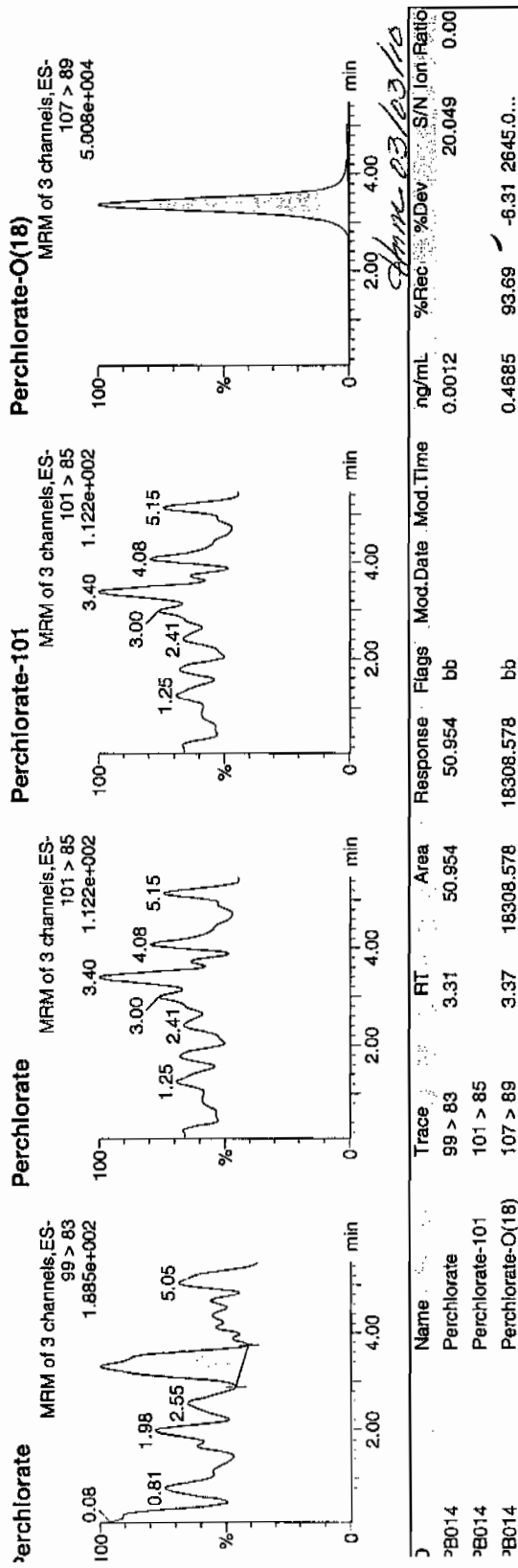
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles W. Wilson

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

Sample Name: per0301120a
Date: 02-Mar-2010
Time: 05:47:52
ID: IPB014
Label: 1:1,A

03-02-10



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

QUARTO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

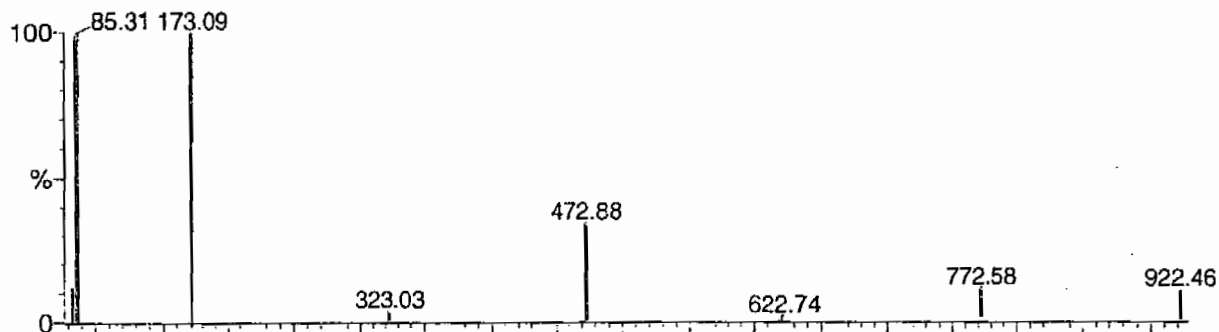
Page 1 of 1

Printed: Tue Jan 08 12:19:12 2008

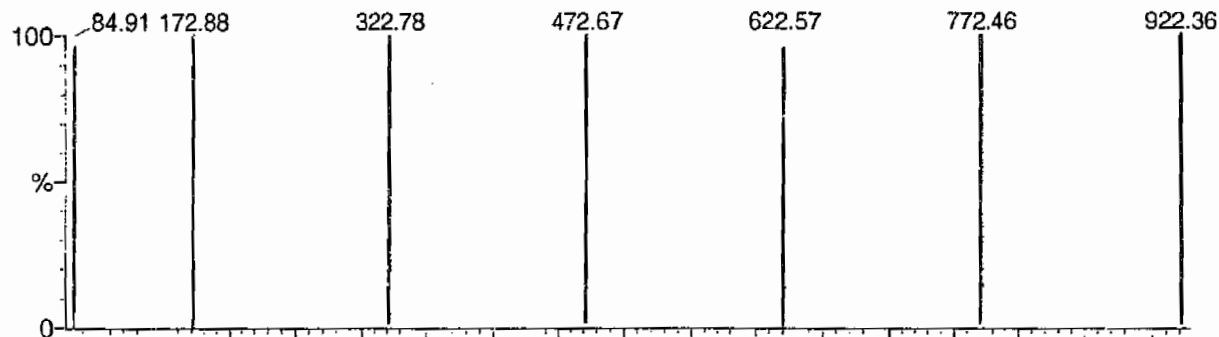
POINTS HIGHLIGHTED BY CURVE 01-09-03

Data file: STATMS1 - Uncalibrated

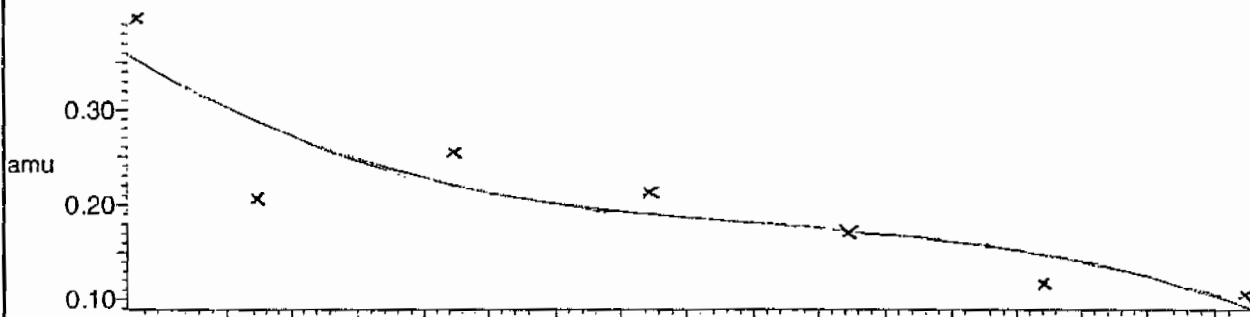
7 matches of 7 tested references



Reference file: Nairb

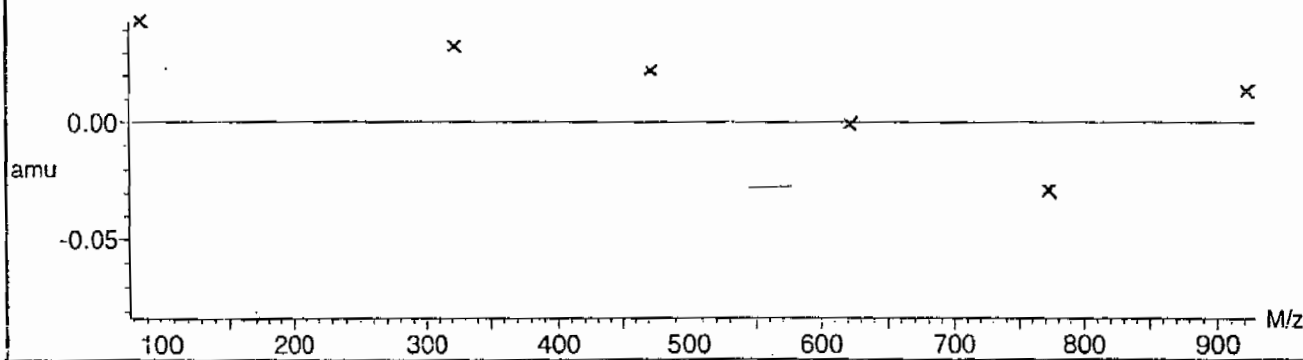


Mass difference (Raw - Ref mass)



Residuals

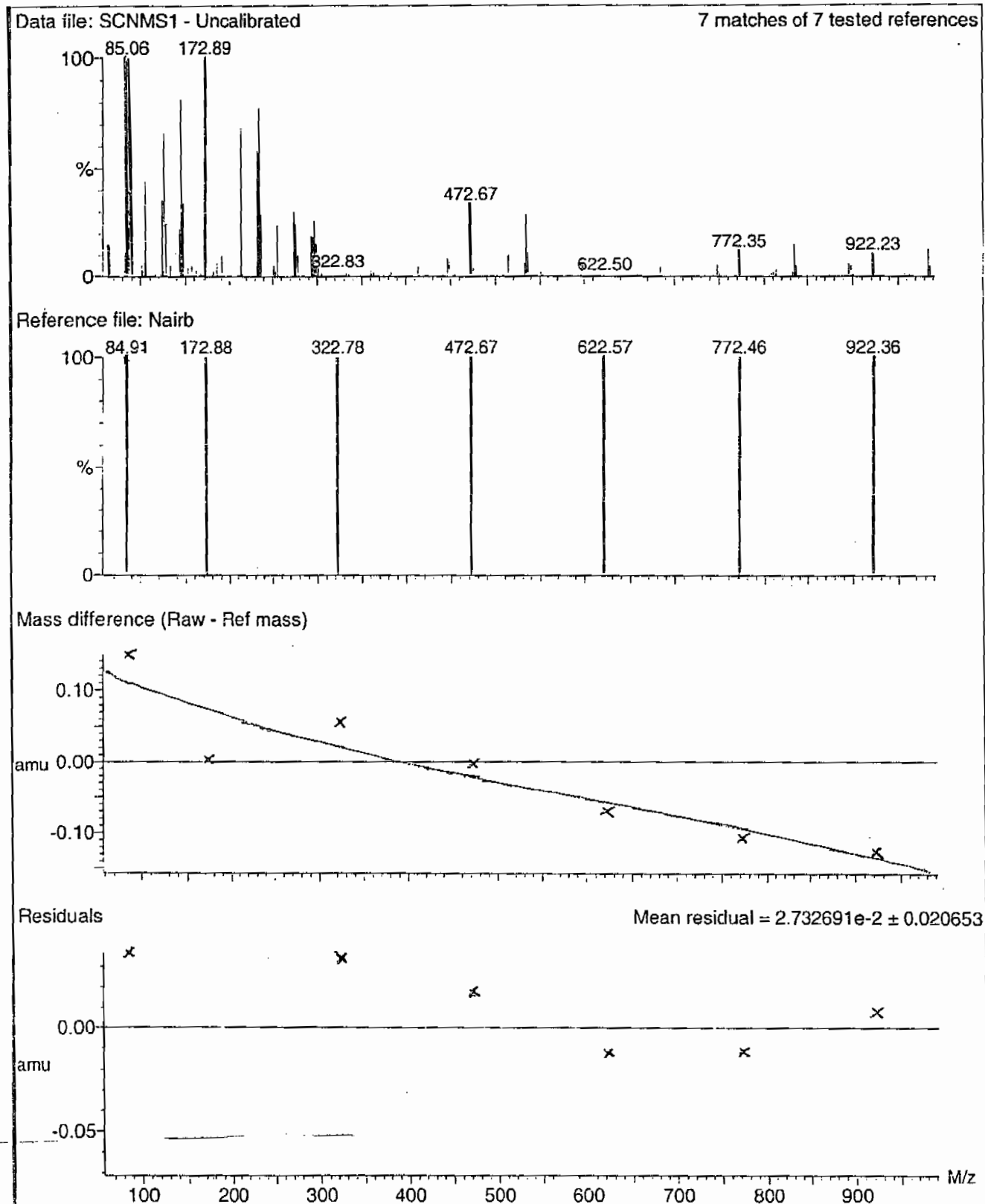
Mean residual = $3.212012 \times 10^{-2} \pm 0.024108$



Calibration Report - MS1 Scanning

Page 1 of 1

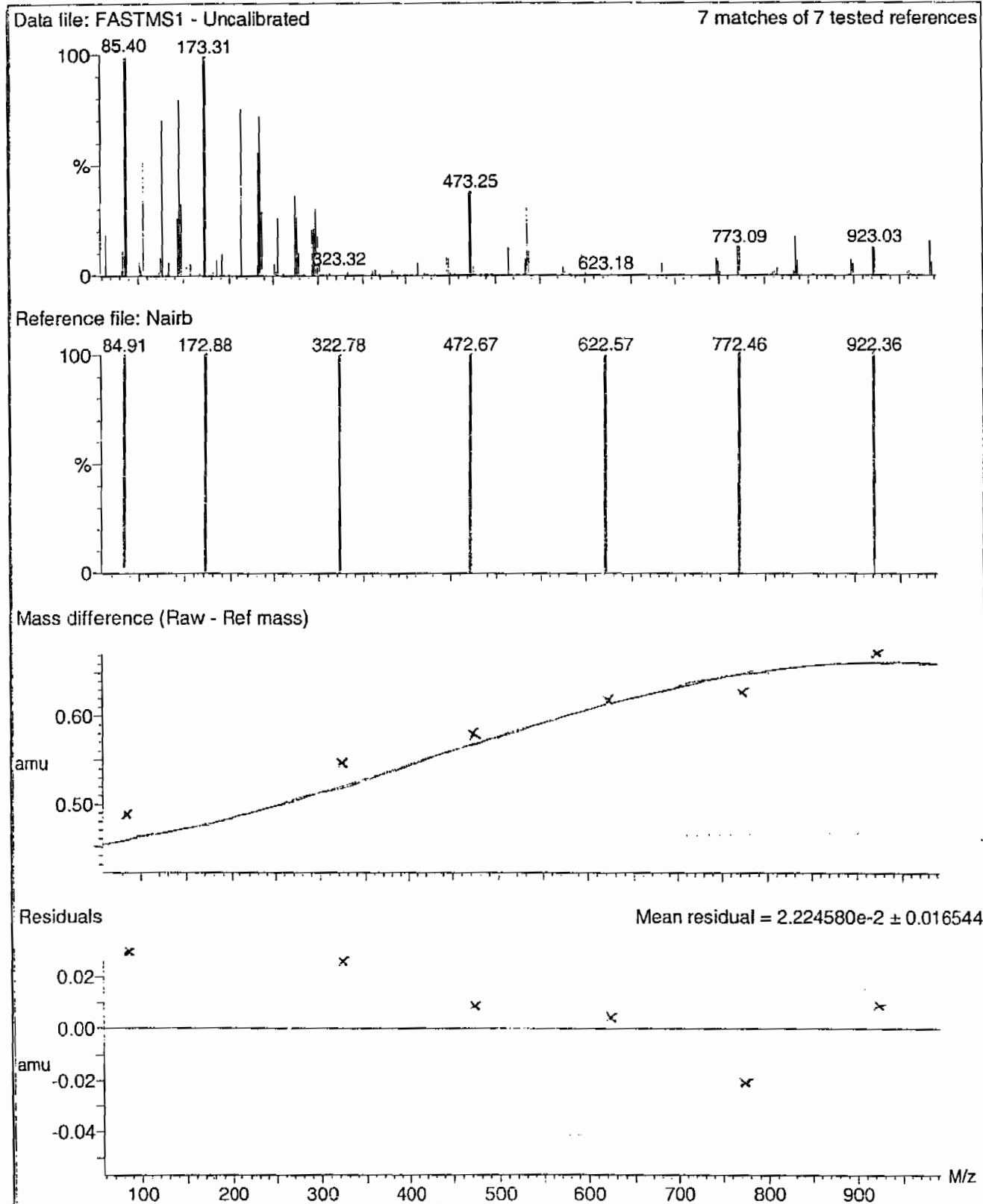
Printed: Tue Jan 08 12:20:09 2008



Calibration Report - MS1 Scan Speed Compensation

Page 1 of 1

Printed: Tue Jan 08 12:21:04 2008



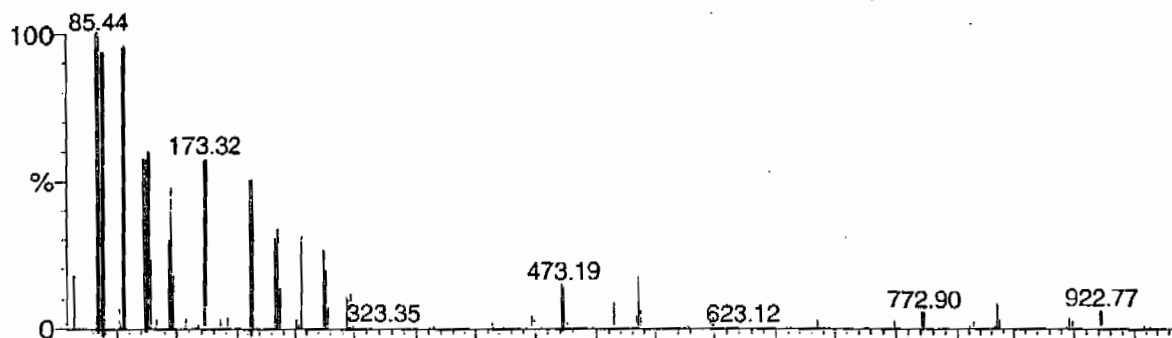
Calibration Report - MS2 Scan Speed Compensation

Page 1 of 1

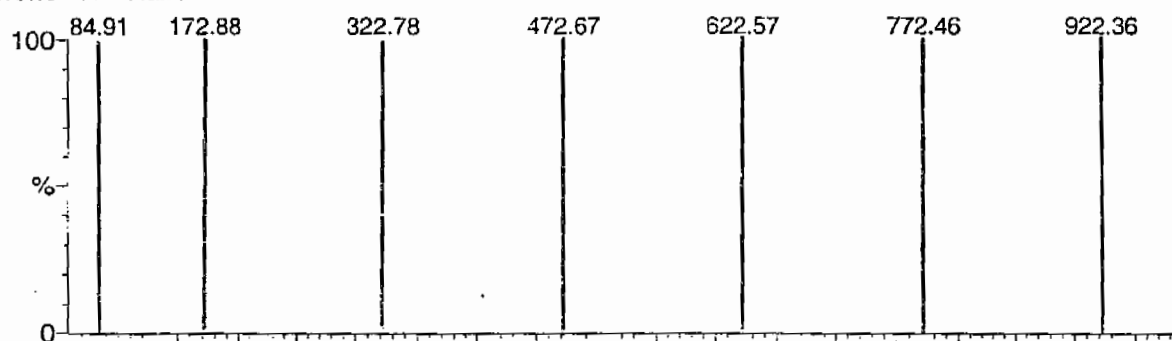
Printed: Tue Jan 08 12:23:51 2008

Data file: FASTMS2 - Uncalibrated

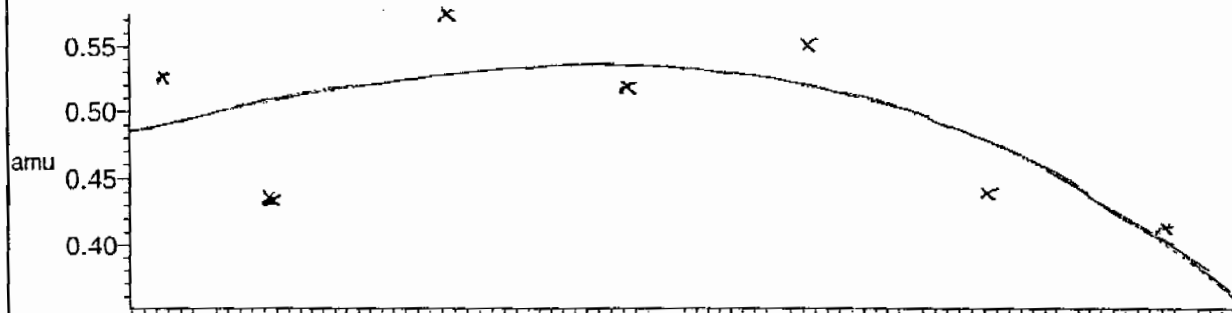
7 matches of 7 tested references



Reference file: Nairb

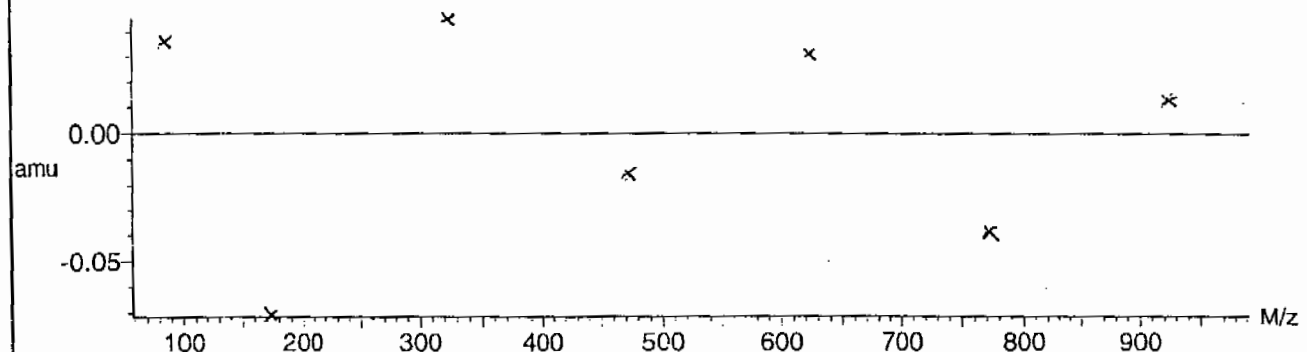


Mass difference (Raw - Ref mass)



Residuals

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



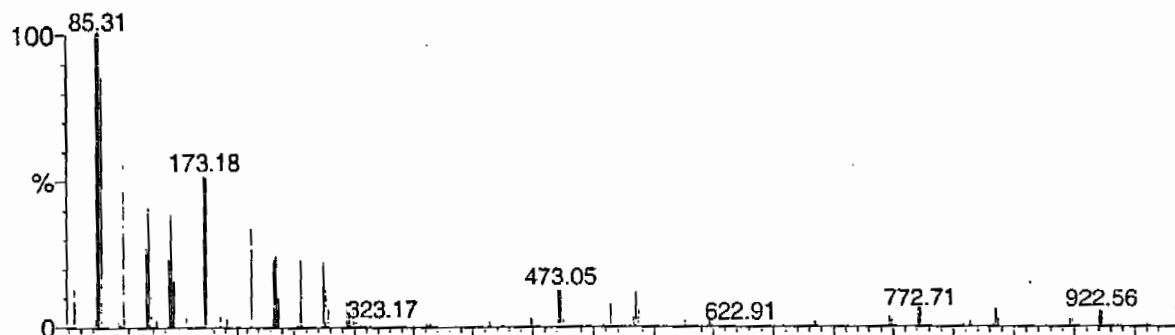
Calibration Report - MS2 Scanning

Page 1 of 1

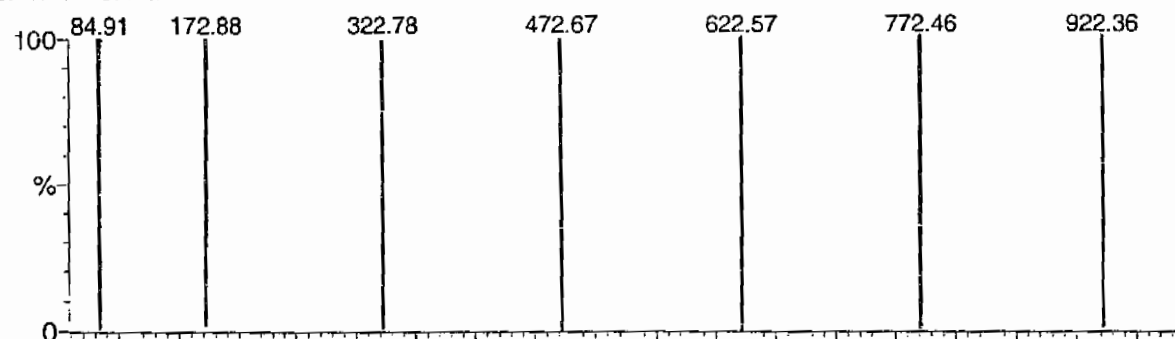
Printed: Tue Jan 08 12:22:56 2008

Data file: SCNMS2 - Uncalibrated

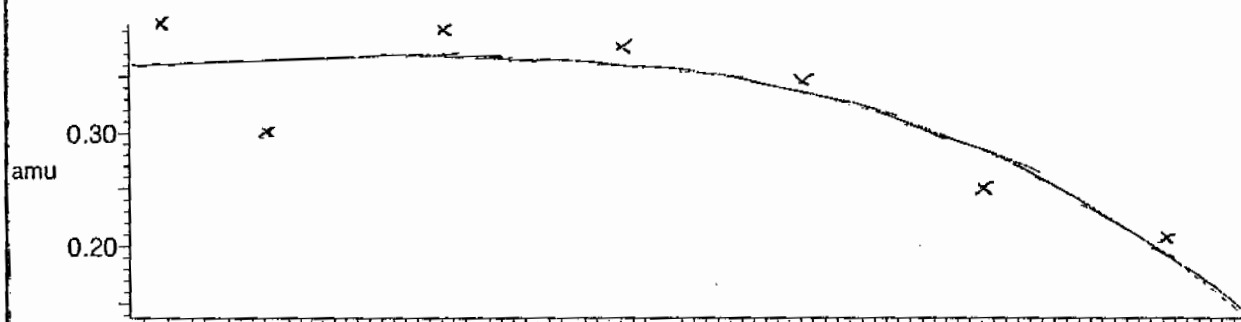
7 matches of 7 tested references



Reference file: Nairb

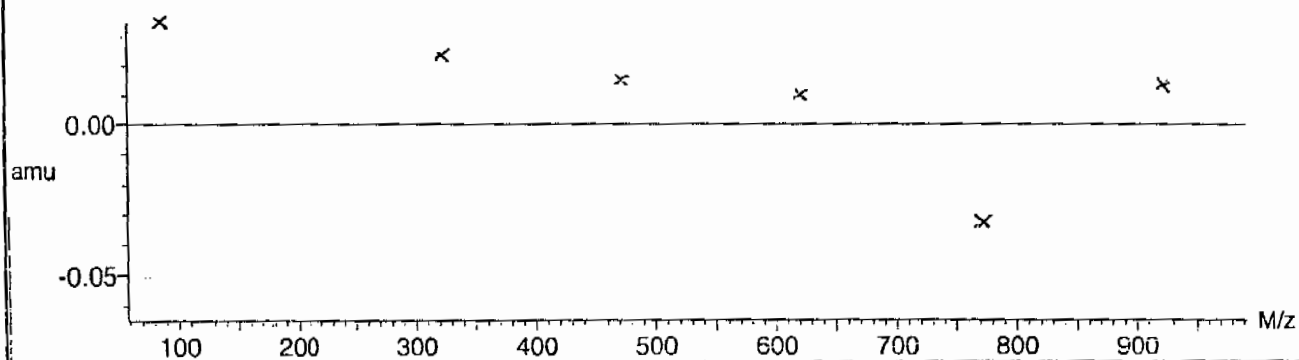


Mass difference (Raw - Ref mass)



Residuals

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



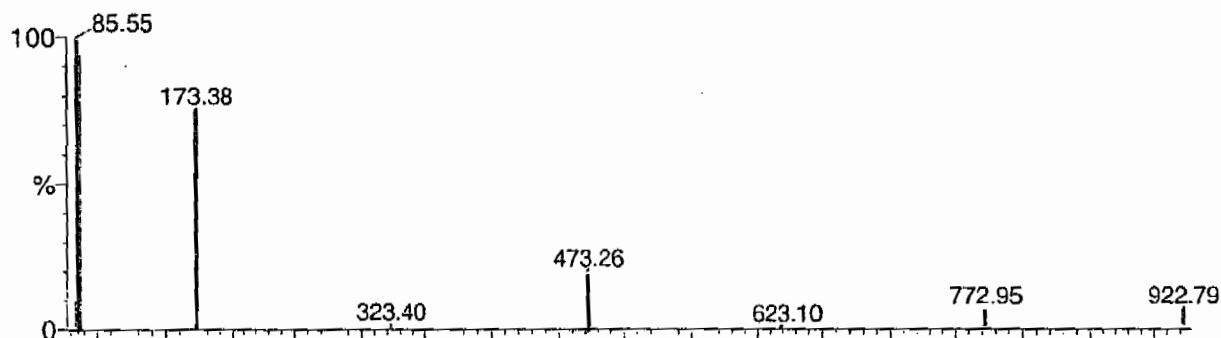
Calibration Report - MS2 Static

Page 1 of 1

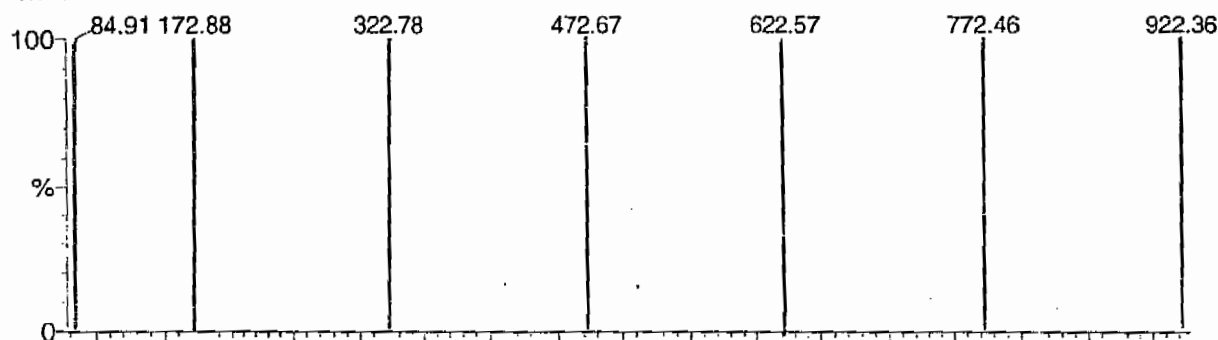
Printed: Tue Jan 08 12:21:59 2008

Data file: STATMS2 - Uncalibrated

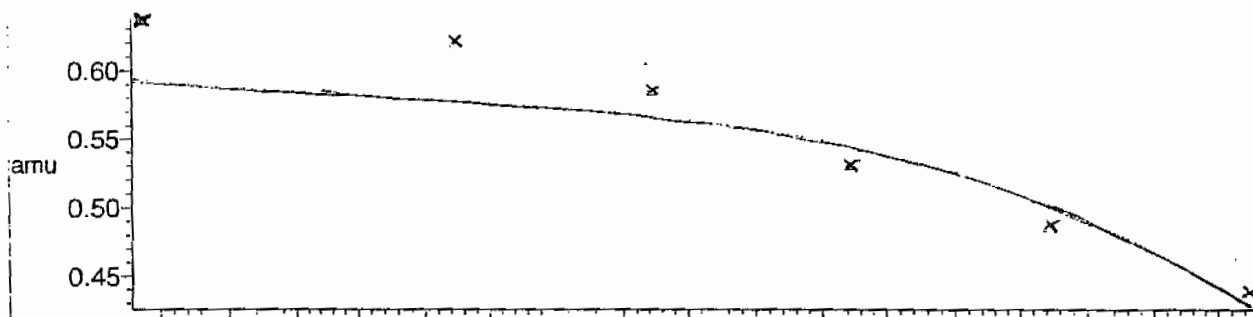
7 matches of 7 tested references



Reference file: Nairb

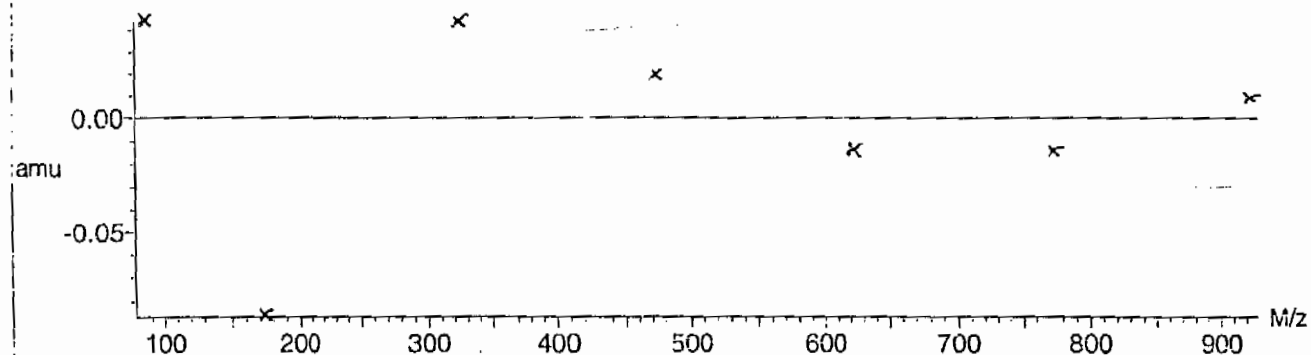


Mass difference (Raw - Ref mass)



Residuals

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



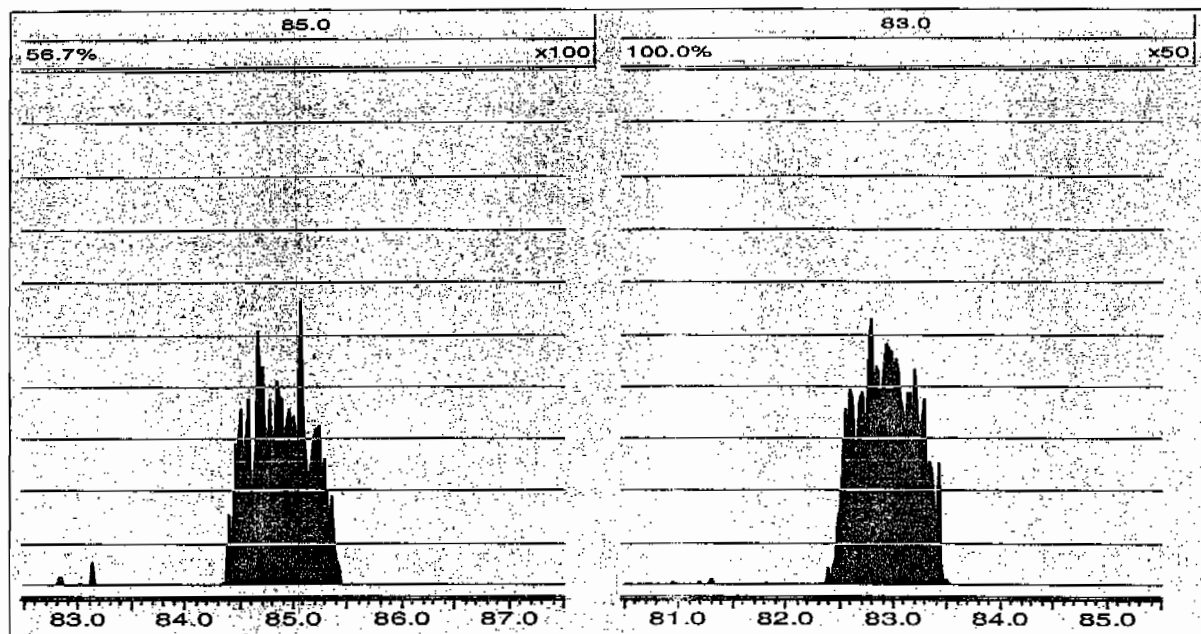
Tune Parameters

MassLynx 4.0 SP4

Page 1 of 1

File: C:\MassLynx\Perchlorate.PROVACQ\UDB\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): 10-1951

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				
1202052905	per0301099a	02-MAR-10 02:47	17957.8	3.42	3.4334	1.004	
1202052906	per0301100a	02-MAR-10 02:56	18150.8	3.43	3.44552	1.005	
1202052909	per0301101a	02-MAR-10 03:05	17763.2	3.43	3.44555	1.005	
247560001	per0301114a	02-MAR-10 04:56	18773	3.38	3.42073	1.012	

SAMPLE DATA

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: 957436
 Extraction Type: Filter/DAI
 Client Sample No. RE15-10-8329
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1951
 GEL Sample ID: 247560001
 Date Filtered: 25-FEB-10
 Injection Volume (uL): 20
 %Solids:

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	02-MAR-10 04:56	per0301114a
	Perchlorate Isotope Ratio						1	02-MAR-10 04:56	per0301114a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	02-MAR-10 04:56	per0301114a
	Perchlorate-O(18)			0.480	ug/L		1	02-MAR-10 04:56	per0301114a

[^] 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

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

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 Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Filename: per0301114a

Date: 02-Mar-2010

Time: 04:56:27

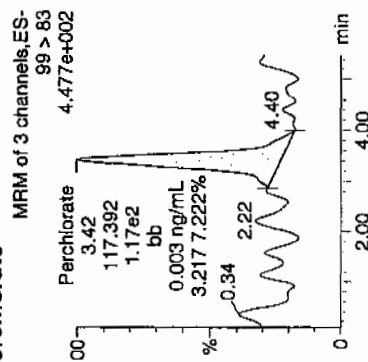
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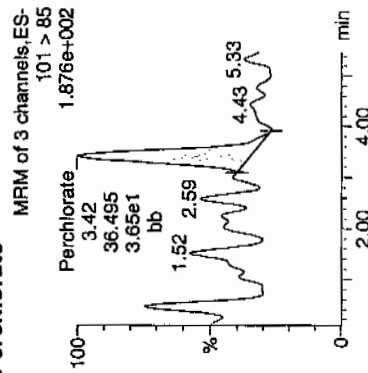
LANU | 957434 | 220111

03-02-10

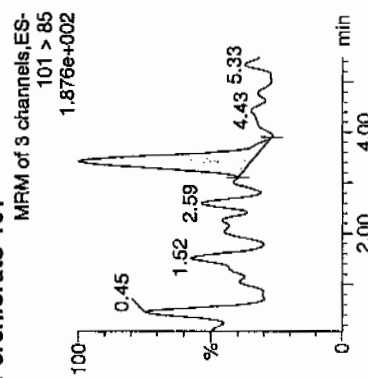
Perchlorate



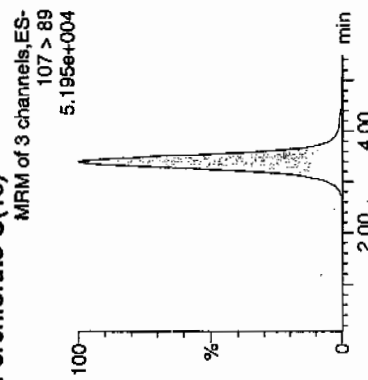
Perchlorate



Perchlorate-101



Perchlorate-O(18)



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
17560001	Perchlorate	99 > 83	3.42	117.392	bb			0.0027			22.969	3.22
17560001	Perchlorate-101	101 > 85	3.42	36.495	bb			0.0025			15.699	
17560001	Perchlorate-O(18)	107 > 89	3.38	18773.006	bb			0.4804	96.07	-3.93	2780.8...	

STANDARDS DATA

Perchlorate Initial Calibration

GEL Job No.(SDG): 10-1951

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 01-MAR-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: 43756.34

Response Type: External Standard

Curve Type: RF

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1951

Lab Code: GEL

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

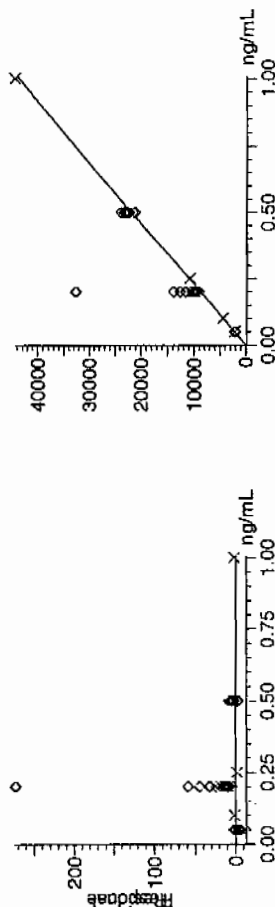
Compound name: Perchlorate

Response Factor: 43756.3

RF SD: 769.757, % Relative SD: 1.75919

Response type: External Std, Area

Curve type: RF



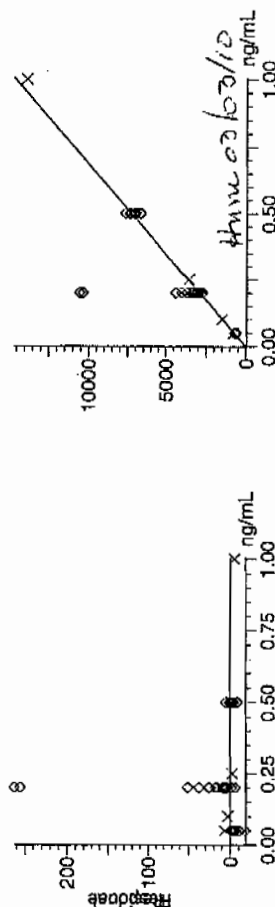
Compound name: Perchlorate-101

Response Factor: 14564.2

RF 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: Charliers W. Wilson

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

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

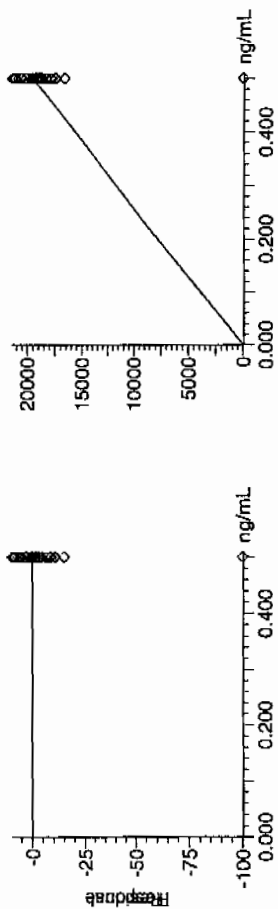
Compound name: Perchlorate-O(18)

Response Factor: 39081.4

RF 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): 10-1951

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
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

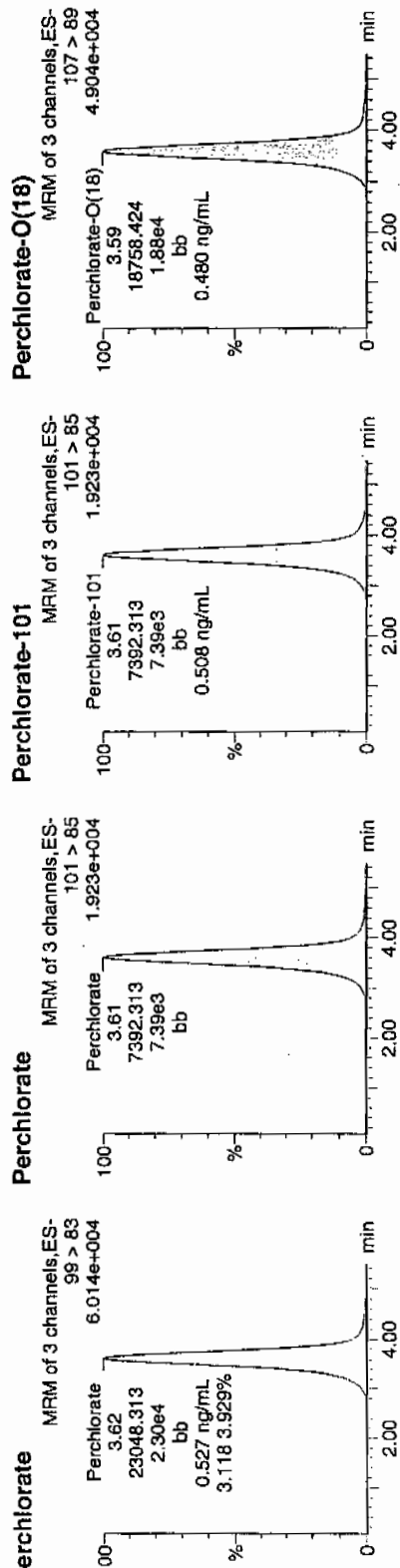
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\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

Sample Name: per0301009a
Date: 01-Mar-2010
Time: 13:55:47
File: WCL100227-06ICV
Label: 1:2,A

Pure
and
03-01-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100227-06ICV	Perchlorate	99 > 83	3.62	23048.313	bb			0.5267	105.35	5.35	285.800	3.12
CL100227-06ICV	Perchlorate-101	101 > 85	3.61	7392.313	bb			0.5076	101.51	1.51	581.722	
CL100227-06ICV	Perchlorate-O(18)	107 > 89	3.59	18758.424	bb			0.4800	96.00	-4.00	5381.0...	

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

Perchlorate Continuing Calibration Verification

GEL Job No.(SDG): 10-1951

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
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-101	.5	.49	97.01	01-MAR-10 18:30	per0301041a
Perchlorate	.5	.51	101.35	01-MAR-10 20:21	per0301054a
Perchlorate Isotope Ratio		3.19		01-MAR-10 20:21	per0301054a
Perchlorate-101	.5	.48	95.6	01-MAR-10 20:21	per0301054a
Perchlorate	.5	.51	102.4	01-MAR-10 22:12	per0301067a

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1951

Lab Code: GEL

Reporting Units: ug/L

Perchlorate Isotope Ratio		3.18		01-MAR-10 22:12	per0301067a
Perchlorate-101	.5	.48	96.82	01-MAR-10 22:12	per0301067a
Perchlorate	.5	.52	103.19	02-MAR-10 00:04	per0301080a
Perchlorate Isotope Ratio		3.11		02-MAR-10 00:04	per0301080a
Perchlorate-101	.5	.5	99.79	02-MAR-10 00:04	per0301080a
Perchlorate	.5	.49	98.22	02-MAR-10 01:56	per0301093a
Perchlorate Isotope Ratio		3.21		02-MAR-10 01:56	per0301093a
Perchlorate-101	.5	.46	92.02	02-MAR-10 01:56	per0301093a
Perchlorate	.5	.48	96.44	02-MAR-10 03:47	per0301106a
Perchlorate Isotope Ratio		3.17		02-MAR-10 03:47	per0301106a
Perchlorate-101	.5	.46	91.32	02-MAR-10 03:47	per0301106a
Perchlorate	.5	.52	104.38	02-MAR-10 05:39	per0301119a
Perchlorate Isotope Ratio		3.12		02-MAR-10 05:39	per0301119a

Form 3

Perchlorate Continuing Calibration Verification

GEL Job No.(SDG): 10-1951

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/L

Perchlorate-101	.5	.5	100.4	02-MAR-10 05:39	per0301119a
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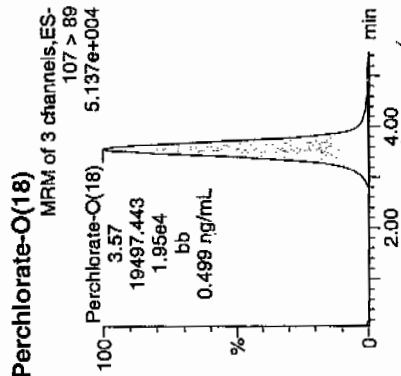
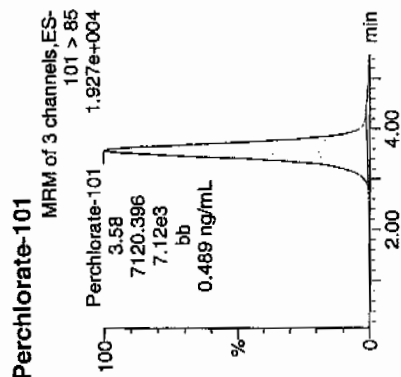
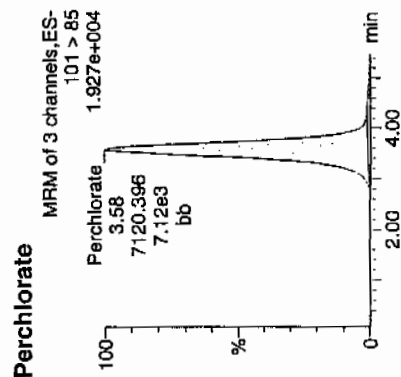
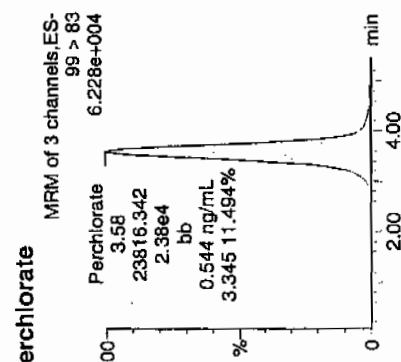
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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

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Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Sample Name: per0301019a
Date: 01-Mar-2010
Time: 15:21:16
ID: WCL100227-06CCCV
Label: 1:2,A

Perchlorate
03-07-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100227-06CCV	Perchlorate	99 > 83	3.58	23816.342	23816.342	bb		0.5443	108.86	8.86	722.740	3.34
CL100227-06CCV	Perchlorate-101	101 > 85	3.58	7120.396	7120.396	bb		0.4889	97.78	-2.22	2835.5...	
CL100227-06CCV	Perchlorate-O(18)	107 > 89	3.57	19497.443	19497.443	bb		0.4989	99.78	-0.22	3503.2...	

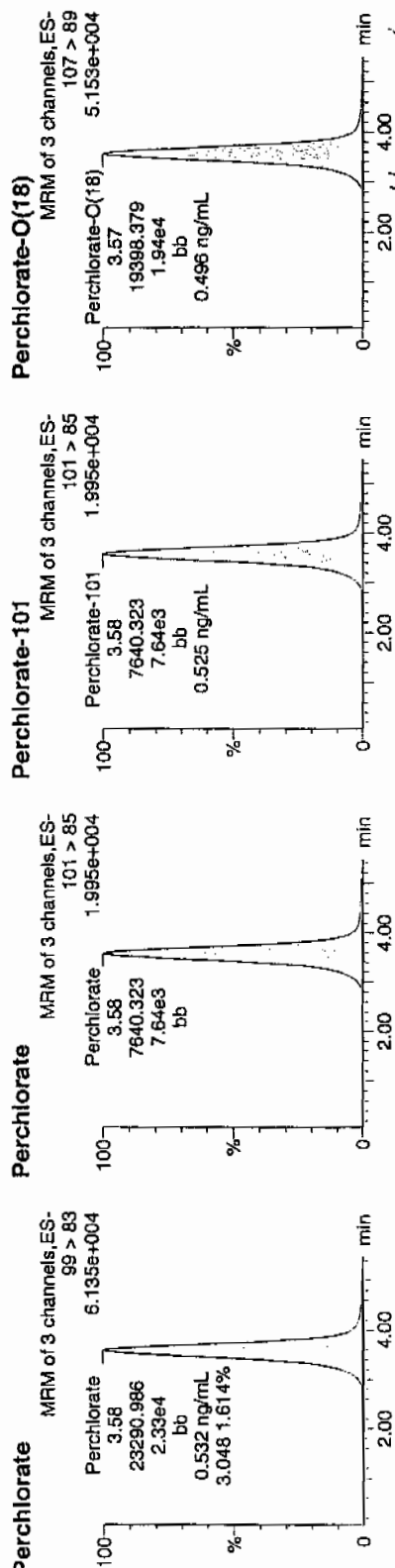
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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

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and
03-02-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
/CL100227-06CCV	Perchlorate	99 > 83	3.58	23290.986	23290.986	bb		0.5323	106.46	6.46	2562.1...	3.05
/CL100227-06CCV	Perchlorate-101	101 > 85	3.58	7640.323	7640.323	bb		0.5246	104.92	4.92	927.645	
/CL100227-06CCV	Perchlorate-O(18)	107 > 89	3.57	19398.379	19398.379	bb		0.4964	99.27	-0.73	10118....	

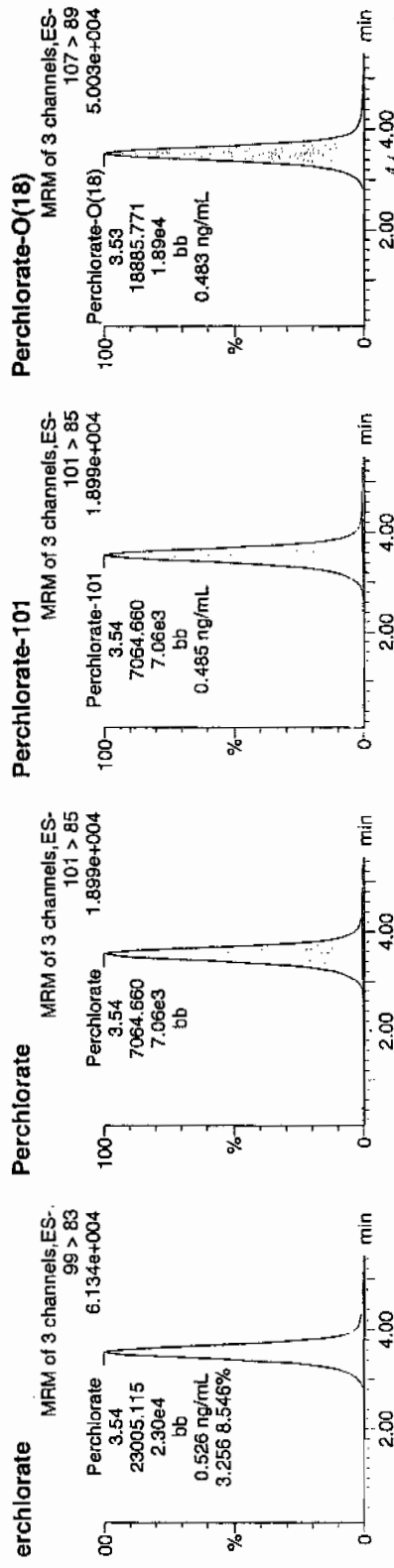
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The GEL Group, LLC Analyst: Charles W. Wilson

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

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Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Sample Name: per0301041a
Date: 01-Mar-2010
Time: 18:30:04
File: WCL100227-06CCV
Label: 1:2,A

Pure
03-02-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100227-06CCV	Perchlorate	99 > 83	3.54	23005.115	23005.115	bb		0.5258	105.15	5.15	1878.6...	3.26
CL100227-06CCV	Perchlorate-101	101 > 85	3.54	7064.660	7064.660	bb		0.4851	97.01	-2.99	1637.0...	
CL100227-06CCV	Perchlorate-O(18)	107 > 89	3.53	18885.771	18885.771	bb		0.4832	96.65	-3.35	1409.8...	

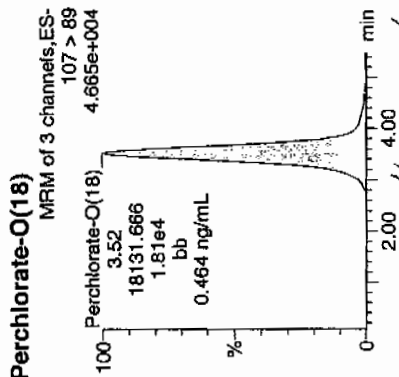
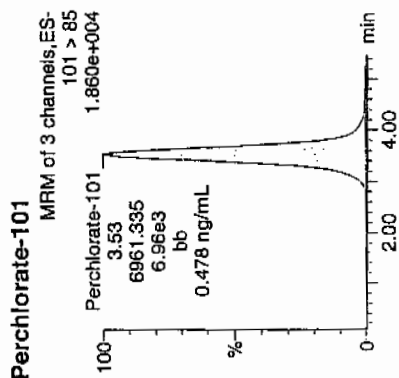
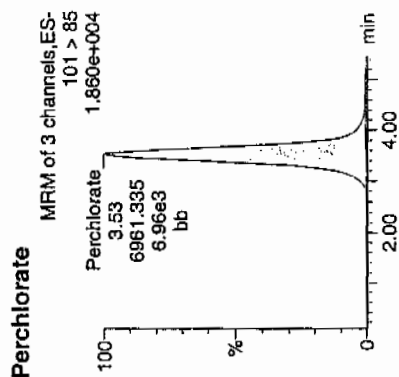
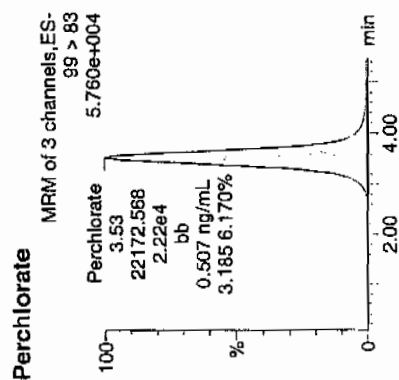
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The GEL Group, LLC Analyst: Charlers W. Wilson

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

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Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Name: per0301054a
Date: 01-Mar-2010
Time: 20:21:26
ID: WCL100227-06CCV
Vial: 1:2,A

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and
03-02-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
NCL100227-06CCV	Perchlorate	99 > 83	3.53	22172.568	22172.568	bb			0.5067	101.35	1.35	2947.5...	3.19
NCL100227-06CCV	Perchlorate-101	101 > 85	3.53	6961.335	6961.335	bb			0.4780	95.60	-4.40	322.708	
NCL100227-06CCV	Perchlorate-O(18)	107 > 89	3.52	18131.666	18131.666	bb			0.4639	92.79	-7.21	4136.6...	

Handwritten signature: *Handwritten signature*

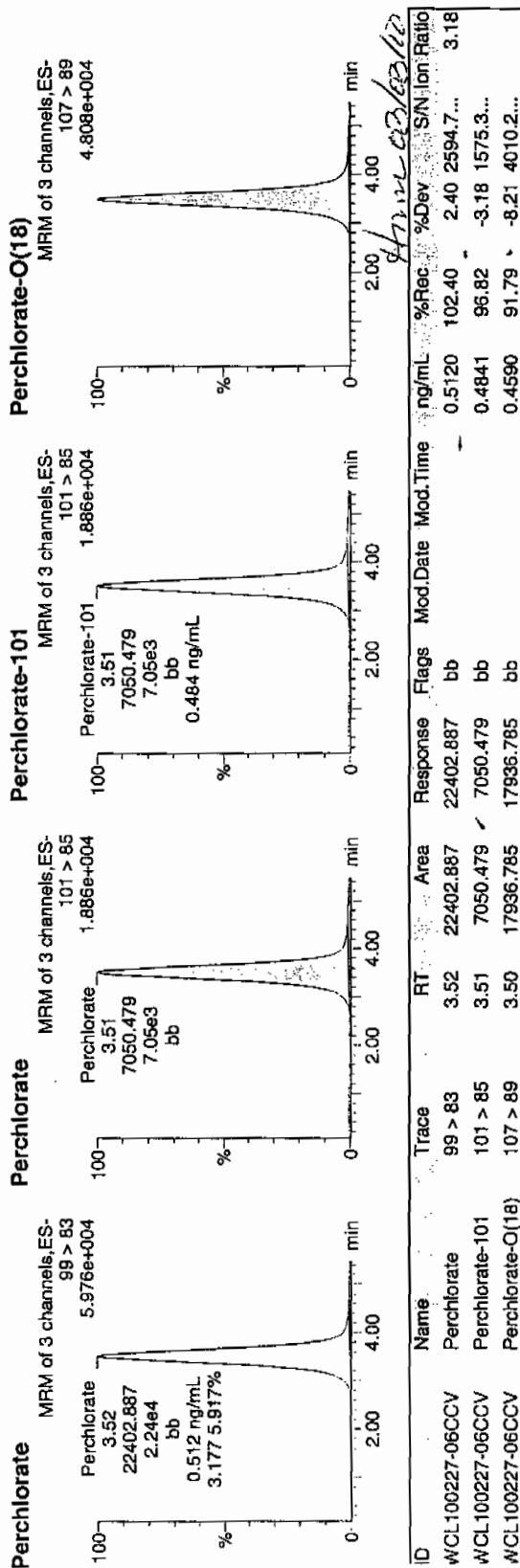
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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

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: per0301067a
Date: 01-Mar-2010
Time: 22:12:51
ID: WCL100227-06CCV
Vial: 1:2,A

Per
03-02-10



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: per0301080a

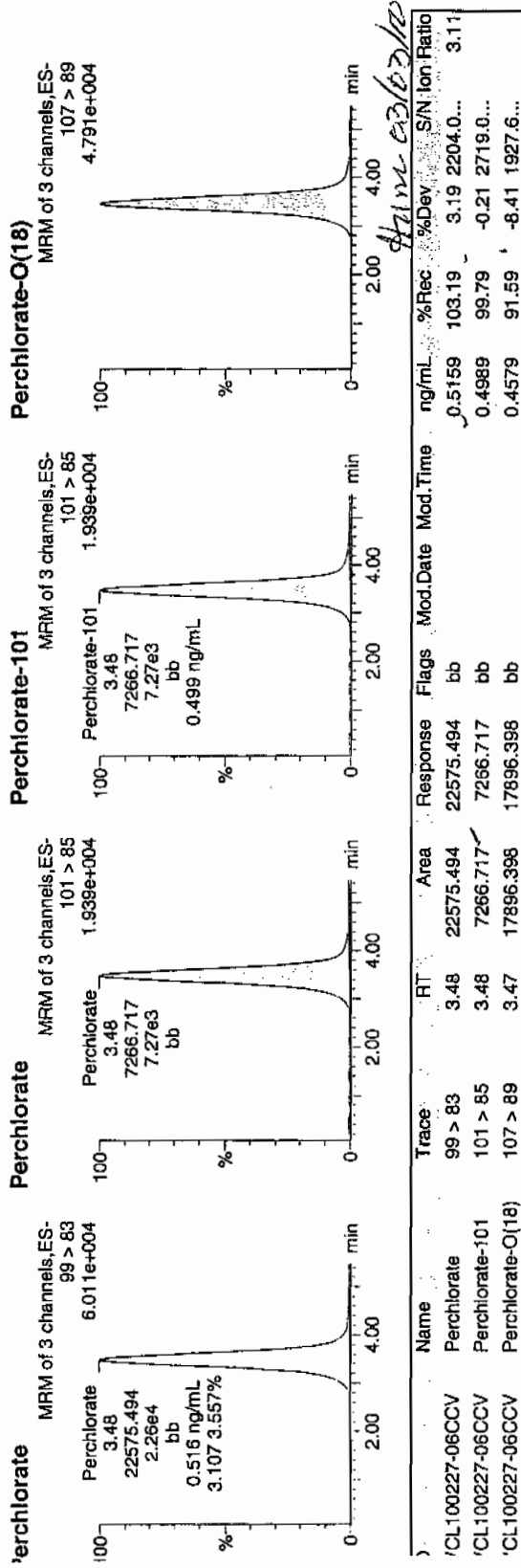
Date: 02-Mar-2010

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D: WCL100227-06CCV

Vial: 1:2,A

Pure
02-02-10



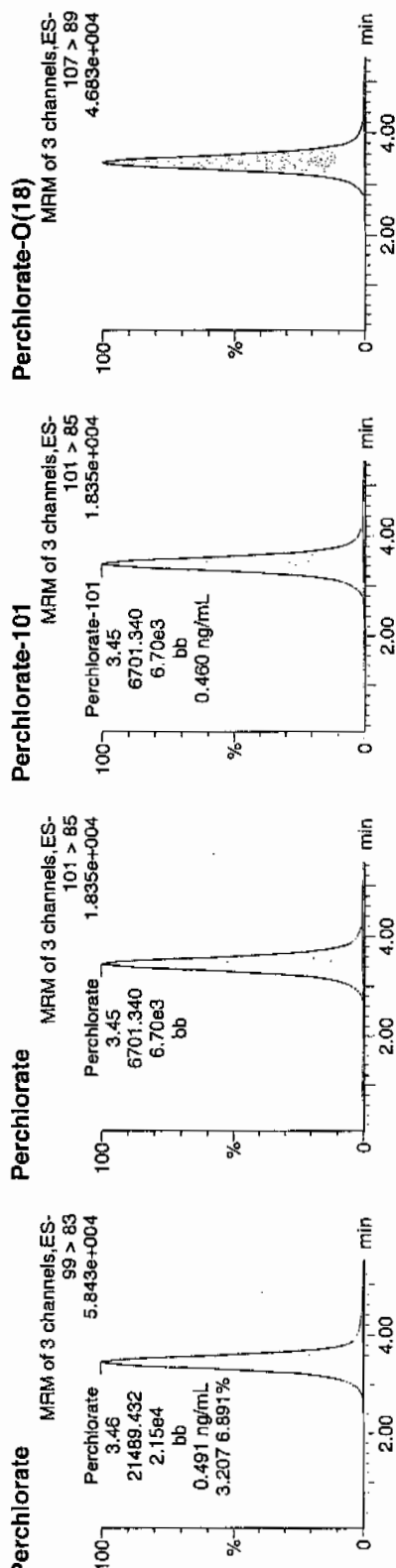
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles W. Wilson

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

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Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Sample: per0301093a
Date: 02-Mar-2010
Time: 01:56:03
D: WCL100227-06CCV
/ial: 1:2,A

*Per
and
03-2-10*



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-06CCV	Perchlorate	99 > 83	3.46	21489.432	21489.432	bb			0.4911	98.22	-1.78	1165.7...	3.21
WCL100227-06CCV	Perchlorate-101	101 > 85	3.45	6701.340	6701.340	bb			0.4601	92.02	-7.98	2131.2...	
WCL100227-06CCV	Perchlorate-O(18)	107 > 89	3.43	17389.604	17389.604	bb			0.4450	88.99	-11.01	2294.8...	

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

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

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

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rinted: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

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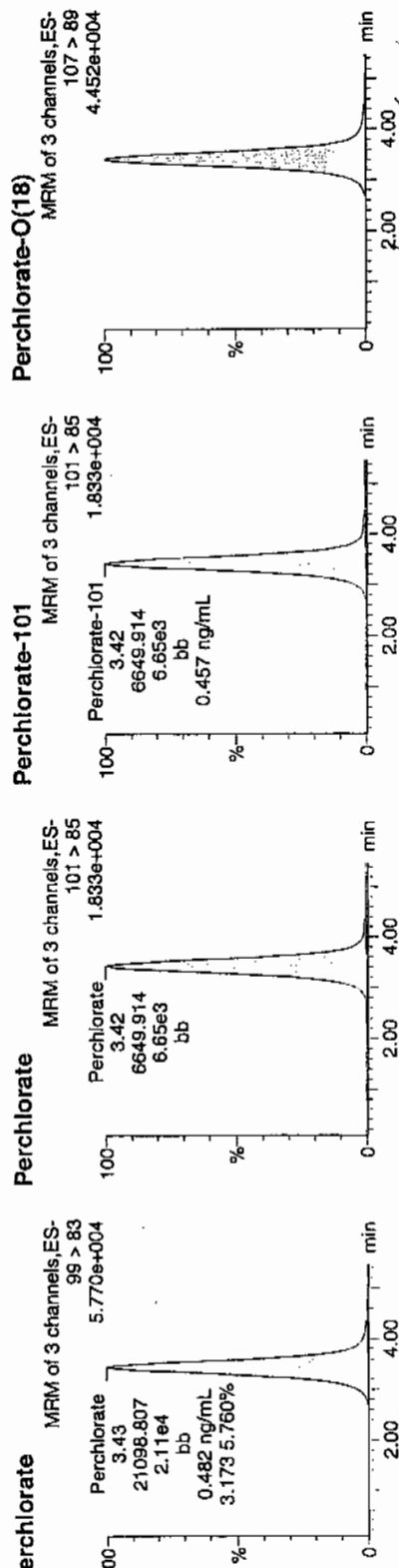
ate: 02-Mar-2010

ime: 03:47:50

J: WCL100227-06CCV

ial: 1:2,A

Run and 03-02-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100227-06CCV	99 > 83	3.43	21098.807	21098.807	bb			0.4822	96.44	-3.56	982.579	3.17
CL100227-06CCV	101 > 85	3.42	6649.914	6649.914	bb			0.4566	91.32	-8.68	370.292	
CL100227-06CCV	107 > 89	3.41	16618.670	16618.670	bb			0.4252	85.05	-14.95	820.393	

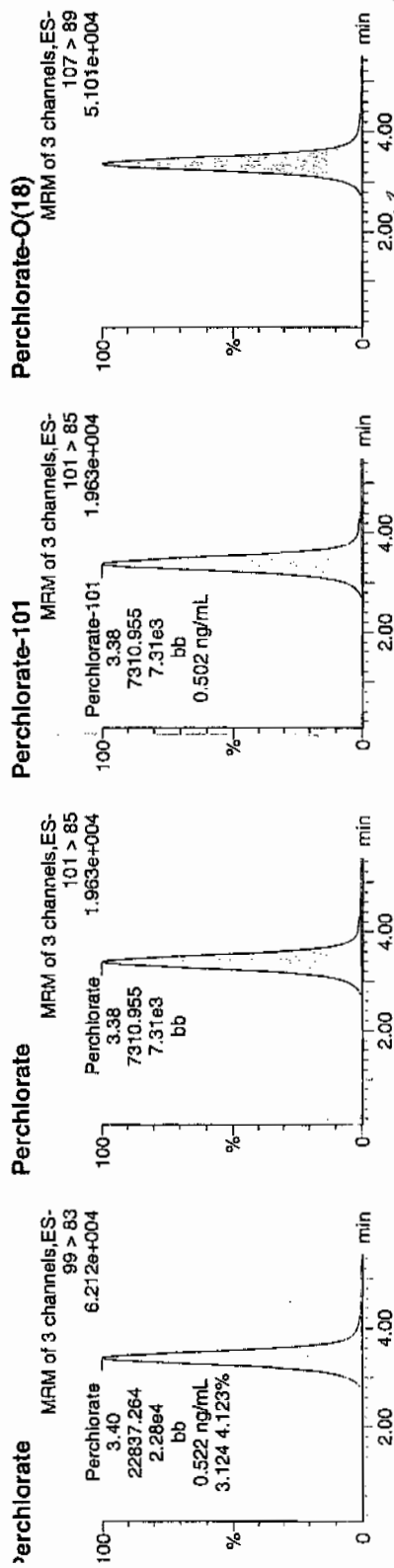
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charfers W. Wilson

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

Sample Name: per0301119a
Date: 02-Mar-2010
Time: 05:39:07
D: WCL100227-06CCV
/ial: 1:2,A

Perchlorate
03-02-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
JCL100227-06CCV Perchlorate	99 > 83	3.40	22837.264	22837.264	bb			0.5219	104.38	4.38	2399.8...	3.12
JCL100227-06CCV Perchlorate-101	101 > 85	3.38	7310.955	7310.955	bb			0.5020	100.40	0.40	1114.9...	
JCL100227-06CCV Perchlorate-O(18)	107 > 89	3.37	18701.783	18701.783	bb			0.4785	95.71	-4.29	721.836	

Perchlorate MDL Verification

GEL Job No.(SDG): 10-1951

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	99.46	01-MAR-10 14:12	per0301011a
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 MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1951

Lab Code: GEL

Reporting Units: ug/L

Perchlorate-101	.05	.04	88.6	01-MAR-10 18:47	per0301043a
Perchlorate	.05	.05	96.12	01-MAR-10 20:38	per0301056a
Perchlorate Isotope Ratio		3.2		01-MAR-10 20:38	per0301056a
Perchlorate-101	.05	.05	90.1	01-MAR-10 20:38	per0301056a
Perchlorate	.05	.05	94.34	01-MAR-10 22:30	per0301069a
Perchlorate Isotope Ratio		2.9		01-MAR-10 22:30	per0301069a
Perchlorate-101	.05	.05	97.68	01-MAR-10 22:30	per0301069a
Perchlorate	.05	.05	102.56	02-MAR-10 00:21	per0301082a
Perchlorate Isotope Ratio		3.11		02-MAR-10 00:21	per0301082a
Perchlorate-101	.05	.05	98.97	02-MAR-10 00:21	per0301082a
Perchlorate	.05	.05	93.81	02-MAR-10 02:13	per0301095a

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1951

Lab Code: GEL

Reporting Units: ug/L

Perchlorate Isotope Ratio		3		02-MAR-10 02:13	per0301095a
Perchlorate-101	.05	.05	94.03	02-MAR-10 02:13	per0301095a
Perchlorate	.05	.04	87.45	02-MAR-10 04:05	per0301108a
Perchlorate Isotope Ratio		3.21		02-MAR-10 04:05	per0301108a
Perchlorate-101	.05	.04	81.87	02-MAR-10 04:05	per0301108a
Perchlorate	.05	.05	102.25	02-MAR-10 05:56	per0301121a
Perchlorate Isotope Ratio		3.23		02-MAR-10 05:56	per0301121a
Perchlorate-101	.05	.05	95.21	02-MAR-10 05:56	per0301121a

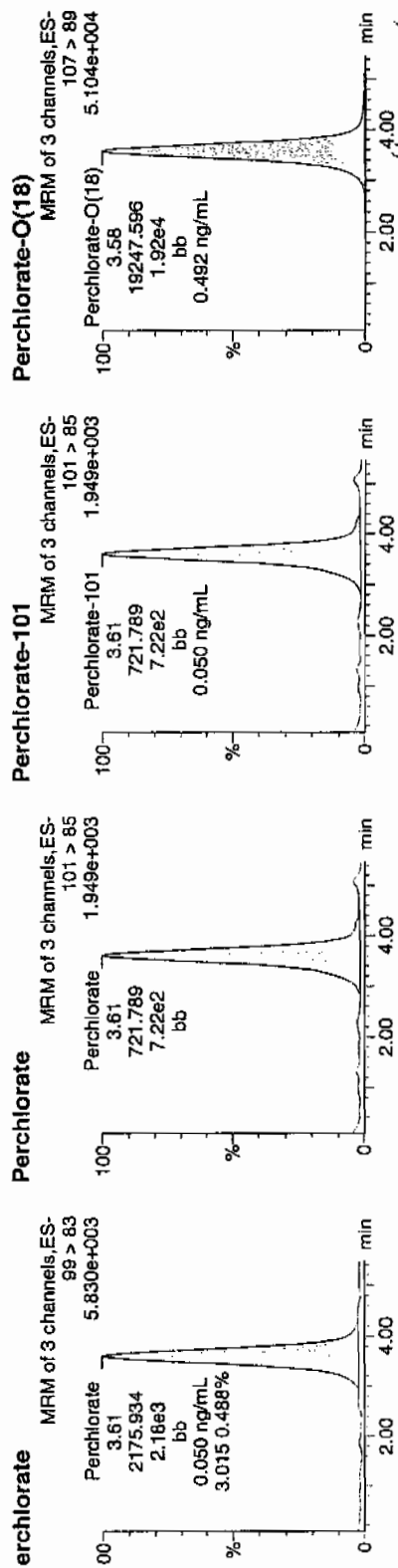
Quantify Sample Report MassLynx 4.0 SP4
 the GEL Group, LLC Analyst: Charlers W. Wilson

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

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

ame: per0301011a
 ate: 01-Mar-2010
 ime: 14:12:58
 : WCL100227-07CRI
 ial: 1:2,B

Run
 and
 03-07-10



Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
VCL100227-07CRI	3.61	2175.934	2175.934	bb			0.0497	99.46	-0.54	242.908	3.01
VCL100227-07CRI	3.61	721.789	721.789	bb			0.0496	99.12	-0.88	145.259	
VCL100227-07CRI	3.58	19247.596	19247.596	bb			0.4925	98.50	-1.50	5397.8...	

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

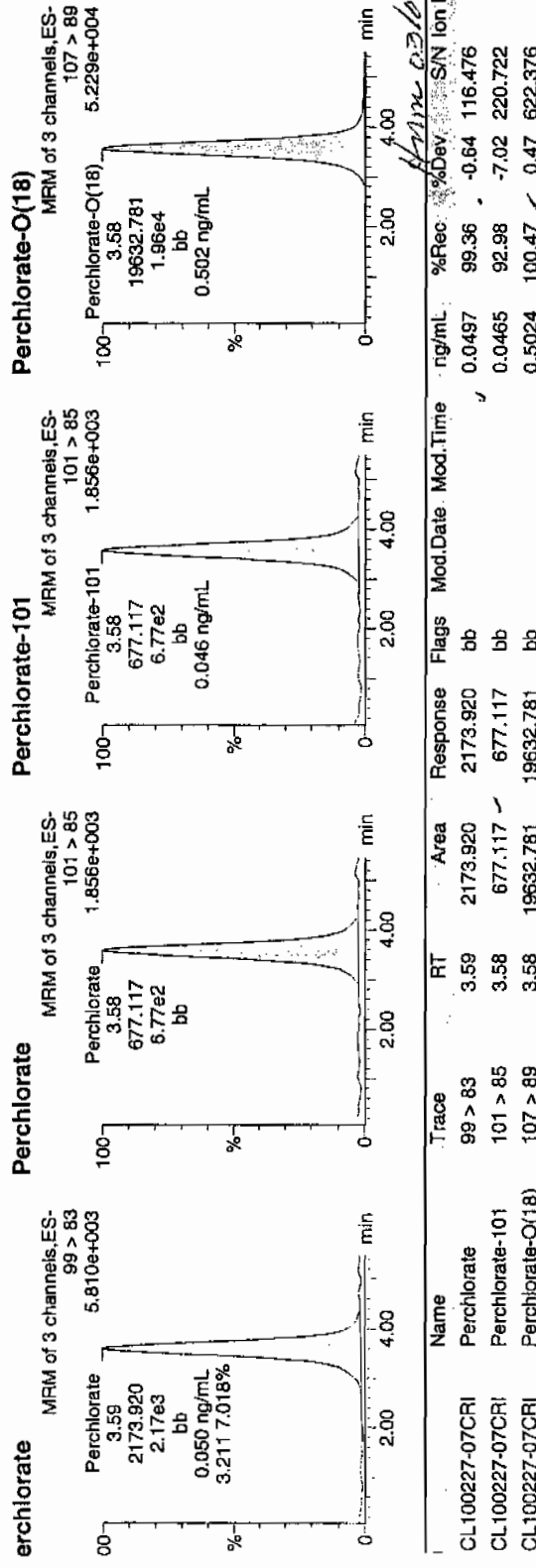
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles W. Wilson

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

Sample Name: per0301021a
Date: 01-Mar-2010
Time: 15:38:29
Job: WCL100227-07CRI
Label: 1:2,B

Per
WCL
03-02-10



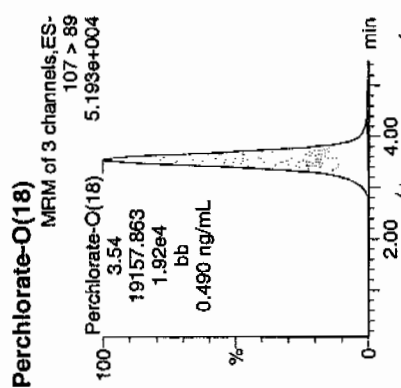
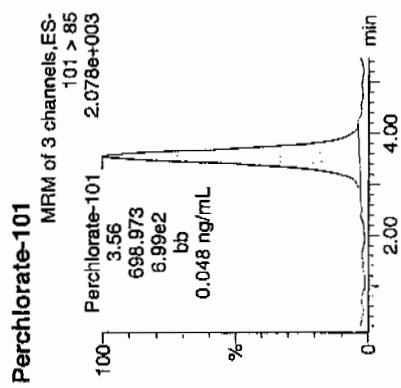
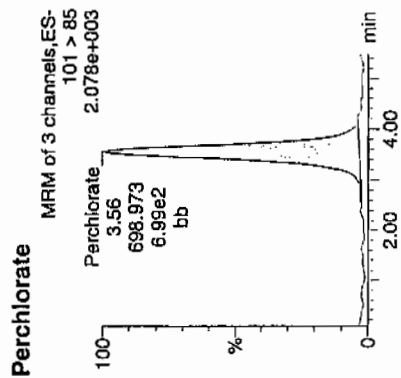
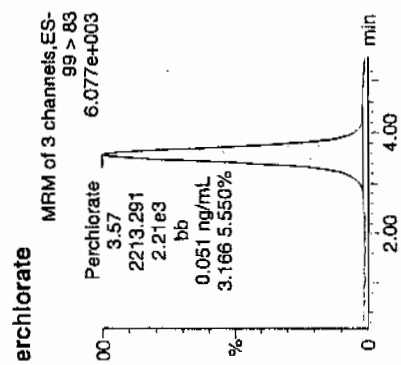
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles W. Wilson

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

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

Sample: per0301031a
Date: 01-Mar-2010
Time: 17:04:11
File: WCL100227-07CRI
Label: 1:2,B

Per
603-02-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100227-07CRI	Perchlorate	3.57	2213.291	2213.291	bb			0.0506	101.16	1.16	529.756	3.17
CL100227-07CRI	Perchlorate-101	3.56	698.973	698.973	bb			0.0480	95.99	-4.01	73.196	
CL100227-07CRI	Perchlorate-O(18)	3.54	19157.863	19157.863	bb			0.4902	98.04	-1.96	906.699	

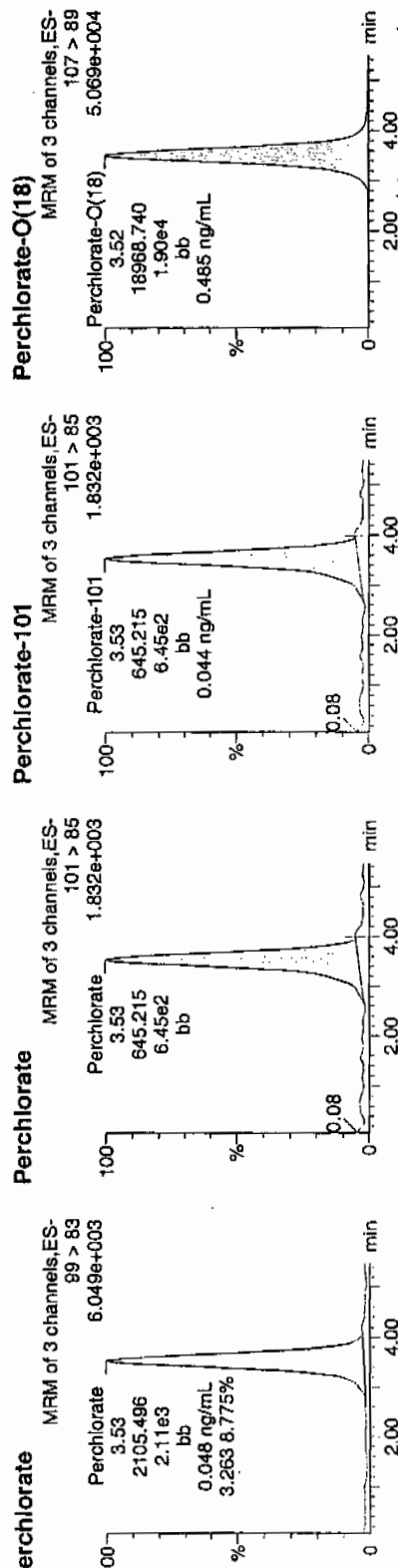
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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

Sample Name: per0301043a
Date: 01-Mar-2010
Time: 18:47:22
File: WCL100227-07CRI
Label: 1:2,B

Per
03-02-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100227-07CRI	99 > 83	3.53	2105.496	2105.496	bb			0.0481	96.24	-3.76	827.986	3.26
CL100227-07CRI	101 > 85	3.53	645.215	645.215	bb			0.0443	88.60	-11.40	257.268	
CL100227-07CRI	107 > 89	3.52	18968.740	18968.740	bb			0.4854	97.07	-2.93	1758.6...	

Quantify Sample Report MassLynx 4.0 SP4

the GEL Group, LLC Analyst: Charlers W. Wilson

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

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

Sample Name: per0301056a

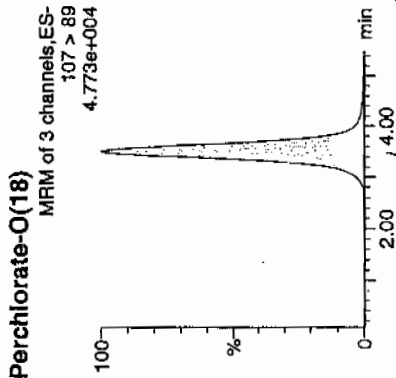
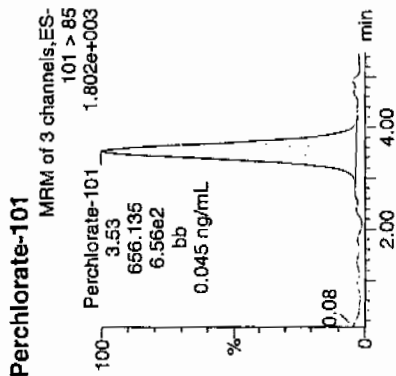
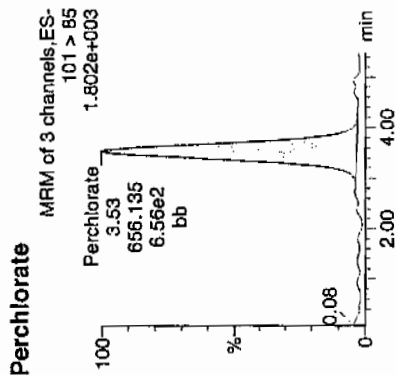
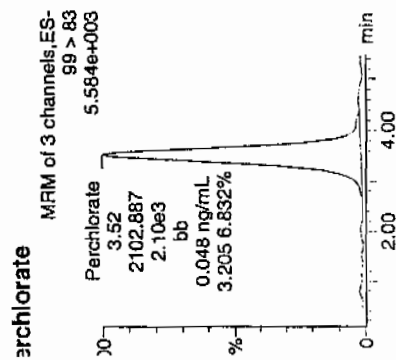
Date: 01-Mar-2010

Time: 20:38:45

File: WCL100227-07CRI

Label: 1:2,B

Perchlorate
03-02-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100227-07CRI	Perchlorate	99 > 83	3.52	2102.887	bb			0.0481	98.12	-3.88	278.094	3.20
CL100227-07CRI	Perchlorate-101	101 > 85	3.53	656.135	bb			0.0451	90.10	-9.90	39.658	
CL100227-07CRI	Perchlorate-O(18)	107 > 89	3.51	18146.938	bb			0.4643	92.87	-7.13	545.026	

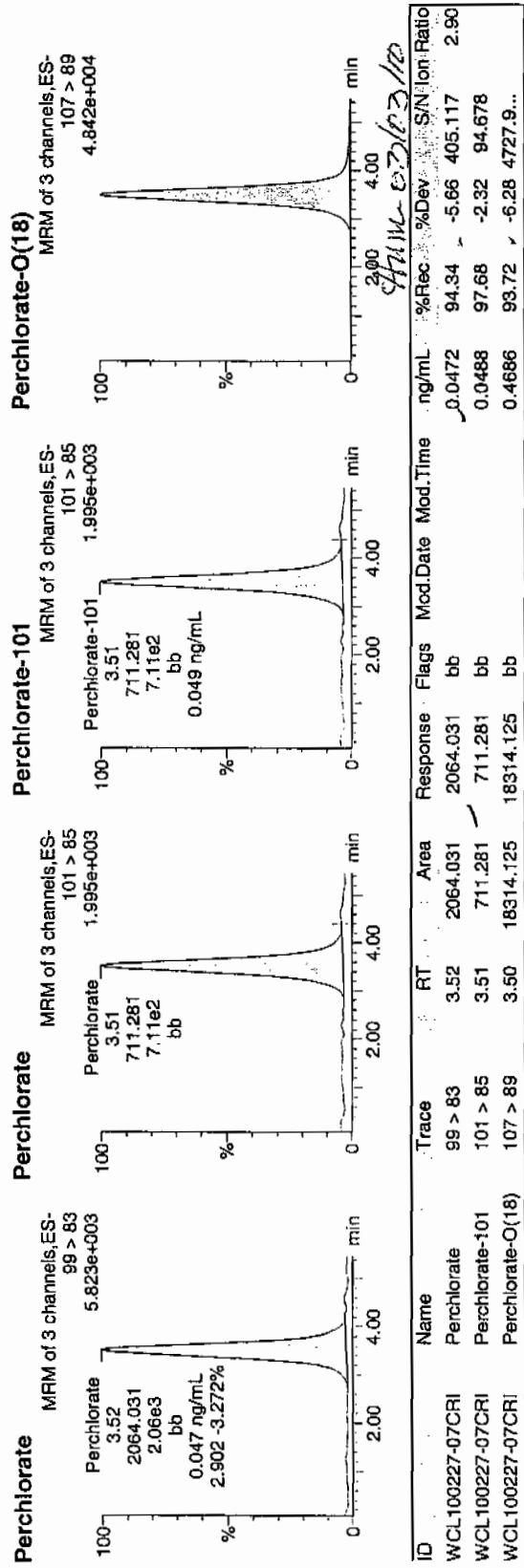
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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: per0301069a
Date: 01-Mar-2010
Time: 22:30:09
ID: WCL100227-07CRI
Vial: 1:2,B

Per
and
03-02-10



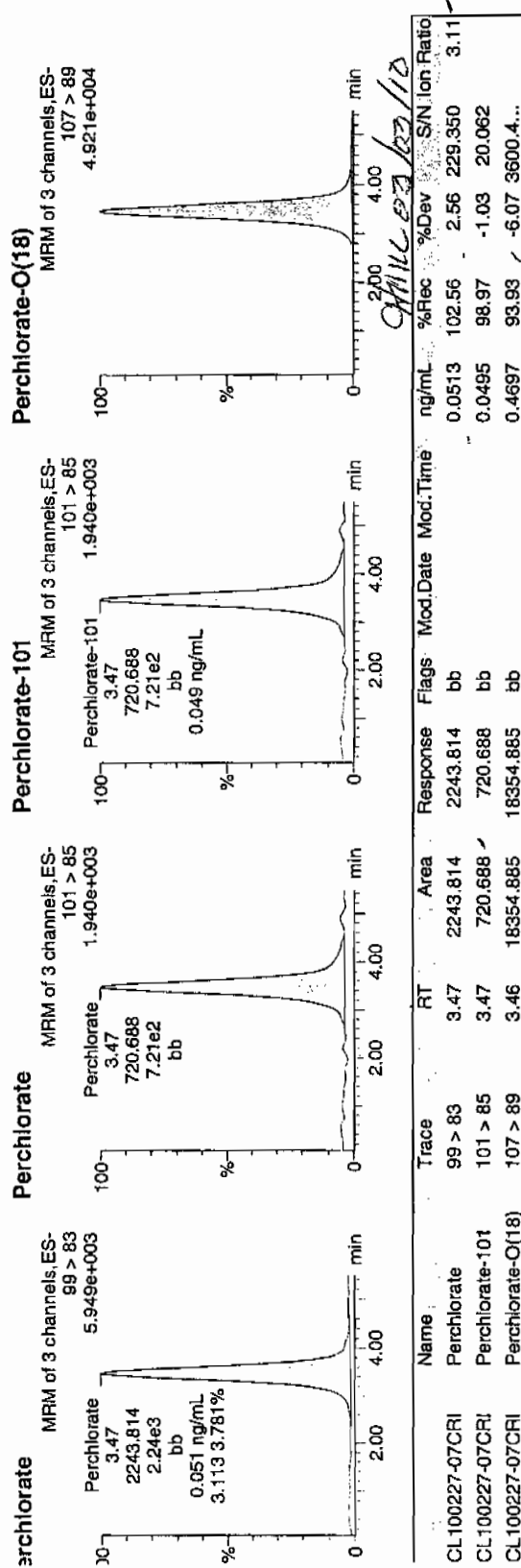
uantify Sample Report MassLynx 4.0 SP4
ne GEL Group, LLC Analyst: Charlers W. Wilson

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

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

Pass
6-2-10

ame: per0301082a
ate: 02-Mar-2010
me: 00:21:39
i: WCL100227-07CRI
al: 1:2,B



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100227-07CRI	Perchlorate	3.47	2243.814	2243.814	bb			0.0513	102.56	2.56	229.350	3.11
CL100227-07CRI	Perchlorate-101	3.47	720.688	720.688	bb			0.0495	98.97	-1.03	20.062	
CL100227-07CRI	Perchlorate-O(18)	3.46	18354.885	18354.885	bb			0.4697	93.93	-6.07	3600.4...	

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

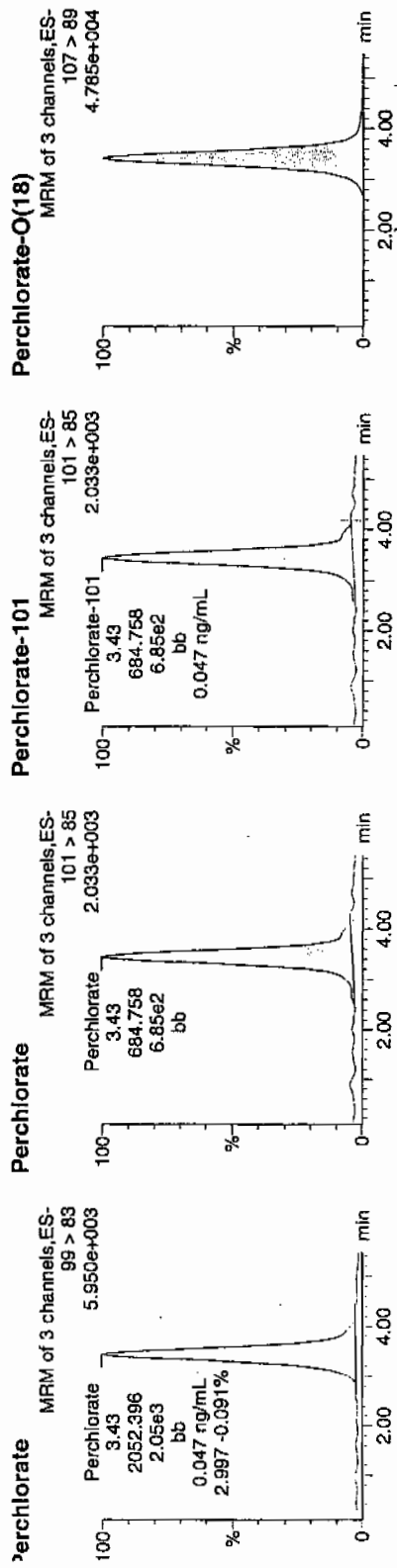
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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: per0301095a
Date: 02-Mar-2010
Time: 02:13:22
D: WCL100227-07CRI
Vial: 1:2,B

Per
03-02-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
/CL100227-07CRI	Perchlorate	99 > 83	3.43	2052.396	bb			0.0469	93.81	-6.19	251.060	3.00
/CL100227-07CRI	Perchlorate-101	101 > 85	3.43	684.758	bb			0.0470	94.03	-5.97	572.962	
/CL100227-07CRI	Perchlorate-O(18)	107 > 89	3.42	17540.381	bb			0.4488	89.76	-10.24	3516.1...	

HYPER 03/03/10

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

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

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Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Sample Name: per0301108a

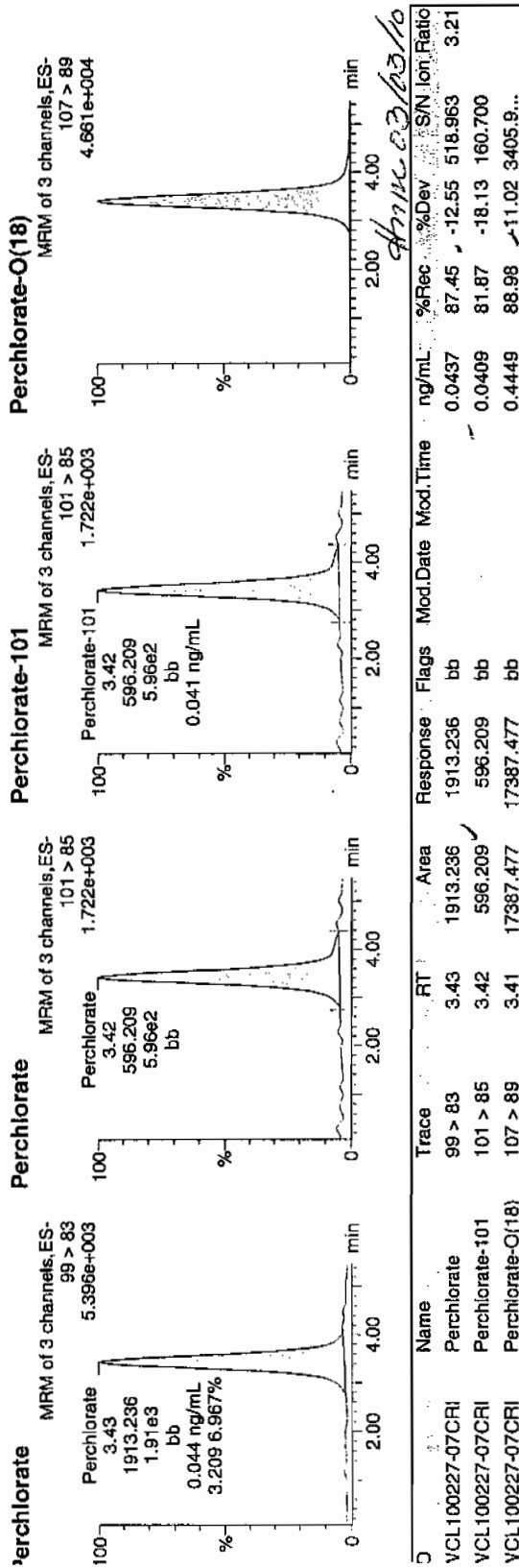
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Time: 04:05:07

D: WCL100227-07CRI

File: 1:2,B

*Per
03-02-10*



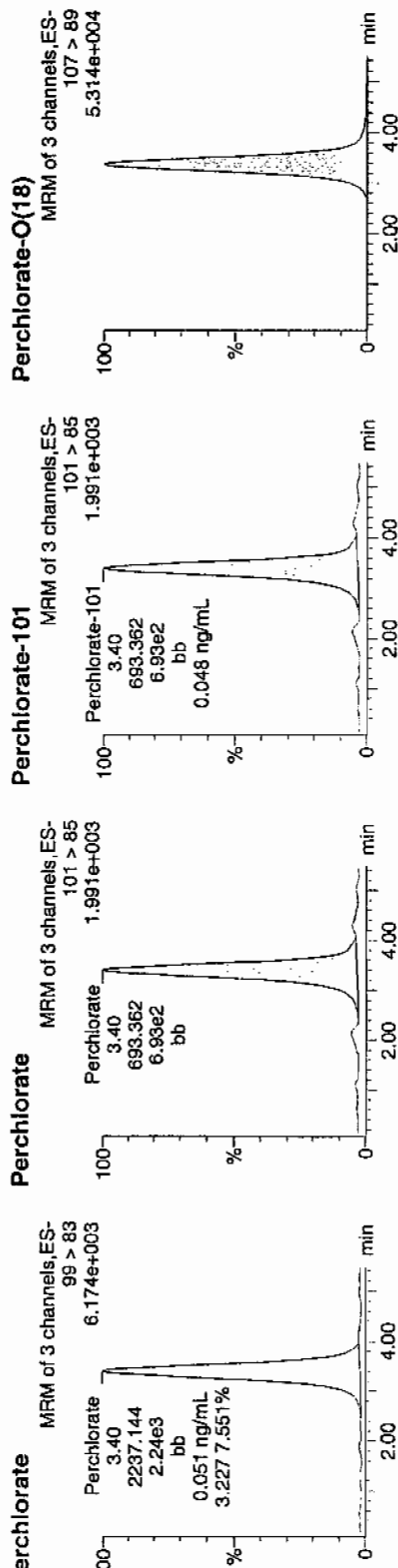
uantify Sample Report MassLynx 4.0 SP4
ne GEL Group, LLC Analyst: Charlers W. Wilson

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

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

ame: per0301121a
ate: 02-Mar-2010
ime: 05:56:24
): WCL100227-07CRI
ial: 1:2,B

Per
03-02-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
'CL100227-07CRI	Perchlorate	99 > 83	3.40	2237.144	2237.144	bb		0.0511	102.25	2.25	230.488	3.23
'CL100227-07CRI	Perchlorate-101	101 > 85	3.40	693.362	693.362	bb		0.0476	95.21	-4.79	275.471	
'CL100227-07CRI	Perchlorate-O(18)	107 > 89	3.37	19497.398	19497.398	bb		0.4989	99.78	-0.22	1379.6...	

QUALITY CONTROL

Perchlorate Analysis Data Sheet

Client Sample No.

MB

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Date Received: 25-FEB-10

Instrument: LCMSMS

GEL Job No (SDG): 10-1951

Method: EPA 6850 Modified

GEL Sample ID: 1202052905

Matrix: WATER

Date Filtered: 25-FEB-10

Extraction Batch ID: 957436

Injection Volume (uL): 20

Extraction Type: Filter/DAI

%Solids:

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	02-MAR-10 02:47	per0301099a
	Perchlorate Isotope Ratio						1	02-MAR-10 02:47	per0301099a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	02-MAR-10 02:47	per0301099a
	Perchlorate-O(18)			0.459	ug/L		1	02-MAR-10 02:47	per0301099a

[^] 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\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

Sample Name: per0301099a

Date: 02-Mar-2010

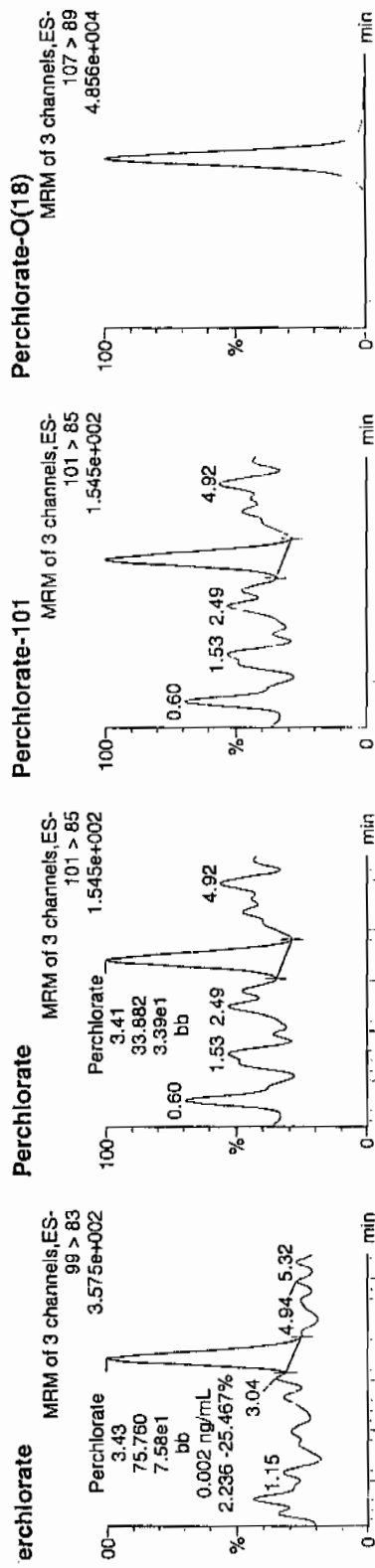
Time: 02:47:58

ID: 1202052905

Label: 3:1,A

1574251 | 2013/11

03-02-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
02052905	Perchlorate	99 > 83	3.43	75.760	bb			0.0017	17.194	2.24	0.004	0.004
02052905	Perchlorate-101	101 > 85	3.41	33.882	bb			0.0023	18.276		0.004	0.004
02052905	Perchlorate-O(18)	107 > 89	3.42	17957.791	bb			0.4595	91.90	-8.10	2507.1...	2507.1...

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WATER

Extraction Batch ID: 257436

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.

LCS

Date Received: 25-FEB-10

GEL Job No (SDG): 10-1951

GEL Sample ID: 1202052906

Date Filtered: 25-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.219	ug/L		1	02-MAR-10 02:56	per0301100a
	Perchlorate Isotope Ratio			3.02			1	02-MAR-10 02:56	per0301100a
14797-73-0	Perchlorate-101	.05	.2	0.217	ug/L		1	02-MAR-10 02:56	per0301100a
	Perchlorate-O(18)			0.464	ug/L		1	02-MAR-10 02:56	per0301100a

[^] 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 $\frac{1}{\% \text{Solids}}$
Aliquot

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

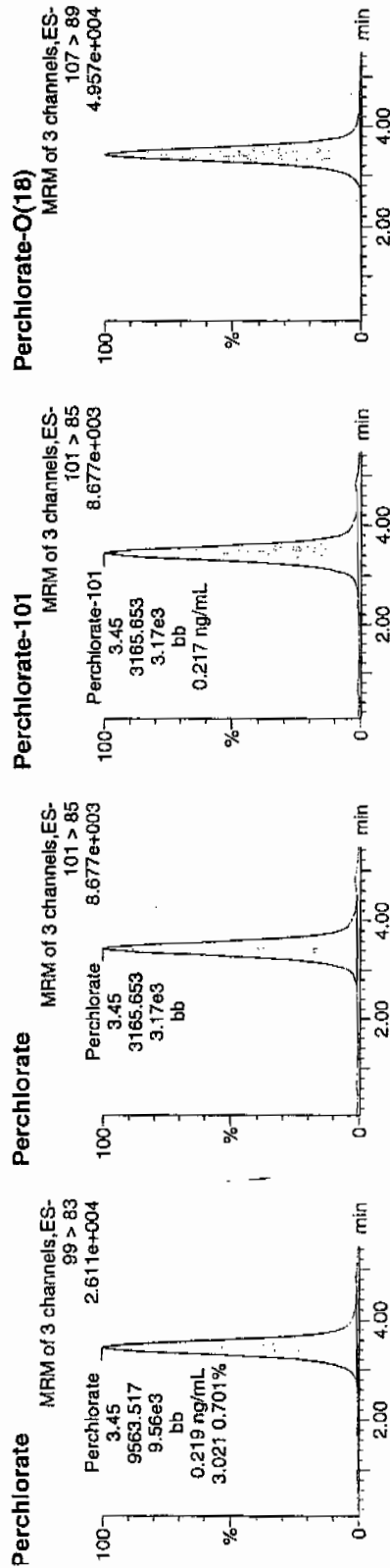
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Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Name: per0301100a
Date: 02-Mar-2010
Time: 02:56:42
ID: 1202052906
Vial: 3:1,B

169201957439 1202052906 11

03-02-10



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202052906	Perchlorate	99 > 83	3.45	9563.517	9563.517	bb			-0.2186	109.28	9.28	1109.7...	3.02
202052906	Perchlorate-101	101 > 85	3.45	3185.653	3185.653	bb			0.2174	108.68	8.68	1019.8...	
202052906	Perchlorate-O(18)	107 > 89	3.43	18150.789	18150.789	bb			0.4644	92.89	-7.11	2961.5...	

9563.517
43756.3
0.2186
4/11/10 03/03/10

MISCELLANEOUS DATA

Prep Logbook

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

Batch ID: 957436 Verified by: _____
 Analyst: Charles Wilson Lab SOP: GL-OA-E-067 REV# 6
 Method: SW846 6850 Modified Instrument: MicroMass Quattro Ultima

Sample ID	Run Date	Initial Volume (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202052905 MB	25-FEB-2010 11:13:00	10	10	1
1202052906 LCS	25-FEB-2010 11:13:00	10	10	1
247434001	25-FEB-2010 11:13:00	10	10	1
247437006	25-FEB-2010 11:13:00	10	10	1
247438001	25-FEB-2010 11:13:00	10	10	1
247441001	25-FEB-2010 11:13:00	10	10	1
247443004	25-FEB-2010 11:13:00	10	10	1
247449001	25-FEB-2010 11:13:00	10	10	1
247548001	25-FEB-2010 11:13:00	10	10	1
247548002	25-FEB-2010 11:13:00	10	10	1
247559001	25-FEB-2010 11:13:00	10	10	1
247560001	25-FEB-2010 11:13:00	10	10	1
247567001	25-FEB-2010 11:13:00	10	10	1
247771001	25-FEB-2010 11:13:00	10	10	1
247780001	25-FEB-2010 11:13:00	10	10	1
247793001	25-FEB-2010 11:13:00	10	10	1
247807001	25-FEB-2010 11:13:00	10	10	1
1202052907 NIS (247807001)	25-FEB-2010 11:13:00	10	10	1
1202052908 MSD (247807001)	25-FEB-2010 11:13:00	10	10	1
247807002	25-FEB-2010 11:13:00	10	10	1
247807003	25-FEB-2010 11:13:00	10	10	1
247807004	25-FEB-2010 11:13:00	10	10	1
1202052909 ICS	25-FEB-2010 11:13:00	10	10	1

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
ICS	1202052909	10 ug/L ICV/CCV Second Source	UCL100210-02.1	.2	mL	Desalting cartridges used: BJ0003K0402 (IC-Ba) & BJ0005J0812
LCS	1202052906	10 ug/L ICV/CCV Second Source	UCL100210-02.1	.2	mL	
MS	1202052907	10 ug/L ICV/CCV Second Source	UCL100210-02.1	.2	mL	
MSD	1202052908	10 ug/L ICV/CCV Second Source	UCL100210-02.1	.2	mL	
RGNT	All	Q251 HPLC Grade Water	1261217	10	mL	
RGNT	All	500 ppm Carbonate, Bicarbonate, Chloride, Sulfate	1262643	10	mL	

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCM SMS#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: *hmc*
 Date: *3/23/10*
 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

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

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

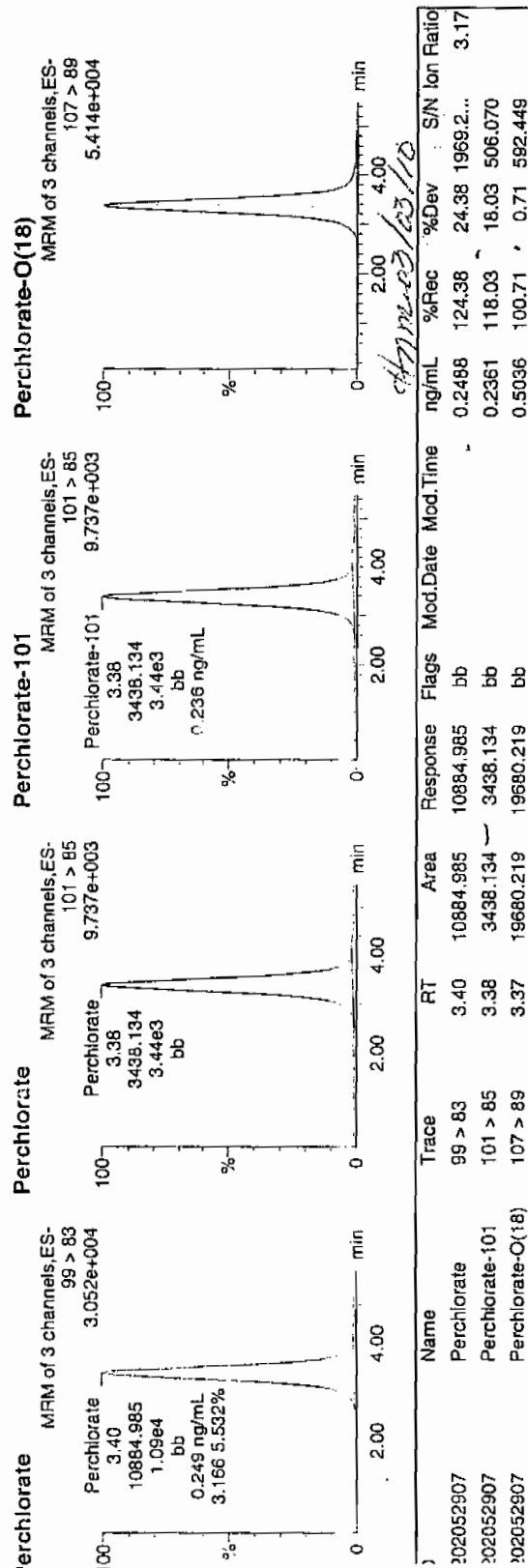
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Last Altered: Tuesday, March 02, 2010 8:52:39 AM Eastern Standard Time
Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Name: per0301123a
Date: 02-Mar-2010
Time: 06:13:41
D: 1202052907
Fial: 3:4,A

000000-10

LAN-1374731-1202052907



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

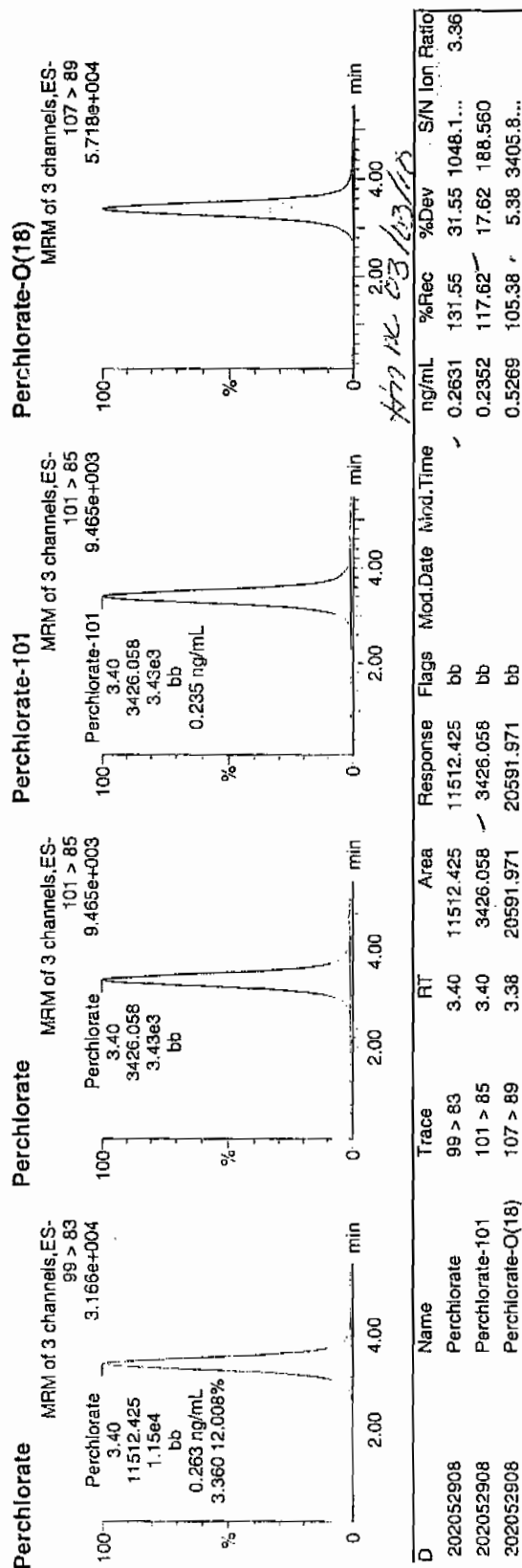
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Last Altered: Tuesday, March 02, 2010 8:52:39 AM Eastern Standard Time
Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Name: per0301124a
Date: 02-Mar-2010
Time: 06:22:14
ID: 1202052908
Vial: 3:4,B

LAUW-195743-1 | L20 | MS0 | 1 | 1

6000
0302-10



GEL Laboratories LLC
Form GEL-DER

DER Report No.: 797970
Revision No.: 1

DATA EXCEPTION REPORT

Mo.Day Yr. 02-MAR-10	Division: Industrial	Quality Criteria: Specifications	Type: Process
Instrument Type: LC-MS/MS	Test / Method: SW846 6850 Modified	Matrix Type: Liquid	Client Code: LANL
Batch ID: 957439	Sample Numbers: See Below		
<p>Potentially affected work order(s)(SDG): 247434(10-1929),247437(10-1931),247438(10-1932),247441(10-1934),247443(10-1935),247449(10-1936),247548(10-1965-1),247559(10-1954-1),247560(10-1951),247567(10-1957-1),247771(10-1973-1),247780(10-1976),247793(10-1983),247807(10-1991-1)</p> <p>Application Issues:</p> <p>Failed Recovery for MSD/PSD</p>			
Specification and Requirements Exception Description:		DER Disposition:	
<p>1. High recovery for Perchlorate was observed in 1202052908 (MSD). The recovery was 130% and the acceptance range is 75-125%.</p>		<p>1. The high recovery may be the result of sample matrix. Similar recoveries were observed in 1202052907 (MS).</p>	

Originator's Name:
Charles Wilson 02-MAR-10

Data Validator/Group Leader:
Herbert Maier 03-MAR-10

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 10-1951-1**

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: 964182

Prep Batch Number: 964159

Sample Analysis

Sample ID	Client ID
247561001	RE15-10-8314
247561002	RE15-10-8313
247561003	RE15-10-8312
247561004	RE15-10-8315
247561005	RE15-10-8311
247561006	RE15-10-8310
247561007	RE15-10-8303
247561008	RE15-10-8302
1202068508	Interference Check Sample (ICS)
1202068504	Method Blank (MB)
1202068505	Laboratory Control Sample (LCS)
1202068506	247561001(RE15-10-8314) Matrix Spike (MS)
1202068507	247561001(RE15-10-8314) Matrix Spike Duplicate (MSD)

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

10-1951-1-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 247561001 (RE15-10-8314) 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.

10-1951-1-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

The SDG was re-extracted within holding time due to the LCS failing acceptance criteria. All passed the re-extraction and analysis except samples 247561004 (RE15-10-8315), 247561005 (RE15-10-8311), 247561006 (RE15-10-8310), 247561007 (RE15-10-8303) and 247561008 (RE15-10-8302). Samples 247561004 (RE15-10-8315), 247561005 (RE15-10-8311), 247561006 (RE15-10-8310), 247561007 (RE15-10-8303) and 247561008 (RE15-10-8302) required re-analysis due to bracketing CCV failure. Samples were re-analyzed and passed acceptance criteria. The last re-analysis in each case 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.

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: Herbert K. Mauer Date: 03/16/10

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: 964159
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE15-10-8314
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1951-1
 GEL Sample ID: 247561001
 Date Filtered: 11-MAR-10
 Injection Volume (uL): 20
 %Solids: 97.3

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.514	2.06	2.47	ug/kg		1	12-MAR-10 05:34	per0311069a
	Perchlorate Isotope Ratio			3.05			1	12-MAR-10 05:34	per0311069a
14797-73-0	Perchlorate-101	.514	2.06	2.32	ug/kg		1	12-MAR-10 05:34	per0311069a
	Perchlorate-O(18)			6.00	ug/kg		1	12-MAR-10 05:34	per0311069a

[^] 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 =

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

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC Client Sample No. RE15-10-8313

Lab Code: GEL Date Received: 20-FEB-10

Instrument: LCMSMS GEL Job No (SDG): 10-1951-1

Method: SW846 6850 Modified GEL Sample ID: 247561002

Matrix: SOIL Date Filtered: 11-MAR-10

Extraction Batch ID: 964159 Injection Volume (uL): 20

Extraction Type: Solid Prep %Solids: 96.4

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.07	0.519	ug/kg	U	1	12-MAR-10 06:01	per0311072a
	Perchlorate Isotope Ratio						1	12-MAR-10 06:01	per0311072a
14797-73-0	Perchlorate-101	.519	2.07	0.519	ug/kg	U	1	12-MAR-10 06:01	per0311072a
	Perchlorate-O(18)			5.36	ug/kg		1	12-MAR-10 06:01	per0311072a

[^] 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 $\frac{1}{\% \text{Solids}}$
Aliquot

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964159

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8312

Date Received: 20-FEB-10

GEL Job No (SDG): 10-1951-1

GEL Sample ID: 247561003

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids: 94.8

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.527	2.11	0.527	ug/kg	U	1	12-MAR-10 06:10	per0311073a
	Perchlorate Isotope Ratio						1	12-MAR-10 06:10	per0311073a
14797-73-0	Perchlorate-101	.527	2.11	0.527	ug/kg	U	1	12-MAR-10 06:10	per0311073a
	Perchlorate-O(18)			5.59	ug/kg		1	12-MAR-10 06:10	per0311073a

[^] 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: 264159
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE15-10-8315
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1951-I
 GEL Sample ID: 247561004
 Date Filtered: 11-MAR-10
 Injection Volume (uL): 20
 %Solids: 96.6

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.517	2.07	1.06	ug/kg	J	1	12-MAR-10 10:44	per0312014a
	Perchlorate Isotope Ratio			3.02			1	12-MAR-10 10:44	per0312014a
14797-73-0	Perchlorate-101	.517	2.07	1.07	ug/kg	J	1	12-MAR-10 10:44	per0312014a
	Perchlorate-O(18)			5.47	ug/kg		1	12-MAR-10 10:44	per0312014a

[^] 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: 964159

Extraction Type: Solid Prep

Client Sample No.

RE15-10-8311

Date Received: 20-FEB-10

GEL Job No (SDG): 10-1951-1

GEL Sample ID: 247561005

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids: 96.3

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.08	0.519	ug/kg	U	1	12-MAR-10 10:53	per0312015a
	Perchlorate Isotope Ratio						1	12-MAR-10 10:53	per0312015a
14797-73-0	Perchlorate-101	.519	2.08	0.519	ug/kg	U	1	12-MAR-10 10:53	per0312015a
	Perchlorate-O(18)			5.30	ug/kg		1	12-MAR-10 10:53	per0312015a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1
Aliquot %Solids

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC
 Lab Code: GEL
 Instrument: LCMSMS
 Method: SW846 6850 Modified
 Matrix: SOIL
 Extraction Batch ID: 964159
 Extraction Type: Solid Prep
 Client Sample No. RE15-10-8310
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1951-1
 GEL Sample ID: 247561006
 Date Filtered: 11-MAR-10
 Injection Volume (uL): 20
 %Solids: 96.3

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.08	0.621	ug/kg	J	1	12-MAR-10 11:02	per0312016a
	Perchlorate Isotope Ratio			3.05			1	12-MAR-10 11:02	per0312016a
14797-73-0	Perchlorate-101	.519	2.08	0.620	ug/kg	J	1	12-MAR-10 11:02	per0312016a
	Perchlorate-O(18)			5.52	ug/kg		1	12-MAR-10 11:02	per0312016a

[^] 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: 964159
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE15-10-8303
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1951-1
 GEL Sample ID: 247561007
 Date Filtered: 11-MAR-10
 Injection Volume (uL): 20
 %Solids: 96.8

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.516	2.07	0.516	ug/kg	U	1	12-MAR-10 11:11	per0312017a
	Perchlorate Isotope Ratio						1	12-MAR-10 11:11	per0312017a
14797-73-0	Perchlorate-101	.516	2.07	0.516	ug/kg	U	1	12-MAR-10 11:11	per0312017a
	Perchlorate-O(18)			5.36	ug/kg		1	12-MAR-10 11:11	per0312017a

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

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

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 964159

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8302

Date Received: 20-FEB-10

GEL Job No (SDG): 10-1951-1

GEL Sample ID: 247561008

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids: 94.8

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.527	2.11	0.527	ug/kg	U	1	12-MAR-10 11:20	per0312018a
	Perchlorate Isotope Ratio						1	12-MAR-10 11:20	per0312018a
14797-73-0	Perchlorate-101	.527	2.11	0.527	ug/kg	U	1	12-MAR-10 11:20	per0312018a
	Perchlorate-O(18)			5.60	ug/kg		1	12-MAR-10 11:20	per0312018a

[^] 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): 10-1951-1

Extract Batch Code: 964159

Date Filtered: 11-MAR-10

Matrix: SOIL

Sample ID: 1202068505

Analyte [^]	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.19	ug/kg	110		70 - 130
Perchlorate Isotope Ratio		2.97				-
Perchlorate-101	2.00	2.12	ug/kg	106		70 - 130
Perchlorate-O(18)		5.09	ug/kg			-

[^] 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): 10-1951-1

Extract Batch Code: 964159 Date Filtered: 11-MAR-10

Matrix: SOIL Sample ID: 1202068508

Analyte [^]	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.46	ug/kg	123		70 - 130
Perchlorate Isotope Ratio		2.93				
Perchlorate-101	2.00	2.41	ug/kg	120		70 - 130
Perchlorate-O(18)		5.51	ug/kg			

[^] 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

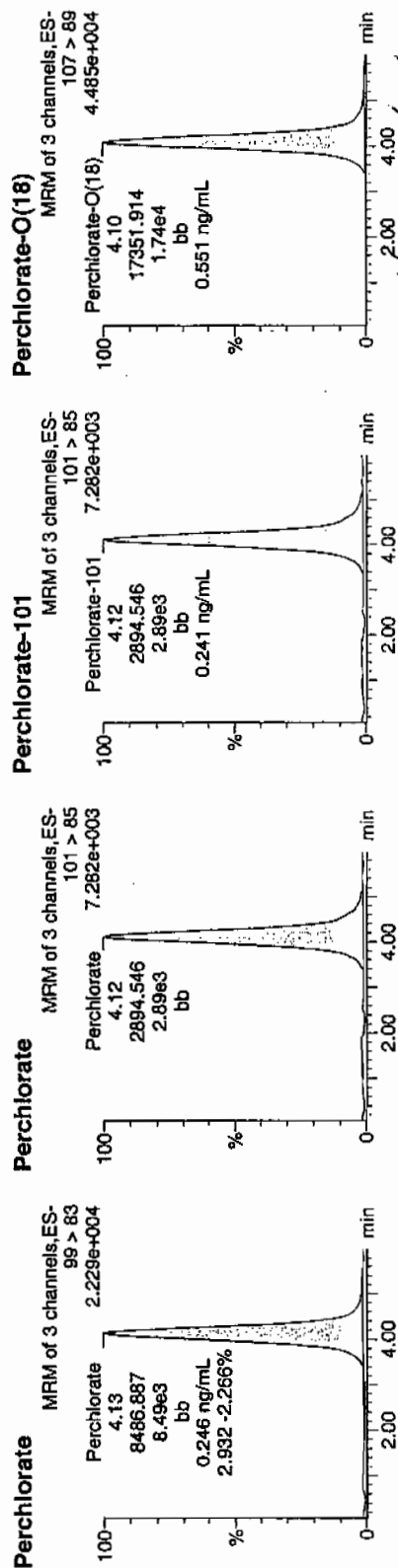
Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311053a
Date: 12-Mar-2010
Time: 03:09:17
ID: 1202068508
Vial: 2:1,C

03-12-10

15000 | 964132 | 5000 | 1.5 | 1.1



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202068508	Perchlorate	99 > 83	4.13	8486.887	8486.887	bb			0.2461	123.03	23.03	1137.4...	2.93
1202068508	Perchlorate-101	101 > 85	4.12	2894.546	2894.546	bb			0.2407	120.33	20.33	123.906	
1202068508	Perchlorate-O(18)	107 > 89	4.10	17351.914	17351.914	bb			0.5508	110.15	10.15	1098.2...	

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10-1951-1

Extract Batch Code: 964159

Date Extracted: 11-MAR-10

GEL MS/PS ID: 1202068506

Client ID: RE15-10-8314

GEL MSD/PSD ID: 1202068507

QC Type: MS

Compound [^]	Spike Added	Sample Conc	Units	MS Conc	MS Rec	MSD Conc	MSD Rec	RPD	#	RPD Limit	Recovery Limit
Perchlorate	2.06	2.47	ug/kg	4.90	118	4.74	110	3.24		30	75 - 125
Perchlorate Isotope Ratio	0	0.00		3.01		3.08		0			--
Perchlorate-101	2.06	2.32	ug/kg	4.66	114	4.41	101	5.5		30	75 - 125
Perchlorate-O(18)	0	6.00	ug/kg	5.72		5.75		.43			--

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

Comments:

Form 4

Perchlorate Initial Calibration Blank

GEL Job No.(SDG): 10-1951-1

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	11-MAR-10	per0311001a	IPB001
Perchlorate-101	0.00	0	NA	11-MAR-10	per0311001a	IPB001
Perchlorate	0.00	0	NA	11-MAR-10	per0311002a	IPB001
Perchlorate-101	0.00	0	NA	11-MAR-10	per0311002a	IPB001
Perchlorate	0.00	0	NA	12-MAR-10	per0312001a	IPB001
Perchlorate-101	0.00	0	NA	12-MAR-10	per0312001a	IPB001
Perchlorate	0.00	0	NA	12-MAR-10	per0312002a	IPB001
Perchlorate-101	0.00	0	NA	12-MAR-10	per0312002a	IPB001

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

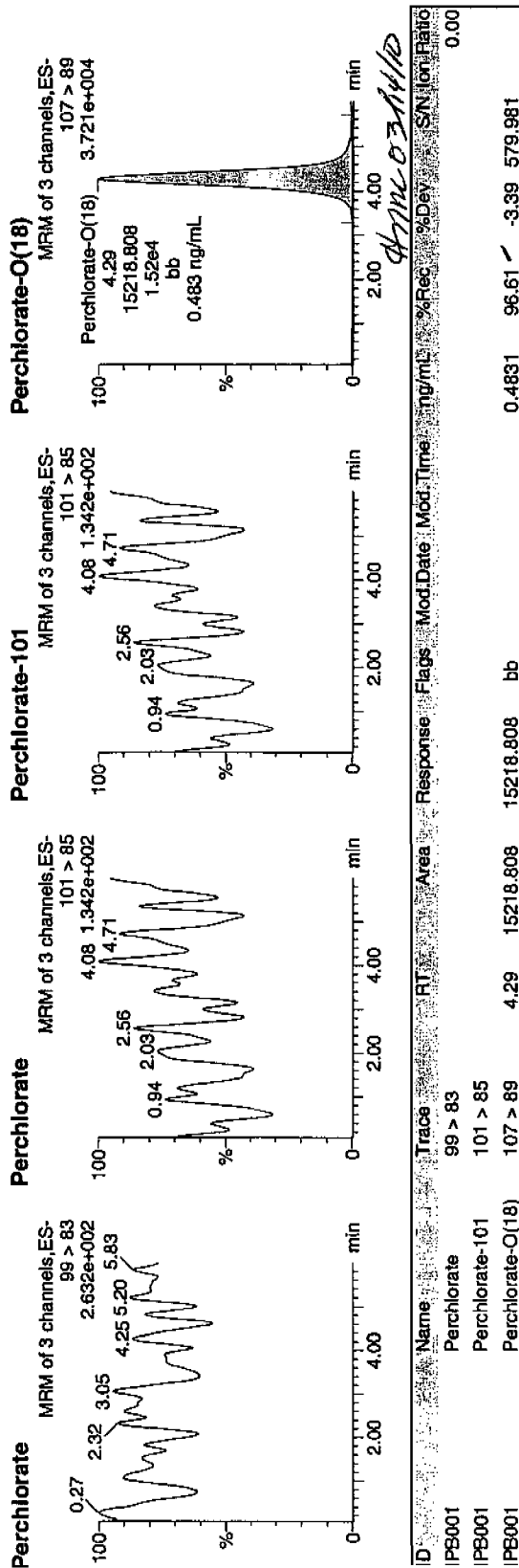
Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per031110a.mdb 12 Mar 2010 09:21:58
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per031110a.cdb 12 Mar 2010 09:22:30

Name: per0311001a
Date: 11-Mar-2010
Time: 19:18:55
ID: IPB001
Vial: 1:1,A

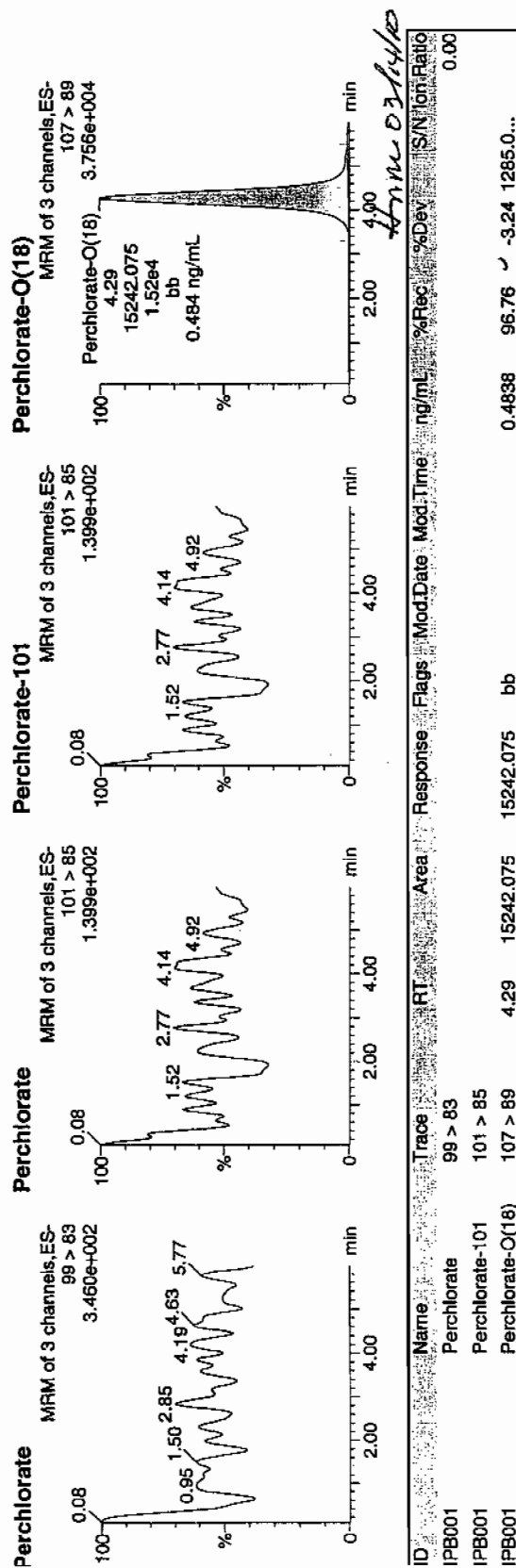
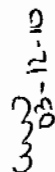
Handwritten:
03-12-10



Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
 Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311002a
Date: 11-Mar-2010
Time: 19:27:57
ID: IPB001
Vial: 1:1,A



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

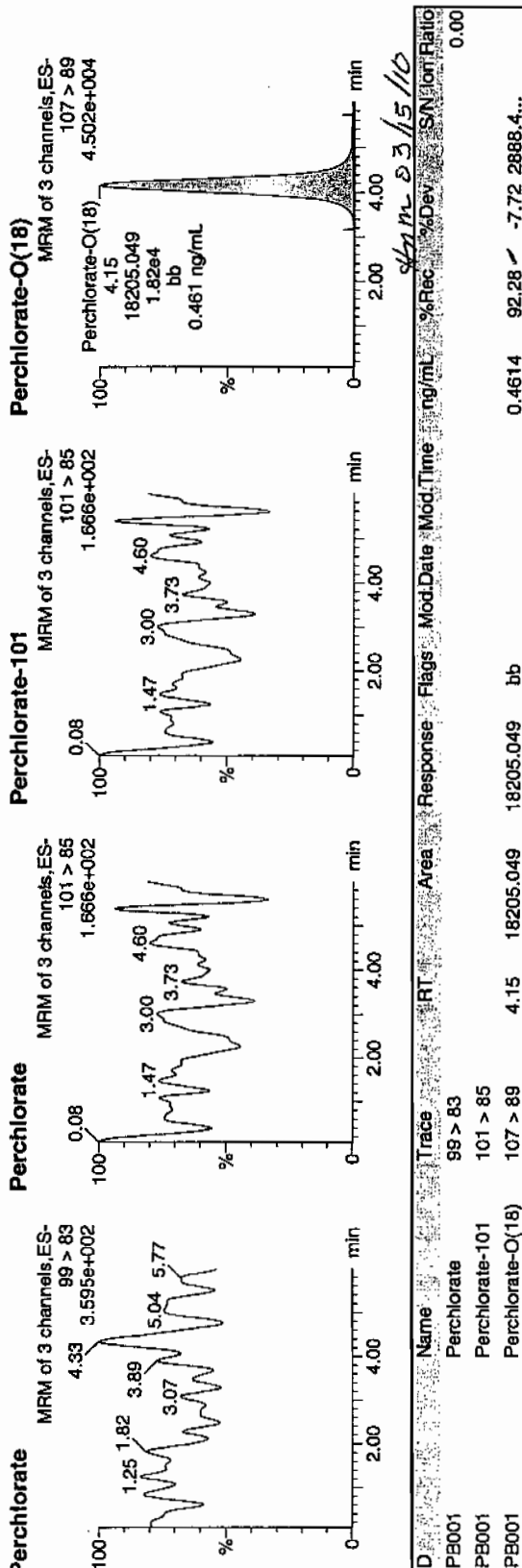
Dataset: C:\MassLynx\Perchlorate.PRO\per031210a.qld

Last Altered: Saturday, March 13, 2010 3:16:18 PM Eastern Standard Time
Printed: Saturday, March 13, 2010 3:47:05 PM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per031210a.mdb 13 Mar 2010 15:15:55
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per031210a.cdb 13 Mar 2010 15:16:16

Name: per0312001a
Date: 12-Mar-2010
Time: 08:46:24
D: IPB001
Vial: 1:1,A

03-13-10



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

Perchlorate Continuing Calibration Blank

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

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1951-1

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	11-MAR-10	per0311008a	IPB002
Perchlorate-101	0.00	0	NA	11-MAR-10	per0311008a	IPB002
Perchlorate	0.00	0	NA	11-MAR-10	per0311010a	IPB003
Perchlorate-101	0.00	0	NA	11-MAR-10	per0311010a	IPB003
Perchlorate	0.00	0	NA	11-MAR-10	per0311023a	IPB004
Perchlorate-101	0.00	0	NA	11-MAR-10	per0311023a	IPB004
Perchlorate	0.00	0	NA	11-MAR-10	per0311030a	IPB005
Perchlorate-101	0.00	0	NA	11-MAR-10	per0311030a	IPB005
Perchlorate	0.00	0	NA	12-MAR-10	per0311036a	IPB006
Perchlorate-101	0.00	0	NA	12-MAR-10	per0311036a	IPB006
Perchlorate	0.00	0	NA	12-MAR-10	per0311049a	IPB007
Perchlorate-101	0.00	0	NA	12-MAR-10	per0311049a	IPB007
Perchlorate	0.00	0	NA	12-MAR-10	per0311062a	IPB008

Perchlorate Continuing Calibration Blank

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

Lab Name: General Engineering LaboratoriesGEL Job No.(SDG): 10-1951-1Lab Code: GELReporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate-101	0.00	0	NA	12-MAR-10	per0311062a	IPB008
Perchlorate	0.00	0	NA	12-MAR-10	per0311075a	IPB009
Perchlorate-101	0.00	0	NA	12-MAR-10	per0311075a	IPB009
Perchlorate	0.00	0	NA	12-MAR-10	per0312008a	IPB002
Perchlorate-101	0.00	0	NA	12-MAR-10	per0312008a	IPB002
Perchlorate	0.00	0	NA	12-MAR-10	per0312010a	IPB003
Perchlorate-101	0.00	0	NA	12-MAR-10	per0312010a	IPB003
Perchlorate	0.00	0	NA	12-MAR-10	per0312013a	IPB004
Perchlorate-101	0.00	0	NA	12-MAR-10	per0312013a	IPB004
Perchlorate	0.00	0	NA	12-MAR-10	per0312020a	IPB005
Perchlorate-101	0.00	0	NA	12-MAR-10	per0312020a	IPB005

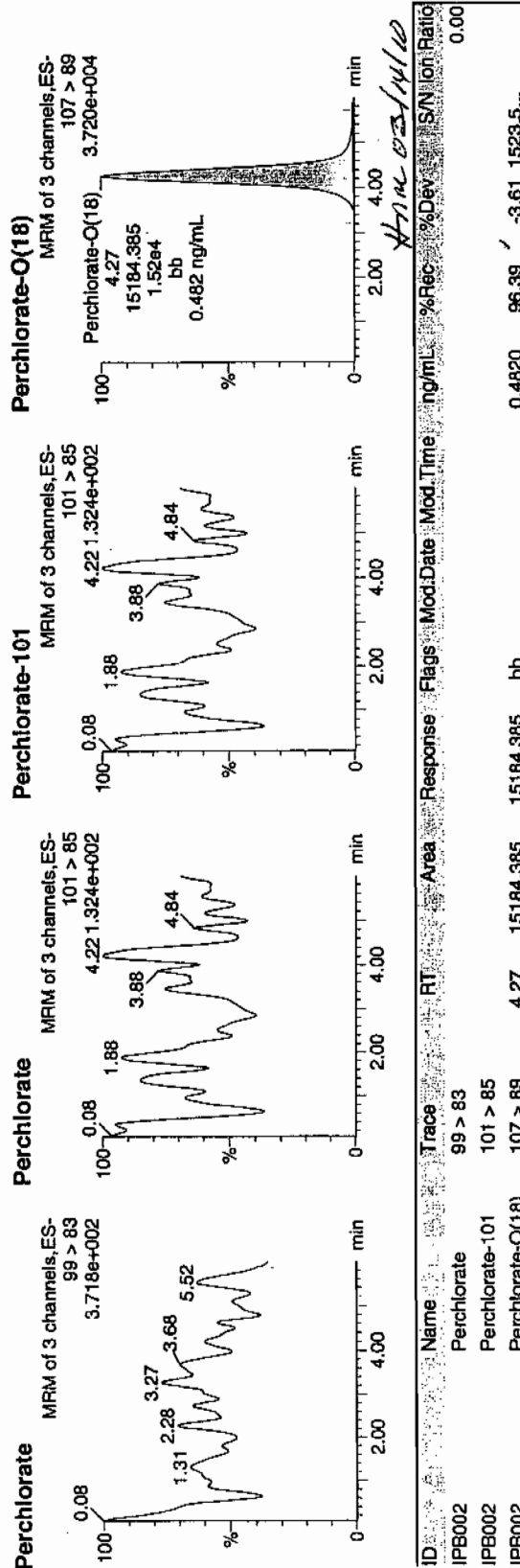
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charters W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

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Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per03111008a
Date: 11-Mar-2010
Time: 20:22:05
ID: IPB002
Vial: 1:1,A

03-12-10



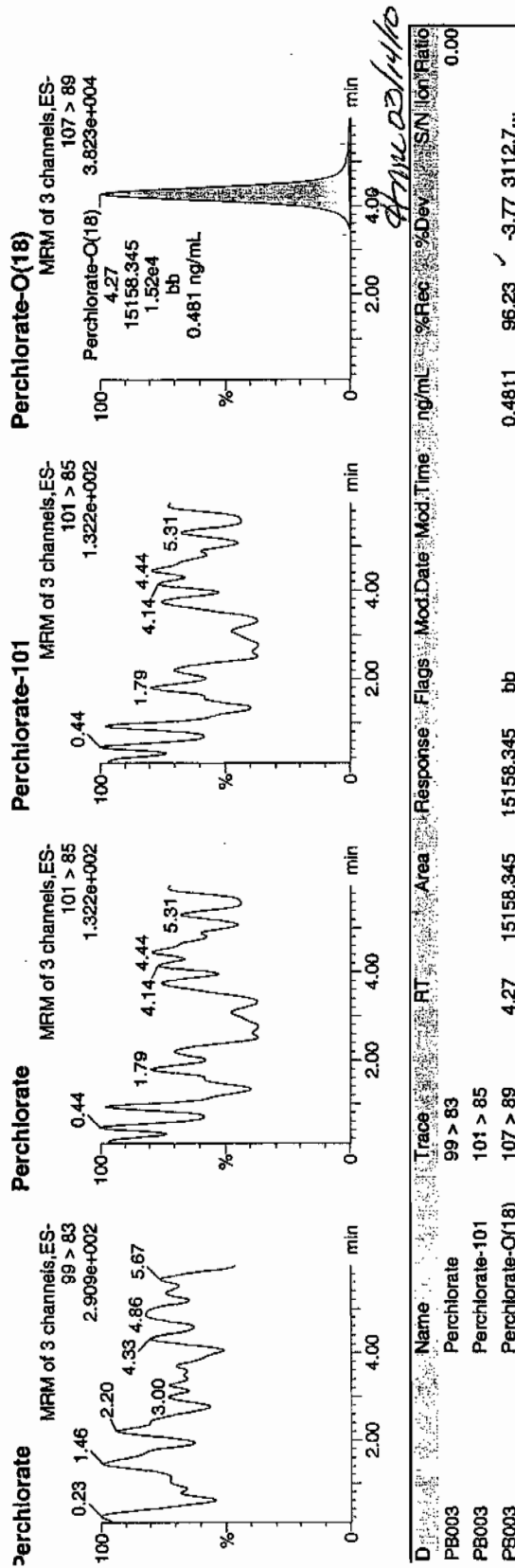
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per03111010a
Date: 11-Mar-2010
Time: 20:40:09
D: IPB003
Vial: 1:1,A

03-12-10



Perchlorate-O(18)

Perchlorate-101

Perchlorate

Perchlorate

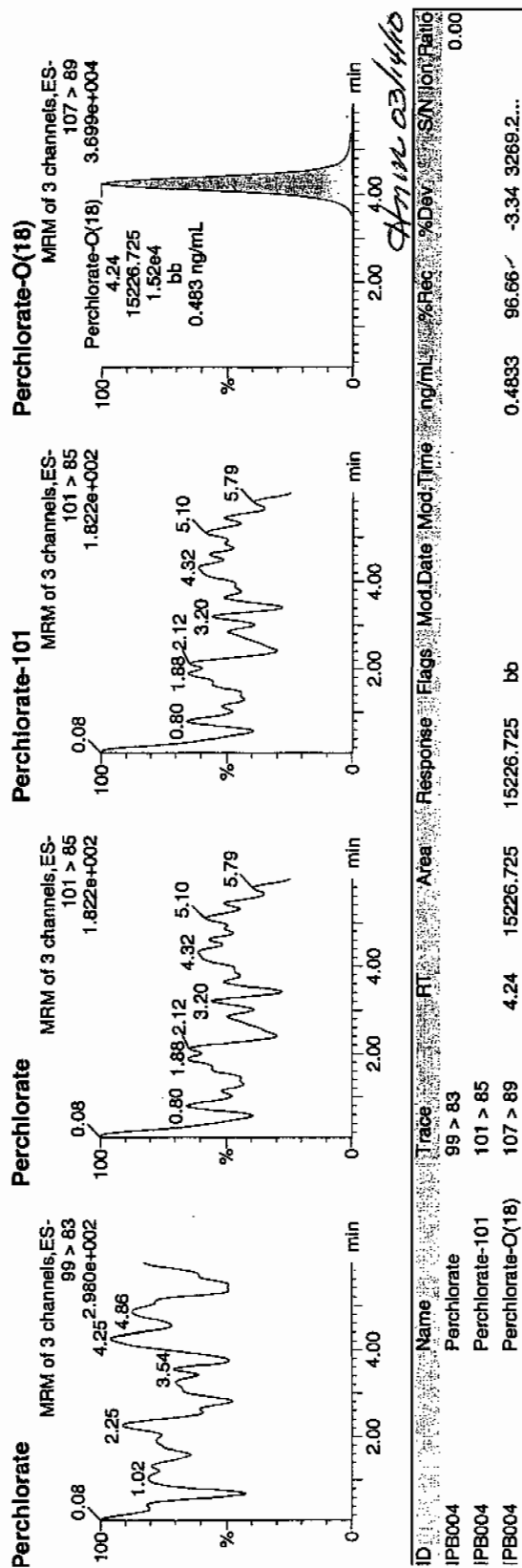
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charters W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311023a
Date: 11-Mar-2010
Time: 22:37:39
ID: IPB004
Vial: 1:1,A

03-12-10



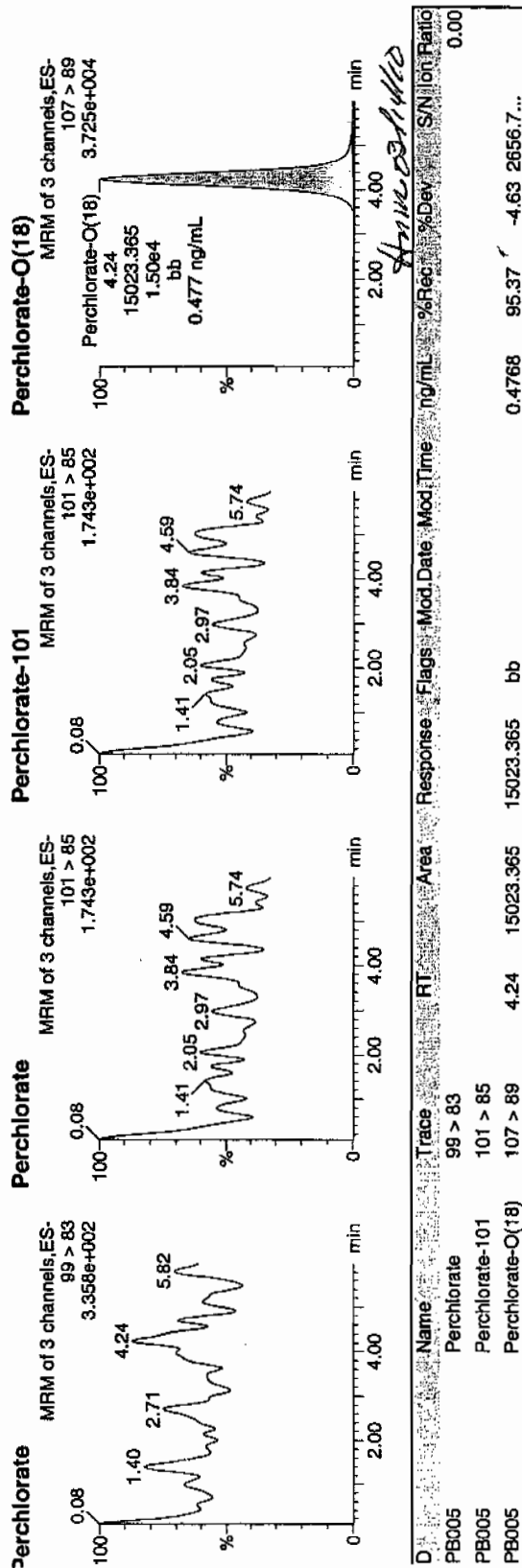
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

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Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311030a
Date: 11-Mar-2010
Time: 23:40:56
ID: IPB005
Vial: 1:1,A

03-12-10



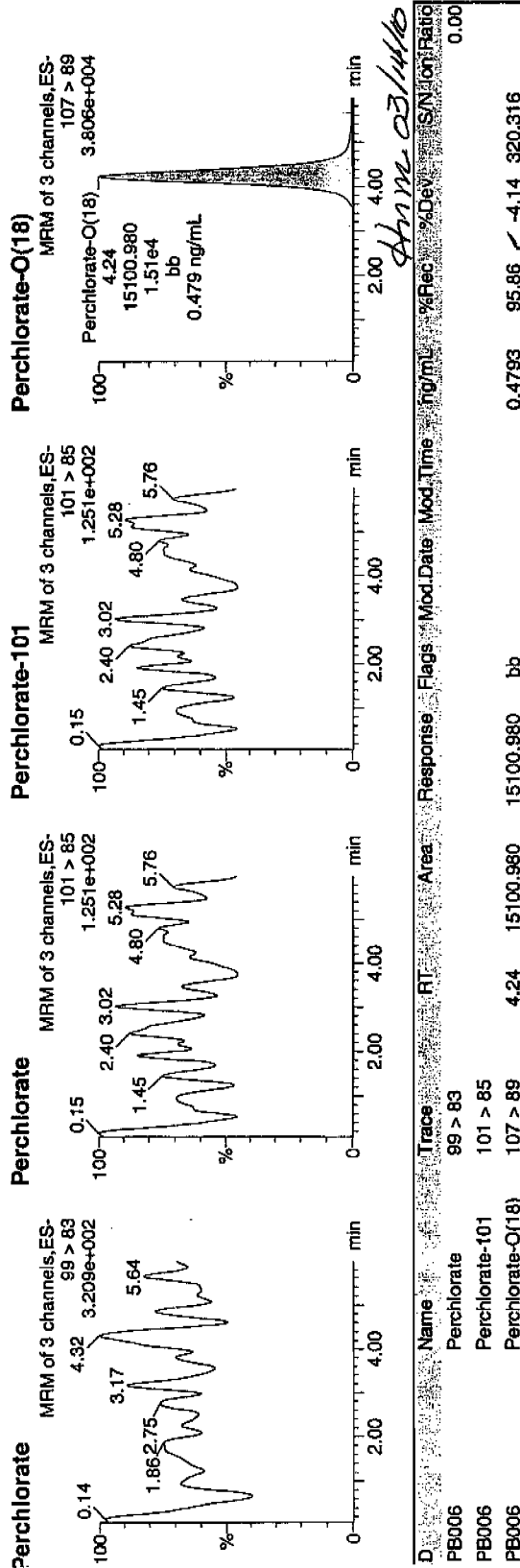
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\P perchlorate.PRO\per031110a.qld

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Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311036a
Date: 12-Mar-2010
Time: 00:35:14
ID: IPB006
Vial: 1:1,A

003-12-10



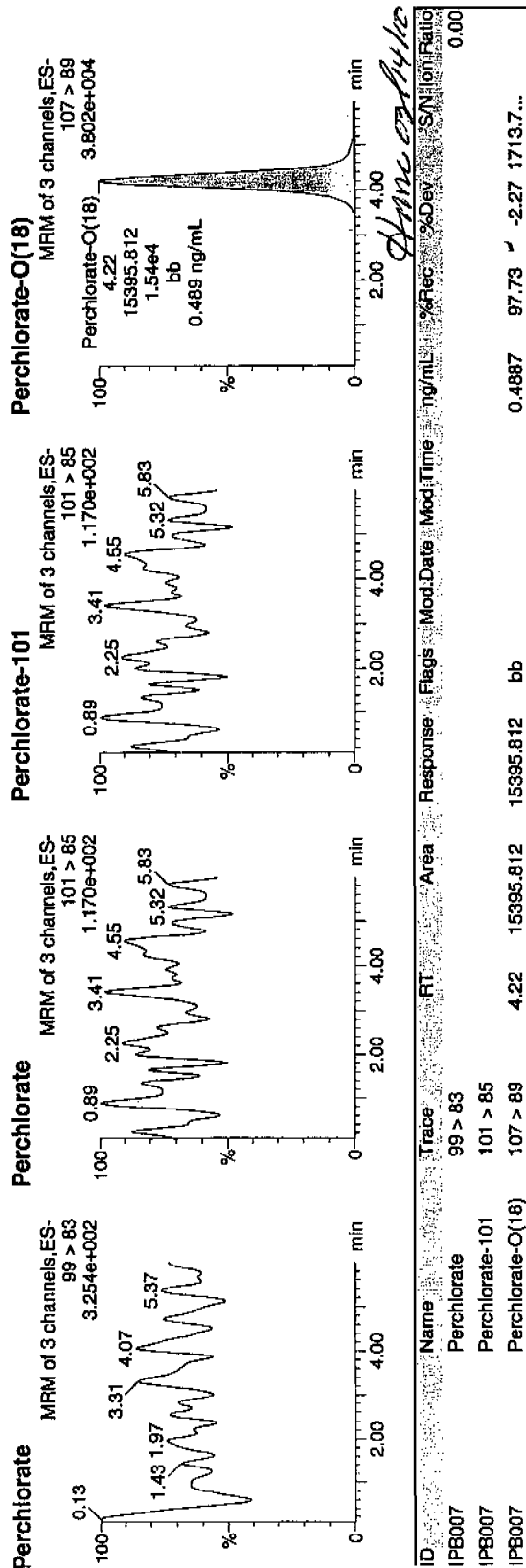
Quantity Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311049a
Date: 12-Mar-2010
Time: 02:32:56
ID: IPB007
Vial: 1:1,A

03-12-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83											0.00
IPB007	Perchlorate-101	101 > 85											
IPB007	Perchlorate-O(18)	107 > 89	4.22	15395.812	15395.812	bb			0.4887	97.73	-2.27	1713.7...	

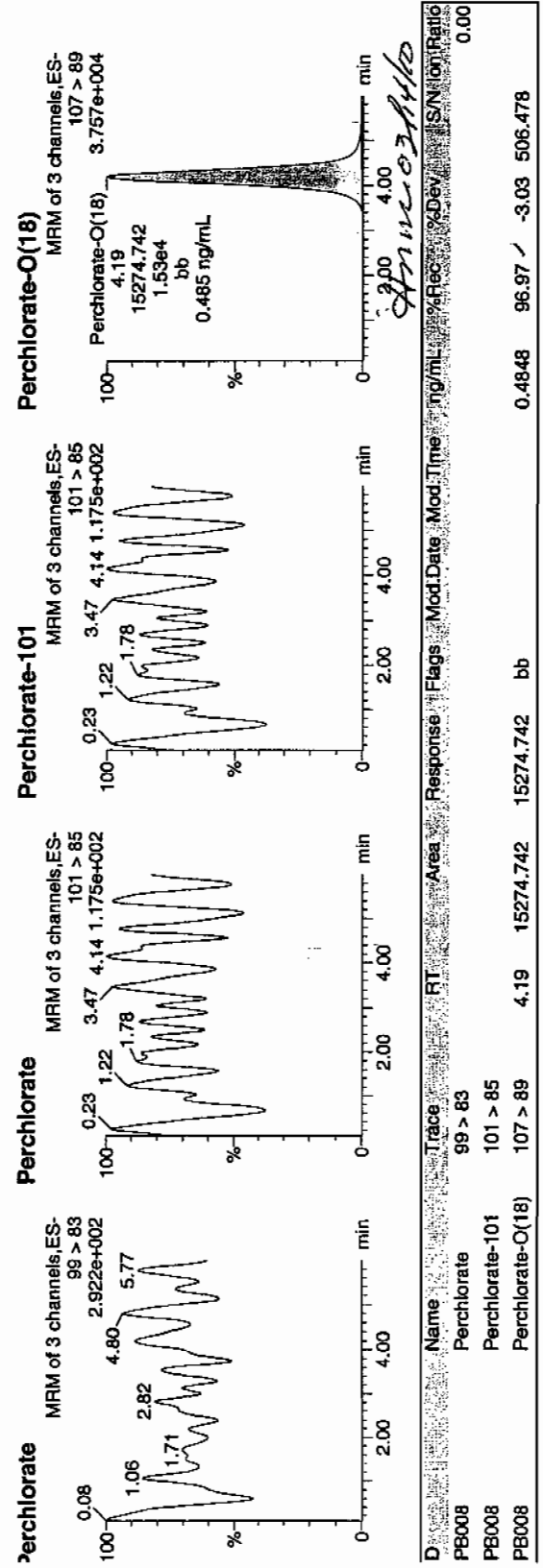
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

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Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311062a
Date: 12-Mar-2010
Time: 04:30:48
D: IPB008
/lat: 1:1,A

03-12-10



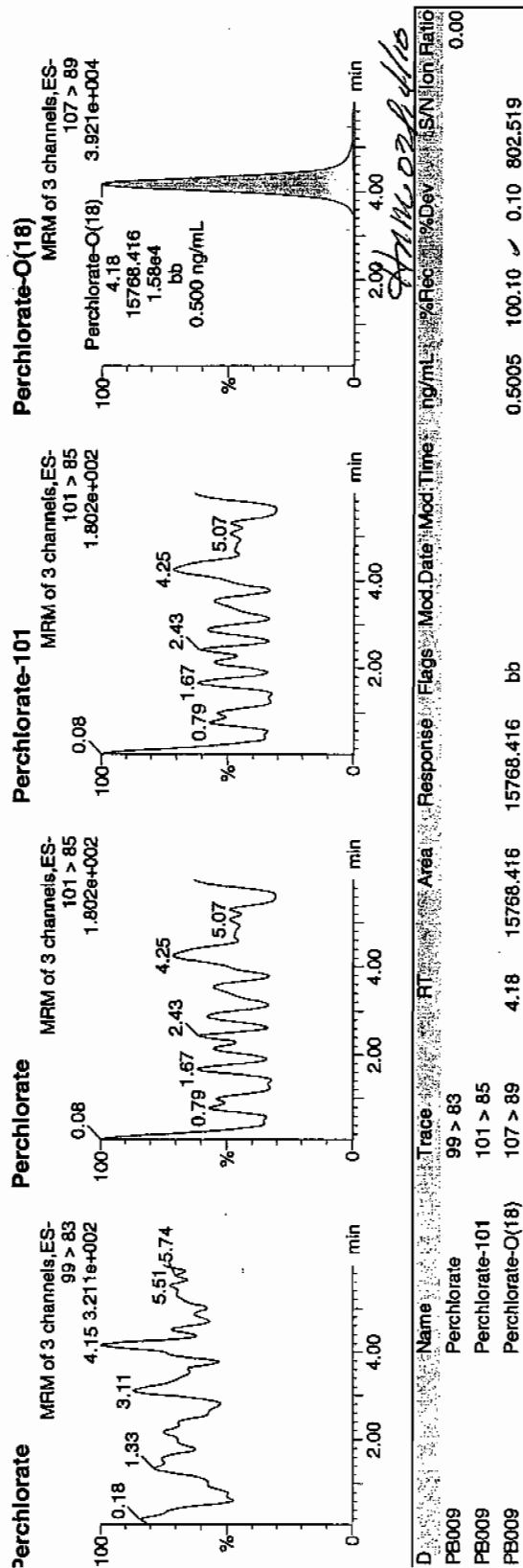
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

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Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311075a
Date: 12-Mar-2010
Time: 06:28:42
D: IPB009
/lal: 1:1,A

03-12-10



Perchlorate-O(18)
MRM of 3 channels, ES-
107 > 89
3.921e+004
15768.416
1.58e4
bb
0.500 ng/mL

Perchlorate-101
MRM of 3 channels, ES-
101 > 85
1.802e+002

Perchlorate
MRM of 3 channels, ES-
101 > 85
1.802e+002

Perchlorate
MRM of 3 channels, ES-
99 > 83
4.15 3.211e+002

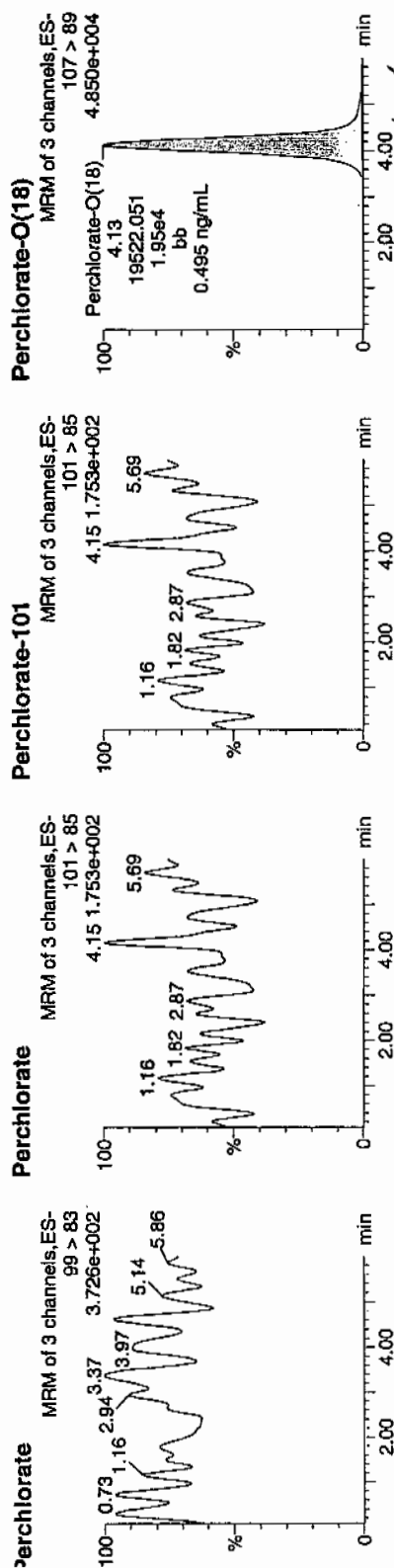
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031210a.qld

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Printed: Saturday, March 13, 2010 3:47:05 PM Eastern Standard Time

Name: per0312008a
Date: 12-Mar-2010
Time: 09:49:46
D: IPB002
/lat: 1:1,A

03-13-10



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB002	Perchlorate	99 > 83											0.00
PB002	Perchlorate-101	101 > 85											
PB002	Perchlorate-O(18)	107 > 89	4.13	19522.051	19522.051	bb			0.4948	98.96	-1.04	4136.0...	

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031210a.qld

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Printed: Saturday, March 13, 2010 3:47:05 PM Eastern Standard Time

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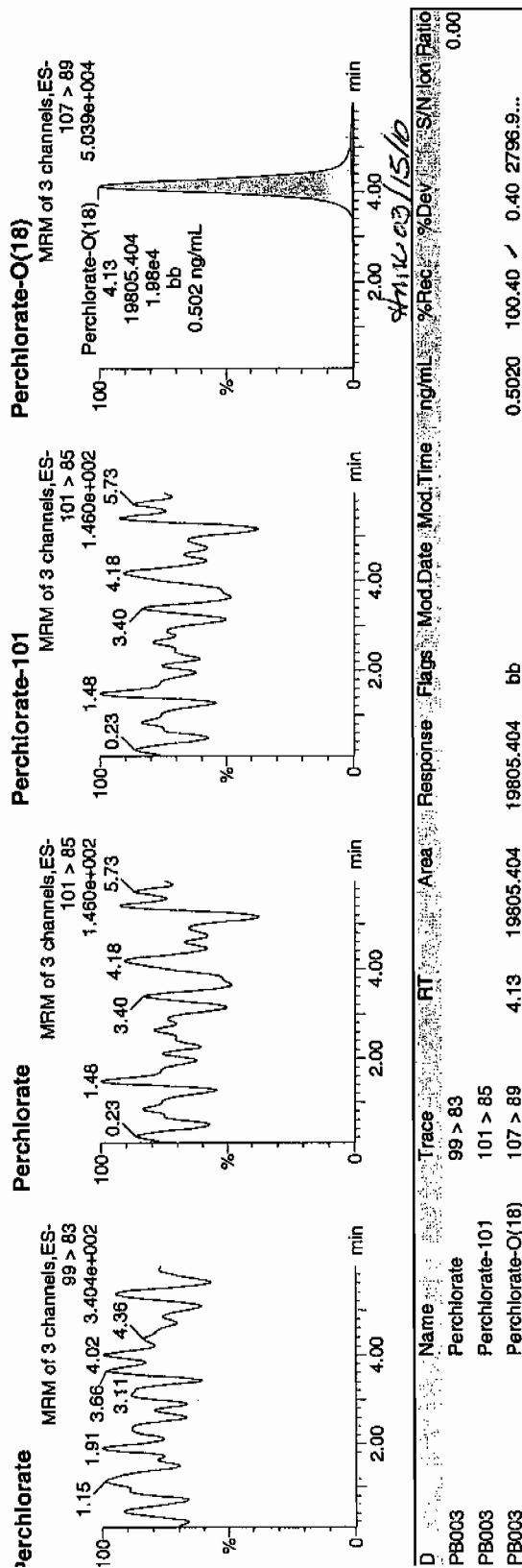
Date: 12-Mar-2010

Time: 10:07:51

D: IPB003

/ial: 1:1,A

03-13-10



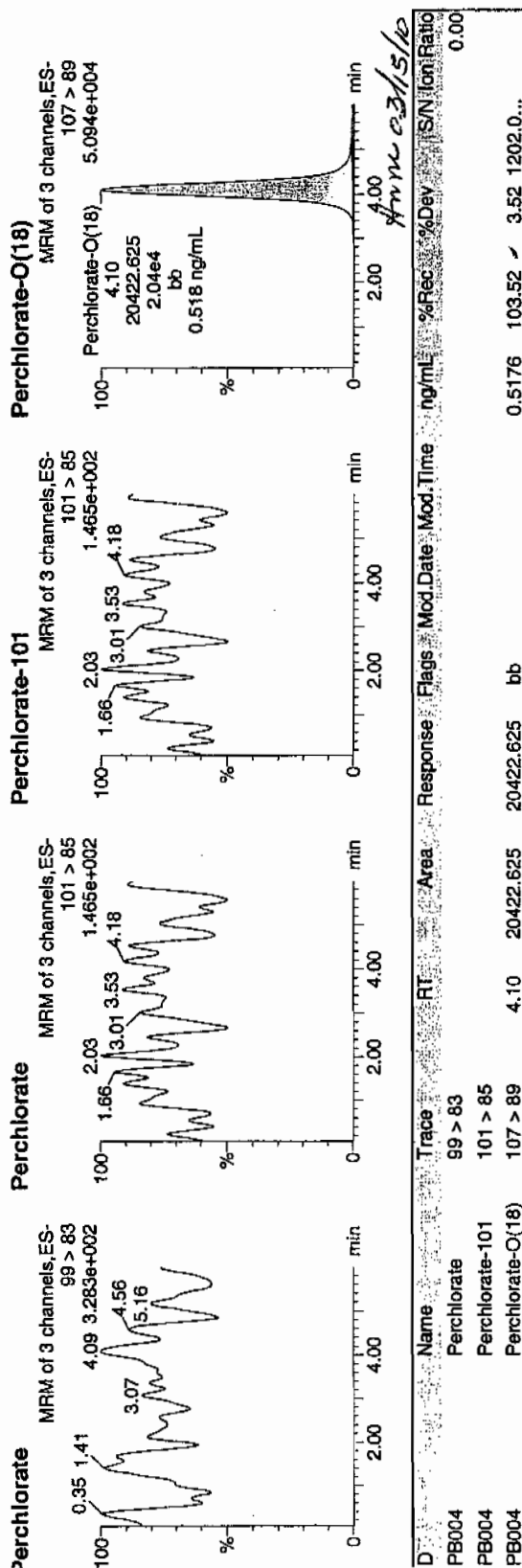
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031210a.qld

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Printed: Saturday, March 13, 2010 3:47:05 PM Eastern Standard Time

Name: per0312013a
Date: 12-Mar-2010
Time: 10:34:58
D: IPB004
/ial: 1:1,A

03-13-10



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

Dataset: C:\MassLynx\Perchlorate.PRO\per031210a.qld

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Printed: Saturday, March 13, 2010 3:47:05 PM Eastern Standard Time

Name: per0312020a

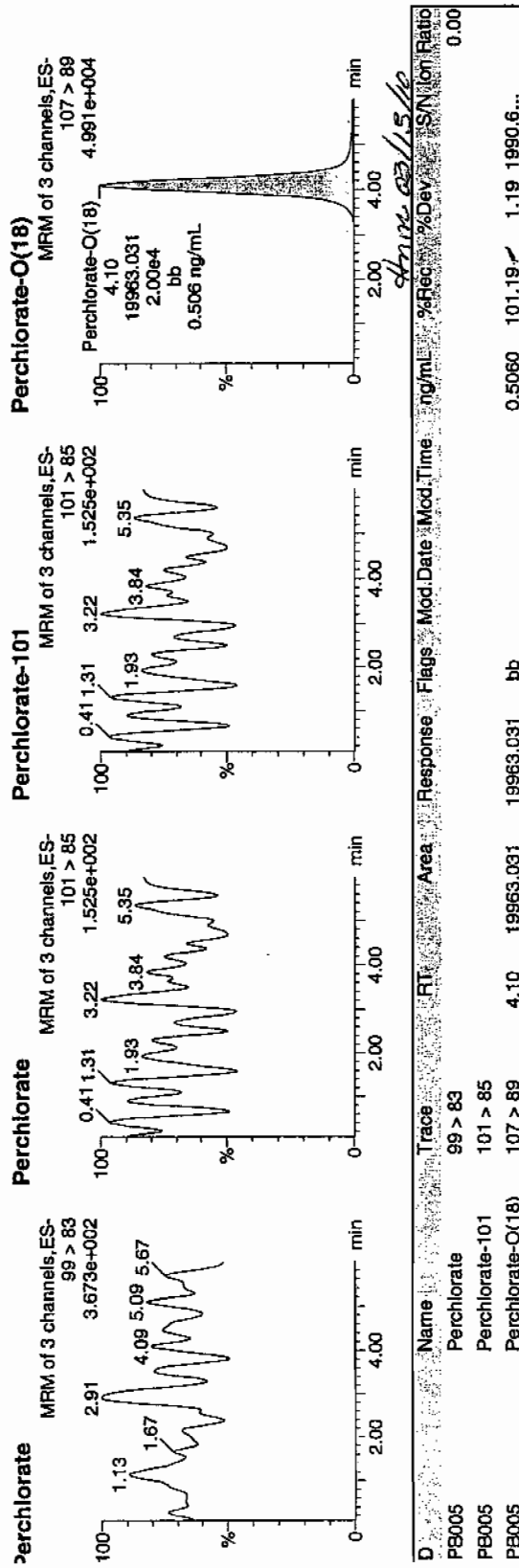
Date: 12-Mar-2010

Time: 11:38:14

D: IPB005

/ial: 1:1,A

03-13-10



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
PB005	Perchlorate	99 > 83											0.00
PB005	Perchlorate-101	101 > 85											
PB005	Perchlorate-O(18)	107 > 89	4.10	19963.031	19963.031	bb			0.5060	101.19	1.19	1990.6...	

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.ca

Calibration Report - MS1 Static

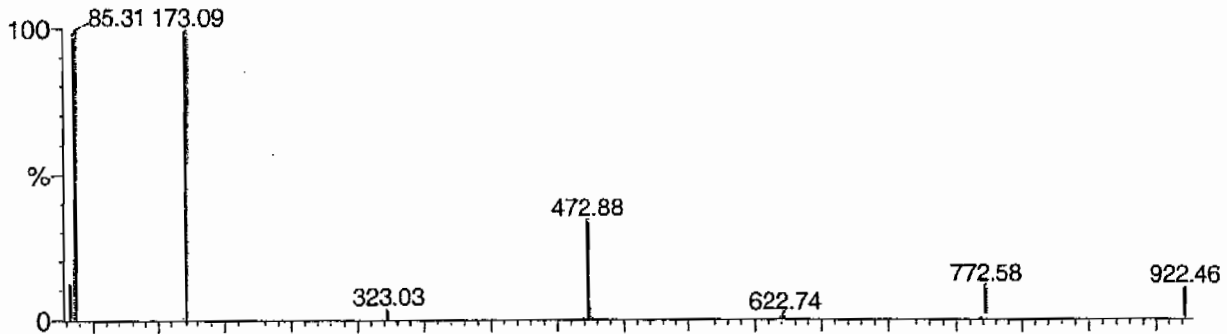
Page 1 of 1

Printed: Tue Jan 08 12:19:12 2008

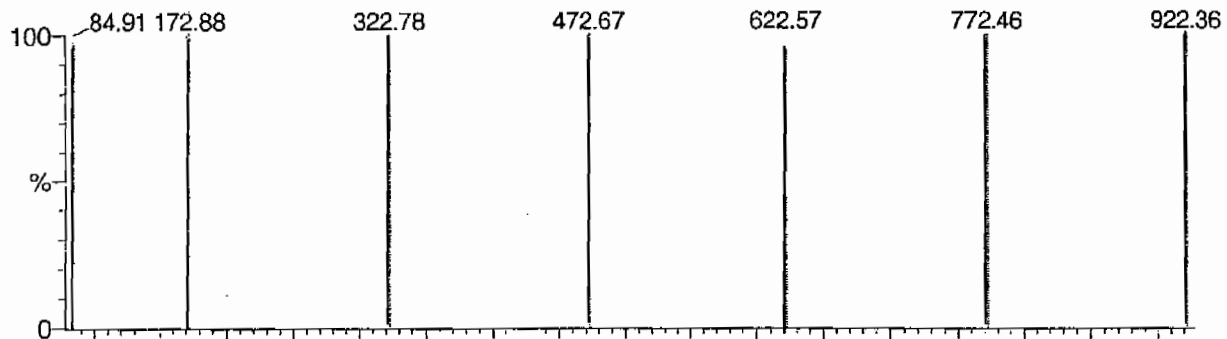
POINTS HIGHLIGHTED BY CUR 01-08-08

Data file: STATMS1 - Uncalibrated

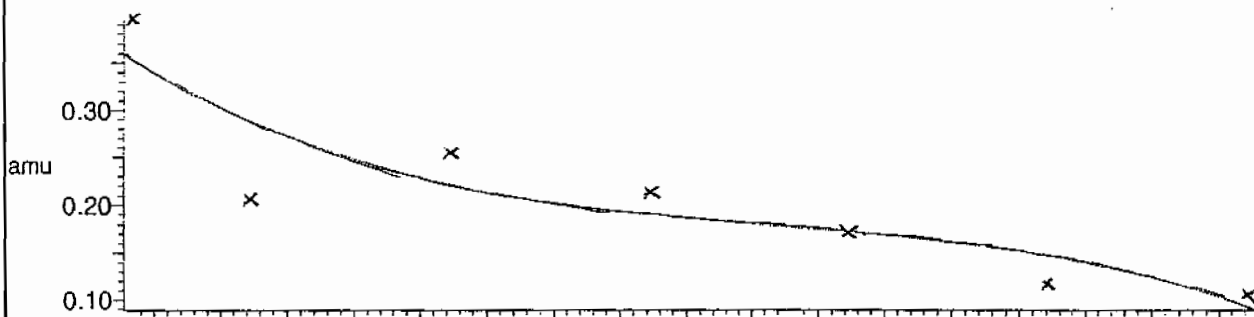
7 matches of 7 tested references



Reference file: Nairb

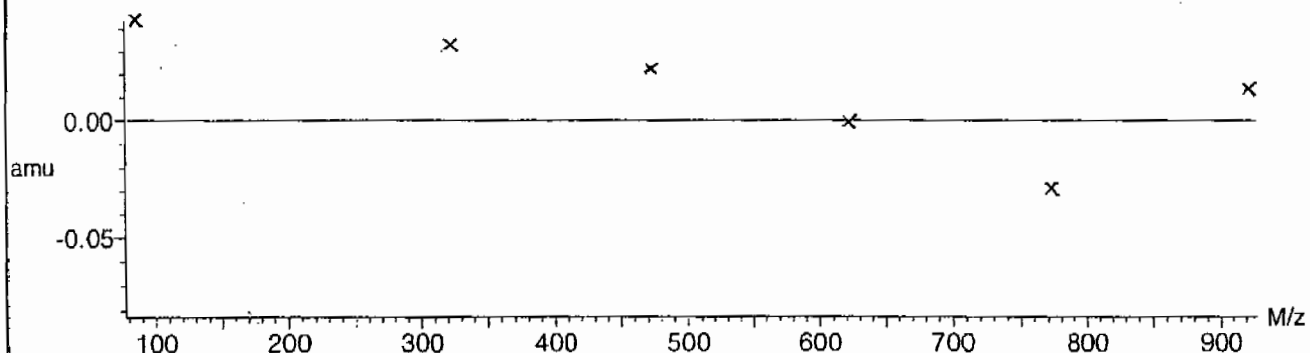


Mass difference (Raw - Ref mass)



Residuals

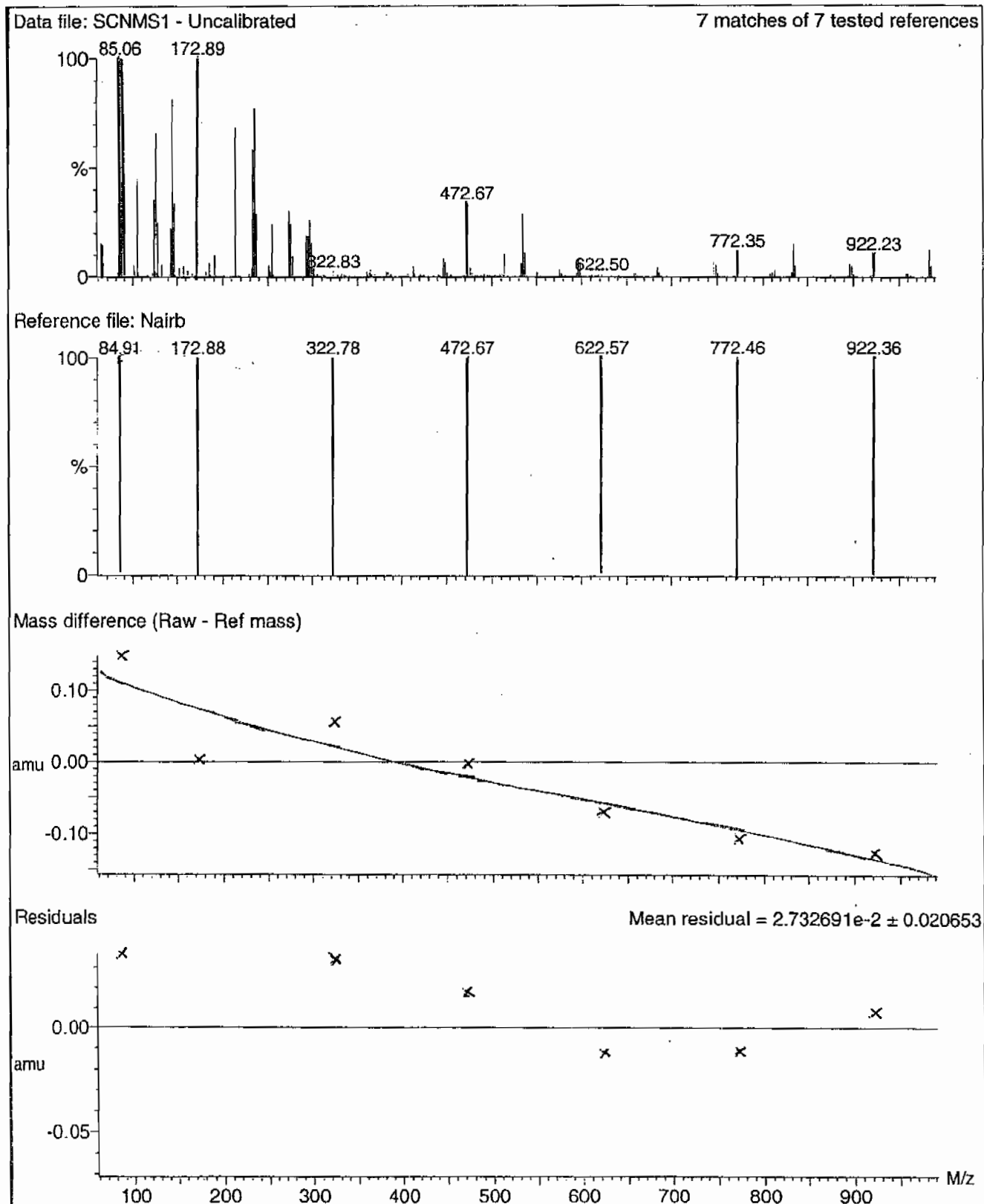
Mean residual = $3.212012 \times 10^{-2} \pm 0.024108$



Calibration Report - MS1 Scanning

Page 1 of 1

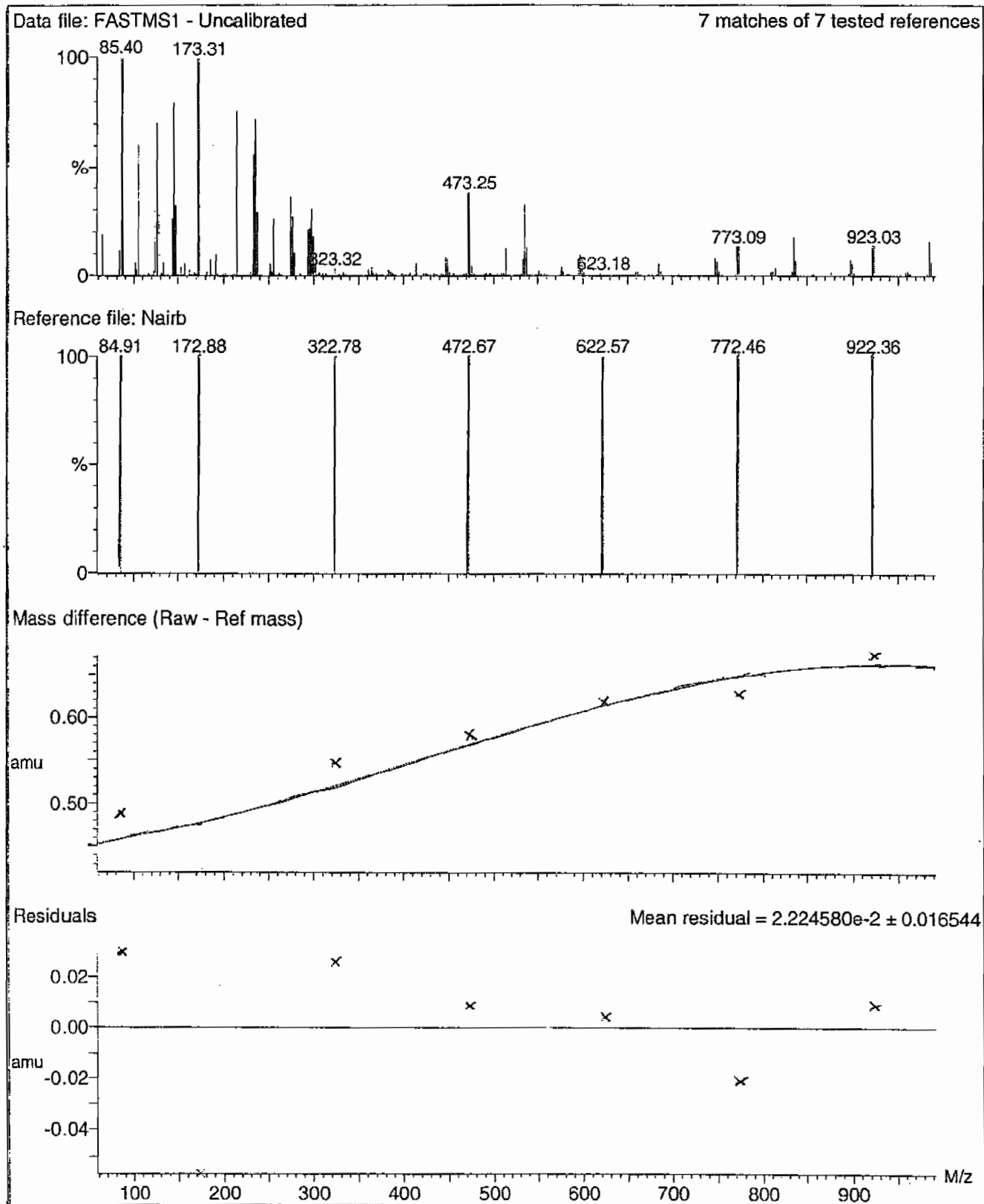
Printed: Tue Jan 08 12:20:09 2008



Calibration Report - MS1 Scan Speed Compensation

Page 1 of 1

Printed: Tue Jan 08 12:21:04 2008



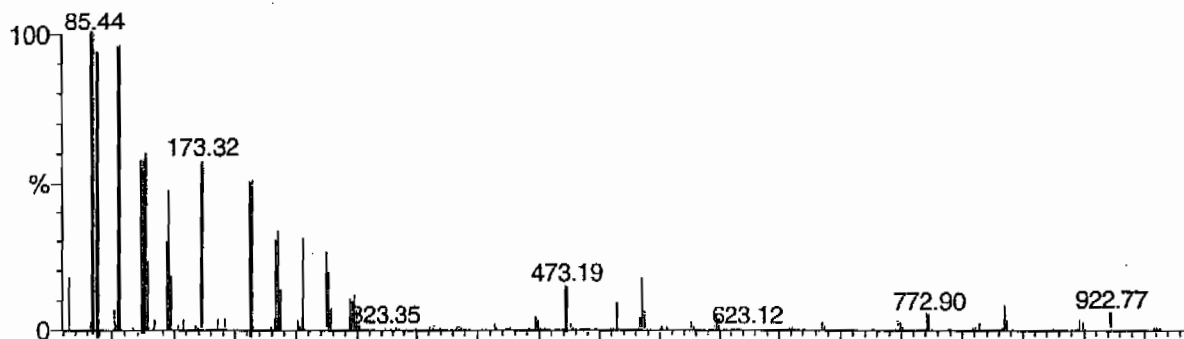
Calibration Report - MS2 Scan Speed Compensation

Page 1 of 1

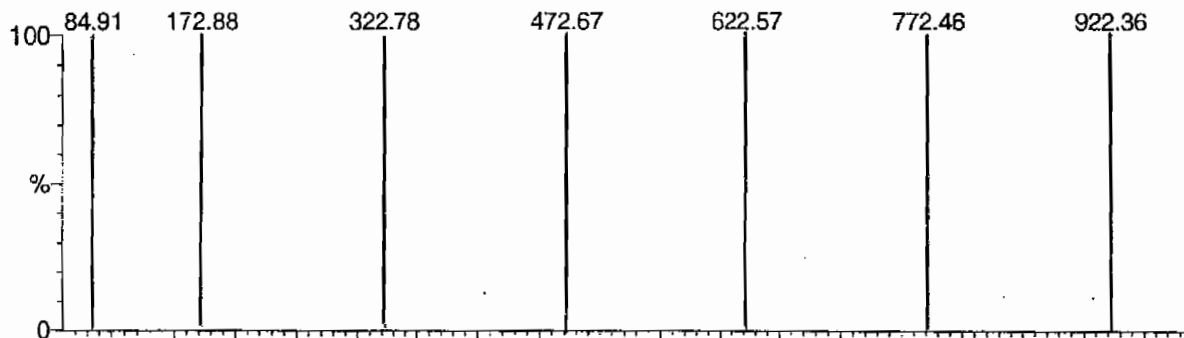
Printed: Tue Jan 08 12:23:51 2008

Data file: FASTMS2 - Uncalibrated

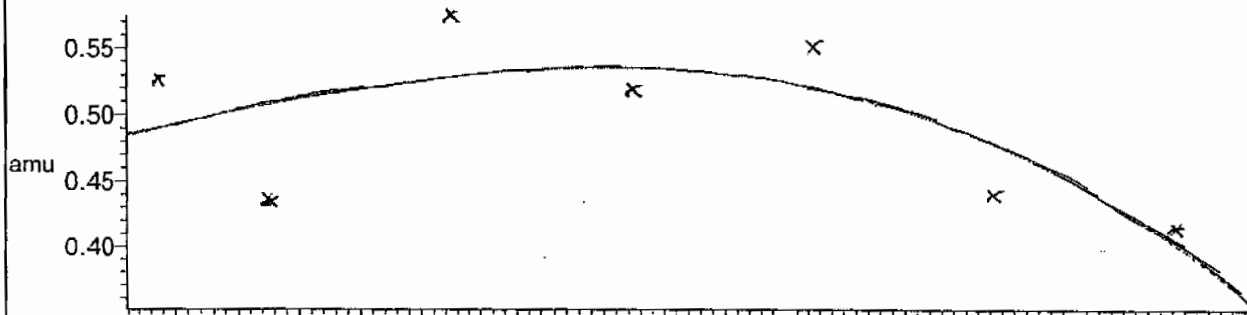
7 matches of 7 tested references



Reference file: Nairb

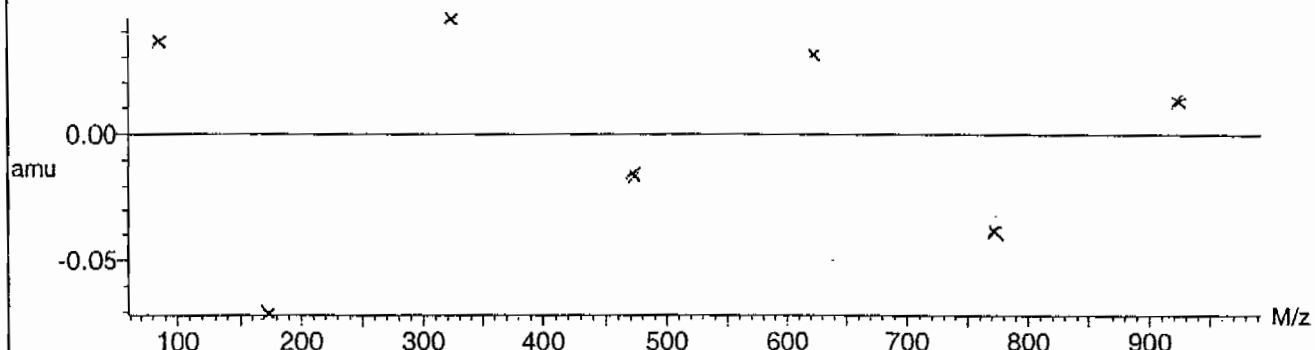


Mass difference (Raw - Ref mass)



Residuals

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



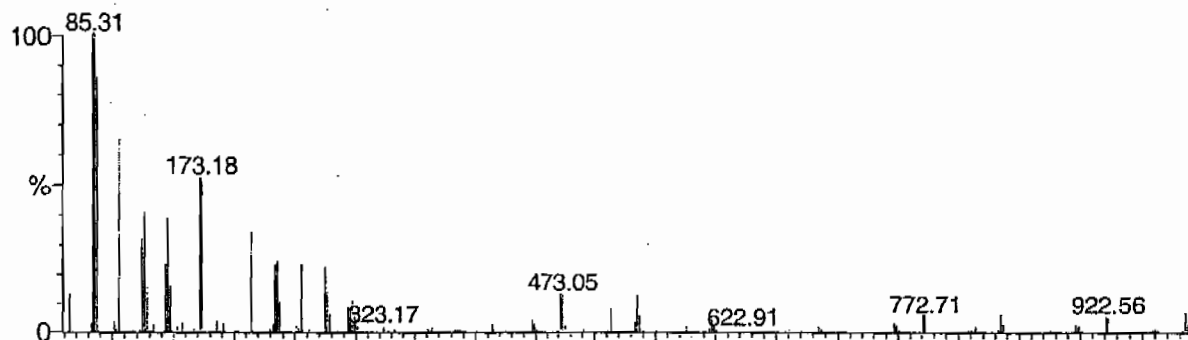
Calibration Report - MS2 Scanning

Page 1 of 1

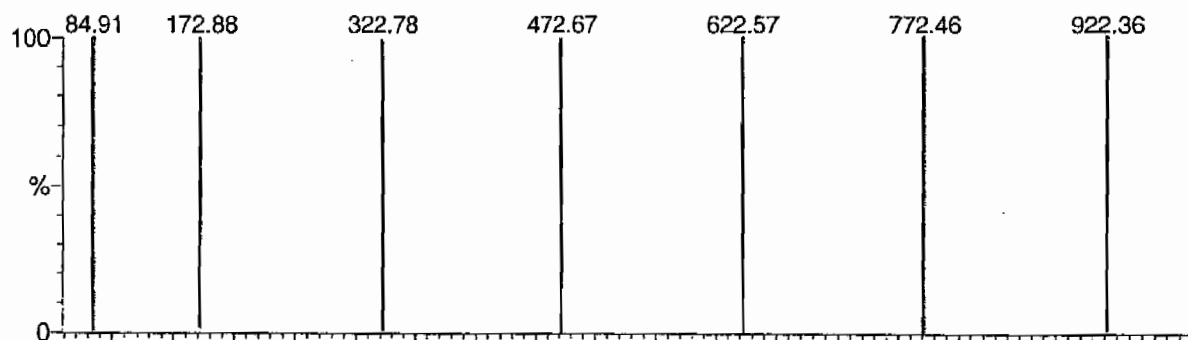
Printed: Tue Jan 08 12:22:56 2008

Data file: SCNMS2 - Uncalibrated

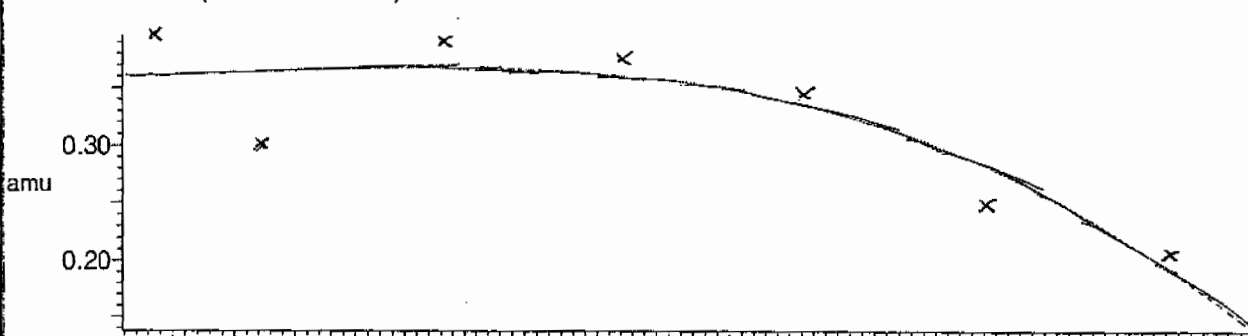
7 matches of 7 tested references



Reference file: Nairb

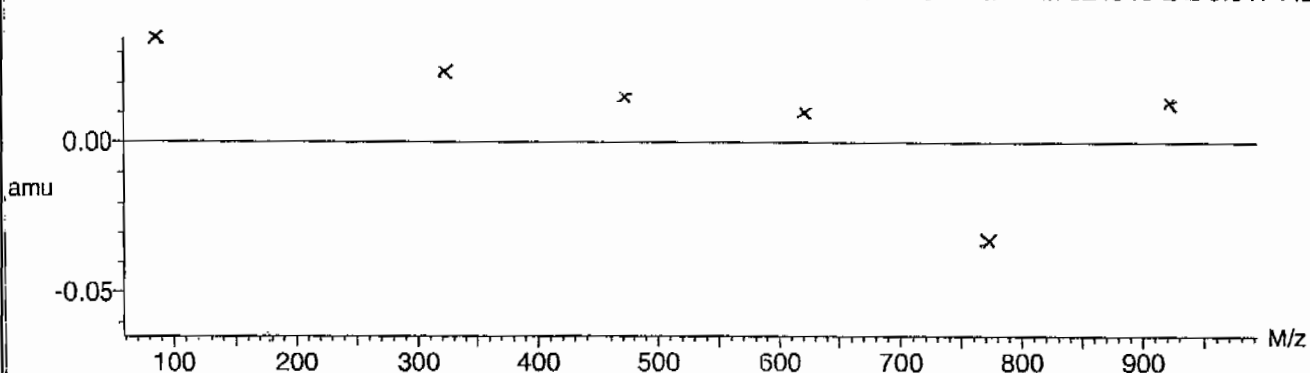


Mass difference (Raw - Ref mass)



Residuals

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



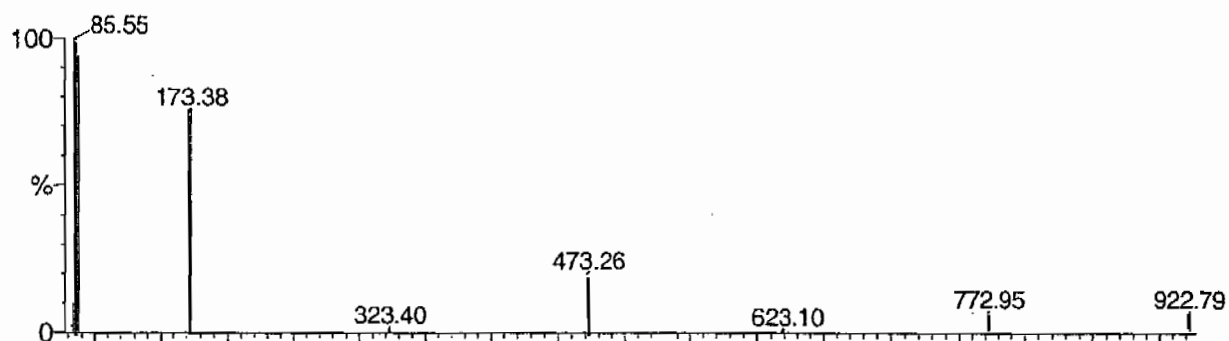
Calibration Report - MS2 Static

Page 1 of 1

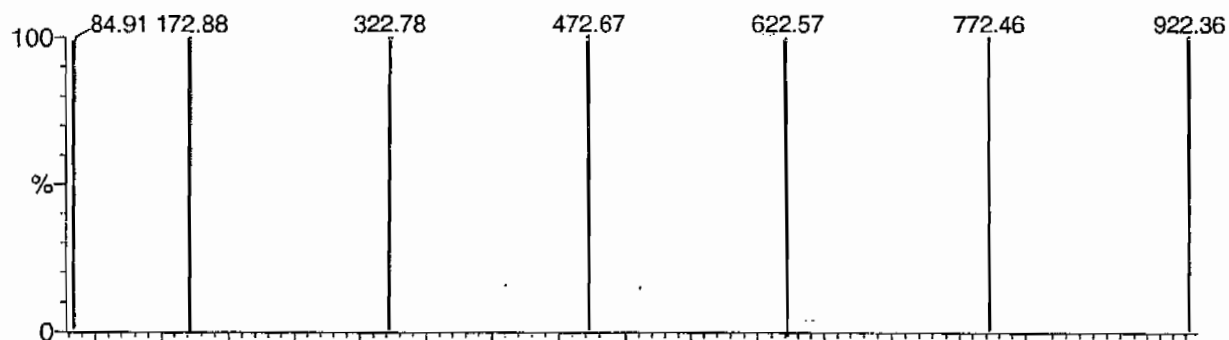
Printed: Tue Jan 08 12:21:59 2008

Data file: STATMS2 - Uncalibrated

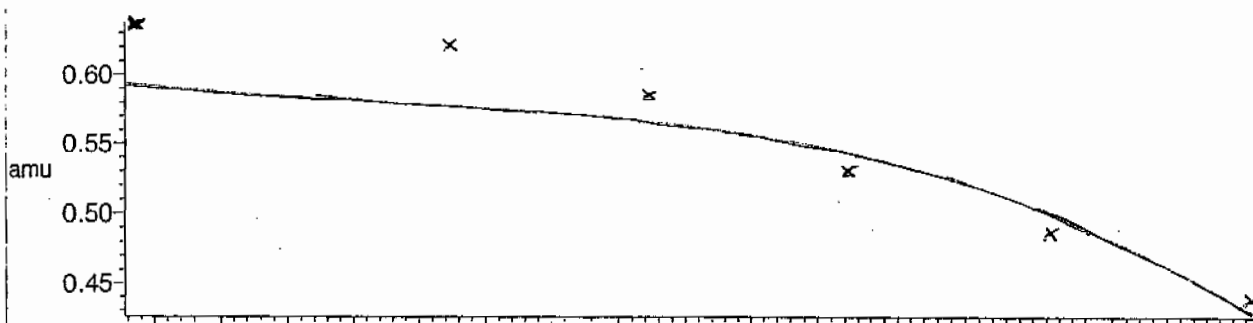
7 matches of 7 tested references



Reference file: Nairb

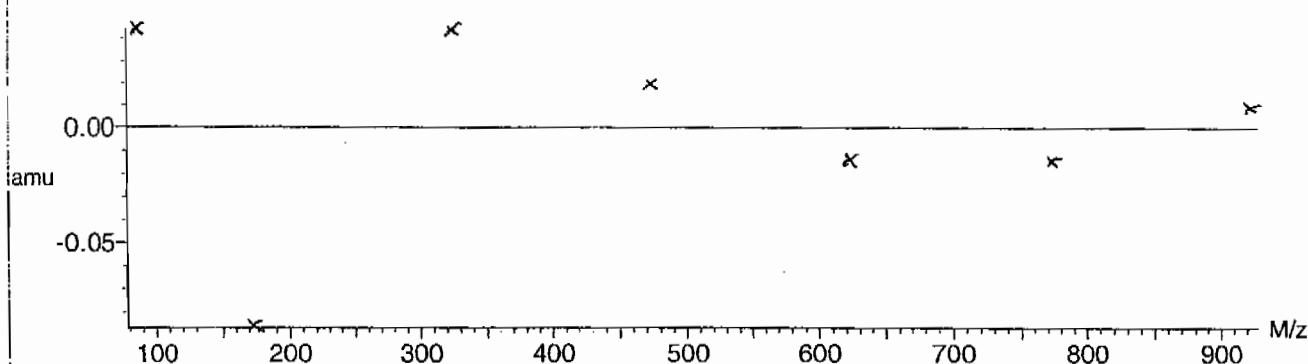


Mass difference (Raw - Ref mass)



Residuals

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



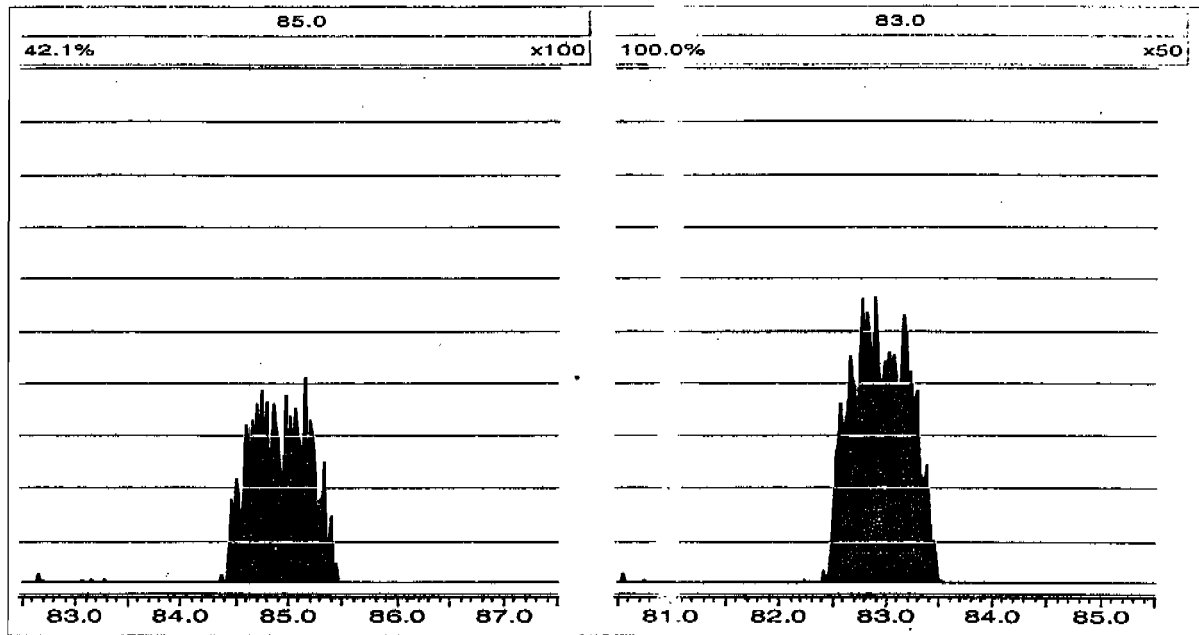
Tune Parameters

MassLynx 4.0 SP4

Page 1 of 1

File: C:\MassLynx\Perchlorate.PROVACQ\UDB\Perchlorate.IPR

Printed: Thursday, March 11, 2010 11:07:17 Eastern Standard Time



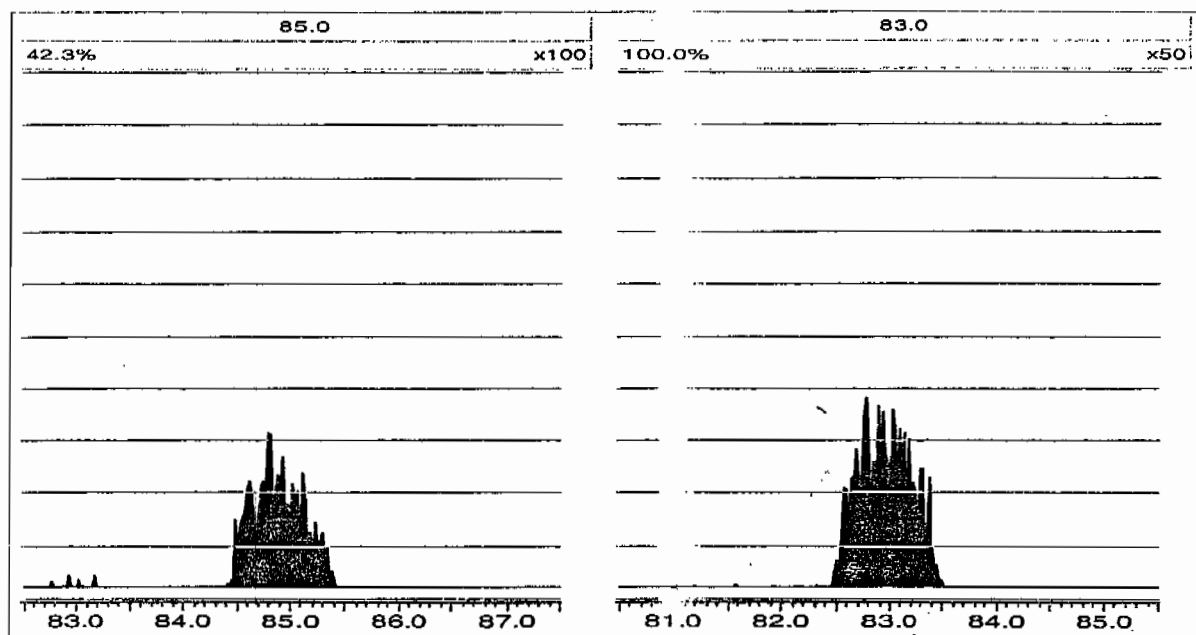
Tune Parameters

MassLynx 4.0 SP4

Page 1 of 1

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

Printed: Friday, March 12, 2010 08:34:51 Eastern Standard Time



Perchlorate RT And Area Summary

GEL Job No.(SDG): 10-1951-1

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	per0311006a	11-MAR-10	15049.9				
Lower Area Limit			7524.95				
Upper Area Limit			30099.8				
1202068504	per0311051a	12-MAR-10 02:51	14912.5	4.2	4.22812	1.007	
1202068505	per0311052a	12-MAR-10 03:00	16051.2	4.2	4.21575	1.004	
1202068508	per0311053a	12-MAR-10 03:09	17351.9	4.1	4.12875	1.007	
247561001	per0311069a	12-MAR-10 05:34	18379.9	4.17	4.1785	1.002	
1202068506	per0311070a	12-MAR-10 05:43	17542.9	4.15	4.17847	1.007	
1202068507	per0311071a	12-MAR-10 05:52	17618.6	4.15	4.17848	1.007	
247561002	per0311072a	12-MAR-10 06:01	16277.9	4.17	4.17852	1.002	
247561003	per0311073a	12-MAR-10 06:10	16717.4	4.15	4.16605	1.004	

Perchlorate RT And Area Summary

GEL Job No.(SDG): 10-1951-1

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	per0312006a	12-MAR-10	19891.6				
Lower Area Limit			9945.8				
Upper Area Limit			39783.2				
247561004	per0312014a	12-MAR-10 10:44	20874.2	4.1	4.11628	1.004	
247561005	per0312015a	12-MAR-10 10:53	20128.4	4.1	4.12877	1.007	
247561006	per0312016a	12-MAR-10 11:02	20995.5	4.1	4.12878	1.007	
247561007	per0312017a	12-MAR-10 11:11	20463.3	4.1	4.12882	1.007	
247561008	per0312018a	12-MAR-10 11:20	20930.8	4.1	4.12875	1.007	

SAMPLE DATA

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: 264152
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE15-10-8314
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1951-1
 GEL Sample ID: 247561001
 Date Filtered: 11-MAR-10
 Injection Volume (uL): 20
 %Solids: 97.3

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.514	2.06	2.47	ug/kg		1	12-MAR-10 05:34	per0311069a
	Perchlorate Isotope Ratio			3.05			1	12-MAR-10 05:34	per0311069a
14797-73-0	Perchlorate-101	.514	2.06	2.32	ug/kg		1	12-MAR-10 05:34	per0311069a
	Perchlorate-O(18)			6.00	ug/kg		1	12-MAR-10 05:34	per0311069a

[^] 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

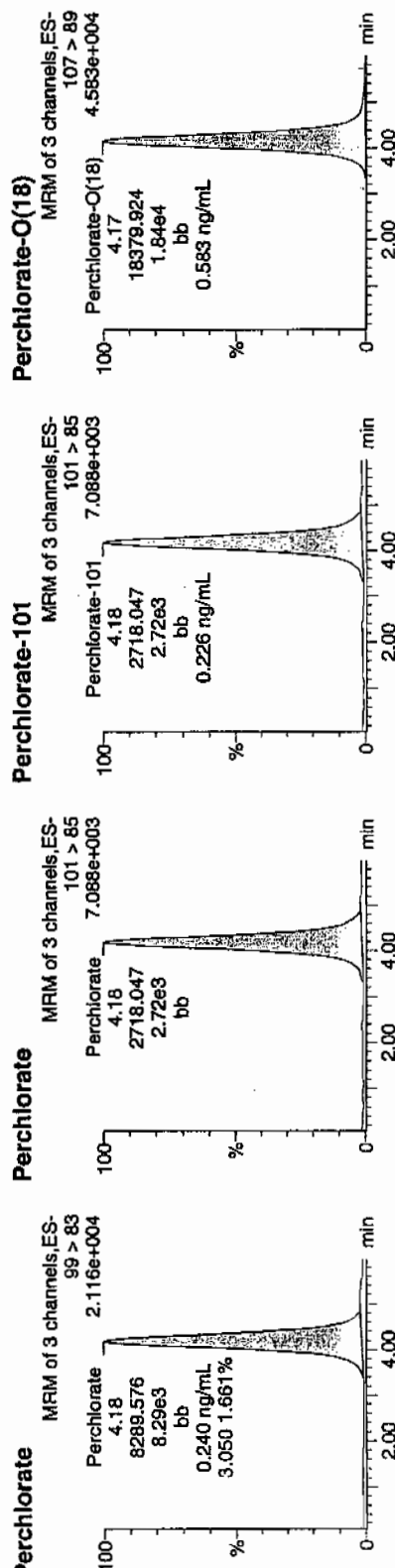
Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311069a
Date: 12-Mar-2010
Time: 05:34:14
D: 247561001
File: 2:3.D

03-12-10

1200-1964132 | 5020 | 110E



D	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
247561001	Perchlorate	99 > 83	4.18	8289.576	8289.576	bb			0.2403			131.508	3.05
247561001	Perchlorate-101	101 > 85	4.18	2718.047	2718.047	bb			0.2260			258.883	
247561001	Perchlorate-O(18)	107 > 89	4.17	18379.924	18379.924	bb			0.5834	116.68	✓	16.68	2113.8...

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: 964159

Extraction Type: Solid Prep

Client Sample No.

RE15-10-8313

Date Received: 20-FEB-10

GEL Job No (SDG): 10-1951-1

GEL Sample ID: 247561002

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids: 96.4

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.07	0.519	ug/kg	U	1	12-MAR-10 06:01	per0311072a
	Perchlorate Isotope Ratio						1	12-MAR-10 06:01	per0311072a
14797-73-0	Perchlorate-101	.519	2.07	0.519	ug/kg	U	1	12-MAR-10 06:01	per0311072a
	Perchlorate-O(18)			5.36	ug/kg		1	12-MAR-10 06:01	per0311072a

[^] 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: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311072a

Date: 12-Mar-2010

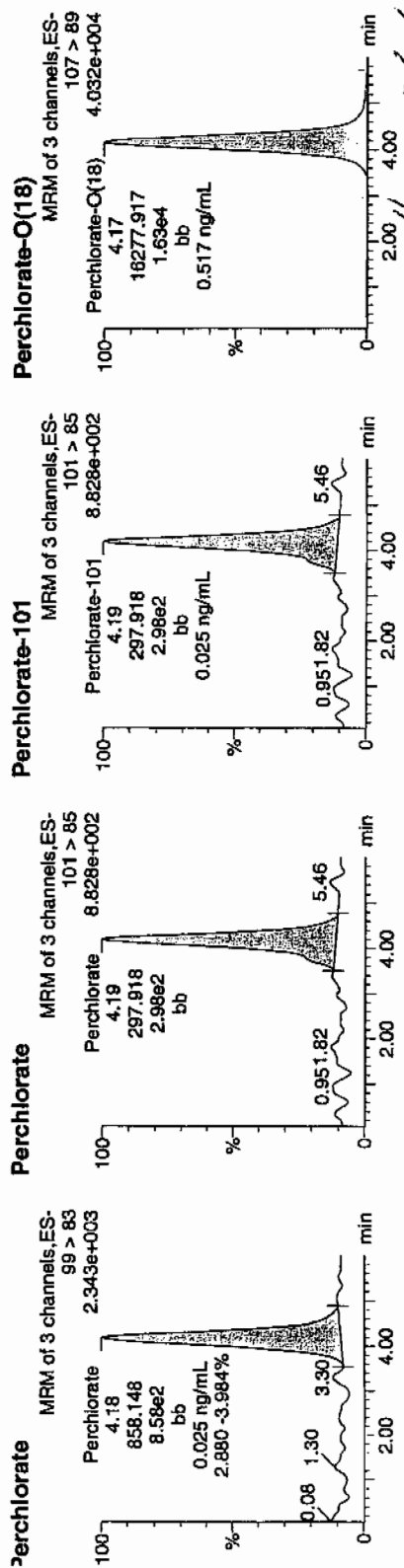
Time: 06:01:19

D: 247561002

Vial: 2:4,A

03-12-10

1072 | 961182 | 5000 | 1 | 23



D	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
47561002	Perchlorate	99 > 83	4.18	858.148	858.148	bb			0.0249			53.313	2.88
47561002	Perchlorate-101	101 > 85	4.19	297.918	297.918	bb			0.0248			52.679	
47561002	Perchlorate-O(18)	107 > 89	4.17	16277.917	16277.917	bb			0.5167	103.33	3.33	3775.3...	

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

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: 964159
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE15-10-8312
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1951-1
 GEL Sample ID: 247561003
 Date Filtered: 11-MAR-10
 Injection Volume (uL): 20
 %Solids: 94.8

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.527	2.11	0.527	ug/kg	U	1	12-MAR-10 06:10	per0311073a
	Perchlorate Isotope Ratio						1	12-MAR-10 06:10	per0311073a
14797-73-0	Perchlorate-101	.527	2.11	0.527	ug/kg	U	1	12-MAR-10 06:10	per0311073a
	Perchlorate-O(18)			5.59	ug/kg		1	12-MAR-10 06:10	per0311073a

[^] 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

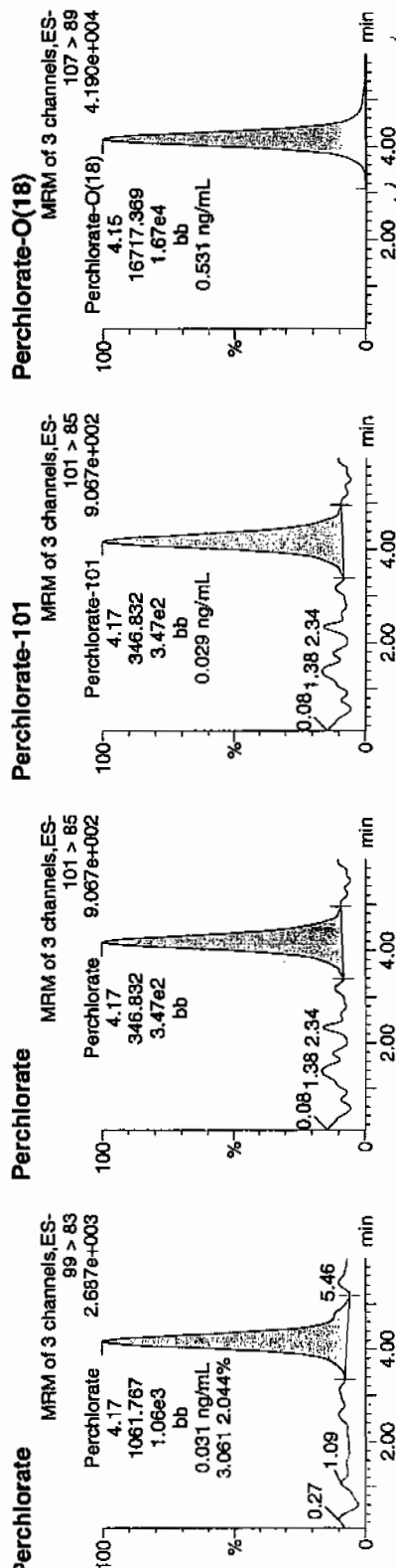
Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Sample: per0311073a
Date: 12-Mar-2010
Time: 06:10:22
D: 247561003
Vial: 2:4,B

03-12-10

LAN-1964182 | 50020 | 1 | 05



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
47561003	Perchlorate	99 > 83	4.17	1061.767	bb			0.0308	-		93.670	3.06
47561003	Perchlorate-101	101 > 85	4.17	346.832	bb			0.0288			39.777	
47561003	Perchlorate-O(18)	107 > 89	4.15	16717.369	bb			0.5306	106.12	6.12	923.666	

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

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: 964159

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8315

Date Received: 20-FEB-10

GEL Job No (SDG): 10-1951-1

GEL Sample ID: 247561004

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids: 96.6

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.517	2.07	1.06	ug/kg	J	1	12-MAR-10 10:44	per0312014a
	Perchlorate Isotope Ratio			3.02			1	12-MAR-10 10:44	per0312014a
14797-73-0	Perchlorate-101	.517	2.07	1.07	ug/kg	J	1	12-MAR-10 10:44	per0312014a
	Perchlorate-O(18)			5.47	ug/kg		1	12-MAR-10 10:44	per0312014a

^ 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\per031210a.qld

Last Altered: Saturday, March 13, 2010 3:16:18 PM Eastern Standard Time
Printed: Saturday, March 13, 2010 3:47:05 PM Eastern Standard Time

Name: per0312014a

Date: 12-Mar-2010

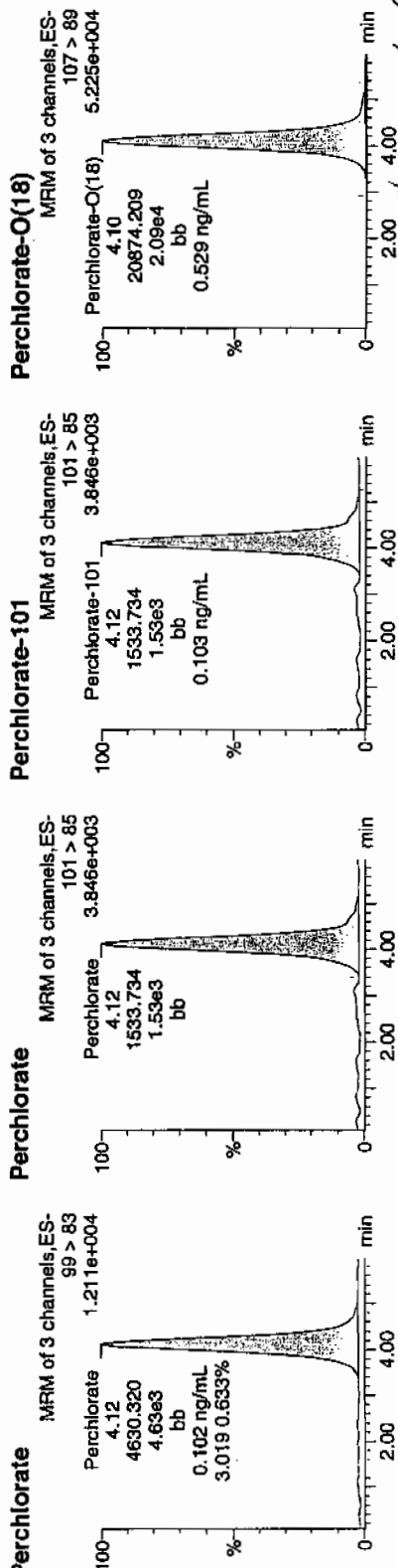
Time: 10:44:00

D: 247561004

Fil: 1:3,A

03-13-10

10001964182 | 3070 | 11/29



D	Name	Trace	RT	Area	Response	Flags	Mod	Date	Time	ng/mL	%Rec	%Dev	S/N	Ion	Ratio
247561004	Perchlorate	99 > 83	4.12	4630.320	4630.320	bb				0.1022	-		585.854	3.02	
247561004	Perchlorate-101	101 > 85	4.12	1533.734	1533.734	bb				0.1032			136.463		
247561004	Perchlorate-O(18)	107 > 89	4.10	20874.209	20874.209	bb				0.5291	105.81	5.81	1601.3...		

$$\frac{4630.320}{45326} \times 100 = 1.06$$

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

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC
 Lab Code: GEL
 Instrument: LCMSMS
 Method: SW846 6850 Modified
 Matrix: SOH
 Extraction Batch ID: 964159
 Extraction Type: Solid Prep
 Client Sample No. RE15-10-8311
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1951-1
 GEL Sample ID: 247561005
 Date Filtered: 11-MAR-10
 Injection Volume (uL): 20
 %Solids: 96.3

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.08	0.519	ug/kg	U	1	12-MAR-10 10:53	per0312015a
	Perchlorate Isotope Ratio						1	12-MAR-10 10:53	per0312015a
14797-73-0	Perchlorate-101	.519	2.08	0.519	ug/kg	U	1	12-MAR-10 10:53	per0312015a
	Perchlorate-O(18)			5.30	ug/kg		1	12-MAR-10 10:53	per0312015a

[^] 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\per031210a.qld

Last Altered: Saturday, March 13, 2010 3:16:18 PM Eastern Standard Time
Printed: Saturday, March 13, 2010 3:47:05 PM Eastern Standard Time

Sample Name: per0312015a

Date: 12-Mar-2010

Time: 10:53:03

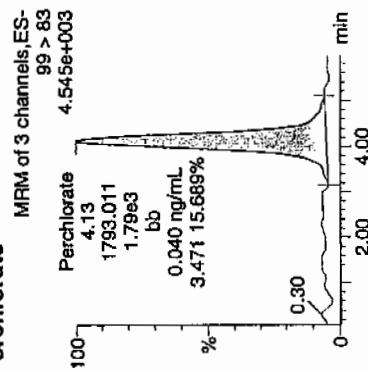
ID: 247561005

File: 1:3,B

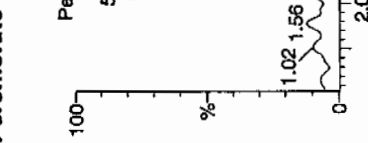
03-13-10

1922-1964182-2020-11109

Perchlorate



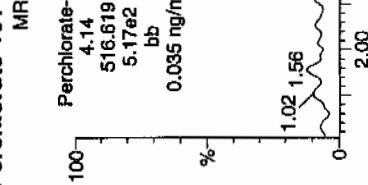
Perchlorate



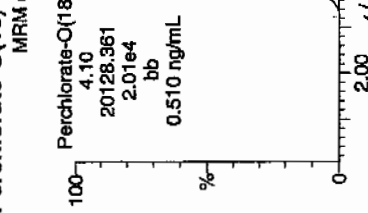
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
247561005	Perchlorate	99 > 83	4.13	1793.011	1793.011	bb			0.0396			157.286	3.47
247561005	Perchlorate-101	101 > 85	4.14	516.619	516.619	bb			0.0348			86.729	
247561005	Perchlorate-O(18)	107 > 89	4.10	20128.361	20128.361	bb			0.5102	102.03	2.03	3317.9...	

Handwritten signature: Hmw 03/13/10

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: 264159
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE15-10-8310
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1951-1
 GEL Sample ID: 247561006
 Date Filtered: 11-MAR-10
 Injection Volume (uL): 20
 %Solids: 96.3

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.08	0.621	ug/kg	J	1	12-MAR-10 11:02	per0312016a
	Perchlorate Isotope Ratio			3.05			1	12-MAR-10 11:02	per0312016a
14797-73-0	Perchlorate-101	.519	2.08	0.620	ug/kg	J	1	12-MAR-10 11:02	per0312016a
	Perchlorate-O(18)			5.52	ug/kg		1	12-MAR-10 11:02	per0312016a

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

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031210a.qld

Acq: Saturday, March 13, 2010 3:16:18 PM Eastern Standard Time
Printed: Saturday, March 13, 2010 3:47:05 PM Eastern Standard Time

Name: per0312016a

Date: 12-Mar-2010

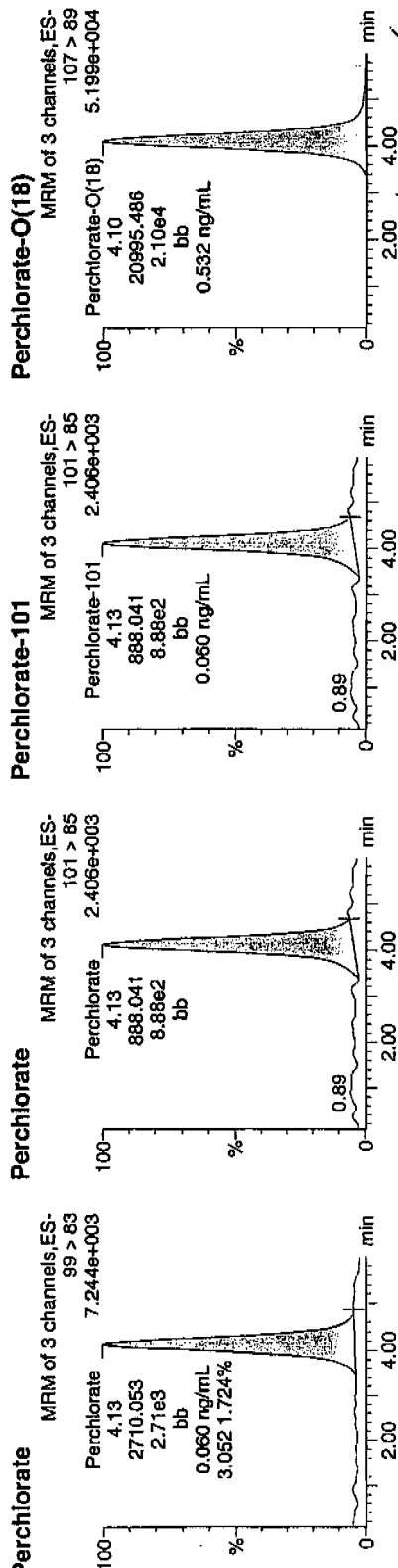
Time: 11:02:05

D: 247561006

Fial: 1:3,C

03-13-10

15200 | 96482 | 30505 | 11 | 09



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
47561006	Perchlorate	99 > 83	4.13	2710.053	bb			0.0598			327.894	3.05
47561006	Perchlorate-101	101 > 85	4.13	888.041	bb			0.0598			137.863	
47561006	Perchlorate-O(18)	107 > 89	4.10	20995.486	bb			0.5321	106.43	6.43	2197.6...	

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

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: 264159
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE15-10-8303
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1951-1
 GEL Sample ID: 247561007
 Date Filtered: 11-MAR-10
 Injection Volume (uL): 20
 %Solids: 96.8

CAS No.	Analyte ^a	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	516	2.07	0.516	ug/kg	U	1	12-MAR-10 11:11	per0312017a
	Perchlorate Isotope Ratio						1	12-MAR-10 11:11	per0312017a
14797-73-0	Perchlorate-101	516	2.07	0.516	ug/kg	U	1	12-MAR-10 11:11	per0312017a
	Perchlorate-O(18)			5.36	ug/kg		1	12-MAR-10 11:11	per0312017a

^a 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

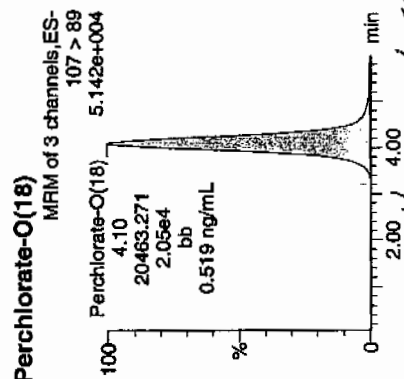
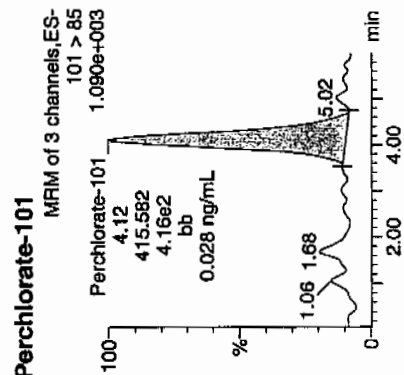
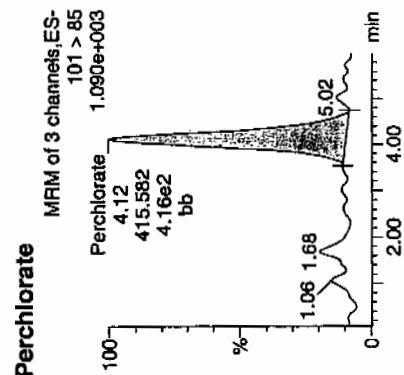
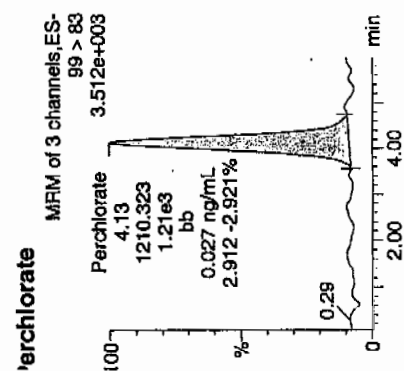
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Printed: Saturday, March 13, 2010 3:47:05 PM Eastern Standard Time

Sample Name: per0312017a
Date: 12-Mar-2010
Time: 11:11:07
ID: 247561007
Label: 1:3,D

03-13-10

1522-1964132/3070/11/05



Name	Trace	Area	Flags	Response	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
Perchlorate	99 > 83	4.13	1210.323	bb			0.0267			36.820	2.91
Perchlorate-101	101 > 85	4.12	415.582	bb			0.0280			67.792	
Perchlorate-O(18)	107 > 89	4.10	20463.271	bb			0.5187	103.73	3.73	3443.6...	

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: 964159

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8302

Date Received: 20-FEB-10

GEL Job No (SDG): 10-1951-1

GEL Sample ID: 247561008

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids: 94.8

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.527	2.11	0.527	ug/kg	U	1	12-MAR-10 11:20	per0312018a
	Perchlorate Isotope Ratio						1	12-MAR-10 11:20	per0312018a
14797-73-0	Perchlorate-101	.527	2.11	0.527	ug/kg	U	1	12-MAR-10 11:20	per0312018a
	Perchlorate-O(18)			5.60	ug/kg		1	12-MAR-10 11:20	per0312018a

[^] 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\per031210a.qid

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Printed: Saturday, March 13, 2010 3:47:05 PM Eastern Standard Time

Name: per0312018a

Date: 12-Mar-2010

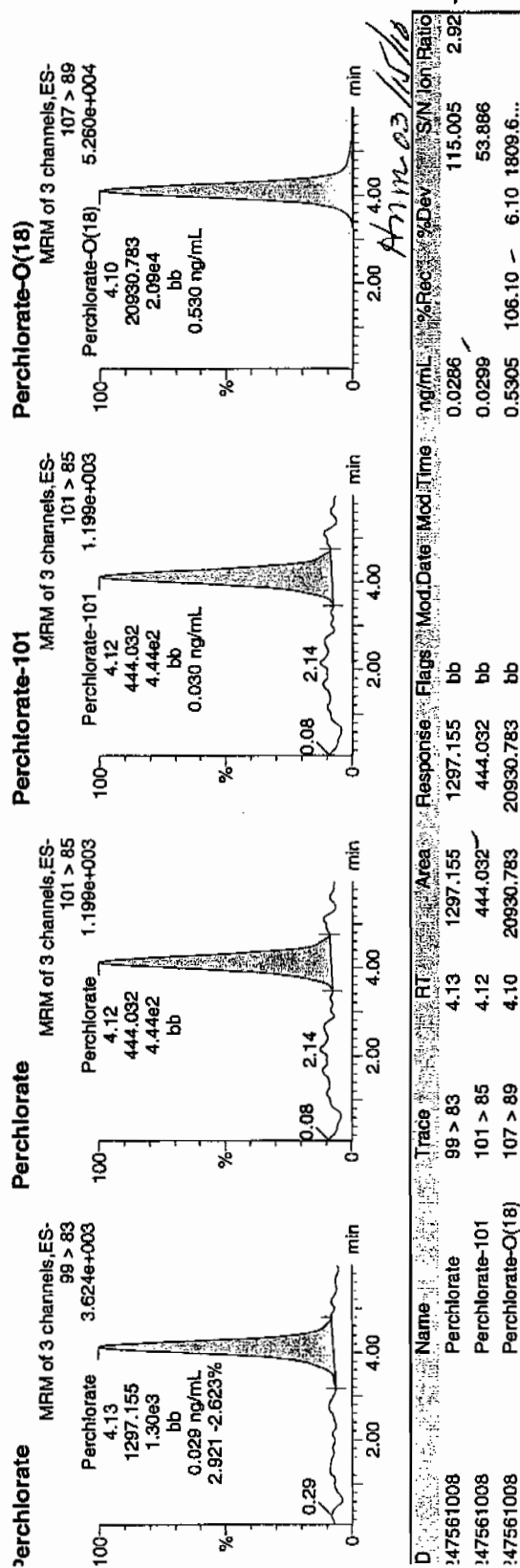
Time: 11:20:10

D: 247561008

Fial: 1:3,E

03-13-10

1620 964182 | 2070 11 | 0A



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

STANDARDS DATA

Form 2

Perchlorate Initial Calibration

GEL Job No.(SDG): 10-1951-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 11-MAR-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: 34492.02

Response Type: External Standard

Curve Type: RF

Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1951-1

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 11-MAR-10

HPLC Column: Phenomenex Ion Pac AG-I6 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: 12027.46

Response Type: External Standard

Curve Type: RF

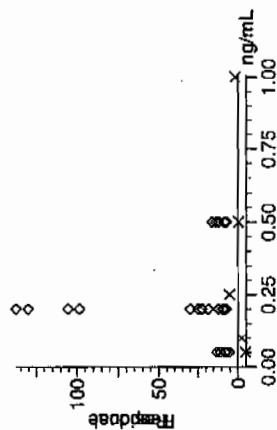
Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

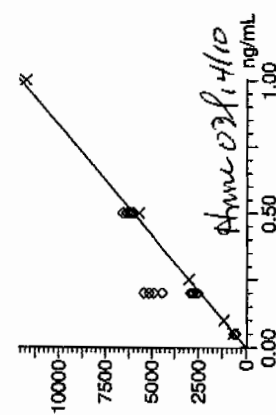
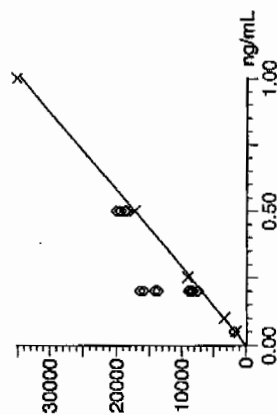
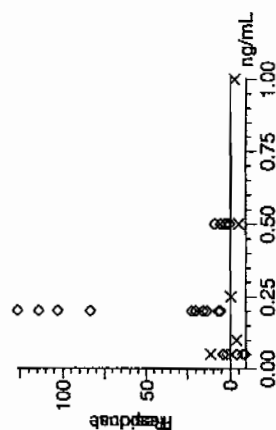
Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per031110a.mdb 12 Mar 2010 09:21:58
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per031110a.cdb 12 Mar 2010 09:22:30

Compound name: Perchlorate
Response Factor: 34492
RF SD: 1352.16, % Relative SD: 3.92021
Response type: External Std, Area
Curve type: RF



Compound name: Perchlorate-101
Response Factor: 12027.5
RF SD: 803.4, % Relative SD: 6.67972
Response type: External Std, Area
Curve type: RF



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

Quantify Calibration Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time

Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

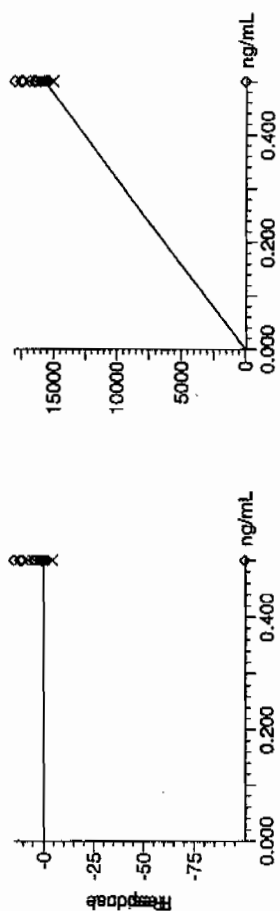
Compound name: Perchlorate-O⁻(18)

Response Factor: 31505.6

RIF SD: 855.098, % Relative SD: 2.71411

Response type: External Std, Area

Curve type: RIF



Form 2

Perchlorate Initial Calibration

GEL Job No.(SDG): 10-1951-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 12-MAR-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: 45326.02

Response Type: External Standard

Curve Type: RF

Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1951-1

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 12-MAR-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: 14857.54

Response Type: External Standard

Curve Type: RF

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

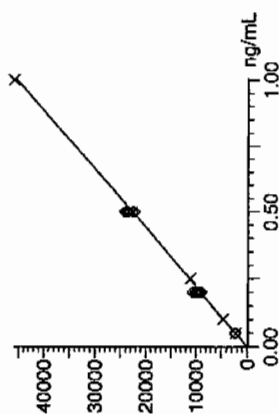
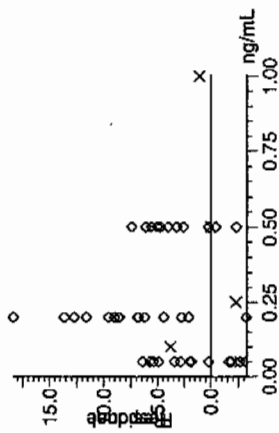
Page 1 of 2

atset: C:\MassLynx\Perchlorate.PRO\per031210a.qld

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rnted: Saturday, March 13, 2010 3:47:05 PM Eastern Standard Time

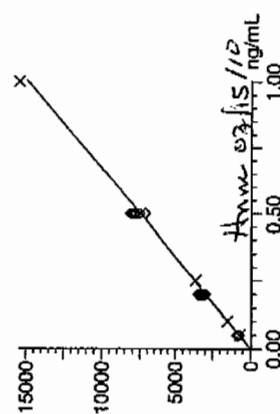
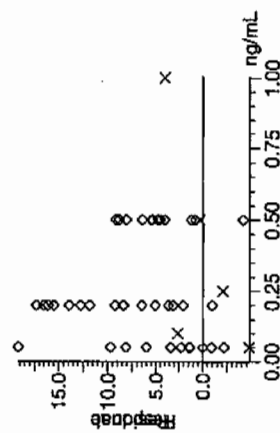
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alibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per031210a.cdb 13 Mar 2010 15:16:16

ompound name: Perchlorate
esponse Factor: 45326
RF SD: 1197.82, % Relative SD: 2.64267
esponse type: External Std, Area
urve type: RF



03-13-10

ompound name: Perchlorate-101
esponse Factor: 14857.5
RF SD: 523.874, % Relative SD: 3.52598
esponse type: External Std, Area
urve type: RF



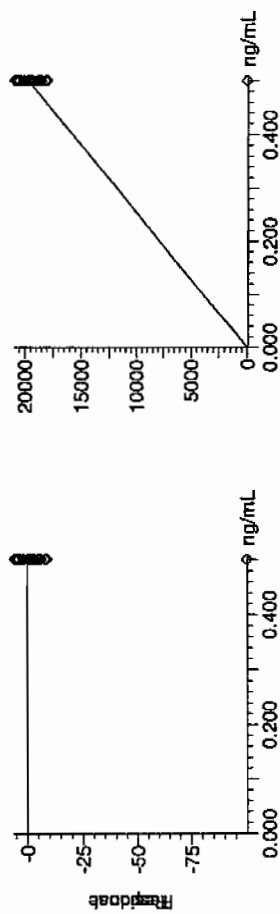
EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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

atset: C:\MassLynx\Perchlorate.PRO\per031210a.qld

ast Altered: Saturday, March 13, 2010 3:16:18 PM Eastern Standard Time
rinted: Saturday, March 13, 2010 3:47:05 PM Eastern Standard Time

omponent name: Perchlorate-O(18)
esponse Factor: 39454.9
RF SD: 939.963, % Relative SD: 2.38238
esponse type: External Std, Area
urve type: RF



03-13-10

Form 3

Perchlorate Initial Calibration Verification

GEL Job No.(SDG): 10-1951-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.53	106.95	11-MAR-10 20:31	per0311009a
Perchlorate Isotope Ratio		3.04		11-MAR-10 20:31	per0311009a
Perchlorate-101	.5	.51	101.05	11-MAR-10 20:31	per0311009a
Perchlorate	.5	.54	107.43	12-MAR-10 09:58	per0312009a
Perchlorate Isotope Ratio		3.01		12-MAR-10 09:58	per0312009a
Perchlorate-101	.5	.54	108.82	12-MAR-10 09:58	per0312009a

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

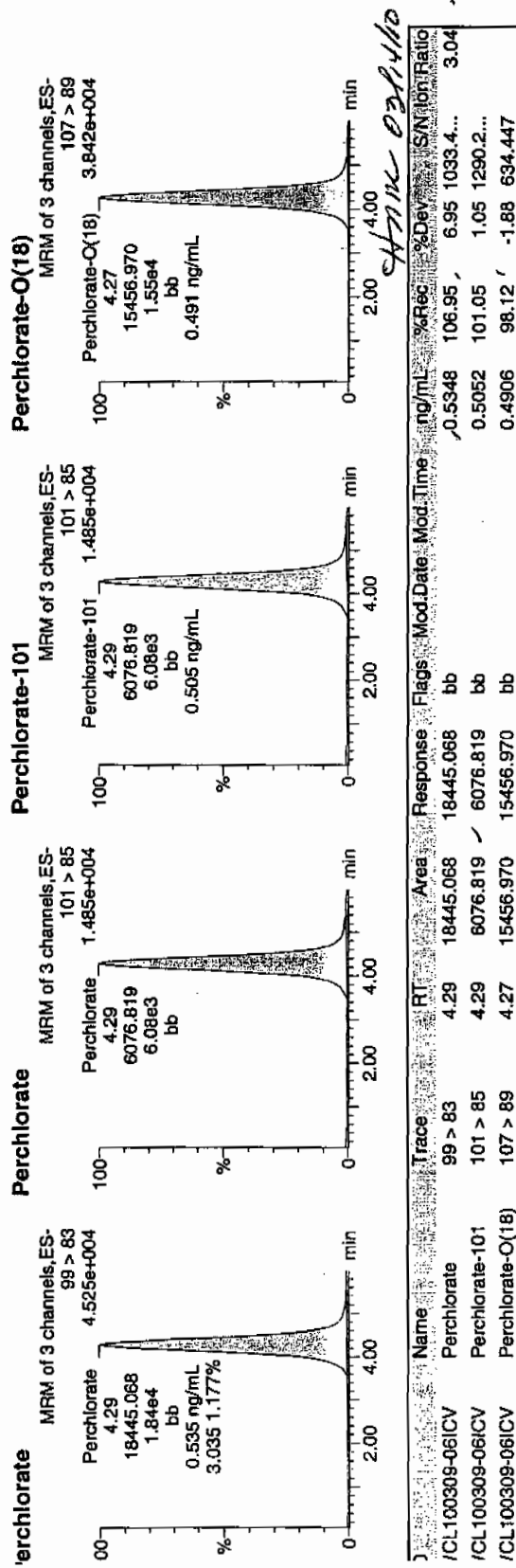
Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Sample Name: per0311009a
Date: 11-Mar-2010
Time: 20:31:06
File: WCL100309-06ICV
File: 1:2,A

Pure

03-12-10



Handwritten signature

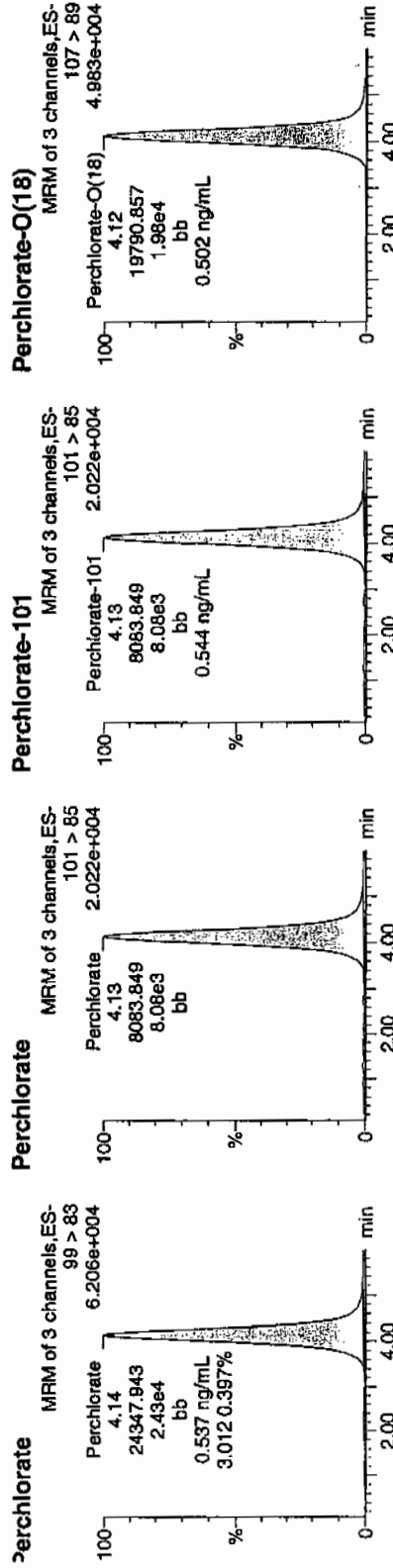
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031210a.qld

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Printed: Saturday, March 13, 2010 3:47:05 PM Eastern Standard Time

Name: per0312009a
Date: 12-Mar-2010
Time: 09:58:48
D: WCL100309-06ICV
Vial: 1:2,A

Pure
03-13-10



Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
WCL100309-06ICV	Perchlorate	99 > 83	4.14	24347.943	24347.943	bb		0.5372	107.43	7.43	1214.9...	3.01
WCL100309-06ICV	Perchlorate-101	101 > 85	4.13	8083.849	8083.849	bb		0.5441	108.82	8.82	455.473	
WCL100309-06ICV	Perchlorate-O(18)	107 > 89	4.12	19790.857	19790.857	bb		0.5016	100.32	0.32	3277.8...	

Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1951-1

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.54	108.85	11-MAR-10 22:28	per0311022a
Perchlorate Isotope Ratio		3.12		11-MAR-10 22:28	per0311022a
Perchlorate-101	.5	.5	100.09	11-MAR-10 22:28	per0311022a
Perchlorate	.5	.54	107.91	12-MAR-10 00:26	per0311035a
Perchlorate Isotope Ratio		3		12-MAR-10 00:26	per0311035a
Perchlorate-101	.5	.52	103.11	12-MAR-10 00:26	per0311035a
Perchlorate	.5	.54	108.4	12-MAR-10 02:23	per0311048a
Perchlorate Isotope Ratio		2.94		12-MAR-10 02:23	per0311048a
Perchlorate-101	.5	.53	105.67	12-MAR-10 02:23	per0311048a
Perchlorate	.5	.56	111.97	12-MAR-10 04:21	per0311061a
Perchlorate Isotope Ratio		3.05		12-MAR-10 04:21	per0311061a
Perchlorate-101	.5	.53	105.2	12-MAR-10 04:21	per0311061a
Perchlorate	.5	.57	113.82	12-MAR-10 06:19	per0311074a

Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1951-1

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate Isotope Ratio		3.18		12-MAR-10 06:19	per0311074a
Perchlorate-101	.5	.51	102.54	12-MAR-10 06:19	per0311074a
Perchlorate	.5	.53	105.63	12-MAR-10 11:29	per0312019a
Perchlorate Isotope Ratio		2.95		12-MAR-10 11:29	per0312019a
Perchlorate-101	.5	.55	109.16	12-MAR-10 11:29	per0312019a

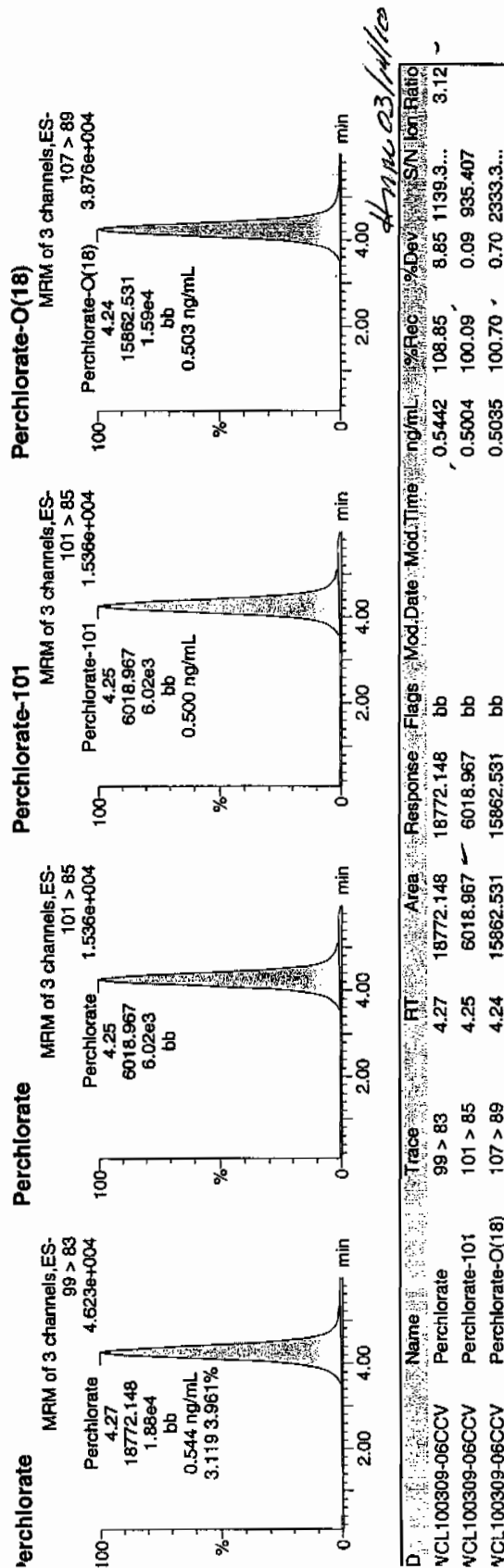
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

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Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

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Date: 11-Mar-2010
Time: 22:28:36
D: WCL100309-06CCV
File: 1:2,A

*Pers
aw
03-12-10*



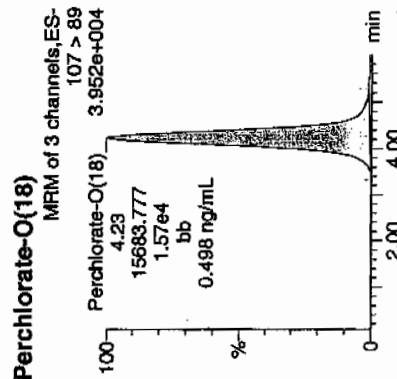
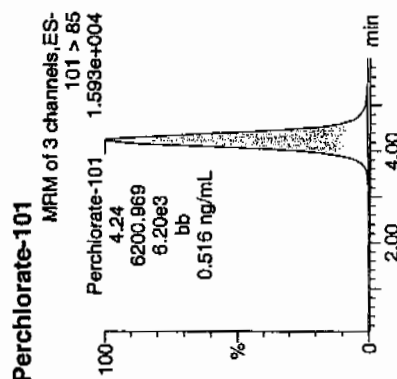
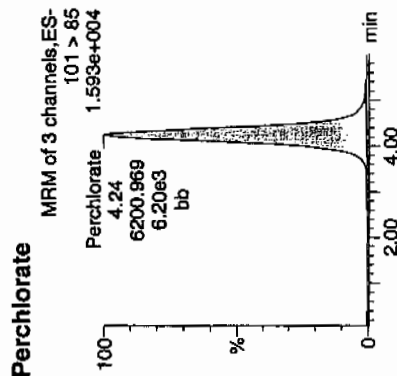
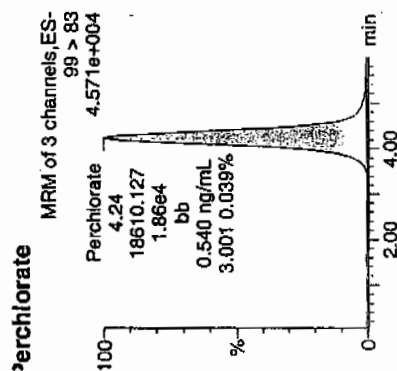
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

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Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311035a
Date: 12-Mar-2010
Time: 00:26:12
D: WCL100309-06CCV
/ial: 1:2,A

Run
03-12-10



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
VCL100309-06CCV	Perchlorate	99 > 83	4.24	18610.127	18610.127	bb			0.5395	107.91	7.91	791.852	3.00
VCL100309-06CCV	Perchlorate-101	101 > 85	4.24	6200.969	6200.969	bb			0.5156	103.11	3.11	425.513	
VCL100309-06CCV	Perchlorate-O(18)	107 > 89	4.23	15683.777	15683.777	bb			0.4978	99.56	-0.44	2090.4...	

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

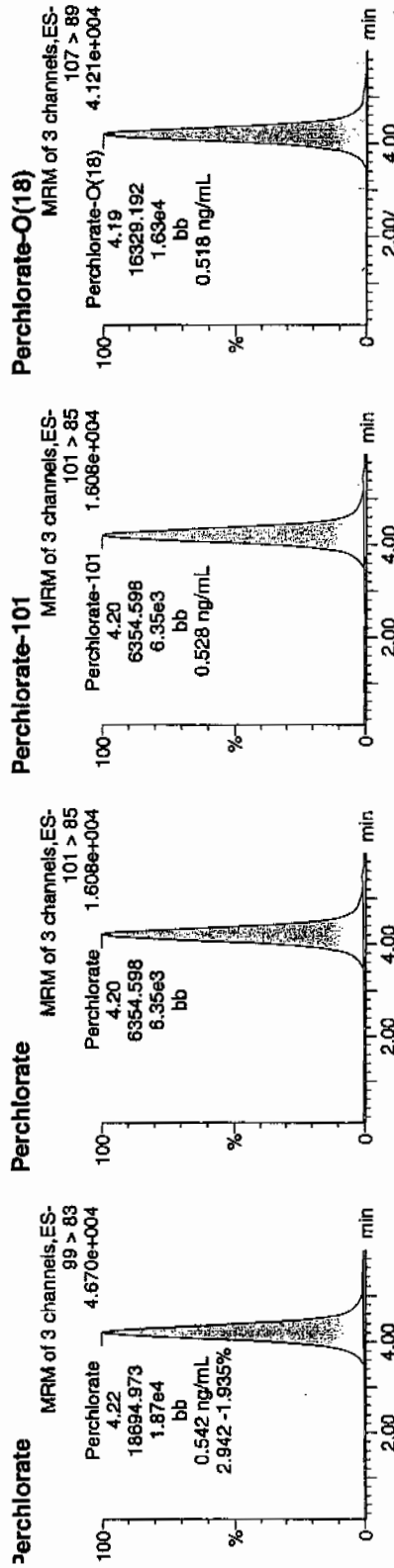
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

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Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311048a
Date: 12-Mar-2010
Time: 02:23:54
D: WCL100309-06CCV
Vial: 1:2,A

*Per
03-12-10*



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	4.22	18694.973	18694.973	bb			0.5420	108.40	8.40	1301.0...	2.94
WCL100309-06CCV	Perchlorate-101	101 > 85	4.20	6354.598	6354.598	bb			0.5283	105.67	5.67	1043.0...	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	4.19	16329.192	16329.192	bb			0.5183	103.66	3.66	1741.8...	

3EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

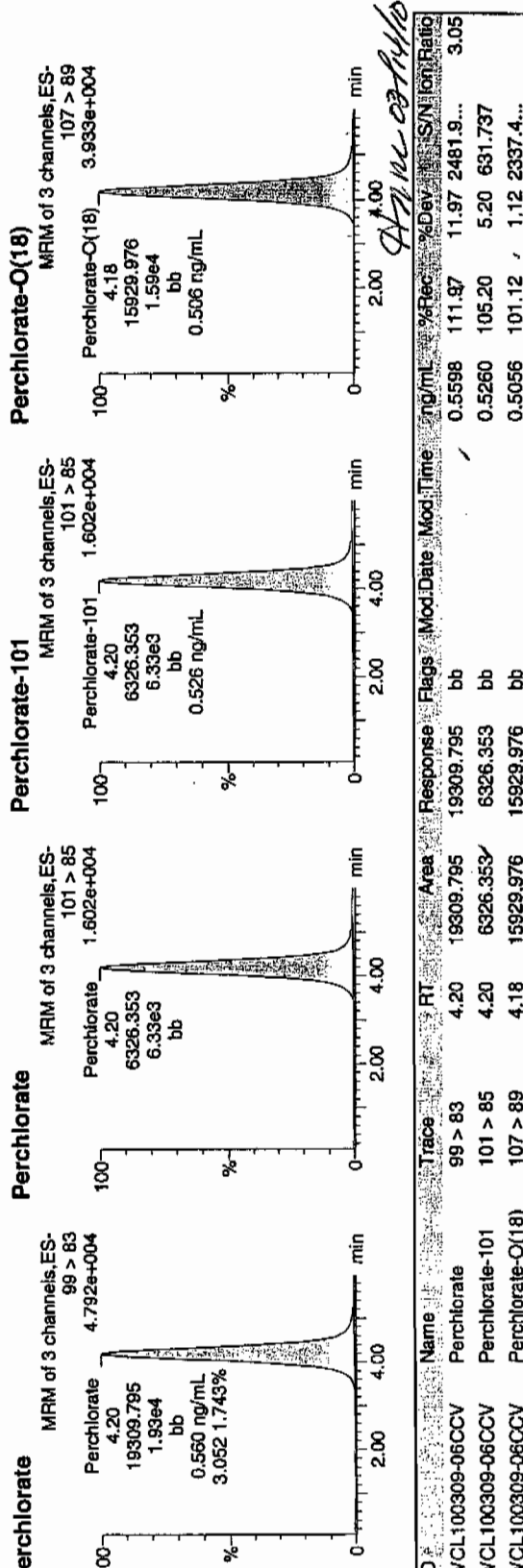
uantify Sample Report MassLynx 4.0 SP4
ne GEL Group, LLC Analyst: Charles W. Wilson

atset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

st Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
rinted: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

ame: per03111061a
ate: 12-Mar-2010
ime: 04:21:31
): WCL100309-06CCV
ial: 1:2,A

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03-12-10



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

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

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Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311074a

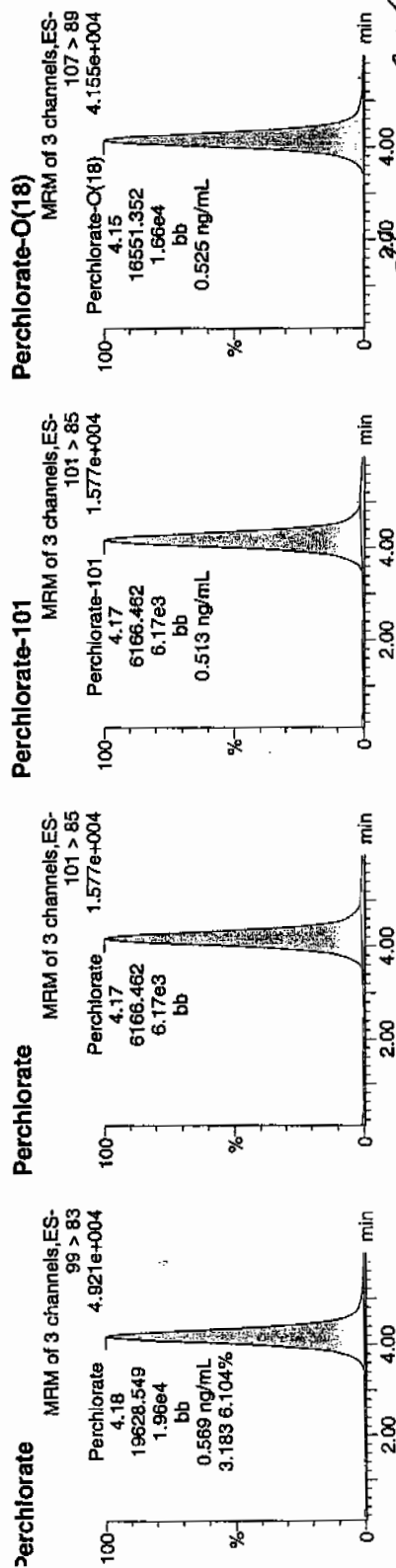
Date: 12-Mar-2010

Time: 06:19:26

D: WCL100309-06CCV

Vial: 1:2,A

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and
23-12-10



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	4.18	19628.549	19628.549	bb			0.5691	113.82	13.82	1428.0...	3.18
WCL100309-06CCV	Perchlorate-101	101 > 85	4.17	6166.462	6166.462	bb			0.5127	102.54	2.54	971.881	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	4.15	16551.352	16551.352	bb			0.5253	105.07	5.07	3649.8...	

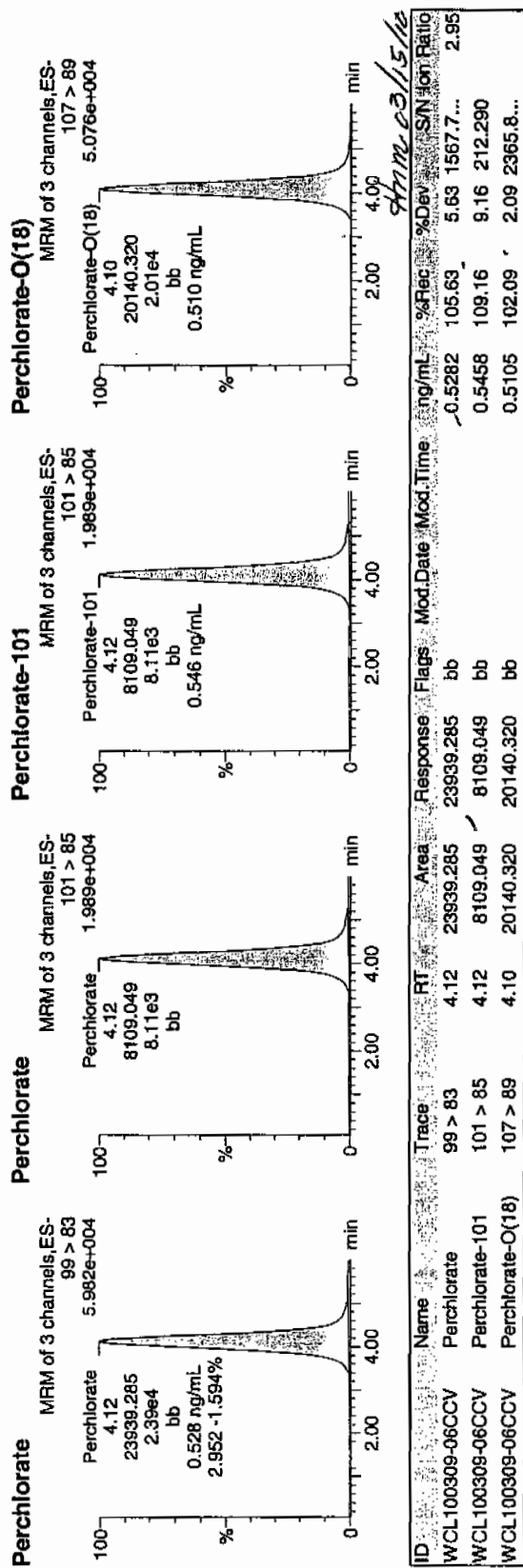
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031210a.qld

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Printed: Saturday, March 13, 2010 3:47:05 PM Eastern Standard Time

Name: per0312019a
Date: 12-Mar-2010
Time: 11:29:11
ID: WCL100309-06CCV
Vial: 1:2,A

Pure
03-13-10



Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1951-1

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	107.08	11-MAR-10 20:49	per0311011a
Perchlorate Isotope Ratio		3.37		11-MAR-10 20:49	per0311011a
Perchlorate-101	.05	.05	91.21	11-MAR-10 20:49	per0311011a
Perchlorate	.05	.05	107.51	11-MAR-10 22:46	per0311024a
Perchlorate Isotope Ratio		3.33		11-MAR-10 22:46	per0311024a
Perchlorate-101	.05	.05	92.57	11-MAR-10 22:46	per0311024a
Perchlorate	.05	.06	113.11	12-MAR-10 00:44	per0311037a
Perchlorate Isotope Ratio		3.36		12-MAR-10 00:44	per0311037a
Perchlorate-101	.05	.05	96.48	12-MAR-10 00:44	per0311037a
Perchlorate	.05	.05	105.48	12-MAR-10 02:41	per0311050a
Perchlorate Isotope Ratio		2.92		12-MAR-10 02:41	per0311050a

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1951-1

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate-101	.05	.05	103.73	12-MAR-10 02:41	per0311050a
Perchlorate	.05	.05	108.28	12-MAR-10 04:39	per0311063a
Perchlorate Isotope Ratio		3.05		12-MAR-10 04:39	per0311063a
Perchlorate-101	.05	.05	101.72	12-MAR-10 04:39	per0311063a
Perchlorate	.05	.05	108.37	12-MAR-10 06:37	per0311076a
Perchlorate Isotope Ratio		2.98		12-MAR-10 06:37	per0311076a
Perchlorate-101	.05	.05	104.45	12-MAR-10 06:37	per0311076a
Perchlorate	.05	.05	105.72	12-MAR-10 10:16	per0312011a
Perchlorate Isotope Ratio		2.98		12-MAR-10 10:16	per0312011a
Perchlorate-101	.05	.05	108.14	12-MAR-10 10:16	per0312011a
Perchlorate	.05	.05	102.86	12-MAR-10 11:47	per0312021a

Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1951-1

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate Isotope Ratio		2.86		12-MAR-10 11:47	per0312021a
Perchlorate-101	.05	.05	109.7	12-MAR-10 11:47	per0312021a

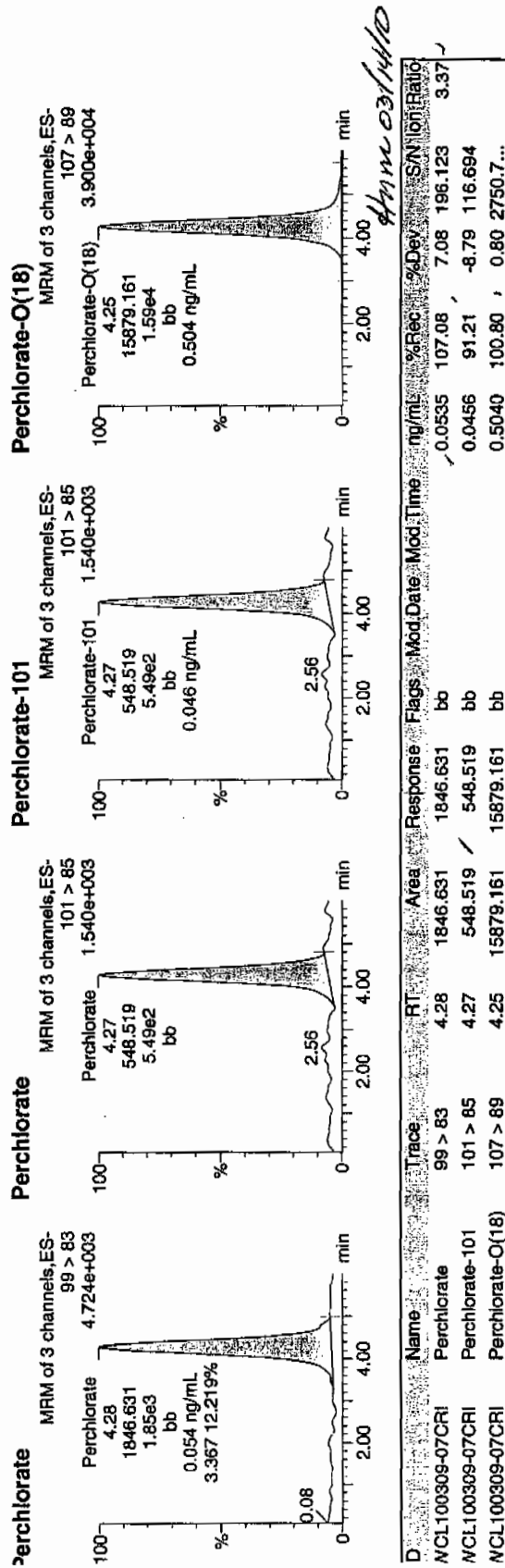
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

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Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311011a
Date: 11-Mar-2010
Time: 20:49:11
D: WCL100309-07CRI
Vial: 1:2,B

Pass
03-12-10



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

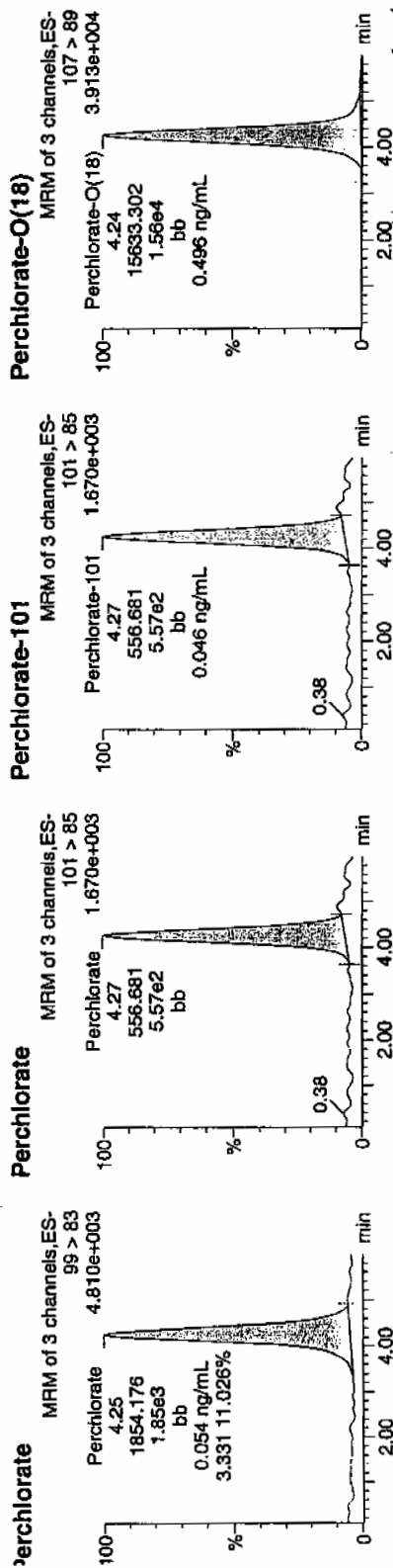
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charters W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

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Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311024a
Date: 11-Mar-2010
Time: 22:46:41
D: WCL100309-07CRI
Tail: 1:2,B

Per
03-12-10



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
VCL100309-07CRI	Perchlorate	99 > 83	4.25	1854.176	1854.176	bb			0.0538	107.51	7.51	103.638	3.33
VCL100309-07CRI	Perchlorate-101	101 > 85	4.27	556.681	556.681	bb			0.0463	92.57	-7.43	103.667	
VCL100309-07CRI	Perchlorate-O(18)	107 > 89	4.24	15633.302	15633.302	bb			0.4962	99.24	-0.76	1071.4...	

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311037a

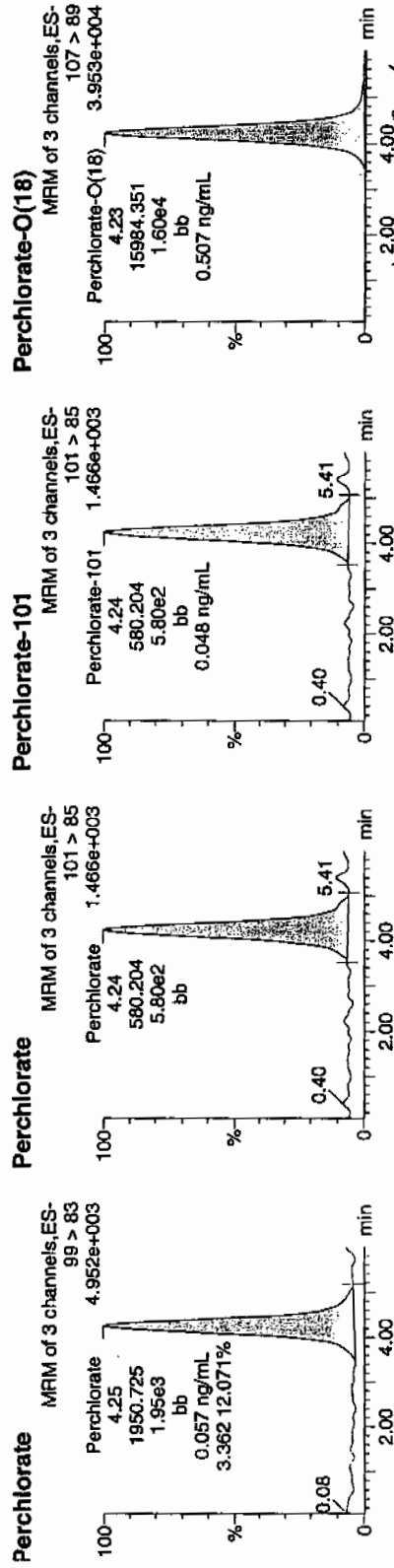
Date: 12-Mar-2010

Time: 00:44:16

ID: WCL100309-07CRI

Vial: 1:2,B

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WCL
03-12-10



Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	4.25	1950.725	bb			0.0566	113.11	13.11	247.013	3.36
WCL100309-07CRI	Perchlorate-101	101 > 85	4.24	580.204	bb			0.0482	96.48	-3.52	43.878	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	4.23	15984.351	bb			0.5073	101.47	1.47	1242.9...	

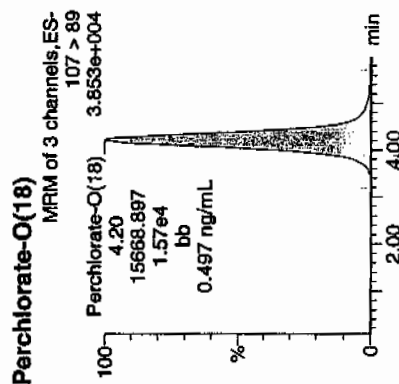
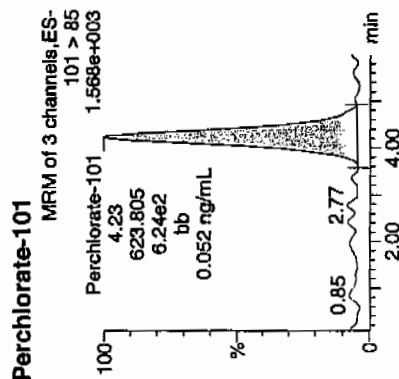
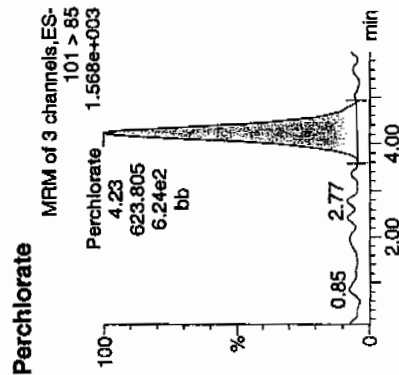
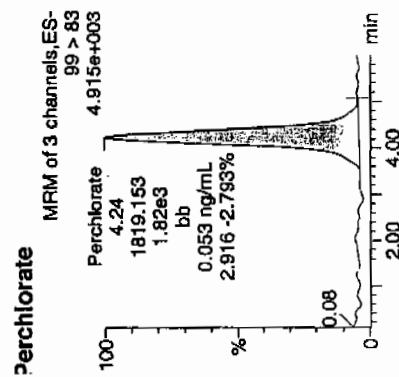
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311050a
Date: 12-Mar-2010
Time: 02:41:57
ID: WCL100309-07CRI
Vial: 1:2,B

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D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
NCL100309-07CRI	Perchlorate	99 > 83	4.24	1819.153	1819.153	bb			0.0527	105.48	5.48	183.961	2.92
NCL100309-07CRI	Perchlorate-101	101 > 85	4.23	623.805	623.805	bb			0.0519	103.73	3.73	76.460	
NCL100309-07CRI	Perchlorate-O(18)	107 > 89	4.20	15668.897	15668.897	bb			0.4973	99.47	-0.53	5031.5...	

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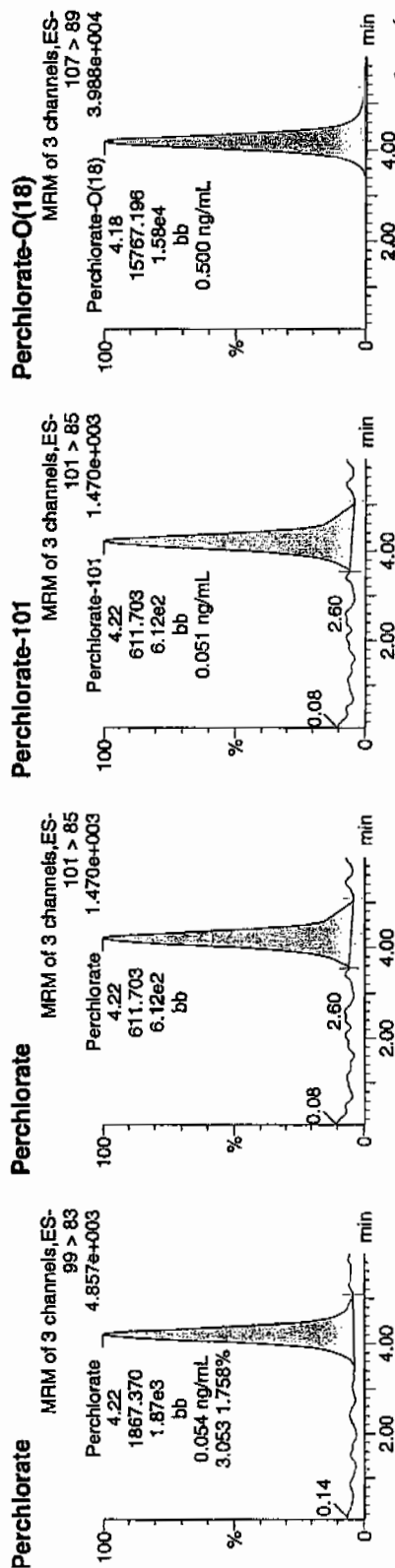
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

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Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311063a
Date: 12-Mar-2010
Time: 04:39:50
ID: WCL100309-07CRI
Vial: 1:2,B

Pass
03-12-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	4.22	1867.370	1867.370	bb			0.0541	108.28	8.28	169.475	3.05
WCL100309-07CRI	Perchlorate-101	101 > 85	4.22	611.703	611.703	bb			0.0509	101.72	1.72	82.010	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	4.18	15767.196	15767.196	bb			0.5005	100.09	0.09	1545.7...	

3EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

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Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

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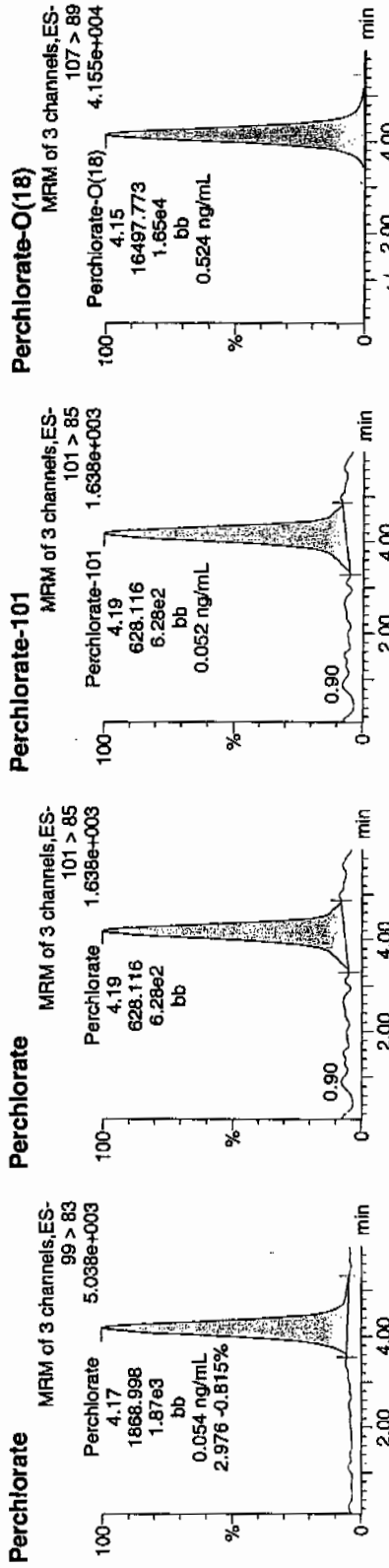
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Time: 06:37:44

ID: WCL100309-07CRI

Vial: 1:2,B

Per0311076a
03-12-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	4.17	1868.998	1868.998	bb			0.0542	106.37	8.37	165.285	2.98
WCL100309-07CRI	Perchlorate-101	101 > 85	4.19	628.116	628.116	bb			0.0522	104.45	4.45	125.436	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	4.15	16497.773	16497.773	bb			0.5236	104.73	4.73	793.035	

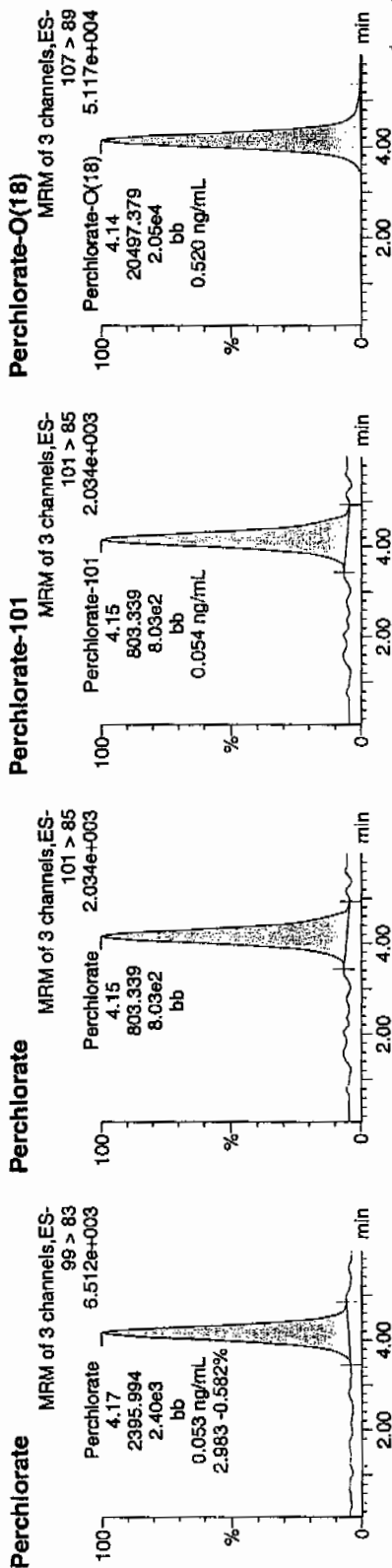
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031210a.qld

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Printed: Saturday, March 13, 2010 3:47:05 PM Eastern Standard Time

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Date: 12-Mar-2010
Time: 10:16:53
ID: WCL100309-07CRI
Vial: 1:2,B

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WCL
03-13-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	4.17	2395.994	2395.994	bb			0.0529	105.72	5.72	202.559	2.98
WCL100309-07CRI	Perchlorate-101	101 > 85	4.15	803.339	803.339	bb			0.0541	108.14	8.14	155.092	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	4.14	20497.379	20497.379	bb			0.5185	103.90	3.90	2251.1...	

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Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031210a.qld

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Printed: Saturday, March 13, 2010 3:47:05 PM Eastern Standard Time

Name: per0312021a

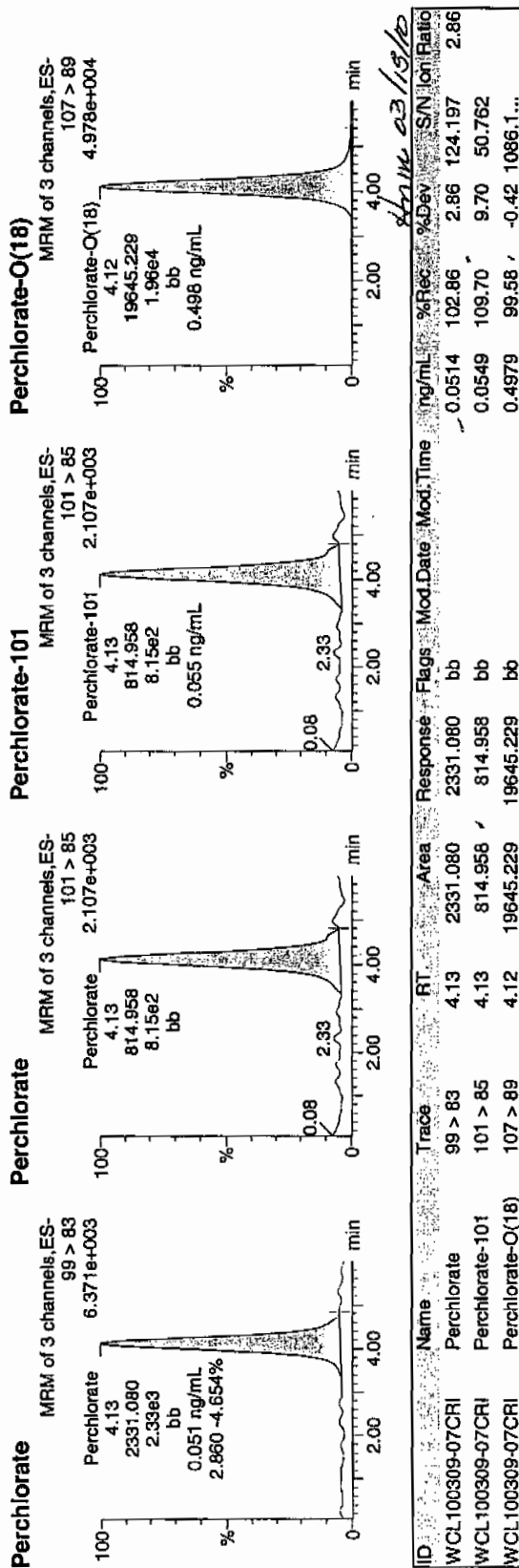
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Time: 11:47:17

ID: WCL100309-07CRI

Vial: 1:2,B

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03-13-10



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

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: 964159

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

MB

Date Received: 11-MAR-10

GEL Job No (SDG): 10-1951-1

GEL Sample ID: 1202068504

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte ^a	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	12-MAR-10 02:51	per0311051a
	Perchlorate Isotope Ratio						1	12-MAR-10 02:51	per0311051a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	12-MAR-10 02:51	per0311051a
	Perchlorate-O(18)			4.73	ug/kg		1	12-MAR-10 02:51	per0311051a

^a 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

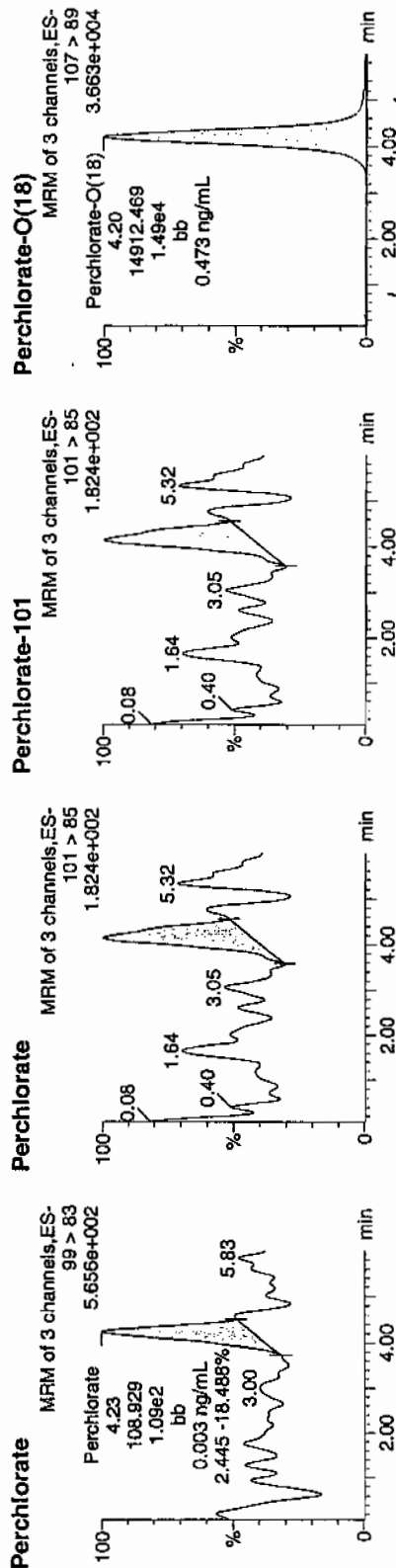
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Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311051a
Date: 12-Mar-2010
Time: 02:51:02
ID: 1202068504
Vial: 2:1A

03-12-10

15720 | 964182 | 5020 | 140 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202068504	Perchlorate	99 > 83	4.23	108.929	108.929	bb			0.0032	-		23.484	2.45
1202068504	Perchlorate-101	101 > 85	4.14	44.545	44.545	bb			0.0037			10.705	
1202068504	Perchlorate-O(18)	107 > 89	4.20	14912.469	14912.469	bb			0.4733	94.87	-5.33	3027.6...	

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 264159

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

LCS

Date Received: 11-MAR-10

GEL Job No (SDG): 10-1951-1

GEL Sample ID: 1202068505

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	2.19	ug/kg		1	12-MAR-10 03:00	per0311052a
	Perchlorate Isotope Ratio			2.97			1	12-MAR-10 03:00	per0311052a
14797-73-0	Perchlorate-101	.5	2	2.12	ug/kg		1	12-MAR-10 03:00	per0311052a
	Perchlorate-O(18)			5.09	ug/kg		1	12-MAR-10 03:00	per0311052a

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

*Concentration =

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

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

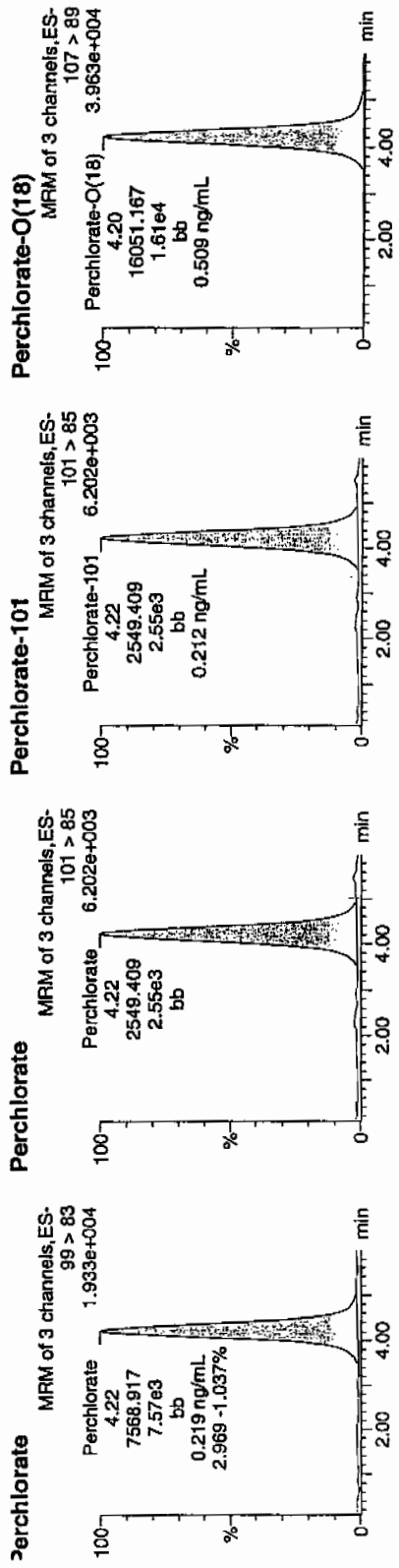
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Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311052a
Date: 12-Mar-2010
Time: 03:00:15
ID: 1202068505
Vial: 2:1,B

WWD
03-12-10

1202068505 | 964182 | 8000 | LUS | 11



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202068505	Perchlorate	99 > 83	4.22	7568.917	7568.917	bb			0.2194	109.72	9.72	871.308	2.97
202068505	Perchlorate-101	101 > 85	4.22	2549.409	2549.409	bb			0.2120	105.98	5.98	354.239	
202068505	Perchlorate-O(18)	107 > 89	4.20	16051.167	16051.167	bb			0.5095	101.89	1.89	1490.3...	

7568.917
34492 = 0.2194
4.22

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 264159

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8314MS

Date Received: 20-FEB-10

GEL Job No (SDG): 10-1951-1

GEL Sample ID: 1202068506

Date Filtered: 11-MAR-10

Injection Volume (uL): 20

%Solids: 97.3

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.514	2.06	4.90	ug/kg		1	12-MAR-10 05:43	per0311070a
	Perchlorate Isotope Ratio			3.01			1	12-MAR-10 05:43	per0311070a
14797-73-0	Perchlorate-101	.514	2.06	4.66	ug/kg		1	12-MAR-10 05:43	per0311070a
	Perchlorate-O(18)			5.72	ug/kg		1	12-MAR-10 05:43	per0311070a

[^] 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

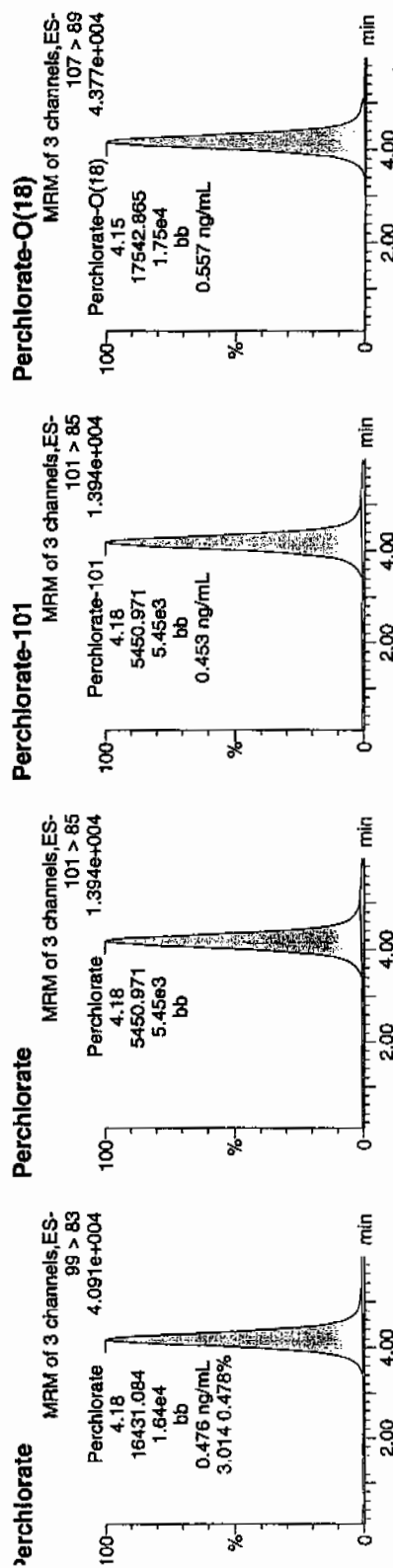
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Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311070a
Date: 12-Mar-2010
Time: 05:43:16
D: 1202068506
/ali: 2:3,E

03-12-10

122-1964132 | 50720 | MS | 1 | 2



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
202068506	Perchlorate	99 > 83	4.18	16431.084	16431.084	bb			0.4764	238.19	138.19	1514.2...	3.01
202068506	Perchlorate-101	101 > 85	4.18	5450.971	5450.971	bb			0.4532	226.61	126.61	1752.1...	
202068506	Perchlorate-O(18)	107 > 89	4.15	17542.865	17542.865	bb			0.5568	111.36	11.36	1277.6...	

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

Perchlorate Analysis Data Sheet

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

Lab Name: GEL Laboratories LLC
 Lab Code: GEL
 Instrument: LCMSMS
 Method: SW846 6850 Modified
 Matrix: SOIL
 Extraction Batch ID: 964159
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8314MSD
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1951-1
 GEL Sample ID: 1202068507
 Date Filtered: 11-MAR-10
 Injection Volume (uL): 20
 %Solids: 97.3

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.514	2.06	4.74	ug/kg		1	12-MAR-10 05:52	per0311071a
	Perchlorate Isotope Ratio			3.08			1	12-MAR-10 05:52	per0311071a
14797-73-0	Perchlorate-101	.514	2.06	4.41	ug/kg		1	12-MAR-10 05:52	per0311071a
	Perchlorate-O(18)			5.75	ug/kg		1	12-MAR-10 05:52	per0311071a

[^] 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\per031110a.qld

Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311071a

Date: 12-Mar-2010

Time: 05:52:18

D: 1202068507

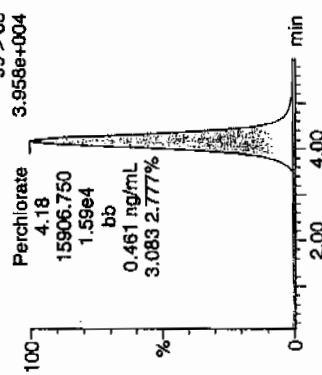
/tai: 2:3,F

03-12-10

15720-1964182 | 50720 | MSO | 1 | ne

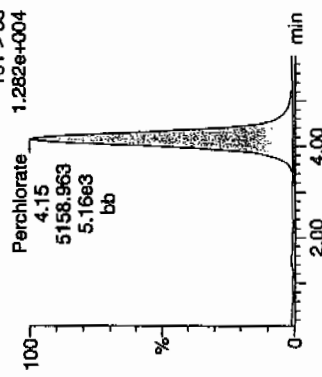
Perchlorate

MRM of 3 channels, ES-
99 > 83



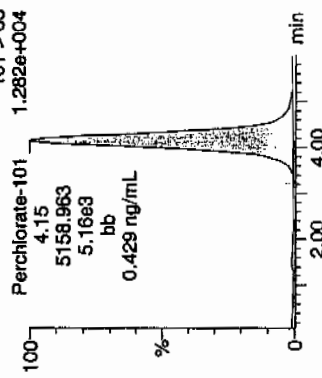
Perchlorate

MRM of 3 channels, ES-
101 > 85



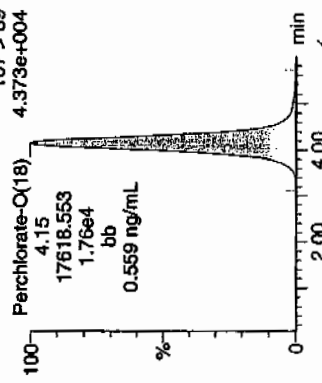
Perchlorate-101

MRM of 3 channels, ES-
101 > 85



Perchlorate-O(18)

MRM of 3 channels, ES-
107 > 89



D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202068507	Perchlorate	99 > 83	4.18	15906.750	15906.750	bb			0.4612	230.59	130.59	264.311	3.08
1202068507	Perchlorate-101	101 > 85	4.15	5158.963	5158.963	bb			0.4289	214.47	114.47	267.833	
1202068507	Perchlorate-O(18)	107 > 89	4.15	17618.553	17618.553	bb			0.5592	111.84	11.84	5843.1...	

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: 964159 Verified by: Lab SOP: GL-OA-E-067 REV# 6
 Analyst: Kaylie Westmoreland Instrument: MicroMass Quattro Ultima
 Method: SW846 6850 Modified

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202068504 MB	11-MAR-2010 14:12:00	2	20	10
1202068505 LCS	11-MAR-2010 14:12:00	2	20	10
247544001 - 2	11-MAR-2010 14:12:00	2	20	10
247544002 - 2	11-MAR-2010 14:12:00	2	20	10
247544003 - 2	11-MAR-2010 14:12:00	2	20	10
247544004 - 2	11-MAR-2010 14:12:00	2	20	10
247546001 - 2	11-MAR-2010 14:12:00	2	20	10
247546002 - 2	11-MAR-2010 14:12:00	2	20	10
247546003 - 2	11-MAR-2010 14:12:00	2	20	10
247558001 - 2	11-MAR-2010 14:12:00	2	20	10
247558002 - 2	11-MAR-2010 14:12:00	2	20	10
247558003 - 2	11-MAR-2010 14:12:00	2	20	10
247558004 - 2	11-MAR-2010 14:12:00	2	20	10
247558005 - 2	11-MAR-2010 14:12:00	2	20	10
247561001 - 2	11-MAR-2010 14:12:00	2	20	10
1202068506 - 2 MS (247561001)	11-MAR-2010 14:12:00	2	20	10
1202068507 - 2 MSD (247561001)	11-MAR-2010 14:12:00	2	20	10
247561002 - 2	11-MAR-2010 14:12:00	2	20	10
247561003 - 2	11-MAR-2010 14:12:00	2	20	10
247561004 - 2	11-MAR-2010 14:12:00	2	20	10
247561005 - 2	11-MAR-2010 14:12:00	2	20	10
247561006 - 2	11-MAR-2010 14:12:00	2	20	10
247561007 - 2	11-MAR-2010 14:12:00	2	20	10
247561008 - 2	11-MAR-2010 14:12:00	2	20	10
1202068508 LCS	11-MAR-2010 14:12:00	2	20	10

Comments:

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments
ICS	1202068508	10 ug/L ICV/CCV Second Source	UCL000236-01.2	.4	mL	Desalting Cartridges used: 100216-1-H & 100223-1-Ba
LCS	1202068505	10 ug/L ICV/CCV Second Source	UCL000236-01.2	.4	mL	
NIS	1202068506	10 ug/L ICV/CCV Second Source	UCL000236-01.2	.4	mL	
MND	1202068507	10 ug/L ICV/CCV Second Source	UCL000236-01.2	.4	mL	

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/11/10
 Extr. Injection Volume: 20uL
 Sequence Number: per031110a
 Initial Calibration Date: 03/11/10

Method: EPA 6850-Modified
 Int. Std.: UCL100126-01
 Mobile Phase Lot#: 1278668, 1271949
 Standard-Samp Reagent Lot#: 1271949

Reviewed BY: *Amc*
 Date: *23/15/10*
 SOP: GL-OA-E-067 Rev.6
 Alt Check Std. ID: WCL100309-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0311001a	IPB001	CWW	3/11/2010 19:18			1		USE	B
per0311002a	IPB001	CWW	3/11/2010 19:27			1		USE	B
per0311003a	WCLICAL-01	CWW	3/11/2010 19:36			1		USE	I
per0311004a	WCLICAL-02	CWW	3/11/2010 19:46			1		USE	I
per0311005a	WCLICAL-03	CWW	3/11/2010 19:55			1		USE	I
per0311006a	WCLICAL-04	CWW	3/11/2010 20:04			1		USE	I
per0311007a	WCLICAL-05	CWW	3/11/2010 20:13			1		USE	I
per0311008a	IPB002	CWW	3/11/2010 20:22			1		USE	B
per0311009a	WCLICV	CWW	3/11/2010 20:31			1		USE	C
per0311010a	IPB003	CWW	3/11/2010 20:40			1		USE	B
per0311011a	WCLCRI	CWW	3/11/2010 20:49			1		USE	C
per0311012a	247551001	CWW	3/11/2010 20:58	957938	10-1969	1	LANL	USE	S
per0311013a	247551002	CWW	3/11/2010 21:07	957938	10-1969	1	LANL	USE	S
per0311014a	247552002	CWW	3/11/2010 21:16	957938	10-1970	1	LANL	USE	S
per0311015a	247566001	CWW	3/11/2010 21:25	957938	10-1957	1	LANL	USE	S
per0311016a	247566002	CWW	3/11/2010 21:34	957938	10-1957	1	LANL	USE	S
per0311017a	1202054214	CWW	3/11/2010 21:43	957938	10-1957	1	LANL	USE	S
per0311018a	1202054215	CWW	3/11/2010 21:52	957938	10-1957	1	LANL	USE	S
per0311019a	247566003	CWW	3/11/2010 22:01	957938	10-1957	1	LANL	USE	S
per0311020a	247566004	CWW	3/11/2010 22:10	957938	10-1957	1	LANL	USE	S
per0311021a	247566005	CWW	3/11/2010 22:19	957938	10-1957	1	LANL	USE	S
per0311022a	WCLCCV	CWW	3/11/2010 22:28			1		USE	C
per0311023a	IPB004	CWW	3/11/2010 22:37			1		USE	B
per0311024a	WCLCRI	CWW	3/11/2010 22:46			1		USE	C
per0311025a	247566006	CWW	3/11/2010 22:55	957938	10-1957	1	LANL	USE	S
per0311026a	247566007	CWW	3/11/2010 23:04	957938	10-1957	1	LANL	USE	S
per0311027a	247566008	CWW	3/11/2010 23:13	957938	10-1957	1	LANL	USE	S
per0311028a	247566009	CWW	3/11/2010 23:22	957938	10-1957	1	LANL	USE	S
per0311029a	247566010	CWW	3/11/2010 23:31	957938	10-1957	1	LANL	USE	S

[illegible]

per0311067a	247558004	CWW	3/12/2010 5:16	964182	10-1954	1	LANL	USE	S
per0311068a	247558005	CWW	3/12/2010 5:25	964182	10-1954	1	LANL	USE	S
per0311069a	247561001	CWW	3/12/2010 5:34	964182	10-1951-1	1	LANL	USE	S
per0311070a	1202068506	CWW	3/12/2010 5:43	964182	10-1951-1	1	LANL	USE	S
per0311071a	1202068507	CWW	3/12/2010 5:52	964182	10-1951-1	1	LANL	USE	S
per0311072a	247561002	CWW	3/12/2010 6:01	964182	10-1951-1	1	LANL	USE	S
per0311073a	247561003	CWW	3/12/2010 6:10	964182	10-1951-1	1	LANL	USE	S
per0311074a	WCLCCV	CWW	3/12/2010 6:19	964182	10-1951-1	1	LANL	USE	C
per0311075a	IPB009	CWW	3/12/2010 6:28			1		USE	B
per0311076a	WCLCRI	CWW	3/12/2010 6:37			1		USE	C
per0311077a	247561004	CWW	3/12/2010 6:46	964182	10-1951-1	1	LANL	DUSE-RA	S
per0311078a	247561005	CWW	3/12/2010 6:56	964182	10-1951-1	1	LANL	DUSE-RA	S
per0311079a	247561006	CWW	3/12/2010 7:05	964182	10-1951-1	1	LANL	DUSE-RA	S
per0311080a	247561007	CWW	3/12/2010 7:17	964182	10-1951-1	1	LANL	DUSE-RA	S
per0311081a	247561008	CWW	3/12/2010 7:26	964182	10-1951-1	1	LANL	DUSE-RA	S
per0311082a	IPB010	CWW	3/12/2010 7:35			1		DUSE	B
per0311083a	1283765 Suppr.	CWW	3/12/2010 7:45	Screen		1	GEL	DUSE	B
per0311084a	ICL100311-01.1 Sf	CWW	3/12/2010 7:54	Screen		1	GEL	DUSE	B
per0311085a	WCLCCV	CWW	3/12/2010 8:03			1		DUSE	C
per0311086a	IPB011	CWW	3/12/2010 8:12			1		DUSE	B
per0311087a	WCLCRI	CWW	3/12/2010 8:21			1		DUSE	C

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/12/10

Extr. Injection Volume: 20ul

Sequence Number: per031210a

Initial Calibration Date: 03/12/10

Method: EPA 6850-Modified

Int. Std.: UCL100210-01

Mobile Phase Lot#: 1278668, 1271949

Standard-Samp Reagent Lot#: 1271949

Reviewed BY: *hml*

Date: 03/15/10

SOP: GL-OA-E-067 Rev.6

Alt Check Std. ID: WCL100309-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0312001a	IPB001	CWW	3/12/2010 8:46			1		USE	B
per0312002a	IPB001	CWW	3/12/2010 8:55			1		USE	B
per0312003a	WCLICAL-01	CWW	3/12/2010 9:04			1		USE	I
per0312004a	WCLICAL-02	CWW	3/12/2010 9:13			1		USE	I
per0312005a	WCLICAL-03	CWW	3/12/2010 9:22			1		USE	I
per0312006a	WCLICAL-04	CWW	3/12/2010 9:31			1		USE	I
per0312007a	WCLICAL-05	CWW	3/12/2010 9:40			1		USE	I
per0312008a	IPB002	CWW	3/12/2010 9:49			1		USE	B
per0312009a	WCLICV	CWW	3/12/2010 9:58			1		USE	C
per0312010a	IPB003	CWW	3/12/2010 10:07			1		USE	B
per0312011a	WCLCRI	CWW	3/12/2010 10:16			1		USE	C
per0312012a	ICL100311-01.1 Sf	CWW	3/12/2010 10:25	Screen		1	GEL	USE	B
per0312013a	IPB004	CWW	3/12/2010 10:34			1		USE	B
per0312014a	247561004	CWW	3/12/2010 10:44	964182	10-1951-1	1	LANL	USE	S
per0312015a	247561005	CWW	3/12/2010 10:53	964182	10-1951-1	1	LANL	USE	S
per0312016a	247561006	CWW	3/12/2010 11:02	964182	10-1951-1	1	LANL	USE	S
per0312017a	247561007	CWW	3/12/2010 11:11	964182	10-1951-1	1	LANL	USE	S
per0312018a	247561008	CWW	3/12/2010 11:20	964182	10-1951-1	1	LANL	USE	S
per0312019a	WCLCCV	CWW	3/12/2010 11:29			1	LANL	USE	C
per0312020a	IPB005	CWW	3/12/2010 11:38			1	LANL	USE	B
per0312021a	WCLCRI	CWW	3/12/2010 11:47			1	LANL	USE	C
per0312022a	1202049049	CWW	3/12/2010 11:56	955715	VARIOUS	1	LANL	USE	S
per0312023a	1202049050	CWW	3/12/2010 12:05	955715	VARIOUS	1	LANL	USE	S
per0312024a	1202049053	CWW	3/12/2010 12:14	955715	VARIOUS	1	LANL	USE	S
per0312025a	247249001	CWW	3/12/2010 12:23	955715	10-1877	1	LANL	USE	S
per0312026a	247249002	CWW	3/12/2010 12:32	955715	10-1877	1	LANL	USE	S
per0312027a	1202049051	CWW	3/12/2010 12:41	955715	10-1877	1	LANL	USE	S
per0312028a	1202049052	CWW	3/12/2010 12:50	955715	10-1877	1	LANL	USE	S
per0312029a	247249003	CWW	3/12/2010 12:59	955715	10-1877	1	LANL	USE	S

per0312030a	247249004	CWW	3/12/2010 13:08	955715	10-1877	1	LANL	USE	S
per0312031a	247249005	CWW	3/12/2010 13:17	955715	10-1877	1	LANL	USE	S
per0312032a	WCLCCV	CWW	3/12/2010 13:26			1	LANL	USE	C
per0312033a	IPB006	CWW	3/12/2010 13:35			1	LANL	USE	B
per0312034a	WCLCRI	CWW	3/12/2010 13:44			1	LANL	USE	C
per0312035a	247255001	CWW	3/12/2010 13:53	955715	10-1879	1	LANL	USE	S
per0312036a	247255002	CWW	3/12/2010 14:02	955715	10-1879	1	LANL	USE	S
per0312037a	247255003	CWW	3/12/2010 14:12	955715	10-1879	1	LANL	USE	S
per0312038a	247255004	CWW	3/12/2010 14:21	955715	10-1879	1	LANL	USE	S
per0312039a	247255005	CWW	3/12/2010 14:30	955715	10-1879	1	LANL	USE	S
per0312040a	247321001	CWW	3/12/2010 14:39	955715	10-1893	1	LANL	USE	S
per0312041a	247321002	CWW	3/12/2010 14:48	955715	10-1893	1	LANL	USE	S
per0312042a	247321003	CWW	3/12/2010 14:57	955715	10-1893	1	LANL	USE	S
per0312043a	247321004	CWW	3/12/2010 15:06	955715	10-1893	1	LANL	USE	S
per0312044a	247321005	CWW	3/12/2010 15:15	955715	10-1893	1	LANL	USE	S
per0312045a	WCLCCV	CWW	3/12/2010 15:24			1	LANL	USE	C
per0312046a	IPB007	CWW	3/12/2010 15:33			1	LANL	USE	B
per0312047a	WCLCRI	CWW	3/12/2010 15:42			1	LANL	USE	C
per0312048a	247321006	CWW	3/12/2010 15:51	955715	10-1893	1	LANL	USE	S
per0312049a	247321007	CWW	3/12/2010 16:00	955715	10-1893	1	LANL	USE	S
per0312050a	247325001	CWW	3/12/2010 16:09	955715	10-1896	1	LANL	USE	S
per0312051a	IPB008	CWW	3/12/2010 16:18			1		USE	B
per0312052a	1202056498	CWW	3/12/2010 16:27	958912	VARIOUS	1	LANL	USE	S
per0312053a	1202056499	CWW	3/12/2010 16:37	958912	VARIOUS	1	LANL	USE	S
per0312054a	1202056502	CWW	3/12/2010 16:46	958912	VARIOUS	1	LANL	USE	S
per0312055a	247907001	CWW	3/12/2010 16:55	958912	10-2013	1	LANL	USE	S
per0312056a	WCLCCV	CWW	3/12/2010 17:04			1		USE	C
per0312057a	IPB009	CWW	3/12/2010 17:13			1		USE	B
per0312058a	WCLCRI	CWW	3/12/2010 17:22			1		USE	C
per0312059a	247907002	CWW	3/12/2010 17:31	958912	10-2013	1	LANL	USE	S
per0312060a	1202056500	CWW	3/12/2010 17:40	958912	10-2013	1	LANL	USE	S
per0312061a	1202056501	CWW	3/12/2010 17:49	958912	10-2013	1	LANL	USE	S
per0312062a	247907003	CWW	3/12/2010 17:59	958912	10-2013	1	LANL	USE	S
per0312063a	247907004	CWW	3/12/2010 18:08	958912	10-2013	1	LANL	USE	S
per0312064a	247907005	CWW	3/12/2010 18:17	958912	10-2013	1	LANL	USE	S
per0312065a	247907006	CWW	3/12/2010 18:26	958912	10-2013	1	LANL	USE	S
per0312066a	247907007	CWW	3/12/2010 18:35	958912	10-2013	1	LANL	USE	S

per0312067a	247907008	CWW	3/12/2010 18:44	958912	10-2013	1	LANL	USE	S
per0312068a	247907009	CWW	3/12/2010 18:53	958912	10-2013	1	LANL	USE	S
per0312069a	WCLCCV	CWW	3/12/2010 19:03			1		USE	C
per0312070a	IPB010	CWW	3/12/2010 19:12			1		USE	B
per0312071a	WCLCRI	CWW	3/12/2010 19:21			1		USE	C
per0312072a	247907010	CWW	3/12/2010 19:30	958912	10-2013	1	LANL	USE	S
per0312073a	247907011	CWW	3/12/2010 19:39	958912	10-2013	1	LANL	USE	S
per0312074a	247907012	CWW	3/12/2010 19:48	958912	10-2013	1	LANL	USE	S
per0312075a	247907013	CWW	3/12/2010 19:57	958912	10-2013	1	LANL	USE	S
per0312076a	247907014	CWW	3/12/2010 20:06	958912	10-2013	1	LANL	USE	S
per0312077a	247907015	CWW	3/12/2010 20:15	958912	10-2013	1	LANL	USE	S
per0312078a	247907016	CWW	3/12/2010 20:24	958912	10-2013	1	LANL	USE	S
per0312079a	247907017	CWW	3/12/2010 20:33	958912	10-2013	1	LANL	USE	S
per0312080a	247920002	CWW	3/12/2010 20:42	958912	10-2021	1	LANL	USE	S
per0312081a	WCLCCV	CWW	3/12/2010 20:51			1		USE	C
per0312082a	IPB011	CWW	3/12/2010 21:01			1		USE	B
per0312083a	WCLCRI	CWW	3/12/2010 21:10			1		USE	C
per0312084a	1202056578	CWW	3/12/2010 21:19	958953	10-2078	1	LANL	USE	S
per0312085a	1202056579	CWW	3/12/2010 21:28	958953	10-2078	1	LANL	USE	S
per0312086a	1202056582	CWW	3/12/2010 21:37	958953	10-2078	1	LANL	USE	S
per0312087a	248055001	CWW	3/12/2010 21:46	958953	10-2078	1	LANL	USE	S
per0312088a	1202056580	CWW	3/12/2010 21:55	958953	10-2078	1	LANL	USE	S
per0312089a	1202056581	CWW	3/12/2010 22:04	958953	10-2078	1	LANL	USE	S
per0312090a	248055002	CWW	3/12/2010 22:13	958953	10-2078	1	LANL	USE	S
per0312091a	248055003	CWW	3/12/2010 22:22	958953	10-2078	1	LANL	USE	S
per0312092a	248055004	CWW	3/12/2010 22:31	958953	10-2078	1	LANL	USE	S
per0312093a	WCLCCV	CWW	3/12/2010 22:40			1		USE	C
per0312094a	IPB012	CWW	3/12/2010 22:50			1		USE	B
per0312095a	WCLCRI	CWW	3/12/2010 22:59			1		USE	C
per0312096a	248055005	CWW	3/12/2010 23:08	958953	10-2078	1	LANL	USE	S
per0312097a	248055006	CWW	3/12/2010 23:17	958953	10-2078	1	LANL	USE	S
per0312098a	248055007	CWW	3/12/2010 23:26	958953	10-2078	1	LANL	USE	S
per0312099a	248055008	CWW	3/12/2010 23:35	958953	10-2078	1	LANL	USE	S
per0312100a	248055009	CWW	3/12/2010 23:44	958953	10-2078	1	LANL	USE	S
per0312101a	248055010	CWW	3/12/2010 23:53	958953	10-2078	1	LANL	USE	S
per0312102a	248055011	CWW	3/13/2010 0:02	958953	10-2078	1	LANL	USE	S
per0312103a	248055012	CWW	3/13/2010 0:11	958953	10-2078	1	LANL	USE	S

per0312104a	WCLCCV	CWW	3/13/2010 0:20				1		USE	C
per0312105a	IPB013	CWW	3/13/2010 0:30				1		USE	B
per0312106a	WCLCRI	CWW	3/13/2010 0:39				1		USE	C
per0312107a	248055013	CWW	3/13/2010 0:48	958953	10-2078		1	LANL	USE	S
per0312108a	248055014	CWW	3/13/2010 0:57	958953	10-2078		1	LANL	USE	S
per0312109a	248055015	CWW	3/13/2010 1:06	958953	10-2078		1	LANL	USE	S
per0312110a	248055016	CWW	3/13/2010 1:15	958953	10-2078		1	LANL	USE	S
per0312111a	248055017	CWW	3/13/2010 1:24	958953	10-2078		1	LANL	USE	S
per0312112a	248055018	CWW	3/13/2010 1:33	958953	10-2078		1	LANL	USE	S
per0312113a	248055019	CWW	3/13/2010 1:42	958953	10-2078		1	LANL	USE	S
per0312114a	248055020	CWW	3/13/2010 1:51	958953	10-2078		1	LANL	USE	S
per0312115a	WCLCCV	CWW	3/13/2010 2:00				1		USE	C
per0312116a	IPB014	CWW	3/13/2010 2:10				1		USE	B
per0312117a	WCLCRI	CWW	3/13/2010 2:19				1		USE	C
per0312118a	1202056527	CWW	3/13/2010 2:28	958926	10-2066	LANL	1		USE	S
per0312119a	1202056528	CWW	3/13/2010 2:37	958926	10-2066	LANL	1		USE	S
per0312120a	1202056531	CWW	3/13/2010 2:46	958926	10-2066	LANL	1		USE	S
per0312121a	248037001	CWW	3/13/2010 2:55	958926	10-2066	LANL	1		USE	S
per0312122a	1202056529	CWW	3/13/2010 3:04	958926	10-2066	LANL	1		USE	S
per0312123a	1202056530	CWW	3/13/2010 3:13	958926	10-2066	LANL	1		USE	S
per0312124a	248037002	CWW	3/13/2010 3:22	958926	10-2066	LANL	1		USE	S
per0312125a	248037003	CWW	3/13/2010 3:31	958926	10-2066	LANL	1		USE	S
per0312126a	248037004	CWW	3/13/2010 3:40	958926	10-2066	LANL	1		USE	S
per0312127a	WCLCCV	CWW	3/13/2010 3:49				1		USE	C
per0312128a	IPB015	CWW	3/13/2010 3:59				1		USE	B
per0312129a	WCLCRI	CWW	3/13/2010 4:08				1		USE	C
per0312130a	248037005	CWW	3/13/2010 4:17	958926	10-2066	LANL	1		USE	S
per0312131a	248037006	CWW	3/13/2010 4:26	958926	10-2066	LANL	1		USE	S
per0312132a	248037007	CWW	3/13/2010 4:35	958926	10-2066	LANL	1		USE	S
per0312133a	248037008	CWW	3/13/2010 4:44	958926	10-2066	LANL	1		USE	S
per0312134a	248037009	CWW	3/13/2010 4:53	958926	10-2066	LANL	1		USE	S
per0312135a	248037010	CWW	3/13/2010 5:02	958926	10-2066	LANL	1		USE	S
per0312136a	248037011	CWW	3/13/2010 5:11	958926	10-2066	LANL	1		USE	S
per0312137a	248037012	CWW	3/13/2010 5:20	958926	10-2066	LANL	1		USE	S
per0312138a	WCLCCV	CWW	3/13/2010 5:29				1		USE	C
per0312139a	IPB016	CWW	3/13/2010 5:39				1		USE	B
per0312140a	WCLCRI	CWW	3/13/2010 5:48				1		USE	C

per0312141a	248037013	CWW	3/13/2010 5:57	958926	10-2066	1	LANL	USE	S
per0312142a	248037014	CWW	3/13/2010 6:06	958926	10-2066	1	LANL	USE	S
per0312143a	248037015	CWW	3/13/2010 6:15	958926	10-2066	1	LANL	USE	S
per0312144a	248037016	CWW	3/13/2010 6:24	958926	10-2066	1	LANL	USE	S
per0312145a	248037017	CWW	3/13/2010 6:33	958926	10-2066	1	LANL	USE	S
per0312146a	248037018	CWW	3/13/2010 6:42	958926	10-2066	1	LANL	USE	S
per0312147a	248037019	CWW	3/13/2010 6:51	958926	10-2066	1	LANL	USE	S
per0312148a	248037020	CWW	3/13/2010 7:00	958926	10-2066	1	LANL	USE	S
per0312149a	WCLCCV	CWW	3/13/2010 7:09			1		USE	C
per0312150a	IPB017	CWW	3/13/2010 7:19			1		USE	B
per0312151a	WCLCRI	CWW	3/13/2010 7:28			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 10-1951**

Sample Analysis

Sample ID	Client ID
247560001	RE15-10-8329
1202049256	Method Blank (MB) ICP
1202049257	Laboratory Control Sample (LCS)
1202049260	247548001(RE46-10-13373L) Serial Dilution (SD)
1202049258	247548001(RE46-10-13373D) Sample Duplicate (DUP)
1202049259	247548001(RE46-10-13373S) Matrix Spike (MS)
1202049261	Method Blank (MB) ICP-MS
1202049262	Laboratory Control Sample (LCS)
1202049265	247548001(RE46-10-13373L) Serial Dilution (SD)
1202049263	247548001(RE46-10-13373D) Sample Duplicate (DUP)
1202049264	247548001(RE46-10-13373S) Matrix Spike (MS)
1202052034	Method Blank (MB) CVAA
1202052035	Laboratory Control Sample (LCS)
1202052041	247548001(RE46-10-13373L) Serial Dilution (SD)
1202052036	247548001(RE46-10-13373D) Sample Duplicate (DUP)
1202052037	247548001(RE46-10-13373S) Matrix Spike (MS)

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

Method/Analysis Information

Analytical Batch: 955808, 955810 and 957034

Prep Batch : 955807, 955809 and 957032

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 sample was selected as the quality control (QC) sample for this SDG: 247548001 (RE46-10-13373).

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 Fausey Date: 3/23/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1951

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247560001

BASIS: As Received

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8329

LEVEL: Low

DATE RECEIVED 20-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	200	ug/L	U	68	200	200	1	P	HSC	03/17/10 23:46	031710-1	955808
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	SKJ	03/19/10 02:11	100318-3	955810
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	03/17/10 23:46	031710-1	955808
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	03/17/10 23:46	031710-1	955808
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	SKJ	03/19/10 02:11	100318-3	955810
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	SKJ	03/19/10 02:11	100318-3	955810
7440-70-2	Calcium	113	ug/L	J	50	200	200	1	P	HSC	03/17/10 23:46	031710-1	955808
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	03/17/10 23:46	031710-1	955808
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	03/17/10 23:46	031710-1	955808
7440-50-8	Copper	7.27	ug/L	J	3	10	10	1	P	HSC	03/17/10 23:46	031710-1	955808
7439-89-6	Iron	53.2	ug/L	J	30	100	100	1	P	HSC	03/17/10 23:46	031710-1	955808
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	PRB	03/20/10 18:09	100319-4	955810
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	03/17/10 23:46	031710-1	955808
7439-96-5	Manganese	1.58	ug/L	J	1	5	5	1	MS	SKJ	03/19/10 02:11	100318-3	955810
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/25/10 13:39	022510W1-5	957034
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	03/17/10 23:46	031710-1	955808
7440-09-7	Potassium	327	ug/L		50	150	150	1	P	HSC	03/17/10 23:46	031710-1	955808
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	03/17/10 23:46	031710-1	955808
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	03/17/10 23:46	031710-1	955808
7440-23-5	Sodium	329	ug/L		100	300	300	1	P	HSC	03/17/10 23:46	031710-1	955808
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	PRB	03/20/10 18:09	100319-4	955810
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	PRB	03/21/10 10:19	100320-2	955810
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	03/17/10 23:46	031710-1	955808
7440-66-6	Zinc	6.53	ug/L	J	3.3	10	10	1	P	HSC	03/17/10 23:46	031710-1	955808

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955808	955807	SW846 3005A	50	mL	50	mL	02/24/10	BXA1
955810	955809	SW846 3005A	50	mL	50	mL	02/24/10	BXA1
957034	957032	SW846 7470A Prep	20	mL	20	mL	02/24/10	TXB3

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1951

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS5,ICPMS6,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICV01										
	Mercury	5.12	ug/L	5	ug/L	102.5	90.0 – 110.0	AV	25-FEB-10 11:07	022510W1-5
	Aluminum	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	17-MAR-10 16:19	031710-1
	Arsenic	474	ug/L	500	ug/L	94.7	90.0 – 110.0	P	17-MAR-10 16:19	031710-1
	Barium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	17-MAR-10 16:19	031710-1
	Calcium	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	17-MAR-10 16:19	031710-1
	Chromium	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	17-MAR-10 16:19	031710-1
	Cobalt	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	17-MAR-10 16:19	031710-1
	Copper	510	ug/L	500	ug/L	102	90.0 – 110.0	P	17-MAR-10 16:19	031710-1
	Iron	5130	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	17-MAR-10 16:19	031710-1
	Magnesium	5370	ug/L	5000	ug/L	107.5	90.0 – 110.0	P	17-MAR-10 16:19	031710-1
	Nickel	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	17-MAR-10 16:19	031710-1
	Potassium	2500	ug/L	2500	ug/L	99.9	90.0 – 110.0	P	17-MAR-10 16:19	031710-1
	Selenium	2500	ug/L	2500	ug/L	100	90.0 – 110.0	P	17-MAR-10 16:19	031710-1
	Silver	258	ug/L	250	ug/L	103	90.0 – 110.0	P	17-MAR-10 16:19	031710-1
	Sodium	2450	ug/L	2500	ug/L	98.2	90.0 – 110.0	P	17-MAR-10 16:19	031710-1
	Vanadium	518	ug/L	500	ug/L	103.6	90.0 – 110.0	P	17-MAR-10 16:19	031710-1
	Zinc	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	17-MAR-10 16:19	031710-1
	Antimony	51.9	ug/L	50	ug/L	103.8	90.0 – 110.0	MS	18-MAR-10 23:16	100318-3
	Beryllium	48.3	ug/L	50	ug/L	96.7	90.0 – 110.0	MS	18-MAR-10 23:16	100318-3
	Cadmium	49.4	ug/L	50	ug/L	98.8	90.0 – 110.0	MS	18-MAR-10 23:16	100318-3
	Manganese	50.3	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	18-MAR-10 23:16	100318-3
	Lead	53.7	ug/L	50	ug/L	107.5	90.0 – 110.0	MS	20-MAR-10 13:58	100319-4
	Thallium	50.4	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	20-MAR-10 13:58	100319-4
	Uranium	52.5	ug/L	50	ug/L	104.9	90.0 – 110.0	MS	21-MAR-10 09:14	100320-2
CCV01										
	Mercury	4.94	ug/L	5	ug/L	98.7	80.0 – 120.0	AV	25-FEB-10 11:13	022510W1-5
	Aluminum	4920	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	17-MAR-10 17:08	031710-1
	Arsenic	525	ug/L	500	ug/L	104.9	90.0 – 110.0	P	17-MAR-10 17:08	031710-1
	Barium	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	17-MAR-10 17:08	031710-1
	Calcium	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	17-MAR-10 17:08	031710-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1951

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS5,ICPMS6,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Chromium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	17-MAR-10 17:08	031710-1
	Cobalt	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	17-MAR-10 17:08	031710-1
	Copper	485	ug/L	500	ug/L	97	90.0 – 110.0	P	17-MAR-10 17:08	031710-1
	Iron	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	17-MAR-10 17:08	031710-1
	Magnesium	5130	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	17-MAR-10 17:08	031710-1
	Nickel	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	17-MAR-10 17:08	031710-1
	Potassium	5190	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	17-MAR-10 17:08	031710-1
	Selenium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	17-MAR-10 17:08	031710-1
	Silver	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	17-MAR-10 17:08	031710-1
	Sodium	9880	ug/L	10000	ug/L	98.8	90.0 – 110.0	P	17-MAR-10 17:08	031710-1
	Vanadium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	17-MAR-10 17:08	031710-1
	Zinc	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	17-MAR-10 17:08	031710-1
	Antimony	51.7	ug/L	50	ug/L	103.3	90.0 – 110.0	MS	18-MAR-10 23:36	100318-3
	Beryllium	48.9	ug/L	50	ug/L	97.8	90.0 – 110.0	MS	18-MAR-10 23:36	100318-3
	Cadmium	49.2	ug/L	50	ug/L	98.4	90.0 – 110.0	MS	18-MAR-10 23:36	100318-3
	Manganese	51.4	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	18-MAR-10 23:36	100318-3
	Lead	52.9	ug/L	50	ug/L	105.7	90.0 – 110.0	MS	20-MAR-10 14:18	100319-4
	Thallium	51.2	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	20-MAR-10 14:18	100319-4
	Uranium	51.3	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	21-MAR-10 09:26	100320-2
CCV02										
	Mercury	5.03	ug/L	5	ug/L	100.6	80.0 – 120.0	AV	25-FEB-10 11:37	022510W1-5
	Aluminum	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	17-MAR-10 17:27	031710-1
	Arsenic	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	17-MAR-10 17:27	031710-1
	Barium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	17-MAR-10 17:27	031710-1
	Calcium	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	17-MAR-10 17:27	031710-1
	Chromium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	17-MAR-10 17:27	031710-1
	Cobalt	505	ug/L	500	ug/L	101	90.0 – 110.0	P	17-MAR-10 17:27	031710-1
	Copper	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	17-MAR-10 17:27	031710-1
	Iron	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	17-MAR-10 17:27	031710-1
	Magnesium	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	17-MAR-10 17:27	031710-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1951

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS5,ICPMS6,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Nickel	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	17-MAR-10 17:27	031710-1
	Potassium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	17-MAR-10 17:27	031710-1
	Selenium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	17-MAR-10 17:27	031710-1
	Silver	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	17-MAR-10 17:27	031710-1
	Sodium	9690	ug/L	10000	ug/L	96.9	90.0 – 110.0	P	17-MAR-10 17:27	031710-1
	Vanadium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	17-MAR-10 17:27	031710-1
	Zinc	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	17-MAR-10 17:27	031710-1
	Antimony	51.9	ug/L	50	ug/L	103.8	90.0 – 110.0	MS	19-MAR-10 00:11	100318-3
	Beryllium	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	19-MAR-10 00:11	100318-3
	Cadmium	49.6	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	19-MAR-10 00:11	100318-3
	Manganese	51.9	ug/L	50	ug/L	103.8	90.0 – 110.0	MS	19-MAR-10 00:11	100318-3
	Lead	54.1	ug/L	50	ug/L	108.3	90.0 – 110.0	MS	20-MAR-10 14:57	100319-4
	Thallium	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	20-MAR-10 14:57	100319-4
	Uranium	51.5	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	21-MAR-10 09:55	100320-2
CCV03										
	Mercury	5.3	ug/L	5	ug/L	106.1	80.0 – 120.0	AV	25-FEB-10 12:00	022510W1-5
	Aluminum	5190	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	17-MAR-10 18:33	031710-1
	Arsenic	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	17-MAR-10 18:33	031710-1
	Barium	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	17-MAR-10 18:33	031710-1
	Calcium	5180	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	17-MAR-10 18:33	031710-1
	Chromium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	17-MAR-10 18:33	031710-1
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	17-MAR-10 18:33	031710-1
	Copper	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	17-MAR-10 18:33	031710-1
	Iron	5100	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	17-MAR-10 18:33	031710-1
	Magnesium	5270	ug/L	5000	ug/L	105.5	90.0 – 110.0	P	17-MAR-10 18:33	031710-1
	Nickel	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	17-MAR-10 18:33	031710-1
	Potassium	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	17-MAR-10 18:33	031710-1
	Selenium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	17-MAR-10 18:33	031710-1
	Silver	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	17-MAR-10 18:33	031710-1
	Sodium	9470	ug/L	10000	ug/L	94.7	90.0 – 110.0	P	17-MAR-10 18:33	031710-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1951

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS5,ICPMS6,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Vanadium	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	17-MAR-10 18:33	031710-1
	Zinc	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	17-MAR-10 18:33	031710-1
	Antimony	50	ug/L	50	ug/L	100	90.0 – 110.0	MS	19-MAR-10 00:47	100318-3
	Beryllium	48.4	ug/L	50	ug/L	96.7	90.0 – 110.0	MS	19-MAR-10 00:47	100318-3
	Cadmium	47.8	ug/L	50	ug/L	95.6	90.0 – 110.0	MS	19-MAR-10 00:47	100318-3
	Manganese	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	19-MAR-10 00:47	100318-3
	Lead	53.6	ug/L	50	ug/L	107.1	90.0 – 110.0	MS	20-MAR-10 15:33	100319-4
	Thallium	51.3	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	20-MAR-10 15:33	100319-4
	Uranium	50.9	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	21-MAR-10 10:24	100320-2
CCV04										
	Mercury	5.03	ug/L	5	ug/L	100.7	80.0 – 120.0	AV	25-FEB-10 12:24	022510W1-5
	Aluminum	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	17-MAR-10 19:00	031710-1
	Arsenic	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	17-MAR-10 19:00	031710-1
	Barium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	17-MAR-10 19:00	031710-1
	Calcium	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	17-MAR-10 19:00	031710-1
	Chromium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	17-MAR-10 19:00	031710-1
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	17-MAR-10 19:00	031710-1
	Copper	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	17-MAR-10 19:00	031710-1
	Iron	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	17-MAR-10 19:00	031710-1
	Magnesium	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	17-MAR-10 19:00	031710-1
	Nickel	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	17-MAR-10 19:00	031710-1
	Potassium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	17-MAR-10 19:00	031710-1
	Selenium	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	17-MAR-10 19:00	031710-1
	Silver	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	17-MAR-10 19:00	031710-1
	Sodium	9160	ug/L	10000	ug/L	91.6	90.0 – 110.0	P	17-MAR-10 19:00	031710-1
	Vanadium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	17-MAR-10 19:00	031710-1
	Zinc	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	17-MAR-10 19:00	031710-1
	Antimony	50.7	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	19-MAR-10 01:31	100318-3
	Beryllium	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	19-MAR-10 01:31	100318-3
	Cadmium	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	19-MAR-10 01:31	100318-3

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1951

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS5,ICPMS6,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Manganese	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	19-MAR-10 01:31	100318-3
	Lead	53.9	ug/L	50	ug/L	107.8	90.0 – 110.0	MS	20-MAR-10 16:05	100319-4
	Thallium	51	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	20-MAR-10 16:05	100319-4
CCV05										
	Mercury	5.08	ug/L	5	ug/L	101.7	80.0 – 120.0	AV	25-FEB-10 12:48	022510W1-5
	Aluminum	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	17-MAR-10 20:08	031710-1
	Arsenic	495	ug/L	500	ug/L	99	90.0 – 110.0	P	17-MAR-10 20:08	031710-1
	Barium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	17-MAR-10 20:08	031710-1
	Calcium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	17-MAR-10 20:08	031710-1
	Chromium	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	17-MAR-10 20:08	031710-1
	Cobalt	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	17-MAR-10 20:08	031710-1
	Copper	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	17-MAR-10 20:08	031710-1
	Iron	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	17-MAR-10 20:08	031710-1
	Magnesium	5250	ug/L	5000	ug/L	105	90.0 – 110.0	P	17-MAR-10 20:08	031710-1
	Nickel	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	17-MAR-10 20:08	031710-1
	Potassium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	17-MAR-10 20:08	031710-1
	Selenium	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	17-MAR-10 20:08	031710-1
	Silver	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	17-MAR-10 20:08	031710-1
	Sodium	10200	ug/L	10000	ug/L	102.3	90.0 – 110.0	P	17-MAR-10 20:08	031710-1
	Vanadium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	17-MAR-10 20:08	031710-1
	Zinc	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	17-MAR-10 20:08	031710-1
	Antimony	50.7	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	19-MAR-10 02:19	100318-3
	Beryllium	51.5	ug/L	50	ug/L	103.1	90.0 – 110.0	MS	19-MAR-10 02:19	100318-3
	Cadmium	47.2	ug/L	50	ug/L	94.4	90.0 – 110.0	MS	19-MAR-10 02:19	100318-3
	Manganese	51.4	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	19-MAR-10 02:19	100318-3
	Lead	54.2	ug/L	50	ug/L	108.4	90.0 – 110.0	MS	20-MAR-10 16:41	100319-4
	Thallium	51.6	ug/L	50	ug/L	103.3	90.0 – 110.0	MS	20-MAR-10 16:41	100319-4
CCV06										
	Mercury	5.19	ug/L	5	ug/L	103.9	80.0 – 120.0	AV	25-FEB-10 13:12	022510W1-5
	Aluminum	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	17-MAR-10 21:19	031710-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1951

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS5,ICPMS6,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Arsenic	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	17-MAR-10 21:19	031710-1
	Barium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	17-MAR-10 21:19	031710-1
	Calcium	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	17-MAR-10 21:19	031710-1
	Chromium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	17-MAR-10 21:19	031710-1
	Cobalt	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	17-MAR-10 21:19	031710-1
	Copper	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	17-MAR-10 21:19	031710-1
	Iron	4860	ug/L	5000	ug/L	97.2	90.0 – 110.0	P	17-MAR-10 21:19	031710-1
	Magnesium	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	17-MAR-10 21:19	031710-1
	Nickel	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	17-MAR-10 21:19	031710-1
	Potassium	4850	ug/L	5000	ug/L	97.1	90.0 – 110.0	P	17-MAR-10 21:19	031710-1
	Selenium	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	17-MAR-10 21:19	031710-1
	Silver	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	17-MAR-10 21:19	031710-1
	Sodium	9670	ug/L	10000	ug/L	96.7	90.0 – 110.0	P	17-MAR-10 21:19	031710-1
	Vanadium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	17-MAR-10 21:19	031710-1
	Zinc	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	17-MAR-10 21:19	031710-1
	Lead	54.2	ug/L	50	ug/L	108.5	90.0 – 110.0	MS	20-MAR-10 17:25	100319-4
	Thallium	51.4	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	20-MAR-10 17:25	100319-4
CCV07										
	Mercury	5.54	ug/L	5	ug/L	110.8	80.0 – 120.0	AV	25-FEB-10 13:35	022510W1-5
	Aluminum	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	17-MAR-10 22:36	031710-1
	Arsenic	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	17-MAR-10 22:36	031710-1
	Barium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	17-MAR-10 22:36	031710-1
	Calcium	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	17-MAR-10 22:36	031710-1
	Chromium	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	17-MAR-10 22:36	031710-1
	Cobalt	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	17-MAR-10 22:36	031710-1
	Copper	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	17-MAR-10 22:36	031710-1
	Iron	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	17-MAR-10 22:36	031710-1
	Magnesium	5140	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	17-MAR-10 22:36	031710-1
	Nickel	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	17-MAR-10 22:36	031710-1
	Potassium	5000	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	17-MAR-10 22:36	031710-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1951

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS5,ICPMS6,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Selenium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	17-MAR-10 22:36	031710-1
	Silver	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	17-MAR-10 22:36	031710-1
	Sodium	9570	ug/L	10000	ug/L	95.7	90.0 – 110.0	P	17-MAR-10 22:36	031710-1
	Vanadium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	17-MAR-10 22:36	031710-1
	Zinc	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	17-MAR-10 22:36	031710-1
	Lead	54.4	ug/L	50	ug/L	108.8	90.0 – 110.0	MS	20-MAR-10 18:17	100319-4
	Thallium	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	20-MAR-10 18:17	100319-4
CCV08										
	Mercury	5.63	ug/L	5	ug/L	112.7	80.0 – 120.0	AV	25-FEB-10 13:59	022510W1-5
	Aluminum	4910	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	17-MAR-10 23:59	031710-1
	Arsenic	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	17-MAR-10 23:59	031710-1
	Barium	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	17-MAR-10 23:59	031710-1
	Calcium	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	17-MAR-10 23:59	031710-1
	Chromium	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	17-MAR-10 23:59	031710-1
	Cobalt	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	17-MAR-10 23:59	031710-1
	Copper	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	17-MAR-10 23:59	031710-1
	Iron	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	17-MAR-10 23:59	031710-1
	Magnesium	5060	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	17-MAR-10 23:59	031710-1
	Nickel	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	17-MAR-10 23:59	031710-1
	Potassium	4960	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	17-MAR-10 23:59	031710-1
	Selenium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	17-MAR-10 23:59	031710-1
	Silver	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	17-MAR-10 23:59	031710-1
	Sodium	9770	ug/L	10000	ug/L	97.7	90.0 – 110.0	P	17-MAR-10 23:59	031710-1
	Vanadium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	17-MAR-10 23:59	031710-1
	Zinc	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	17-MAR-10 23:59	031710-1

METALS
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CRDL Standard for AA & ICP

SDG No: 10-1951

Contract: LANL01004

Lab Code: GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS3,ICPMS5,ICPMS6,MER536,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Advisory Limits (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CRDL01										
	Mercury	.257	ug/L	.2	ug/L	128.7	70.0 – 130.0	AV	25-FEB-10 11:11	022510W1-5
	Manganese	5.42	ug/L	5	ug/L	108.3	70.0 – 130.0	MS	18-MAR-10 23:24	100318-3
	Antimony	2.92	ug/L	3	ug/L	97.4	70.0 – 130.0	MS	18-MAR-10 23:24	100318-3
	Cadmium	1.02	ug/L	1	ug/L	101.5	70.0 – 130.0	MS	18-MAR-10 23:24	100318-3
	Beryllium	.53	ug/L	.5	ug/L	106	70.0 – 130.0	MS	18-MAR-10 23:24	100318-3
	Lead	2.24	ug/L	2	ug/L	111.9	70.0 – 130.0	MS	20-MAR-10 14:06	100319-4
	Thallium	1.15	ug/L	1	ug/L	114.5	70.0 – 130.0	MS	20-MAR-10 14:06	100319-4
	Uranium	.227	ug/L	.2	ug/L	113.5	70.0 – 130.0	MS	21-MAR-10 09:19	100320-2
PQL01										
	Arsenic	30	ug/L	30	ug/L	99.9	70.0 – 130.0	P	17-MAR-10 16:34	031710-1
	Barium	5.11	ug/L	5	ug/L	102.3	70.0 – 130.0	P	17-MAR-10 16:34	031710-1
	Silver	4.93	ug/L	5	ug/L	98.6	70.0 – 130.0	P	17-MAR-10 16:34	031710-1
	Potassium	125	ug/L	150	ug/L	83.4	70.0 – 130.0	P	17-MAR-10 16:34	031710-1
	Nickel	5.13	ug/L	5	ug/L	102.7	70.0 – 130.0	P	17-MAR-10 16:34	031710-1
	Magnesium	315	ug/L	300	ug/L	105.1	70.0 – 130.0	P	17-MAR-10 16:34	031710-1
	Iron	115	ug/L	100	ug/L	115.1	70.0 – 130.0	P	17-MAR-10 16:34	031710-1
	Aluminum	204	ug/L	200	ug/L	102.2	70.0 – 130.0	P	17-MAR-10 16:34	031710-1
	Sodium	300	ug/L	300	ug/L	99.9	70.0 – 130.0	P	17-MAR-10 16:34	031710-1
	Chromium	4.87	ug/L	5	ug/L	97.5	70.0 – 130.0	P	17-MAR-10 16:34	031710-1
	Cobalt	5.18	ug/L	5	ug/L	103.7	70.0 – 130.0	P	17-MAR-10 16:34	031710-1
	Copper	10.2	ug/L	10	ug/L	102.4	70.0 – 130.0	P	17-MAR-10 16:34	031710-1
	Vanadium	4.56	ug/L	5	ug/L	91.2	70.0 – 130.0	P	17-MAR-10 16:34	031710-1
	Zinc	12.6	ug/L	10	ug/L	125.7	70.0 – 130.0	P	17-MAR-10 16:34	031710-1
	Calcium	201	ug/L	200	ug/L	100.7	70.0 – 130.0	P	17-MAR-10 16:34	031710-1
	Selenium	32.5	ug/L	30	ug/L	108.3	70.0 – 130.0	P	17-MAR-10 16:34	031710-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1951

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
ICB01										
	Mercury	0.066	+/- .2	U	0.066	0.2	LIQ	AV	25-FEB-10 11:09	022510W1-5
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	17-MAR-10 16:26	031710-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	17-MAR-10 16:26	031710-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 16:26	031710-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	17-MAR-10 16:26	031710-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 16:26	031710-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 16:26	031710-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	17-MAR-10 16:26	031710-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	17-MAR-10 16:26	031710-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	17-MAR-10 16:26	031710-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	17-MAR-10 16:26	031710-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	17-MAR-10 16:26	031710-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	17-MAR-10 16:26	031710-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 16:26	031710-1
	Sodium	100	+/-300	U	100	300	LIQ	P	17-MAR-10 16:26	031710-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 16:26	031710-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	17-MAR-10 16:26	031710-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	18-MAR-10 23:20	100318-3
	Beryllium	0.1	+/- .5	U	0.1	0.5	LIQ	MS	18-MAR-10 23:20	100318-3
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	18-MAR-10 23:20	100318-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	18-MAR-10 23:20	100318-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	20-MAR-10 14:02	100319-4
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	20-MAR-10 14:02	100319-4
	Uranium	0.05	+/- .2	U	0.05	0.2	LIQ	MS	21-MAR-10 09:16	100320-2
CCB01										
	Mercury	0.066	+/- .2	U	0.066	0.2	LIQ	AV	25-FEB-10 11:15	022510W1-5
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	17-MAR-10 17:15	031710-1
	Arsenic	6.76	+/-30	J	5.0	30.0	LIQ	P	17-MAR-10 17:15	031710-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 17:15	031710-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	17-MAR-10 17:15	031710-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 17:15	031710-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1951

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ng/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 17:15	031710-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	17-MAR-10 17:15	031710-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	17-MAR-10 17:15	031710-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	17-MAR-10 17:15	031710-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	17-MAR-10 17:15	031710-1
	Potassium	71.74	+/-150	J	50.0	150	LIQ	P	17-MAR-10 17:15	031710-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	17-MAR-10 17:15	031710-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 17:15	031710-1
	Sodium	100	+/-300	U	100	300	LIQ	P	17-MAR-10 17:15	031710-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 17:15	031710-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	17-MAR-10 17:15	031710-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	18-MAR-10 23:40	100318-3
	Beryllium	0.1	+/-5	U	0.1	0.5	LIQ	MS	18-MAR-10 23:40	100318-3
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	18-MAR-10 23:40	100318-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	18-MAR-10 23:40	100318-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	20-MAR-10 14:22	100319-4
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	20-MAR-10 14:22	100319-4
	Uranium	0.05	+/-2	U	0.05	0.2	LIQ	MS	21-MAR-10 09:28	100320-2
CCB02	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	25-FEB-10 11:39	022510W1-5
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	17-MAR-10 17:34	031710-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	17-MAR-10 17:34	031710-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 17:34	031710-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	17-MAR-10 17:34	031710-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 17:34	031710-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 17:34	031710-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	17-MAR-10 17:34	031710-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	17-MAR-10 17:34	031710-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	17-MAR-10 17:34	031710-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	17-MAR-10 17:34	031710-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	17-MAR-10 17:34	031710-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1951

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ng/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	17-MAR-10 17:34	031710-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 17:34	031710-1
	Sodium	100	+/-300	U	100	300	LIQ	P	17-MAR-10 17:34	031710-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 17:34	031710-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	17-MAR-10 17:34	031710-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	19-MAR-10 00:15	100318-3
	Beryllium	0.1	+/-5	U	0.1	0.5	LIQ	MS	19-MAR-10 00:15	100318-3
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	19-MAR-10 00:15	100318-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	19-MAR-10 00:15	100318-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	20-MAR-10 15:01	100319-4
	Thallium	0.308	+/-1	J	0.3	1.0	LIQ	MS	20-MAR-10 15:01	100319-4
	Uranium	0.05	+/-2	U	0.05	0.2	LIQ	MS	21-MAR-10 09:57	100320-2
CCB03	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	25-FEB-10 12:02	022510W1-5
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	17-MAR-10 18:40	031710-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	17-MAR-10 18:40	031710-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 18:40	031710-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	17-MAR-10 18:40	031710-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 18:40	031710-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 18:40	031710-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	17-MAR-10 18:40	031710-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	17-MAR-10 18:40	031710-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	17-MAR-10 18:40	031710-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	17-MAR-10 18:40	031710-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	17-MAR-10 18:40	031710-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	17-MAR-10 18:40	031710-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 18:40	031710-1
	Sodium	100	+/-300	U	100	300	LIQ	P	17-MAR-10 18:40	031710-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 18:40	031710-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	17-MAR-10 18:40	031710-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	19-MAR-10 00:51	100318-3

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1951

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ng/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Beryllium	0.1	+/-5	U	0.1	0.5	LIQ	MS	19-MAR-10 00:51	100318-3
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	19-MAR-10 00:51	100318-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	19-MAR-10 00:51	100318-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	20-MAR-10 15:37	100319-4
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	20-MAR-10 15:37	100319-4
	Uranium	0.05	+/-2	U	0.05	0.2	LIQ	MS	21-MAR-10 10:26	100320-2
CCB04	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	25-FEB-10 12:26	022510W1-5
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	17-MAR-10 19:07	031710-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	17-MAR-10 19:07	031710-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 19:07	031710-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	17-MAR-10 19:07	031710-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 19:07	031710-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 19:07	031710-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	17-MAR-10 19:07	031710-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	17-MAR-10 19:07	031710-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	17-MAR-10 19:07	031710-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	17-MAR-10 19:07	031710-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	17-MAR-10 19:07	031710-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	17-MAR-10 19:07	031710-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 19:07	031710-1
	Sodium	100	+/-300	U	100	300	LIQ	P	17-MAR-10 19:07	031710-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 19:07	031710-1
	Zinc	6.67	+/-10	J	3.3	10.0	LIQ	P	17-MAR-10 19:07	031710-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	19-MAR-10 01:35	100318-3
	Beryllium	0.1	+/-5	U	0.1	0.5	LIQ	MS	19-MAR-10 01:35	100318-3
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	19-MAR-10 01:35	100318-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	19-MAR-10 01:35	100318-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	20-MAR-10 16:09	100319-4
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	20-MAR-10 16:09	100319-4

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1951

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>
CCB05	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	25-FEB-10 12:50	022510W1-5
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	17-MAR-10 20:15	031710-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	17-MAR-10 20:15	031710-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 20:15	031710-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	17-MAR-10 20:15	031710-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 20:15	031710-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 20:15	031710-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	17-MAR-10 20:15	031710-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	17-MAR-10 20:15	031710-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	17-MAR-10 20:15	031710-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	17-MAR-10 20:15	031710-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	17-MAR-10 20:15	031710-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	17-MAR-10 20:15	031710-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 20:15	031710-1
	Sodium	100	+/-300	U	100	300	LIQ	P	17-MAR-10 20:15	031710-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 20:15	031710-1
	Zinc	6.97	+/-10	J	3.3	10.0	LIQ	P	17-MAR-10 20:15	031710-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	19-MAR-10 02:23	100318-3
	Beryllium	0.1	+/-5	U	0.1	0.5	LIQ	MS	19-MAR-10 02:23	100318-3
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	19-MAR-10 02:23	100318-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	19-MAR-10 02:23	100318-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	20-MAR-10 16:45	100319-4
	Thallium	0.357	+/-1	J	0.3	1.0	LIQ	MS	20-MAR-10 16:45	100319-4
CCB06	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	25-FEB-10 13:14	022510W1-5
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	17-MAR-10 21:26	031710-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	17-MAR-10 21:26	031710-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 21:26	031710-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	17-MAR-10 21:26	031710-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 21:26	031710-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 21:26	031710-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1951

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-MAR-10 21:26	031710-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	17-MAR-10 21:26	031710-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	17-MAR-10 21:26	031710-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	17-MAR-10 21:26	031710-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	17-MAR-10 21:26	031710-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	17-MAR-10 21:26	031710-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 21:26	031710-1
	Sodium	100	+/-300	U	100	300	LIQ	P	17-MAR-10 21:26	031710-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 21:26	031710-1
	Zinc	7.01	+/-10	J	3.3	10.0	LIQ	P	17-MAR-10 21:26	031710-1
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	20-MAR-10 17:29	100319-4
	Thallium	0.66	+/-1	J	0.3	1.0	LIQ	MS	20-MAR-10 17:29	100319-4
CCB07	Mercury	-0.069	+/-2	J	0.066	0.2	LIQ	AV	25-FEB-10 13:37	022510W1-5
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	17-MAR-10 22:43	031710-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	17-MAR-10 22:43	031710-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 22:43	031710-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	17-MAR-10 22:43	031710-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 22:43	031710-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 22:43	031710-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	17-MAR-10 22:43	031710-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	17-MAR-10 22:43	031710-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	17-MAR-10 22:43	031710-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	17-MAR-10 22:43	031710-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	17-MAR-10 22:43	031710-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	17-MAR-10 22:43	031710-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 22:43	031710-1
	Sodium	100	+/-300	U	100	300	LIQ	P	17-MAR-10 22:43	031710-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 22:43	031710-1
	Zinc	6.74	+/-10	J	3.3	10.0	LIQ	P	17-MAR-10 22:43	031710-1
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	20-MAR-10 18:21	100319-4

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1951

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>
CCB08	Thallium	0.772	+/-1	J	0.3	1.0	LIQ	MS	20-MAR-10 18:21	100319-4
	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	25-FEB-10 14:01	022510W1-5
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	18-MAR-10 00:06	031710-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	18-MAR-10 00:06	031710-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	18-MAR-10 00:06	031710-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	18-MAR-10 00:06	031710-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	18-MAR-10 00:06	031710-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	18-MAR-10 00:06	031710-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	18-MAR-10 00:06	031710-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	18-MAR-10 00:06	031710-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	18-MAR-10 00:06	031710-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	18-MAR-10 00:06	031710-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	18-MAR-10 00:06	031710-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	18-MAR-10 00:06	031710-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	18-MAR-10 00:06	031710-1
	Sodium	100	+/-300	U	100	300	LIQ	P	18-MAR-10 00:06	031710-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	18-MAR-10 00:06	031710-1
	Zinc	6.76	+/-10	J	3.3	10.0	LIQ	P	18-MAR-10 00:06	031710-1

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 10-1951
 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>
1202049256	Aluminum	68	ug/L	+/-200	U	P	68	200
	Arsenic	5	ug/L	+/-30	U	P	5	30
	Barium	1	ug/L	+/-5	U	P	1	5
	Cobalt	1	ug/L	+/-5	U	P	1	5
	Chromium	1	ug/L	+/-5	U	P	1	5
	Calcium	50	ug/L	+/-200	U	P	50	200
	Copper	3	ug/L	+/-10	U	P	3	10
	Magnesium	85	ug/L	+/-300	U	P	85	300
	Potassium	50	ug/L	+/-150	U	P	50	150
	Zinc	3.3	ug/L	+/-10	U	P	3.3	10
	Vanadium	1	ug/L	+/-5	U	P	1	5
	Sodium	100	ug/L	+/-300	U	P	100	300
	Silver	1	ug/L	+/-5	U	P	1	5
	Selenium	5	ug/L	+/-30	U	P	5	30
	Nickel	1.5	ug/L	+/-5	U	P	1.5	5
	Iron	30	ug/L	+/-100	U	P	30	100
1202049261	Lead	0.5	ug/L	+/-2	U	MS	0.5	2
	Manganese	1	ug/L	+/-5	U	MS	1	5
	Thallium	0.3	ug/L	+/-1	U	MS	0.3	1
	Antimony	1	ug/L	+/-3	U	MS	1	3
	Cadmium	0.11	ug/L	+/-1	U	MS	0.11	1
	Beryllium	0.1	ug/L	+/-0.5	U	MS	0.1	0.5
	Uranium	-0.05	ug/L	+/-0.2	J	MS	0.05	0.2
1202052034	Mercury	0.066	ug/L	+/-0.2	U	AV	0.066	0.2

METALS
-4-
Interference Check Sample

SDG No: 10-1951

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									
	Aluminum	517000	ug/L	500000	ug/L	103	80.0 – 120.0	17-MAR-10 16:40	031710-1
	Arsenic	10.5	ug/L					17-MAR-10 16:40	031710-1
	Barium	0.422	ug/L					17-MAR-10 16:40	031710-1
	Calcium	479000	ug/L	500000	ug/L	95.9	80.0 – 120.0	17-MAR-10 16:40	031710-1
	Chromium	0.896	ug/L					17-MAR-10 16:40	031710-1
	Cobalt	-1.01	ug/L					17-MAR-10 16:40	031710-1
	Copper	3.33	ug/L					17-MAR-10 16:40	031710-1
	Iron	188000	ug/L	200000	ug/L	93.9	80.0 – 120.0	17-MAR-10 16:40	031710-1
	Magnesium	492000	ug/L	500000	ug/L	98.5	80.0 – 120.0	17-MAR-10 16:40	031710-1
	Nickel	3.49	ug/L					17-MAR-10 16:40	031710-1
	Potassium	-217.0	ug/L					17-MAR-10 16:40	031710-1
	Selenium	7.27	ug/L					17-MAR-10 16:40	031710-1
	Silver	-0.591	ug/L					17-MAR-10 16:40	031710-1
	Sodium	16.2	ug/L					17-MAR-10 16:40	031710-1
	Vanadium	-3.28	ug/L					17-MAR-10 16:40	031710-1
	Zinc	-0.194	ug/L					17-MAR-10 16:40	031710-1
ICSAB01									
	Aluminum	525000	ug/L	500000	ug/L	105	80.0 – 120.0	17-MAR-10 16:47	031710-1
	Arsenic	525	ug/L	500	ug/L	105	80.0 – 120.0	17-MAR-10 16:47	031710-1
	Barium	491	ug/L	500	ug/L	98.3	80.0 – 120.0	17-MAR-10 16:47	031710-1
	Calcium	478000	ug/L	500000	ug/L	95.6	80.0 – 120.0	17-MAR-10 16:47	031710-1
	Chromium	482	ug/L	500	ug/L	96.4	80.0 – 120.0	17-MAR-10 16:47	031710-1
	Cobalt	450	ug/L	500	ug/L	90	80.0 – 120.0	17-MAR-10 16:47	031710-1
	Copper	549	ug/L	500	ug/L	110	80.0 – 120.0	17-MAR-10 16:47	031710-1
	Iron	181000	ug/L	200000	ug/L	90.7	80.0 – 120.0	17-MAR-10 16:47	031710-1
	Magnesium	487000	ug/L	500000	ug/L	97.4	80.0 – 120.0	17-MAR-10 16:47	031710-1
	Nickel	455	ug/L	500	ug/L	91.1	80.0 – 120.0	17-MAR-10 16:47	031710-1
	Potassium	5330	ug/L	5000	ug/L	107	80.0 – 120.0	17-MAR-10 16:47	031710-1
	Selenium	2540	ug/L	2500	ug/L	102	80.0 – 120.0	17-MAR-10 16:47	031710-1

METALS

-4-

Interference Check Sample

SDG No: 10-1951

Contract: LANL01004

Lab Code: GEL

ICS:

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Silver	269	ug/L	250	ug/L	107	80.0 – 120.0	17-MAR-10 16:47	031710-1
	Sodium	5010	ug/L	5000	ug/L	100	80.0 – 120.0	17-MAR-10 16:47	031710-1
	Vanadium	506	ug/L	500	ug/L	101	80.0 – 120.0	17-MAR-10 16:47	031710-1
	Zinc	490	ug/L	500	ug/L	98	80.0 – 120.0	17-MAR-10 16:47	031710-1

METALS

-4-

Interference Check Sample

SDG No: 10-1951

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	-0.047	ug/L					21-MAR-10 09:21	100320-2
ICSAB01	Uranium	22.7	ug/L	20	ug/L	113	80.0 - 120.0	21-MAR-10 09:24	100320-2

METALS
-4-
Interference Check Sample

SDG No: 10-1951

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: ICPMS5

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01									
	Antimony	0.1	ug/L					18-MAR-10 23:28	100318-3
	Beryllium	0.086	ug/L					18-MAR-10 23:28	100318-3
	Cadmium	0.435	ug/L					18-MAR-10 23:28	100318-3
	Manganese	5.45	ug/L					18-MAR-10 23:28	100318-3
ICSAB01									
	Antimony	19.7	ug/L	20	ug/L	98.3	80.0 - 120.0	18-MAR-10 23:32	100318-3
	Beryllium	17.3	ug/L	20	ug/L	86.2	80.0 - 120.0	18-MAR-10 23:32	100318-3
	Cadmium	18.4	ug/L	20.44	ug/L	89.9	80.0 - 120.0	18-MAR-10 23:32	100318-3
	Manganese	25.5	ug/L	25.8	ug/L	98.7	80.0 - 120.0	18-MAR-10 23:32	100318-3

METALS
-4-
Interference Check Sample

SDG No: 10-1951

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: ICPMS6

<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	Lead	0.771	ug/L					20-MAR-10 14:10	100319-4
	Thallium	0.054	ug/L					20-MAR-10 14:10	100319-4
ICSAB01	Lead	21.2	ug/L	20.19	ug/L	105	80.0 - 120.0	20-MAR-10 14:14	100319-4
	Thallium	19.6	ug/L	20	ug/L	98.2	80.0 - 120.0	20-MAR-10 14:14	100319-4

METALS

-5a-

Matrix Spike Summary

SDG NO. 10-1951

Client ID RE46-10-13373S

Contract: LANL01004

Level: Low

Matrix: WATER

% Solids:

Sample ID: 247548001

Spike ID: 1202049259

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75-125	5160		68	U	5000	102		P
Arsenic	ug/L	75-125	502		5	U	500	100		P
Barium	ug/L	75-125	511		1	U	500	102		P
Calcium	ug/L	75-125	5160		63.4	J	5000	102		P
Chromium	ug/L	75-125	500		1	U	500	99.8		P
Cobalt	ug/L	75-125	506		1	U	500	101		P
Copper	ug/L	75-125	507		3	U	500	101		P
Iron	ug/L	75-125	5210		74.1	J	5000	103		P
Magnesium	ug/L	75-125	5250		85	U	5000	104		P
Nickel	ug/L	75-125	513		1.5	U	500	102		P
Potassium	ug/L	75-125	5220		54.9	J	5000	103		P
Selenium	ug/L	75-125	503		5	U	500	100		P
Silver	ug/L	75-125	488		1	U	500	97.6		P
Sodium	ug/L	75-125	5440		205	J	5000	105		P
Vanadium	ug/L	75-125	509		1	U	500	102		P
Zinc	ug/L	75-125	489		3.3	U	500	97.4		P

METALS

-5a-

Matrix Spike Summary

SDG NO. 10-1951

Client ID: RE46-10-13373S

Contract: LANL01004

Level: Low

Matrix: WATER

% Solids:

Sample ID: 247548001

Spike ID: 1202049264

<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>
Antimony	ug/L	75-125	183		1	U	200	91.6		MS
Beryllium	ug/L	75-125	45.6		0.1	U	50	91.3		MS
Cadmium	ug/L	75-125	9.61		0.11	U	10	95.8		MS
Lead	ug/L	75-125	44.3		0.5	U	40	111		MS
Manganese	ug/L	75-125	51.1		3.48	J	50	95.3		MS
Thallium	ug/L	75-125	100		0.3	U	100	100		MS
Uranium	ug/L	75-125	55.5		0.05	U	50	111		MS

METALS

-5a-

Matrix Spike Summary

SDG NO. 10-1951 Client ID RE46-10-13373S

Contract: LANL01004 Level: Low

Matrix: WATER % Solids:

Sample ID: 247548001 Spike ID: 1202052037

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75-125	2.25		0.066	U	2	113		AV

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1951

Contract: LANL01004

Lab Code: GEL

Matrix: LIQUID

Level: Low

Client ID: RE46-10-13373D

Sample ID: 247548001

Duplicate ID: 1202049258

Percent Solids for Dup: N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L		68 U		68 U				P
Arsenic	ug/L		5 U		5 U				P
Barium	ug/L		1 U		1 U				P
Calcium	ug/L	+/-200	63.4 J		52.2 J		19.3		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	74.1 J		71 J		4.32		P
Magnesium	ug/L		85 U		119 J		200		P
Nickel	ug/L		1.5 U		1.5 U				P
Potassium	ug/L		54.9 J		50 U		200		P
Selenium	ug/L		5 U		5.15 J		200		P
Silver	ug/L		1 U		1 U				P
Sodium	ug/L	+/-300	205 J		203 J		1.09		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.: 10-1951

Contract: LANL01004

Lab Code: GEL

Matrix: LIQUID

Level: Low

Client ID: RE46-10-13373D

Sample ID: 247548001

Duplicate ID: 1202049263

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	3.48 J		3.42 J		1.77		MS
Thallium	ug/L		0.3 U		0.3 U				MS
Uranium	ug/L		0.05 U		0.05 U				MS

Metals

-6-

Duplicate Sample Summary

SDG No.: 10-1951

Contract: LANL01004

Lab Code: GEL

Matrix: LIQUID

Level: Low

Client ID: RE46-10-13373D

Sample ID: 247548001

Duplicate ID: 1202052036

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. 10-1951

Contract: LANL01004

Aqueous LCS Source:OS2I

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>
1202049257								
	Aluminum	ug/L	5000	5200		104	80-120	P
	Arsenic	ug/L	500	515		103	80-120	P
	Barium	ug/L	500	522		104	80-120	P
	Calcium	ug/L	5000	5270		105	80-120	P
	Chromium	ug/L	500	511		102	80-120	P
	Cobalt	ug/L	500	517		103	80-120	P
	Copper	ug/L	500	517		103	80-120	P
	Iron	ug/L	5000	5300		106	80-120	P
	Magnesium	ug/L	5000	5390		108	80-120	P
	Nickel	ug/L	500	526		105	80-120	P
	Potassium	ug/L	5000	5230		105	80-120	P
	Selenium	ug/L	500	514		103	80-120	P
	Silver	ug/L	500	500		99.9	80-120	P
	Sodium	ug/L	5000	5200		104	80-120	P
	Vanadium	ug/L	500	520		104	80-120	P
	Zinc	ug/L	500	502		100	80-120	P

METALS

-7-

Laboratory Control Sample Summary

SDG NO. 10-1951

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>
1202049262								
	Antimony	ug/L	50	50		99.9	80-120	MS
	Beryllium	ug/L	50	45.4		90.9	80-120	MS
	Cadmium	ug/L	50	44.9		89.8	80-120	MS
	Lead	ug/L	50	53.4		107	80-120	MS
	Manganese	ug/L	50	46.8		93.6	80-120	MS
	Thallium	ug/L	50	48		96.1	80-120	MS
	Uranium	ug/L	50	52.4		105	80-120	MS

METALS

-7-

Laboratory Control Sample Summary

SDG NO. 10-1951

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>
1202052035	Mercury	ug/L	2	2.34		117	80-120	AV

METALS

-9-

Serial Dilution Sample Summary

SDG NO. 10-1951

Client ID RE46-10-13373L

Contract: LANL01004

Matrix: LIQUID

Level: Low

Sample ID: 247548001

Serial Dilution ID: 1202049260

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	68	U	340	U				P
Arsenic	5	U	25	U				P
Barium	1	U	5	U				P
Calcium	63.4	J	250	U	100			P
Chromium	1	U	5	U				P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	74.1	J	173	J	133			P
Magnesium	85	U	425	U				P
Nickel	1.5	U	7.5	U				P
Potassium	54.9	J	250	U	100			P
Selenium	5	U	25	U				P
Silver	1	U	5	U				P
Sodium	205	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. 10-1951 Client ID RE46-10-13373L

Contract: LANL01004

Matrix: LIQUID Level: Low

Sample ID: 247548001 Serial Dilution ID: 1202049265

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
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	3.48	J	5	U	100			MS
Thallium	.3	U	3.86	J				MS
Uranium	.05	U	.25	U				MS

METALS

-9-

Serial Dilution Sample Summary

SDG NO. 10-1951 Client ID RE46-10-13373L

Contract: LANL01004

Matrix: LIQUID Level: Low

Sample ID: 247548001 Serial Dilution ID: 1202052041

<u>Analyte</u>	<u>Initial Value ug/L</u>	<u>C</u>	<u>Serial Value ug/L</u>	<u>C</u>	<u>% Difference</u>	<u>Qual</u>	<u>Acceptance Limit</u>	<u>M</u>
Mercury	.066	U	.33	U				AV

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1951

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 955807							
1202049256	MB for batch 955807	MB	W	24-FEB-10	50mL	50mL	
1202049257	LCS for batch 955807	LCS	W	24-FEB-10	50mL	50mL	
1202049259	RE46-10-13373S	MS	W	24-FEB-10	50mL	50mL	
1202049258	RE46-10-13373D	DUP	W	24-FEB-10	50mL	50mL	
247560001	RE15-10-8329	SAMPLE	W	24-FEB-10	50mL	50mL	

SW846

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1951

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	955809						
1202049261	MB for batch 955809	MB	W	24-FEB-10	50mL	50mL	
1202049262	LCS for batch 955809	LCS	W	24-FEB-10	50mL	50mL	
1202049264	RE46-10-13373S	MS	W	24-FEB-10	50mL	50mL	
1202049263	RE46-10-13373D	DUP	W	24-FEB-10	50mL	50mL	
247560001	RE15-10-8329	SAMPLE	W	24-FEB-10	50mL	50mL	

SW846

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1951

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 957032							
1202052034	MB for batch 957032	MB	W	24-FEB-10	20mL	20mL	
1202052035	LCS for batch 957032	LCS	W	24-FEB-10	20mL	20mL	
1202052037	RE46-10-13373S	MS	W	24-FEB-10	20mL	20mL	
1202052036	RE46-10-13373D	DUP	W	24-FEB-10	20mL	20mL	
247560001	RE15-10-8329	SAMPLE	W	24-FEB-10	20mL	20mL	

SW846

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS5

Start Date: 18-MAR-10

Client Sdg: 10-1951

Method MS

Data File: 100318-3

End Date: 19-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	23:04		X			X	X									X									
S10	1	23:08		X			X	X									X									
S100	1	23:12		X			X	X									X									
ICV01	1	23:16		X			X	X									X									
ICB01	1	23:20		X			X	X									X									
CRDL01	1	23:24		X			X	X									X									
ICSA01	1	23:28		X			X	X									X									
ICSAB01	1	23:32		X			X	X									X									
CCV01	1	23:36		X			X	X									X									
CCB01	1	23:40		X			X	X									X									
ZZZZZZ	1	23:44																								
ZZZZZZ	1	23:48																								
ZZZZZZ	1	23:52																								
ZZZZZZ	1	23:56																								
ZZZZZZ	1	23:59																								
ZZZZZZ	5	00:03																								
ZZZZZZ	1	00:07																								
CCV02	1	00:11		X			X	X									X									
CCB02	1	00:15		X			X	X									X									
ZZZZZZ	1	00:19																								
ZZZZZZ	1	00:23																								
ZZZZZZ	1	00:27																								
ZZZZZZ	1	00:31																								
ZZZZZZ	1	00:35																								
ZZZZZZ	5	00:39																								
ZZZZZZ	1	00:43																								
CCV03	1	00:47		X			X	X									X									
CCB03	1	00:51		X			X	X									X									
ZZZZZZ	1	00:55																								
ZZZZZZ	1	00:59																								
ZZZZZZ	1	01:03																								
ZZZZZZ	1	01:07																								
ZZZZZZ	1	01:11																								
ZZZZZZ	1	01:15																								
ZZZZZZ	1	01:19																								
ZZZZZZ	5	01:23																								
ZZZZZZ	1	01:27																								
CCV04	1	01:31		X			X	X									X									
CCB04	1	01:35		X			X	X									X									
1202049261	1	01:39		X			X	X									X									

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																		
1202049262	1	01:43	X		X	X									X					
ZZZZZZ	1	01:47																		
ZZZZZZ	1	01:51																		
1202049263	1	01:55	X		X	X									X					
1202049264	1	01:59	X		X	X									X					
1202049265	5	02:03	X		X	X									X					
ZZZZZZ	1	02:07																		
247560001	1	02:11	X		X	X									X					
ZZZZZZ	1	02:15																		
CCV05	1	02:19	X		X	X									X					
CCB05	1	02:23	X		X	X									X					

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS6

Start Date: 20-MAR-10

End Date: 20-MAR-10

Client Sdg: 10-1951

Method MS

Data File: 100319-4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	13:46												X									X			
S10	1	13:50												X									X			
S100	1	13:54												X									X			
ICV01	1	13:58												X									X			
ICB01	1	14:02												X									X			
CRDL01	1	14:06												X									X			
ICSA01	1	14:10												X									X			
ICSAB01	1	14:14												X									X			
CCV01	1	14:18												X									X			
CCB01	1	14:22												X									X			
ZZZZZZ	2	14:26																								
ZZZZZZ	2	14:30																								
ZZZZZZ	2	14:34																								
ZZZZZZ	2	14:37																								
ZZZZZZ	2	14:41																								
ZZZZZZ	2	14:45																								
ZZZZZZ	2	14:49																								
ZZZZZZ	10	14:53																								
CCV02	1	14:57												X									X			
CCB02	1	15:01												X									X			
ZZZZZZ	2	15:05																								
ZZZZZZ	2	15:09																								
ZZZZZZ	2	15:13																								
ZZZZZZ	2	15:17																								
ZZZZZZ	2	15:21																								
ZZZZZZ	2	15:25																								
ZZZZZZ	2	15:29																								
CCV03	1	15:33												X									X			
CCB03	1	15:37												X									X			
ZZZZZZ	2	15:41																								
ZZZZZZ	2	15:45																								
ZZZZZZ	2	15:49																								
ZZZZZZ	2	15:53																								
ZZZZZZ	2	15:57																								
ZZZZZZ	2	16:01																								
CCV04	1	16:05												X									X			
CCB04	1	16:09												X									X			
ZZZZZZ	1	16:13																								
ZZZZZZ	1	16:17																								
ZZZZZZ	1	16:21																								

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time
ZZZZZL	1	16:25
ZZZZZL	1	16:29
ZZZZZL	5	16:33
ZZZZZL	1	16:37
CCV05	1	16:41
CCB05	1	16:45
ZZZZZL	1	16:49
ZZZZZL	1	16:53
ZZZZZL	1	16:57
ZZZZZL	1	17:01
ZZZZZL	1	17:05
ZZZZZL	1	17:09
ZZZZZL	1	17:13
ZZZZZL	5	17:17
ZZZZZL	1	17:21
CCV06	1	17:25
CCB06	1	17:29
1202049261	1	17:33
1202049262	1	17:37
ZZZZZL	1	17:41
ZZZZZL	1	17:45
1202049263	1	17:49
1202049264	1	17:53
1202049265	5	17:57
ZZZZZL	1	18:01
ZZZZZL	1	18:05
247560001	1	18:09
ZZZZZL	1	18:13
CCV07	1	18:17
CCB07	1	18:21

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: OPTIMA3

Start Date: 17-MAR-10

End Date: 18-MAR-10

Client Sdg: 10-1951

Method P

Data File: 031710-1

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	15:45	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
S0.1	1	15:53			X	X				X	X	X						X	X	X	X				X	X
S0.5	1	16:00	X		X	X			X	X	X	X			X			X	X	X	X				X	X
SCAL	1	16:07	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
S10	1	16:14	X						X				X		X							X				
ICV01	1	16:19	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICB01	1	16:26	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
PQL01	1	16:34	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICSA01	1	16:40	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICSAB01	1	16:47	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR01	1	16:54	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR02	1	17:01	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV01	1	17:08	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB01	1	17:15	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR03	1	17:20	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV02	1	17:27	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB02	1	17:34	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	17:45																								
ZZZZZZ	1	17:52																								
ZZZZZZ	5	17:59																								
ZZZZZZ	5	18:06																								
ZZZZZZ	5	18:13																								
ZZZZZZ	25	18:20																								
ZZZZZZ	5	18:26																								
CCV03	1	18:33	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB03	1	18:40	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV04	1	19:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB04	1	19:07	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	19:13																								
ZZZZZZ	1	19:20																								
ZZZZZZ	1	19:26																								
ZZZZZZ	1	19:33																								
ZZZZZZ	1	19:41																								
ZZZZZZ	1	19:47																								
ZZZZZZ	10	19:54																								
ZZZZZZ	1	20:01																								
CCV05	1	20:08	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB05	1	20:15	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	20:23																								
ZZZZZZ	1	20:30																								

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																		
ZZZZZL	1	20:37																		
ZZZZZL	5	20:44																		
ZZZZZZ	1	20:51																		
ZZZZZZ	1	20:58																		
ZZZZZL	1	21:05																		
ZZZZZZ	1	21:12																		
CCV06	1	21:19	X		X X			X X X X X	X			X X X X X						X X		
CGB06	1	21:26	X		X X			X X X X X	X			X X X X X						X X		
ZZZZZZ	1	21:33																		
ZZZZZZ	1	21:40																		
ZZZZZL	1	21:47																		
ZZZZZL	1	21:54																		
ZZZZZZ	1	22:01																		
ZZZZZL	1	22:08																		
ZZZZZZ	1	22:15																		
ZZZZZL	1	22:22																		
ZZZZZZ	1	22:29																		
CCV07	1	22:36	X		X X			X X X X X	X			X X X X X						X X		
CGB07	1	22:43	X		X X			X X X X X	X			X X X X X						X X		
I202049256	1	22:51	X		X X			X X X X X	X			X X X X X						X X		
I202049257	1	22:57	X		X X			X X X X X	X			X X X X X						X X		
ZZZZZZ	1	23:05																		
ZZZZZZ	1	23:11																		
I202049258	1	23:18	X		X X			X X X X X	X			X X X X X						X X		
I202049259	1	23:25	X		X X			X X X X X	X			X X X X X						X X		
I202049260	5	23:32	X		X X			X X X X X	X			X X X X X						X X		
ZZZZZZ	1	23:39																		
247560001	1	23:46	X		X X			X X X X X	X			X X X X X						X X		
ZZZZZZ	1	23:52																		
CCV08	1	23:59	X		X X			X X X X X	X			X X X X X						X X		
CGB08	1	00:06	X		X X			X X X X X	X			X X X X X						X X		

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: MER536

Start Date: 25-FEB-10

End Date: 25-FEB-10

Client Sdg: 10-1951

Method: AV

Data File: 022510W1-5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	10:55															X									
S0.2	1	10:57															X									
S0.5	1	10:59															X									
S2.0	1	11:01															X									
S5.0	1	11:03															X									
S10	1	11:05															X									
ICV01	1	11:07															X									
ICB01	1	11:09															X									
CRDL01	1	11:11															X									
CCV01	1	11:13															X									
CCB01	1	11:15															X									
ZZZZZZ	1	11:17																								
ZZZZZZ	1	11:19																								
ZZZZZZ	1	11:21																								
ZZZZZZ	1	11:23																								
ZZZZZZ	1	11:25																								
ZZZZZZ	5	11:27																								
ZZZZZZ	1	11:29																								
ZZZZZZ	1	11:31																								
ZZZZZZ	1	11:33																								
ZZZZZZ	1	11:35																								
CCV02	1	11:37															X									
CCB02	1	11:39															X									
ZZZZZZ	1	11:41																								
ZZZZZZ	1	11:43																								
ZZZZZZ	1	11:45																								
ZZZZZZ	1	11:46																								
ZZZZZZ	1	11:48																								
ZZZZZZ	1	11:50																								
ZZZZZZ	1	11:52																								
ZZZZZZ	1	11:54																								
ZZZZZZ	1	11:56																								
ZZZZZZ	1	11:58																								
CCV03	1	12:00															X									
CCB03	1	12:02															X									
ZZZZZZ	1	12:04																								
ZZZZZZ	1	12:06																								
ZZZZZZ	1	12:08																								
ZZZZZZ	1	12:10																								
ZZZZZZ	1	12:12																								

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time
ZZZZZZ	1	12:14
ZZZZZZ	1	12:16
ZZZZZZ	1	12:18
ZZZZZZ	1	12:20
ZZZZZZ	1	12:22
CCV04	1	12:24
CCB04	1	12:26
ZZZZZZ	1	12:28
ZZZZZZ	1	12:30
ZZZZZZ	1	12:32
ZZZZZZ	5	12:34
ZZZZZZ	1	12:36
ZZZZZZ	1	12:38
ZZZZZZ	1	12:40
1202052034	1	12:42
1202052035	1	12:44
ZZZZZZ	1	12:46
CCV05	1	12:48
CCB05	1	12:50
ZZZZZZ	1	12:52
ZZZZZZ	1	12:54
ZZZZZZ	1	12:56
ZZZZZZ	1	12:58
ZZZZZZ	1	13:00
ZZZZZZ	1	13:02
ZZZZZZ	1	13:04
ZZZZZZ	1	13:06
ZZZZZZ	1	13:08
ZZZZZZ	1	13:10
CCV06	1	13:12
CCB06	1	13:14
ZZZZZZ	1	13:16
ZZZZZZ	1	13:18
ZZZZZZ	1	13:20
ZZZZZZ	1	13:22
ZZZZZZ	1	13:24
1202052036	1	13:26
1202052037	1	13:28
1202052041	5	13:29
ZZZZZZ	1	13:31

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
ZZZZZZ	1	13:33																								
CCV07	1	13:35															X									
CCB07	1	13:37															X									
247560001	1	13:39															X									
ZZZZZZ	1	13:41																								
ZZZZZZ	1	13:43																								
ZZZZZZ	1	13:45																								
ZZZZZZ	1	13:47																								
ZZZZZZ	1	13:49																								
ZZZZZZ	1	13:51																								
ZZZZZZ	1	13:53																								
ZZZZZZ	5	13:55																								
ZZZZZZ	1	13:57																								
CCV08	1	13:59															X									
CCB08	1	14:01															X									

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS3

Start Date: 21-MAR-10

End Date: 21-MAR-10

Client Sdg: 10-1951

Method MS

Data File: 100320-2

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	09:07																						X		
S10	1	09:09																						X		
S100	1	09:12																						X		
ICV01	1	09:14																						X		
ICB01	1	09:16																						X		
CRDL01	1	09:19																						X		
ICSA01	1	09:21																						X		
ICSAB01	1	09:24																						X		
CCV01	1	09:26																						X		
CCB01	1	09:28																						X		
ZZZZZZ	1	09:31																								
ZZZZZZ	1	09:33																								
ZZZZZZ	1	09:36																								
ZZZZZZ	1	09:38																								
ZZZZZZ	1	09:40																								
ZZZZZZ	1	09:43																								
ZZZZZZ	1	09:45																								
ZZZZZZ	5	09:48																								
ZZZZZZ	1	09:50																								
ZZZZZZ	1	09:53																								
CCV02	1	09:55																						X		
CCB02	1	09:57																						X		
1202049261	1	10:00																						X		
1202049262	1	10:02																						X		
ZZZZZZ	1	10:05																								
ZZZZZZ	1	10:07																								
1202049263	1	10:10																						X		
1202049264	1	10:12																						X		
1202049265	5	10:14																						X		
ZZZZZZ	1	10:17																								
247560001	1	10:19																						X		
ZZZZZZ	1	10:22																								
CCV03	1	10:24																						X		
CCB03	1	10:26																						X		

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1951

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

ICP/MS	<u>Analyte</u>	<u>Wavelength (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. 10-1951

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. 10-1951

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

ICP	<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	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	200
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	150
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	100	300
	Thallium	190.801	5.0	20
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GELGEL Job No: **10-1951**

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: **01-FEB-10**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02697	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.48147	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.21356	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05186	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.18741	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GELGEL Job No: **10-1951**

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-
Interelement Correction Factors

Lab Code: GELGEL Job No: **10-1951**

Contract: LANL01004

Instrument: OPTIMA3

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	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: **10-1951**

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-
Interelement Correction Factors

Lab Code: GELGEL Job No: **10-1951**

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: **01-FEB-10**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Silicon	Silver	Strontium	Sulfur	Thallium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL

GEL Job No: 10-1951

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. 10-1951

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. 10-1951

Contract: LANL01004

Lab Code: GEL

Instrument ID ICPMS6

<u>Analyte</u>	<u>Integration Time (msec)</u>	<u>LDR</u>	<u>Units</u>	<u>Effective Date</u>
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
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

METALS
-12-
Linear Ranges

SDG NO. 10-1951

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. 10-1951

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

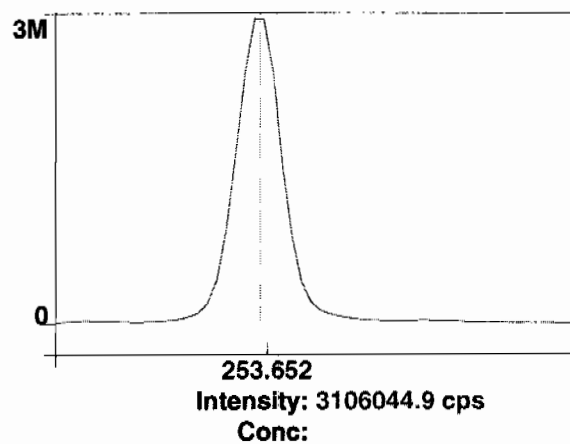
Raw Data

Method: Hg_ReAlign
Result: 031910

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1



1

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Analysis Begun

Start Time: 3/17/2010 15:45:32

Plasma On Time: 3/15/2010 06:51:19

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\031710.sif

Batch ID:

Results Data Set: 031710

Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1

Autosampler Location: 8

Sample ID: S0

Date Collected: 3/17/2010 15:45:33

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc Radial	4421.9	4421.9	100 %	15:47:26
1	Y RADIAL	4808.5	4808.5	100.1 %	15:47:26
1	Al 396.153Radial†	-81.2	-81.1	[0.00] ug/L	15:47:46
1	Ca 317.933Radial†	20.0	20.0	[0.00] ug/L	15:47:46
1	Fe 238.204 Radial†	6.0	6.0	[0.00] ug/L	15:47:46
1	K 766.490 Radial†	2663.3	2660.0	[0.00] ug/L	15:47:26
1	Mg 279.077 IEC†	0.3	0.3	[0.00] ug/L	15:47:46
1	Na 589.592 Radial†	-937.5	-936.4	[0.00] ug/L	15:47:26
1	Sr 421.552†	36.0	36.0	[0.00] ug/L	15:47:26
1	Sc 361.383	837073.6	837073.6	101.20 %	15:48:42
1	Y 371.029	711756.6	711756.6	101.23 %	15:48:42
1	Ag 328.068†	249.6	246.6	[0.00] ug/L	15:48:47
1	As 188.979†	-22.1	-21.9	[0.00] ug/L	15:49:07
1	B 249.677†	-165.8	-163.8	[0.00] ug/L	15:49:07
1	Ba 233.527†	16.6	16.4	[0.00] ug/L	15:49:07
1	Be 313.107†	-3740.5	-3696.1	[0.00] ug/L	15:48:47
1	Cd 226.502†	-156.7	-154.9	[0.00] ug/L	15:49:07
1	Co 228.616†	-57.7	-57.0	[0.00] ug/L	15:49:07
1	Cr 267.716†	78.7	77.8	[0.00] ug/L	15:49:07
1	Cu 324.752†	5757.5	5689.0	[0.00] ug/L	15:48:47
1	Mn 257.610†	409.9	405.1	[0.00] ug/L	15:49:07
1	Mo 202.031†	8.7	8.6	[0.00] ug/L	15:49:07
1	Ni 231.604†	95.6	94.5	[0.00] ug/L	15:49:07
1	P 214.914†	182.9	180.7	[0.00] ug/L	15:49:07
1	Pb 220.353†	-50.2	-49.6	[0.00] ug/L	15:49:07
1	S 181.975 Axial†	25.5	25.2	[0.00] ug/L	15:49:07
1	Sb 206.836†	25.9	25.6	[0.00] ug/L	15:49:07
1	Se 196.026†	-16.3	-16.1	[0.00] ug/L	15:49:07
1	Si 251.611†	494.3	488.4	[0.00] ug/L	15:49:07
1	Sn 189.927†	4.9	4.9	[0.00] ug/L	15:49:07
1	Ti 334.940†	-1130.4	-1116.9	[0.00] ug/L	15:48:47
1	Tl 190.801†	-31.0	-30.6	[0.00] ug/L	15:49:07
1	U 409.014†	-2307.2	-2279.8	[0.00] ug/L	15:48:42
1	V 292.402†	-1293.6	-1278.3	[0.00] ug/L	15:48:47
1	Zn 213.857†	917.9	907.0	[0.00] ug/L	15:49:07
1	SiO2†	501.6	495.6	[0.00] ug/L	15:50:28
2	Sc Radial	4413.0	4413.0	99.9 %	15:47:51
2	Y RADIAL	4793.0	4793.0	99.81 %	15:47:51
2	Al 396.153Radial†	-68.7	-68.8	[0.00] ug/L	15:48:11
2	Ca 317.933Radial†	17.6	17.6	[0.00] ug/L	15:48:11
2	Fe 238.204 Radial†	5.8	5.8	[0.00] ug/L	15:48:11
2	K 766.490 Radial†	2635.2	2637.4	[0.00] ug/L	15:47:51
2	Mg 279.077 IEC†	2.7	2.7	[0.00] ug/L	15:48:11
2	Na 589.592 Radial†	-903.6	-904.3	[0.00] ug/L	15:47:51
2	Sr 421.552†	7.7	7.7	[0.00] ug/L	15:47:51
2	Sc 361.383	820567.8	820567.8	99.207 %	15:49:13
2	Y 371.029	697955.1	697955.1	99.266 %	15:49:13

2	Ag 328.068†	242.3	244.2	[0.00]	ug/L	15:49:18
2	As 188.979†	-20.1	-20.3	[0.00]	ug/L	15:49:38
2	B 249.677†	-184.8	-186.3	[0.00]	ug/L	15:49:38
2	Ba 233.527†	11.4	11.5	[0.00]	ug/L	15:49:38
2	Be 313.107†	-3797.8	-3828.2	[0.00]	ug/L	15:49:18
2	Cd 226.502†	-149.9	-151.1	[0.00]	ug/L	15:49:38
2	Co 228.616†	-43.9	-44.2	[0.00]	ug/L	15:49:38
2	Cr 267.716†	80.4	81.1	[0.00]	ug/L	15:49:38
2	Cu 324.752†	5782.0	5828.2	[0.00]	ug/L	15:49:18
2	Mn 257.610†	449.2	452.8	[0.00]	ug/L	15:49:38
2	Mo 202.031†	15.0	15.1	[0.00]	ug/L	15:49:38
2	Ni 231.604†	99.4	100.2	[0.00]	ug/L	15:49:38
2	P 214.914†	186.9	188.4	[0.00]	ug/L	15:49:38
2	Pb 220.353†	-45.2	-45.6	[0.00]	ug/L	15:49:38
2	S 181.975 Axial†	34.8	35.1	[0.00]	ug/L	15:49:38
2	Sb 206.836†	24.9	25.1	[0.00]	ug/L	15:49:38
2	Se 196.026†	-23.7	-23.9	[0.00]	ug/L	15:49:38
2	Si 251.611†	508.9	513.0	[0.00]	ug/L	15:49:38
2	Sn 189.927†	-1.3	-1.3	[0.00]	ug/L	15:49:38
2	Ti 334.940†	-1131.8	-1140.8	[0.00]	ug/L	15:49:38
2	Tl 190.801†	-26.7	-27.0	[0.00]	ug/L	15:49:38
2	U 409.014†	-2205.4	-2223.0	[0.00]	ug/L	15:49:13
2	V 292.402†	-1275.1	-1285.3	[0.00]	ug/L	15:49:18
2	Zn 213.857†	924.0	931.4	[0.00]	ug/L	15:49:38
2	SiO2†	526.2	530.4	[0.00]	ug/L	15:50:49
3	Sc Radial	4414.7	4414.7	100.0	%	15:48:16
3	Y RADIAL	4805.4	4805.4	100.1	%	15:48:16
3	Al 396.153Radial†	-70.0	-70.1	[0.00]	ug/L	15:48:36
3	Ca 317.933Radial†	25.7	25.7	[0.00]	ug/L	15:48:36
3	Fe 238.204 Radial†	10.5	10.5	[0.00]	ug/L	15:48:36
3	K 766.490 Radial†	2543.5	2544.6	[0.00]	ug/L	15:48:16
3	Mg 279.077 IEC†	0.2	0.2	[0.00]	ug/L	15:48:36
3	Na 589.592 Radial†	-880.9	-881.2	[0.00]	ug/L	15:48:16
3	Sr 421.552†	18.5	18.5	[0.00]	ug/L	15:48:16
3	Sc 361.383	823736.9	823736.9	99.590	%	15:49:43
3	Y 371.029	699641.9	699641.9	99.506	%	15:49:43
3	Ag 328.068†	255.4	256.5	[0.00]	ug/L	15:49:48
3	As 188.979†	-24.0	-24.1	[0.00]	ug/L	15:50:08
3	B 249.677†	-203.5	-204.3	[0.00]	ug/L	15:50:08
3	Ba 233.527†	9.4	9.4	[0.00]	ug/L	15:50:08
3	Be 313.107†	-3776.6	-3792.1	[0.00]	ug/L	15:49:48
3	Cd 226.502†	-163.7	-164.4	[0.00]	ug/L	15:50:08
3	Co 228.616†	-43.7	-43.8	[0.00]	ug/L	15:50:08
3	Cr 267.716†	84.3	84.7	[0.00]	ug/L	15:50:08
3	Cu 324.752†	5810.8	5834.7	[0.00]	ug/L	15:49:48
3	Mn 257.610†	417.8	419.5	[0.00]	ug/L	15:50:08
3	Mo 202.031†	9.0	9.0	[0.00]	ug/L	15:50:08
3	Ni 231.604†	68.8	69.1	[0.00]	ug/L	15:50:08
3	P 214.914†	178.9	179.6	[0.00]	ug/L	15:50:08
3	Pb 220.353†	-54.1	-54.3	[0.00]	ug/L	15:50:08
3	S 181.975 Axial†	26.4	26.5	[0.00]	ug/L	15:50:08
3	Sb 206.836†	34.9	35.0	[0.00]	ug/L	15:50:08
3	Se 196.026†	-19.2	-19.2	[0.00]	ug/L	15:50:08
3	Si 251.611†	505.0	507.0	[0.00]	ug/L	15:50:08
3	Sn 189.927†	8.2	8.3	[0.00]	ug/L	15:50:08
3	Ti 334.940†	-1068.0	-1072.4	[0.00]	ug/L	15:49:48
3	Tl 190.801†	-19.8	-19.9	[0.00]	ug/L	15:50:08
3	U 409.014†	-2234.0	-2243.2	[0.00]	ug/L	15:49:43
3	V 292.402†	-1309.1	-1314.5	[0.00]	ug/L	15:49:48
3	Zn 213.857†	923.9	927.7	[0.00]	ug/L	15:50:08
3	SiO2†	495.4	497.4	[0.00]	ug/L	15:51:09

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	827126.1	8759.28	1.06%	100.00 %
Sc Radial	4416.5	4.74	0.11%	100 %
Y 371.029	703117.9	7528.73	1.07%	100.00 %
Y RADIAL	4802.3	8.19	0.17%	100.0 %
Ag 328.068†	249.1	6.50	2.61%	[0.00] ug/L

Al 396.153Radial†	-73.3	6.80	9.27%	[0.00]	ug/L
As 188.979†	-22.1	1.93	8.73%	[0.00]	ug/L
B 249.677†	-184.8	20.28	10.97%	[0.00]	ug/L
Ba 233.527†	12.4	3.59	28.93%	[0.00]	ug/L
Be 313.107†	-3772.1	68.28	1.81%	[0.00]	ug/L
Ca 317.933Radial†	21.1	4.16	19.72%	[0.00]	ug/L
Cd 226.502†	-156.8	6.84	4.36%	[0.00]	ug/L
Co 228.616†	-48.3	7.47	15.46%	[0.00]	ug/L
Cr 267.716†	81.2	3.43	4.23%	[0.00]	ug/L
Cu 324.752†	5784.0	82.28	1.42%	[0.00]	ug/L
Fe 238.204 Radial†	7.4	2.66	35.82%	[0.00]	ug/L
K 766.490 Radial†	2614.0	61.17	2.34%	[0.00]	ug/L
Mg 279.077 IEC†	1.0	1.41	136.18%	[0.00]	ug/L
Mn 257.610†	425.8	24.45	5.74%	[0.00]	ug/L
Mo 202.031†	10.9	3.63	33.32%	[0.00]	ug/L
Na 589.592 Radial†	-907.3	27.72	3.06%	[0.00]	ug/L
Ni 231.604†	87.9	16.54	18.81%	[0.00]	ug/L
P 214.914†	182.9	4.79	2.62%	[0.00]	ug/L
Pb 220.353†	-49.8	4.34	8.72%	[0.00]	ug/L
S 181.975 Axial†	28.9	5.38	18.58%	[0.00]	ug/L
Sb 206.836†	28.6	5.57	19.48%	[0.00]	ug/L
Se 196.026†	-19.8	3.89	19.71%	[0.00]	ug/L
Si 251.611†	502.8	12.81	2.55%	[0.00]	ug/L
Sn 189.927†	3.9	4.87	123.46%	[0.00]	ug/L
Sr 421.552†	20.7	14.28	68.90%	[0.00]	ug/L
Ti 334.940†	-1110.1	34.73	3.13%	[0.00]	ug/L
Tl 190.801†	-25.8	5.47	21.19%	[0.00]	ug/L
U 409.014†	-2248.7	28.76	1.28%	[0.00]	ug/L
V 292.402†	-1292.7	19.23	1.49%	[0.00]	ug/L
Zn 213.857†	922.0	13.15	1.43%	[0.00]	ug/L
SiO2†	507.8	19.56	3.85%	[0.00]	ug/L

Sequence No.: 2
 Sample ID: S0.1
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 2
 Date Collected: 3/17/2010 15:53:19
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc Radial	4390.6	4390.6	99.4 %	15:55:31
1	Y RADIAL	4784.2	4784.2	99.62 %	15:55:31
1	K 766.490 Radial†	7594.8	5025.8	[1000] ug/L	15:55:11
1	Sr 421.552†	12916.1	12971.9	[100] ug/L	15:55:31
1	Sc 361.383	805485.3	805485.3	97.384 %	15:56:28
1	Y 371.029	683381.4	683381.4	97.193 %	15:56:28
1	Ag 328.068†	19864.5	20149.1	[100] ug/L	15:56:28
1	As 188.979†	162.9	189.4	[100] ug/L	15:56:48
1	B 249.677†	3173.7	3443.8	[100] ug/L	15:56:28
1	Ba 233.527†	10839.4	11118.2	[100] ug/L	15:56:28
1	Be 313.107†	234222.7	244287.6	[100] ug/L	15:56:28
1	Cd 226.502†	6654.8	6990.4	[100] ug/L	15:56:48
1	Co 228.616†	3861.5	4013.6	[100] ug/L	15:56:48
1	Cr 267.716†	7685.1	7810.4	[100] ug/L	15:56:28
1	Cu 324.752†	36116.7	31303.1	[100] ug/L	15:56:28
1	Mn 257.610†	78160.3	79834.5	[100] ug/L	15:56:28
1	Mo 202.031†	1157.8	1178.0	[100] ug/L	15:56:48
1	Ni 231.604†	3273.9	3274.0	[100] ug/L	15:56:48
1	P 214.914†	855.3	695.3	[500] ug/L	15:56:48
1	Pb 220.353†	595.0	660.8	[100] ug/L	15:56:48
1	S 181.975 Axial†	134.4	109.1	[200] ug/L	15:56:48
1	Sb 206.836†	262.7	241.1	[100] ug/L	15:56:48
1	Se 196.026†	102.9	125.4	[100] ug/L	15:56:48
1	Si 251.611†	13813.6	13682.0	[500] ug/L	15:56:28
1	Sn 189.927†	451.8	459.9	[100] ug/L	15:56:48
1	Ti 334.940†	56763.1	59398.2	[100] ug/L	15:56:28
1	Tl 190.801†	231.3	263.3	[100] ug/L	15:56:48
1	U 409.014†	1428.6	3715.6	[100] ug/L	15:56:28
1	V 292.402†	11266.6	12862.0	[100] ug/L	15:56:28
1	Zn 213.857†	9125.4	8448.6	[100] ug/L	15:56:28
1	SiO2†	14003.5	13872.0	[1069.5] ug/L	15:57:45
2	Sc Radial	4438.7	4438.7	101 %	15:55:57
2	Y RADIAL	4814.8	4814.8	100.3 %	15:55:57
2	K 766.490 Radial†	7740.8	5088.1	[1000] ug/L	15:55:37
2	Sr 421.552†	13024.5	12938.6	[100] ug/L	15:55:57
2	Sc 361.383	800271.0	800271.0	96.753 %	15:56:54
2	Y 371.029	680189.0	680189.0	96.739 %	15:56:54
2	Ag 328.068†	19715.1	20127.6	[100] ug/L	15:56:54
2	As 188.979†	165.9	193.6	[100] ug/L	15:57:14
2	B 249.677†	3194.2	3486.2	[100] ug/L	15:56:54
2	Ba 233.527†	10737.2	11085.1	[100] ug/L	15:56:54
2	Be 313.107†	232938.6	244527.6	[100] ug/L	15:56:54
2	Cd 226.502†	6613.3	6992.0	[100] ug/L	15:57:14
2	Co 228.616†	3859.4	4037.3	[100] ug/L	15:57:14
2	Cr 267.716†	7652.9	7828.6	[100] ug/L	15:56:54
2	Cu 324.752†	35794.2	31211.4	[100] ug/L	15:56:54
2	Mn 257.610†	77456.3	79629.7	[100] ug/L	15:56:54
2	Mo 202.031†	1156.7	1184.6	[100] ug/L	15:57:14
2	Ni 231.604†	3258.7	3280.1	[100] ug/L	15:57:14
2	P 214.914†	840.3	685.6	[500] ug/L	15:57:14
2	Pb 220.353†	612.2	682.6	[100] ug/L	15:57:14
2	S 181.975 Axial†	140.0	115.8	[200] ug/L	15:57:14
2	Sb 206.836†	274.5	255.2	[100] ug/L	15:57:14
2	Se 196.026†	99.9	123.0	[100] ug/L	15:57:14
2	Si 251.611†	13706.4	13663.5	[500] ug/L	15:56:54
2	Sn 189.927†	444.0	454.9	[100] ug/L	15:57:14
2	Ti 334.940†	56459.9	59464.6	[100] ug/L	15:56:54
2	Tl 190.801†	233.5	267.1	[100] ug/L	15:57:14
2	U 409.014†	1238.3	3528.5	[100] ug/L	15:56:54

2	V 292.402†	11155.3	12822.3	[100]	ug/L	15:56:54
2	Zn 213.857†	9056.2	8438.0	[100]	ug/L	15:56:54
2	SiO2†	13810.6	13766.2	[1069.5]	ug/L	15:57:50
3	Sc Radial	4425.1	4425.1	100	%	15:56:22
3	Y RADIAL	4804.2	4804.2	100.0	%	15:56:22
3	K 766.490 Radial†	7602.2	4973.5	[1000]	ug/L	15:56:02
3	Sr 421.552†	13062.9	13017.0	[100]	ug/L	15:56:22
3	Sc 361.383	798538.5	798538.5	96.544	%	15:57:19
3	Y 371.029	680350.3	680350.3	96.762	%	15:57:19
3	Ag 328.068†	19624.8	20078.2	[100]	ug/L	15:57:19
3	As 188.979†	159.3	187.1	[100]	ug/L	15:57:39
3	B 249.677†	3113.5	3409.8	[100]	ug/L	15:57:19
3	Ba 233.527†	10713.1	11084.2	[100]	ug/L	15:57:19
3	Be 313.107†	233155.4	245274.5	[100]	ug/L	15:57:19
3	Cd 226.502†	6652.2	7047.2	[100]	ug/L	15:57:39
3	Co 228.616†	3861.7	4048.3	[100]	ug/L	15:57:39
3	Cr 267.716†	7637.2	7829.4	[100]	ug/L	15:57:19
3	Cu 324.752†	35502.5	30989.5	[100]	ug/L	15:57:19
3	Mn 257.610†	77182.7	79520.1	[100]	ug/L	15:57:19
3	Mo 202.031†	1164.0	1194.7	[100]	ug/L	15:57:39
3	Ni 231.604†	3289.1	3319.0	[100]	ug/L	15:57:39
3	P 214.914†	852.7	700.3	[500]	ug/L	15:57:39
3	Pb 220.353†	599.7	671.0	[100]	ug/L	15:57:39
3	S 181.975 Axial†	136.6	112.6	[200]	ug/L	15:57:39
3	Sb 206.836†	264.6	245.5	[100]	ug/L	15:57:39
3	Se 196.026†	100.6	124.0	[100]	ug/L	15:57:39
3	Si 251.611†	13663.1	13649.4	[500]	ug/L	15:57:19
3	Sn 189.927†	458.0	470.5	[100]	ug/L	15:57:39
3	Ti 334.940†	56186.5	59308.0	[100]	ug/L	15:57:19
3	Tl 190.801†	232.5	266.6	[100]	ug/L	15:57:39
3	U 409.014†	1294.4	3589.4	[100]	ug/L	15:57:19
3	V 292.402†	11180.0	12872.9	[100]	ug/L	15:57:19
3	Zn 213.857†	9039.4	8441.0	[100]	ug/L	15:57:19
3	SiO2†	13590.4	13569.1	[1069.5]	ug/L	15:57:55

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	801431.6	3615.89	0.45%	96.894	%
Sc Radial	4418.1	24.84	0.56%	100	%
Y 371.029	681306.9	1798.39	0.26%	96.898	%
Y RADIAL	4801.1	15.53	0.32%	99.97	%
Ag 328.068†	20118.3	36.33	0.18%	[100]	ug/L
As 188.979†	190.0	3.30	1.73%	[100]	ug/L
B 249.677†	3446.6	38.26	1.11%	[100]	ug/L
Ba 233.527†	11095.8	19.36	0.17%	[100]	ug/L
Be 313.107†	244696.6	514.66	0.21%	[100]	ug/L
Cd 226.502†	7009.9	32.30	0.46%	[100]	ug/L
Co 228.616†	4033.0	17.74	0.44%	[100]	ug/L
Cr 267.716†	7822.8	10.72	0.14%	[100]	ug/L
Cu 324.752†	31168.0	161.22	0.52%	[100]	ug/L
K 766.490 Radial†	5029.1	57.36	1.14%	[1000]	ug/L
Mn 257.610†	79661.4	159.58	0.20%	[100]	ug/L
Mo 202.031†	1185.8	8.44	0.71%	[100]	ug/L
Ni 231.604†	3291.0	24.41	0.74%	[100]	ug/L
P 214.914†	693.7	7.47	1.08%	[500]	ug/L
Pb 220.353†	671.5	10.93	1.63%	[100]	ug/L
S 181.975 Axial†	112.5	3.35	2.98%	[200]	ug/L
Sb 206.836†	247.3	7.17	2.90%	[100]	ug/L
Se 196.026†	124.1	1.22	0.98%	[100]	ug/L
Si 251.611†	13665.0	16.32	0.12%	[500]	ug/L
Sn 189.927†	461.8	7.93	1.72%	[100]	ug/L
Sr 421.552†	12975.8	39.31	0.30%	[100]	ug/L
Ti 334.940†	59390.3	78.60	0.13%	[100]	ug/L
Tl 190.801†	265.7	2.06	0.77%	[100]	ug/L
U 409.014†	3611.1	95.45	2.64%	[100]	ug/L
V 292.402†	12852.4	26.59	0.21%	[100]	ug/L
Zn 213.857†	8442.5	5.43	0.06%	[100]	ug/L
SiO2†	13735.8	153.69	1.12%	[1069.5]	ug/L

Sequence No.: 3
 Sample ID: S0.5
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 3
 Date Collected: 3/17/2010 16:00:06
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib.	Analysis Time
1	Sc Radial	4255.2	4255.2	96.3 %		16:02:18
1	Y RADIAL	4657.3	4657.3	96.98 %		16:01:58
1	Al 396.153Radial†	4942.2	5203.0	[5000] ug/L		16:01:58
1	Ca 317.933Radial†	2763.2	2846.9	[5000] ug/L		16:02:18
1	K 766.490 Radial†	27768.2	26207.4	[5000] ug/L		16:01:58
1	Mg 279.077 IEC†	127.1	130.8	[5000] ug/L		16:02:18
1	Sr 421.552†	62895.0	65259.8	[500] ug/L		16:01:58
1	Sc 361.383	821969.8	821969.8	99.377 %		16:03:15
1	Y 371.029	689711.5	689711.5	98.093 %		16:03:15
1	Ag 328.068†	98443.9	98812.3	[500] ug/L		16:03:21
1	As 188.979†	895.4	923.1	[500] ug/L		16:03:41
1	B 249.677†	17550.9	17845.8	[500] ug/L		16:03:21
1	Ba 233.527†	54126.4	54453.5	[500] ug/L		16:03:21
1	Be 313.107†	1203796.9	1215120.7	[500] ug/L		16:03:15
1	Cd 226.502†	35229.0	35606.7	[500] ug/L		16:03:21
1	Co 228.616†	19845.7	20018.6	[500] ug/L		16:03:21
1	Cr 267.716†	38259.2	38418.1	[500] ug/L		16:03:21
1	Cu 324.752†	157468.2	152672.1	[500] ug/L		16:03:21
1	Mn 257.610†	388119.2	390128.1	[500] ug/L		16:03:15
1	Mo 202.031†	5749.4	5774.6	[500] ug/L		16:03:41
1	Ni 231.604†	16381.5	16396.3	[500] ug/L		16:03:21
1	P 214.914†	3536.1	3375.3	[2500] ug/L		16:03:41
1	Pb 220.353†	3240.2	3310.3	[500] ug/L		16:03:41
1	S 181.975 Axial†	587.9	562.6	[1000] ug/L		16:03:41
1	Sb 206.836†	1232.6	1211.8	[500] ug/L		16:03:41
1	Se 196.026†	600.4	623.9	[500] ug/L		16:03:41
1	Si 251.611†	67524.0	67444.8	[2500] ug/L		16:03:21
1	Sn 189.927†	2233.1	2243.2	[500] ug/L		16:03:41
1	Ti 334.940†	285398.5	288298.9	[500] ug/L		16:03:21
1	Tl 190.801†	1281.3	1315.2	[500] ug/L		16:03:41
1	U 409.014†	15098.2	17441.6	[500] ug/L		16:03:21
1	V 292.402†	62493.6	64178.3	[500] ug/L		16:03:21
1	Zn 213.857†	42712.8	42058.7	[500] ug/L		16:03:21
1	SiO2†	67783.0	67700.5	[5347.5] ug/L		16:04:48
2	Sc Radial	4206.5	4206.5	95.2 %		16:02:43
2	Y RADIAL	4710.5	4710.5	98.09 %		16:02:23
2	Al 396.153Radial†	5024.4	5348.6	[5000] ug/L		16:02:23
2	Ca 317.933Radial†	2724.3	2839.2	[5000] ug/L		16:02:43
2	K 766.490 Radial†	27931.7	26712.5	[5000] ug/L		16:02:23
2	Mg 279.077 IEC†	126.9	132.2	[5000] ug/L		16:02:43
2	Sr 421.552†	63277.2	66416.3	[500] ug/L		16:02:23
2	Sc 361.383	809556.0	809556.0	97.876 %		16:03:47
2	Y 371.029	681120.7	681120.7	96.871 %		16:03:47
2	Ag 328.068†	97773.6	99646.5	[500] ug/L		16:03:52
2	As 188.979†	892.6	934.1	[500] ug/L		16:04:12
2	B 249.677†	17388.2	17950.4	[500] ug/L		16:03:52
2	Ba 233.527†	53726.1	54879.7	[500] ug/L		16:03:52
2	Be 313.107†	1183584.6	1213044.6	[500] ug/L		16:03:47
2	Cd 226.502†	34895.1	35809.3	[500] ug/L		16:03:52
2	Co 228.616†	19683.6	20159.1	[500] ug/L		16:03:52
2	Cr 267.716†	37983.8	38727.0	[500] ug/L		16:03:52
2	Cu 324.752†	156249.0	153856.2	[500] ug/L		16:03:52
2	Mn 257.610†	380305.3	388133.5	[500] ug/L		16:03:47
2	Mo 202.031†	5736.5	5850.1	[500] ug/L		16:04:12
2	Ni 231.604†	16232.9	16497.3	[500] ug/L		16:03:52
2	P 214.914†	3533.5	3427.3	[2500] ug/L		16:04:12
2	Pb 220.353†	3239.3	3359.4	[500] ug/L		16:04:12
2	S 181.975 Axial†	591.0	574.9	[1000] ug/L		16:04:12
2	Sb 206.836†	1232.7	1230.9	[500] ug/L		16:04:12

2	Se 196.026†	592.6	625.2	[500]	ug/L	16:04:12
2	Si 251.611†	66857.6	67805.9	[2500]	ug/L	16:03:52
2	Sn 189.927†	2223.7	2268.0	[500]	ug/L	16:04:12
2	Ti 334.940†	283136.2	290391.3	[500]	ug/L	16:03:52
2	Tl 190.801†	1284.2	1337.9	[500]	ug/L	16:04:12
2	U 409.014†	14728.8	17297.1	[500]	ug/L	16:03:52
2	V 292.402†	62002.0	64640.3	[500]	ug/L	16:03:52
2	Zn 213.857†	42379.5	42377.2	[500]	ug/L	16:03:52
2	SiO2†	68266.6	69240.5	[5347.5]	ug/L	16:04:53
3	Sc Radial	4248.9	4248.9	96.2	%	16:03:08
3	Y RADIAL	4759.6	4759.6	99.11	%	16:02:48
3	Al 396.153Radial†	5074.7	5348.2	[5000]	ug/L	16:02:48
3	Ca 317.933Radial†	2765.7	2853.7	[5000]	ug/L	16:03:08
3	K 766.490 Radial†	28458.8	26967.4	[5000]	ug/L	16:02:48
3	Mg 279.077 IEC†	131.9	136.1	[5000]	ug/L	16:03:08
3	Sr 421.552†	64452.1	66973.8	[500]	ug/L	16:02:48
3	Sc 361.383	819293.2	819293.2	99.053	%	16:04:18
3	Y 371.029	689037.0	689037.0	97.997	%	16:04:18
3	Ag 328.068†	98493.0	99185.5	[500]	ug/L	16:04:23
3	As 188.979†	894.1	924.7	[500]	ug/L	16:04:43
3	B 249.677†	17641.8	17995.3	[500]	ug/L	16:04:23
3	Ba 233.527†	54132.3	54637.4	[500]	ug/L	16:04:23
3	Be 313.107†	1201770.9	1217032.7	[500]	ug/L	16:04:18
3	Cd 226.502†	35183.3	35676.4	[500]	ug/L	16:04:23
3	Co 228.616†	19778.7	20016.1	[500]	ug/L	16:04:23
3	Cr 267.716†	38280.0	38564.8	[500]	ug/L	16:04:23
3	Cu 324.752†	157556.8	153279.2	[500]	ug/L	16:04:23
3	Mn 257.610†	386109.5	389375.2	[500]	ug/L	16:04:18
3	Mo 202.031†	5728.7	5772.6	[500]	ug/L	16:04:43
3	Ni 231.604†	16371.4	16440.1	[500]	ug/L	16:04:23
3	P 214.914†	3546.4	3397.4	[2500]	ug/L	16:04:43
3	Pb 220.353†	3216.1	3296.7	[500]	ug/L	16:04:43
3	S 181.975 Axial†	579.9	556.5	[1000]	ug/L	16:04:43
3	Sb 206.836†	1221.5	1204.6	[500]	ug/L	16:04:43
3	Se 196.026†	593.1	618.6	[500]	ug/L	16:04:43
3	Si 251.611†	67391.0	67532.5	[2500]	ug/L	16:04:23
3	Sn 189.927†	2243.6	2261.1	[500]	ug/L	16:04:43
3	Ti 334.940†	285379.4	289217.9	[500]	ug/L	16:04:23
3	Tl 190.801†	1275.8	1313.9	[500]	ug/L	16:04:43
3	U 409.014†	14988.6	17380.6	[500]	ug/L	16:04:23
3	V 292.402†	62617.5	64508.8	[500]	ug/L	16:04:23
3	Zn 213.857†	42841.7	42329.3	[500]	ug/L	16:04:23
3	SiO2†	67132.1	67266.2	[5347.5]	ug/L	16:04:58

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	816939.6	6532.98	0.80%	98.768 %
Sc Radial	4236.9	26.49	0.63%	95.9 %
Y 371.029	686623.1	4777.11	0.70%	97.654 %
Y RADIAL	4709.1	51.15	1.09%	98.06 %
Ag 328.068†	99214.8	417.88	0.42%	[500] ug/L
Al 396.153Radial†	5299.9	83.95	1.58%	[5000] ug/L
As 188.979†	927.3	5.92	0.64%	[500] ug/L
B 249.677†	17930.5	76.70	0.43%	[500] ug/L
Ba 233.527†	54656.9	213.77	0.39%	[500] ug/L
Be 313.107†	1215066.0	1994.63	0.16%	[500] ug/L
Ca 317.933Radial†	2846.6	7.28	0.26%	[5000] ug/L
Cd 226.502†	35697.5	102.88	0.29%	[500] ug/L
Co 228.616†	20064.6	81.87	0.41%	[500] ug/L
Cr 267.716†	38570.0	154.55	0.40%	[500] ug/L
Cu 324.752†	153269.2	592.12	0.39%	[500] ug/L
K 766.490 Radial†	26629.1	386.78	1.45%	[5000] ug/L
Mg 279.077 IEC†	133.1	2.72	2.04%	[5000] ug/L
Mn 257.610†	389212.3	1007.25	0.26%	[500] ug/L
Mo 202.031†	5799.1	44.22	0.76%	[500] ug/L
Ni 231.604†	16444.6	50.65	0.31%	[500] ug/L
P 214.914†	3400.0	26.08	0.77%	[2500] ug/L
Pb 220.353†	3322.1	32.99	0.99%	[500] ug/L
S 181.975 Axial†	564.7	9.36	1.66%	[1000] ug/L

Sb 206.836†	1215.7	13.58	1.12%	[500]	ug/L
Se 196.026†	622.6	3.53	0.57%	[500]	ug/L
Si 251.611†	67594.4	188.32	0.28%	[2500]	ug/L
Sn 189.927†	2257.4	12.81	0.57%	[500]	ug/L
Sr 421.552†	66216.7	874.29	1.32%	[500]	ug/L
Ti 334.940†	289302.7	1048.73	0.36%	[500]	ug/L
Tl 190.801†	1322.3	13.50	1.02%	[500]	ug/L
U 409.014†	17373.1	72.54	0.42%	[500]	ug/L
V 292.402†	64442.5	238.04	0.37%	[500]	ug/L
Zn 213.857†	42255.1	171.74	0.41%	[500]	ug/L
SiO2†	68069.0	1037.47	1.52%	[5347.5]	ug/L

Sequence No.: 4

Sample ID: SCAL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 3/17/2010 16:07:09

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	4348.3	4348.3	98.5 %	16:09:02
1	Y RADIAL	4690.2	4690.2	97.67 %	16:09:02
1	Al 396.153Radial†	9868.0	10096.1	[10000] ug/L	16:09:02
1	Ca 317.933Radial†	5435.7	5499.9	[10000] ug/L	16:09:02
1	Fe 238.204 Radial†	910.6	917.5	[10000] ug/L	16:09:22
1	K 766.490 Radial†	52583.1	50794.0	[10000] ug/L	16:09:02
1	Mg 279.077 IEC†	255.0	257.9	[10000] ug/L	16:09:22
1	Na 589.592 Radial†	27106.1	28438.7	[10000] ug/L	16:09:02
1	Sr 421.552†	125856.8	127810.5	[1000] ug/L	16:09:02
1	Sc 361.383	802756.5	802756.5	97.054 %	16:10:25
1	Y 371.029	674610.5	674610.5	95.946 %	16:10:25
1	Ag 328.068†	196295.3	202005.2	[1000] ug/L	16:10:25
1	As 188.979†	1764.8	1840.4	[1000] ug/L	16:10:45
1	B 249.677†	35602.1	36867.6	[1000] ug/L	16:10:25
1	Ba 233.527†	107064.2	110302.0	[1000] ug/L	16:10:25
1	Be 313.107†	2337117.8	2411838.9	[1000] ug/L	16:10:20
1	Cd 226.502†	69528.8	71796.3	[1000] ug/L	16:10:25
1	Co 228.616†	37816.4	39012.7	[1000] ug/L	16:10:45
1	Cr 267.716†	75604.0	77817.9	[1000] ug/L	16:10:25
1	Cu 324.752†	307903.5	311466.7	[1000] ug/L	16:10:25
1	Mn 257.610†	751469.8	773856.7	[1000] ug/L	16:10:20
1	Mo 202.031†	11289.7	11621.5	[1000] ug/L	16:10:45
1	Ni 231.604†	31143.3	32000.8	[1000] ug/L	16:10:45
1	P 214.914†	6805.0	6828.7	[5000] ug/L	16:10:45
1	Pb 220.353†	6394.4	6638.3	[1000] ug/L	16:10:45
1	S 181.975 Axial†	1124.7	1129.9	[2000] ug/L	16:10:45
1	Sb 206.836†	2390.6	2434.6	[1000] ug/L	16:10:45
1	Se 196.026†	1191.6	1247.5	[1000] ug/L	16:10:45
1	Si 251.611†	133960.1	137524.0	[5000] ug/L	16:10:25
1	Sn 189.927†	4422.8	4553.1	[1000] ug/L	16:10:45
1	Ti 334.940†	570888.3	589329.0	[1000] ug/L	16:10:25
1	Tl 190.801†	2525.6	2628.1	[1000] ug/L	16:10:45
1	U 409.014†	31814.4	35028.9	[1000] ug/L	16:10:25
1	V 292.402†	125227.4	130321.7	[1000] ug/L	16:10:25
1	Zn 213.857†	83877.4	85501.6	[1000] ug/L	16:10:25
1	SiO2†	131948.3	135446.1	[10695] ug/L	16:11:54
2	Sc Radial	4376.2	4376.2	99.1 %	16:09:27
2	Y RADIAL	4735.4	4735.4	98.61 %	16:09:27
2	Al 396.153Radial†	10046.9	10212.8	[10000] ug/L	16:09:27
2	Ca 317.933Radial†	5495.4	5524.9	[10000] ug/L	16:09:27
2	Fe 238.204 Radial†	902.8	903.7	[10000] ug/L	16:09:47
2	K 766.490 Radial†	53415.8	51294.1	[10000] ug/L	16:09:27
2	Mg 279.077 IEC†	254.3	255.6	[10000] ug/L	16:09:47
2	Na 589.592 Radial†	27528.6	28689.6	[10000] ug/L	16:09:27
2	Sr 421.552†	127674.7	128830.7	[1000] ug/L	16:09:27
2	Sc 361.383	804753.7	804753.7	97.295 %	16:10:57
2	Y 371.029	677440.2	677440.2	96.348 %	16:10:57
2	Ag 328.068†	196998.2	202225.8	[1000] ug/L	16:10:57
2	As 188.979†	1780.2	1851.7	[1000] ug/L	16:11:17
2	B 249.677†	35723.2	36901.1	[1000] ug/L	16:10:57
2	Ba 233.527†	107000.2	109962.4	[1000] ug/L	16:10:57
2	Be 313.107†	2340160.6	2408990.1	[1000] ug/L	16:10:51
2	Cd 226.502†	69489.3	71577.9	[1000] ug/L	16:10:57
2	Co 228.616†	37962.5	39066.2	[1000] ug/L	16:11:17
2	Cr 267.716†	75559.5	77578.9	[1000] ug/L	16:10:57
2	Cu 324.752†	309283.5	312097.7	[1000] ug/L	16:10:57
2	Mn 257.610†	750585.8	771026.6	[1000] ug/L	16:10:51
2	Mo 202.031†	11335.3	11639.6	[1000] ug/L	16:11:17
2	Ni 231.604†	31283.8	32065.6	[1000] ug/L	16:11:17

2	P 214.914†	6813.5	6820.0	[5000]	ug/L	16:11:17
2	Pb 220.353†	6440.2	6669.1	[1000]	ug/L	16:11:17
2	S 181.975 Axial†	1133.8	1136.3	[2000]	ug/L	16:11:17
2	Sb 206.836†	2424.1	2463.0	[1000]	ug/L	16:11:17
2	Se 196.026†	1188.3	1241.1	[1000]	ug/L	16:11:17
2	Si 251.611†	134265.8	137495.6	[5000]	ug/L	16:10:57
2	Sn 189.927†	4444.5	4564.1	[1000]	ug/L	16:11:17
2	Ti 334.940†	571451.0	588447.6	[1000]	ug/L	16:10:57
2	Tl 190.801†	2534.7	2631.0	[1000]	ug/L	16:11:17
2	U 409.014†	31858.9	34993.2	[1000]	ug/L	16:10:57
2	V 292.402†	125595.8	130380.1	[1000]	ug/L	16:10:57
2	Zn 213.857†	83941.8	85353.3	[1000]	ug/L	16:10:57
2	SiO2†	134394.1	137622.5	[10695]	ug/L	16:11:59
3	Sc Radial	4386.5	4386.5	99.3	%	16:09:52
3	Y RADIAL	4729.1	4729.1	98.48	%	16:09:52
3	Al 396.153Radial†	10024.7	10166.8	[10000]	ug/L	16:09:52
3	Ca 317.933Radial†	5510.8	5527.4	[10000]	ug/L	16:09:52
3	Fe 238.204 Radial†	908.9	907.7	[10000]	ug/L	16:10:12
3	K 766.490 Radial†	53457.2	51209.6	[10000]	ug/L	16:09:52
3	Mg 279.077 IEC†	262.1	262.9	[10000]	ug/L	16:10:12
3	Na 589.592 Radial†	27616.0	28712.6	[10000]	ug/L	16:09:52
3	Sr 421.552†	128060.8	128917.8	[1000]	ug/L	16:09:52
3	Sc 361.383	796083.0	796083.0	96.247	%	16:11:28
3	Y 371.029	669224.3	669224.3	95.180	%	16:11:28
3	Ag 328.068†	194636.7	201977.4	[1000]	ug/L	16:11:28
3	As 188.979†	1776.3	1867.6	[1000]	ug/L	16:11:48
3	B 249.677†	35195.1	36752.3	[1000]	ug/L	16:11:28
3	Ba 233.527†	106144.7	110271.3	[1000]	ug/L	16:11:28
3	Be 313.107†	2327000.0	2421513.1	[1000]	ug/L	16:11:23
3	Cd 226.502†	69010.0	71857.8	[1000]	ug/L	16:11:28
3	Co 228.616†	38110.1	39644.6	[1000]	ug/L	16:11:48
3	Cr 267.716†	75058.4	77904.1	[1000]	ug/L	16:11:28
3	Cu 324.752†	304861.8	310965.9	[1000]	ug/L	16:11:28
3	Mn 257.610†	747222.6	775934.6	[1000]	ug/L	16:11:23
3	Mo 202.031†	11360.3	11792.4	[1000]	ug/L	16:11:48
3	Ni 231.604†	31404.7	32541.5	[1000]	ug/L	16:11:48
3	P 214.914†	6852.8	6937.1	[5000]	ug/L	16:11:48
3	Pb 220.353†	6425.6	6726.0	[1000]	ug/L	16:11:48
3	S 181.975 Axial†	1150.6	1166.5	[2000]	ug/L	16:11:48
3	Sb 206.836†	2440.4	2507.0	[1000]	ug/L	16:11:48
3	Se 196.026†	1204.4	1271.1	[1000]	ug/L	16:11:48
3	Si 251.611†	132766.1	137440.5	[5000]	ug/L	16:11:28
3	Sn 189.927†	4455.3	4625.1	[1000]	ug/L	16:11:48
3	Ti 334.940†	565404.9	588562.8	[1000]	ug/L	16:11:28
3	Tl 190.801†	2548.5	2673.7	[1000]	ug/L	16:11:48
3	U 409.014†	31488.5	34965.0	[1000]	ug/L	16:11:28
3	V 292.402†	124210.3	130346.5	[1000]	ug/L	16:11:28
3	Zn 213.857†	83147.6	85467.9	[1000]	ug/L	16:11:28
3	SiO2†	134732.0	139478.1	[10695]	ug/L	16:12:04

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	801197.7	4540.65	0.57%	96.865	%
Sc Radial	4370.3	19.74	0.45%	99.0	%
Y 371.029	673758.3	4173.72	0.62%	95.824	%
Y RADIAL	4718.2	24.47	0.52%	98.25	%
Ag 328.068†	202069.4	136.09	0.07%	[1000]	ug/L
Al 396.153Radial†	10158.6	58.76	0.58%	[10000]	ug/L
As 188.979†	1853.3	13.65	0.74%	[1000]	ug/L
B 249.677†	36840.4	78.03	0.21%	[1000]	ug/L
Ba 233.527†	110178.6	187.84	0.17%	[1000]	ug/L
Be 313.107†	2414114.0	6564.19	0.27%	[1000]	ug/L
Ca 317.933Radial†	5517.4	15.22	0.28%	[10000]	ug/L
Cd 226.502†	71744.0	147.11	0.21%	[1000]	ug/L
Co 228.616†	39241.2	350.38	0.89%	[1000]	ug/L
Cr 267.716†	77767.0	168.47	0.22%	[1000]	ug/L
Cu 324.752†	311510.1	567.16	0.18%	[1000]	ug/L
Fe 238.204 Radial†	909.6	7.09	0.78%	[10000]	ug/L
K 766.490 Radial†	51099.2	267.69	0.52%	[10000]	ug/L

Mg 279.077 IEC†	258.8	3.72	1.44%	[10000]	ug/L
Mn 257.610†	773606.0	2463.60	0.32%	[1000]	ug/L
Mo 202.031†	11684.5	93.90	0.80%	[1000]	ug/L
Na 589.592 Radial†	28613.6	151.97	0.53%	[10000]	ug/L
Ni 231.604†	32202.6	295.21	0.92%	[1000]	ug/L
P 214.914†	6861.9	65.27	0.95%	[5000]	ug/L
Pb 220.353†	6677.8	44.51	0.67%	[1000]	ug/L
S 181.975 Axial†	1144.2	19.54	1.71%	[2000]	ug/L
Sb 206.836†	2468.2	36.48	1.48%	[1000]	ug/L
Se 196.026†	1253.2	15.76	1.26%	[1000]	ug/L
Si 251.611†	137486.7	42.48	0.03%	[5000]	ug/L
Sn 189.927†	4580.8	38.80	0.85%	[1000]	ug/L
Sr 421.552†	128519.7	615.71	0.48%	[1000]	ug/L
Ti 334.940†	588779.8	479.11	0.08%	[1000]	ug/L
Tl 190.801†	2644.3	25.54	0.97%	[1000]	ug/L
U 409.014†	34995.7	32.01	0.09%	[1000]	ug/L
V 292.402†	130349.4	29.33	0.02%	[1000]	ug/L
Zn 213.857†	85441.0	77.73	0.09%	[1000]	ug/L
SiO2†	137515.6	2018.10	1.47%	[10695]	ug/L

Sequence No.: 5

Sample ID: S10

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 5

Date Collected: 3/17/2010 16:14:16

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	4302.8	4302.8	97.4 %	16:16:29
1	Y RADIAL	4646.6	4646.6	96.76 %	16:16:29
1	Al 396.153Radial†	50254.6	51656.2	[50000] ug/L	16:16:09
1	Ca 317.933Radial†	26631.6	27314.4	[50000] ug/L	16:16:09
1	Fe 238.204 Radial†	1750.5	1789.4	[20000] ug/L	16:16:29
1	Mg 279.077 IEC†	1222.4	1253.7	[50000] ug/L	16:16:29
1	Na 589.592 Radial†	56532.3	58933.8	[20000] ug/L	16:16:09
1	Sc 361.383	788340.0	788340.0	95.311 %	16:17:26
1	Y 371.029	657542.8	657542.8	93.518 %	16:17:26
2	Sc Radial	4274.3	4274.3	96.8 %	16:16:54
2	Y RADIAL	4586.1	4586.1	95.50 %	16:16:54
2	Al 396.153Radial†	49779.3	51509.3	[50000] ug/L	16:16:34
2	Ca 317.933Radial†	26423.5	27281.7	[50000] ug/L	16:16:34
2	Fe 238.204 Radial†	1732.3	1782.6	[20000] ug/L	16:16:54
2	Mg 279.077 IEC†	1212.4	1251.7	[50000] ug/L	16:16:54
2	Na 589.592 Radial†	56221.9	59000.2	[20000] ug/L	16:16:34
2	Sc 361.383	785655.0	785655.0	94.986 %	16:17:32
2	Y 371.029	654738.8	654738.8	93.119 %	16:17:32
3	Sc Radial	4280.1	4280.1	96.9 %	16:17:19
3	Y RADIAL	4592.0	4592.0	95.62 %	16:17:19
3	Al 396.153Radial†	49481.2	51132.0	[50000] ug/L	16:16:59
3	Ca 317.933Radial†	26235.9	27051.2	[50000] ug/L	16:16:59
3	Fe 238.204 Radial†	1735.0	1782.8	[20000] ug/L	16:17:19
3	Mg 279.077 IEC†	1218.9	1256.7	[50000] ug/L	16:17:19
3	Na 589.592 Radial†	55609.1	58289.3	[20000] ug/L	16:16:59
3	Sc 361.383	794480.0	794480.0	96.053 %	16:17:38
3	Y 371.029	662770.1	662770.1	94.262 %	16:17:38

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	789491.6	4523.82	0.57%	95.450 %
Sc Radial	4285.7	15.07	0.35%	97.0 %
Y 371.029	658350.6	4076.14	0.62%	93.633 %
Y RADIAL	4608.2	33.37	0.72%	95.96 %
Al 396.153Radial†	51432.5	270.40	0.53%	[50000] ug/L
Ca 317.933Radial†	27215.8	143.45	0.53%	[50000] ug/L
Fe 238.204 Radial†	1784.9	3.86	0.22%	[20000] ug/L
Mg 279.077 IEC†	1254.0	2.51	0.20%	[50000] ug/L
Na 589.592 Radial†	58741.1	392.68	0.67%	[20000] ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	201.3	0.00000	0.999974	
Al 396.153Radial	3	Lin Thru 0	0.0	1.028	0.00000	0.999993	
As 188.979	3	Lin Thru 0	0.0	1.854	0.00000	0.999997	
B 249.677	3	Lin Thru 0	0.0	36.63	0.00000	0.999929	
Ba 233.527	3	Lin Thru 0	0.0	110.0	0.00000	0.999995	
Be 313.107	3	Lin Thru 0	0.0	2418	0.00000	0.999996	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.5448	0.00000	0.999987	
Cd 226.502	3	Lin Thru 0	0.0	71.66	0.00000	0.999996	
Co 228.616	3	Lin Thru 0	0.0	39.43	0.00000	0.999958	
Cr 267.716	3	Lin Thru 0	0.0	77.65	0.00000	0.999995	
Cu 324.752	3	Lin Thru 0	0.0	310.5	0.00000	0.999980	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0896	0.00000	0.999971	
K 766.490 Radial	3	Lin Thru 0	0.0	5.152	0.00000	0.999858	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0251	0.00000	0.999965
Mn 257.610	3	Lin Thru 0	0.0	774.7	0.00000	0.999994
Mo 202.031	3	Lin Thru 0	0.0	11.67	0.00000	0.999995
Na 589.592 Radia	2	Lin Thru 0	0.0	2.922	0.00000	0.999946
Ni 231.604	3	Lin Thru 0	0.0	32.34	0.00000	0.999963
P 214.914	3	Lin Thru 0	0.0	1.370	0.00000	0.999993
Pb 220.353	3	Lin Thru 0	0.0	6.671	0.00000	0.999998
S 181.975 Axial	3	Lin Thru 0	0.0	0.5706	0.00000	0.999986
Sb 206.836	3	Lin Thru 0	0.0	2.461	0.00000	0.999982
Se 196.026	3	Lin Thru 0	0.0	1.252	0.00000	0.999996
Si 251.611	3	Lin Thru 0	0.0	27.40	0.00000	0.999978
Sn 189.927	3	Lin Thru 0	0.0	4.568	0.00000	0.999983
Sr 421.552	3	Lin Thru 0	0.0	129.3	0.00000	0.999927
Ti 334.940	3	Lin Thru 0	0.0	586.8	0.00000	0.999976
Tl 190.801	3	Lin Thru 0	0.0	2.644	0.00000	1.000000
U 409.014	3	Lin Thru 0	0.0	34.96	0.00000	0.999992
V 292.402	3	Lin Thru 0	0.0	130.0	0.00000	0.999989
Zn 213.857	3	Lin Thru 0	0.0	85.25	0.00000	0.999990
SiO2	3	Lin Thru 0	0.0	12.83	0.00000	0.999992

Sequence No.: 6

Sample ID: ICV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 9

Date Collected: 3/17/2010 16:19:49

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	4373.7	4373.7	99.0 %		16:21:42
1	Y RADIAL	4744.8	4744.8	98.80 %		16:21:42
1	Al 396.153Radial†	5121.4	5244.8	5073.7 ug/L	5073.7 ppb	16:21:42
1	Ca 317.933Radial†	2741.9	2747.7	5043.1 ug/L	5043.1 ppb	16:22:02
1	Fe 238.204 Radial†	461.5	458.6	5134.7 ug/L	5134.7 ppb	16:22:02
1	K 766.490 Radial†	15388.8	12925.4	2505.3 ug/L	2505.3 ppb	16:21:42
1	Mg 279.077 IEC†	134.8	135.1	5377.7 ug/L	5377.7 ppb	16:22:02
1	Na 589.592 Radial†	6208.5	7176.6	2456.1 ug/L	2456.1 ppb	16:21:42
1	Sr 421.552†	67722.0	68364.2	528.66 ug/L	528.66 ppb	16:21:42
1	Sc 361.383	818414.3	818414.3	98.947 %		16:22:59
1	Y 371.029	691276.9	691276.9	98.316 %		16:22:59
1	Ag 328.068†	51004.2	51298.0	257.96 ug/L	257.96 ppb	16:22:59
1	As 188.979†	841.3	872.3	474.81 ug/L	474.81 ppb	16:23:19
1	B 249.677†	18448.5	18829.7	511.79 ug/L	511.79 ppb	16:22:59
1	Ba 233.527†	55031.3	55604.6	506.72 ug/L	506.72 ppb	16:22:59
1	Be 313.107†	633489.8	644005.3	267.54 ug/L	267.54 ppb	16:22:59
1	Cd 226.502†	34783.6	35310.7	492.64 ug/L	492.64 ppb	16:22:59
1	Co 228.616†	20081.2	20343.3	516.13 ug/L	516.13 ppb	16:22:59
1	Cr 267.716†	37320.8	37636.8	485.79 ug/L	485.79 ppb	16:22:59
1	Cu 324.752†	162615.5	158562.6	510.63 ug/L	510.63 ppb	16:22:59
1	Mn 257.610†	400342.3	404178.1	521.98 ug/L	521.98 ppb	16:22:59
1	Mo 202.031†	6194.3	6249.3	536.02 ug/L	536.02 ppb	16:23:19
1	Ni 231.604†	16600.6	16689.4	515.68 ug/L	515.68 ppb	16:22:59
1	P 214.914†	3540.5	3395.2	2378.9 ug/L	2378.9 ppb	16:23:19
1	Pb 220.353†	3213.3	3297.3	495.75 ug/L	495.75 ppb	16:23:19
1	S 181.975 Axial†	1421.5	1407.7	2466.2 ug/L	2466.2 ppb	16:23:19
1	Sb 206.836†	1247.3	1232.0	519.91 ug/L	519.91 ppb	16:23:19
1	Se 196.026†	3050.5	3102.7	2497.1 ug/L	2497.1 ppb	16:23:19
1	Si 251.611†	131664.8	132563.6	4830.6 ug/L	4830.6 ppb	16:22:59
1	Sn 189.927†	2421.8	2443.6	535.55 ug/L	535.55 ppb	16:23:19
1	Ti 334.940†	292834.7	297062.0	506.08 ug/L	506.08 ppb	16:22:59
1	Tl 190.801†	1352.6	1392.8	530.18 ug/L	530.18 ppb	16:23:19
1	U 409.014†	14797.2	17203.4	490.49 ug/L	490.49 ppb	16:22:59
1	V 292.402†	64434.2	66412.8	517.85 ug/L	517.85 ppb	16:22:59
1	Zn 213.857†	43677.3	43220.2	502.25 ug/L	502.25 ppb	16:22:59
1	SiO2†	130623.5	131506.1	10234 ug/L	10234 ppb	16:24:17
2	Sc Radial	4418.0	4418.0	100 %		16:22:07
2	Y RADIAL	4759.8	4759.8	99.11 %		16:22:07
2	Al 396.153Radial†	5174.3	5246.0	5074.7 ug/L	5074.7 ppb	16:22:07
2	Ca 317.933Radial†	2720.1	2698.1	4952.1 ug/L	4952.1 ppb	16:22:27
2	Fe 238.204 Radial†	463.0	455.4	5098.5 ug/L	5098.5 ppb	16:22:27
2	K 766.490 Radial†	15461.1	12842.0	2489.1 ug/L	2489.1 ppb	16:22:07
2	Mg 279.077 IEC†	133.7	132.6	5279.8 ug/L	5279.8 ppb	16:22:27
2	Na 589.592 Radial†	6286.7	7192.0	2461.4 ug/L	2461.4 ppb	16:22:07
2	Sr 421.552†	68626.4	68583.2	530.36 ug/L	530.36 ppb	16:22:07
2	Sc 361.383	816400.8	816400.8	98.703 %		16:23:25
2	Y 371.029	688970.6	688970.6	97.988 %		16:23:25
2	Ag 328.068†	50778.9	51196.9	257.45 ug/L	257.45 ppb	16:23:25
2	As 188.979†	836.4	869.5	473.30 ug/L	473.30 ppb	16:23:46
2	B 249.677†	18364.9	18791.0	510.73 ug/L	510.73 ppb	16:23:25
2	Ba 233.527†	55103.6	55815.0	508.63 ug/L	508.63 ppb	16:23:25
2	Be 313.107†	632142.2	644219.0	267.62 ug/L	267.62 ppb	16:23:25
2	Cd 226.502†	34766.0	35379.6	493.60 ug/L	493.60 ppb	16:23:25
2	Co 228.616†	20052.9	20364.6	516.68 ug/L	516.68 ppb	16:23:25
2	Cr 267.716†	37341.5	37750.9	487.26 ug/L	487.26 ppb	16:23:25
2	Cu 324.752†	161937.6	158281.0	509.72 ug/L	509.72 ppb	16:23:25
2	Mn 257.610†	399709.9	404535.3	522.44 ug/L	522.44 ppb	16:23:25
2	Mo 202.031†	6211.8	6282.5	538.86 ug/L	538.86 ppb	16:23:46
2	Ni 231.604†	16519.3	16648.4	514.41 ug/L	514.41 ppb	16:23:25

2	P 214.914†	3539.6	3403.2	2384.9 ug/L	2384.9 ppb	16:23:46
2	Pb 220.353†	3205.5	3297.4	495.78 ug/L	495.78 ppb	16:23:46
2	S 181.975 Axial†	1418.4	1408.1	2467.0 ug/L	2467.0 ppb	16:23:46
2	Sb 206.836†	1245.0	1232.8	520.31 ug/L	520.31 ppb	16:23:46
2	Se 196.026†	3064.1	3124.1	2514.1 ug/L	2514.1 ppb	16:23:46
2	Si 251.611†	131381.9	132605.1	4832.1 ug/L	4832.1 ppb	16:23:25
2	Sn 189.927†	2428.4	2456.4	538.33 ug/L	538.33 ppb	16:23:46
2	Ti 334.940†	292115.2	297062.9	506.08 ug/L	506.08 ppb	16:23:25
2	Tl 190.801†	1343.3	1386.8	527.89 ug/L	527.89 ppb	16:23:46
2	U 409.014†	14718.9	17160.9	489.27 ug/L	489.27 ppb	16:23:25
2	V 292.402†	64333.9	66471.8	518.34 ug/L	518.34 ppb	16:23:25
2	Zn 213.857†	43617.3	43268.3	502.83 ug/L	502.83 ppb	16:23:25
2	SiO2†	131626.5	132847.9	10338 ug/L	10338 ppb	16:24:22
3	Sc Radial	4349.5	4349.5	98.5 %		16:22:32
3	Y RADIAL	4692.6	4692.6	97.71 %		16:22:32
3	Al 396.153Radial†	5042.6	5193.7	5024.1 ug/L	5024.1 ppb	16:22:32
3	Ca 317.933Radial†	2733.6	2754.7	5056.0 ug/L	5056.0 ppb	16:22:52
3	Fe 238.204 Radial†	459.7	459.3	5142.6 ug/L	5142.6 ppb	16:22:52
3	K 766.490 Radial†	15268.9	12890.5	2498.5 ug/L	2498.5 ppb	16:22:32
3	Mg 279.077 IEC†	136.2	137.3	5463.0 ug/L	5463.0 ppb	16:22:52
3	Na 589.592 Radial†	6138.3	7140.3	2443.7 ug/L	2443.7 ppb	16:22:32
3	Sr 421.552†	67075.0	68089.0	526.53 ug/L	526.53 ppb	16:22:32
3	Sc 361.383	820489.3	820489.3	99.198 %		16:23:52
3	Y 371.029	691614.2	691614.2	98.364 %		16:23:52
3	Ag 328.068†	50986.8	51150.1	257.23 ug/L	257.23 ppb	16:23:52
3	As 188.979†	839.7	868.6	472.83 ug/L	472.83 ppb	16:24:12
3	B 249.677†	18488.8	18823.1	511.61 ug/L	511.61 ppb	16:23:52
3	Ba 233.527†	55295.3	55730.1	507.86 ug/L	507.86 ppb	16:23:52
3	Be 313.107†	633896.1	642795.8	267.04 ug/L	267.04 ppb	16:23:52
3	Cd 226.502†	34899.8	35338.9	493.03 ug/L	493.03 ppb	16:23:52
3	Co 228.616†	20117.8	20328.9	515.76 ug/L	515.76 ppb	16:23:52
3	Cr 267.716†	37420.1	37641.6	485.85 ug/L	485.85 ppb	16:23:52
3	Cu 324.752†	162740.9	158273.4	509.69 ug/L	509.69 ppb	16:23:52
3	Mn 257.610†	401460.5	404282.1	522.11 ug/L	522.11 ppb	16:23:52
3	Mo 202.031†	6191.4	6230.6	534.42 ug/L	534.42 ppb	16:24:12
3	Ni 231.604†	16560.0	16606.0	513.10 ug/L	513.10 ppb	16:23:52
3	P 214.914†	3538.9	3384.6	2371.3 ug/L	2371.3 ppb	16:24:12
3	Pb 220.353†	3214.1	3289.9	494.63 ug/L	494.63 ppb	16:24:12
3	S 181.975 Axial†	1418.1	1400.6	2453.9 ug/L	2453.9 ppb	16:24:12
3	Sb 206.836†	1240.3	1221.7	515.66 ug/L	515.66 ppb	16:24:12
3	Se 196.026†	3052.1	3096.5	2492.1 ug/L	2492.1 ppb	16:24:12
3	Si 251.611†	131894.4	132458.5	4826.8 ug/L	4826.8 ppb	16:23:52
3	Sn 189.927†	2419.3	2434.9	533.65 ug/L	533.65 ppb	16:24:12
3	Ti 334.940†	293453.9	296937.7	505.87 ug/L	505.87 ppb	16:23:52
3	Tl 190.801†	1360.2	1397.0	531.77 ug/L	531.77 ppb	16:24:12
3	U 409.014†	14909.7	17279.0	492.65 ug/L	492.65 ppb	16:23:52
3	V 292.402†	64569.0	66384.0	517.61 ug/L	517.61 ppb	16:23:52
3	Zn 213.857†	43815.0	43247.4	502.58 ug/L	502.58 ppb	16:23:52
3	SiO2†	130802.3	131352.5	10222 ug/L	10222 ppb	16:24:27

Mean Data: ICV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	818434.8	98.949 %		0.2472			0.25%
Sc Radial	4380.4	99.2 %		0.79			0.79%
Y 371.029	690620.5	98.223 %		0.2046			0.21%
Y RADIAL	4732.4	98.54 %		0.735			0.75%
Ag 328.068†	51215.0	257.55 ug/L		0.377	257.55 ppb	0.377	0.15%
QC value within limits for Ag 328.068 Recovery = 103.02%							
Al 396.153Radial†	5228.2	5057.5 ug/L		28.95	5057.5 ppb	28.95	0.57%
QC value within limits for Al 396.153Radial Recovery = 101.15%							
As 188.979†	870.1	473.64 ug/L		1.038	473.64 ppb	1.038	0.22%
QC value within limits for As 188.979 Recovery = 94.73%							
B 249.677†	18814.6	511.37 ug/L		0.563	511.37 ppb	0.563	0.11%
QC value within limits for B 249.677 Recovery = 102.27%							
Ba 233.527†	55716.6	507.73 ug/L		0.962	507.73 ppb	0.962	0.19%
QC value within limits for Ba 233.527 Recovery = 101.55%							
Be 313.107†	643673.3	267.40 ug/L		0.318	267.40 ppb	0.318	0.12%
QC value within limits for Be 313.107 Recovery = 106.96%							
Ca 317.933Radial†	2733.5	5017.1 ug/L		56.65	5017.1 ppb	56.65	1.13%

QC value within limits for Ca 317.933 Radial Recovery = 100.34%

Cd 226.502†	35343.0	493.09 ug/L	0.485	493.09 ppb	0.485	0.10%
QC value within limits for Cd 226.502 Recovery = 98.62%						
Co 228.616†	20345.6	516.19 ug/L	0.462	516.19 ppb	0.462	0.09%
QC value within limits for Co 228.616 Recovery = 103.24%						
Cr 267.716†	37676.4	486.30 ug/L	0.829	486.30 ppb	0.829	0.17%
QC value within limits for Cr 267.716 Recovery = 97.26%						
Cu 324.752†	158372.3	510.01 ug/L	0.531	510.01 ppb	0.531	0.10%
QC value within limits for Cu 324.752 Recovery = 102.00%						
Fe 238.204 Radial†	457.8	5125.3 ug/L	23.55	5125.3 ppb	23.55	0.46%
QC value within limits for Fe 238.204 Radial Recovery = 102.51%						
K 766.490 Radial†	12886.0	2497.6 ug/L	8.12	2497.6 ppb	8.12	0.32%
QC value within limits for K 766.490 Radial Recovery = 99.91%						
Mg 279.077 IEC†	135.0	5373.5 ug/L	91.67	5373.5 ppb	91.67	1.71%
QC value within limits for Mg 279.077 IEC Recovery = 107.47%						
Mn 257.610†	404331.8	522.18 ug/L	0.238	522.18 ppb	0.238	0.05%
QC value within limits for Mn 257.610 Recovery = 104.44%						
Mo 202.031†	6254.1	536.43 ug/L	2.250	536.43 ppb	2.250	0.42%
QC value within limits for Mo 202.031 Recovery = 107.29%						
Na 589.592 Radial†	7169.6	2453.7 ug/L	9.09	2453.7 ppb	9.09	0.37%
QC value within limits for Na 589.592 Radial Recovery = 98.15%						
Ni 231.604†	16648.0	514.40 ug/L	1.289	514.40 ppb	1.289	0.25%
QC value within limits for Ni 231.604 Recovery = 102.88%						
P 214.914†	3394.3	2378.4 ug/L	6.83	2378.4 ppb	6.83	0.29%
QC value within limits for P 214.914 Recovery = 95.14%						
Pb 220.353†	3294.9	495.39 ug/L	0.656	495.39 ppb	0.656	0.13%
QC value within limits for Pb 220.353 Recovery = 99.08%						
S 181.975 Axial†	1405.5	2462.4 ug/L	7.35	2462.4 ppb	7.35	0.30%
QC value within limits for S 181.975 Axial Recovery = 98.49%						
Sb 206.836†	1228.8	518.63 ug/L	2.575	518.63 ppb	2.575	0.50%
QC value within limits for Sb 206.836 Recovery = 103.73%						
Se 196.026†	3107.8	2501.1 ug/L	11.50	2501.1 ppb	11.50	0.46%
QC value within limits for Se 196.026 Recovery = 100.04%						
Si 251.611†	132542.4	4829.9 ug/L	2.73	4829.9 ppb	2.73	0.06%
QC value within limits for Si 251.611 Recovery = 96.60%						
Sn 189.927†	2445.0	535.84 ug/L	2.355	535.84 ppb	2.355	0.44%
QC value within limits for Sn 189.927 Recovery = 107.17%						
Sr 421.552†	68345.5	528.52 ug/L	1.915	528.52 ppb	1.915	0.36%
QC value within limits for Sr 421.552 Recovery = 105.70%						
Ti 334.940†	297020.9	506.01 ug/L	0.125	506.01 ppb	0.125	0.02%
QC value within limits for Ti 334.940 Recovery = 101.20%						
Tl 190.801†	1392.2	529.94 ug/L	1.951	529.94 ppb	1.951	0.37%
QC value within limits for Tl 190.801 Recovery = 105.99%						
U 409.014†	17214.4	490.80 ug/L	1.710	490.80 ppb	1.710	0.35%
QC value within limits for U 409.014 Recovery = 98.16%						
V 292.402†	66422.8	517.93 ug/L	0.374	517.93 ppb	0.374	0.07%
QC value within limits for V 292.402 Recovery = 103.59%						
Zn 213.857†	43245.3	502.55 ug/L	0.291	502.55 ppb	0.291	0.06%
QC value within limits for Zn 213.857 Recovery = 100.51%						
SiO2†	131902.2	10264 ug/L	64.0	10264 ppb	64.0	0.62%
QC value within limits for SiO2 Recovery = 95.97%						

All analyte(s) passed QC.

Sequence No.: 7

Sample ID: ICB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 3/17/2010 16:26:39

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	4360.3	4360.3	98.7 %		16:28:31
1	Y RADIAL	4743.1	4743.1	98.77 %		16:28:31
1	Al 396.153Radial†	-71.7	0.7	0.6933 ug/L	0.6933 ppb	16:28:51
1	Ca 317.933Radial†	13.8	-7.1	-13.047 ug/L	-13.047 ppb	16:28:51
1	Fe 238.204 Radial†	7.6	0.3	3.1518 ug/L	3.1518 ppb	16:28:51
1	K 766.490 Radial†	2641.1	61.2	11.877 ug/L	11.877 ppb	16:28:31
1	Mg 279.077 IEC†	1.8	0.7	29.578 ug/L	29.578 ppb	16:28:51
1	Na 589.592 Radial†	-879.1	16.9	5.7809 ug/L	5.7809 ppb	16:28:31
1	Sr 421.552†	10.3	-10.3	-0.0793 ug/L	-0.0793 ppb	16:28:31
1	Sc 361.383	798558.0	798558.0	96.546 %		16:29:48
1	Y 371.029	680732.1	680732.1	96.816 %		16:29:48
1	Ag 328.068†	168.0	-75.1	-0.3742 ug/L	-0.3742 ppb	16:29:48
1	As 188.979†	-25.4	-4.3	-2.2964 ug/L	-2.2964 ppb	16:30:08
1	B 249.677†	-132.3	47.8	1.3038 ug/L	1.3038 ppb	16:30:08
1	Ba 233.527†	12.5	0.5	0.0029 ug/L	0.0029 ppb	16:30:08
1	Be 313.107†	-3770.9	-133.7	-0.0556 ug/L	-0.0556 ppb	16:29:48
1	Cd 226.502†	-178.3	-27.9	-0.3896 ug/L	-0.3896 ppb	16:30:08
1	Co 228.616†	-53.2	-6.8	-0.1708 ug/L	-0.1708 ppb	16:30:08
1	Cr 267.716†	62.1	-16.8	-0.2171 ug/L	-0.2171 ppb	16:30:08
1	Cu 324.752†	5694.1	113.8	0.3680 ug/L	0.3680 ppb	16:29:48
1	Mn 257.610†	400.5	-11.0	-0.0151 ug/L	-0.0151 ppb	16:30:08
1	Mo 202.031†	12.3	1.9	0.1600 ug/L	0.1600 ppb	16:30:08
1	Ni 231.604†	92.7	8.0	0.2489 ug/L	0.2489 ppb	16:30:08
1	P 214.914†	186.2	9.9	7.1815 ug/L	7.1815 ppb	16:30:08
1	Pb 220.353†	-53.1	-5.2	-0.7803 ug/L	-0.7803 ppb	16:30:08
1	S 181.975 Axial†	25.3	-2.7	-4.7955 ug/L	-4.7955 ppb	16:30:08
1	Sb 206.836†	32.5	5.1	2.1152 ug/L	2.1152 ppb	16:30:08
1	Se 196.026†	-20.5	-1.5	-1.1890 ug/L	-1.1890 ppb	16:30:08
1	Si 251.611†	492.7	7.5	0.2716 ug/L	0.2716 ppb	16:30:08
1	Sn 189.927†	12.1	8.6	1.8744 ug/L	1.8744 ppb	16:30:08
1	Ti 334.940†	-1140.2	-70.9	-0.1239 ug/L	-0.1239 ppb	16:29:48
1	Tl 190.801†	-17.5	7.7	2.9250 ug/L	2.9250 ppb	16:30:08
1	U 409.014†	-2244.0	-75.7	-2.1643 ug/L	-2.1643 ppb	16:29:48
1	V 292.402†	-1371.8	-128.3	-0.9878 ug/L	-0.9878 ppb	16:29:48
1	Zn 213.857†	879.2	-11.4	-0.1363 ug/L	-0.1363 ppb	16:30:08
1	SiO2†	504.3	14.6	1.1325 ug/L	1.1325 ppb	16:31:19
2	Sc Radial	4351.9	4351.9	98.5 %		16:28:56
2	Y RADIAL	4776.0	4776.0	99.45 %		16:28:56
2	Al 396.153Radial†	-84.0	-11.9	-11.613 ug/L	-11.613 ppb	16:29:17
2	Ca 317.933Radial†	18.6	-2.2	-4.1206 ug/L	-4.1206 ppb	16:29:17
2	Fe 238.204 Radial†	8.7	1.4	16.149 ug/L	16.149 ppb	16:29:17
2	K 766.490 Radial†	2475.6	-101.5	-19.706 ug/L	-19.706 ppb	16:28:56
2	Mg 279.077 IEC†	1.2	0.2	7.2182 ug/L	7.2182 ppb	16:29:17
2	Na 589.592 Radial†	-899.0	-5.1	-1.7450 ug/L	-1.7450 ppb	16:28:56
2	Sr 421.552†	27.5	7.2	0.0554 ug/L	0.0554 ppb	16:28:56
2	Sc 361.383	801948.0	801948.0	96.956 %		16:30:14
2	Y 371.029	683950.3	683950.3	97.274 %		16:30:14
2	Ag 328.068†	111.7	-133.9	-0.6639 ug/L	-0.6639 ppb	16:30:14
2	As 188.979†	-27.6	-6.4	-3.4330 ug/L	-3.4330 ppb	16:30:34
2	B 249.677†	-143.7	36.6	0.9984 ug/L	0.9984 ppb	16:30:34
2	Ba 233.527†	11.8	-0.3	-0.0037 ug/L	-0.0037 ppb	16:30:34
2	Be 313.107†	-3675.3	-18.5	-0.0074 ug/L	-0.0074 ppb	16:30:14
2	Cd 226.502†	-155.8	-3.9	-0.0554 ug/L	-0.0554 ppb	16:30:34
2	Co 228.616†	-61.1	-14.7	-0.3725 ug/L	-0.3725 ppb	16:30:34
2	Cr 267.716†	70.2	-8.8	-0.1127 ug/L	-0.1127 ppb	16:30:34
2	Cu 324.752†	5722.8	118.5	0.3820 ug/L	0.3820 ppb	16:30:14
2	Mn 257.610†	442.0	30.0	0.0401 ug/L	0.0401 ppb	16:30:34
2	Mo 202.031†	10.5	-0.1	-0.0076 ug/L	-0.0076 ppb	16:30:34
2	Ni 231.604†	99.1	14.3	0.4428 ug/L	0.4428 ppb	16:30:34

2	P 214.914†	172.4	-5.1	-3.7798 ug/L	-3.7798 ppb	16:30:34
2	Pb 220.353†	-58.5	-10.5	-1.5833 ug/L	-1.5833 ppb	16:30:34
2	S 181.975 Axial†	32.7	4.8	8.3774 ug/L	8.3774 ppb	16:30:34
2	Sb 206.836†	38.5	11.2	4.5475 ug/L	4.5475 ppb	16:30:34
2	Se 196.026†	-21.7	-2.6	-2.0657 ug/L	-2.0657 ppb	16:30:34
2	Si 251.611†	486.8	-0.7	-0.0254 ug/L	-0.0254 ppb	16:30:34
2	Sn 189.927†	5.7	1.9	0.4239 ug/L	0.4239 ppb	16:30:34
2	Ti 334.940†	-1010.5	67.9	0.1141 ug/L	0.1141 ppb	16:30:14
2	Tl 190.801†	-24.6	0.5	0.1820 ug/L	0.1820 ppb	16:30:34
2	U 409.014†	-2149.3	31.9	0.9101 ug/L	0.9101 ppb	16:30:14
2	V 292.402†	-1355.7	-105.6	-0.8125 ug/L	-0.8125 ppb	16:30:14
2	Zn 213.857†	865.4	-29.5	-0.3517 ug/L	-0.3517 ppb	16:30:34
2	SiO2†	508.5	16.7	1.2980 ug/L	1.2980 ppb	16:31:39
3	Sc Radial	4341.4	4341.4	98.3 %		16:29:22
3	Y RADIAL	4698.0	4698.0	97.83 %		16:29:22
3	Al 396.153Radial†	-73.4	-1.3	-1.2736 ug/L	-1.2736 ppb	16:29:42
3	Ca 317.933Radial†	15.8	-5.0	-9.2150 ug/L	-9.2150 ppb	16:29:42
3	Fe 238.204 Radial†	9.5	2.2	24.767 ug/L	24.767 ppb	16:29:42
3	K 766.490 Radial†	2614.0	45.2	8.7829 ug/L	8.7829 ppb	16:29:22
3	Mg 279.077 IEC†	2.4	1.5	57.883 ug/L	57.883 ppb	16:29:42
3	Na 589.592 Radial†	-918.4	-27.0	-9.2301 ug/L	-9.2301 ppb	16:29:22
3	Sr 421.552†	37.5	17.5	0.1351 ug/L	0.1351 ppb	16:29:22
3	Sc 361.383	811498.4	811498.4	98.111 %		16:30:39
3	Y 371.029	690880.7	690880.7	98.260 %		16:30:39
3	Ag 328.068†	146.9	-99.4	-0.4877 ug/L	-0.4877 ppb	16:30:39
3	As 188.979†	-12.6	9.2	4.9849 ug/L	4.9849 ppb	16:30:59
3	B 249.677†	-129.2	53.1	1.4454 ug/L	1.4454 ppb	16:30:59
3	Ba 233.527†	-6.7	-19.2	-0.1755 ug/L	-0.1755 ppb	16:30:59
3	Be 313.107†	-3873.3	-175.7	-0.0728 ug/L	-0.0728 ppb	16:30:39
3	Cd 226.502†	-160.8	-7.0	-0.1014 ug/L	-0.1014 ppb	16:30:59
3	Co 228.616†	-50.0	-2.6	-0.0657 ug/L	-0.0657 ppb	16:30:59
3	Cr 267.716†	107.1	27.9	0.3617 ug/L	0.3617 ppb	16:30:59
3	Cu 324.752†	5717.2	43.4	0.1414 ug/L	0.1414 ppb	16:30:39
3	Mn 257.610†	421.6	3.9	0.0052 ug/L	0.0052 ppb	16:30:59
3	Mo 202.031†	13.2	2.5	0.2185 ug/L	0.2185 ppb	16:30:59
3	Ni 231.604†	72.9	-13.7	-0.4222 ug/L	-0.4222 ppb	16:30:59
3	P 214.914†	184.0	4.6	3.3206 ug/L	3.3206 ppb	16:30:59
3	Pb 220.353†	-65.0	-16.4	-2.4668 ug/L	-2.4668 ppb	16:30:59
3	S 181.975 Axial†	27.7	-0.7	-1.2769 ug/L	-1.2769 ppb	16:30:59
3	Sb 206.836†	32.9	5.0	2.0316 ug/L	2.0316 ppb	16:30:59
3	Se 196.026†	-21.4	-2.1	-1.6035 ug/L	-1.6035 ppb	16:30:59
3	Si 251.611†	499.4	6.2	0.2244 ug/L	0.2244 ppb	16:30:59
3	Sn 189.927†	8.2	4.4	0.9659 ug/L	0.9659 ppb	16:30:59
3	Ti 334.940†	-1111.2	-22.5	-0.0440 ug/L	-0.0440 ppb	16:30:39
3	Tl 190.801†	-29.8	-4.5	-1.7021 ug/L	-1.7021 ppb	16:30:59
3	U 409.014†	-2238.7	-33.1	-0.9512 ug/L	-0.9512 ppb	16:30:39
3	V 292.402†	-1347.2	-80.4	-0.6200 ug/L	-0.6200 ppb	16:30:39
3	Zn 213.857†	861.7	-43.8	-0.5149 ug/L	-0.5149 ppb	16:30:59
3	SiO2†	516.1	18.3	1.4173 ug/L	1.4173 ppb	16:31:59

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	804001.5	97.204 %		0.8113			0.83%
Sc Radial	4351.2	98.5 %		0.21			0.22%
Y 371.029	685187.7	97.450 %		0.7376			0.76%
Y RADIAL	4739.1	98.68 %		0.816			0.83%
Ag 328.068†	-102.8	-0.5086 ug/L		0.14595	-0.5086 ppb	0.14595	28.70%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	-4.2	-4.0643 ug/L		6.61061	-4.0643 ppb	6.61061	162.65%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-0.5	-0.2482 ug/L		4.56749	-0.2482 ppb	4.56749	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	45.8	1.2492 ug/L		0.22846	1.2492 ppb	0.22846	18.29%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	-6.3	-0.0588 ug/L		0.10116	-0.0588 ppb	0.10116	172.07%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	-109.3	-0.0453 ug/L		0.03389	-0.0453 ppb	0.03389	74.89%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	-4.8	-8.7943 ug/L		4.47813	-8.7943 ppb	4.47813	50.92%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	-12.9	-0.1821 ug/L	0.18115	-0.1821 ppb	0.18115	99.46%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	-8.0	-0.2030 ug/L	0.15589	-0.2030 ppb	0.15589	76.79%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	0.8	0.0106 ug/L	0.30852	0.0106 ppb	0.30852	>999.9%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	91.9	0.2971 ug/L	0.13501	0.2971 ppb	0.13501	45.44%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	1.3	14.689 ug/L	10.8814	14.689 ppb	10.8814	74.08%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	1.6	0.3180 ug/L	17.40990	0.3180 ppb	17.40990	>999.9%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	0.8	31.560 ug/L	25.3903	31.560 ppb	25.3903	80.45%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	7.7	0.0101 ug/L	0.02790	0.0101 ppb	0.02790	277.26%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	1.4	0.1236 ug/L	0.11738	0.1236 ppb	0.11738	94.94%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-5.1	-1.7314 ug/L	7.50550	-1.7314 ppb	7.50550	433.49%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	2.9	0.0899 ug/L	0.45391	0.0899 ppb	0.45391	505.15%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	3.2	2.2407 ug/L	5.55986	2.2407 ppb	5.55986	248.13%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-10.7	-1.6101 ug/L	0.84361	-1.6101 ppb	0.84361	52.39%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	0.4	0.7683 ug/L	6.82044	0.7683 ppb	6.82044	887.69%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	7.1	2.8981 ug/L	1.42902	2.8981 ppb	1.42902	49.31%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-2.1	-1.6194 ug/L	0.43852	-1.6194 ppb	0.43852	27.08%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	4.3	0.1569 ug/L	0.15960	0.1569 ppb	0.15960	101.75%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	5.0	1.0881 ug/L	0.73294	1.0881 ppb	0.73294	67.36%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	4.8	0.0371 ug/L	0.10834	0.0371 ppb	0.10834	292.23%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-8.5	-0.0179 ug/L	0.12115	-0.0179 ppb	0.12115	675.25%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	1.2	0.4683 ug/L	2.32679	0.4683 ppb	2.32679	496.85%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-25.6	-0.7351 ug/L	1.54853	-0.7351 ppb	1.54853	210.65%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-104.8	-0.8067 ug/L	0.18397	-0.8067 ppb	0.18397	22.80%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	-28.2	-0.3343 ug/L	0.18988	-0.3343 ppb	0.18988	56.80%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	16.5	1.2826 ug/L	0.14300	1.2826 ppb	0.14300	11.15%	
QC value within limits for SiO2 Recovery = Not calculated							
All analyte(s) passed QC.							

Sequence No.: 8

Sample ID: PQL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 11

Date Collected: 3/17/2010 16:34:10

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	4445.0	4445.0	101 %		16:36:03
1	Y RADIAL	4837.3	4837.3	100.7 %		16:36:03
1	Al 396.153Radial†	132.2	204.7	198.56 ug/L	198.56 ppb	16:36:23
1	Ca 317.933Radial†	133.3	111.3	204.30 ug/L	204.30 ppb	16:36:23
1	Fe 238.204 Radial†	19.2	11.7	130.81 ug/L	130.81 ppb	16:36:23
1	K 766.490 Radial†	3354.5	719.0	139.36 ug/L	139.36 ppb	16:36:03
1	Mg 279.077 IEC†	8.5	7.4	295.78 ug/L	295.78 ppb	16:36:23
1	Na 589.592 Radial†	-12.5	894.9	306.26 ug/L	306.26 ppb	16:36:03
1	Sr 421.552†	679.4	654.3	5.0584 ug/L	5.0584 ppb	16:36:03
1	Sc 361.383	809163.6	809163.6	97.828 %		16:37:20
1	Y 371.029	688813.6	688813.6	97.966 %		16:37:20
1	Ag 328.068†	1201.2	978.8	4.8829 ug/L	4.8829 ppb	16:37:20
1	As 188.979†	29.6	52.3	28.268 ug/L	28.268 ppb	16:37:40
1	B 249.677†	1529.3	1748.1	47.690 ug/L	47.690 ppb	16:37:20
1	Ba 233.527†	570.1	570.4	5.1989 ug/L	5.1989 ppb	16:37:40
1	Be 313.107†	8126.9	12079.4	5.0080 ug/L	5.0080 ppb	16:37:20
1	Cd 226.502†	179.6	340.4	4.7484 ug/L	4.7484 ppb	16:37:40
1	Co 228.616†	154.3	206.0	5.2382 ug/L	5.2382 ppb	16:37:40
1	Cr 267.716†	456.3	385.2	4.9646 ug/L	4.9646 ppb	16:37:40
1	Cu 324.752†	8764.7	3175.3	10.209 ug/L	10.209 ppb	16:37:20
1	Mn 257.610†	8489.5	8252.2	10.652 ug/L	10.652 ppb	16:37:20
1	Mo 202.031†	129.6	121.6	10.434 ug/L	10.434 ppb	16:37:40
1	Ni 231.604†	260.9	178.7	5.5227 ug/L	5.5227 ppb	16:37:40
1	P 214.914†	375.3	200.7	144.48 ug/L	144.48 ppb	16:37:40
1	Pb 220.353†	6.5	56.5	8.5107 ug/L	8.5107 ppb	16:37:40
1	S 181.975 Axial†	82.1	55.0	96.285 ug/L	96.285 ppb	16:37:40
1	Sb 206.836†	54.0	26.7	11.186 ug/L	11.186 ppb	16:37:40
1	Se 196.026†	18.2	38.4	31.145 ug/L	31.145 ppb	16:37:40
1	Si 251.611†	3100.1	2666.1	97.157 ug/L	97.157 ppb	16:37:40
1	Sn 189.927†	44.4	41.4	9.0975 ug/L	9.0975 ppb	16:37:40
1	Ti 334.940†	1798.0	2948.0	5.0065 ug/L	5.0065 ppb	16:37:20
1	Tl 190.801†	21.3	47.6	18.048 ug/L	18.048 ppb	16:37:40
1	U 409.014†	-738.3	1494.0	42.715 ug/L	42.715 ppb	16:37:20
1	V 292.402†	-670.5	607.3	4.8784 ug/L	4.8784 ppb	16:37:20
1	Zn 213.857†	1946.9	1068.1	12.460 ug/L	12.460 ppb	16:37:40
1	SiO2†	3215.4	2779.0	216.28 ug/L	216.28 ppb	16:38:37
2	Sc Radial	4416.9	4416.9	100 %		16:36:29
2	Y RADIAL	4794.9	4794.9	99.85 %		16:36:29
2	Al 396.153Radial†	134.0	207.3	201.15 ug/L	201.15 ppb	16:36:49
2	Ca 317.933Radial†	134.2	113.1	207.63 ug/L	207.63 ppb	16:36:49
2	Fe 238.204 Radial†	15.7	8.3	92.962 ug/L	92.962 ppb	16:36:49
2	K 766.490 Radial†	3263.2	649.0	125.77 ug/L	125.77 ppb	16:36:29
2	Mg 279.077 IEC†	8.9	7.8	312.41 ug/L	312.41 ppb	16:36:49
2	Na 589.592 Radial†	-45.7	861.6	294.87 ug/L	294.87 ppb	16:36:29
2	Sr 421.552†	669.5	648.7	5.0151 ug/L	5.0151 ppb	16:36:29
2	Sc 361.383	799972.6	799972.6	96.717 %		16:37:46
2	Y 371.029	680559.1	680559.1	96.792 %		16:37:46
2	Ag 328.068†	1187.7	978.9	4.8586 ug/L	4.8586 ppb	16:37:46
2	As 188.979†	36.1	59.4	32.061 ug/L	32.061 ppb	16:38:06
2	B 249.677†	1461.9	1696.4	46.284 ug/L	46.284 ppb	16:37:46
2	Ba 233.527†	557.7	564.2	5.1405 ug/L	5.1405 ppb	16:38:06
2	Be 313.107†	7947.4	11989.3	4.9708 ug/L	4.9708 ppb	16:37:46
2	Cd 226.502†	184.4	347.4	4.8524 ug/L	4.8524 ppb	16:38:06
2	Co 228.616†	152.4	205.9	5.2331 ug/L	5.2331 ppb	16:38:06
2	Cr 267.716†	458.5	392.9	5.0537 ug/L	5.0537 ppb	16:38:06
2	Cu 324.752†	8765.7	3279.3	10.534 ug/L	10.534 ppb	16:37:46
2	Mn 257.610†	8329.2	8186.1	10.563 ug/L	10.563 ppb	16:37:46
2	Mo 202.031†	117.0	110.1	9.4464 ug/L	9.4464 ppb	16:38:06
2	Ni 231.604†	227.5	147.3	4.5510 ug/L	4.5510 ppb	16:38:06

2	P 214.914†	384.1	214.2	154.34 ug/L	154.34 ppb	16:38:06
2	Pb 220.353†	21.9	72.5	10.920 ug/L	10.920 ppb	16:38:06
2	S 181.975 Axial†	82.6	56.5	98.948 ug/L	98.948 ppb	16:38:06
2	Sb 206.836†	46.4	19.4	8.2510 ug/L	8.2510 ppb	16:38:06
2	Se 196.026†	22.4	42.9	34.607 ug/L	34.607 ppb	16:38:06
2	Si 251.611†	3108.3	2711.0	98.807 ug/L	98.807 ppb	16:38:06
2	Sn 189.927†	55.2	53.1	11.658 ug/L	11.658 ppb	16:38:06
2	Ti 334.940†	1824.3	2996.3	5.0820 ug/L	5.0820 ppb	16:37:46
2	Tl 190.801†	18.4	44.9	17.038 ug/L	17.038 ppb	16:38:06
2	U 409.014†	-279.5	1959.7	56.042 ug/L	56.042 ppb	16:37:46
2	V 292.402†	-731.4	536.5	4.3512 ug/L	4.3512 ppb	16:37:46
2	Zn 213.857†	1954.9	1099.2	12.837 ug/L	12.837 ppb	16:38:06
2	SiO2†	3170.3	2770.1	215.61 ug/L	215.61 ppb	16:38:42
3	Sc Radial	4441.9	4441.9	101 %		16:36:54
3	Y RADIAL	4821.5	4821.5	100.4 %		16:36:54
3	Al 396.153Radial†	147.6	220.1	213.49 ug/L	213.49 ppb	16:37:14
3	Ca 317.933Radial†	126.5	104.7	192.19 ug/L	192.19 ppb	16:37:14
3	Fe 238.204 Radial†	18.4	10.9	121.62 ug/L	121.62 ppb	16:37:14
3	K 766.490 Radial†	3201.5	569.3	110.30 ug/L	110.30 ppb	16:36:54
3	Mg 279.077 IEC†	9.6	8.5	338.01 ug/L	338.01 ppb	16:37:14
3	Na 589.592 Radial†	-37.5	870.0	297.74 ug/L	297.74 ppb	16:36:54
3	Sr 421.552†	672.0	647.5	5.0058 ug/L	5.0058 ppb	16:36:54
3	Sc 361.383	815270.4	815270.4	98.567 %		16:38:11
3	Y 371.029	694141.8	694141.8	98.723 %		16:38:11
3	Ag 328.068†	1246.6	1015.6	5.0513 ug/L	5.0513 ppb	16:38:11
3	As 188.979†	32.2	54.8	29.604 ug/L	29.604 ppb	16:38:31
3	B 249.677†	1535.0	1742.1	47.529 ug/L	47.529 ppb	16:38:11
3	Ba 233.527†	553.0	548.7	5.0002 ug/L	5.0002 ppb	16:38:31
3	Be 313.107†	8138.6	12029.1	4.9869 ug/L	4.9869 ppb	16:38:11
3	Cd 226.502†	164.1	323.3	4.5125 ug/L	4.5125 ppb	16:38:31
3	Co 228.616†	149.4	199.9	5.0824 ug/L	5.0824 ppb	16:38:31
3	Cr 267.716†	432.4	357.5	4.6007 ug/L	4.6007 ppb	16:38:31
3	Cu 324.752†	8759.8	3103.2	9.9692 ug/L	9.9692 ppb	16:38:11
3	Mn 257.610†	8508.9	8206.8	10.591 ug/L	10.591 ppb	16:38:11
3	Mo 202.031†	128.2	119.1	10.222 ug/L	10.222 ppb	16:38:31
3	Ni 231.604†	256.6	172.5	5.3290 ug/L	5.3290 ppb	16:38:31
3	P 214.914†	385.3	208.0	149.90 ug/L	149.90 ppb	16:38:31
3	Pb 220.353†	7.0	56.9	8.5864 ug/L	8.5864 ppb	16:38:31
3	S 181.975 Axial†	88.6	60.9	106.77 ug/L	106.77 ppb	16:38:31
3	Sb 206.836†	48.0	20.1	8.5540 ug/L	8.5540 ppb	16:38:31
3	Se 196.026†	19.1	39.2	31.749 ug/L	31.749 ppb	16:38:31
3	Si 251.611†	3115.0	2657.5	96.847 ug/L	96.847 ppb	16:38:31
3	Sn 189.927†	53.7	50.6	11.095 ug/L	11.095 ppb	16:38:31
3	Ti 334.940†	1736.9	2872.2	4.8670 ug/L	4.8670 ppb	16:38:11
3	Tl 190.801†	24.2	50.4	19.114 ug/L	19.114 ppb	16:38:31
3	U 409.014†	-313.2	1930.9	55.215 ug/L	55.215 ppb	16:38:11
3	V 292.402†	-732.6	549.4	4.4566 ug/L	4.4566 ppb	16:38:11
3	Zn 213.857†	1956.8	1063.2	12.406 ug/L	12.406 ppb	16:38:31
3	SiO2†	3237.7	2777.0	216.13 ug/L	216.13 ppb	16:38:47

Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	808135.5	97.704 %		0.9310			0.95%
Sc Radial	4434.6	100 %		0.3			0.35%
Y 371.029	687838.2	97.827 %		0.9733			0.99%
Y RADIAL	4817.9	100.3 %		0.45			0.44%
Ag 328.068†	991.1	4.9310 ug/L		0.10494	4.9310 ppb	0.10494	2.13%
QC value within limits for Ag 328.068 Recovery = 98.62%							
Al 396.153Radial†	210.7	204.40 ug/L		7.983	204.40 ppb	7.983	3.91%
QC value within limits for Al 396.153Radial Recovery = 102.20%							
As 188.979†	55.5	29.978 ug/L		1.9242	29.978 ppb	1.9242	6.42%
QC value within limits for As 188.979 Recovery = 99.93%							
B 249.677†	1728.8	47.168 ug/L		0.7694	47.168 ppb	0.7694	1.63%
QC value within limits for B 249.677 Recovery = 94.34%							
Ba 233.527†	561.1	5.1132 ug/L		0.10214	5.1132 ppb	0.10214	2.00%
QC value within limits for Ba 233.527 Recovery = 102.26%							
Be 313.107†	12032.6	4.9886 ug/L		0.01862	4.9886 ppb	0.01862	0.37%
QC value within limits for Be 313.107 Recovery = 99.77%							
Ca 317.933Radial†	109.7	201.37 ug/L		8.125	201.37 ppb	8.125	4.03%

QC value within limits for Ca 317.933 Radial Recovery = 100.69%

Cd 226.502†	337.0	4.7044 ug/L	0.17415	4.7044 ppb	0.17415	3.70%
QC value within limits for Cd 226.502 Recovery = 94.09%						
Co 228.616†	204.0	5.1846 ug/L	0.08851	5.1846 ppb	0.08851	1.71%
QC value within limits for Co 228.616 Recovery = 103.69%						
Cr 267.716†	378.5	4.8730 ug/L	0.23997	4.8730 ppb	0.23997	4.92%
QC value within limits for Cr 267.716 Recovery = 97.46%						
Cu 324.752†	3185.9	10.237 ug/L	0.2837	10.237 ppb	0.2837	2.77%
QC value within limits for Cu 324.752 Recovery = 102.37%						
Fe 238.204 Radial†	10.3	115.13 ug/L	19.742	115.13 ppb	19.742	17.15%
QC value within limits for Fe 238.204 Radial Recovery = 115.13%						
K 766.490 Radial†	645.8	125.14 ug/L	14.540	125.14 ppb	14.540	11.62%
QC value within limits for K 766.490 Radial Recovery = 83.43%						
Mg 279.077 IEC†	7.9	315.40 ug/L	21.274	315.40 ppb	21.274	6.75%
QC value within limits for Mg 279.077 IEC Recovery = 105.13%						
Mn 257.610†	8215.0	10.602 ug/L	0.0459	10.602 ppb	0.0459	0.43%
QC value within limits for Mn 257.610 Recovery = 106.02%						
Mo 202.031†	117.0	10.034 ug/L	0.5198	10.034 ppb	0.5198	5.18%
QC value within limits for Mo 202.031 Recovery = 100.34%						
Na 589.592 Radial†	875.5	299.62 ug/L	5.923	299.62 ppb	5.923	1.98%
QC value within limits for Na 589.592 Radial Recovery = 99.87%						
Ni 231.604†	166.2	5.1342 ug/L	0.51428	5.1342 ppb	0.51428	10.02%
QC value within limits for Ni 231.604 Recovery = 102.68%						
P 214.914†	207.6	149.58 ug/L	4.939	149.58 ppb	4.939	3.30%
QC value within limits for P 214.914 Recovery = 99.72%						
Pb 220.353†	62.0	9.3389 ug/L	1.36951	9.3389 ppb	1.36951	14.66%
QC value within limits for Pb 220.353 Recovery = 93.39%						
S 181.975 Axial†	57.5	100.67 ug/L	5.447	100.67 ppb	5.447	5.41%
QC value within limits for S 181.975 Axial Recovery = 100.67%						
Sb 206.836†	22.1	9.3302 ug/L	1.61394	9.3302 ppb	1.61394	17.30%
QC value within limits for Sb 206.836 Recovery = 93.30%						
Se 196.026†	40.1	32.501 ug/L	1.8489	32.501 ppb	1.8489	5.69%
QC value within limits for Se 196.026 Recovery = 108.34%						
Si 251.611†	2678.2	97.604 ug/L	1.0539	97.604 ppb	1.0539	1.08%
QC value within limits for Si 251.611 Recovery = 97.60%						
Sn 189.927†	48.4	10.617 ug/L	1.3454	10.617 ppb	1.3454	12.67%
QC value within limits for Sn 189.927 Recovery = 106.17%						
Sr 421.552†	650.1	5.0265 ug/L	0.02808	5.0265 ppb	0.02808	0.56%
QC value within limits for Sr 421.552 Recovery = 100.53%						
Ti 334.940†	2938.8	4.9852 ug/L	0.10906	4.9852 ppb	0.10906	2.19%
QC value within limits for Ti 334.940 Recovery = 99.70%						
Tl 190.801†	47.6	18.066 ug/L	1.0383	18.066 ppb	1.0383	5.75%
QC value within limits for Tl 190.801 Recovery = 90.33%						
U 409.014†	1794.9	51.324 ug/L	7.4673	51.324 ppb	7.4673	14.55%
QC value within limits for U 409.014 Recovery = 102.65%						
V 292.402†	564.4	4.5621 ug/L	0.27895	4.5621 ppb	0.27895	6.11%
QC value within limits for V 292.402 Recovery = 91.24%						
Zn 213.857†	1076.8	12.568 ug/L	0.2349	12.568 ppb	0.2349	1.87%
QC value within limits for Zn 213.857 Recovery = 125.68%						
SiO2†	2775.4	216.01 ug/L	0.350	216.01 ppb	0.350	0.16%
QC value within limits for SiO2 Recovery = 101.41%						

All analyte(s) passed QC.

Sequence No.: 9

Sample ID: ICSA

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 13

Date Collected: 3/17/2010 16:40:57

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	3993.7	3993.7	90.4 %		16:43:11
1	Y RADIAL	4307.9	4307.9	89.70 %		16:43:11
1	Al 396.153Radial†	483919.3	535223.4	520410 ug/L	520410 ppb	16:42:51
1	Ca 317.933Radial†	237874.4	263036.3	482780 ug/L	482780 ppb	16:42:51
1	Fe 238.204 Radial†	15234.4	16839.8	187970 ug/L	187970 ppb	16:43:11
1	K 766.490 Radial†	2071.5	-323.2	-224.21 ug/L	-224.21 ppb	16:42:51
1	Mg 279.077 IEC†	11184.4	12367.4	492030 ug/L	492030 ppb	16:43:11
1	Na 589.592 Radial†	-745.4	83.0	28.420 ug/L	28.420 ppb	16:43:11
1	Sr 421.552†	455.6	483.1	0.1314 ug/L	0.1314 ppb	16:43:11
1	Sc 361.383	698985.3	698985.3	84.508 %		16:44:08
1	Y 371.029	580876.5	580876.5	82.614 %		16:44:08
1	Ag 328.068†	-8710.0	-10555.9	-0.8334 ug/L	-0.8334 ppb	16:44:08
1	As 188.979†	-69.1	-59.7	11.634 ug/L	11.634 ppb	16:44:29
1	B 249.677†	349.3	598.1	-14.199 ug/L	-14.199 ppb	16:44:08
1	Ba 233.527†	-491.4	-593.9	0.3528 ug/L	0.3528 ppb	16:44:29
1	Be 313.107†	-4044.2	-1013.5	-0.4778 ug/L	-0.4778 ppb	16:44:08
1	Cd 226.502†	1031.9	1377.9	-0.1789 ug/L	-0.1789 ppb	16:44:29
1	Co 228.616†	6.7	56.3	-1.2719 ug/L	-1.2719 ppb	16:44:29
1	Cr 267.716†	-1178.2	-1475.4	0.9194 ug/L	0.9194 ppb	16:44:29
1	Cu 324.752†	3111.5	-2102.0	3.1595 ug/L	3.1595 ppb	16:44:08
1	Mn 257.610†	-71.0	-509.8	-2.2191 ug/L	-2.2191 ppb	16:44:08
1	Mo 202.031†	-182.4	-226.7	0.9067 ug/L	0.9067 ppb	16:44:29
1	Ni 231.604†	162.2	104.1	3.2163 ug/L	3.2163 ppb	16:44:29
1	P 214.914†	153.4	-1.4	-22.159 ug/L	-22.159 ppb	16:44:29
1	Pb 220.353†	-640.0	-707.5	-10.943 ug/L	-10.943 ppb	16:44:29
1	S 181.975 Axial†	39.9	18.3	-65.413 ug/L	-65.413 ppb	16:44:29
1	Sb 206.836†	44.3	23.8	-8.0560 ug/L	-8.0560 ppb	16:44:29
1	Se 196.026†	-758.8	-878.2	4.4310 ug/L	4.4310 ppb	16:44:29
1	Si 251.611†	408.4	-19.5	-0.4739 ug/L	-0.4739 ppb	16:44:29
1	Sn 189.927†	-328.9	-393.2	-11.094 ug/L	-11.094 ppb	16:44:29
1	Ti 334.940†	-13742.7	-15152.1	-1.2814 ug/L	-1.2814 ppb	16:44:08
1	Tl 190.801†	-57.4	-42.1	-16.174 ug/L	-16.174 ppb	16:44:29
1	U 409.014†	-815.7	1283.5	15.332 ug/L	15.332 ppb	16:44:08
1	V 292.402†	543.9	1936.3	-3.1500 ug/L	-3.1500 ppb	16:44:29
1	Zn 213.857†	2799.8	2391.0	-0.0929 ug/L	-0.0929 ppb	16:44:29
1	SiO2†	375.5	-63.5	-4.4177 ug/L	-4.4177 ppb	16:45:25
2	Sc Radial	3989.2	3989.2	90.3 %		16:43:36
2	Y RADIAL	4322.3	4322.3	90.00 %		16:43:36
2	Al 396.153Radial†	481032.8	532633.1	517890 ug/L	517890 ppb	16:43:16
2	Ca 317.933Radial†	236686.0	262018.1	480910 ug/L	480910 ppb	16:43:16
2	Fe 238.204 Radial†	15195.0	16815.2	187690 ug/L	187690 ppb	16:43:36
2	K 766.490 Radial†	2093.5	-296.3	-218.36 ug/L	-218.36 ppb	16:43:16
2	Mg 279.077 IEC†	11178.5	12374.9	492330 ug/L	492330 ppb	16:43:36
2	Na 589.592 Radial†	-790.9	31.7	10.852 ug/L	10.852 ppb	16:43:36
2	Sr 421.552†	475.5	505.7	0.3203 ug/L	0.3203 ppb	16:43:36
2	Sc 361.383	700154.6	700154.6	84.649 %		16:44:34
2	Y 371.029	581267.7	581267.7	82.670 %		16:44:34
2	Ag 328.068†	-8717.0	-10546.9	-0.8516 ug/L	-0.8516 ppb	16:44:34
2	As 188.979†	-68.9	-59.3	11.790 ug/L	11.790 ppb	16:44:54
2	B 249.677†	306.9	547.4	-15.540 ug/L	-15.540 ppb	16:44:34
2	Ba 233.527†	-479.9	-579.4	0.4765 ug/L	0.4765 ppb	16:44:54
2	Be 313.107†	-3981.5	-931.4	-0.4445 ug/L	-0.4445 ppb	16:44:34
2	Cd 226.502†	1038.5	1383.6	-0.0694 ug/L	-0.0694 ppb	16:44:54
2	Co 228.616†	18.0	69.6	-0.9321 ug/L	-0.9321 ppb	16:44:54
2	Cr 267.716†	-1175.0	-1469.2	0.9678 ug/L	0.9678 ppb	16:44:54
2	Cu 324.752†	3208.6	-1993.4	3.4927 ug/L	3.4927 ppb	16:44:34
2	Mn 257.610†	6.9	-417.6	-2.1393 ug/L	-2.1393 ppb	16:44:34
2	Mo 202.031†	-187.9	-232.9	0.3366 ug/L	0.3366 ppb	16:44:54
2	Ni 231.604†	168.3	110.9	3.4277 ug/L	3.4277 ppb	16:44:54

2	P 214.914†	158.1	3.8	-18.818 ug/L	-18.818 ppb	16:44:54
2	Pb 220.353†	-629.1	-693.3	-9.3568 ug/L	-9.3568 ppb	16:44:54
2	S 181.975 Axial†	41.1	19.6	-62.748 ug/L	-62.748 ppb	16:44:54
2	Sb 206.836†	58.5	40.5	-1.2354 ug/L	-1.2354 ppb	16:44:54
2	Se 196.026†	-750.0	-866.3	12.313 ug/L	12.313 ppb	16:44:54
2	Si 251.611†	365.2	-71.4	-2.3580 ug/L	-2.3580 ppb	16:44:54
2	Sn 189.927†	-337.2	-402.3	-13.398 ug/L	-13.398 ppb	16:44:54
2	Ti 334.940†	-13893.6	-15303.1	-1.8153 ug/L	-1.8153 ppb	16:44:34
2	Tl 190.801†	-67.8	-54.3	-20.792 ug/L	-20.792 ppb	16:44:54
2	U 409.014†	-714.0	1405.1	18.844 ug/L	18.844 ppb	16:44:34
2	V 292.402†	526.6	1914.8	-3.2700 ug/L	-3.2700 ppb	16:44:54
2	Zn 213.857†	2793.5	2378.1	-0.2054 ug/L	-0.2054 ppb	16:44:54
2	SiO2†	410.8	-22.5	-1.2084 ug/L	-1.2084 ppb	16:45:30
3	Sc Radial	4009.4	4009.4	90.8 %		16:44:02
3	Y RADIAL	4329.9	4329.9	90.16 %		16:44:02
3	Al 396.153Radial†	478290.5	526934.2	512350 ug/L	512350 ppb	16:43:42
3	Ca 317.933Radial†	234808.1	258631.7	474700 ug/L	474700 ppb	16:43:42
3	Fe 238.204 Radial†	15259.5	16801.6	187540 ug/L	187540 ppb	16:44:02
3	K 766.490 Radial†	2140.3	-256.4	-208.53 ug/L	-208.53 ppb	16:43:42
3	Mg 279.077 IEC†	11238.7	12379.0	492490 ug/L	492490 ppb	16:44:02
3	Na 589.592 Radial†	-798.7	27.5	9.4202 ug/L	9.4202 ppb	16:44:02
3	Sr 421.552†	473.9	501.3	0.3321 ug/L	0.3321 ppb	16:44:02
3	Sc 361.383	705208.4	705208.4	85.260 %		16:44:59
3	Y 371.029	586302.6	586302.6	83.386 %		16:44:59
3	Ag 328.068†	-8655.5	-10401.0	-0.0873 ug/L	-0.0873 ppb	16:44:59
3	As 188.979†	-75.3	-66.2	8.0314 ug/L	8.0314 ppb	16:45:19
3	B 249.677†	228.4	452.7	-18.100 ug/L	-18.100 ppb	16:44:59
3	Ba 233.527†	-486.7	-583.3	0.4363 ug/L	0.4363 ppb	16:45:19
3	Be 313.107†	-4050.5	-978.6	-0.4634 ug/L	-0.4634 ppb	16:44:59
3	Cd 226.502†	1076.3	1419.1	0.4413 ug/L	0.4413 ppb	16:45:19
3	Co 228.616†	22.1	74.2	-0.8176 ug/L	-0.8176 ppb	16:45:19
3	Cr 267.716†	-1193.5	-1481.0	0.8018 ug/L	0.8018 ppb	16:45:19
3	Cu 324.752†	3193.3	-2038.6	3.3411 ug/L	3.3411 ppb	16:44:59
3	Mn 257.610†	-56.8	-492.4	-2.2576 ug/L	-2.2576 ppb	16:44:59
3	Mo 202.031†	-212.3	-259.9	-2.0678 ug/L	-2.0678 ppb	16:45:19
3	Ni 231.604†	180.8	124.1	3.8353 ug/L	3.8353 ppb	16:45:19
3	P 214.914†	154.3	-2.0	-24.237 ug/L	-24.237 ppb	16:45:19
3	Pb 220.353†	-625.4	-683.7	-9.2184 ug/L	-9.2184 ppb	16:45:19
3	S 181.975 Axial†	38.6	16.4	-67.303 ug/L	-67.303 ppb	16:45:19
3	Sb 206.836†	54.8	35.7	-3.0310 ug/L	-3.0310 ppb	16:45:19
3	Se 196.026†	-760.8	-872.6	5.0644 ug/L	5.0644 ppb	16:45:19
3	Si 251.611†	366.6	-72.8	-2.3823 ug/L	-2.3823 ppb	16:45:19
3	Sn 189.927†	-326.4	-386.8	-11.116 ug/L	-11.116 ppb	16:45:19
3	Ti 334.940†	-13851.7	-15136.3	-2.3766 ug/L	-2.3766 ppb	16:44:59
3	Tl 190.801†	-83.9	-72.6	-27.711 ug/L	-27.711 ppb	16:45:19
3	U 409.014†	-823.9	1282.3	15.347 ug/L	15.347 ppb	16:44:59
3	V 292.402†	516.8	1898.8	-3.4074 ug/L	-3.4074 ppb	16:45:19
3	Zn 213.857†	2806.5	2369.6	-0.2843 ug/L	-0.2843 ppb	16:45:19
3	SiO2†	405.1	-32.6	-1.9364 ug/L	-1.9364 ppb	16:45:35

Mean Data: ICSEA

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	701449.4	84.806 %	0.3999			0.47%
Sc Radial	3997.5	90.5 %	0.24			0.26%
Y 371.029	582815.6	82.890 %	0.4304			0.52%
Y RADIAL	4320.1	89.96 %	0.233			0.26%
Ag 328.068†	-10501.3	-0.5907 ug/L	0.43612	-0.5907 ppb	0.43612	73.83%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	531596.9	516890 ug/L	4123.2	516890 ppb	4123.2	0.80%
QC value within limits for Al 396.153Radial Recovery = 103.38%						
As 188.979†	-61.8	10.485 ug/L	2.1264	10.485 ppb	2.1264	20.28%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	532.7	-15.947 ug/L	1.9821	-15.947 ppb	1.9821	12.43%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-585.5	0.4219 ug/L	0.06309	0.4219 ppb	0.06309	14.96%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-974.5	-0.4619 ug/L	0.01674	-0.4619 ppb	0.01674	3.62%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	261228.7	479460 ug/L	4232.4	479460 ppb	4232.4	0.88%

QC value within limits for Ca 317.933 Radial Recovery = 95.89%

Cd 226.502†	1393.5	0.0643 ug/L	0.33103	0.0643 ppb	0.33103	514.53%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	66.7	-1.0072 ug/L	0.23628	-1.0072 ppb	0.23628	23.46%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-1475.2	0.8963 ug/L	0.08534	0.8963 ppb	0.08534	9.52%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-2044.7	3.3311 ug/L	0.16684	3.3311 ppb	0.16684	5.01%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	16818.9	187730 ug/L	215.9	187730 ppb	215.9	0.11%
QC value within limits for Fe 238.204 Radial Recovery = 93.87%						
K 766.490 Radial†	-291.9	-217.03 ug/L	7.923	-217.03 ppb	7.923	3.65%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	12373.7	492280 ug/L	234.5	492280 ppb	234.5	0.05%
QC value within limits for Mg 279.077 IEC Recovery = 98.46%						
Mn 257.610†	-473.3	-2.2053 ug/L	0.06031	-2.2053 ppb	0.06031	2.73%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-239.8	-0.2748 ug/L	1.57870	-0.2748 ppb	1.57870	574.44%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	47.4	16.231 ug/L	10.5801	16.231 ppb	10.5801	65.19%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	113.0	3.4931 ug/L	0.31462	3.4931 ppb	0.31462	9.01%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	0.1	-21.738 ug/L	2.7341	-21.738 ppb	2.7341	12.58%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-694.9	-9.8393 ug/L	0.95810	-9.8393 ppb	0.95810	9.74%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	18.1	-65.155 ug/L	2.2888	-65.155 ppb	2.2888	3.51%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	33.4	-4.1075 ug/L	3.53541	-4.1075 ppb	3.53541	86.07%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-872.4	7.2695 ug/L	4.37932	7.2695 ppb	4.37932	60.24%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	-54.6	-1.7380 ug/L	1.09488	-1.7380 ppb	1.09488	62.99%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	-394.1	-11.869 ug/L	1.3237	-11.869 ppb	1.3237	11.15%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	496.7	0.2613 ug/L	0.11264	0.2613 ppb	0.11264	43.11%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-15197.1	-1.8244 ug/L	0.54764	-1.8244 ppb	0.54764	30.02%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-56.3	-21.559 ug/L	5.8068	-21.559 ppb	5.8068	26.93%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	1323.6	16.507 ug/L	2.0232	16.507 ppb	2.0232	12.26%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	1916.6	-3.2758 ug/L	0.12882	-3.2758 ppb	0.12882	3.93%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	2379.6	-0.1942 ug/L	0.09621	-0.1942 ppb	0.09621	49.55%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	-39.5	-2.5209 ug/L	1.68255	-2.5209 ppb	1.68255	66.75%
QC value within limits for SiO2 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 10
 Sample ID: ICSAB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 14
 Date Collected: 3/17/2010 16:47:47
 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	3895.9	3895.9	88.2 %		16:49:59
1	Y RADIAL	4246.6	4246.6	88.43 %		16:49:59
1	Al 396.153Radial†	480406.6	544679.4	529580 ug/L	529580 ppb	16:49:39
1	Ca 317.933Radial†	231850.5	262812.9	482370 ug/L	482370 ppb	16:49:39
1	Fe 238.204 Radial†	14404.7	16322.2	182200 ug/L	182200 ppb	16:49:59
1	K 766.490 Radial†	27397.9	28445.2	5357.0 ug/L	5357.0 ppb	16:49:39
1	Mg 279.077 IEC†	10849.3	12298.1	489280 ug/L	489280 ppb	16:49:59
1	Na 589.592 Radial†	12203.2	14741.3	5045.1 ug/L	5045.1 ppb	16:49:59
1	Sr 421.552†	56618.4	64163.9	492.62 ug/L	492.62 ppb	16:49:39
1	Sc 361.383	705629.9	705629.9	85.311 %		16:50:57
1	Y 371.029	585816.1	585816.1	83.317 %		16:50:57
1	Ag 328.068†	37586.6	43809.2	269.04 ug/L	269.04 ppb	16:50:57
1	As 188.979†	732.6	880.8	520.86 ug/L	520.86 ppb	16:51:17
1	B 249.677†	16515.2	19543.6	502.69 ug/L	502.69 ppb	16:50:57
1	Ba 233.527†	45536.3	53364.4	491.76 ug/L	491.76 ppb	16:50:57
1	Be 313.107†	505268.2	596038.1	247.65 ug/L	247.65 ppb	16:50:57
1	Cd 226.502†	29443.4	34669.8	465.37 ug/L	465.37 ppb	16:51:17
1	Co 228.616†	15300.8	17983.7	453.61 ug/L	453.61 ppb	16:51:17
1	Cr 267.716†	30801.7	36024.0	483.78 ug/L	483.78 ppb	16:50:57
1	Cu 324.752†	147673.5	167316.2	548.17 ug/L	548.17 ppb	16:50:57
1	Mn 257.610†	319619.7	374226.4	481.01 ug/L	481.01 ppb	16:50:57
1	Mo 202.031†	4710.2	5510.3	492.11 ug/L	492.11 ppb	16:51:17
1	Ni 231.604†	12722.2	14824.8	458.07 ug/L	458.07 ppb	16:51:17
1	P 214.914†	3115.3	3468.8	2414.0 ug/L	2414.0 ppb	16:51:17
1	Pb 220.353†	2018.4	2415.8	460.98 ug/L	460.98 ppb	16:51:17
1	S 181.975 Axial†	1345.8	1548.5	2614.8 ug/L	2614.8 ppb	16:51:17
1	Sb 206.836†	1169.7	1342.5	545.50 ug/L	545.50 ppb	16:51:17
1	Se 196.026†	1987.7	2349.7	2571.4 ug/L	2571.4 ppb	16:51:17
1	Si 251.611†	121931.3	142422.7	5191.2 ug/L	5191.2 ppb	16:50:57
1	Sn 189.927†	1608.9	1882.0	487.24 ug/L	487.24 ppb	16:51:17
1	Ti 334.940†	243564.2	286611.4	512.75 ug/L	512.75 ppb	16:50:57
1	Tl 190.801†	979.4	1173.9	447.28 ug/L	447.28 ppb	16:51:17
1	U 409.014†	13471.7	18039.9	494.28 ug/L	494.28 ppb	16:50:57
1	V 292.402†	56306.0	67293.5	507.36 ug/L	507.36 ppb	16:50:57
1	Zn 213.857†	38710.0	44453.1	490.54 ug/L	490.54 ppb	16:50:57
1	SiO2†	122243.8	142784.1	11114 ug/L	11114 ppb	16:52:15
2	Sc Radial	3934.7	3934.7	89.1 %		16:50:25
2	Y RADIAL	4274.4	4274.4	89.01 %		16:50:25
2	Al 396.153Radial†	477397.4	535930.4	521080 ug/L	521080 ppb	16:50:04
2	Ca 317.933Radial†	230178.0	258343.4	474170 ug/L	474170 ppb	16:50:04
2	Fe 238.204 Radial†	14436.8	16197.3	180810 ug/L	180810 ppb	16:50:25
2	K 766.490 Radial†	27422.3	28166.3	5305.6 ug/L	5305.6 ppb	16:50:04
2	Mg 279.077 IEC†	10853.1	12181.1	484630 ug/L	484630 ppb	16:50:25
2	Na 589.592 Radial†	12219.0	14622.6	5004.5 ug/L	5004.5 ppb	16:50:25
2	Sr 421.552†	56285.2	63156.9	484.89 ug/L	484.89 ppb	16:50:04
2	Sc 361.383	711489.9	711489.9	86.020 %		16:51:23
2	Y 371.029	589706.9	589706.9	83.870 %		16:51:23
2	Ag 328.068†	37902.6	43813.7	268.74 ug/L	268.74 ppb	16:51:23
2	As 188.979†	746.2	889.6	525.32 ug/L	525.32 ppb	16:51:43
2	B 249.677†	16791.1	19705.0	507.35 ug/L	507.35 ppb	16:51:23
2	Ba 233.527†	45918.2	53368.7	491.75 ug/L	491.75 ppb	16:51:23
2	Be 313.107†	508251.7	594628.4	247.07 ug/L	247.07 ppb	16:51:23
2	Cd 226.502†	29244.0	34153.8	458.31 ug/L	458.31 ppb	16:51:43
2	Co 228.616†	15173.7	17688.2	446.11 ug/L	446.11 ppb	16:51:43
2	Cr 267.716†	30994.6	35950.9	482.69 ug/L	482.69 ppb	16:51:23
2	Cu 324.752†	148947.2	167371.2	548.28 ug/L	548.28 ppb	16:51:23
2	Mn 257.610†	322219.6	374163.1	480.98 ug/L	480.98 ppb	16:51:23
2	Mo 202.031†	4654.2	5399.7	482.42 ug/L	482.42 ppb	16:51:43
2	Ni 231.604†	12631.5	14596.5	451.01 ug/L	451.01 ppb	16:51:43

2	P 214.914†	3097.1	3417.6	2375.5 ug/L	2375.5 ppb	16:51:43
2	Pb 220.353†	2013.4	2390.5	455.37 ug/L	455.37 ppb	16:51:43
2	S 181.975 Axial†	1337.3	1525.7	2576.3 ug/L	2576.3 ppb	16:51:43
2	Sb 206.836†	1177.3	1340.1	544.41 ug/L	544.41 ppb	16:51:43
2	Se 196.026†	1956.9	2294.7	2520.6 ug/L	2520.6 ppb	16:51:43
2	Si 251.611†	122869.9	142336.8	5188.2 ug/L	5188.2 ppb	16:51:23
2	Sn 189.927†	1586.1	1839.9	476.65 ug/L	476.65 ppb	16:51:43
2	Ti 334.940†	246134.9	287248.5	513.12 ug/L	513.12 ppb	16:51:23
2	Tl 190.801†	964.8	1147.4	437.32 ug/L	437.32 ppb	16:51:43
2	U 409.014†	13587.7	18044.8	494.58 ug/L	494.58 ppb	16:51:23
2	V 292.402†	56516.5	66994.6	505.04 ug/L	505.04 ppb	16:51:23
2	Zn 213.857†	39022.6	44442.8	490.67 ug/L	490.67 ppb	16:51:23
2	SiO2†	123832.4	143450.7	11166 ug/L	11166 ppb	16:52:20
3	Sc Radial	3908.6	3908.6	88.5 %		16:50:50
3	Y RADIAL	4245.7	4245.7	88.41 %		16:50:50
3	Al 396.153Radial†	478484.7	540735.4	525750 ug/L	525750 ppb	16:50:30
3	Ca 317.933Radial†	229993.7	259859.5	476950 ug/L	476950 ppb	16:50:30
3	Fe 238.204 Radial†	14350.7	16208.1	180930 ug/L	180930 ppb	16:50:50
3	K 766.490 Radial†	27288.7	28220.8	5315.3 ug/L	5315.3 ppb	16:50:30
3	Mg 279.077 IEC†	10835.8	12242.8	487080 ug/L	487080 ppb	16:50:50
3	Na 589.592 Radial†	12077.9	14554.7	4981.2 ug/L	4981.2 ppb	16:50:50
3	Sr 421.552†	56089.0	63356.8	486.41 ug/L	486.41 ppb	16:50:30
3	Sc 361.383	706700.4	706700.4	85.440 %		16:51:49
3	Y 371.029	586352.5	586352.5	83.393 %		16:51:49
3	Ag 328.068†	37507.2	43649.5	267.91 ug/L	267.91 ppb	16:51:49
3	As 188.979†	748.8	898.5	530.12 ug/L	530.12 ppb	16:52:09
3	B 249.677†	16623.3	19640.8	505.56 ug/L	505.56 ppb	16:51:49
3	Ba 233.527†	45462.8	53197.5	490.19 ug/L	490.19 ppb	16:51:49
3	Be 313.107†	503813.5	593438.2	246.58 ug/L	246.58 ppb	16:51:49
3	Cd 226.502†	29387.7	34552.4	463.87 ug/L	463.87 ppb	16:52:09
3	Co 228.616†	15229.2	17872.7	450.81 ug/L	450.81 ppb	16:52:09
3	Cr 267.716†	30584.2	35714.7	479.65 ug/L	479.65 ppb	16:51:49
3	Cu 324.752†	148333.8	167826.7	549.75 ug/L	549.75 ppb	16:51:49
3	Mn 257.610†	318556.7	372414.7	478.64 ug/L	478.64 ppb	16:51:49
3	Mo 202.031†	4680.9	5467.7	488.29 ug/L	488.29 ppb	16:52:09
3	Ni 231.604†	12711.2	14789.4	456.97 ug/L	456.97 ppb	16:52:09
3	P 214.914†	3156.9	3512.0	2445.3 ug/L	2445.3 ppb	16:52:09
3	Pb 220.353†	2006.0	2397.7	457.52 ug/L	457.52 ppb	16:52:09
3	S 181.975 Axial†	1318.4	1514.1	2555.1 ug/L	2555.1 ppb	16:52:09
3	Sb 206.836†	1175.8	1347.6	547.55 ug/L	547.55 ppb	16:52:09
3	Se 196.026†	1955.5	2308.4	2533.5 ug/L	2533.5 ppb	16:52:09
3	Si 251.611†	121786.6	142036.9	5177.1 ug/L	5177.1 ppb	16:51:49
3	Sn 189.927†	1595.6	1863.5	482.30 ug/L	482.30 ppb	16:52:09
3	Ti 334.940†	244175.8	286894.7	512.69 ug/L	512.69 ppb	16:51:49
3	Tl 190.801†	966.4	1156.9	440.88 ug/L	440.88 ppb	16:52:09
3	U 409.014†	13741.4	18331.7	502.78 ug/L	502.78 ppb	16:51:49
3	V 292.402†	56018.5	66857.1	504.11 ug/L	504.11 ppb	16:51:49
3	Zn 213.857†	38640.0	44302.4	488.97 ug/L	488.97 ppb	16:51:49
3	SiO2†	121458.0	141647.4	11026 ug/L	11026 ppb	16:52:25

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	707940.1	85.590 %	0.3773			0.44%
Sc Radial	3913.1	88.6 %	0.45			0.51%
Y 371.029	587291.8	83.527 %	0.2999			0.36%
Y RADIAL	4255.5	88.61 %	0.340			0.38%
Ag 328.068†	43757.5	268.56 ug/L	0.586	268.56 ppb	0.586	0.22%
QC value within limits for Ag 328.068 Recovery = 107.42%						
Al 396.153Radial†	540448.4	525470 ug/L	4260.1	525470 ppb	4260.1	0.81%
QC value within limits for Al 396.153Radial Recovery = 105.09%						
As 188.979†	889.6	525.43 ug/L	4.630	525.43 ppb	4.630	0.88%
QC value within limits for As 188.979 Recovery = 105.09%						
B 249.677†	19629.8	505.20 ug/L	2.348	505.20 ppb	2.348	0.46%
QC value within limits for B 249.677 Recovery = 101.04%						
Ba 233.527†	53310.2	491.23 ug/L	0.900	491.23 ppb	0.900	0.18%
QC value within limits for Ba 233.527 Recovery = 98.25%						
Be 313.107†	594701.6	247.10 ug/L	0.538	247.10 ppb	0.538	0.22%
QC value within limits for Be 313.107 Recovery = 98.84%						
Ca 317.933Radial†	260338.6	477830 ug/L	4171.8	477830 ppb	4171.8	0.87%

QC value within limits for Ca 317.933 Radial Recovery = 95.57%

Cd 226.502†	34458.7	462.52 ug/L	3.719	462.52 ppb	3.719	0.80%
QC value within limits for Cd 226.502 Recovery = 92.50%						
Co 228.616†	17848.2	450.18 ug/L	3.789	450.18 ppb	3.789	0.84%
QC value within limits for Co 228.616 Recovery = 90.04%						
Cr 267.716†	35896.5	482.04 ug/L	2.138	482.04 ppb	2.138	0.44%
QC value within limits for Cr 267.716 Recovery = 96.41%						
Cu 324.752†	167504.7	548.73 ug/L	0.879	548.73 ppb	0.879	0.16%
QC value within limits for Cu 324.752 Recovery = 109.75%						
Fe 238.204 Radial†	16242.5	181310 ug/L	772.7	181310 ppb	772.7	0.43%
QC value within limits for Fe 238.204 Radial Recovery = 90.66%						
K 766.490 Radial†	28277.4	5326.0 ug/L	27.29	5326.0 ppb	27.29	0.51%
QC value within limits for K 766.490 Radial Recovery = 106.52%						
Mg 279.077 IEC†	12240.6	487000 ug/L	2329.5	487000 ppb	2329.5	0.48%
QC value within limits for Mg 279.077 IEC Recovery = 97.40%						
Mn 257.610†	373601.4	480.21 ug/L	1.363	480.21 ppb	1.363	0.28%
QC value within limits for Mn 257.610 Recovery = 96.04%						
Mo 202.031†	5459.2	487.61 ug/L	4.879	487.61 ppb	4.879	1.00%
QC value within limits for Mo 202.031 Recovery = 97.52%						
Na 589.592 Radial†	14639.5	5010.3 ug/L	32.34	5010.3 ppb	32.34	0.65%
QC value within limits for Na 589.592 Radial Recovery = 100.21%						
Ni 231.604†	14736.9	455.35 ug/L	3.796	455.35 ppb	3.796	0.83%
QC value within limits for Ni 231.604 Recovery = 91.07%						
P 214.914†	3466.1	2411.6 ug/L	34.93	2411.6 ppb	34.93	1.45%
QC value within limits for P 214.914 Recovery = 96.46%						
Pb 220.353†	2401.3	457.95 ug/L	2.829	457.95 ppb	2.829	0.62%
QC value within limits for Pb 220.353 Recovery = 91.59%						
S 181.975 Axial†	1529.4	2582.1 ug/L	30.24	2582.1 ppb	30.24	1.17%
QC value within limits for S 181.975 Axial Recovery = 103.28%						
Sb 206.836†	1343.4	545.82 ug/L	1.596	545.82 ppb	1.596	0.29%
QC value within limits for Sb 206.836 Recovery = 109.16%						
Se 196.026†	2317.6	2541.8 ug/L	26.36	2541.8 ppb	26.36	1.04%
QC value within limits for Se 196.026 Recovery = 101.67%						
Si 251.611†	142265.5	5185.5 ug/L	7.39	5185.5 ppb	7.39	0.14%
QC value within limits for Si 251.611 Recovery = 103.71%						
Sn 189.927†	1861.8	482.06 ug/L	5.298	482.06 ppb	5.298	1.10%
QC value within limits for Sn 189.927 Recovery = 96.41%						
Sr 421.552†	63559.2	487.97 ug/L	4.092	487.97 ppb	4.092	0.84%
QC value within limits for Sr 421.552 Recovery = 97.59%						
Ti 334.940†	286918.2	512.85 ug/L	0.233	512.85 ppb	0.233	0.05%
QC value within limits for Ti 334.940 Recovery = 102.57%						
Tl 190.801†	1159.4	441.83 ug/L	5.049	441.83 ppb	5.049	1.14%
QC value within limits for Tl 190.801 Recovery = 88.37%						
U 409.014†	18138.8	497.21 ug/L	4.825	497.21 ppb	4.825	0.97%
QC value within limits for U 409.014 Recovery = 99.44%						
V 292.402†	67048.4	505.50 ug/L	1.673	505.50 ppb	1.673	0.33%
QC value within limits for V 292.402 Recovery = 101.10%						
Zn 213.857†	44399.4	490.06 ug/L	0.948	490.06 ppb	0.948	0.19%
QC value within limits for Zn 213.857 Recovery = 98.01%						
SiO2†	142627.4	11102 ug/L	71.1	11102 ppb	71.1	0.64%
QC value within limits for SiO2 Recovery = 103.81%						

All analyte(s) passed QC.

Sequence No.: 11

Sample ID: LR1

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 15

Date Collected: 3/17/2010 16:54:35

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	3876.8	3876.8	87.8	%		16:56:49
1	Y RADIAL	4204.1	4204.1	87.54	%		16:56:49
1	Al 396.153Radial†	468204.4	533462.3	518700	ug/L	518700 ppb	16:56:28
1	Ca 317.933Radial†	229136.9	261016.8	479070	ug/L	479070 ppb	16:56:28
1	Fe 238.204 Radial†	34161.1	38909.7	434310	ug/L	434310 ppb	16:56:49
1	K 766.490 Radial†	2736.1	503.0	-264.24	ug/L	-264.24 ppb	16:56:28
1	Mg 279.077 IEC†	10846.1	12355.1	491280	ug/L	491280 ppb	16:56:49
1	Na 589.592 Radial†	1325229.2	1510638.1	517000	ug/L	517000 ppb	16:56:28
1	Sr 421.552†	1434.8	1613.9	8.9038	ug/L	8.9038 ppb	16:56:49
1	Sc 361.383	680371.4	680371.4	82.257	%		16:57:47
1	Y 371.029	566565.1	566565.1	80.579	%		16:57:47
1	Ag 328.068†	-19524.2	-23984.7	-3.0555	ug/L	-3.0555 ppb	16:57:47
1	As 188.979†	-149.0	-159.1	15.834	ug/L	15.834 ppb	16:58:07
1	B 249.677†	1081.2	1499.3	-29.618	ug/L	-29.618 ppb	16:57:47
1	Ba 233.527†	-1309.6	-1604.5	-1.3190	ug/L	-1.3190 ppb	16:58:07
1	Be 313.107†	-9764.1	-8098.1	-3.3990	ug/L	-3.3990 ppb	16:57:47
1	Cd 226.502†	2678.9	3413.5	5.5966	ug/L	5.5966 ppb	16:58:07
1	Co 228.616†	202.1	294.0	1.1314	ug/L	1.1314 ppb	16:58:07
1	Cr 267.716†	-1051.0	-1358.9	22.805	ug/L	22.805 ppb	16:58:07
1	Cu 324.752†	1012.6	-4552.9	0.3091	ug/L	0.3091 ppb	16:57:47
1	Mn 257.610†	-18522.2	-22943.1	-6.8245	ug/L	-6.8245 ppb	16:57:47
1	Mo 202.031†	-400.7	-498.1	-3.2706	ug/L	-3.2706 ppb	16:58:07
1	Ni 231.604†	240.0	203.8	6.2975	ug/L	6.2975 ppb	16:58:07
1	P 214.914†	456.0	371.5	52.697	ug/L	52.697 ppb	16:58:07
1	Pb 220.353†	-450.9	-498.4	-15.130	ug/L	-15.130 ppb	16:58:07
1	S 181.975 Axial†	61.4	45.7	-17.192	ug/L	-17.192 ppb	16:58:07
1	Sb 206.836†	60.7	45.2	-2.6150	ug/L	-2.6150 ppb	16:58:07
1	Se 196.026†	-1744.8	-2101.4	-265.34	ug/L	-265.34 ppb	16:58:07
1	Si 251.611†	-444.7	-1043.4	-37.548	ug/L	-37.548 ppb	16:58:07
1	Sn 189.927†	-344.4	-422.6	-32.334	ug/L	-32.334 ppb	16:58:07
1	Ti 334.940†	-11393.8	-12741.3	-3.9743	ug/L	-3.9743 ppb	16:57:47
1	Tl 190.801†	-89.2	-82.6	-31.633	ug/L	-31.633 ppb	16:58:07
1	U 409.014†	414532.9	506195.5	14432	ug/L	14432 ppb	16:57:47
1	V 292.402†	1454.6	3061.0	-3.0782	ug/L	-3.0782 ppb	16:58:07
1	Zn 213.857†	4805.4	4919.9	-7.3026	ug/L	-7.3026 ppb	16:58:07
1	SiO2†	-397.5	-991.0	-76.064	ug/L	-76.064 ppb	16:59:04
2	Sc Radial	3895.9	3895.9	88.2	%		16:57:14
2	Y RADIAL	4235.7	4235.7	88.20	%		16:57:14
2	Al 396.153Radial†	466879.6	529349.2	514700	ug/L	514700 ppb	16:56:54
2	Ca 317.933Radial†	228442.2	258951.3	475280	ug/L	475280 ppb	16:56:54
2	Fe 238.204 Radial†	34034.4	38575.5	430580	ug/L	430580 ppb	16:57:14
2	K 766.490 Radial†	2709.7	457.8	-269.47	ug/L	-269.47 ppb	16:56:54
2	Mg 279.077 IEC†	10800.3	12242.7	486810	ug/L	486810 ppb	16:57:14
2	Na 589.592 Radial†	1316745.8	1493630.0	511180	ug/L	511180 ppb	16:56:54
2	Sr 421.552†	1438.2	1609.7	8.8997	ug/L	8.8997 ppb	16:57:14
2	Sc 361.383	685016.6	685016.6	82.819	%		16:58:13
2	Y 371.029	569339.7	569339.7	80.974	%		16:58:13
2	Ag 328.068†	-19633.9	-23956.2	-4.0319	ug/L	-4.0319 ppb	16:58:13
2	As 188.979†	-161.7	-173.2	7.3779	ug/L	7.3779 ppb	16:58:33
2	B 249.677†	1154.0	1578.2	-26.856	ug/L	-26.856 ppb	16:58:13
2	Ba 233.527†	-1323.7	-1610.8	-1.4893	ug/L	-1.4893 ppb	16:58:33
2	Be 313.107†	-9863.7	-8137.8	-3.4146	ug/L	-3.4146 ppb	16:58:13
2	Cd 226.502†	2630.4	3332.9	4.8602	ug/L	4.8602 ppb	16:58:33
2	Co 228.616†	190.7	278.5	0.7924	ug/L	0.7924 ppb	16:58:33
2	Cr 267.716†	-1021.4	-1314.5	22.974	ug/L	22.974 ppb	16:58:33
2	Cu 324.752†	866.6	-4737.6	-0.4938	ug/L	-0.4938 ppb	16:58:13
2	Mn 257.610†	-18705.2	-23011.4	-7.0980	ug/L	-7.0980 ppb	16:58:13
2	Mo 202.031†	-401.5	-495.7	-3.4046	ug/L	-3.4046 ppb	16:58:33
2	Ni 231.604†	218.8	176.3	5.4466	ug/L	5.4466 ppb	16:58:33

2	P 214.914†	439.9	348.2	37.858 ug/L	37.858 ppb	16:58:33
2	Pb 220.353†	-428.0	-467.0	-10.834 ug/L	-10.834 ppb	16:58:33
2	S 181.975 Axial†	63.4	47.6	-13.042 ug/L	-13.042 ppb	16:58:33
2	Sb 206.836†	44.5	25.1	-10.600 ug/L	-10.600 ppb	16:58:33
2	Se 196.026†	-1739.7	-2080.8	-260.90 ug/L	-260.90 ppb	16:58:33
2	Si 251.611†	-443.5	-1038.3	-37.364 ug/L	-37.364 ppb	16:58:33
2	Sn 189.927†	-338.0	-412.1	-30.499 ug/L	-30.499 ppb	16:58:33
2	Ti 334.940†	-11292.9	-12525.6	-3.7583 ug/L	-3.7583 ppb	16:58:13
2	Tl 190.801†	-76.1	-66.1	-25.379 ug/L	-25.379 ppb	16:58:33
2	U 409.014†	417930.9	506881.1	14452 ug/L	14452 ppb	16:58:13
2	V 292.402†	1463.3	3059.6	-2.5923 ug/L	-2.5923 ppb	16:58:33
2	Zn 213.857†	4803.1	4877.4	-7.2357 ug/L	-7.2357 ppb	16:58:33
2	SiO2†	-388.1	-976.4	-74.935 ug/L	-74.935 ppb	16:59:09
3	Sc Radial	3907.6	3907.6	88.5 %		16:57:40
3	Y RADIAL	4249.2	4249.2	88.48 %		16:57:40
3	Al 396.153Radial†	468007.3	529031.3	514390 ug/L	514390 ppb	16:57:20
3	Ca 317.933Radial†	229346.5	259194.2	475730 ug/L	475730 ppb	16:57:20
3	Fe 238.204 Radial†	34293.9	38752.8	432560 ug/L	432560 ppb	16:57:40
3	K 766.490 Radial†	2677.3	412.0	-277.25 ug/L	-277.25 ppb	16:57:20
3	Mg 279.077 IEC†	10920.7	12341.9	490760 ug/L	490760 ppb	16:57:40
3	Na 589.592 Radial†	1312410.3	1484238.6	507970 ug/L	507970 ppb	16:57:20
3	Sr 421.552†	1447.5	1615.2	8.9394 ug/L	8.9394 ppb	16:57:40
3	Sc 361.383	689397.8	689397.8	83.349 %		16:58:38
3	Y 371.029	573195.6	573195.6	81.522 %		16:58:38
3	Ag 328.068†	-19822.6	-24031.9	-3.8029 ug/L	-3.8029 ppb	16:58:38
3	As 188.979†	-161.8	-172.0	8.4364 ug/L	8.4364 ppb	16:58:58
3	B 249.677†	1100.5	1505.2	-29.170 ug/L	-29.170 ppb	16:58:38
3	Ba 233.527†	-1293.8	-1564.6	-1.0125 ug/L	-1.0125 ppb	16:58:58
3	Be 313.107†	-9847.9	-8043.2	-3.3753 ug/L	-3.3753 ppb	16:58:38
3	Cd 226.502†	2653.0	3339.8	4.7515 ug/L	4.7515 ppb	16:58:58
3	Co 228.616†	185.3	270.7	0.5683 ug/L	0.5683 ppb	16:58:58
3	Cr 267.716†	-1059.7	-1352.5	22.693 ug/L	22.693 ppb	16:58:58
3	Cu 324.752†	932.3	-4665.4	-0.1538 ug/L	-0.1538 ppb	16:58:38
3	Mn 257.610†	-18975.5	-23192.3	-7.2976 ug/L	-7.2976 ppb	16:58:38
3	Mo 202.031†	-390.6	-479.6	-1.8609 ug/L	-1.8609 ppb	16:58:58
3	Ni 231.604†	212.9	167.5	5.1756 ug/L	5.1756 ppb	16:58:58
3	P 214.914†	471.2	382.4	61.124 ug/L	61.124 ppb	16:58:58
3	Pb 220.353†	-428.6	-464.4	-10.785 ug/L	-10.785 ppb	16:58:58
3	S 181.975 Axial†	46.5	26.9	-49.287 ug/L	-49.287 ppb	16:58:58
3	Sb 206.836†	51.7	33.5	-7.1919 ug/L	-7.1919 ppb	16:58:58
3	Se 196.026†	-1754.2	-2084.9	-258.56 ug/L	-258.56 ppb	16:58:58
3	Si 251.611†	-454.0	-1047.6	-37.719 ug/L	-37.719 ppb	16:58:58
3	Sn 189.927†	-342.1	-414.4	-31.042 ug/L	-31.042 ppb	16:58:58
3	Ti 334.940†	-11320.6	-12472.1	-3.9277 ug/L	-3.9277 ppb	16:58:38
3	Tl 190.801†	-85.5	-76.8	-29.425 ug/L	-29.425 ppb	16:58:58
3	U 409.014†	420457.3	506705.1	14447 ug/L	14447 ppb	16:58:38
3	V 292.402†	1352.5	2915.4	-3.9027 ug/L	-3.9027 ppb	16:58:58
3	Zn 213.857†	4858.5	4907.1	-7.1822 ug/L	-7.1822 ppb	16:58:58
3	SiO2†	-394.7	-981.4	-75.358 ug/L	-75.358 ppb	16:59:14

Mean Data: LRI

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	684928.6	82.808 %	0.5457			0.66%
Sc Radial	3893.4	88.2 %	0.35			0.40%
Y 371.029	569700.1	81.025 %	0.4736			0.58%
Y RADIAL	4229.7	88.08 %	0.482			0.55%
Ag 328.068†	-23990.9	-3.6301 ug/L	0.51060	-3.6301 ppb	0.51060	14.07%
Al 396.153Radial†	530614.3	515930 ug/L	2403.2	515930 ppb	2403.2	0.47%
QC value within limits for Al 396.153Radial Recovery = 103.19%						
As 188.979†	-168.1	10.550 ug/L	4.6073	10.550 ppb	4.6073	43.67%
B 249.677†	1527.5	-28.548 ug/L	1.4823	-28.548 ppb	1.4823	5.19%
Ba 233.527†	-1593.3	-1.2736 ug/L	0.24166	-1.2736 ppb	0.24166	18.97%
Be 313.107†	-8093.0	-3.3963 ug/L	0.01981	-3.3963 ppb	0.01981	0.58%
Ca 317.933Radial†	259720.8	476700 ug/L	2072.1	476700 ppb	2072.1	0.43%
QC value within limits for Ca 317.933Radial Recovery = 95.34%						
Cd 226.502†	3362.1	5.0694 ug/L	0.45978	5.0694 ppb	0.45978	9.07%
Co 228.616†	281.1	0.8307 ug/L	0.28347	0.8307 ppb	0.28347	34.12%
Cr 267.716†	-1341.9	22.824 ug/L	0.1412	22.824 ppb	0.1412	0.62%
Cu 324.752†	-4652.0	-0.1128 ug/L	0.40304	-0.1128 ppb	0.40304	357.21%

Fe 238.204 Radial†	38746.0	432480 ug/L	1866.2	432480 ppb	1866.2	0.43%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 86.50%						
K 766.490 Radial†	457.6	-270.32 ug/L	6.547	-270.32 ppb	6.547	2.42%
Mg 279.077 IEC†	12313.2	489620 ug/L	2444.8	489620 ppb	2444.8	0.50%
QC value within limits for Mg 279.077 IEC Recovery = 97.92%						
Mn 257.610†	-23049.0	-7.0734 ug/L	0.23751	-7.0734 ppb	0.23751	3.36%
Mo 202.031†	-491.1	-2.8454 ug/L	0.85519	-2.8454 ppb	0.85519	30.06%
Na 589.592 Radial†	1496168.9	512050 ug/L	4579.7	512050 ppb	4579.7	0.89%
QC value within limits for Na 589.592 Radial Recovery = 102.41%						
Ni 231.604†	182.6	5.6399 ug/L	0.58539	5.6399 ppb	0.58539	10.38%
P 214.914†	367.4	50.559 ug/L	11.7791	50.559 ppb	11.7791	23.30%
Pb 220.353†	-476.6	-12.249 ug/L	2.4944	-12.249 ppb	2.4944	20.36%
S 181.975 Axial†	40.0	-26.507 ug/L	19.8368	-26.507 ppb	19.8368	74.84%
Sb 206.836†	34.6	-6.8021 ug/L	4.00648	-6.8021 ppb	4.00648	58.90%
Se 196.026†	-2089.0	-261.60 ug/L	3.445	-261.60 ppb	3.445	1.32%
Si 251.611†	-1043.1	-37.544 ug/L	0.1777	-37.544 ppb	0.1777	0.47%
Sn 189.927†	-416.4	-31.292 ug/L	0.9425	-31.292 ppb	0.9425	3.01%
Sr 421.552†	1612.9	8.9143 ug/L	0.02183	8.9143 ppb	0.02183	0.24%
Ti 334.940†	-12579.7	-3.8868 ug/L	0.11364	-3.8868 ppb	0.11364	2.92%
Tl 190.801†	-75.1	-28.812 ug/L	3.1717	-28.812 ppb	3.1717	11.01%
U 409.014†	506593.9	14443 ug/L	10.4	14443 ppb	10.4	0.07%
QC value within limits for U 409.014 Recovery = 96.29%						
V 292.402†	3012.0	-3.1911 ug/L	0.66247	-3.1911 ppb	0.66247	20.76%
Zn 213.857†	4901.5	-7.2402 ug/L	0.06034	-7.2402 ppb	0.06034	0.83%
SiO2†	-982.9	-75.452 ug/L	0.5706	-75.452 ppb	0.5706	0.76%

QC Failed. Continue with analysis.

Sequence No.: 12
 Sample ID: LR2
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 16
 Date Collected: 3/17/2010 17:01:25
 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	4310.2	4310.2	97.6 %		17:03:22
1	Y RADIAL	4641.4	4641.4	96.65 %		17:03:22
1	Al 396.153Radial†	384.2	467.0	-17.372 ug/L	-17.372 ppb	17:03:22
1	Ca 317.933Radial†	32.8	12.5	23.024 ug/L	23.024 ppb	17:03:42
1	Fe 238.204 Radial†	-14.2	-22.0	39.831 ug/L	39.831 ppb	17:03:42
1	K 766.490 Radial†	1517838.4	1552666.4	301350 ug/L	301350 ppb	17:03:17
1	Mg 279.077 IEC†	-2.7	-3.8	-50.390 ug/L	-50.390 ppb	17:03:42
1	Na 589.592 Radial†	-255.4	645.6	220.94 ug/L	220.94 ppb	17:03:22
1	Sr 421.552†	1238966.3	1269508.4	9817.9 ug/L	9817.9 ppb	17:03:17
1	Sc 361.383	797637.8	797637.8	96.435 %		17:04:59
1	Y 371.029	661571.4	661571.4	94.091 %		17:04:59
1	Ag 328.068†	-6596.5	-7089.5	5.2067 ug/L	5.2067 ppb	17:05:04
1	As 188.979†	17695.7	18372.0	9971.6 ug/L	9971.6 ppb	17:05:04
1	B 249.677†	176022.4	182714.7	4961.3 ug/L	4961.3 ppb	17:05:04
1	Ba 233.527†	1432746.8	1485702.4	13527 ug/L	13527 ppb	17:04:59
1	Be 313.107†	6653484.0	6903232.7	2877.8 ug/L	2877.8 ppb	17:04:53
1	Cd 226.502†	673306.0	698354.6	9751.4 ug/L	9751.4 ppb	17:04:59
1	Co 228.616†	362681.4	376137.9	9538.2 ug/L	9538.2 ppb	17:05:04
1	Cr 267.716†	1803860.6	1870467.4	24104 ug/L	24104 ppb	17:04:59
1	Cu 324.752†	6001596.0	6217688.6	20023 ug/L	20023 ppb	17:04:53
1	Mn 257.610†	7067754.9	7328621.2	9459.4 ug/L	9459.4 ppb	17:04:53
1	Mo 202.031†	109411.4	113445.4	9722.1 ug/L	9722.1 ppb	17:05:04
1	Ni 231.604†	305735.8	316950.8	9793.5 ug/L	9793.5 ppb	17:05:04
1	P 214.914†	24036.8	24742.6	14178 ug/L	14178 ppb	17:05:04
1	Pb 220.353†	155080.0	160863.0	24125 ug/L	24125 ppb	17:05:04
1	S 181.975 Axial†	28457.2	29480.3	51669 ug/L	51669 ppb	17:05:04
1	Sb 206.836†	24759.1	25645.9	10781 ug/L	10781 ppb	17:05:04
1	Se 196.026†	12191.8	12662.2	10147 ug/L	10147 ppb	17:05:04
1	Si 251.611†	1246843.8	1292436.3	47041 ug/L	47041 ppb	17:04:59
1	Sn 189.927†	44571.6	46215.5	10117 ug/L	10117 ppb	17:05:04
1	Ti 334.940†	5570304.9	5777346.8	9836.8 ug/L	9836.8 ppb	17:04:53
1	Tl 190.801†	24624.2	25560.4	9731.9 ug/L	9731.9 ppb	17:05:04
1	U 409.014†	-1057.3	1152.3	-20.917 ug/L	-20.917 ppb	17:05:04
1	V 292.402†	1255362.1	1303065.0	10138 ug/L	10138 ppb	17:04:59
1	Zn 213.857†	1163239.8	1205322.3	14050 ug/L	14050 ppb	17:04:59
1	SiO2†	1255949.5	1301873.7	101190 ug/L	101190 ppb	17:05:50
2	Sc Radial	4306.6	4306.6	97.5 %		17:03:53
2	Y RADIAL	4643.0	4643.0	96.68 %		17:03:53
2	Al 396.153Radial†	417.2	501.2	13.075 ug/L	13.075 ppb	17:03:53
2	Ca 317.933Radial†	26.9	6.4	11.834 ug/L	11.834 ppb	17:04:13
2	Fe 238.204 Radial†	-15.7	-23.5	25.063 ug/L	25.063 ppb	17:04:13
2	K 766.490 Radial†	1495952.6	1531538.9	297250 ug/L	297250 ppb	17:03:48
2	Mg 279.077 IEC†	-8.0	-9.3	-266.53 ug/L	-266.53 ppb	17:04:13
2	Na 589.592 Radial†	-322.1	577.0	197.48 ug/L	197.48 ppb	17:03:53
2	Sr 421.552†	1222475.3	1253671.5	9695.4 ug/L	9695.4 ppb	17:03:48
2	Sc 361.383	791338.5	791338.5	95.673 %		17:05:19
2	Y 371.029	656112.6	656112.6	93.315 %		17:05:19
2	Ag 328.068†	-6729.3	-7282.7	4.1833 ug/L	4.1833 ppb	17:05:24
2	As 188.979†	17782.7	18609.0	10099 ug/L	10099 ppb	17:05:24
2	B 249.677†	175968.6	184111.4	4999.2 ug/L	4999.2 ppb	17:05:24
2	Ba 233.527†	1420238.2	1484454.8	13515 ug/L	13515 ppb	17:05:19
2	Be 313.107†	6566852.7	6867605.1	2863.0 ug/L	2863.0 ppb	17:05:13
2	Cd 226.502†	666251.8	696539.2	9726.1 ug/L	9726.1 ppb	17:05:19
2	Co 228.616†	362337.1	378771.8	9605.2 ug/L	9605.2 ppb	17:05:24
2	Cr 267.716†	1787099.0	1867837.8	24070 ug/L	24070 ppb	17:05:19
2	Cu 324.752†	5916033.2	6177796.7	19895 ug/L	19895 ppb	17:05:13
2	Mn 257.610†	6985372.7	7300854.3	9423.6 ug/L	9423.6 ppb	17:05:13
2	Mo 202.031†	109193.6	114120.9	9780.0 ug/L	9780.0 ppb	17:05:24
2	Ni 231.604†	305047.2	318754.8	9849.2 ug/L	9849.2 ppb	17:05:24

2	P 214.914†	23942.6	24842.4	14277 ug/L	14277 ppb	17:05:24
2	Pb 220.353†	154828.0	161879.8	24278 ug/L	24278 ppb	17:05:24
2	S 181.975 Axial†	28483.9	29743.1	52129 ug/L	52129 ppb	17:05:24
2	Sb 206.836†	24717.0	25806.3	10848 ug/L	10848 ppb	17:05:24
2	Se 196.026†	12107.9	12675.2	10157 ug/L	10157 ppb	17:05:24
2	Si 251.611†	1235630.1	1291007.6	46988 ug/L	46988 ppb	17:05:19
2	Sn 189.927†	44430.4	46435.8	10165 ug/L	10165 ppb	17:05:24
2	Ti 334.940†	5500544.6	5750412.0	9790.9 ug/L	9790.9 ppb	17:05:13
2	Tl 190.801†	24597.7	25735.9	9797.5 ug/L	9797.5 ppb	17:05:24
2	U 409.014†	-987.8	1216.2	-19.011 ug/L	-19.011 ppb	17:05:24
2	V 292.402†	1243682.2	1301219.4	10125 ug/L	10125 ppb	17:05:19
2	Zn 213.857†	1153435.5	1204676.5	14042 ug/L	14042 ppb	17:05:19
2	SiO2†	1268512.9	1325372.5	103020 ug/L	103020 ppb	17:05:56
3	Sc Radial	4250.6	4250.6	96.2 %		17:04:23
3	Y RADIAL	4573.4	4573.4	95.23 %		17:04:23
3	Al 396.153Radial†	387.5	475.9	-11.795 ug/L	-11.795 ppb	17:04:23
3	Ca 317.933Radial†	36.2	16.6	30.379 ug/L	30.379 ppb	17:04:43
3	Fe 238.204 Radial†	-14.4	-22.3	38.074 ug/L	38.074 ppb	17:04:43
3	K 766.490 Radial†	1535806.0	1593154.7	309210 ug/L	309210 ppb	17:04:18
3	Mg 279.077 IEC†	-1.8	-2.9	-11.544 ug/L	-11.544 ppb	17:04:43
3	Na 589.592 Radial†	-360.8	532.5	182.23 ug/L	182.23 ppb	17:04:23
3	Sr 421.552†	1253393.0	1302308.6	10072 ug/L	10072 ppb	17:04:18
3	Sc 361.383	796608.1	796608.1	96.310 %		17:05:38
3	Y 371.029	661351.2	661351.2	94.060 %		17:05:38
3	Ag 328.068†	-6669.5	-7174.1	4.7136 ug/L	4.7136 ppb	17:05:43
3	As 188.979†	17937.4	18646.6	10119 ug/L	10119 ppb	17:05:43
3	B 249.677†	177576.0	184563.8	5011.6 ug/L	5011.6 ppb	17:05:43
3	Ba 233.527†	1424814.4	1479386.6	13469 ug/L	13469 ppb	17:05:38
3	Be 313.107†	6583178.8	6839152.5	2851.1 ug/L	2851.1 ppb	17:05:32
3	Cd 226.502†	668190.0	693945.1	9689.9 ug/L	9689.9 ppb	17:05:38
3	Co 228.616†	364775.5	378798.4	9606.0 ug/L	9606.0 ppb	17:05:43
3	Cr 267.716†	1796427.9	1865167.8	24035 ug/L	24035 ppb	17:05:38
3	Cu 324.752†	5938986.6	6160725.2	19840 ug/L	19840 ppb	17:05:32
3	Mn 257.610†	6995066.8	7262622.0	9374.2 ug/L	9374.2 ppb	17:05:32
3	Mo 202.031†	109987.8	114190.5	9786.0 ug/L	9786.0 ppb	17:05:43
3	Ni 231.604†	307466.3	319157.4	9861.7 ug/L	9861.7 ppb	17:05:43
3	P 214.914†	24167.5	24910.4	14337 ug/L	14337 ppb	17:05:43
3	Pb 220.353†	156006.9	162033.4	24301 ug/L	24301 ppb	17:05:43
3	S 181.975 Axial†	28764.1	29837.1	52294 ug/L	52294 ppb	17:05:43
3	Sb 206.836†	24915.9	25841.9	10864 ug/L	10864 ppb	17:05:43
3	Se 196.026†	12222.5	12710.4	10185 ug/L	10185 ppb	17:05:43
3	Si 251.611†	1243477.0	1290611.8	46974 ug/L	46974 ppb	17:05:38
3	Sn 189.927†	44847.0	46561.1	10193 ug/L	10193 ppb	17:05:43
3	Ti 334.940†	5514747.0	5727127.1	9751.2 ug/L	9751.2 ppb	17:05:32
3	Tl 190.801†	24732.7	25706.0	9785.6 ug/L	9785.6 ppb	17:05:43
3	U 409.014†	-1012.3	1197.6	-19.467 ug/L	-19.467 ppb	17:05:43
3	V 292.402†	1251556.7	1300796.5	10122 ug/L	10122 ppb	17:05:38
3	Zn 213.857†	1157465.3	1200885.8	13997 ug/L	13997 ppb	17:05:38
3	SiO2†	1261587.4	1309411.0	101770 ug/L	101770 ppb	17:06:02

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	795194.8	96.139 %	0.4085			0.42%
Sc Radial	4289.1	97.1 %	0.76			0.78%
Y 371.029	659678.4	93.822 %	0.4395			0.47%
Y RADIAL	4619.3	96.19 %	0.827			0.86%
Ag 328.068†	-7182.1	4.7012 ug/L	0.51182	4.7012 ppb	0.51182	10.89%
Al 396.153Radial†	481.4	-5.3639 ug/L	16.21020	-5.3639 ppb	16.21020	302.21%
As 188.979†	18542.5	10063 ug/L	79.9	10063 ppb	79.9	0.79%
QC value within limits for As 188.979 Recovery = 100.63%						
B 249.677†	183796.6	4990.7 ug/L	26.21	4990.7 ppb	26.21	0.53%
QC value within limits for B 249.677 Recovery = 99.81%						
Ba 233.527†	1483181.3	13504 ug/L	30.4	13504 ppb	30.4	0.23%
QC value within limits for Ba 233.527 Recovery = 90.03%						
Be 313.107†	6869996.8	2864.0 ug/L	13.38	2864.0 ppb	13.38	0.47%
QC value within limits for Be 313.107 Recovery = 95.47%						
Ca 317.933Radial†	11.8	21.746 ug/L	9.3385	21.746 ppb	9.3385	42.94%
Cd 226.502†	696279.6	9722.5 ug/L	30.90	9722.5 ppb	30.90	0.32%
QC value within limits for Cd 226.502 Recovery = 97.22%						

Co 228.616†	377902.7	9583.1 ug/L	38.93	9583.1 ppb	38.93	0.41%
QC value within limits for Co 228.616 Recovery = 95.83%						
Cr 267.716†	1867824.3	24070 ug/L	34.1	24070 ppb	34.1	0.14%
QC value within limits for Cr 267.716 Recovery = 96.28%						
Cu 324.752†	6185403.5	19919 ug/L	94.1	19919 ppb	94.1	0.47%
QC value within limits for Cu 324.752 Recovery = 99.60%						
Fe 238.204 Radial†	-22.6	34.323 ug/L	8.0671	34.323 ppb	8.0671	23.50%
K 766.490 Radial†	1559120.0	302600 ug/L	6077.3	302600 ppb	6077.3	2.01%
QC value within limits for K 766.490 Radial Recovery = 100.87%						
Mg 279.077 IEC†	-5.3	-109.49 ug/L	137.384	-109.49 ppb	137.384	125.48%
Mn 257.610†	7297365.8	9419.0 ug/L	42.77	9419.0 ppb	42.77	0.45%
QC value within limits for Mn 257.610 Recovery = 94.19%						
Mo 202.031†	113918.9	9762.7 ug/L	35.27	9762.7 ppb	35.27	0.36%
QC value within limits for Mo 202.031 Recovery = 97.63%						
Na 589.592 Radial†	585.0	200.22 ug/L	19.503	200.22 ppb	19.503	9.74%
Ni 231.604†	318287.7	9834.8 ug/L	36.31	9834.8 ppb	36.31	0.37%
QC value within limits for Ni 231.604 Recovery = 98.35%						
P 214.914†	24831.8	14264 ug/L	80.6	14264 ppb	80.6	0.57%
QC value within limits for P 214.914 Recovery = 95.09%						
Pb 220.353†	161592.1	24234 ug/L	95.5	24234 ppb	95.5	0.39%
QC value within limits for Pb 220.353 Recovery = 96.94%						
S 181.975 Axial†	29686.8	52031 ug/L	324.1	52031 ppb	324.1	0.62%
QC value within limits for S 181.975 Axial Recovery = 104.06%						
Sb 206.836†	25764.7	10831 ug/L	43.9	10831 ppb	43.9	0.41%
QC value within limits for Sb 206.836 Recovery = 108.31%						
Se 196.026†	12682.6	10163 ug/L	20.0	10163 ppb	20.0	0.20%
QC value within limits for Se 196.026 Recovery = 101.63%						
Si 251.611†	1291351.9	47001 ug/L	35.5	47001 ppb	35.5	0.08%
QC value within limits for Si 251.611 Recovery = 94.00%						
Sn 189.927†	46404.1	10159 ug/L	38.3	10159 ppb	38.3	0.38%
QC value within limits for Sn 189.927 Recovery = 101.59%						
Sr 421.552†	1275162.8	9861.6 ug/L	191.85	9861.6 ppb	191.85	1.95%
QC value within limits for Sr 421.552 Recovery = 98.62%						
Ti 334.940†	5751628.6	9793.0 ug/L	42.82	9793.0 ppb	42.82	0.44%
QC value within limits for Ti 334.940 Recovery = 97.93%						
Tl 190.801†	25667.4	9771.7 ug/L	34.94	9771.7 ppb	34.94	0.36%
QC value within limits for Tl 190.801 Recovery = 97.72%						
U 409.014†	1188.7	-19.798 ug/L	0.9953	-19.798 ppb	0.9953	5.03%
V 292.402†	1301693.6	10128 ug/L	8.7	10128 ppb	8.7	0.09%
QC value within limits for V 292.402 Recovery = 101.28%						
Zn 213.857†	1203628.2	14030 ug/L	28.2	14030 ppb	28.2	0.20%
QC value within limits for Zn 213.857 Recovery = 93.53%						
SiO2†	1312219.1	101990 ug/L	934.4	101990 ppb	934.4	0.92%
QC value within limits for SiO2 Recovery = 95.32%						

All analyte(s) passed QC.

Sequence No.: 13

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/17/2010 17:08:11

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4529.8	4529.8	103 %		17:10:03
1	Y RADIAL	4889.2	4889.2	101.8 %		17:10:03
1	Al 396.153Radial†	5171.9	5115.9	4950.6 ug/L	4950.6 ppb	17:10:03
1	Ca 317.933Radial†	2758.3	2668.3	4897.4 ug/L	4897.4 ppb	17:10:23
1	Fe 238.204 Radial†	462.1	443.1	4961.0 ug/L	4961.0 ppb	17:10:23
1	K 766.490 Radial†	30413.6	27039.4	5241.9 ug/L	5241.9 ppb	17:10:03
1	Mg 279.077 IEC†	132.5	128.2	5102.2 ug/L	5102.2 ppb	17:10:23
1	Na 589.592 Radial†	28874.9	29060.4	9945.7 ug/L	9945.7 ppb	17:10:03
1	Sr 421.552†	66246.5	64569.9	499.32 ug/L	499.32 ppb	17:10:03
1	Sc 361.383	832422.7	832422.7	100.64 %		17:11:21
1	Y 371.029	697894.1	697894.1	99.257 %		17:11:21
1	Ag 328.068†	97708.3	96837.5	483.99 ug/L	483.99 ppb	17:11:26
1	As 188.979†	947.0	963.1	523.65 ug/L	523.65 ppb	17:11:46
1	B 249.677†	18796.5	18861.7	512.73 ug/L	512.73 ppb	17:11:26
1	Ba 233.527†	53805.4	53450.7	487.07 ug/L	487.07 ppb	17:11:26
1	Be 313.107†	1207625.9	1203714.2	499.00 ug/L	499.00 ppb	17:11:21
1	Cd 226.502†	35010.8	34944.8	487.54 ug/L	487.54 ppb	17:11:26
1	Co 228.616†	19765.6	19688.1	499.45 ug/L	499.45 ppb	17:11:26
1	Cr 267.716†	38011.3	37688.2	486.40 ug/L	486.40 ppb	17:11:26
1	Cu 324.752†	156631.4	149850.8	482.57 ug/L	482.57 ppb	17:11:26
1	Mn 257.610†	389268.4	386365.7	498.98 ug/L	498.98 ppb	17:11:21
1	Mo 202.031†	5751.5	5704.0	489.27 ug/L	489.27 ppb	17:11:46
1	Ni 231.604†	16281.5	16090.0	497.16 ug/L	497.16 ppb	17:11:26
1	P 214.914†	3566.1	3360.5	2358.8 ug/L	2358.8 ppb	17:11:46
1	Pb 220.353†	3254.8	3283.9	493.64 ug/L	493.64 ppb	17:11:46
1	S 181.975 Axial†	594.6	561.8	983.79 ug/L	983.79 ppb	17:11:46
1	Sb 206.836†	1264.5	1227.9	516.60 ug/L	516.60 ppb	17:11:46
1	Se 196.026†	592.9	608.9	503.83 ug/L	503.83 ppb	17:11:46
1	Si 251.611†	67322.9	66391.7	2416.6 ug/L	2416.6 ppb	17:11:26
1	Sn 189.927†	2262.7	2244.3	491.91 ug/L	491.91 ppb	17:11:46
1	Ti 334.940†	283364.3	282671.3	481.57 ug/L	481.57 ppb	17:11:26
1	Tl 190.801†	1284.3	1302.0	495.63 ug/L	495.63 ppb	17:11:46
1	U 409.014†	14734.4	16889.3	481.52 ug/L	481.52 ppb	17:11:26
1	V 292.402†	62039.2	62937.1	490.49 ug/L	490.49 ppb	17:11:26
1	Zn 213.857†	42811.7	41617.3	483.63 ug/L	483.63 ppb	17:11:26
1	SiO2†	68217.4	67275.5	5229.4 ug/L	5229.4 ppb	17:12:53
2	Sc Radial	4531.3	4531.3	103 %		17:10:28
2	Y RADIAL	4841.8	4841.8	100.8 %		17:10:28
2	Al 396.153Radial†	5101.4	5045.5	4882.2 ug/L	4882.2 ppb	17:10:28
2	Ca 317.933Radial†	2802.6	2710.6	4975.0 ug/L	4975.0 ppb	17:10:49
2	Fe 238.204 Radial†	468.8	449.5	5032.1 ug/L	5032.1 ppb	17:10:49
2	K 766.490 Radial†	30058.6	26683.4	5172.8 ug/L	5172.8 ppb	17:10:28
2	Mg 279.077 IEC†	131.5	127.2	5060.6 ug/L	5060.6 ppb	17:10:49
2	Na 589.592 Radial†	28618.1	28800.7	9856.8 ug/L	9856.8 ppb	17:10:28
2	Sr 421.552†	65664.3	63980.7	494.76 ug/L	494.76 ppb	17:10:28
2	Sc 361.383	828411.0	828411.0	100.16 %		17:11:52
2	Y 371.029	694153.5	694153.5	98.725 %		17:11:52
2	Ag 328.068†	97813.5	97412.7	486.88 ug/L	486.88 ppb	17:11:57
2	As 188.979†	938.6	959.2	521.60 ug/L	521.60 ppb	17:12:17
2	B 249.677†	18684.2	18840.1	512.12 ug/L	512.12 ppb	17:11:57
2	Ba 233.527†	54113.4	54017.1	492.23 ug/L	492.23 ppb	17:11:57
2	Be 313.107†	1198241.4	1200155.1	497.54 ug/L	497.54 ppb	17:11:52
2	Cd 226.502†	35177.3	35279.5	492.20 ug/L	492.20 ppb	17:11:57
2	Co 228.616†	19885.4	19902.9	504.88 ug/L	504.88 ppb	17:11:57
2	Cr 267.716†	38196.0	38055.5	491.14 ug/L	491.14 ppb	17:11:57
2	Cu 324.752†	156765.4	150738.3	485.43 ug/L	485.43 ppb	17:11:57
2	Mn 257.610†	387102.0	386075.8	498.62 ug/L	498.62 ppb	17:11:52
2	Mo 202.031†	5731.9	5712.1	489.97 ug/L	489.97 ppb	17:12:17
2	Ni 231.604†	16355.1	16241.8	501.85 ug/L	501.85 ppb	17:11:57

2	P 214.914†	3554.8	3366.4	2362.5 ug/L	2362.5 ppb	17:12:17
2	Pb 220.353†	3234.1	3278.9	492.86 ug/L	492.86 ppb	17:12:17
2	S 181.975 Axial†	579.1	549.2	961.70 ug/L	961.70 ppb	17:12:17
2	Sb 206.836†	1237.5	1207.0	508.10 ug/L	508.10 ppb	17:12:17
2	Se 196.026†	606.4	625.2	517.06 ug/L	517.06 ppb	17:12:17
2	Si 251.611†	67589.6	66981.9	2438.1 ug/L	2438.1 ppb	17:11:57
2	Sn 189.927†	2244.8	2237.4	490.40 ug/L	490.40 ppb	17:12:17
2	Ti 334.940†	284644.8	285313.4	486.08 ug/L	486.08 ppb	17:11:57
2	Tl 190.801†	1285.3	1309.2	498.35 ug/L	498.35 ppb	17:12:17
2	U 409.014†	14788.8	17014.6	485.09 ug/L	485.09 ppb	17:11:57
2	V 292.402†	62068.6	63265.0	493.01 ug/L	493.01 ppb	17:11:57
2	Zn 213.857†	42933.4	41944.7	487.42 ug/L	487.42 ppb	17:11:57
2	SiO2†	67640.1	67027.4	5210.0 ug/L	5210.0 ppb	17:12:59
3	Sc Radial	4486.9	4486.9	102 %		17:10:54
3	Y RADIAL	4849.8	4849.8	101.0 %		17:10:54
3	Al 396.153Radial†	5089.8	5083.3	4918.9 ug/L	4918.9 ppb	17:10:54
3	Ca 317.933Radial†	2790.4	2725.6	5002.5 ug/L	5002.5 ppb	17:11:14
3	Fe 238.204 Radial†	465.4	450.7	5045.7 ug/L	5045.7 ppb	17:11:14
3	K 766.490 Radial†	29729.7	26649.5	5166.2 ug/L	5166.2 ppb	17:10:54
3	Mg 279.077 IEC†	134.8	131.7	5241.2 ug/L	5241.2 ppb	17:11:14
3	Na 589.592 Radial†	28315.3	28778.6	9849.2 ug/L	9849.2 ppb	17:10:54
3	Sr 421.552†	65537.0	64488.5	498.69 ug/L	498.69 ppb	17:10:54
3	Sc 361.383	830673.5	830673.5	100.43 %		17:12:23
3	Y 371.029	695154.4	695154.4	98.867 %		17:12:23
3	Ag 328.068†	98177.7	97509.3	487.35 ug/L	487.35 ppb	17:12:28
3	As 188.979†	954.4	972.4	528.70 ug/L	528.70 ppb	17:12:48
3	B 249.677†	18687.3	18792.3	510.82 ug/L	510.82 ppb	17:12:28
3	Ba 233.527†	53922.8	53680.1	489.17 ug/L	489.17 ppb	17:12:28
3	Be 313.107†	1200723.0	1199367.5	497.21 ug/L	497.21 ppb	17:12:23
3	Cd 226.502†	34982.6	34990.0	488.16 ug/L	488.16 ppb	17:12:28
3	Co 228.616†	19828.6	19792.3	502.08 ug/L	502.08 ppb	17:12:28
3	Cr 267.716†	38147.3	37903.2	489.18 ug/L	489.18 ppb	17:12:28
3	Cu 324.752†	157637.1	151179.9	486.85 ug/L	486.85 ppb	17:12:28
3	Mn 257.610†	388128.8	386045.5	498.57 ug/L	498.57 ppb	17:12:23
3	Mo 202.031†	5764.8	5729.3	491.44 ug/L	491.44 ppb	17:12:48
3	Ni 231.604†	16296.6	16139.1	498.67 ug/L	498.67 ppb	17:12:28
3	P 214.914†	3569.1	3370.9	2365.5 ug/L	2365.5 ppb	17:12:48
3	Pb 220.353†	3282.7	3318.5	498.81 ug/L	498.81 ppb	17:12:48
3	S 181.975 Axial†	599.8	568.3	995.19 ug/L	995.19 ppb	17:12:48
3	Sb 206.836†	1269.6	1235.6	519.80 ug/L	519.80 ppb	17:12:48
3	Se 196.026†	598.3	615.5	509.31 ug/L	509.31 ppb	17:12:48
3	Si 251.611†	67607.2	66815.7	2432.1 ug/L	2432.1 ppb	17:12:28
3	Sn 189.927†	2266.7	2253.1	493.83 ug/L	493.83 ppb	17:12:48
3	Ti 334.940†	284747.1	284641.1	484.92 ug/L	484.92 ppb	17:12:28
3	Tl 190.801†	1290.8	1311.1	499.10 ug/L	499.10 ppb	17:12:48
3	U 409.014†	15032.7	17217.1	490.88 ug/L	490.88 ppb	17:12:28
3	V 292.402†	62199.2	63226.2	492.74 ug/L	492.74 ppb	17:12:28
3	Zn 213.857†	42869.1	41764.0	485.32 ug/L	485.32 ppb	17:12:28
3	SiO2†	67502.4	66706.3	5185.0 ug/L	5185.0 ppb	17:13:04

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	830502.4	100.41 %	0.243			0.24%
Sc Radial	4516.0	102 %	0.6			0.56%
Y 371.029	695734.0	98.950 %	0.2754			0.28%
Y RADIAL	4860.3	101.2 %	0.53			0.52%
Ag 328.068†	97253.2	486.07 ug/L	1.819	486.07 ppb	1.819	0.37%
QC value within limits for Ag 328.068 Recovery = 97.21%						
Al 396.153Radial†	5081.6	4917.2 ug/L	34.28	4917.2 ppb	34.28	0.70%
QC value within limits for Al 396.153Radial Recovery = 98.34%						
As 188.979†	964.9	524.65 ug/L	3.654	524.65 ppb	3.654	0.70%
QC value within limits for As 188.979 Recovery = 104.93%						
B 249.677†	18831.4	511.89 ug/L	0.977	511.89 ppb	0.977	0.19%
QC value within limits for B 249.677 Recovery = 102.38%						
Ba 233.527†	53716.0	489.49 ug/L	2.593	489.49 ppb	2.593	0.53%
QC value within limits for Ba 233.527 Recovery = 97.90%						
Be 313.107†	1201078.9	497.92 ug/L	0.953	497.92 ppb	0.953	0.19%
QC value within limits for Be 313.107 Recovery = 99.58%						
Ca 317.933Radial†	2701.5	4958.3 ug/L	54.55	4958.3 ppb	54.55	1.10%

QC value within limits for Ca 317.933 Radial Recovery = 99.17%

Cd 226.502†	35071.4	489.30 ug/L	2.533	489.30 ppb	2.533	0.52%
QC value within limits for Cd 226.502 Recovery = 97.86%						
Co 228.616†	19794.4	502.14 ug/L	2.720	502.14 ppb	2.720	0.54%
QC value within limits for Co 228.616 Recovery = 100.43%						
Cr 267.716†	37882.3	488.91 ug/L	2.382	488.91 ppb	2.382	0.49%
QC value within limits for Cr 267.716 Recovery = 97.78%						
Cu 324.752†	150589.7	484.95 ug/L	2.180	484.95 ppb	2.180	0.45%
QC value within limits for Cu 324.752 Recovery = 96.99%						
Fe 238.204 Radial†	447.8	5012.9 ug/L	45.47	5012.9 ppb	45.47	0.91%
QC value within limits for Fe 238.204 Radial Recovery = 100.26%						
K 766.490 Radial†	26790.8	5193.7 ug/L	41.91	5193.7 ppb	41.91	0.81%
QC value within limits for K 766.490 Radial Recovery = 103.87%						
Mg 279.077 IEC†	129.0	5134.7 ug/L	94.60	5134.7 ppb	94.60	1.84%
QC value within limits for Mg 279.077 IEC Recovery = 102.69%						
Mn 257.610†	386162.3	498.72 ug/L	0.225	498.72 ppb	0.225	0.05%
QC value within limits for Mn 257.610 Recovery = 99.74%						
Mo 202.031†	5715.1	490.23 ug/L	1.110	490.23 ppb	1.110	0.23%
QC value within limits for Mo 202.031 Recovery = 98.05%						
Na 589.592 Radial†	28879.9	9883.9 ug/L	53.64	9883.9 ppb	53.64	0.54%
QC value within limits for Na 589.592 Radial Recovery = 98.84%						
Ni 231.604†	16156.9	499.22 ug/L	2.394	499.22 ppb	2.394	0.48%
QC value within limits for Ni 231.604 Recovery = 99.84%						
P 214.914†	3365.9	2362.3 ug/L	3.35	2362.3 ppb	3.35	0.14%
QC value within limits for P 214.914 Recovery = 94.49%						
Pb 220.353†	3293.8	495.10 ug/L	3.232	495.10 ppb	3.232	0.65%
QC value within limits for Pb 220.353 Recovery = 99.02%						
S 181.975 Axial†	559.8	980.23 ug/L	17.025	980.23 ppb	17.025	1.74%
QC value within limits for S 181.975 Axial Recovery = 98.02%						
Sb 206.836†	1223.5	514.83 ug/L	6.044	514.83 ppb	6.044	1.17%
QC value within limits for Sb 206.836 Recovery = 102.97%						
Se 196.026†	616.5	510.07 ug/L	6.647	510.07 ppb	6.647	1.30%
QC value within limits for Se 196.026 Recovery = 102.01%						
Si 251.611†	66729.8	2428.9 ug/L	11.10	2428.9 ppb	11.10	0.46%
QC value within limits for Si 251.611 Recovery = 97.16%						
Sn 189.927†	2244.9	492.05 ug/L	1.720	492.05 ppb	1.720	0.35%
QC value within limits for Sn 189.927 Recovery = 98.41%						
Sr 421.552†	64346.4	497.59 ug/L	2.469	497.59 ppb	2.469	0.50%
QC value within limits for Sr 421.552 Recovery = 99.52%						
Ti 334.940†	284208.6	484.19 ug/L	2.344	484.19 ppb	2.344	0.48%
QC value within limits for Ti 334.940 Recovery = 96.84%						
Tl 190.801†	1307.4	497.69 ug/L	1.829	497.69 ppb	1.829	0.37%
QC value within limits for Tl 190.801 Recovery = 99.54%						
U 409.014†	17040.3	485.83 ug/L	4.725	485.83 ppb	4.725	0.97%
QC value within limits for U 409.014 Recovery = 97.17%						
V 292.402†	63142.8	492.08 ug/L	1.386	492.08 ppb	1.386	0.28%
QC value within limits for V 292.402 Recovery = 98.42%						
Zn 213.857†	41775.3	485.46 ug/L	1.902	485.46 ppb	1.902	0.39%
QC value within limits for Zn 213.857 Recovery = 97.09%						
SiO2†	67003.1	5208.1 ug/L	22.27	5208.1 ppb	22.27	0.43%
QC value within limits for SiO2 Recovery = 97.39%						

All analyte(s) passed QC.

Sequence No.: 14
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 8
 Date Collected: 3/17/2010 17:15:14
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4499.6	4499.6	102 %		17:17:06
1	Y RADIAL	4901.2	4901.2	102.1 %		17:17:06
1	Al 396.153Radial†	-76.0	-1.2	-1.2256 ug/L	-1.2256 ppb	17:17:26
1	Ca 317.933Radial†	23.0	1.5	2.6744 ug/L	2.6744 ppb	17:17:26
1	Fe 238.204 Radial†	8.4	0.8	8.6935 ug/L	8.6935 ppb	17:17:26
1	K 766.490 Radial†	3056.0	385.6	74.816 ug/L	74.816 ppb	17:17:06
1	Mg 279.077 IEC†	2.9	1.8	71.603 ug/L	71.603 ppb	17:17:26
1	Na 589.592 Radial†	-734.6	186.3	63.761 ug/L	63.761 ppb	17:17:06
1	Sr 421.552†	29.2	8.0	0.0617 ug/L	0.0617 ppb	17:17:06
1	Sc 361.383	812811.4	812811.4	98.269 %		17:18:23
1	Y 371.029	691711.3	691711.3	98.378 %		17:18:23
1	Ag 328.068†	192.1	-53.6	-0.2666 ug/L	-0.2666 ppb	17:18:23
1	As 188.979†	-6.9	15.1	8.1354 ug/L	8.1354 ppb	17:18:43
1	B 249.677†	426.3	618.6	16.887 ug/L	16.887 ppb	17:18:43
1	Ba 233.527†	14.1	2.0	0.0181 ug/L	0.0181 ppb	17:18:43
1	Be 313.107†	-3865.5	-161.4	-0.0671 ug/L	-0.0671 ppb	17:18:23
1	Cd 226.502†	-137.6	16.8	0.2339 ug/L	0.2339 ppb	17:18:43
1	Co 228.616†	-44.8	2.7	0.0709 ug/L	0.0709 ppb	17:18:43
1	Cr 267.716†	80.3	0.5	0.0065 ug/L	0.0065 ppb	17:18:43
1	Cu 324.752†	5821.7	140.3	0.4502 ug/L	0.4502 ppb	17:18:23
1	Mn 257.610†	451.1	33.2	0.0408 ug/L	0.0408 ppb	17:18:43
1	Mo 202.031†	17.1	6.5	0.5577 ug/L	0.5577 ppb	17:18:43
1	Ni 231.604†	73.7	-13.0	-0.4007 ug/L	-0.4007 ppb	17:18:43
1	P 214.914†	183.4	3.7	2.6294 ug/L	2.6294 ppb	17:18:43
1	Pb 220.353†	-38.5	10.7	1.6004 ug/L	1.6004 ppb	17:18:43
1	S 181.975 Axial†	38.3	10.0	17.600 ug/L	17.600 ppb	17:18:43
1	Sb 206.836†	35.1	7.2	2.9510 ug/L	2.9510 ppb	17:18:43
1	Se 196.026†	-15.7	3.8	3.0368 ug/L	3.0368 ppb	17:18:43
1	Si 251.611†	546.0	52.8	1.9201 ug/L	1.9201 ppb	17:18:43
1	Sn 189.927†	9.0	5.2	1.1372 ug/L	1.1372 ppb	17:18:43
1	Ti 334.940†	-1171.0	-81.6	-0.1461 ug/L	-0.1461 ppb	17:18:23
1	Tl 190.801†	-33.4	-8.1	-3.0785 ug/L	-3.0785 ppb	17:18:43
1	U 409.014†	-2080.5	131.6	3.7630 ug/L	3.7630 ppb	17:18:23
1	V 292.402†	-1265.0	5.4	0.0569 ug/L	0.0569 ppb	17:18:23
1	Zn 213.857†	974.3	69.5	0.8155 ug/L	0.8155 ppb	17:18:43
1	SiO2†	560.8	62.9	4.8833 ug/L	4.8833 ppb	17:19:39
2	Sc Radial	4535.7	4535.7	103 %		17:17:31
2	Y RADIAL	4931.6	4931.6	102.7 %		17:17:31
2	Al 396.153Radial†	-83.8	-8.2	-8.0142 ug/L	-8.0142 ppb	17:17:51
2	Ca 317.933Radial†	20.5	-1.1	-2.0859 ug/L	-2.0859 ppb	17:17:51
2	Fe 238.204 Radial†	7.7	0.1	0.6016 ug/L	0.6016 ppb	17:17:51
2	K 766.490 Radial†	3037.4	343.6	66.663 ug/L	66.663 ppb	17:17:31
2	Mg 279.077 IEC†	0.5	-0.5	-20.713 ug/L	-20.713 ppb	17:17:51
2	Na 589.592 Radial†	-740.6	186.2	63.708 ug/L	63.708 ppb	17:17:31
2	Sr 421.552†	36.6	15.0	0.1157 ug/L	0.1157 ppb	17:17:31
2	Sc 361.383	809231.3	809231.3	97.837 %		17:18:49
2	Y 371.029	688474.9	688474.9	97.917 %		17:18:49
2	Ag 328.068†	244.5	0.8	0.0011 ug/L	0.0011 ppb	17:18:49
2	As 188.979†	-9.7	12.1	6.5482 ug/L	6.5482 ppb	17:19:09
2	B 249.677†	416.1	610.1	16.656 ug/L	16.656 ppb	17:19:09
2	Ba 233.527†	6.0	-6.2	-0.0585 ug/L	-0.0585 ppb	17:19:09
2	Be 313.107†	-3766.2	-77.4	-0.0322 ug/L	-0.0322 ppb	17:18:49
2	Cd 226.502†	-141.0	12.7	0.1774 ug/L	0.1774 ppb	17:19:09
2	Co 228.616†	-42.4	5.0	0.1272 ug/L	0.1272 ppb	17:19:09
2	Cr 267.716†	107.4	28.6	0.3676 ug/L	0.3676 ppb	17:19:09
2	Cu 324.752†	5769.6	113.2	0.3649 ug/L	0.3649 ppb	17:18:49
2	Mn 257.610†	437.9	21.8	0.0291 ug/L	0.0291 ppb	17:19:09
2	Mo 202.031†	13.5	2.9	0.2482 ug/L	0.2482 ppb	17:19:09
2	Ni 231.604†	90.5	4.5	0.1402 ug/L	0.1402 ppb	17:19:09

2	P 214.914†	186.9	8.2	5.9019 ug/L	5.9019 ppb	17:19:09
2	Pb 220.353†	-46.6	2.2	0.3318 ug/L	0.3318 ppb	17:19:09
2	S 181.975 Axial†	33.0	4.7	8.3230 ug/L	8.3230 ppb	17:19:09
2	Sb 206.836†	42.4	14.7	6.0164 ug/L	6.0164 ppb	17:19:09
2	Se 196.026†	-5.3	14.3	11.465 ug/L	11.465 ppb	17:19:09
2	Si 251.611†	558.6	68.2	2.4840 ug/L	2.4840 ppb	17:19:09
2	Sn 189.927†	12.9	9.2	2.0136 ug/L	2.0136 ppb	17:19:09
2	Ti 334.940†	-1136.4	-51.5	-0.0863 ug/L	-0.0863 ppb	17:18:49
2	Tl 190.801†	-28.7	-3.5	-1.3384 ug/L	-1.3384 ppb	17:19:09
2	U 409.014†	-2212.9	-13.1	-0.3763 ug/L	-0.3763 ppb	17:18:49
2	V 292.402†	-1364.8	-102.3	-0.7846 ug/L	-0.7846 ppb	17:18:49
2	Zn 213.857†	983.4	83.1	0.9729 ug/L	0.9729 ppb	17:19:09
2	SiO2†	570.2	75.0	5.8402 ug/L	5.8402 ppb	17:19:44
3	Sc Radial	4455.1	4455.1	101 %		17:17:57
3	Y RADIAL	4861.1	4861.1	101.2 %		17:17:57
3	Al 396.153Radial†	-81.1	-7.0	-6.8285 ug/L	-6.8285 ppb	17:18:17
3	Ca 317.933Radial†	22.3	1.0	1.7982 ug/L	1.7982 ppb	17:18:17
3	Fe 238.204 Radial†	8.5	1.0	11.309 ug/L	11.309 ppb	17:18:17
3	K 766.490 Radial†	3020.1	380.0	73.730 ug/L	73.730 ppb	17:17:57
3	Mg 279.077 IEC†	0.2	-0.8	-31.555 ug/L	-31.555 ppb	17:18:17
3	Na 589.592 Radial†	-752.1	161.7	55.346 ug/L	55.346 ppb	17:17:57
3	Sr 421.552†	13.6	-7.2	-0.0559 ug/L	-0.0559 ppb	17:17:57
3	Sc 361.383	809076.7	809076.7	97.818 %		17:19:14
3	Y 371.029	688764.6	688764.6	97.959 %		17:19:14
3	Ag 328.068†	311.0	68.8	0.3406 ug/L	0.3406 ppb	17:19:14
3	As 188.979†	-11.5	10.4	5.5906 ug/L	5.5906 ppb	17:19:34
3	B 249.677†	381.0	574.3	15.677 ug/L	15.677 ppb	17:19:34
3	Ba 233.527†	23.1	11.2	0.1005 ug/L	0.1005 ppb	17:19:34
3	Be 313.107†	-3841.7	-155.3	-0.0644 ug/L	-0.0644 ppb	17:19:14
3	Cd 226.502†	-148.7	4.8	0.0662 ug/L	0.0662 ppb	17:19:34
3	Co 228.616†	-43.4	4.0	0.1005 ug/L	0.1005 ppb	17:19:34
3	Cr 267.716†	78.0	-1.5	-0.0196 ug/L	-0.0196 ppb	17:19:34
3	Cu 324.752†	5829.1	175.2	0.5643 ug/L	0.5643 ppb	17:19:14
3	Mn 257.610†	441.1	25.1	0.0348 ug/L	0.0348 ppb	17:19:34
3	Mo 202.031†	6.6	-4.1	-0.3543 ug/L	-0.3543 ppb	17:19:34
3	Ni 231.604†	81.5	-4.6	-0.1422 ug/L	-0.1422 ppb	17:19:34
3	P 214.914†	177.9	-1.1	-0.8941 ug/L	-0.8941 ppb	17:19:34
3	Pb 220.353†	-48.9	-0.2	-0.0290 ug/L	-0.0290 ppb	17:19:34
3	S 181.975 Axial†	28.9	0.6	1.0970 ug/L	1.0970 ppb	17:19:34
3	Sb 206.836†	37.1	9.4	3.8344 ug/L	3.8344 ppb	17:19:34
3	Se 196.026†	-20.8	-1.5	-1.2089 ug/L	-1.2089 ppb	17:19:34
3	Si 251.611†	556.5	66.1	2.4162 ug/L	2.4162 ppb	17:19:34
3	Sn 189.927†	14.5	10.9	2.3830 ug/L	2.3830 ppb	17:19:34
3	Ti 334.940†	-1125.8	-40.8	-0.0672 ug/L	-0.0672 ppb	17:19:14
3	Tl 190.801†	-25.3	-0.1	-0.0336 ug/L	-0.0336 ppb	17:19:34
3	U 409.014†	-2166.7	33.6	0.9595 ug/L	0.9595 ppb	17:19:14
3	V 292.402†	-1380.1	-118.2	-0.9146 ug/L	-0.9146 ppb	17:19:14
3	Zn 213.857†	967.4	67.0	0.7841 ug/L	0.7841 ppb	17:19:34
3	SiO2†	576.1	81.1	6.3334 ug/L	6.3334 ppb	17:19:49

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	810373.1	97.975 %		0.2555				0.26%
Sc Radial	4496.8	102 %		0.9				0.90%
Y 371.029	689650.3	98.085 %		0.2547				0.26%
Y RADIAL	4898.0	102.0 %		0.74				0.72%
Ag 328.068†	5.3	0.0251 ug/L		0.30431	0.0251 ppb		0.30431	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-5.5	-5.3561 ug/L		3.62594	-5.3561 ppb		3.62594	67.70%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	12.5	6.7581 ug/L		1.28529	6.7581 ppb		1.28529	19.02%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	601.0	16.407 ug/L		0.6425	16.407 ppb		0.6425	3.92%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.3	0.0200 ug/L		0.07949	0.0200 ppb		0.07949	396.64%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-131.4	-0.0546 ug/L		0.01941	-0.0546 ppb		0.01941	35.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.4	0.7956 ug/L		2.53357	0.7956 ppb		2.53357	318.46%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	11.4	0.1592 ug/L	0.08533	0.1592 ppb	0.08533	53.61%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	3.9	0.0995 ug/L	0.02813	0.0995 ppb	0.02813	28.27%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	9.2	0.1182 ug/L	0.21640	0.1182 ppb	0.21640	183.14%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	142.9	0.4598 ug/L	0.10004	0.4598 ppb	0.10004	21.76%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	0.6	6.8681 ug/L	5.58238	6.8681 ppb	5.58238	81.28%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	369.7	71.736 ug/L	4.4270	71.736 ppb	4.4270	6.17%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	0.2	6.4451 ug/L	56.68799	6.4451 ppb	56.68799	879.55%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	26.7	0.0349 ug/L	0.00588	0.0349 ppb	0.00588	16.84%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	1.8	0.1506 ug/L	0.46377	0.1506 ppb	0.46377	308.01%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	178.1	60.938 ug/L	4.8433	60.938 ppb	4.8433	7.95%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-4.3	-0.1343 ug/L	0.27057	-0.1343 ppb	0.27057	201.53%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	3.6	2.5457 ug/L	3.39875	2.5457 ppb	3.39875	133.51%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	4.2	0.6344 ug/L	0.85580	0.6344 ppb	0.85580	134.90%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	5.1	9.0065 ug/L	8.27250	9.0065 ppb	8.27250	91.85%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	10.4	4.2673 ug/L	1.57792	4.2673 ppb	1.57792	36.98%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	5.5	4.4311 ug/L	6.45122	4.4311 ppb	6.45122	145.59%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	62.4	2.2735 ug/L	0.30787	2.2735 ppb	0.30787	13.54%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	8.4	1.8446 ug/L	0.63989	1.8446 ppb	0.63989	34.69%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	5.2	0.0405 ug/L	0.08770	0.0405 ppb	0.08770	216.61%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-58.0	-0.0999 ug/L	0.04118	-0.0999 ppb	0.04118	41.22%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-3.9	-1.4835 ug/L	1.52765	-1.4835 ppb	1.52765	102.98%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	50.7	1.4487 ug/L	2.11258	1.4487 ppb	2.11258	145.82%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-71.7	-0.5474 ug/L	0.52740	-0.5474 ppb	0.52740	96.35%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	73.2	0.8575 ug/L	0.10116	0.8575 ppb	0.10116	11.80%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	73.0	5.6856 ug/L	0.73732	5.6856 ppb	0.73732	12.97%	
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

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Analysis Begun

Start Time: 3/17/2010 17:20:31

Plasma On Time: 3/15/2010 06:51:19

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\031710.sif

Batch ID:

Results Data Set: 031710

Results Library: C:\pe\Optima3\Results\Results.mdb

=====
Method Loaded

Method Name: General Eng.2AX

Method Last Saved: 3/17/2010 15:10:03

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

Sample ID: LR1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 37

Date Collected: 3/17/2010 17:20:32

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib.	Sample Conc. Units	Analysis Time
1	Sc Radial	4393.7	4393.7	99.5 %			17:22:26
1	Y RADIAL	4764.8	4764.8	99.22 %			17:22:26
1	Al 396.153Radial†	-84.9	-12.0	-10.422 ug/L		-10.422 ppb	17:22:46

1	Ca 317.933Radial†	17.8	-3.2	-5.8650 ug/L	-5.8650 ppb	17:22:46
1	Fe 238.204 Radial†	33195.7	33361.1	372380 ug/L	372380 ppb	17:22:26
1	K 766.490 Radial†	2540.2	-60.6	-11.728 ug/L	-11.728 ppb	17:22:26
1	Mg 279.077 IEC†	10.0	9.0	-32.519 ug/L	-32.519 ppb	17:22:46
1	Na 589.592 Radial†	-772.0	131.3	44.921 ug/L	44.921 ppb	17:22:26
1	Sr 421.552†	77.6	57.2	0.4428 ug/L	0.4428 ppb	17:22:26
1	Sc 361.383	806962.6	806962.6	97.562 %		17:23:43
1	Y 371.029	680377.0	680377.0	96.766 %		17:23:43
1	Ag 328.068†	-22887.4	-23708.4	-2.4312 ug/L	-2.4312 ppb	17:23:43
1	As 188.979†	-178.0	-160.4	0.7694 ug/L	0.7694 ppb	17:24:03
1	B 249.677†	2075.8	2312.5	2.6133 ug/L	2.6133 ppb	17:23:43
1	Ba 233.527†	-1670.5	-1724.7	-4.2292 ug/L	-4.2292 ppb	17:23:43
1	Be 313.107†	-3797.7	-120.4	-0.0503 ug/L	-0.0503 ppb	17:23:43
1	Cd 226.502†	2655.6	2878.7	1.7212 ug/L	1.7212 ppb	17:23:43
1	Co 228.616†	629.5	693.5	12.149 ug/L	12.149 ppb	17:24:03
1	Cr 267.716†	-486.8	-580.1	32.031 ug/L	32.031 ppb	17:24:03
1	Cu 324.752†	-869.5	-6675.2	-1.8220 ug/L	-1.8220 ppb	17:23:43
1	Mn 257.610†	-31170.5	-32375.1	-5.0246 ug/L	-5.0246 ppb	17:23:43
1	Mo 202.031†	-281.0	-298.9	3.2892 ug/L	3.2892 ppb	17:23:43
1	Ni 231.604†	148.4	64.2	1.9752 ug/L	1.9752 ppb	17:24:03
1	P 214.914†	612.6	445.0	29.082 ug/L	29.082 ppb	17:24:03
1	Pb 220.353†	181.0	235.3	-17.762 ug/L	-17.762 ppb	17:24:03
1	S 181.975 Axial†	40.7	12.8	22.399 ug/L	22.399 ppb	17:24:03
1	Sb 206.836†	22.3	-5.7	-6.8877 ug/L	-6.8877 ppb	17:24:03
1	Se 196.026†	-1565.0	-1584.3	-195.39 ug/L	-195.39 ppb	17:24:03
1	Si 251.611†	-435.2	-948.8	-34.308 ug/L	-34.308 ppb	17:23:43
1	Sn 189.927†	-14.2	-18.5	-25.437 ug/L	-25.437 ppb	17:24:03
1	Ti 334.940†	-1194.1	-113.8	-0.2493 ug/L	-0.2493 ppb	17:23:43
1	Tl 190.801†	-50.2	-25.6	-10.058 ug/L	-10.058 ppb	17:24:03
1	U 409.014†	-16.5	2231.7	21.411 ug/L	21.411 ppb	17:23:43
1	V 292.402†	5558.4	6989.9	-0.7134 ug/L	-0.7134 ppb	17:23:43
1	Zn 213.857†	4097.7	3278.0	-17.257 ug/L	-17.257 ppb	17:24:03
1	SiO2†	-382.6	-899.9	-69.434 ug/L	-69.434 ppb	17:25:00
2	Sc Radial	4408.8	4408.8	99.8 %		17:22:51
2	Y RADIAL	4794.0	4794.0	99.83 %		17:22:51
2	Al 396.153Radial†	-88.1	-15.0	-13.381 ug/L	-13.381 ppb	17:23:11
2	Ca 317.933Radial†	12.7	-8.3	-15.321 ug/L	-15.321 ppb	17:23:11
2	Fe 238.204 Radial†	33361.3	33412.2	372950 ug/L	372950 ppb	17:22:51
2	K 766.490 Radial†	2427.4	-182.4	-35.364 ug/L	-35.364 ppb	17:22:51
2	Mg 279.077 IEC†	11.1	10.1	12.165 ug/L	12.165 ppb	17:23:11
2	Na 589.592 Radial†	-776.7	129.3	44.240 ug/L	44.240 ppb	17:22:51
2	Sr 421.552†	91.8	71.3	0.5513 ug/L	0.5513 ppb	17:22:51
2	Sc 361.383	811274.7	811274.7	98.084 %		17:24:09
2	Y 371.029	684368.8	684368.8	97.333 %		17:24:09
2	Ag 328.068†	-22920.4	-23617.4	-1.8009 ug/L	-1.8009 ppb	17:24:09
2	As 188.979†	-156.5	-137.5	13.268 ug/L	13.268 ppb	17:24:29
2	B 249.677†	2087.1	2312.6	2.5240 ug/L	2.5240 ppb	17:24:09
2	Ba 233.527†	-1619.8	-1663.8	-3.6585 ug/L	-3.6585 ppb	17:24:09
2	Be 313.107†	-3768.3	-69.9	-0.0290 ug/L	-0.0290 ppb	17:24:09
2	Cd 226.502†	2577.3	2784.4	0.3466 ug/L	0.3466 ppb	17:24:09
2	Co 228.616†	644.7	705.6	12.451 ug/L	12.451 ppb	17:24:29
2	Cr 267.716†	-468.2	-558.5	32.371 ug/L	32.371 ppb	17:24:29
2	Cu 324.752†	-846.2	-6646.7	-1.6993 ug/L	-1.6993 ppb	17:24:09
2	Mn 257.610†	-31145.6	-32180.0	-4.7182 ug/L	-4.7182 ppb	17:24:09
2	Mo 202.031†	-263.1	-279.1	5.0303 ug/L	5.0303 ppb	17:24:09
2	Ni 231.604†	177.6	93.2	2.8693 ug/L	2.8693 ppb	17:24:29
2	P 214.914†	608.2	437.2	22.934 ug/L	22.934 ppb	17:24:29
2	Pb 220.353†	171.2	224.4	-19.486 ug/L	-19.486 ppb	17:24:29
2	S 181.975 Axial†	39.5	11.4	19.942 ug/L	19.942 ppb	17:24:29
2	Sb 206.836†	17.5	-10.8	-8.9196 ug/L	-8.9196 ppb	17:24:29
2	Se 196.026†	-1554.3	-1564.9	-178.23 ug/L	-178.23 ppb	17:24:29
2	Si 251.611†	-382.4	-892.6	-32.278 ug/L	-32.278 ppb	17:24:09
2	Sn 189.927†	-10.9	-15.1	-24.712 ug/L	-24.712 ppb	17:24:29
2	Ti 334.940†	-1103.7	-15.2	-0.0856 ug/L	-0.0856 ppb	17:24:09
2	Tl 190.801†	-24.4	1.0	-0.0089 ug/L	-0.0089 ppb	17:24:29
2	U 409.014†	-63.2	2184.2	19.985 ug/L	19.985 ppb	17:24:09
2	V 292.402†	5594.3	6996.3	-0.7255 ug/L	-0.7255 ppb	17:24:09
2	Zn 213.857†	4059.9	3217.2	-18.062 ug/L	-18.062 ppb	17:24:29
2	SiO2†	-421.8	-937.9	-72.434 ug/L	-72.434 ppb	17:25:06
3	Sc Radial	4459.7	4459.7	101 %		17:23:16
3	Y RADIAL	4886.9	4886.9	101.8 %		17:23:16

3	Al 396.153Radial†	-94.7	-20.5	-18.744 ug/L	-18.744 ppb	17:23:36
3	Ca 317.933Radial†	18.1	-3.2	-5.8473 ug/L	-5.8473 ppb	17:23:36
3	Fe 238.204 Radial†	33635.7	33302.7	371720 ug/L	371720 ppb	17:23:16
3	K 766.490 Radial†	2547.9	-90.7	-17.585 ug/L	-17.585 ppb	17:23:16
3	Mg 279.077 IEC†	10.4	9.3	-19.128 ug/L	-19.128 ppb	17:23:36
3	Na 589.592 Radial†	-763.2	151.5	51.841 ug/L	51.841 ppb	17:23:16
3	Sr 421.552†	87.0	65.4	0.5057 ug/L	0.5057 ppb	17:23:16
3	Sc 361.383	816895.0	816895.0	98.763 %		17:24:35
3	Y 371.029	689573.9	689573.9	98.074 %		17:24:35
3	Ag 328.068†	-23208.5	-23748.3	-2.8378 ug/L	-2.8378 ppb	17:24:35
3	As 188.979†	-166.2	-146.2	8.2794 ug/L	8.2794 ppb	17:24:55
3	B 249.677†	1938.8	2147.8	-1.7757 ug/L	-1.7757 ppb	17:24:35
3	Ba 233.527†	-1640.0	-1673.0	-3.7815 ug/L	-3.7815 ppb	17:24:35
3	Be 313.107†	-3851.2	-127.3	-0.0529 ug/L	-0.0529 ppb	17:24:35
3	Cd 226.502†	2608.6	2798.0	0.6632 ug/L	0.6632 ppb	17:24:35
3	Co 228.616†	634.1	690.3	12.080 ug/L	12.080 ppb	17:24:55
3	Cr 267.716†	-478.8	-566.0	32.141 ug/L	32.141 ppb	17:24:55
3	Cu 324.752†	-1071.4	-6868.8	-2.4820 ug/L	-2.4820 ppb	17:24:35
3	Mn 257.610†	-31749.7	-32573.2	-5.3451 ug/L	-5.3451 ppb	17:24:35
3	Mo 202.031†	-273.0	-287.3	4.2368 ug/L	4.2368 ppb	17:24:35
3	Ni 231.604†	161.3	75.4	2.3194 ug/L	2.3194 ppb	17:24:55
3	P 214.914†	606.3	431.0	19.516 ug/L	19.516 ppb	17:24:55
3	Pb 220.353†	160.5	212.4	-21.114 ug/L	-21.114 ppb	17:24:55
3	S 181.975 Axial†	33.1	4.6	8.0328 ug/L	8.0328 ppb	17:24:55
3	Sb 206.836†	24.8	-3.4	-5.9618 ug/L	-5.9618 ppb	17:24:55
3	Se 196.026†	-1584.9	-1585.0	-197.81 ug/L	-197.81 ppb	17:24:55
3	Si 251.611†	-408.3	-916.2	-33.129 ug/L	-33.129 ppb	17:24:35
3	Sn 189.927†	-18.7	-22.9	-26.347 ug/L	-26.347 ppb	17:24:55
3	Ti 334.940†	-1143.9	-48.1	-0.1401 ug/L	-0.1401 ppb	17:24:35
3	Tl 190.801†	-30.2	-4.8	-2.1836 ug/L	-2.1836 ppb	17:24:55
3	U 409.014†	116.5	2366.6	25.344 ug/L	25.344 ppb	17:24:35
3	V 292.402†	5501.4	6862.9	-1.5734 ug/L	-1.5734 ppb	17:24:35
3	Zn 213.857†	4103.1	3232.4	-17.696 ug/L	-17.696 ppb	17:24:55
3	SiO2†	-316.5	-828.3	-63.877 ug/L	-63.877 ppb	17:25:11

Mean Data: LRL

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	811710.8	98.136 %		0.6021			0.61%
Sc Radial	4420.7	100 %		0.8			0.78%
Y 371.029	684773.2	97.391 %		0.6559			0.67%
Y RADIAL	4815.2	100.3 %		1.33			1.32%
Ag 328.068†	-23691.4	-2.3566 ug/L		0.52250	-2.3566 ppb	0.52250	22.17%
Al 396.153Radial†	-15.8	-14.182 ug/L		4.2183	-14.182 ppb	4.2183	29.74%
As 188.979†	-148.0	7.4388 ug/L		6.29133	7.4388 ppb	6.29133	84.57%
B 249.677†	2257.6	1.1205 ug/L		2.50864	1.1205 ppb	2.50864	223.88%
Ba 233.527†	-1687.2	-3.8897 ug/L		0.30037	-3.8897 ppb	0.30037	7.72%
Be 313.107†	-105.9	-0.0440 ug/L		0.01311	-0.0440 ppb	0.01311	29.79%
Ca 317.933Radial†	-4.9	-9.0111 ug/L		5.46455	-9.0111 ppb	5.46455	60.64%
Cd 226.502†	2820.4	0.9104 ug/L		0.71985	0.9104 ppb	0.71985	79.07%
Co 228.616†	696.5	12.226 ug/L		0.1972	12.226 ppb	0.1972	1.61%
Cr 267.716†	-568.2	32.181 ug/L		0.1734	32.181 ppb	0.1734	0.54%
Cu 324.752†	-6730.3	-2.0011 ug/L		0.42098	-2.0011 ppb	0.42098	21.04%
Fe 238.204 Radial†	33358.7	372350 ug/L		611.6	372350 ppb	611.6	0.16%
K 766.490 Radial†	-111.2	-21.559 ug/L		12.3092	-21.559 ppb	12.3092	57.09%
Mg 279.077 IEC†	9.5	-13.160 ug/L		22.9319	-13.160 ppb	22.9319	174.25%
Mn 257.610†	-32376.1	-5.0293 ug/L		0.31348	-5.0293 ppb	0.31348	6.23%
Mo 202.031†	-288.5	4.1855 ug/L		0.87170	4.1855 ppb	0.87170	20.83%
Na 589.592 Radial†	137.3	47.001 ug/L		4.2059	47.001 ppb	4.2059	8.95%
Ni 231.604†	77.6	2.3880 ug/L		0.45095	2.3880 ppb	0.45095	18.88%
P 214.914†	437.7	23.844 ug/L		4.8474	23.844 ppb	4.8474	20.33%
Pb 220.353†	224.0	-19.454 ug/L		1.6762	-19.454 ppb	1.6762	8.62%
S 181.975 Axial†	9.6	16.791 ug/L		7.6838	16.791 ppb	7.6838	45.76%
Sb 206.836†	-6.6	-7.2564 ug/L		1.51298	-7.2564 ppb	1.51298	20.85%
Se 196.026†	-1578.1	-190.48 ug/L		10.675	-190.48 ppb	10.675	5.60%
Si 251.611†	-919.2	-33.239 ug/L		1.0193	-33.239 ppb	1.0193	3.07%
Sn 189.927†	-18.8	-25.499 ug/L		0.8192	-25.499 ppb	0.8192	3.21%
Sr 421.552†	64.6	0.4999 ug/L		0.05448	0.4999 ppb	0.05448	10.90%
Ti 334.940†	-59.1	-0.1584 ug/L		0.08335	-0.1584 ppb	0.08335	52.63%
Tl 190.801†	-9.8	-4.0835 ug/L		5.28705	-4.0835 ppb	5.28705	129.47%

U 409.014†	2260.8	22.247 ug/L	2.7755	22.247 ppb	2.7755	12.48%
V 292.402†	6949.7	-1.0041 ug/L	0.49306	-1.0041 ppb	0.49306	49.11%
Zn 213.857†	3242.6	-17.671 ug/L	0.4029	-17.671 ppb	0.4029	2.28%
SiO2†	-888.7	-68.581 ug/L	4.3418	-68.581 ppb	4.3418	6.33%

Sequence No.: 2

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/17/2010 17:27:22

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	4543.6	4543.6	103 %		17:29:14
1	Y RADIAL	4915.8	4915.8	102.4 %		17:29:14
1	Al 396.153Radial†	5168.6	5097.4	4932.8 ug/L	4932.8 ppb	17:29:14
1	Ca 317.933Radial†	2792.7	2693.5	4943.7 ug/L	4943.7 ppb	17:29:34
1	Fe 238.204 Radial†	460.4	440.1	4927.6 ug/L	4927.6 ppb	17:29:34
1	K 766.490 Radial†	29281.5	25849.0	5010.9 ug/L	5010.9 ppb	17:29:14
1	Mg 279.077 IEC†	133.9	129.1	5140.1 ug/L	5140.1 ppb	17:29:34
1	Na 589.592 Radial†	28372.6	28486.8	9749.3 ug/L	9749.3 ppb	17:29:14
1	Sr 421.552†	66200.9	64329.5	497.46 ug/L	497.46 ppb	17:29:14
1	Sc 361.383	832399.3	832399.3	100.64 %		17:30:32
1	Y 371.029	696591.9	696591.9	99.072 %		17:30:32
1	Ag 328.068†	98343.2	97471.1	487.13 ug/L	487.13 ppb	17:30:37
1	As 188.979†	901.4	917.8	499.24 ug/L	499.24 ppb	17:30:57
1	B 249.677†	17979.9	18050.8	490.59 ug/L	490.59 ppb	17:30:37
1	Ba 233.527†	54134.7	53779.3	490.06 ug/L	490.06 ppb	17:30:37
1	Be 313.107†	1204485.5	1200627.3	497.73 ug/L	497.73 ppb	17:30:32
1	Cd 226.502†	35192.9	35126.7	490.08 ug/L	490.08 ppb	17:30:37
1	Co 228.616†	19925.5	19847.6	503.48 ug/L	503.48 ppb	17:30:37
1	Cr 267.716†	38180.1	37857.1	488.57 ug/L	488.57 ppb	17:30:37
1	Cu 324.752†	158002.0	151217.1	486.96 ug/L	486.96 ppb	17:30:37
1	Mn 257.610†	390100.4	387203.4	500.06 ug/L	500.06 ppb	17:30:32
1	Mo 202.031†	5714.5	5667.4	486.13 ug/L	486.13 ppb	17:30:57
1	Ni 231.604†	16398.1	16206.3	500.75 ug/L	500.75 ppb	17:30:37
1	P 214.914†	3540.8	3335.5	2339.7 ug/L	2339.7 ppb	17:30:57
1	Pb 220.353†	3247.5	3276.8	492.56 ug/L	492.56 ppb	17:30:57
1	S 181.975 Axial†	583.5	550.8	964.52 ug/L	964.52 ppb	17:30:57
1	Sb 206.836†	1233.1	1196.7	503.80 ug/L	503.80 ppb	17:30:57
1	Se 196.026†	587.0	603.1	499.04 ug/L	499.04 ppb	17:30:57
1	Si 251.611†	67784.6	66852.4	2433.5 ug/L	2433.5 ppb	17:30:37
1	Sn 189.927†	2244.6	2226.4	488.00 ug/L	488.00 ppb	17:30:57
1	Ti 334.940†	285690.9	284991.2	485.52 ug/L	485.52 ppb	17:30:37
1	Tl 190.801†	1271.8	1289.6	490.95 ug/L	490.95 ppb	17:30:57
1	U 409.014†	14941.9	17095.9	487.43 ug/L	487.43 ppb	17:30:37
1	V 292.402†	62314.1	63212.0	492.57 ug/L	492.57 ppb	17:30:37
1	Zn 213.857†	42903.0	41709.2	484.68 ug/L	484.68 ppb	17:30:37
1	SiO2†	68317.8	67377.2	5237.4 ug/L	5237.4 ppb	17:32:04
2	Sc Radial	4403.4	4403.4	99.7 %		17:29:39
2	Y RADIAL	4727.0	4727.0	98.43 %		17:29:39
2	Al 396.153Radial†	4989.2	5077.4	4913.4 ug/L	4913.4 ppb	17:29:39
2	Ca 317.933Radial†	2789.2	2776.4	5095.8 ug/L	5095.8 ppb	17:30:00
2	Fe 238.204 Radial†	464.5	458.5	5132.6 ug/L	5132.6 ppb	17:30:00
2	K 766.490 Radial†	28338.7	25809.3	5003.2 ug/L	5003.2 ppb	17:29:39
2	Mg 279.077 IEC†	132.4	131.7	5242.6 ug/L	5242.6 ppb	17:30:00
2	Na 589.592 Radial†	27195.6	28184.1	9645.8 ug/L	9645.8 ppb	17:29:39
2	Sr 421.552†	63718.4	63888.0	494.05 ug/L	494.05 ppb	17:29:39
2	Sc 361.383	838775.1	838775.1	101.41 %		17:31:03
2	Y 371.029	702071.6	702071.6	99.851 %		17:31:03
2	Ag 328.068†	99268.0	97640.2	488.03 ug/L	488.03 ppb	17:31:08
2	As 188.979†	909.0	918.5	499.66 ug/L	499.66 ppb	17:31:28
2	B 249.677†	18184.4	18116.6	492.36 ug/L	492.36 ppb	17:31:08
2	Ba 233.527†	54519.3	53749.8	489.80 ug/L	489.80 ppb	17:31:08
2	Be 313.107†	1195471.8	1182641.1	490.29 ug/L	490.29 ppb	17:31:03
2	Cd 226.502†	35361.5	35027.2	488.67 ug/L	488.67 ppb	17:31:08
2	Co 228.616†	20011.3	19781.7	501.80 ug/L	501.80 ppb	17:31:08
2	Cr 267.716†	38399.4	37784.9	487.66 ug/L	487.66 ppb	17:31:08
2	Cu 324.752†	159170.2	151175.6	486.84 ug/L	486.84 ppb	17:31:08
2	Mn 257.610†	387387.5	381581.6	492.82 ug/L	492.82 ppb	17:31:03
2	Mo 202.031†	5742.6	5652.0	484.83 ug/L	484.83 ppb	17:31:28
2	Ni 231.604†	16395.9	16080.3	496.85 ug/L	496.85 ppb	17:31:08

2	P 214.914†	3576.0	3343.4	2345.3 ug/L	2345.3 ppb	17:31:28
2	Pb 220.353†	3259.2	3263.8	490.57 ug/L	490.57 ppb	17:31:28
2	S 181.975 Axial†	589.3	552.1	966.77 ug/L	966.77 ppb	17:31:28
2	Sb 206.836†	1247.2	1201.3	505.60 ug/L	505.60 ppb	17:31:28
2	Se 196.026†	599.1	610.6	505.63 ug/L	505.63 ppb	17:31:28
2	Si 251.611†	68134.3	66685.2	2427.4 ug/L	2427.4 ppb	17:31:08
2	Sn 189.927†	2250.8	2215.6	485.63 ug/L	485.63 ppb	17:31:28
2	Ti 334.940†	287850.2	284962.6	485.48 ug/L	485.48 ppb	17:31:08
2	Tl 190.801†	1280.5	1288.6	490.55 ug/L	490.55 ppb	17:31:28
2	U 409.014†	15069.5	17108.9	487.78 ug/L	487.78 ppb	17:31:08
2	V 292.402†	62765.7	63186.7	492.33 ug/L	492.33 ppb	17:31:08
2	Zn 213.857†	43041.5	41521.7	482.48 ug/L	482.48 ppb	17:31:08
2	SiO2†	68122.4	66668.5	5182.2 ug/L	5182.2 ppb	17:32:10
3	Sc Radial	4495.0	4495.0	102 %		17:30:05
3	Y RADIAL	4873.1	4873.1	101.5 %		17:30:05
3	Al 396.153Radial†	5150.2	5133.6	4967.5 ug/L	4967.5 ppb	17:30:05
3	Ca 317.933Radial†	2800.2	2730.2	5011.1 ug/L	5011.1 ppb	17:30:25
3	Fe 238.204 Radial†	466.5	450.9	5048.4 ug/L	5048.4 ppb	17:30:25
3	K 766.490 Radial†	28810.2	25693.4	4980.7 ug/L	4980.7 ppb	17:30:05
3	Mg 279.077 IEC†	132.2	128.9	5129.7 ug/L	5129.7 ppb	17:30:25
3	Na 589.592 Radial†	27873.6	28294.4	9683.5 ug/L	9683.5 ppb	17:30:05
3	Sr 421.552†	65318.1	64157.2	496.13 ug/L	496.13 ppb	17:30:05
3	Sc 361.383	823295.5	823295.5	99.537 %		17:31:34
3	Y 371.029	689547.6	689547.6	98.070 %		17:31:34
3	Ag 328.068†	98630.3	98840.1	493.99 ug/L	493.99 ppb	17:31:39
3	As 188.979†	912.1	938.4	510.44 ug/L	510.44 ppb	17:31:59
3	B 249.677†	18112.7	18381.7	499.59 ug/L	499.59 ppb	17:31:39
3	Ba 233.527†	54505.7	54746.9	498.88 ug/L	498.88 ppb	17:31:39
3	Be 313.107†	1189836.2	1199144.3	497.14 ug/L	497.14 ppb	17:31:34
3	Cd 226.502†	35321.7	35642.8	497.27 ug/L	497.27 ppb	17:31:39
3	Co 228.616†	19947.1	20088.3	509.59 ug/L	509.59 ppb	17:31:39
3	Cr 267.716†	38344.4	38441.6	496.12 ug/L	496.12 ppb	17:31:39
3	Cu 324.752†	158685.9	153640.2	494.77 ug/L	494.77 ppb	17:31:39
3	Mn 257.610†	384337.9	385700.3	498.13 ug/L	498.13 ppb	17:31:34
3	Mo 202.031†	5773.2	5789.1	496.57 ug/L	496.57 ppb	17:31:59
3	Ni 231.604†	16430.4	16419.0	507.32 ug/L	507.32 ppb	17:31:39
3	P 214.914†	3584.0	3417.8	2398.2 ug/L	2398.2 ppb	17:31:59
3	Pb 220.353†	3263.6	3328.6	500.34 ug/L	500.34 ppb	17:31:59
3	S 181.975 Axial†	593.7	567.5	993.78 ug/L	993.78 ppb	17:31:59
3	Sb 206.836†	1255.4	1232.7	518.79 ug/L	518.79 ppb	17:31:59
3	Se 196.026†	600.0	622.5	514.99 ug/L	514.99 ppb	17:31:59
3	Si 251.611†	67982.2	67795.7	2467.8 ug/L	2467.8 ppb	17:31:39
3	Sn 189.927†	2273.2	2279.8	499.69 ug/L	499.69 ppb	17:31:59
3	Ti 334.940†	287037.0	289482.6	493.18 ug/L	493.18 ppb	17:31:39
3	Tl 190.801†	1291.4	1323.3	503.71 ug/L	503.71 ppb	17:31:59
3	U 409.014†	14916.1	17234.1	491.36 ug/L	491.36 ppb	17:31:39
3	V 292.402†	62535.2	64118.8	499.67 ug/L	499.67 ppb	17:31:39
3	Zn 213.857†	43018.7	42296.8	491.50 ug/L	491.50 ppb	17:31:39
3	SiO2†	67571.5	67378.1	5237.2 ug/L	5237.2 ppb	17:32:15

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	831490.0	100.53 %		0.941			0.94%
Sc Radial	4480.7	101 %		1.6			1.59%
Y 371.029	696070.4	98.998 %		0.8929			0.90%
Y RADIAL	4838.6	100.8 %		2.06			2.05%
Ag 328.068†	97983.8	489.72 ug/L		3.729	489.72 ppb	3.729	0.76%
QC value within limits for Ag 328.068 Recovery = 97.94%							
Al 396.153Radial†	5102.8	4937.9 ug/L		27.38	4937.9 ppb	27.38	0.55%
QC value within limits for Al 396.153Radial Recovery = 98.76%							
As 188.979†	924.9	503.11 ug/L		6.346	503.11 ppb	6.346	1.26%
QC value within limits for As 188.979 Recovery = 100.62%							
B 249.677†	18183.1	494.18 ug/L		4.767	494.18 ppb	4.767	0.96%
QC value within limits for B 249.677 Recovery = 98.84%							
Ba 233.527†	54092.0	492.92 ug/L		5.166	492.92 ppb	5.166	1.05%
QC value within limits for Ba 233.527 Recovery = 98.58%							
Be 313.107†	1194137.6	495.05 ug/L		4.134	495.05 ppb	4.134	0.84%
QC value within limits for Be 313.107 Recovery = 99.01%							
Ca 317.933Radial†	2733.4	5016.9 ug/L		76.22	5016.9 ppb	76.22	1.52%

QC value within limits for Ca 317.933 Radial Recovery = 100.34%							
Cd 226.502†	35265.6	492.01 ug/L	4.616	492.01 ppb	4.616	0.94%	
QC value within limits for Cd 226.502 Recovery = 98.40%							
Co 228.616†	19905.9	504.95 ug/L	4.099	504.95 ppb	4.099	0.81%	
QC value within limits for Co 228.616 Recovery = 100.99%							
Cr 267.716†	38027.9	490.79 ug/L	4.643	490.79 ppb	4.643	0.95%	
QC value within limits for Cr 267.716 Recovery = 98.16%							
Cu 324.752†	152011.0	489.52 ug/L	4.544	489.52 ppb	4.544	0.93%	
QC value within limits for Cu 324.752 Recovery = 97.90%							
Fe 238.204 Radial†	449.8	5036.2 ug/L	103.08	5036.2 ppb	103.08	2.05%	
QC value within limits for Fe 238.204 Radial Recovery = 100.72%							
K 766.490 Radial†	25783.9	4998.3 ug/L	15.70	4998.3 ppb	15.70	0.31%	
QC value within limits for K 766.490 Radial Recovery = 99.97%							
Mg 279.077 IEC†	129.9	5170.8 ug/L	62.40	5170.8 ppb	62.40	1.21%	
QC value within limits for Mg 279.077 IEC Recovery = 103.42%							
Mn 257.610†	384828.4	497.00 ug/L	3.750	497.00 ppb	3.750	0.75%	
QC value within limits for Mn 257.610 Recovery = 99.40%							
Mo 202.031†	5702.9	489.18 ug/L	6.439	489.18 ppb	6.439	1.32%	
QC value within limits for Mo 202.031 Recovery = 97.84%							
Na 589.592 Radial†	28321.8	9692.9 ug/L	52.42	9692.9 ppb	52.42	0.54%	
QC value within limits for Na 589.592 Radial Recovery = 96.93%							
Ni 231.604†	16235.2	501.64 ug/L	5.290	501.64 ppb	5.290	1.05%	
QC value within limits for Ni 231.604 Recovery = 100.33%							
P 214.914†	3365.5	2361.1 ug/L	32.30	2361.1 ppb	32.30	1.37%	
QC value within limits for P 214.914 Recovery = 94.44%							
Pb 220.353†	3289.7	494.49 ug/L	5.162	494.49 ppb	5.162	1.04%	
QC value within limits for Pb 220.353 Recovery = 98.90%							
S 181.975 Axial†	556.8	975.02 ug/L	16.284	975.02 ppb	16.284	1.67%	
QC value within limits for S 181.975 Axial Recovery = 97.50%							
Sb 206.836†	1210.3	509.40 ug/L	8.188	509.40 ppb	8.188	1.61%	
QC value within limits for Sb 206.836 Recovery = 101.88%							
Se 196.026†	612.1	506.56 ug/L	8.015	506.56 ppb	8.015	1.58%	
QC value within limits for Se 196.026 Recovery = 101.31%							
Si 251.611†	67111.1	2442.9 ug/L	21.77	2442.9 ppb	21.77	0.89%	
QC value within limits for Si 251.611 Recovery = 97.71%							
Sn 189.927†	2240.6	491.11 ug/L	7.526	491.11 ppb	7.526	1.53%	
QC value within limits for Sn 189.927 Recovery = 98.22%							
Sr 421.552†	64124.9	495.88 ug/L	1.722	495.88 ppb	1.722	0.35%	
QC value within limits for Sr 421.552 Recovery = 99.18%							
Ti 334.940†	286478.8	488.06 ug/L	4.433	488.06 ppb	4.433	0.91%	
QC value within limits for Ti 334.940 Recovery = 97.61%							
Tl 190.801†	1300.5	495.07 ug/L	7.487	495.07 ppb	7.487	1.51%	
QC value within limits for Tl 190.801 Recovery = 99.01%							
U 409.014†	17146.3	488.86 ug/L	2.172	488.86 ppb	2.172	0.44%	
QC value within limits for U 409.014 Recovery = 97.77%							
V 292.402†	63505.8	494.85 ug/L	4.170	494.85 ppb	4.170	0.84%	
QC value within limits for V 292.402 Recovery = 98.97%							
Zn 213.857†	41842.6	486.22 ug/L	4.706	486.22 ppb	4.706	0.97%	
QC value within limits for Zn 213.857 Recovery = 97.24%							
SiO2†	67141.3	5218.9 ug/L	31.80	5218.9 ppb	31.80	0.61%	
QC value within limits for SiO2 Recovery = 97.60%							
All analyte(s) passed QC.							

Sequence No.: 3

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/17/2010 17:34:25

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	4354.4	4354.4	98.6 %		17:36:37
1	Y RADIAL	4954.1	4954.1	103.2 %		17:36:17
1	Al 396.153Radial†	-83.2	-11.0	-10.756 ug/L	-10.756 ppb	17:36:37
1	Ca 317.933Radial†	27.1	6.3	11.619 ug/L	11.619 ppb	17:36:37
1	Fe 238.204 Radial†	8.3	1.0	11.492 ug/L	11.492 ppb	17:36:37
1	K 766.490 Radial†	2753.6	179.0	34.717 ug/L	34.717 ppb	17:36:17
1	Mg 279.077 IEC†	-1.0	-2.1	-82.241 ug/L	-82.241 ppb	17:36:37
1	Na 589.592 Radial†	-793.2	102.8	35.184 ug/L	35.184 ppb	17:36:17
1	Sr 421.552†	13.1	-7.5	-0.0580 ug/L	-0.0580 ppb	17:36:17
1	Sc 361.383	810435.2	810435.2	97.982 %		17:37:34
1	Y 371.029	689397.5	689397.5	98.049 %		17:37:34
1	Ag 328.068†	149.4	-96.6	-0.4770 ug/L	-0.4770 ppb	17:37:34
1	As 188.979†	-17.0	4.8	2.5812 ug/L	2.5812 ppb	17:37:54
1	B 249.677†	54.3	240.2	6.5548 ug/L	6.5548 ppb	17:37:54
1	Ba 233.527†	12.6	0.4	0.0029 ug/L	0.0029 ppb	17:37:54
1	Be 313.107†	-3925.0	-233.7	-0.0965 ug/L	-0.0965 ppb	17:37:34
1	Cd 226.502†	-170.6	-17.3	-0.2434 ug/L	-0.2434 ppb	17:37:54
1	Co 228.616†	-40.4	7.2	0.1823 ug/L	0.1823 ppb	17:37:54
1	Cr 267.716†	92.0	12.7	0.1645 ug/L	0.1645 ppb	17:37:54
1	Cu 324.752†	5787.1	122.3	0.3953 ug/L	0.3953 ppb	17:37:34
1	Mn 257.610†	435.3	18.5	0.0283 ug/L	0.0283 ppb	17:37:54
1	Mo 202.031†	16.8	6.3	0.5384 ug/L	0.5384 ppb	17:37:54
1	Ni 231.604†	81.3	-4.9	-0.1527 ug/L	-0.1527 ppb	17:37:54
1	P 214.914†	196.6	17.8	12.883 ug/L	12.883 ppb	17:37:54
1	Pb 220.353†	-30.2	19.0	2.8509 ug/L	2.8509 ppb	17:37:54
1	S 181.975 Axial†	32.3	4.0	7.0882 ug/L	7.0882 ppb	17:37:54
1	Sb 206.836†	30.9	3.0	1.2392 ug/L	1.2392 ppb	17:37:54
1	Se 196.026†	-16.9	2.5	2.0248 ug/L	2.0248 ppb	17:37:54
1	Si 251.611†	505.5	13.1	0.4730 ug/L	0.4730 ppb	17:37:54
1	Sn 189.927†	8.3	4.5	0.9871 ug/L	0.9871 ppb	17:37:54
1	Ti 334.940†	-1051.0	37.4	0.0726 ug/L	0.0726 ppb	17:37:34
1	Tl 190.801†	-24.7	0.6	0.2201 ug/L	0.2201 ppb	17:37:54
1	U 409.014†	-2252.4	-50.2	-1.4368 ug/L	-1.4368 ppb	17:37:34
1	V 292.402†	-1327.0	-61.6	-0.4725 ug/L	-0.4725 ppb	17:37:34
1	Zn 213.857†	904.3	0.9	0.0093 ug/L	0.0093 ppb	17:37:54
1	SiO2†	526.1	29.1	2.2552 ug/L	2.2552 ppb	17:39:05
2	Sc Radial	4342.7	4342.7	98.3 %		17:37:02
2	Y RADIAL	4890.7	4890.7	101.8 %		17:36:42
2	Al 396.153Radial†	-86.2	-14.4	-14.001 ug/L	-14.001 ppb	17:37:02
2	Ca 317.933Radial†	22.3	1.6	2.9641 ug/L	2.9641 ppb	17:37:02
2	Fe 238.204 Radial†	8.0	0.7	7.5296 ug/L	7.5296 ppb	17:37:02
2	K 766.490 Radial†	2749.3	182.0	35.329 ug/L	35.329 ppb	17:36:42
2	Mg 279.077 IEC†	1.8	0.8	32.559 ug/L	32.559 ppb	17:37:02
2	Na 589.592 Radial†	-867.1	25.4	8.7029 ug/L	8.7029 ppb	17:36:42
2	Sr 421.552†	25.0	4.7	0.0360 ug/L	0.0360 ppb	17:36:42
2	Sc 361.383	802566.5	802566.5	97.031 %		17:37:59
2	Y 371.029	682514.3	682514.3	97.070 %		17:37:59
2	Ag 328.068†	297.4	57.4	0.2900 ug/L	0.2900 ppb	17:37:59
2	As 188.979†	-17.4	4.1	2.2127 ug/L	2.2127 ppb	17:38:19
2	B 249.677†	40.8	226.8	6.1906 ug/L	6.1906 ppb	17:38:19
2	Ba 233.527†	3.1	-9.2	-0.0844 ug/L	-0.0844 ppb	17:38:19
2	Be 313.107†	-3845.4	-190.9	-0.0794 ug/L	-0.0794 ppb	17:37:59
2	Cd 226.502†	-154.0	-1.9	-0.0286 ug/L	-0.0286 ppb	17:38:19
2	Co 228.616†	-39.2	7.9	0.2020 ug/L	0.2020 ppb	17:38:19
2	Cr 267.716†	84.8	6.2	0.0826 ug/L	0.0826 ppb	17:38:19
2	Cu 324.752†	5789.4	182.6	0.5917 ug/L	0.5917 ppb	17:37:59
2	Mn 257.610†	421.7	8.8	0.0108 ug/L	0.0108 ppb	17:38:19
2	Mo 202.031†	13.1	2.6	0.2259 ug/L	0.2259 ppb	17:38:19
2	Ni 231.604†	66.9	-19.0	-0.5868 ug/L	-0.5868 ppb	17:38:19

2	P 214.914†	176.9	-0.6	-0.5788 ug/L	-0.5788 ppb	17:38:19
2	Pb 220.353†	-38.9	9.8	1.4618 ug/L	1.4618 ppb	17:38:19
2	S 181.975 Axial†	34.0	6.1	10.629 ug/L	10.629 ppb	17:38:19
2	Sb 206.836†	32.5	4.9	2.0216 ug/L	2.0216 ppb	17:38:19
2	Se 196.026†	-25.7	-6.7	-5.3626 ug/L	-5.3626 ppb	17:38:19
2	Si 251.611†	509.2	22.0	0.7983 ug/L	0.7983 ppb	17:38:19
2	Sn 189.927†	10.8	7.2	1.5654 ug/L	1.5654 ppb	17:38:19
2	Ti 334.940†	-1172.4	-98.2	-0.1671 ug/L	-0.1671 ppb	17:37:59
2	Tl 190.801†	-26.3	-1.3	-0.4960 ug/L	-0.4960 ppb	17:38:19
2	U 409.014†	-2383.9	-208.2	-5.9559 ug/L	-5.9559 ppb	17:37:59
2	V 292.402†	-1316.3	-63.9	-0.5002 ug/L	-0.5002 ppb	17:37:59
2	Zn 213.857†	925.2	31.5	0.3712 ug/L	0.3712 ppb	17:38:19
2	SiO2†	513.2	21.1	1.6357 ug/L	1.6357 ppb	17:39:25
3	Sc Radial	4341.3	4341.3	98.3 %		17:37:27
3	Y RADIAL	4863.0	4863.0	101.3 %		17:37:07
3	Al 396.153Radial†	-77.0	-5.0	-4.9185 ug/L	-4.9185 ppb	17:37:27
3	Ca 317.933Radial†	21.3	0.6	1.1025 ug/L	1.1025 ppb	17:37:27
3	Fe 238.204 Radial†	9.0	1.8	19.623 ug/L	19.623 ppb	17:37:27
3	K 766.490 Radial†	2761.2	195.1	37.863 ug/L	37.863 ppb	17:37:07
3	Mg 279.077 IEC†	1.4	0.4	16.959 ug/L	16.959 ppb	17:37:27
3	Na 589.592 Radial†	-860.9	31.5	10.781 ug/L	10.781 ppb	17:37:07
3	Sr 421.552†	22.1	1.8	0.0136 ug/L	0.0136 ppb	17:37:07
3	Sc 361.383	821376.1	821376.1	99.305 %		17:38:25
3	Y 371.029	700284.4	700284.4	99.597 %		17:38:25
3	Ag 328.068†	126.4	-121.8	-0.6016 ug/L	-0.6016 ppb	17:38:25
3	As 188.979†	-23.1	-1.2	-0.6381 ug/L	-0.6381 ppb	17:38:45
3	B 249.677†	47.1	232.3	6.3385 ug/L	6.3385 ppb	17:38:45
3	Ba 233.527†	21.7	9.4	0.0862 ug/L	0.0862 ppb	17:38:45
3	Be 313.107†	-3857.4	-112.3	-0.0466 ug/L	-0.0466 ppb	17:38:25
3	Cd 226.502†	-154.9	0.8	0.0091 ug/L	0.0091 ppb	17:38:45
3	Co 228.616†	-50.9	-2.9	-0.0722 ug/L	-0.0722 ppb	17:38:45
3	Cr 267.716†	77.2	-3.5	-0.0440 ug/L	-0.0440 ppb	17:38:45
3	Cu 324.752†	5836.1	93.0	0.2991 ug/L	0.2991 ppb	17:38:25
3	Mn 257.610†	434.3	11.6	0.0162 ug/L	0.0162 ppb	17:38:45
3	Mo 202.031†	15.9	5.1	0.4403 ug/L	0.4403 ppb	17:38:45
3	Ni 231.604†	82.1	-5.3	-0.1629 ug/L	-0.1629 ppb	17:38:45
3	P 214.914†	187.2	5.6	3.9977 ug/L	3.9977 ppb	17:38:45
3	Pb 220.353†	-61.4	-12.0	-1.8065 ug/L	-1.8065 ppb	17:38:45
3	S 181.975 Axial†	31.4	2.7	4.7677 ug/L	4.7677 ppb	17:38:45
3	Sb 206.836†	33.5	5.1	2.1157 ug/L	2.1157 ppb	17:38:45
3	Se 196.026†	-8.2	11.5	9.2568 ug/L	9.2568 ppb	17:38:45
3	Si 251.611†	513.5	14.3	0.5169 ug/L	0.5169 ppb	17:38:45
3	Sn 189.927†	9.6	5.7	1.2432 ug/L	1.2432 ppb	17:38:45
3	Ti 334.940†	-1150.8	-48.8	-0.0857 ug/L	-0.0857 ppb	17:38:25
3	Tl 190.801†	-29.4	-3.8	-1.4448 ug/L	-1.4448 ppb	17:38:45
3	U 409.014†	-2135.9	97.8	2.7950 ug/L	2.7950 ppb	17:38:25
3	V 292.402†	-1292.6	-8.9	-0.0596 ug/L	-0.0596 ppb	17:38:25
3	Zn 213.857†	915.8	0.2	-0.0001 ug/L	-0.0001 ppb	17:38:45
3	SiO2†	521.8	17.6	1.3618 ug/L	1.3618 ppb	17:39:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	811459.3	98.106 %	1.1421			1.16%
Sc Radial	4346.1	98.4 %	0.16			0.16%
Y 371.029	690732.1	98.238 %	1.2743			1.30%
Y RADIAL	4902.6	102.1 %	0.97			0.95%
Ag 328.068†	-53.7	-0.2629 ug/L	0.48287	-0.2629 ppb	0.48287	183.69%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-10.2	-9.8919 ug/L	4.60244	-9.8919 ppb	4.60244	46.53%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	2.6	1.3853 ug/L	1.76198	1.3853 ppb	1.76198	127.19%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	233.1	6.3613 ug/L	0.18315	6.3613 ppb	0.18315	2.88%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	0.2	0.0016 ug/L	0.08531	0.0016 ppb	0.08531	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-179.0	-0.0742 ug/L	0.02534	-0.0742 ppb	0.02534	34.17%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	2.8	5.2284 ug/L	5.61188	5.2284 ppb	5.61188	107.33%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd 226.502†	-6.2	-0.0877 ug/L	0.13622	-0.0877 ppb	0.13622	155.39%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	4.1	0.1040 ug/L	0.15296	0.1040 ppb	0.15296	147.01%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	5.1	0.0677 ug/L	0.10504	0.0677 ppb	0.10504	155.10%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	132.6	0.4287 ug/L	0.14913	0.4287 ppb	0.14913	34.79%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	1.2	12.881 ug/L	6.1651	12.881 ppb	6.1651	47.86%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	185.4	35.969 ug/L	1.6681	35.969 ppb	1.6681	4.64%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-0.3	-10.907 ug/L	62.2669	-10.907 ppb	62.2669	570.87%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	13.0	0.0184 ug/L	0.00900	0.0184 ppb	0.00900	48.79%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	4.7	0.4015 ug/L	0.15984	0.4015 ppb	0.15984	39.81%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	53.2	18.222 ug/L	14.7257	18.222 ppb	14.7257	80.81%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-9.7	-0.3008 ug/L	0.24773	-0.3008 ppb	0.24773	82.36%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	7.6	5.4339 ug/L	6.84483	5.4339 ppb	6.84483	125.96%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	5.6	0.8354 ug/L	2.39103	0.8354 ppb	2.39103	286.22%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	4.3	7.4949 ug/L	2.95169	7.4949 ppb	2.95169	39.38%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	4.3	1.7922 ug/L	0.48119	1.7922 ppb	0.48119	26.85%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	2.4	1.9730 ug/L	7.30984	1.9730 ppb	7.30984	370.49%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	16.5	0.5961 ug/L	0.17656	0.5961 ppb	0.17656	29.62%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	5.8	1.2652 ug/L	0.28977	1.2652 ppb	0.28977	22.90%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-0.4	-0.0028 ug/L	0.04908	-0.0028 ppb	0.04908	>999.9%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-36.6	-0.0601 ug/L	0.12184	-0.0601 ppb	0.12184	202.87%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-1.5	-0.5736 ug/L	0.83520	-0.5736 ppb	0.83520	145.62%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-53.5	-1.5326 ug/L	4.37623	-1.5326 ppb	4.37623	285.55%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-44.8	-0.3441 ug/L	0.24680	-0.3441 ppb	0.24680	71.73%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	10.9	0.1268 ug/L	0.21168	0.1268 ppb	0.21168	166.95%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	22.6	1.7509 ug/L	0.45767	1.7509 ppb	0.45767	26.14%
QC value within limits for SiO2 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 8

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/17/2010 18:33:48

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4313.1	4313.1	97.7 %		18:36:01
1	Y RADIAL	4901.9	4901.9	102.1 %		18:35:40
1	Al 396.153Radial†	5257.0	5456.4	5281.8 ug/L	5281.8 ppb	18:35:40
1	Ca 317.933Radial†	2787.5	2833.3	5200.2 ug/L	5200.2 ppb	18:36:01
1	Fe 238.204 Radial†	451.5	454.9	5092.7 ug/L	5092.7 ppb	18:36:01
1	K 766.490 Radial†	29059.4	27142.3	5261.9 ug/L	5261.9 ppb	18:35:40
1	Mg 279.077 IEC†	128.3	130.3	5185.8 ug/L	5185.8 ppb	18:36:01
1	Na 589.592 Radial†	26639.0	28185.2	9646.1 ug/L	9646.1 ppb	18:35:40
1	Sr 421.552†	64639.2	66168.5	511.68 ug/L	511.68 ppb	18:35:40
1	Sc 361.383	839854.7	839854.7	101.54 %		18:36:58
1	Y 371.029	702835.4	702835.4	99.960 %		18:36:58
1	Ag 328.068†	99562.9	97804.8	488.84 ug/L	488.84 ppb	18:37:03
1	As 188.979†	902.8	911.2	495.74 ug/L	495.74 ppb	18:37:23
1	B 249.677†	17774.2	17689.6	480.69 ug/L	480.69 ppb	18:37:03
1	Ba 233.527†	55045.7	54199.0	493.89 ug/L	493.89 ppb	18:37:03
1	Be 313.107†	1221062.4	1206328.5	500.10 ug/L	500.10 ppb	18:36:58
1	Cd 226.502†	35785.3	35399.7	493.88 ug/L	493.88 ppb	18:37:03
1	Co 228.616†	20240.6	19982.2	506.89 ug/L	506.89 ppb	18:37:03
1	Cr 267.716†	38656.4	37989.3	490.30 ug/L	490.30 ppb	18:37:03
1	Cu 324.752†	159883.2	151676.0	488.45 ug/L	488.45 ppb	18:37:03
1	Mn 257.610†	394572.0	388166.2	501.31 ug/L	501.31 ppb	18:36:58
1	Mo 202.031†	5782.9	5684.3	487.60 ug/L	487.60 ppb	18:37:23
1	Ni 231.604†	16652.0	16311.7	504.01 ug/L	504.01 ppb	18:37:03
1	P 214.914†	3589.8	3352.5	2351.8 ug/L	2351.8 ppb	18:37:23
1	Pb 220.353†	3249.2	3249.8	488.58 ug/L	488.58 ppb	18:37:23
1	S 181.975 Axial†	598.3	560.3	981.02 ug/L	981.02 ppb	18:37:23
1	Sb 206.836†	1254.6	1207.0	507.95 ug/L	507.95 ppb	18:37:23
1	Se 196.026†	597.7	608.4	503.90 ug/L	503.90 ppb	18:37:23
1	Si 251.611†	68621.7	67078.9	2441.7 ug/L	2441.7 ppb	18:37:03
1	Sn 189.927†	2257.6	2219.4	486.49 ug/L	486.49 ppb	18:37:23
1	Ti 334.940†	289832.6	286550.1	488.21 ug/L	488.21 ppb	18:37:03
1	Tl 190.801†	1285.7	1292.0	491.89 ug/L	491.89 ppb	18:37:23
1	U 409.014†	15091.0	17111.0	487.84 ug/L	487.84 ppb	18:37:03
1	V 292.402†	63146.4	63482.0	494.64 ug/L	494.64 ppb	18:37:03
1	Zn 213.857†	43462.8	41882.1	486.66 ug/L	486.66 ppb	18:37:03
1	SiO2†	67676.0	66142.5	5141.1 ug/L	5141.1 ppb	18:38:31
2	Sc Radial	4324.5	4324.5	97.9 %		18:36:26
2	Y RADIAL	4846.2	4846.2	100.9 %		18:36:06
2	Al 396.153Radial†	5181.1	5364.7	5192.1 ug/L	5192.1 ppb	18:36:06
2	Ca 317.933Radial†	2778.6	2816.7	5169.8 ug/L	5169.8 ppb	18:36:26
2	Fe 238.204 Radial†	453.4	455.6	5100.8 ug/L	5100.8 ppb	18:36:26
2	K 766.490 Radial†	28768.6	26767.2	5189.2 ug/L	5189.2 ppb	18:36:06
2	Mg 279.077 IEC†	131.8	133.5	5314.1 ug/L	5314.1 ppb	18:36:26
2	Na 589.592 Radial†	26229.1	27694.9	9478.3 ug/L	9478.3 ppb	18:36:06
2	Sr 421.552†	63963.0	65304.1	505.00 ug/L	505.00 ppb	18:36:06
2	Sc 361.383	820713.9	820713.9	99.225 %		18:37:29
2	Y 371.029	686325.9	686325.9	97.612 %		18:37:29
2	Ag 328.068†	98412.7	98932.5	494.45 ug/L	494.45 ppb	18:37:34
2	As 188.979†	899.5	928.6	505.14 ug/L	505.14 ppb	18:37:54
2	B 249.677†	17456.7	17777.8	483.09 ug/L	483.09 ppb	18:37:34
2	Ba 233.527†	53956.5	54365.6	495.41 ug/L	495.41 ppb	18:37:34
2	Be 313.107†	1183222.1	1196238.7	495.93 ug/L	495.93 ppb	18:37:29
2	Cd 226.502†	35041.6	35472.1	494.89 ug/L	494.89 ppb	18:37:34
2	Co 228.616†	19846.7	20050.1	508.63 ug/L	508.63 ppb	18:37:34
2	Cr 267.716†	38031.6	38247.5	493.62 ug/L	493.62 ppb	18:37:34
2	Cu 324.752†	158202.3	153654.4	494.82 ug/L	494.82 ppb	18:37:34
2	Mn 257.610†	384577.6	387156.5	500.01 ug/L	500.01 ppb	18:37:29
2	Mo 202.031†	5777.1	5811.3	498.48 ug/L	498.48 ppb	18:37:54
2	Ni 231.604†	16311.9	16351.4	505.23 ug/L	505.23 ppb	18:37:34

2	P 214.914†	3575.6	3420.6	2400.2 ug/L	2400.2 ppb	18:37:54
2	Pb 220.353†	3273.1	3348.4	503.36 ug/L	503.36 ppb	18:37:54
2	S 181.975 Axial†	595.2	570.9	999.61 ug/L	999.61 ppb	18:37:54
2	Sb 206.836†	1257.9	1239.1	521.40 ug/L	521.40 ppb	18:37:54
2	Se 196.026†	598.2	622.6	515.28 ug/L	515.28 ppb	18:37:54
2	Si 251.611†	67675.7	67701.6	2464.3 ug/L	2464.3 ppb	18:37:34
2	Sn 189.927†	2251.3	2265.0	496.46 ug/L	496.46 ppb	18:37:54
2	Ti 334.940†	285586.8	288928.1	492.24 ug/L	492.24 ppb	18:37:34
2	Tl 190.801†	1285.9	1321.8	503.15 ug/L	503.15 ppb	18:37:54
2	U 409.014†	14941.5	17306.9	493.44 ug/L	493.44 ppb	18:37:34
2	V 292.402†	62081.8	63859.5	497.70 ug/L	497.70 ppb	18:37:34
2	Zn 213.857†	42684.6	42096.1	489.16 ug/L	489.16 ppb	18:37:34
2	SiO2†	68588.5	68616.5	5333.6 ug/L	5333.6 ppb	18:38:36
3	Sc Radial	4334.5	4334.5	98.1 %		18:36:51
3	Y RADIAL	4823.2	4823.2	100.4 %		18:36:31
3	Al 396.153Radial†	5110.1	5280.2	5110.2 ug/L	5110.2 ppb	18:36:31
3	Ca 317.933Radial†	2792.7	2824.4	5184.0 ug/L	5184.0 ppb	18:36:51
3	Fe 238.204 Radial†	453.8	455.0	5093.5 ug/L	5093.5 ppb	18:36:51
3	K 766.490 Radial†	28513.3	26439.1	5125.6 ug/L	5125.6 ppb	18:36:31
3	Mg 279.077 IEC†	132.2	133.7	5320.8 ug/L	5320.8 ppb	18:36:51
3	Na 589.592 Radial†	25701.9	27095.7	9273.3 ug/L	9273.3 ppb	18:36:31
3	Sr 421.552†	63026.4	64198.7	496.45 ug/L	496.45 ppb	18:36:31
3	Sc 361.383	835884.5	835884.5	101.06 %		18:38:00
3	Y 371.029	700281.7	700281.7	99.597 %		18:38:00
3	Ag 328.068†	99306.3	98016.6	489.88 ug/L	489.88 ppb	18:38:05
3	As 188.979†	910.0	922.6	501.87 ug/L	501.87 ppb	18:38:25
3	B 249.677†	17805.4	17803.6	483.81 ug/L	483.81 ppb	18:38:05
3	Ba 233.527†	54486.7	53903.4	491.20 ug/L	491.20 ppb	18:38:05
3	Be 313.107†	1211801.5	1202876.5	498.67 ug/L	498.67 ppb	18:38:00
3	Cd 226.502†	35332.3	35118.9	489.96 ug/L	489.96 ppb	18:38:05
3	Co 228.616†	20059.1	19897.2	504.74 ug/L	504.74 ppb	18:38:05
3	Cr 267.716†	38429.0	37945.2	489.72 ug/L	489.72 ppb	18:38:05
3	Cu 324.752†	160028.3	152567.5	491.31 ug/L	491.31 ppb	18:38:05
3	Mn 257.610†	391082.9	386559.3	499.23 ug/L	499.23 ppb	18:38:00
3	Mo 202.031†	5819.8	5747.9	493.04 ug/L	493.04 ppb	18:38:25
3	Ni 231.604†	16446.8	16186.6	500.14 ug/L	500.14 ppb	18:38:05
3	P 214.914†	3588.8	3368.2	2362.7 ug/L	2362.7 ppb	18:38:25
3	Pb 220.353†	3286.1	3301.5	496.30 ug/L	496.30 ppb	18:38:25
3	S 181.975 Axial†	595.5	560.3	981.13 ug/L	981.13 ppb	18:38:25
3	Sb 206.836†	1258.2	1216.4	511.97 ug/L	511.97 ppb	18:38:25
3	Se 196.026†	596.2	609.7	504.94 ug/L	504.94 ppb	18:38:25
3	Si 251.611†	68257.4	67039.4	2440.2 ug/L	2440.2 ppb	18:38:05
3	Sn 189.927†	2264.1	2236.4	490.22 ug/L	490.22 ppb	18:38:25
3	Ti 334.940†	288868.9	286952.2	488.87 ug/L	488.87 ppb	18:38:05
3	Tl 190.801†	1302.0	1314.1	500.25 ug/L	500.25 ppb	18:38:25
3	U 409.014†	15436.2	17523.1	499.63 ug/L	499.63 ppb	18:38:05
3	V 292.402†	62806.5	63441.1	494.43 ug/L	494.43 ppb	18:38:05
3	Zn 213.857†	43138.9	41764.8	485.31 ug/L	485.31 ppb	18:38:05
3	SiO2†	68984.5	67753.9	5266.5 ug/L	5266.5 ppb	18:38:41

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	832151.0	100.61 %	1.221			1.21%
Sc Radial	4324.0	97.9 %	0.24			0.25%
Y 371.029	696481.0	99.056 %	1.2639			1.28%
Y RADIAL	4857.1	101.1 %	0.84			0.83%
Ag 328.068†	98251.3	491.06 ug/L	2.985	491.06 ppb	2.985	0.61%
QC value within limits for Ag 328.068 Recovery = 98.21%						
Al 396.153Radial†	5367.1	5194.7 ug/L	85.83	5194.7 ppb	85.83	1.65%
QC value within limits for Al 396.153Radial Recovery = 103.89%						
As 188.979†	920.8	500.92 ug/L	4.769	500.92 ppb	4.769	0.95%
QC value within limits for As 188.979 Recovery = 100.18%						
B 249.677†	17757.0	482.53 ug/L	1.634	482.53 ppb	1.634	0.34%
QC value within limits for B 249.677 Recovery = 96.51%						
Ba 233.527†	54156.0	493.50 ug/L	2.131	493.50 ppb	2.131	0.43%
QC value within limits for Ba 233.527 Recovery = 98.70%						
Be 313.107†	1201814.5	498.23 ug/L	2.116	498.23 ppb	2.116	0.42%
QC value within limits for Be 313.107 Recovery = 99.65%						
Ca 317.933Radial†	2824.8	5184.7 ug/L	15.21	5184.7 ppb	15.21	0.29%

QC value within limits for Ca 317.933 Radial Recovery = 103.69%

Cd 226.502†	35330.3	492.91 ug/L	2.604	492.91 ppb	2.604	0.53%
QC value within limits for Cd 226.502 Recovery = 98.58%						
Co 228.616†	19976.5	506.75 ug/L	1.945	506.75 ppb	1.945	0.38%
QC value within limits for Co 228.616 Recovery = 101.35%						
Cr 267.716†	38060.7	491.21 ug/L	2.107	491.21 ppb	2.107	0.43%
QC value within limits for Cr 267.716 Recovery = 98.24%						
Cu 324.752†	152632.6	491.53 ug/L	3.189	491.53 ppb	3.189	0.65%
QC value within limits for Cu 324.752 Recovery = 98.31%						
Fe 238.204 Radial†	455.2	5095.7 ug/L	4.46	5095.7 ppb	4.46	0.09%
QC value within limits for Fe 238.204 Radial Recovery = 101.91%						
K 766.490 Radial†	26782.8	5192.2 ug/L	68.22	5192.2 ppb	68.22	1.31%
QC value within limits for K 766.490 Radial Recovery = 103.84%						
Mg 279.077 IEC†	132.5	5273.6 ug/L	76.13	5273.6 ppb	76.13	1.44%
QC value within limits for Mg 279.077 IEC Recovery = 105.47%						
Mn 257.610†	387294.0	500.19 ug/L	1.051	500.19 ppb	1.051	0.21%
QC value within limits for Mn 257.610 Recovery = 100.04%						
Mo 202.031†	5747.8	493.04 ug/L	5.440	493.04 ppb	5.440	1.10%
QC value within limits for Mo 202.031 Recovery = 98.61%						
Na 589.592 Radial†	27658.6	9465.9 ug/L	186.74	9465.9 ppb	186.74	1.97%
QC value within limits for Na 589.592 Radial Recovery = 94.66%						
Ni 231.604†	16283.3	503.13 ug/L	2.659	503.13 ppb	2.659	0.53%
QC value within limits for Ni 231.604 Recovery = 100.63%						
P 214.914†	3380.4	2371.6 ug/L	25.43	2371.6 ppb	25.43	1.07%
QC value within limits for P 214.914 Recovery = 94.86%						
Pb 220.353†	3299.9	496.08 ug/L	7.395	496.08 ppb	7.395	1.49%
QC value within limits for Pb 220.353 Recovery = 99.22%						
S 181.975 Axial†	563.8	987.26 ug/L	10.702	987.26 ppb	10.702	1.08%
QC value within limits for S 181.975 Axial Recovery = 98.73%						
Sb 206.836†	1220.9	513.77 ug/L	6.903	513.77 ppb	6.903	1.34%
QC value within limits for Sb 206.836 Recovery = 102.75%						
Se 196.026†	613.6	508.04 ug/L	6.290	508.04 ppb	6.290	1.24%
QC value within limits for Se 196.026 Recovery = 101.61%						
Si 251.611†	67273.3	2448.7 ug/L	13.50	2448.7 ppb	13.50	0.55%
QC value within limits for Si 251.611 Recovery = 97.95%						
Sn 189.927†	2240.3	491.06 ug/L	5.036	491.06 ppb	5.036	1.03%
QC value within limits for Sn 189.927 Recovery = 98.21%						
Sr 421.552†	65223.8	504.38 ug/L	7.636	504.38 ppb	7.636	1.51%
QC value within limits for Sr 421.552 Recovery = 100.88%						
Ti 334.940†	287476.8	489.77 ug/L	2.162	489.77 ppb	2.162	0.44%
QC value within limits for Ti 334.940 Recovery = 97.95%						
Tl 190.801†	1309.3	498.43 ug/L	5.844	498.43 ppb	5.844	1.17%
QC value within limits for Tl 190.801 Recovery = 99.69%						
U 409.014†	17313.7	493.64 ug/L	5.898	493.64 ppb	5.898	1.19%
QC value within limits for U 409.014 Recovery = 98.73%						
V 292.402†	63594.2	495.59 ug/L	1.833	495.59 ppb	1.833	0.37%
QC value within limits for V 292.402 Recovery = 99.12%						
Zn 213.857†	41914.3	487.04 ug/L	1.952	487.04 ppb	1.952	0.40%
QC value within limits for Zn 213.857 Recovery = 97.41%						
SiO2†	67504.3	5247.1 ug/L	97.71	5247.1 ppb	97.71	1.86%
QC value within limits for SiO2 Recovery = 98.12%						

All analyte(s) passed QC.

Sequence No.: 9

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/17/2010 18:40:50

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	4526.2	4526.2	102 %		18:42:43
1	Y RADIAL	4943.0	4943.0	102.9 %		18:42:43
1	Al 396.153Radial†	-73.7	1.4	1.3881 ug/L	1.3881 ppb	18:43:03
1	Ca 317.933Radial†	25.4	3.6	6.6985 ug/L	6.6985 ppb	18:43:03
1	Fe 238.204 Radial†	7.3	-0.3	-3.5602 ug/L	-3.5602 ppb	18:43:03
1	K 766.490 Radial†	2535.7	-139.7	-27.129 ug/L	-27.129 ppb	18:42:43
1	Mg 279.077 IEC†	-0.0	-1.1	-42.885 ug/L	-42.885 ppb	18:43:03
1	Na 589.592 Radial†	-825.4	101.9	34.877 ug/L	34.877 ppb	18:42:43
1	Sr 421.552†	27.7	6.3	0.0484 ug/L	0.0484 ppb	18:42:43
1	Sc 361.383	804992.6	804992.6	97.324 %		18:44:00
1	Y 371.029	683231.0	683231.0	97.172 %		18:44:00
1	Ag 328.068†	139.4	-105.9	-0.5271 ug/L	-0.5271 ppb	18:44:00
1	As 188.979†	-20.6	0.9	0.5070 ug/L	0.5070 ppb	18:44:20
1	B 249.677†	-223.1	-44.4	-1.2127 ug/L	-1.2127 ppb	18:44:20
1	Ba 233.527†	12.6	0.5	0.0038 ug/L	0.0038 ppb	18:44:20
1	Be 313.107†	-3856.3	-190.2	-0.0790 ug/L	-0.0790 ppb	18:44:00
1	Cd 226.502†	-168.4	-16.2	-0.2264 ug/L	-0.2264 ppb	18:44:20
1	Co 228.616†	-34.2	13.2	0.3350 ug/L	0.3350 ppb	18:44:20
1	Cr 267.716†	99.0	20.5	0.2636 ug/L	0.2636 ppb	18:44:20
1	Cu 324.752†	5771.4	146.1	0.4709 ug/L	0.4709 ppb	18:44:00
1	Mn 257.610†	438.6	24.9	0.0335 ug/L	0.0335 ppb	18:44:20
1	Mo 202.031†	12.7	2.1	0.1798 ug/L	0.1798 ppb	18:44:20
1	Ni 231.604†	78.7	-7.1	-0.2191 ug/L	-0.2191 ppb	18:44:20
1	P 214.914†	190.6	12.9	9.3454 ug/L	9.3454 ppb	18:44:20
1	Pb 220.353†	-59.6	-11.4	-1.7151 ug/L	-1.7151 ppb	18:44:20
1	S 181.975 Axial†	28.5	0.3	0.5293 ug/L	0.5293 ppb	18:44:20
1	Sb 206.836†	33.5	5.9	2.3870 ug/L	2.3870 ppb	18:44:20
1	Se 196.026†	-23.4	-4.3	-3.4640 ug/L	-3.4640 ppb	18:44:20
1	Si 251.611†	515.5	26.9	0.9786 ug/L	0.9786 ppb	18:44:20
1	Sn 189.927†	3.6	-0.2	-0.0439 ug/L	-0.0439 ppb	18:44:20
1	Ti 334.940†	-1163.4	-85.3	-0.1405 ug/L	-0.1405 ppb	18:44:00
1	Tl 190.801†	-30.6	-5.6	-2.1285 ug/L	-2.1285 ppb	18:44:20
1	U 409.014†	-2232.8	-45.6	-1.3036 ug/L	-1.3036 ppb	18:44:00
1	V 292.402†	-1289.9	-32.7	-0.2517 ug/L	-0.2517 ppb	18:44:00
1	Zn 213.857†	935.6	39.3	0.4619 ug/L	0.4619 ppb	18:44:20
1	SiO2†	530.0	36.7	2.8585 ug/L	2.8585 ppb	18:45:31
2	Sc Radial	4517.0	4517.0	102 %		18:43:08
2	Y RADIAL	4920.6	4920.6	102.5 %		18:43:08
2	Al 396.153Radial†	-71.3	3.6	3.4763 ug/L	3.4763 ppb	18:43:28
2	Ca 317.933Radial†	26.5	4.8	8.7782 ug/L	8.7782 ppb	18:43:28
2	Fe 238.204 Radial†	8.4	0.8	8.4980 ug/L	8.4980 ppb	18:43:28
2	K 766.490 Radial†	2536.5	-133.9	-26.008 ug/L	-26.008 ppb	18:43:08
2	Mg 279.077 IEC†	0.6	-0.4	-17.746 ug/L	-17.746 ppb	18:43:28
2	Na 589.592 Radial†	-859.8	66.7	22.811 ug/L	22.811 ppb	18:43:08
2	Sr 421.552†	30.8	9.4	0.0728 ug/L	0.0728 ppb	18:43:08
2	Sc 361.383	809621.3	809621.3	97.884 %		18:44:25
2	Y 371.029	686577.0	686577.0	97.647 %		18:44:25
2	Ag 328.068†	150.6	-95.2	-0.4748 ug/L	-0.4748 ppb	18:44:25
2	As 188.979†	-24.4	-2.9	-1.5423 ug/L	-1.5423 ppb	18:44:45
2	B 249.677†	-253.8	-74.5	-2.0342 ug/L	-2.0342 ppb	18:44:45
2	Ba 233.527†	15.0	2.9	0.0261 ug/L	0.0261 ppb	18:44:45
2	Be 313.107†	-3910.6	-223.0	-0.0926 ug/L	-0.0926 ppb	18:44:25
2	Cd 226.502†	-158.0	-4.6	-0.0648 ug/L	-0.0648 ppb	18:44:45
2	Co 228.616†	-46.7	0.6	0.0164 ug/L	0.0164 ppb	18:44:45
2	Cr 267.716†	76.2	-3.4	-0.0445 ug/L	-0.0445 ppb	18:44:45
2	Cu 324.752†	5956.7	301.5	0.9692 ug/L	0.9692 ppb	18:44:25
2	Mn 257.610†	417.5	0.7	0.0025 ug/L	0.0025 ppb	18:44:45
2	Mo 202.031†	16.5	6.0	0.5126 ug/L	0.5126 ppb	18:44:45
2	Ni 231.604†	76.8	-9.4	-0.2920 ug/L	-0.2920 ppb	18:44:45

2	P 214.914†	177.0	-2.1	-1.6955 ug/L	-1.6955 ppb	18:44:45
2	Pb 220.353†	-50.6	-1.9	-0.2829 ug/L	-0.2829 ppb	18:44:45
2	S 181.975 Axial†	29.6	1.3	2.2357 ug/L	2.2357 ppb	18:44:45
2	Sb 206.836†	33.6	5.7	2.3552 ug/L	2.3552 ppb	18:44:45
2	Se 196.026†	-19.6	-0.2	-0.1516 ug/L	-0.1516 ppb	18:44:45
2	Si 251.611†	509.3	17.5	0.6331 ug/L	0.6331 ppb	18:44:45
2	Sn 189.927†	8.3	4.6	1.0028 ug/L	1.0028 ppb	18:44:45
2	Ti 334.940†	-1170.7	-85.9	-0.1456 ug/L	-0.1456 ppb	18:44:25
2	Tl 190.801†	-19.3	6.1	2.3026 ug/L	2.3026 ppb	18:44:45
2	U 409.014†	-2065.6	138.4	3.9596 ug/L	3.9596 ppb	18:44:25
2	V 292.402†	-1304.4	-39.9	-0.2933 ug/L	-0.2933 ppb	18:44:25
2	Zn 213.857†	934.4	32.5	0.3809 ug/L	0.3809 ppb	18:44:45
2	SiO2†	602.3	107.5	8.3662 ug/L	8.3662 ppb	18:45:51
3	Sc Radial	4484.3	4484.3	102 %		18:43:33
3	Y RADIAL	4903.4	4903.4	102.1 %		18:43:33
3	Al 396.153Radial†	-80.7	-6.1	-5.9494 ug/L	-5.9494 ppb	18:43:53
3	Ca 317.933Radial†	26.9	5.4	9.8248 ug/L	9.8248 ppb	18:43:53
3	Fe 238.204 Radial†	9.1	1.5	17.182 ug/L	17.182 ppb	18:43:53
3	K 766.490 Radial†	2665.9	11.6	2.2378 ug/L	2.2378 ppb	18:43:33
3	Mg 279.077 IEC†	1.6	0.5	19.965 ug/L	19.965 ppb	18:43:53
3	Na 589.592 Radial†	-862.5	57.9	19.809 ug/L	19.809 ppb	18:43:33
3	Sr 421.552†	37.1	15.9	0.1225 ug/L	0.1225 ppb	18:43:33
3	Sc 361.383	807794.1	807794.1	97.663 %		18:44:51
3	Y 371.029	685654.3	685654.3	97.516 %		18:44:51
3	Ag 328.068†	145.0	-100.6	-0.4950 ug/L	-0.4950 ppb	18:44:51
3	As 188.979†	-23.4	-1.9	-1.0290 ug/L	-1.0290 ppb	18:45:11
3	B 249.677†	-210.0	-30.2	-0.8279 ug/L	-0.8279 ppb	18:45:11
3	Ba 233.527†	20.0	8.1	0.0734 ug/L	0.0734 ppb	18:45:11
3	Be 313.107†	-3891.1	-212.1	-0.0878 ug/L	-0.0878 ppb	18:44:51
3	Cd 226.502†	-152.3	0.9	0.0104 ug/L	0.0104 ppb	18:45:11
3	Co 228.616†	-42.6	4.7	0.1187 ug/L	0.1187 ppb	18:45:11
3	Cr 267.716†	98.9	20.1	0.2607 ug/L	0.2607 ppb	18:45:11
3	Cu 324.752†	5795.6	150.3	0.4853 ug/L	0.4853 ppb	18:44:51
3	Mn 257.610†	424.5	8.9	0.0124 ug/L	0.0124 ppb	18:45:11
3	Mo 202.031†	8.6	-2.1	-0.1820 ug/L	-0.1820 ppb	18:45:11
3	Ni 231.604†	85.3	-0.6	-0.0183 ug/L	-0.0183 ppb	18:45:11
3	P 214.914†	183.7	5.2	3.6630 ug/L	3.6630 ppb	18:45:11
3	Pb 220.353†	-56.7	-8.3	-1.2434 ug/L	-1.2434 ppb	18:45:11
3	S 181.975 Axial†	29.4	1.2	2.0281 ug/L	2.0281 ppb	18:45:11
3	Sb 206.836†	32.1	4.3	1.7381 ug/L	1.7381 ppb	18:45:11
3	Se 196.026†	-21.9	-2.7	-2.1228 ug/L	-2.1228 ppb	18:45:11
3	Si 251.611†	495.5	4.6	0.1691 ug/L	0.1691 ppb	18:45:11
3	Sn 189.927†	7.4	3.7	0.8003 ug/L	0.8003 ppb	18:45:11
3	Ti 334.940†	-1090.9	-7.0	-0.0120 ug/L	-0.0120 ppb	18:44:51
3	Tl 190.801†	-45.8	-21.0	-7.9574 ug/L	-7.9574 ppb	18:45:11
3	U 409.014†	-2215.5	-19.9	-0.5712 ug/L	-0.5712 ppb	18:44:51
3	V 292.402†	-1293.4	-31.7	-0.2494 ug/L	-0.2494 ppb	18:44:51
3	Zn 213.857†	945.7	46.3	0.5402 ug/L	0.5402 ppb	18:45:11
3	SiO2†	518.6	23.2	1.8134 ug/L	1.8134 ppb	18:46:11

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Std.Dev.	RSD
Sc 361.383	807469.3	97.623 %		0.2819			0.29%
Sc Radial	4509.2	102 %		0.5			0.49%
Y 371.029	685154.1	97.445 %		0.2458			0.25%
Y RADIAL	4922.4	102.5 %		0.41			0.40%
Ag 328.068†	-100.6	-0.4990 ug/L		0.02638	-0.4990 ppb	0.02638	5.29%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	-0.4	-0.3616 ug/L		4.95051	-0.3616 ppb	4.95051	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-1.3	-0.6881 ug/L		1.06635	-0.6881 ppb	1.06635	154.97%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	-49.7	-1.3583 ug/L		0.61616	-1.3583 ppb	0.61616	45.36%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	3.8	0.0344 ug/L		0.03556	0.0344 ppb	0.03556	103.31%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	-208.4	-0.0864 ug/L		0.00689	-0.0864 ppb	0.00689	7.97%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	4.6	8.4339 ug/L		1.59133	8.4339 ppb	1.59133	18.87%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	-6.7	-0.0936 ug/L	0.12102	-0.0936 ppb	0.12102	129.28%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	6.2	0.1567 ug/L	0.16269	0.1567 ppb	0.16269	103.83%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	12.4	0.1599 ug/L	0.17708	0.1599 ppb	0.17708	110.71%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	199.3	0.6418 ug/L	0.28362	0.6418 ppb	0.28362	44.19%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	0.7	7.3731 ug/L	10.41652	7.3731 ppb	10.41652	141.28%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-87.3	-16.966 ug/L	16.6409	-16.966 ppb	16.6409	98.08%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-0.3	-13.556 ug/L	31.6343	-13.556 ppb	31.6343	233.37%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	11.5	0.0161 ug/L	0.01583	0.0161 ppb	0.01583	98.22%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	2.0	0.1701 ug/L	0.34741	0.1701 ppb	0.34741	204.22%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	75.5	25.832 ug/L	7.9757	25.832 ppb	7.9757	30.87%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-5.7	-0.1765 ug/L	0.14173	-0.1765 ppb	0.14173	80.32%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	5.3	3.7710 ug/L	5.52123	3.7710 ppb	5.52123	146.41%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-7.2	-1.0805 ug/L	0.72984	-1.0805 ppb	0.72984	67.55%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	0.9	1.5977 ug/L	0.93107	1.5977 ppb	0.93107	58.28%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	5.3	2.1601 ug/L	0.36580	2.1601 ppb	0.36580	16.93%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-2.4	-1.9128 ug/L	1.66617	-1.9128 ppb	1.66617	87.11%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	16.3	0.5936 ug/L	0.40620	0.5936 ppb	0.40620	68.43%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	2.7	0.5864 ug/L	0.55516	0.5864 ppb	0.55516	94.67%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	10.5	0.0812 ug/L	0.03779	0.0812 ppb	0.03779	46.51%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-59.4	-0.0994 ug/L	0.07570	-0.0994 ppb	0.07570	76.18%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-6.9	-2.5944 ug/L	5.14580	-2.5944 ppb	5.14580	198.34%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	24.3	0.6949 ug/L	2.85091	0.6949 ppb	2.85091	410.24%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-34.8	-0.2648 ug/L	0.02469	-0.2648 ppb	0.02469	9.32%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	39.4	0.4610 ug/L	0.07963	0.4610 ppb	0.07963	17.27%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	55.8	4.3460 ug/L	3.52059	4.3460 ppb	3.52059	81.01%	
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

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Analysis Begun

Start Time: 3/17/2010 19:00:47

Plasma On Time: 3/15/2010 06:51:19

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\031710.sif

Batch ID:

Results Data Set: 031710

Results Library: C:\pe\Optima3\Results\Results.mdb

=====

Sequence No.: 1
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:Autosampler Location: 1
Date Collected: 3/17/2010 19:00:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4421.3	4421.3	100 %		19:02:40
1	Y RADIAL	4777.9	4777.9	99.49 %		19:02:40
1	Al 396.153Radial†	5010.8	5078.8	4914.3 ug/L	4914.3 ppb	19:02:40
1	Ca 317.933Radial†	2739.4	2715.4	4983.8 ug/L	4983.8 ppb	19:03:00
1	Fe 238.204 Radial†	446.8	438.9	4914.2 ug/L	4914.2 ppb	19:03:00
1	K 766.490 Radial†	27939.8	25296.1	4903.8 ug/L	4903.8 ppb	19:02:40
1	Mg 279.077 IEC†	130.3	129.1	5137.6 ug/L	5137.6 ppb	19:03:00
1	Na 589.592 Radial†	25808.9	26688.8	9134.0 ug/L	9134.0 ppb	19:02:40
1	Sr 421.552†	62218.2	62131.2	480.46 ug/L	480.46 ppb	19:02:40
1	Sc 361.383	813472.5	813472.5	98.349 %		19:03:57
1	Y 371.029	681517.4	681517.4	96.928 %		19:03:57
1	Ag 328.068†	98849.3	100259.3	501.01 ug/L	501.01 ppb	19:04:02
1	As 188.979†	885.8	922.7	502.01 ug/L	502.01 ppb	19:04:22
1	B 249.677†	17544.5	18023.8	489.82 ug/L	489.82 ppb	19:04:02
1	Ba 233.527†	54094.2	54989.7	501.09 ug/L	501.09 ppb	19:04:02
1	Be 313.107†	1169193.9	1192590.1	494.44 ug/L	494.44 ppb	19:03:57
1	Cd 226.502†	35025.1	35769.8	499.06 ug/L	499.06 ppb	19:04:02
1	Co 228.616†	19881.8	20263.9	514.03 ug/L	514.03 ppb	19:04:02
1	Cr 267.716†	38126.5	38685.3	499.25 ug/L	499.25 ppb	19:04:02
1	Cu 324.752†	158964.9	155849.0	501.87 ug/L	501.87 ppb	19:04:02
1	Mn 257.610†	378509.7	384436.9	496.48 ug/L	496.48 ppb	19:03:57
1	Mo 202.031†	5680.4	5764.8	494.48 ug/L	494.48 ppb	19:04:22
1	Ni 231.604†	16323.7	16509.8	510.13 ug/L	510.13 ppb	19:04:02
1	P 214.914†	3534.4	3410.8	2391.7 ug/L	2391.7 ppb	19:04:22
1	Pb 220.353†	3215.6	3319.4	498.96 ug/L	498.96 ppb	19:04:22
1	S 181.975 Axial†	581.3	562.1	984.31 ug/L	984.31 ppb	19:04:22
1	Sb 206.836†	1221.1	1213.0	510.66 ug/L	510.66 ppb	19:04:22
1	Se 196.026†	588.7	618.4	511.27 ug/L	511.27 ppb	19:04:22
1	Si 251.611†	67758.4	68392.9	2489.6 ug/L	2489.6 ppb	19:04:02
1	Sn 189.927†	2213.4	2246.6	492.42 ug/L	492.42 ppb	19:04:22
1	Ti 334.940†	287052.2	292980.3	499.13 ug/L	499.13 ppb	19:04:02
1	Tl 190.801†	1257.3	1304.2	496.52 ug/L	496.52 ppb	19:04:22
1	U 409.014†	15094.3	17596.3	501.72 ug/L	501.72 ppb	19:04:02
1	V 292.402†	62437.9	64778.5	504.74 ug/L	504.74 ppb	19:04:02
1	Zn 213.857†	42731.8	42527.0	494.20 ug/L	494.20 ppb	19:04:02
1	SiO2†	65465.5	66056.5	5134.2 ug/L	5134.2 ppb	19:05:30
2	Sc Radial	4472.1	4472.1	101 %		19:03:05
2	Y RADIAL	4818.2	4818.2	100.3 %		19:03:05
2	Al 396.153Radial†	5095.0	5105.0	4939.8 ug/L	4939.8 ppb	19:03:05
2	Ca 317.933Radial†	2729.5	2674.4	4908.7 ug/L	4908.7 ppb	19:03:25
2	Fe 238.204 Radial†	445.5	432.6	4843.8 ug/L	4843.8 ppb	19:03:25
2	K 766.490 Radial†	28514.6	25546.1	4952.4 ug/L	4952.4 ppb	19:03:05
2	Mg 279.077 IEC†	131.5	128.8	5127.2 ug/L	5127.2 ppb	19:03:25
2	Na 589.592 Radial†	26223.0	26804.3	9173.5 ug/L	9173.5 ppb	19:03:05
2	Sr 421.552†	63168.5	62362.4	482.25 ug/L	482.25 ppb	19:03:05
2	Sc 361.383	824023.4	824023.4	99.625 %		19:04:28
2	Y 371.029	690213.2	690213.2	98.165 %		19:04:28

2	Ag 328.068†	98335.3	98456.5	492.01 ug/L	492.01 ppb	19:04:33
2	As 188.979†	895.1	920.6	500.77 ug/L	500.77 ppb	19:04:53
2	B 249.677†	17562.5	17813.4	484.11 ug/L	484.11 ppb	19:04:33
2	Ba 233.527†	54118.8	54310.2	494.90 ug/L	494.90 ppb	19:04:33
2	Be 313.107†	1185590.8	1193827.1	494.93 ug/L	494.93 ppb	19:04:28
2	Cd 226.502†	35082.1	35371.0	493.50 ug/L	493.50 ppb	19:04:33
2	Co 228.616†	19907.5	20030.8	508.13 ug/L	508.13 ppb	19:04:33
2	Cr 267.716†	38192.3	38254.9	493.69 ug/L	493.69 ppb	19:04:33
2	Cu 324.752†	157942.2	152752.9	491.90 ug/L	491.90 ppb	19:04:33
2	Mn 257.610†	383391.1	384408.9	496.44 ug/L	496.44 ppb	19:04:28
2	Mo 202.031†	5750.9	5761.7	494.20 ug/L	494.20 ppb	19:04:53
2	Ni 231.604†	16316.6	16290.1	503.34 ug/L	503.34 ppb	19:04:33
2	P 214.914†	3571.2	3401.7	2387.2 ug/L	2387.2 ppb	19:04:53
2	Pb 220.353†	3247.0	3309.0	497.42 ug/L	497.42 ppb	19:04:53
2	S 181.975 Axial†	597.2	570.5	998.97 ug/L	998.97 ppb	19:04:53
2	Sb 206.836†	1243.6	1219.7	513.38 ug/L	513.38 ppb	19:04:53
2	Se 196.026†	599.8	621.8	513.84 ug/L	513.84 ppb	19:04:53
2	Si 251.611†	67627.6	67379.4	2452.6 ug/L	2452.6 ppb	19:04:33
2	Sn 189.927†	2246.6	2251.1	493.40 ug/L	493.40 ppb	19:04:53
2	Ti 334.940†	285998.6	288185.5	490.96 ug/L	490.96 ppb	19:04:33
2	Tl 190.801†	1279.4	1310.0	498.69 ug/L	498.69 ppb	19:04:53
2	U 409.014†	14941.1	17246.0	491.72 ug/L	491.72 ppb	19:04:33
2	V 292.402†	62160.8	63687.6	496.35 ug/L	496.35 ppb	19:04:33
2	Zn 213.857†	42813.0	42052.2	488.69 ug/L	488.69 ppb	19:04:33
2	SiO2†	67111.6	66856.5	5196.6 ug/L	5196.6 ppb	19:05:35
3	Sc Radial	4432.7	4432.7	100 %		19:03:30
3	Y RADIAL	4792.9	4792.9	99.80 %		19:03:30
3	Al 396.153Radial†	5068.3	5123.1	4957.8 ug/L	4957.8 ppb	19:03:30
3	Ca 317.933Radial†	2718.3	2687.3	4932.4 ug/L	4932.4 ppb	19:03:50
3	Fe 238.204 Radial†	448.2	439.2	4917.0 ug/L	4917.0 ppb	19:03:50
3	K 766.490 Radial†	28130.2	25413.9	4926.7 ug/L	4926.7 ppb	19:03:30
3	Mg 279.077 IEC†	130.1	128.6	5119.3 ug/L	5119.3 ppb	19:03:50
3	Na 589.592 Radial†	26010.1	26822.8	9179.9 ug/L	9179.9 ppb	19:03:30
3	Sr 421.552†	62790.7	62541.6	483.63 ug/L	483.63 ppb	19:03:30
3	Sc 361.383	822015.4	822015.4	99.382 %		19:04:59
3	Y 371.029	687349.5	687349.5	97.757 %		19:04:59
3	Ag 328.068†	96364.2	96714.2	483.35 ug/L	483.35 ppb	19:05:04
3	As 188.979†	883.3	910.8	495.45 ug/L	495.45 ppb	19:05:25
3	B 249.677†	17138.0	17429.3	473.64 ug/L	473.64 ppb	19:05:04
3	Ba 233.527†	53021.7	53338.9	486.05 ug/L	486.05 ppb	19:05:04
3	Be 313.107†	1182359.9	1193483.1	494.77 ug/L	494.77 ppb	19:04:59
3	Cd 226.502†	34384.0	34754.6	484.88 ug/L	484.88 ppb	19:05:04
3	Co 228.616†	19502.8	19672.4	499.04 ug/L	499.04 ppb	19:05:04
3	Cr 267.716†	37312.1	37462.9	483.49 ug/L	483.49 ppb	19:05:04
3	Cu 324.752†	154487.7	149664.2	481.96 ug/L	481.96 ppb	19:05:04
3	Mn 257.610†	383634.9	385594.3	497.98 ug/L	497.98 ppb	19:04:59
3	Mo 202.031†	5655.1	5679.4	487.16 ug/L	487.16 ppb	19:05:25
3	Ni 231.604†	16039.0	16050.8	495.95 ug/L	495.95 ppb	19:05:04
3	P 214.914†	3522.8	3361.8	2359.9 ug/L	2359.9 ppb	19:05:25
3	Pb 220.353†	3195.1	3264.8	490.78 ug/L	490.78 ppb	19:05:25
3	S 181.975 Axial†	577.7	552.3	967.13 ug/L	967.13 ppb	19:05:25
3	Sb 206.836†	1222.8	1201.9	505.91 ug/L	505.91 ppb	19:05:25
3	Se 196.026†	591.8	615.3	508.77 ug/L	508.77 ppb	19:05:25
3	Si 251.611†	66302.6	66212.0	2410.1 ug/L	2410.1 ppb	19:05:04
3	Sn 189.927†	2219.6	2229.4	488.65 ug/L	488.65 ppb	19:05:25
3	Ti 334.940†	280022.8	282873.9	481.92 ug/L	481.92 ppb	19:05:04
3	Tl 190.801†	1255.6	1289.3	490.83 ug/L	490.83 ppb	19:05:25
3	U 409.014†	14699.3	17039.4	485.83 ug/L	485.83 ppb	19:05:04
3	V 292.402†	60858.7	62529.7	487.34 ug/L	487.34 ppb	19:05:04
3	Zn 213.857†	41966.2	41305.1	479.98 ug/L	479.98 ppb	19:05:04
3	SiO2†	66711.7	66618.7	5178.2 ug/L	5178.2 ppb	19:05:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	819837.1	99.119 %	0.6774			0.68%
Sc Radial	4442.0	101 %	0.6			0.60%
Y 371.029	686360.0	97.617 %	0.6303			0.65%
Y RADIAL	4796.3	99.88 %	0.424			0.42%
Ag 328.068†	98476.7	492.12 ug/L	8.832	492.12 ppb	8.832	1.79%

QC value within limits for Ag 328.068 Recovery = 98.42%							
Al 396.153Radial†	5102.3	4937.3 ug/L	21.86	4937.3 ppb	21.86	0.44%	
QC value within limits for Al 396.153Radial Recovery = 98.75%							
As 188.979†	918.1	499.41 ug/L	3.483	499.41 ppb	3.483	0.70%	
QC value within limits for As 188.979 Recovery = 99.88%							
B 249.677†	17755.5	482.52 ug/L	8.210	482.52 ppb	8.210	1.70%	
QC value within limits for B 249.677 Recovery = 96.50%							
Ba 233.527†	54212.9	494.01 ug/L	7.560	494.01 ppb	7.560	1.53%	
QC value within limits for Ba 233.527 Recovery = 98.80%							
Be 313.107†	1193300.1	494.71 ug/L	0.251	494.71 ppb	0.251	0.05%	
QC value within limits for Be 313.107 Recovery = 98.94%							
Ca 317.933Radial†	2692.4	4941.6 ug/L	38.43	4941.6 ppb	38.43	0.78%	
QC value within limits for Ca 317.933Radial Recovery = 98.83%							
Cd 226.502†	35298.5	492.48 ug/L	7.144	492.48 ppb	7.144	1.45%	
QC value within limits for Cd 226.502 Recovery = 98.50%							
Co 228.616†	19989.0	507.07 ug/L	7.548	507.07 ppb	7.548	1.49%	
QC value within limits for Co 228.616 Recovery = 101.41%							
Cr 267.716†	38134.4	492.14 ug/L	7.993	492.14 ppb	7.993	1.62%	
QC value within limits for Cr 267.716 Recovery = 98.43%							
Cu 324.752†	152755.4	491.91 ug/L	9.954	491.91 ppb	9.954	2.02%	
QC value within limits for Cu 324.752 Recovery = 98.38%							
Fe 238.204 Radial†	436.9	4891.6 ug/L	41.50	4891.6 ppb	41.50	0.85%	
QC value within limits for Fe 238.204 Radial Recovery = 97.83%							
K 766.490 Radial†	25418.7	4927.6 ug/L	24.28	4927.6 ppb	24.28	0.49%	
QC value within limits for K 766.490 Radial Recovery = 98.55%							
Mg 279.077 IEC†	128.8	5128.0 ug/L	9.18	5128.0 ppb	9.18	0.18%	
QC value within limits for Mg 279.077 IEC Recovery = 102.56%							
Mn 257.610†	384813.4	496.97 ug/L	0.876	496.97 ppb	0.876	0.18%	
QC value within limits for Mn 257.610 Recovery = 99.39%							
Mo 202.031†	5735.3	491.95 ug/L	4.152	491.95 ppb	4.152	0.84%	
QC value within limits for Mo 202.031 Recovery = 98.39%							
Na 589.592 Radial†	26771.9	9162.5 ug/L	24.86	9162.5 ppb	24.86	0.27%	
QC value within limits for Na 589.592 Radial Recovery = 91.62%							
Ni 231.604†	16283.6	503.14 ug/L	7.093	503.14 ppb	7.093	1.41%	
QC value within limits for Ni 231.604 Recovery = 100.63%							
P 214.914†	3391.4	2379.6 ug/L	17.21	2379.6 ppb	17.21	0.72%	
QC value within limits for P 214.914 Recovery = 95.18%							
Pb 220.353†	3297.8	495.72 ug/L	4.347	495.72 ppb	4.347	0.88%	
QC value within limits for Pb 220.353 Recovery = 99.14%							
S 181.975 Axial†	561.7	983.47 ug/L	15.937	983.47 ppb	15.937	1.62%	
QC value within limits for S 181.975 Axial Recovery = 98.35%							
Sb 206.836†	1211.5	509.98 ug/L	3.780	509.98 ppb	3.780	0.74%	
QC value within limits for Sb 206.836 Recovery = 102.00%							
Se 196.026†	618.5	511.29 ug/L	2.536	511.29 ppb	2.536	0.50%	
QC value within limits for Se 196.026 Recovery = 102.26%							
Si 251.611†	67328.1	2450.7 ug/L	39.78	2450.7 ppb	39.78	1.62%	
QC value within limits for Si 251.611 Recovery = 98.03%							
Sn 189.927†	2242.4	491.49 ug/L	2.507	491.49 ppb	2.507	0.51%	
QC value within limits for Sn 189.927 Recovery = 98.30%							
Sr 421.552†	62345.1	482.11 ug/L	1.591	482.11 ppb	1.591	0.33%	
QC value within limits for Sr 421.552 Recovery = 96.42%							
Ti 334.940†	288013.2	490.67 ug/L	8.611	490.67 ppb	8.611	1.76%	
QC value within limits for Ti 334.940 Recovery = 98.13%							
Tl 190.801†	1301.2	495.35 ug/L	4.061	495.35 ppb	4.061	0.82%	
QC value within limits for Tl 190.801 Recovery = 99.07%							
U 409.014†	17293.9	493.09 ug/L	8.037	493.09 ppb	8.037	1.63%	
QC value within limits for U 409.014 Recovery = 98.62%							
V 292.402†	63665.3	496.15 ug/L	8.703	496.15 ppb	8.703	1.75%	
QC value within limits for V 292.402 Recovery = 99.23%							
Zn 213.857†	41961.4	487.62 ug/L	7.169	487.62 ppb	7.169	1.47%	
QC value within limits for Zn 213.857 Recovery = 97.52%							
SiO2†	66510.6	5169.7 ug/L	32.04	5169.7 ppb	32.04	0.62%	
QC value within limits for SiO2 Recovery = 96.67%							
All analyte(s) passed QC.							

Sequence No.: 2

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 3/17/2010 19:07:50

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	4461.2	4461.2	101 %		19:09:42
1	Y RADIAL	4841.9	4841.9	100.8 %		19:09:42
1	Al 396.153Radial†	-79.3	-5.1	-4.9898 ug/L	-4.9898 ppb	19:10:02
1	Ca 317.933Radial†	15.6	-5.7	-10.398 ug/L	-10.398 ppb	19:10:02
1	Fe 238.204 Radial†	8.5	1.0	11.453 ug/L	11.453 ppb	19:10:02
1	K 766.490 Radial†	2681.7	40.9	7.9284 ug/L	7.9284 ppb	19:09:42
1	Mg 279.077 IEC†	3.9	2.8	110.93 ug/L	110.93 ppb	19:10:02
1	Na 589.592 Radial†	-870.1	46.0	15.727 ug/L	15.727 ppb	19:09:42
1	Sr 421.552†	30.3	9.3	0.0721 ug/L	0.0721 ppb	19:09:42
1	Sc 361.383	809302.8	809302.8	97.845 %		19:10:59
1	Y 371.029	687415.3	687415.3	97.767 %		19:10:59
1	Ag 328.068†	167.9	-77.5	-0.3855 ug/L	-0.3855 ppb	19:10:59
1	As 188.979†	-29.3	-7.9	-4.2638 ug/L	-4.2638 ppb	19:11:19
1	B 249.677†	-252.9	-73.6	-2.0128 ug/L	-2.0128 ppb	19:11:19
1	Ba 233.527†	6.4	-5.8	-0.0540 ug/L	-0.0540 ppb	19:11:19
1	Be 313.107†	-3831.7	-144.0	-0.0599 ug/L	-0.0599 ppb	19:10:59
1	Cd 226.502†	-169.6	-16.6	-0.2316 ug/L	-0.2316 ppb	19:11:19
1	Co 228.616†	-43.6	3.7	0.0950 ug/L	0.0950 ppb	19:11:19
1	Cr 267.716†	75.2	-4.3	-0.0561 ug/L	-0.0561 ppb	19:11:19
1	Cu 324.752†	5718.9	60.9	0.1954 ug/L	0.1954 ppb	19:10:59
1	Mn 257.610†	409.4	-7.4	-0.0130 ug/L	-0.0130 ppb	19:11:19
1	Mo 202.031†	9.6	-1.1	-0.0947 ug/L	-0.0947 ppb	19:11:19
1	Ni 231.604†	93.7	7.8	0.2422 ug/L	0.2422 ppb	19:11:19
1	P 214.914†	195.5	16.9	12.268 ug/L	12.268 ppb	19:11:19
1	Pb 220.353†	-40.8	8.1	1.2102 ug/L	1.2102 ppb	19:11:19
1	S 181.975 Axial†	30.8	2.6	4.4758 ug/L	4.4758 ppb	19:11:19
1	Sb 206.836†	32.5	4.6	1.8672 ug/L	1.8672 ppb	19:11:19
1	Se 196.026†	-19.6	-0.2	-0.1680 ug/L	-0.1680 ppb	19:11:19
1	Si 251.611†	495.6	3.7	0.1355 ug/L	0.1355 ppb	19:11:19
1	Sn 189.927†	4.8	1.0	0.2074 ug/L	0.2074 ppb	19:11:19
1	Ti 334.940†	-1169.1	-84.8	-0.1561 ug/L	-0.1561 ppb	19:10:59
1	Tl 190.801†	-39.0	-14.0	-5.2907 ug/L	-5.2907 ppb	19:11:19
1	U 409.014†	-2116.0	86.1	2.4620 ug/L	2.4620 ppb	19:10:59
1	V 292.402†	-1341.9	-78.8	-0.6018 ug/L	-0.6018 ppb	19:10:59
1	Zn 213.857†	1464.6	574.8	6.7396 ug/L	6.7396 ppb	19:11:19
1	SiO2†	509.0	12.5	0.9730 ug/L	0.9730 ppb	19:12:30
2	Sc Radial	4440.8	4440.8	101 %		19:10:07
2	Y RADIAL	4855.8	4855.8	101.1 %		19:10:07
2	Al 396.153Radial†	-73.0	0.7	0.6605 ug/L	0.6605 ppb	19:10:27
2	Ca 317.933Radial†	18.9	-2.3	-4.1515 ug/L	-4.1515 ppb	19:10:27
2	Fe 238.204 Radial†	6.7	-0.7	-8.2659 ug/L	-8.2659 ppb	19:10:27
2	K 766.490 Radial†	2589.1	-39.0	-7.5808 ug/L	-7.5808 ppb	19:10:07
2	Mg 279.077 IEC†	3.7	2.7	106.60 ug/L	106.60 ppb	19:10:27
2	Na 589.592 Radial†	-841.1	70.8	24.233 ug/L	24.233 ppb	19:10:07
2	Sr 421.552†	40.1	19.2	0.1482 ug/L	0.1482 ppb	19:10:07
2	Sc 361.383	805493.2	805493.2	97.385 %		19:11:24
2	Y 371.029	683656.5	683656.5	97.232 %		19:11:24
2	Ag 328.068†	100.8	-145.6	-0.7275 ug/L	-0.7275 ppb	19:11:24
2	As 188.979†	-20.3	1.2	0.6512 ug/L	0.6512 ppb	19:11:44
2	B 249.677†	-286.8	-109.7	-2.9943 ug/L	-2.9943 ppb	19:11:44
2	Ba 233.527†	3.0	-9.3	-0.0852 ug/L	-0.0852 ppb	19:11:44
2	Be 313.107†	-3862.3	-194.0	-0.0803 ug/L	-0.0803 ppb	19:11:24
2	Cd 226.502†	-178.7	-26.7	-0.3711 ug/L	-0.3711 ppb	19:11:44
2	Co 228.616†	-48.9	-1.9	-0.0481 ug/L	-0.0481 ppb	19:11:44
2	Cr 267.716†	80.3	1.3	0.0146 ug/L	0.0146 ppb	19:11:44
2	Cu 324.752†	5784.3	155.6	0.4999 ug/L	0.4999 ppb	19:11:24
2	Mn 257.610†	414.6	-0.0	-0.0052 ug/L	-0.0052 ppb	19:11:44
2	Mo 202.031†	12.9	2.3	0.1966 ug/L	0.1966 ppb	19:11:44
2	Ni 231.604†	86.9	1.3	0.0409 ug/L	0.0409 ppb	19:11:44

2	P 214.914†	202.8	25.3	18.404 ug/L	18.404 ppb	19:11:44
2	Pb 220.353†	-35.6	13.2	1.9868 ug/L	1.9868 ppb	19:11:44
2	S 181.975 Axial†	32.5	4.4	7.7167 ug/L	7.7167 ppb	19:11:44
2	Sb 206.836†	37.7	10.2	4.1345 ug/L	4.1345 ppb	19:11:44
2	Se 196.026†	-22.4	-3.3	-2.6340 ug/L	-2.6340 ppb	19:11:44
2	Si 251.611†	488.0	-1.8	-0.0663 ug/L	-0.0663 ppb	19:11:44
2	Sn 189.927†	3.7	-0.2	-0.0401 ug/L	-0.0401 ppb	19:11:44
2	Ti 334.940†	-1087.6	-6.7	-0.0213 ug/L	-0.0213 ppb	19:11:24
2	Tl 190.801†	-32.8	-7.9	-2.9811 ug/L	-2.9811 ppb	19:11:44
2	U 409.014†	-2140.7	50.4	1.4438 ug/L	1.4438 ppb	19:11:24
2	V 292.402†	-1273.2	-14.7	-0.1040 ug/L	-0.1040 ppb	19:11:24
2	Zn 213.857†	1457.5	574.6	6.7403 ug/L	6.7403 ppb	19:11:44
2	SiO2†	509.2	15.1	1.1682 ug/L	1.1682 ppb	19:12:50
3	Sc Radial	4456.8	4456.8	101 %		19:10:32
3	Y RADIAL	4870.4	4870.4	101.4 %		19:10:32
3	Al 396.153Radial†	-78.9	-4.8	-4.6643 ug/L	-4.6643 ppb	19:10:52
3	Ca 317.933Radial†	19.7	-1.6	-2.9548 ug/L	-2.9548 ppb	19:10:52
3	Fe 238.204 Radial†	8.3	0.8	8.4759 ug/L	8.4759 ppb	19:10:52
3	K 766.490 Radial†	2558.4	-78.7	-15.279 ug/L	-15.279 ppb	19:10:32
3	Mg 279.077 IEC†	0.3	-0.8	-30.130 ug/L	-30.130 ppb	19:10:52
3	Na 589.592 Radial†	-876.8	38.4	13.153 ug/L	13.153 ppb	19:10:32
3	Sr 421.552†	0.5	-20.3	-0.1566 ug/L	-0.1566 ppb	19:10:32
3	Sc 361.383	815908.0	815908.0	98.644 %		19:11:49
3	Y 371.029	691864.0	691864.0	98.399 %		19:11:49
3	Ag 328.068†	242.7	-3.0	-0.0200 ug/L	-0.0200 ppb	19:11:49
3	As 188.979†	-22.7	-0.9	-0.4868 ug/L	-0.4868 ppb	19:12:09
3	B 249.677†	-263.9	-82.7	-2.2601 ug/L	-2.2601 ppb	19:12:09
3	Ba 233.527†	13.6	1.4	0.0129 ug/L	0.0129 ppb	19:12:09
3	Be 313.107†	-3880.8	-162.0	-0.0671 ug/L	-0.0671 ppb	19:11:49
3	Cd 226.502†	-153.3	1.4	0.0202 ug/L	0.0202 ppb	19:12:09
3	Co 228.616†	-50.6	-2.9	-0.0755 ug/L	-0.0755 ppb	19:12:09
3	Cr 267.716†	93.8	13.9	0.1762 ug/L	0.1762 ppb	19:12:09
3	Cu 324.752†	5789.0	84.6	0.2678 ug/L	0.2678 ppb	19:11:49
3	Mn 257.610†	393.5	-26.9	-0.0326 ug/L	-0.0326 ppb	19:12:09
3	Mo 202.031†	2.9	-8.0	-0.6808 ug/L	-0.6808 ppb	19:12:09
3	Ni 231.604†	81.6	-5.2	-0.1608 ug/L	-0.1608 ppb	19:12:09
3	P 214.914†	188.2	7.9	5.6925 ug/L	5.6925 ppb	19:12:09
3	Pb 220.353†	-39.2	10.0	1.5005 ug/L	1.5005 ppb	19:12:09
3	S 181.975 Axial†	29.1	0.5	0.9557 ug/L	0.9557 ppb	19:12:09
3	Sb 206.836†	24.9	-3.4	-1.3667 ug/L	-1.3667 ppb	19:12:09
3	Se 196.026†	-12.1	7.5	5.9823 ug/L	5.9823 ppb	19:12:09
3	Si 251.611†	490.8	-5.3	-0.1845 ug/L	-0.1845 ppb	19:12:09
3	Sn 189.927†	8.7	4.9	1.0654 ug/L	1.0654 ppb	19:12:09
3	Ti 334.940†	-1126.2	-31.7	-0.0561 ug/L	-0.0561 ppb	19:11:49
3	Tl 190.801†	-32.4	-7.0	-2.6563 ug/L	-2.6563 ppb	19:12:09
3	U 409.014†	-1893.3	329.3	9.4204 ug/L	9.4204 ppb	19:11:49
3	V 292.402†	-1274.7	0.5	0.0103 ug/L	0.0103 ppb	19:11:49
3	Zn 213.857†	1458.8	556.9	6.5317 ug/L	6.5317 ppb	19:12:09
3	SiO2†	514.5	13.7	1.0887 ug/L	1.0887 ppb	19:13:10

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	810234.6	97.958 %	0.6371			0.65%
Sc Radial	4453.0	101 %	0.2			0.24%
Y 371.029	687645.3	97.799 %	0.5843			0.60%
Y RADIAL	4856.0	101.1 %	0.30			0.29%
Ag 328.068†	-75.4	-0.3777 ug/L	0.35379	-0.3777 ppb	0.35379	93.67%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-3.1	-2.9979 ug/L	3.17238	-2.9979 ppb	3.17238	105.82%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-2.5	-1.3665 ug/L	2.57285	-1.3665 ppb	2.57285	188.29%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-88.7	-2.4224 ug/L	0.51048	-2.4224 ppb	0.51048	21.07%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-4.6	-0.0421 ug/L	0.05014	-0.0421 ppb	0.05014	119.05%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-166.6	-0.0691 ug/L	0.01032	-0.0691 ppb	0.01032	14.94%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-3.2	-5.8349 ug/L	3.99707	-5.8349 ppb	3.99707	68.50%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd	226.502†	-13.9	-0.1941 ug/L	0.19832	-0.1941 ppb	0.19832 102.15%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co	228.616†	-0.4	-0.0095 ug/L	0.09157	-0.0095 ppb	0.09157 960.01%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr	267.716†	3.6	0.0449 ug/L	0.11908	0.0449 ppb	0.11908 265.10%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu	324.752†	100.4	0.3210 ug/L	0.15909	0.3210 ppb	0.15909 49.56%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe	238.204 Radial†	0.3	3.8875 ug/L	10.62990	3.8875 ppb	10.62990 273.44%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K	766.490 Radial†	-25.6	-4.9772 ug/L	11.82085	-4.9772 ppb	11.82085 237.50%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg	279.077 IEC†	1.6	62.466 ug/L	80.2198	62.466 ppb	80.2198 128.42%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn	257.610†	-11.4	-0.0169 ug/L	0.01411	-0.0169 ppb	0.01411 83.29%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo	202.031†	-2.3	-0.1930 ug/L	0.44685	-0.1930 ppb	0.44685 231.54%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na	589.592 Radial†	51.7	17.704 ug/L	5.7986	17.704 ppb	5.7986 32.75%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni	231.604†	1.3	0.0408 ug/L	0.20152	0.0408 ppb	0.20152 494.18%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P	214.914†	16.7	12.122 ug/L	6.3570	12.122 ppb	6.3570 52.44%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb	220.353†	10.5	1.5659 ug/L	0.39241	1.5659 ppb	0.39241 25.06%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S	181.975 Axial†	2.5	4.3827 ug/L	3.38145	4.3827 ppb	3.38145 77.15%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb	206.836†	3.8	1.5450 ug/L	2.76473	1.5450 ppb	2.76473 178.95%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se	196.026†	1.3	1.0601 ug/L	4.43754	1.0601 ppb	4.43754 418.60%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si	251.611†	-1.1	-0.0384 ug/L	0.16180	-0.0384 ppb	0.16180 420.90%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn	189.927†	1.9	0.4109 ug/L	0.58014	0.4109 ppb	0.58014 141.19%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr	421.552†	2.7	0.0212 ug/L	0.15865	0.0212 ppb	0.15865 747.03%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti	334.940†	-41.1	-0.0778 ug/L	0.06995	-0.0778 ppb	0.06995 89.87%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl	190.801†	-9.6	-3.6427 ug/L	1.43639	-3.6427 ppb	1.43639 39.43%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U	409.014†	155.3	4.4420 ug/L	4.34132	4.4420 ppb	4.34132 97.73%
QC value within limits for U 409.014 Recovery = Not calculated						
V	292.402†	-31.0	-0.2318 ug/L	0.32545	-0.2318 ppb	0.32545 140.39%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn	213.857†	568.8	6.6705 ug/L	0.12021	6.6705 ppb	0.12021 1.80%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†		13.7	1.0766 ug/L	0.09815	1.0766 ppb	0.09815 9.12%
QC value within limits for SiO2 Recovery = Not calculated						
All analyte(s) passed QC.						

Sequence No.: 9

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/17/2010 20:08:45

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	4296.2	4296.2	97.3 %		20:10:58
1	Y RADIAL	4771.4	4771.4	99.36 %		20:10:38
1	Al 396.153Radial†	4996.9	5210.2	5042.2 ug/L	5042.2 ppb	20:10:38
1	Ca 317.933Radial†	2725.0	2780.2	5102.9 ug/L	5102.9 ppb	20:10:58
1	Fe 238.204 Radial†	453.1	458.3	5130.9 ug/L	5130.9 ppb	20:10:58
1	K 766.490 Radial†	27918.1	26085.9	5056.7 ug/L	5056.7 ppb	20:10:38
1	Mg 279.077 IEC†	127.2	129.7	5162.3 ug/L	5162.3 ppb	20:10:58
1	Na 589.592 Radial†	28113.0	29807.6	10201 ug/L	10201 ppb	20:10:38
1	Sr 421.552†	64433.2	66216.8	512.06 ug/L	512.06 ppb	20:10:38
1	Sc 361.383	820754.9	820754.9	99.230 %		20:11:55
1	Y 371.029	689188.8	689188.8	98.019 %		20:11:55
1	Ag 328.068†	97240.5	97746.3	488.55 ug/L	488.55 ppb	20:12:00
1	As 188.979†	879.6	908.6	494.30 ug/L	494.30 ppb	20:12:20
1	B 249.677†	17172.6	17490.7	475.27 ug/L	475.27 ppb	20:12:00
1	Ba 233.527†	53141.6	53541.7	487.91 ug/L	487.91 ppb	20:12:00
1	Be 313.107†	1178976.2	1191900.3	494.12 ug/L	494.12 ppb	20:11:55
1	Cd 226.502†	34460.4	34884.7	486.68 ug/L	486.68 ppb	20:12:00
1	Co 228.616†	19529.2	19729.1	500.48 ug/L	500.48 ppb	20:12:00
1	Cr 267.716†	37516.6	37726.6	486.91 ug/L	486.91 ppb	20:12:00
1	Cu 324.752†	155775.0	151200.3	486.92 ug/L	486.92 ppb	20:12:00
1	Mn 257.610†	380334.1	382860.8	494.47 ug/L	494.47 ppb	20:11:55
1	Mo 202.031†	5677.4	5710.6	489.85 ug/L	489.85 ppb	20:12:20
1	Ni 231.604†	16038.7	16075.2	496.70 ug/L	496.70 ppb	20:12:00
1	P 214.914†	3507.3	3351.6	2351.3 ug/L	2351.3 ppb	20:12:20
1	Pb 220.353†	3196.8	3271.4	491.76 ug/L	491.76 ppb	20:12:20
1	S 181.975 Axial†	587.0	562.6	985.13 ug/L	985.13 ppb	20:12:20
1	Sb 206.836†	1229.6	1210.6	509.48 ug/L	509.48 ppb	20:12:20
1	Se 196.026†	585.5	609.8	505.09 ug/L	505.09 ppb	20:12:20
1	Si 251.611†	66528.5	66542.1	2422.1 ug/L	2422.1 ppb	20:12:00
1	Sn 189.927†	2205.6	2218.7	486.33 ug/L	486.33 ppb	20:12:20
1	Ti 334.940†	281524.0	284819.5	485.25 ug/L	485.25 ppb	20:12:00
1	Tl 190.801†	1268.0	1303.7	496.28 ug/L	496.28 ppb	20:12:20
1	U 409.014†	14815.1	17178.7	489.78 ug/L	489.78 ppb	20:12:00
1	V 292.402†	61364.1	63133.2	491.99 ug/L	491.99 ppb	20:12:00
1	Zn 213.857†	42038.0	41442.3	481.55 ug/L	481.55 ppb	20:12:00
1	SiO2†	65557.4	65558.5	5095.6 ug/L	5095.6 ppb	20:13:28
2	Sc Radial	4289.6	4289.6	97.1 %		20:11:23
2	Y RADIAL	4758.1	4758.1	99.08 %		20:11:03
2	Al 396.153Radial†	4935.3	5154.6	4988.3 ug/L	4988.3 ppb	20:11:03
2	Ca 317.933Radial†	2723.5	2783.0	5108.0 ug/L	5108.0 ppb	20:11:23
2	Fe 238.204 Radial†	458.0	464.2	5195.6 ug/L	5195.6 ppb	20:11:23
2	K 766.490 Radial†	27938.9	26151.7	5069.4 ug/L	5069.4 ppb	20:11:03
2	Mg 279.077 IEC†	130.1	133.0	5291.7 ug/L	5291.7 ppb	20:11:23
2	Na 589.592 Radial†	28068.9	29806.8	10201 ug/L	10201 ppb	20:11:03
2	Sr 421.552†	64418.6	66304.1	512.73 ug/L	512.73 ppb	20:11:03
2	Sc 361.383	822235.3	822235.3	99.409 %		20:12:26
2	Y 371.029	690774.7	690774.7	98.245 %		20:12:26
2	Ag 328.068†	96482.0	96806.7	483.89 ug/L	483.89 ppb	20:12:31
2	As 188.979†	887.6	915.0	497.75 ug/L	497.75 ppb	20:12:51
2	B 249.677†	17072.9	17359.3	471.69 ug/L	471.69 ppb	20:12:31
2	Ba 233.527†	52812.1	53113.8	484.01 ug/L	484.01 ppb	20:12:31
2	Be 313.107†	1178857.9	1189642.0	493.18 ug/L	493.18 ppb	20:12:26
2	Cd 226.502†	34174.4	34534.5	481.78 ug/L	481.78 ppb	20:12:31
2	Co 228.616†	19290.4	19453.4	493.49 ug/L	493.49 ppb	20:12:31
2	Cr 267.716†	37325.9	37466.8	483.57 ug/L	483.57 ppb	20:12:31
2	Cu 324.752†	154405.6	149540.1	481.58 ug/L	481.58 ppb	20:12:31
2	Mn 257.610†	379561.1	381393.0	492.58 ug/L	492.58 ppb	20:12:26
2	Mo 202.031†	5672.2	5695.1	488.52 ug/L	488.52 ppb	20:12:51
2	Ni 231.604†	15950.1	15957.0	493.05 ug/L	493.05 ppb	20:12:31

2	P 214.914†	3515.3	3353.3	2353.5 ug/L	2353.5 ppb	20:12:51
2	Pb 220.353†	3191.3	3260.1	490.05 ug/L	490.05 ppb	20:12:51
2	S 181.975 Axial†	589.6	564.1	987.79 ug/L	987.79 ppb	20:12:51
2	Sb 206.836†	1208.1	1186.7	499.66 ug/L	499.66 ppb	20:12:51
2	Se 196.026†	578.6	601.8	498.85 ug/L	498.85 ppb	20:12:51
2	Si 251.611†	65954.4	65843.9	2396.6 ug/L	2396.6 ppb	20:12:31
2	Sn 189.927†	2184.6	2193.7	480.83 ug/L	480.83 ppb	20:12:51
2	Ti 334.940†	279035.5	281805.3	480.10 ug/L	480.10 ppb	20:12:31
2	Tl 190.801†	1251.8	1285.0	489.21 ug/L	489.21 ppb	20:12:51
2	U 409.014†	14621.3	16956.9	483.44 ug/L	483.44 ppb	20:12:31
2	V 292.402†	60877.0	62531.8	487.34 ug/L	487.34 ppb	20:12:31
2	Zn 213.857†	41776.6	41103.0	477.59 ug/L	477.59 ppb	20:12:31
2	SiO2†	67841.8	67737.5	5265.4 ug/L	5265.4 ppb	20:13:33
3	Sc Radial	4303.9	4303.9	97.4 %		20:11:48
3	Y RADIAL	4805.4	4805.4	100.1 %		20:11:28
3	Al 396.153Radial†	5029.2	5234.2	5065.7 ug/L	5065.7 ppb	20:11:28
3	Ca 317.933Radial†	2737.3	2787.8	5116.8 ug/L	5116.8 ppb	20:11:48
3	Fe 238.204 Radial†	463.7	468.4	5243.4 ug/L	5243.4 ppb	20:11:48
3	K 766.490 Radial†	28253.0	26378.7	5113.5 ug/L	5113.5 ppb	20:11:28
3	Mg 279.077 IEC†	130.6	133.0	5293.8 ug/L	5293.8 ppb	20:11:48
3	Na 589.592 Radial†	28366.7	30016.7	10273 ug/L	10273 ppb	20:11:28
3	Sr 421.552†	65100.8	66784.4	516.45 ug/L	516.45 ppb	20:11:28
3	Sc 361.383	822659.4	822659.4	99.460 %		20:12:57
3	Y 371.029	692186.2	692186.2	98.445 %		20:12:57
3	Ag 328.068†	97630.3	97911.3	489.41 ug/L	489.41 ppb	20:13:02
3	As 188.979†	878.0	904.8	492.31 ug/L	492.31 ppb	20:13:22
3	B 249.677†	17304.9	17583.6	477.80 ug/L	477.80 ppb	20:13:02
3	Ba 233.527†	53416.1	53693.7	489.30 ug/L	489.30 ppb	20:13:02
3	Be 313.107†	1182130.2	1192320.9	494.29 ug/L	494.29 ppb	20:12:57
3	Cd 226.502†	34521.5	34865.7	486.40 ug/L	486.40 ppb	20:13:02
3	Co 228.616†	19497.1	19651.3	498.50 ug/L	498.50 ppb	20:13:02
3	Cr 267.716†	37720.0	37843.6	488.43 ug/L	488.43 ppb	20:13:02
3	Cu 324.752†	156395.8	151461.0	487.76 ug/L	487.76 ppb	20:13:02
3	Mn 257.610†	379735.8	381371.9	492.55 ug/L	492.55 ppb	20:12:57
3	Mo 202.031†	5675.9	5695.9	488.60 ug/L	488.60 ppb	20:13:22
3	Ni 231.604†	16095.6	16095.1	497.31 ug/L	497.31 ppb	20:13:02
3	P 214.914†	3499.9	3336.0	2339.7 ug/L	2339.7 ppb	20:13:22
3	Pb 220.353†	3200.7	3267.9	491.22 ug/L	491.22 ppb	20:13:22
3	S 181.975 Axial†	592.2	566.5	991.89 ug/L	991.89 ppb	20:13:22
3	Sb 206.836†	1218.4	1196.5	503.73 ug/L	503.73 ppb	20:13:22
3	Se 196.026†	595.5	618.5	512.33 ug/L	512.33 ppb	20:13:22
3	Si 251.611†	66726.6	66586.1	2423.7 ug/L	2423.7 ppb	20:13:02
3	Sn 189.927†	2214.5	2222.6	487.17 ug/L	487.17 ppb	20:13:22
3	Ti 334.940†	282029.0	284670.4	484.98 ug/L	484.98 ppb	20:13:02
3	Tl 190.801†	1270.5	1303.2	496.09 ug/L	496.09 ppb	20:13:22
3	U 409.014†	14915.9	17245.6	491.68 ug/L	491.68 ppb	20:13:02
3	V 292.402†	61758.2	63386.2	493.91 ug/L	493.91 ppb	20:13:02
3	Zn 213.857†	42228.3	41535.6	482.62 ug/L	482.62 ppb	20:13:02
3	SiO2†	67364.5	67222.4	5225.3 ug/L	5225.3 ppb	20:13:38

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	821883.2	99.366 %	0.1209			0.12%
Sc Radial	4296.6	97.3 %	0.16			0.17%
Y 371.029	690716.6	98.236 %	0.2133			0.22%
Y RADIAL	4778.3	99.50 %	0.508			0.51%
Ag 328.068†	97488.1	487.29 ug/L	2.970	487.29 ppb	2.970	0.61%
QC value within limits for Ag 328.068 Recovery = 97.46%						
Al 396.153Radial†	5199.7	5032.1 ug/L	39.66	5032.1 ppb	39.66	0.79%
QC value within limits for Al 396.153Radial Recovery = 100.64%						
As 188.979†	909.5	494.79 ug/L	2.752	494.79 ppb	2.752	0.56%
QC value within limits for As 188.979 Recovery = 98.96%						
B 249.677†	17477.9	474.92 ug/L	3.066	474.92 ppb	3.066	0.65%
QC value within limits for B 249.677 Recovery = 94.98%						
Ba 233.527†	53449.7	487.07 ug/L	2.741	487.07 ppb	2.741	0.56%
QC value within limits for Ba 233.527 Recovery = 97.41%						
Be 313.107†	1191287.8	493.86 ug/L	0.602	493.86 ppb	0.602	0.12%
QC value within limits for Be 313.107 Recovery = 98.77%						
Ca 317.933Radial†	2783.7	5109.2 ug/L	7.06	5109.2 ppb	7.06	0.14%

QC value within limits for Ca 317.933 Radial Recovery = 102.18%							
Cd 226.502†	34761.6	484.96 ug/L	2.751	484.96 ppb	2.751	0.57%	
QC value within limits for Cd 226.502 Recovery = 96.99%							
Co 228.616†	19611.3	497.49 ug/L	3.601	497.49 ppb	3.601	0.72%	
QC value within limits for Co 228.616 Recovery = 99.50%							
Cr 267.716†	37679.0	486.30 ug/L	2.488	486.30 ppb	2.488	0.51%	
QC value within limits for Cr 267.716 Recovery = 97.26%							
Cu 324.752†	150733.8	485.42 ug/L	3.353	485.42 ppb	3.353	0.69%	
QC value within limits for Cu 324.752 Recovery = 97.08%							
Fe 238.204 Radial†	463.6	5190.0 ug/L	56.49	5190.0 ppb	56.49	1.09%	
QC value within limits for Fe 238.204 Radial Recovery = 103.80%							
K 766.490 Radial†	26205.4	5079.9 ug/L	29.80	5079.9 ppb	29.80	0.59%	
QC value within limits for K 766.490 Radial Recovery = 101.60%							
Mg 279.077 IEC†	131.9	5249.2 ug/L	75.33	5249.2 ppb	75.33	1.44%	
QC value within limits for Mg 279.077 IEC Recovery = 104.98%							
Mn 257.610†	381875.2	493.20 ug/L	1.100	493.20 ppb	1.100	0.22%	
QC value within limits for Mn 257.610 Recovery = 98.64%							
Mo 202.031†	5700.5	488.99 ug/L	0.746	488.99 ppb	0.746	0.15%	
QC value within limits for Mo 202.031 Recovery = 97.80%							
Na 589.592 Radial†	29877.0	10225 ug/L	41.4	10225 ppb	41.4	0.40%	
QC value within limits for Na 589.592 Radial Recovery = 102.25%							
Ni 231.604†	16042.5	495.69 ug/L	2.306	495.69 ppb	2.306	0.47%	
QC value within limits for Ni 231.604 Recovery = 99.14%							
P 214.914†	3347.0	2348.2 ug/L	7.43	2348.2 ppb	7.43	0.32%	
QC value within limits for P 214.914 Recovery = 93.93%							
Pb 220.353†	3266.5	491.01 ug/L	0.876	491.01 ppb	0.876	0.18%	
QC value within limits for Pb 220.353 Recovery = 98.20%							
S 181.975 Axial†	564.4	988.27 ug/L	3.407	988.27 ppb	3.407	0.34%	
QC value within limits for S 181.975 Axial Recovery = 98.83%							
Sb 206.836†	1197.9	504.29 ug/L	4.933	504.29 ppb	4.933	0.98%	
QC value within limits for Sb 206.836 Recovery = 100.86%							
Se 196.026†	610.0	505.42 ug/L	6.747	505.42 ppb	6.747	1.33%	
QC value within limits for Se 196.026 Recovery = 101.08%							
Si 251.611†	66324.0	2414.1 ug/L	15.19	2414.1 ppb	15.19	0.63%	
QC value within limits for Si 251.611 Recovery = 96.57%							
Sn 189.927†	2211.7	484.78 ug/L	3.443	484.78 ppb	3.443	0.71%	
QC value within limits for Sn 189.927 Recovery = 96.96%							
Sr 421.552†	66435.1	513.74 ug/L	2.364	513.74 ppb	2.364	0.46%	
QC value within limits for Sr 421.552 Recovery = 102.75%							
Ti 334.940†	283765.1	483.45 ug/L	2.896	483.45 ppb	2.896	0.60%	
QC value within limits for Ti 334.940 Recovery = 96.69%							
Tl 190.801†	1297.3	493.86 ug/L	4.026	493.86 ppb	4.026	0.82%	
QC value within limits for Tl 190.801 Recovery = 98.77%							
U 409.014†	17127.1	488.30 ug/L	4.317	488.30 ppb	4.317	0.88%	
QC value within limits for U 409.014 Recovery = 97.66%							
V 292.402†	63017.0	491.08 ug/L	3.380	491.08 ppb	3.380	0.69%	
QC value within limits for V 292.402 Recovery = 98.22%							
Zn 213.857†	41360.3	480.58 ug/L	2.650	480.58 ppb	2.650	0.55%	
QC value within limits for Zn 213.857 Recovery = 96.12%							
SiO2†	66839.5	5195.4 ug/L	88.77	5195.4 ppb	88.77	1.71%	
QC value within limits for SiO2 Recovery = 97.16%							
All analyte(s) passed QC.							

Sequence No.: 10

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 3/17/2010 20:15:47

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4483.8	4483.8	102 %		20:17:39
1	Y RADIAL	4897.7	4897.7	102.0 %		20:17:39
1	Al 396.153Radial†	-82.6	-8.0	-7.8045 ug/L	-7.8045 ppb	20:17:59
1	Ca 317.933Radial†	19.5	-1.9	-3.4579 ug/L	-3.4579 ppb	20:17:59
1	Fe 238.204 Radial†	6.4	-1.1	-12.425 ug/L	-12.425 ppb	20:17:59
1	K 766.490 Radial†	2587.5	-65.3	-12.681 ug/L	-12.681 ppb	20:17:39
1	Mg 279.077 IEC†	2.5	1.4	54.886 ug/L	54.886 ppb	20:17:59
1	Na 589.592 Radial†	-860.0	60.2	20.591 ug/L	20.591 ppb	20:17:39
1	Sr 421.552†	51.9	30.4	0.2354 ug/L	0.2354 ppb	20:17:39
1	Sc 361.383	809388.7	809388.7	97.856 %		20:18:56
1	Y 371.029	689334.4	689334.4	98.040 %		20:18:56
1	Ag 328.068†	196.0	-48.8	-0.2444 ug/L	-0.2444 ppb	20:18:56
1	As 188.979†	-23.1	-1.5	-0.8248 ug/L	-0.8248 ppb	20:19:16
1	B 249.677†	-242.3	-62.8	-1.7143 ug/L	-1.7143 ppb	20:19:16
1	Ba 233.527†	13.5	1.4	0.0113 ug/L	0.0113 ppb	20:19:16
1	Be 313.107†	-3774.7	-85.3	-0.0352 ug/L	-0.0352 ppb	20:18:56
1	Cd 226.502†	-167.2	-14.0	-0.1948 ug/L	-0.1948 ppb	20:19:16
1	Co 228.616†	-35.6	12.0	0.3045 ug/L	0.3045 ppb	20:19:16
1	Cr 267.716†	75.8	-3.7	-0.0479 ug/L	-0.0479 ppb	20:19:16
1	Cu 324.752†	5795.3	138.3	0.4471 ug/L	0.4471 ppb	20:18:56
1	Mn 257.610†	429.7	13.3	0.0137 ug/L	0.0137 ppb	20:19:16
1	Mo 202.031†	13.8	3.2	0.2706 ug/L	0.2706 ppb	20:19:16
1	Ni 231.604†	102.5	16.9	0.5213 ug/L	0.5213 ppb	20:19:16
1	P 214.914†	189.6	10.8	7.8237 ug/L	7.8237 ppb	20:19:16
1	Pb 220.353†	-61.1	-12.6	-1.8931 ug/L	-1.8931 ppb	20:19:16
1	S 181.975 Axial†	32.8	4.6	8.0958 ug/L	8.0958 ppb	20:19:16
1	Sb 206.836†	31.7	3.8	1.5979 ug/L	1.5979 ppb	20:19:16
1	Se 196.026†	-17.8	1.5	1.1833 ug/L	1.1833 ppb	20:19:16
1	Si 251.611†	526.0	34.7	1.2617 ug/L	1.2617 ppb	20:19:16
1	Sn 189.927†	12.0	8.4	1.8299 ug/L	1.8299 ppb	20:19:16
1	Ti 334.940†	-1066.6	20.1	0.0312 ug/L	0.0312 ppb	20:18:56
1	Tl 190.801†	-23.0	2.3	0.8653 ug/L	0.8653 ppb	20:19:16
1	U 409.014†	-2340.7	-143.4	-4.1003 ug/L	-4.1003 ppb	20:18:56
1	V 292.402†	-1306.8	-42.8	-0.3303 ug/L	-0.3303 ppb	20:18:56
1	Zn 213.857†	1476.4	586.7	6.8801 ug/L	6.8801 ppb	20:19:16
1	SiO2†	533.1	37.0	2.8747 ug/L	2.8747 ppb	20:20:27
2	Sc Radial	4407.8	4407.8	99.8 %		20:18:04
2	Y RADIAL	4841.7	4841.7	100.8 %		20:18:04
2	Al 396.153Radial†	-69.9	3.3	3.2328 ug/L	3.2328 ppb	20:18:24
2	Ca 317.933Radial†	18.5	-2.6	-4.7044 ug/L	-4.7044 ppb	20:18:24
2	Fe 238.204 Radial†	9.5	2.1	23.004 ug/L	23.004 ppb	20:18:24
2	K 766.490 Radial†	2607.3	-1.5	-0.2899 ug/L	-0.2899 ppb	20:18:04
2	Mg 279.077 IEC†	-0.2	-1.2	-48.731 ug/L	-48.731 ppb	20:18:24
2	Na 589.592 Radial†	-876.1	29.5	10.082 ug/L	10.082 ppb	20:18:04
2	Sr 421.552†	16.4	-4.2	-0.0328 ug/L	-0.0328 ppb	20:18:04
2	Sc 361.383	814920.8	814920.8	98.524 %		20:19:21
2	Y 371.029	695202.2	695202.2	98.874 %		20:19:21
2	Ag 328.068†	162.8	-83.9	-0.4128 ug/L	-0.4128 ppb	20:19:21
2	As 188.979†	-17.2	4.6	2.4940 ug/L	2.4940 ppb	20:19:41
2	B 249.677†	-253.3	-72.3	-1.9784 ug/L	-1.9784 ppb	20:19:41
2	Ba 233.527†	14.4	2.2	0.0200 ug/L	0.0200 ppb	20:19:41
2	Be 313.107†	-3793.8	-78.5	-0.0324 ug/L	-0.0324 ppb	20:19:21
2	Cd 226.502†	-169.9	-15.6	-0.2195 ug/L	-0.2195 ppb	20:19:41
2	Co 228.616†	-39.9	7.8	0.1975 ug/L	0.1975 ppb	20:19:41
2	Cr 267.716†	57.3	-23.1	-0.2964 ug/L	-0.2964 ppb	20:19:41
2	Cu 324.752†	5785.1	87.7	0.2818 ug/L	0.2818 ppb	20:19:21
2	Mn 257.610†	429.6	10.2	0.0175 ug/L	0.0175 ppb	20:19:41
2	Mo 202.031†	9.6	-1.1	-0.0953 ug/L	-0.0953 ppb	20:19:41
2	Ni 231.604†	81.4	-5.3	-0.1640 ug/L	-0.1640 ppb	20:19:41

2	P 214.914†	187.4	7.2	5.2048 ug/L	5.2048 ppb	20:19:41
2	Pb 220.353†	-38.4	10.9	1.6287 ug/L	1.6287 ppb	20:19:41
2	S 181.975 Axial†	34.2	5.8	10.095 ug/L	10.095 ppb	20:19:41
2	Sb 206.836†	28.4	0.3	0.0951 ug/L	0.0951 ppb	20:19:41
2	Se 196.026†	-15.2	4.3	3.5069 ug/L	3.5069 ppb	20:19:41
2	Si 251.611†	534.6	39.8	1.4533 ug/L	1.4533 ppb	20:19:41
2	Sn 189.927†	1.3	-2.6	-0.5821 ug/L	-0.5821 ppb	20:19:41
2	Ti 334.940†	-1076.4	17.6	0.0319 ug/L	0.0319 ppb	20:19:21
2	Tl 190.801†	-17.8	7.8	2.9347 ug/L	2.9347 ppb	20:19:41
2	U 409.014†	-2094.1	123.2	3.5220 ug/L	3.5220 ppb	20:19:21
2	V 292.402†	-1293.8	-20.5	-0.1562 ug/L	-0.1562 ppb	20:19:21
2	Zn 213.857†	1490.6	590.9	6.9291 ug/L	6.9291 ppb	20:19:41
2	SiO2†	562.3	63.0	4.9084 ug/L	4.9084 ppb	20:20:47
3	Sc Radial	4387.1	4387.1	99.3 %		20:18:29
3	Y RADIAL	4772.1	4772.1	99.37 %		20:18:29
3	Al 396.153Radial†	-70.5	2.3	2.2251 ug/L	2.2251 ppb	20:18:49
3	Ca 317.933Radial†	17.5	-3.5	-6.4086 ug/L	-6.4086 ppb	20:18:49
3	Fe 238.204 Radial†	8.1	0.7	7.9350 ug/L	7.9350 ppb	20:18:49
3	K 766.490 Radial†	2661.8	65.6	12.737 ug/L	12.737 ppb	20:18:29
3	Mg 279.077 IEC†	1.1	0.1	2.2969 ug/L	2.2969 ppb	20:18:49
3	Na 589.592 Radial†	-877.9	23.5	8.0399 ug/L	8.0399 ppb	20:18:29
3	Sr 421.552†	44.5	24.1	0.1862 ug/L	0.1862 ppb	20:18:29
3	Sc 361.383	809715.5	809715.5	97.895 %		20:19:46
3	Y 371.029	690611.9	690611.9	98.221 %		20:19:46
3	Ag 328.068†	179.8	-65.4	-0.3256 ug/L	-0.3256 ppb	20:19:46
3	As 188.979†	-19.4	2.3	1.2304 ug/L	1.2304 ppb	20:20:07
3	B 249.677†	-257.7	-78.5	-2.1442 ug/L	-2.1442 ppb	20:20:07
3	Ba 233.527†	16.3	4.2	0.0386 ug/L	0.0386 ppb	20:20:07
3	Be 313.107†	-3689.9	2.9	0.0012 ug/L	0.0012 ppb	20:19:46
3	Cd 226.502†	-165.7	-12.5	-0.1744 ug/L	-0.1744 ppb	20:20:07
3	Co 228.616†	-35.6	12.0	0.3045 ug/L	0.3045 ppb	20:20:07
3	Cr 267.716†	81.7	2.3	0.0290 ug/L	0.0290 ppb	20:20:07
3	Cu 324.752†	5757.3	97.1	0.3112 ug/L	0.3112 ppb	20:19:46
3	Mn 257.610†	415.9	-1.0	-0.0006 ug/L	-0.0006 ppb	20:20:07
3	Mo 202.031†	17.2	6.7	0.5716 ug/L	0.5716 ppb	20:20:07
3	Ni 231.604†	84.9	-1.2	-0.0380 ug/L	-0.0380 ppb	20:20:07
3	P 214.914†	196.5	17.8	12.902 ug/L	12.902 ppb	20:20:07
3	Pb 220.353†	-46.1	2.7	0.4078 ug/L	0.4078 ppb	20:20:07
3	S 181.975 Axial†	33.0	4.7	8.2855 ug/L	8.2855 ppb	20:20:07
3	Sb 206.836†	22.1	-6.0	-2.4210 ug/L	-2.4210 ppb	20:20:07
3	Se 196.026†	-19.6	-0.3	-0.2033 ug/L	-0.2033 ppb	20:20:07
3	Si 251.611†	535.5	44.2	1.6064 ug/L	1.6064 ppb	20:20:07
3	Sn 189.927†	8.5	4.7	1.0301 ug/L	1.0301 ppb	20:20:07
3	Ti 334.940†	-1088.3	-1.6	-0.0053 ug/L	-0.0053 ppb	20:19:46
3	Tl 190.801†	-27.4	-2.2	-0.8367 ug/L	-0.8367 ppb	20:20:07
3	U 409.014†	-2078.2	125.8	3.5979 ug/L	3.5979 ppb	20:19:46
3	V 292.402†	-1277.2	-12.0	-0.0782 ug/L	-0.0782 ppb	20:19:46
3	Zn 213.857†	1494.7	604.8	7.0933 ug/L	7.0933 ppb	20:20:07
3	SiO2†	562.5	66.8	5.1902 ug/L	5.1902 ppb	20:21:07

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	811341.7	98.092 %	0.3753			0.38%
Sc Radial	4426.2	100 %	1.2			1.15%
Y 371.029	691716.2	98.378 %	0.4389			0.45%
Y RADIAL	4837.2	100.7 %	1.31			1.30%
Ag 328.068†	-66.0	-0.3276 ug/L	0.08424	-0.3276 ppb	0.08424	25.71%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-0.8	-0.7822 ug/L	6.10233	-0.7822 ppb	6.10233	780.19%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	1.8	0.9665 ug/L	1.67507	0.9665 ppb	1.67507	173.31%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-71.2	-1.9457 ug/L	0.21679	-1.9457 ppb	0.21679	11.14%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	2.6	0.0233 ug/L	0.01395	0.0233 ppb	0.01395	59.88%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-53.6	-0.0221 ug/L	0.02025	-0.0221 ppb	0.02025	91.47%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-2.6	-4.8570 ug/L	1.48124	-4.8570 ppb	1.48124	30.50%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd	226.502†	-14.0	-0.1962 ug/L	0.02255	-0.1962 ppb	0.02255	11.49%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co	228.616†	10.6	0.2688 ug/L	0.06173	0.2688 ppb	0.06173	22.96%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr	267.716†	-8.2	-0.1051 ug/L	0.17003	-0.1051 ppb	0.17003	161.79%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	107.7	0.3467 ug/L	0.08818	0.3467 ppb	0.08818	25.44%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	0.6	6.1712 ug/L	17.78012	6.1712 ppb	17.78012	288.11%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	-0.4	-0.0779 ug/L	12.71015	-0.0779 ppb	12.71015	>999.9%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	0.1	2.8173 ug/L	51.81015	2.8173 ppb	51.81015	>999.9%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	7.5	0.0102 ug/L	0.00952	0.0102 ppb	0.00952	93.33%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	2.9	0.2489 ug/L	0.33398	0.2489 ppb	0.33398	134.15%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	37.7	12.904 ug/L	6.7350	12.904 ppb	6.7350	52.19%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	3.4	0.1064 ug/L	0.36477	0.1064 ppb	0.36477	342.68%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	11.9	8.6436 ug/L	3.91375	8.6436 ppb	3.91375	45.28%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	0.3	0.0478 ug/L	1.78826	0.0478 ppb	1.78826	>999.9%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	5.0	8.8255 ug/L	1.10357	8.8255 ppb	1.10357	12.50%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	-0.6	-0.2427 ug/L	2.03066	-0.2427 ppb	2.03066	836.78%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	1.8	1.4957 ug/L	1.87474	1.4957 ppb	1.87474	125.35%
QC value within limits for Se 196.026 Recovery = Not calculated							
Si	251.611†	39.6	1.4405 ug/L	0.17274	1.4405 ppb	0.17274	11.99%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	3.5	0.7593 ug/L	1.22860	0.7593 ppb	1.22860	161.81%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	16.8	0.1296 ug/L	0.14277	0.1296 ppb	0.14277	110.18%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	12.0	0.0192 ug/L	0.02128	0.0192 ppb	0.02128	110.68%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	2.6	0.9878 ug/L	1.88865	0.9878 ppb	1.88865	191.20%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	35.2	1.0065 ug/L	4.42281	1.0065 ppb	4.42281	439.40%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	-25.1	-0.1882 ug/L	0.12906	-0.1882 ppb	0.12906	68.57%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	594.1	6.9675 ug/L	0.11167	6.9675 ppb	0.11167	1.60%
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†		55.6	4.3244 ug/L	1.26335	4.3244 ppb	1.26335	29.21%
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 19

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/17/2010 21:19:34

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	4573.6	4573.6	104 %		21:21:26
1	Y RADIAL	4924.0	4924.0	102.5 %		21:21:26
1	Al 396.153Radial†	5089.0	4987.6	4825.9 ug/L	4825.9 ppb	21:21:26
1	Ca 317.933Radial†	2727.4	2612.6	4795.3 ug/L	4795.3 ppb	21:21:46
1	Fe 238.204 Radial†	455.2	432.2	4839.1 ug/L	4839.1 ppb	21:21:46
1	K 766.490 Radial†	28557.1	24962.7	4839.0 ug/L	4839.0 ppb	21:21:26
1	Mg 279.077 IEC†	125.7	120.3	4789.5 ug/L	4789.5 ppb	21:21:46
1	Na 589.592 Radial†	28260.8	28197.8	9650.5 ug/L	9650.5 ppb	21:21:26
1	Sr 421.552†	65281.2	63019.2	487.33 ug/L	487.33 ppb	21:21:26
1	Sc 361.383	820500.1	820500.1	99.199 %		21:22:43
1	Y 371.029	691354.7	691354.7	98.327 %		21:22:43
1	Ag 328.068†	97690.1	98229.9	490.88 ug/L	490.88 ppb	21:22:48
1	As 188.979†	875.9	905.1	492.36 ug/L	492.36 ppb	21:23:08
1	B 249.677†	17100.8	17423.7	473.49 ug/L	473.49 ppb	21:22:48
1	Ba 233.527†	53382.9	53801.5	490.27 ug/L	490.27 ppb	21:22:48
1	Be 313.107†	1182782.4	1196106.2	495.86 ug/L	495.86 ppb	21:22:43
1	Cd 226.502†	34760.4	35197.9	491.09 ug/L	491.09 ppb	21:22:48
1	Co 228.616†	19520.7	19726.7	500.42 ug/L	500.42 ppb	21:22:48
1	Cr 267.716†	37780.3	38004.2	490.46 ug/L	490.46 ppb	21:22:48
1	Cu 324.752†	156424.1	151903.4	489.16 ug/L	489.16 ppb	21:22:48
1	Mn 257.610†	374195.9	376791.9	486.62 ug/L	486.62 ppb	21:22:48
1	Mo 202.031†	5666.7	5701.6	489.05 ug/L	489.05 ppb	21:23:08
1	Ni 231.604†	16199.6	16242.5	501.87 ug/L	501.87 ppb	21:22:48
1	P 214.914†	3484.5	3329.8	2335.1 ug/L	2335.1 ppb	21:23:08
1	Pb 220.353†	3195.4	3271.0	491.69 ug/L	491.69 ppb	21:23:08
1	S 181.975 Axial†	578.5	554.2	970.39 ug/L	970.39 ppb	21:23:08
1	Sb 206.836†	1211.6	1192.9	502.26 ug/L	502.26 ppb	21:23:08
1	Se 196.026†	578.7	603.1	498.81 ug/L	498.81 ppb	21:23:08
1	Si 251.611†	66659.0	66694.5	2427.7 ug/L	2427.7 ppb	21:22:48
1	Sn 189.927†	2202.2	2216.0	485.70 ug/L	485.70 ppb	21:23:08
1	Ti 334.940†	282156.6	285545.2	486.47 ug/L	486.47 ppb	21:22:48
1	Tl 190.801†	1252.4	1288.3	490.44 ug/L	490.44 ppb	21:23:08
1	U 409.014†	14906.1	17275.2	492.57 ug/L	492.57 ppb	21:22:48
1	V 292.402†	61926.5	63719.2	496.52 ug/L	496.52 ppb	21:22:48
1	Zn 213.857†	42269.0	41688.3	484.44 ug/L	484.44 ppb	21:22:48
1	SiO2†	66583.5	66613.4	5177.8 ug/L	5177.8 ppb	21:24:15
2	Sc Radial	4488.4	4488.4	102 %		21:21:51
2	Y RADIAL	4834.7	4834.7	100.7 %		21:21:51
2	Al 396.153Radial†	4964.6	4958.4	4797.7 ug/L	4797.7 ppb	21:21:51
2	Ca 317.933Radial†	2724.1	2659.4	4881.0 ug/L	4881.0 ppb	21:22:11
2	Fe 238.204 Radial†	450.6	436.0	4881.1 ug/L	4881.1 ppb	21:22:11
2	K 766.490 Radial†	27929.5	24868.3	4820.7 ug/L	4820.7 ppb	21:21:51
2	Mg 279.077 IEC†	129.6	126.5	5032.9 ug/L	5032.9 ppb	21:22:11
2	Na 589.592 Radial†	27648.5	28113.1	9621.5 ug/L	9621.5 ppb	21:21:51
2	Sr 421.552†	63779.3	62737.4	485.15 ug/L	485.15 ppb	21:21:51
2	Sc 361.383	830217.0	830217.0	100.37 %		21:23:14
2	Y 371.029	697307.4	697307.4	99.174 %		21:23:14
2	Ag 328.068†	98463.5	97847.8	489.00 ug/L	489.00 ppb	21:23:19
2	As 188.979†	884.7	903.5	491.55 ug/L	491.55 ppb	21:23:39
2	B 249.677†	17292.7	17413.1	473.19 ug/L	473.19 ppb	21:23:19
2	Ba 233.527†	54102.9	53889.1	491.07 ug/L	491.07 ppb	21:23:19
2	Be 313.107†	1195444.4	1194765.9	495.31 ug/L	495.31 ppb	21:23:14
2	Cd 226.502†	35115.3	35141.4	490.29 ug/L	490.29 ppb	21:23:19
2	Co 228.616†	19822.8	19797.4	502.20 ug/L	502.20 ppb	21:23:19
2	Cr 267.716†	38252.5	38028.9	490.78 ug/L	490.78 ppb	21:23:19
2	Cu 324.752†	157395.5	151025.6	486.34 ug/L	486.34 ppb	21:23:19
2	Mn 257.610†	379253.2	377415.4	487.42 ug/L	487.42 ppb	21:23:19
2	Mo 202.031†	5671.3	5639.2	483.71 ug/L	483.71 ppb	21:23:39
2	Ni 231.604†	16425.3	16276.2	502.91 ug/L	502.91 ppb	21:23:19

2	P 214.914†	3503.9	3308.0	2319.7 ug/L	2319.7 ppb	21:23:39
2	Pb 220.353†	3198.1	3236.0	486.42 ug/L	486.42 ppb	21:23:39
2	S 181.975 Axial†	591.2	560.1	980.71 ug/L	980.71 ppb	21:23:39
2	Sb 206.836†	1218.9	1185.8	499.21 ug/L	499.21 ppb	21:23:39
2	Se 196.026†	579.6	597.2	494.20 ug/L	494.20 ppb	21:23:39
2	Si 251.611†	67543.5	66789.2	2431.2 ug/L	2431.2 ppb	21:23:19
2	Sn 189.927†	2209.9	2197.7	481.70 ug/L	481.70 ppb	21:23:39
2	Ti 334.940†	285184.0	285232.4	485.93 ug/L	485.93 ppb	21:23:19
2	Tl 190.801†	1259.8	1281.0	487.64 ug/L	487.64 ppb	21:23:39
2	U 409.014†	14962.5	17155.5	489.14 ug/L	489.14 ppb	21:23:19
2	V 292.402†	62468.6	63528.7	494.98 ug/L	494.98 ppb	21:23:19
2	Zn 213.857†	42813.8	41732.4	484.95 ug/L	484.95 ppb	21:23:19
2	SiO2†	67229.0	66471.0	5166.8 ug/L	5166.8 ppb	21:24:20
3	Sc Radial	4522.8	4522.8	102 %		21:22:16
3	Y RADIAL	4888.2	4888.2	101.8 %		21:22:16
3	Al 396.153Radial†	5099.9	5053.4	4890.0 ug/L	4890.0 ppb	21:22:16
3	Ca 317.933Radial†	2724.2	2639.1	4843.8 ug/L	4843.8 ppb	21:22:36
3	Fe 238.204 Radial†	451.4	433.4	4852.2 ug/L	4852.2 ppb	21:22:36
3	K 766.490 Radial†	28573.6	25288.4	4902.2 ug/L	4902.2 ppb	21:22:16
3	Mg 279.077 IEC†	126.0	122.0	4855.1 ug/L	4855.1 ppb	21:22:36
3	Na 589.592 Radial†	28167.1	28412.8	9724.0 ug/L	9724.0 ppb	21:22:16
3	Sr 421.552†	65586.6	64025.3	495.11 ug/L	495.11 ppb	21:22:16
3	Sc 361.383	826479.5	826479.5	99.922 %		21:23:45
3	Y 371.029	694360.1	694360.1	98.754 %		21:23:45
3	Ag 328.068†	97927.0	97754.5	488.52 ug/L	488.52 ppb	21:23:50
3	As 188.979†	879.6	902.3	490.88 ug/L	490.88 ppb	21:24:10
3	B 249.677†	17255.0	17453.3	474.30 ug/L	474.30 ppb	21:23:50
3	Ba 233.527†	53630.2	53659.8	488.98 ug/L	488.98 ppb	21:23:50
3	Be 313.107†	1187884.1	1192585.6	494.40 ug/L	494.40 ppb	21:23:45
3	Cd 226.502†	34796.1	34980.1	488.04 ug/L	488.04 ppb	21:23:50
3	Co 228.616†	19637.2	19700.9	499.76 ug/L	499.76 ppb	21:23:50
3	Cr 267.716†	37973.6	37922.2	489.40 ug/L	489.40 ppb	21:23:50
3	Cu 324.752†	156581.8	150920.3	486.00 ug/L	486.00 ppb	21:23:50
3	Mn 257.610†	376352.9	376221.5	485.89 ug/L	485.89 ppb	21:23:50
3	Mo 202.031†	5675.4	5669.0	486.26 ug/L	486.26 ppb	21:24:10
3	Ni 231.604†	16172.5	16097.2	497.38 ug/L	497.38 ppb	21:23:50
3	P 214.914†	3526.0	3345.8	2347.4 ug/L	2347.4 ppb	21:24:10
3	Pb 220.353†	3205.5	3257.8	489.71 ug/L	489.71 ppb	21:24:10
3	S 181.975 Axial†	590.0	561.6	983.29 ug/L	983.29 ppb	21:24:10
3	Sb 206.836†	1220.5	1192.9	502.17 ug/L	502.17 ppb	21:24:10
3	Se 196.026†	588.0	608.2	502.93 ug/L	502.93 ppb	21:24:10
3	Si 251.611†	67081.0	66630.6	2425.4 ug/L	2425.4 ppb	21:23:50
3	Sn 189.927†	2205.9	2203.7	483.01 ug/L	483.01 ppb	21:24:10
3	Ti 334.940†	283224.3	284556.0	484.79 ug/L	484.79 ppb	21:23:50
3	Tl 190.801†	1248.7	1275.5	485.55 ug/L	485.55 ppb	21:24:10
3	U 409.014†	14970.1	17230.5	491.29 ug/L	491.29 ppb	21:23:50
3	V 292.402†	61971.6	63312.7	493.36 ug/L	493.36 ppb	21:23:50
3	Zn 213.857†	42442.0	41553.2	482.89 ug/L	482.89 ppb	21:23:50
3	SiO2†	66336.9	65881.0	5120.8 ug/L	5120.8 ppb	21:24:25

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	825732.2	99.831 %		0.5926			0.59%
Sc Radial	4528.3	103 %		1.0			0.95%
Y 371.029	694340.7	98.752 %		0.4233			0.43%
Y RADIAL	4882.3	101.7 %		0.94			0.92%
Ag 328.068†	97944.1	489.47 ug/L		1.252	489.47 ppb	1.252	0.26%
QC value within limits for Ag 328.068 Recovery = 97.89%							
Al 396.153Radial†	4999.8	4837.9 ug/L		47.28	4837.9 ppb	47.28	0.98%
QC value within limits for Al 396.153Radial Recovery = 96.76%							
As 188.979†	903.6	491.59 ug/L		0.739	491.59 ppb	0.739	0.15%
QC value within limits for As 188.979 Recovery = 98.32%							
B 249.677†	17430.0	473.66 ug/L		0.574	473.66 ppb	0.574	0.12%
QC value within limits for B 249.677 Recovery = 94.73%							
Ba 233.527†	53783.5	490.11 ug/L		1.054	490.11 ppb	1.054	0.22%
QC value within limits for Ba 233.527 Recovery = 98.02%							
Be 313.107†	1194485.9	495.19 ug/L		0.737	495.19 ppb	0.737	0.15%
QC value within limits for Be 313.107 Recovery = 99.04%							
Ca 317.933Radial†	2637.0	4840.0 ug/L		43.01	4840.0 ppb	43.01	0.89%

QC value within limits for Ca 317.933 Radial Recovery = 96.80%

Cd 226.502†	35106.5	489.81 ug/L	1.579	489.81 ppb	1.579	0.32%
QC value within limits for Cd 226.502 Recovery = 97.96%						
Co 228.616†	19741.7	500.79 ug/L	1.261	500.79 ppb	1.261	0.25%
QC value within limits for Co 228.616 Recovery = 100.16%						
Cr 267.716†	37985.1	490.21 ug/L	0.722	490.21 ppb	0.722	0.15%
QC value within limits for Cr 267.716 Recovery = 98.04%						
Cu 324.752†	151283.1	487.17 ug/L	1.737	487.17 ppb	1.737	0.36%
QC value within limits for Cu 324.752 Recovery = 97.43%						
Fe 238.204 Radial†	433.8	4857.5 ug/L	21.49	4857.5 ppb	21.49	0.44%
QC value within limits for Fe 238.204 Radial Recovery = 97.15%						
K 766.490 Radial†	25039.8	4853.9 ug/L	42.77	4853.9 ppb	42.77	0.88%
QC value within limits for K 766.490 Radial Recovery = 97.08%						
Mg 279.077 IEC†	122.9	4892.5 ug/L	125.93	4892.5 ppb	125.93	2.57%
QC value within limits for Mg 279.077 IEC Recovery = 97.85%						
Mn 257.610†	376809.6	486.64 ug/L	0.769	486.64 ppb	0.769	0.16%
QC value within limits for Mn 257.610 Recovery = 97.33%						
Mo 202.031†	5669.9	486.34 ug/L	2.671	486.34 ppb	2.671	0.55%
QC value within limits for Mo 202.031 Recovery = 97.27%						
Na 589.592 Radial†	28241.2	9665.3 ug/L	52.86	9665.3 ppb	52.86	0.55%
QC value within limits for Na 589.592 Radial Recovery = 96.65%						
Ni 231.604†	16205.3	500.72 ug/L	2.940	500.72 ppb	2.940	0.59%
QC value within limits for Ni 231.604 Recovery = 100.14%						
P 214.914†	3327.9	2334.1 ug/L	13.92	2334.1 ppb	13.92	0.60%
QC value within limits for P 214.914 Recovery = 93.36%						
Pb 220.353†	3254.9	489.27 ug/L	2.666	489.27 ppb	2.666	0.54%
QC value within limits for Pb 220.353 Recovery = 97.85%						
S 181.975 Axial†	558.6	978.13 ug/L	6.824	978.13 ppb	6.824	0.70%
QC value within limits for S 181.975 Axial Recovery = 97.81%						
Sb 206.836†	1190.5	501.21 ug/L	1.733	501.21 ppb	1.733	0.35%
QC value within limits for Sb 206.836 Recovery = 100.24%						
Se 196.026†	602.8	498.65 ug/L	4.370	498.65 ppb	4.370	0.88%
QC value within limits for Se 196.026 Recovery = 99.73%						
Si 251.611†	66704.8	2428.1 ug/L	2.93	2428.1 ppb	2.93	0.12%
QC value within limits for Si 251.611 Recovery = 97.12%						
Sn 189.927†	2205.8	483.47 ug/L	2.039	483.47 ppb	2.039	0.42%
QC value within limits for Sn 189.927 Recovery = 96.69%						
Sr 421.552†	63260.6	489.20 ug/L	5.236	489.20 ppb	5.236	1.07%
QC value within limits for Sr 421.552 Recovery = 97.84%						
Ti 334.940†	285111.2	485.73 ug/L	0.860	485.73 ppb	0.860	0.18%
QC value within limits for Ti 334.940 Recovery = 97.15%						
Tl 190.801†	1281.6	487.88 ug/L	2.449	487.88 ppb	2.449	0.50%
QC value within limits for Tl 190.801 Recovery = 97.58%						
U 409.014†	17220.4	491.00 ug/L	1.734	491.00 ppb	1.734	0.35%
QC value within limits for U 409.014 Recovery = 98.20%						
V 292.402†	63520.2	494.95 ug/L	1.583	494.95 ppb	1.583	0.32%
QC value within limits for V 292.402 Recovery = 98.99%						
Zn 213.857†	41658.0	484.09 ug/L	1.074	484.09 ppb	1.074	0.22%
QC value within limits for Zn 213.857 Recovery = 96.82%						
SiO2†	66321.8	5155.1 ug/L	30.25	5155.1 ppb	30.25	0.59%
QC value within limits for SiO2 Recovery = 96.40%						

All analyte(s) passed QC.

Sequence No.: 20

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 3/17/2010 21:26:35

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	4497.0	4497.0	102 %		21:28:27
1	Y RADIAL	4906.6	4906.6	102.2 %		21:28:27
1	Al 396.153Radial†	-81.8	-7.0	-6.8285 ug/L	-6.8285 ppb	21:28:47
1	Ca 317.933Radial†	16.9	-4.5	-8.2821 ug/L	-8.2821 ppb	21:28:47
1	Fe 238.204 Radial†	9.4	1.8	19.823 ug/L	19.823 ppb	21:28:47
1	K 766.490 Radial†	2670.2	8.4	1.6326 ug/L	1.6326 ppb	21:28:27
1	Mg 279.077 IEC†	-0.1	-1.1	-43.283 ug/L	-43.283 ppb	21:28:47
1	Na 589.592 Radial†	-895.7	27.7	9.4722 ug/L	9.4722 ppb	21:28:27
1	Sr 421.552†	6.9	-14.0	-0.1081 ug/L	-0.1081 ppb	21:28:27
1	Sc 361.383	809398.2	809398.2	97.857 %		21:29:44
1	Y 371.029	690644.2	690644.2	98.226 %		21:29:44
1	Ag 328.068†	261.6	18.2	0.0910 ug/L	0.0910 ppb	21:29:44
1	As 188.979†	-17.6	4.1	2.2244 ug/L	2.2244 ppb	21:30:04
1	B 249.677†	-307.9	-129.9	-3.5495 ug/L	-3.5495 ppb	21:30:04
1	Ba 233.527†	2.3	-10.0	-0.0919 ug/L	-0.0919 ppb	21:30:04
1	Be 313.107†	-3675.2	16.5	0.0066 ug/L	0.0066 ppb	21:29:44
1	Cd 226.502†	-171.9	-18.9	-0.2645 ug/L	-0.2645 ppb	21:30:04
1	Co 228.616†	-49.8	-2.6	-0.0655 ug/L	-0.0655 ppb	21:30:04
1	Cr 267.716†	68.9	-10.8	-0.1397 ug/L	-0.1397 ppb	21:30:04
1	Cu 324.752†	5803.4	146.6	0.4708 ug/L	0.4708 ppb	21:29:44
1	Mn 257.610†	444.0	27.9	0.0398 ug/L	0.0398 ppb	21:30:04
1	Mo 202.031†	9.5	-1.2	-0.1035 ug/L	-0.1035 ppb	21:30:04
1	Ni 231.604†	87.0	1.0	0.0298 ug/L	0.0298 ppb	21:30:04
1	P 214.914†	181.6	2.6	1.8278 ug/L	1.8278 ppb	21:30:04
1	Pb 220.353†	-51.2	-2.5	-0.3838 ug/L	-0.3838 ppb	21:30:04
1	S 181.975 Axial†	33.0	4.8	8.3618 ug/L	8.3618 ppb	21:30:04
1	Sb 206.836†	37.7	9.9	4.0532 ug/L	4.0532 ppb	21:30:04
1	Se 196.026†	-15.8	3.6	2.9281 ug/L	2.9281 ppb	21:30:04
1	Si 251.611†	538.3	47.3	1.7257 ug/L	1.7257 ppb	21:30:04
1	Sn 189.927†	9.4	5.6	1.2318 ug/L	1.2318 ppb	21:30:04
1	Ti 334.940†	-1131.1	-45.9	-0.0775 ug/L	-0.0775 ppb	21:29:44
1	Tl 190.801†	-23.5	1.9	0.7007 ug/L	0.7007 ppb	21:30:04
1	U 409.014†	-2061.4	142.2	4.0650 ug/L	4.0650 ppb	21:29:44
1	V 292.402†	-1341.6	-78.3	-0.5998 ug/L	-0.5998 ppb	21:29:44
1	Zn 213.857†	1483.6	594.1	6.9648 ug/L	6.9648 ppb	21:30:04
1	SiO2†	540.2	44.2	3.4472 ug/L	3.4472 ppb	21:31:00
2	Sc Radial	4465.0	4465.0	101 %		21:28:52
2	Y RADIAL	4854.5	4854.5	101.1 %		21:28:52
2	Al 396.153Radial†	-80.4	-6.2	-6.0673 ug/L	-6.0673 ppb	21:29:12
2	Ca 317.933Radial†	19.9	-1.4	-2.5410 ug/L	-2.5410 ppb	21:29:12
2	Fe 238.204 Radial†	6.7	-0.8	-9.1309 ug/L	-9.1309 ppb	21:29:12
2	K 766.490 Radial†	2721.2	77.7	15.072 ug/L	15.072 ppb	21:28:52
2	Mg 279.077 IEC†	0.9	-0.1	-4.3153 ug/L	-4.3153 ppb	21:29:12
2	Na 589.592 Radial†	-896.6	20.4	6.9758 ug/L	6.9758 ppb	21:28:52
2	Sr 421.552†	28.6	7.6	0.0586 ug/L	0.0586 ppb	21:28:52
2	Sc 361.383	814446.9	814446.9	98.467 %		21:30:09
2	Y 371.029	694329.5	694329.5	98.750 %		21:30:09
2	Ag 328.068†	158.3	-88.4	-0.4412 ug/L	-0.4412 ppb	21:30:09
2	As 188.979†	-18.7	3.1	1.6839 ug/L	1.6839 ppb	21:30:29
2	B 249.677†	-336.6	-157.0	-4.2853 ug/L	-4.2853 ppb	21:30:29
2	Ba 233.527†	19.2	7.1	0.0630 ug/L	0.0630 ppb	21:30:29
2	Be 313.107†	-3761.6	-48.1	-0.0202 ug/L	-0.0202 ppb	21:30:09
2	Cd 226.502†	-173.0	-18.9	-0.2628 ug/L	-0.2628 ppb	21:30:29
2	Co 228.616†	-52.9	-5.3	-0.1347 ug/L	-0.1347 ppb	21:30:29
2	Cr 267.716†	73.8	-6.2	-0.0808 ug/L	-0.0808 ppb	21:30:29
2	Cu 324.752†	5748.7	54.2	0.1762 ug/L	0.1762 ppb	21:30:09
2	Mn 257.610†	428.6	9.5	0.0115 ug/L	0.0115 ppb	21:30:29
2	Mo 202.031†	13.1	2.4	0.2073 ug/L	0.2073 ppb	21:30:29
2	Ni 231.604†	97.8	11.4	0.3516 ug/L	0.3516 ppb	21:30:29

2	P 214.914†	192.3	12.3	8.9818 ug/L	8.9818 ppb	21:30:29
2	Pb 220.353†	-45.2	3.9	0.5836 ug/L	0.5836 ppb	21:30:29
2	S 181.975 Axial†	32.7	4.3	7.4750 ug/L	7.4750 ppb	21:30:29
2	Sb 206.836†	32.9	4.8	1.9578 ug/L	1.9578 ppb	21:30:29
2	Se 196.026†	-26.9	-7.5	-6.0580 ug/L	-6.0580 ppb	21:30:29
2	Si 251.611†	520.0	25.3	0.9211 ug/L	0.9211 ppb	21:30:29
2	Sn 189.927†	5.2	1.3	0.2851 ug/L	0.2851 ppb	21:30:29
2	Ti 334.940†	-1166.9	-75.0	-0.1261 ug/L	-0.1261 ppb	21:30:09
2	Tl 190.801†	-26.3	-0.9	-0.3298 ug/L	-0.3298 ppb	21:30:29
2	U 409.014†	-2342.8	-130.7	-3.7366 ug/L	-3.7366 ppb	21:30:09
2	V 292.402†	-1352.6	-81.0	-0.6254 ug/L	-0.6254 ppb	21:30:09
2	Zn 213.857†	1489.6	590.8	6.9290 ug/L	6.9290 ppb	21:30:29
2	SiO2†	536.4	37.0	2.8754 ug/L	2.8754 ppb	21:31:05
3	Sc Radial	4416.6	4416.6	100 %		21:29:17
3	Y RADIAL	4821.3	4821.3	100.4 %		21:29:17
3	Al 396.153Radial†	-82.2	-8.8	-8.6137 ug/L	-8.6137 ppb	21:29:37
3	Ca 317.933Radial†	21.0	-0.1	-0.2005 ug/L	-0.2005 ppb	21:29:37
3	Fe 238.204 Radial†	8.2	0.8	8.5009 ug/L	8.5009 ppb	21:29:37
3	K 766.490 Radial†	2569.9	-44.1	-8.5637 ug/L	-8.5637 ppb	21:29:17
3	Mg 279.077 IEC†	-0.0	-1.1	-42.598 ug/L	-42.598 ppb	21:29:37
3	Na 589.592 Radial†	-898.5	8.8	3.0064 ug/L	3.0064 ppb	21:29:17
3	Sr 421.552†	18.1	-2.6	-0.0200 ug/L	-0.0200 ppb	21:29:17
3	Sc 361.383	802996.2	802996.2	97.083 %		21:30:34
3	Y 371.029	684315.9	684315.9	97.326 %		21:30:34
3	Ag 328.068†	238.9	-3.0	-0.0140 ug/L	-0.0140 ppb	21:30:34
3	As 188.979†	-17.0	4.6	2.4704 ug/L	2.4704 ppb	21:30:54
3	B 249.677†	-348.8	-174.4	-4.7647 ug/L	-4.7647 ppb	21:30:54
3	Ba 233.527†	-3.0	-15.6	-0.1424 ug/L	-0.1424 ppb	21:30:54
3	Be 313.107†	-3759.2	-100.0	-0.0414 ug/L	-0.0414 ppb	21:30:34
3	Cd 226.502†	-171.6	-20.0	-0.2802 ug/L	-0.2802 ppb	21:30:54
3	Co 228.616†	-37.4	9.8	0.2496 ug/L	0.2496 ppb	21:30:54
3	Cr 267.716†	69.3	-9.8	-0.1258 ug/L	-0.1258 ppb	21:30:54
3	Cu 324.752†	5755.8	144.8	0.4670 ug/L	0.4670 ppb	21:30:34
3	Mn 257.610†	489.7	78.6	0.1041 ug/L	0.1041 ppb	21:30:54
3	Mo 202.031†	13.9	3.4	0.2945 ug/L	0.2945 ppb	21:30:54
3	Ni 231.604†	82.7	-2.7	-0.0831 ug/L	-0.0831 ppb	21:30:54
3	P 214.914†	183.9	6.5	4.6190 ug/L	4.6190 ppb	21:30:54
3	Pb 220.353†	-41.3	7.3	1.0946 ug/L	1.0946 ppb	21:30:54
3	S 181.975 Axial†	34.3	6.4	11.231 ug/L	11.231 ppb	21:30:54
3	Sb 206.836†	25.1	-2.7	-1.0986 ug/L	-1.0986 ppb	21:30:54
3	Se 196.026†	-16.4	2.9	2.3457 ug/L	2.3457 ppb	21:30:54
3	Si 251.611†	537.9	51.3	1.8673 ug/L	1.8673 ppb	21:30:54
3	Sn 189.927†	5.5	1.7	0.3804 ug/L	0.3804 ppb	21:30:54
3	Ti 334.940†	-1086.2	-8.7	-0.0111 ug/L	-0.0111 ppb	21:30:34
3	Tl 190.801†	-34.3	-9.5	-3.5970 ug/L	-3.5970 ppb	21:30:54
3	U 409.014†	-2205.6	-23.2	-0.6655 ug/L	-0.6655 ppb	21:30:34
3	V 292.402†	-1327.4	-74.7	-0.5732 ug/L	-0.5732 ppb	21:30:34
3	Zn 213.857†	1485.2	607.8	7.1278 ug/L	7.1278 ppb	21:30:54
3	SiO2†	524.8	32.8	2.5482 ug/L	2.5482 ppb	21:31:10

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	808947.1	97.802 %	0.6938			0.71%
Sc Radial	4459.5	101 %	0.9			0.91%
Y 371.029	689763.2	98.101 %	0.7203			0.73%
Y RADIAL	4860.8	101.2 %	0.90			0.88%
Ag 328.068†	-24.4	-0.1214 ug/L	0.28187	-0.1214 ppb	0.28187	232.20%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-7.4	-7.1698 ug/L	1.30708	-7.1698 ppb	1.30708	18.23%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	3.9	2.1262 ug/L	0.40230	2.1262 ppb	0.40230	18.92%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-153.8	-4.1998 ug/L	0.61207	-4.1998 ppb	0.61207	14.57%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-6.2	-0.0571 ug/L	0.10706	-0.0571 ppb	0.10706	187.56%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-43.9	-0.0183 ug/L	0.02408	-0.0183 ppb	0.02408	131.45%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-2.0	-3.6745 ug/L	4.15829	-3.6745 ppb	4.15829	113.16%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	-19.2	-0.2692 ug/L	0.00961	-0.2692 ppb	0.00961	3.57%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	0.6	0.0165 ug/L	0.20485	0.0165 ppb	0.20485	>999.9%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-9.0	-0.1154 ug/L	0.03075	-0.1154 ppb	0.03075	26.63%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	115.2	0.3713 ug/L	0.16899	0.3713 ppb	0.16899	45.51%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	0.6	6.3975 ug/L	14.59086	6.3975 ppb	14.59086	228.07%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	14.0	2.7135 ug/L	11.85469	2.7135 ppb	11.85469	436.87%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-0.8	-30.066 ug/L	22.3031	-30.066 ppb	22.3031	74.18%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	38.7	0.0518 ug/L	0.04743	0.0518 ppb	0.04743	91.59%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	1.5	0.1328 ug/L	0.20922	0.1328 ppb	0.20922	157.58%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	18.9	6.4848 ug/L	3.26072	6.4848 ppb	3.26072	50.28%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	3.2	0.0995 ug/L	0.22556	0.0995 ppb	0.22556	226.80%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	7.1	5.1429 ug/L	3.60565	5.1429 ppb	3.60565	70.11%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	2.9	0.4315 ug/L	0.75082	0.4315 ppb	0.75082	174.01%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	5.1	9.0226 ug/L	1.96317	9.0226 ppb	1.96317	21.76%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	4.0	1.6374 ug/L	2.59083	1.6374 ppb	2.59083	158.22%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-0.3	-0.2614 ug/L	5.02847	-0.2614 ppb	5.02847	>999.9%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	41.3	1.5047 ug/L	0.51031	1.5047 ppb	0.51031	33.91%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	2.9	0.6324 ug/L	0.52125	0.6324 ppb	0.52125	82.42%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-3.0	-0.0232 ug/L	0.08341	-0.0232 ppb	0.08341	360.12%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-43.2	-0.0716 ug/L	0.05771	-0.0716 ppb	0.05771	80.66%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-2.8	-1.0754 ug/L	2.24377	-1.0754 ppb	2.24377	208.65%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-3.9	-0.1124 ug/L	3.93014	-0.1124 ppb	3.93014	>999.9%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-78.0	-0.5995 ug/L	0.02609	-0.5995 ppb	0.02609	4.35%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	597.5	7.0072 ug/L	0.10599	7.0072 ppb	0.10599	1.51%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	38.0	2.9570 ug/L	0.45501	2.9570 ppb	0.45501	15.39%	
QC value within limits for SiO2 Recovery = Not calculated							
All analyte(s) passed QC.							

Sequence No.: 30

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/17/2010 22:36:39

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	4412.1	4412.1	99.9 %		22:38:31
1	Y RADIAL	4810.8	4810.8	100.2 %		22:38:31
1	Al 396.153Radial†	5047.3	5125.7	4960.1 ug/L	4960.1 ppb	22:38:31
1	Ca 317.933Radial†	2725.4	2707.1	4968.6 ug/L	4968.6 ppb	22:38:51
1	Fe 238.204 Radial†	453.1	446.1	4994.4 ug/L	4994.4 ppb	22:38:51
1	K 766.490 Radial†	28349.7	25764.2	4994.5 ug/L	4994.5 ppb	22:38:31
1	Mg 279.077 IEC†	126.8	125.9	5012.0 ug/L	5012.0 ppb	22:38:51
1	Na 589.592 Radial†	27115.2	28049.8	9599.8 ug/L	9599.8 ppb	22:38:31
1	Sr 421.552†	63708.1	63751.4	492.99 ug/L	492.99 ppb	22:38:31
1	Sc 361.383	830060.3	830060.3	100.35 %		22:39:48
1	Y 371.029	698046.7	698046.7	99.279 %		22:39:48
1	Ag 328.068†	97530.2	96936.3	484.49 ug/L	484.49 ppb	22:39:53
1	As 188.979†	886.4	905.4	492.52 ug/L	492.52 ppb	22:40:13
1	B 249.677†	17064.0	17188.4	467.05 ug/L	467.05 ppb	22:39:53
1	Ba 233.527†	53615.4	53413.5	486.74 ug/L	486.74 ppb	22:39:53
1	Be 313.107†	1203582.2	1203099.8	498.75 ug/L	498.75 ppb	22:39:48
1	Cd 226.502†	34919.6	34953.0	487.65 ug/L	487.65 ppb	22:39:53
1	Co 228.616†	19682.2	19660.9	498.76 ug/L	498.76 ppb	22:39:53
1	Cr 267.716†	38024.7	37809.1	487.96 ug/L	487.96 ppb	22:39:53
1	Cu 324.752†	155858.2	149523.3	481.51 ug/L	481.51 ppb	22:39:53
1	Mn 257.610†	375602.6	373849.1	482.83 ug/L	482.83 ppb	22:39:53
1	Mo 202.031†	5748.7	5717.4	490.43 ug/L	490.43 ppb	22:40:13
1	Ni 231.604†	16206.6	16061.4	496.27 ug/L	496.27 ppb	22:39:53
1	P 214.914†	3577.4	3381.8	2374.5 ug/L	2374.5 ppb	22:40:13
1	Pb 220.353†	3238.9	3277.3	492.65 ug/L	492.65 ppb	22:40:13
1	S 181.975 Axial†	600.2	569.1	996.48 ug/L	996.48 ppb	22:40:13
1	Sb 206.836†	1237.0	1204.1	506.87 ug/L	506.87 ppb	22:40:13
1	Se 196.026†	596.8	614.5	508.38 ug/L	508.38 ppb	22:40:13
1	Si 251.611†	66880.9	66141.6	2407.5 ug/L	2407.5 ppb	22:39:53
1	Sn 189.927†	2239.5	2227.6	488.25 ug/L	488.25 ppb	22:40:13
1	Ti 334.940†	282457.9	282569.5	481.41 ug/L	481.41 ppb	22:39:53
1	Tl 190.801†	1266.7	1288.1	490.29 ug/L	490.29 ppb	22:40:13
1	U 409.014†	14879.9	17075.9	486.85 ug/L	486.85 ppb	22:39:53
1	V 292.402†	61843.8	62917.8	490.36 ug/L	490.36 ppb	22:39:53
1	Zn 213.857†	42395.4	41323.5	480.18 ug/L	480.18 ppb	22:39:53
1	SiO2†	67062.2	66317.3	5154.7 ug/L	5154.7 ppb	22:41:20
2	Sc Radial	4389.5	4389.5	99.4 %		22:38:56
2	Y RADIAL	4748.5	4748.5	98.88 %		22:38:56
2	Al 396.153Radial†	5012.0	5116.2	4950.9 ug/L	4950.9 ppb	22:38:56
2	Ca 317.933Radial†	2725.5	2721.2	4994.6 ug/L	4994.6 ppb	22:39:16
2	Fe 238.204 Radial†	451.8	447.1	5006.0 ug/L	5006.0 ppb	22:39:16
2	K 766.490 Radial†	28135.3	25695.0	4981.1 ug/L	4981.1 ppb	22:38:56
2	Mg 279.077 IEC†	128.8	128.6	5116.6 ug/L	5116.6 ppb	22:39:16
2	Na 589.592 Radial†	26859.7	27932.8	9559.8 ug/L	9559.8 ppb	22:38:56
2	Sr 421.552†	63389.8	63760.3	493.06 ug/L	493.06 ppb	22:38:56
2	Sc 361.383	825443.9	825443.9	99.797 %		22:40:19
2	Y 371.029	692178.1	692178.1	98.444 %		22:40:19
2	Ag 328.068†	98883.0	98835.4	493.95 ug/L	493.95 ppb	22:40:24
2	As 188.979†	888.6	912.5	496.46 ug/L	496.46 ppb	22:40:44
2	B 249.677†	17357.7	17577.8	477.65 ug/L	477.65 ppb	22:40:24
2	Ba 233.527†	54389.2	54487.6	496.52 ug/L	496.52 ppb	22:40:24
2	Be 313.107†	1194003.4	1200208.8	497.57 ug/L	497.57 ppb	22:40:19
2	Cd 226.502†	35296.3	35525.0	495.64 ug/L	495.64 ppb	22:40:24
2	Co 228.616†	19983.9	20073.0	509.19 ug/L	509.19 ppb	22:40:24
2	Cr 267.716†	38265.2	38262.0	493.80 ug/L	493.80 ppb	22:40:24
2	Cu 324.752†	158403.1	152941.9	492.52 ug/L	492.52 ppb	22:40:24
2	Mn 257.610†	381133.1	381484.0	492.68 ug/L	492.68 ppb	22:40:24
2	Mo 202.031†	5726.2	5726.9	491.24 ug/L	491.24 ppb	22:40:44
2	Ni 231.604†	16475.4	16421.0	507.39 ug/L	507.39 ppb	22:40:24

2	P 214.914†	3554.0	3378.3	2369.8 ug/L	2369.8 ppb	22:40:44
2	Pb 220.353†	3225.4	3281.8	493.32 ug/L	493.32 ppb	22:40:44
2	S 181.975 Axial†	583.4	555.7	972.98 ug/L	972.98 ppb	22:40:44
2	Sb 206.836†	1234.9	1208.8	508.81 ug/L	508.81 ppb	22:40:44
2	Se 196.026†	603.9	624.9	516.71 ug/L	516.71 ppb	22:40:44
2	Si 251.611†	67987.0	67622.7	2461.5 ug/L	2461.5 ppb	22:40:24
2	Sn 189.927†	2222.3	2222.9	487.23 ug/L	487.23 ppb	22:40:44
2	Ti 334.940†	286672.0	288366.3	491.28 ug/L	491.28 ppb	22:40:24
2	Tl 190.801†	1270.1	1298.5	494.32 ug/L	494.32 ppb	22:40:44
2	U 409.014†	15078.8	17358.2	494.91 ug/L	494.91 ppb	22:40:24
2	V 292.402†	62513.2	63933.3	498.18 ug/L	498.18 ppb	22:40:24
2	Zn 213.857†	42914.5	42079.9	488.97 ug/L	488.97 ppb	22:40:24
2	SiO2†	66753.3	66381.5	5159.7 ug/L	5159.7 ppb	22:41:26
3	Sc Radial	4328.4	4328.4	98.0 %		22:39:21
3	Y RADIAL	4695.2	4695.2	97.77 %		22:39:21
3	Al 396.153Radial†	4901.2	5074.3	4910.2 ug/L	4910.2 ppb	22:39:21
3	Ca 317.933Radial†	2736.5	2771.1	5086.1 ug/L	5086.1 ppb	22:39:41
3	Fe 238.204 Radial†	453.0	454.8	5091.4 ug/L	5091.4 ppb	22:39:41
3	K 766.490 Radial†	27897.5	25851.5	5011.4 ug/L	5011.4 ppb	22:39:21
3	Mg 279.077 IEC†	131.1	132.7	5281.9 ug/L	5281.9 ppb	22:39:41
3	Na 589.592 Radial†	26492.6	27939.3	9562.0 ug/L	9562.0 ppb	22:39:21
3	Sr 421.552†	62384.4	63633.8	492.08 ug/L	492.08 ppb	22:39:21
3	Sc 361.383	823716.8	823716.8	99.588 %		22:40:50
3	Y 371.029	691357.1	691357.1	98.327 %		22:40:50
3	Ag 328.068†	97658.9	97814.0	488.89 ug/L	488.89 ppb	22:40:55
3	As 188.979†	881.4	907.1	493.54 ug/L	493.54 ppb	22:41:15
3	B 249.677†	17198.3	17454.2	474.28 ug/L	474.28 ppb	22:40:55
3	Ba 233.527†	53521.5	53730.6	489.63 ug/L	489.63 ppb	22:40:55
3	Be 313.107†	1190491.0	1199190.5	497.14 ug/L	497.14 ppb	22:40:50
3	Cd 226.502†	34716.5	35016.9	488.53 ug/L	488.53 ppb	22:40:55
3	Co 228.616†	19687.7	19817.5	502.71 ug/L	502.71 ppb	22:40:55
3	Cr 267.716†	37897.7	37973.4	490.09 ug/L	490.09 ppb	22:40:55
3	Cu 324.752†	156361.1	151224.3	486.99 ug/L	486.99 ppb	22:40:55
3	Mn 257.610†	375355.4	376483.1	486.23 ug/L	486.23 ppb	22:40:55
3	Mo 202.031†	5680.9	5693.5	488.38 ug/L	488.38 ppb	22:41:15
3	Ni 231.604†	16189.2	16168.3	499.57 ug/L	499.57 ppb	22:40:55
3	P 214.914†	3503.4	3335.0	2339.2 ug/L	2339.2 ppb	22:41:15
3	Pb 220.353†	3220.4	3283.6	493.56 ug/L	493.56 ppb	22:41:15
3	S 181.975 Axial†	580.1	553.6	969.26 ug/L	969.26 ppb	22:41:15
3	Sb 206.836†	1224.1	1200.6	505.33 ug/L	505.33 ppb	22:41:15
3	Se 196.026†	595.3	617.5	511.05 ug/L	511.05 ppb	22:41:15
3	Si 251.611†	66747.8	66521.3	2421.4 ug/L	2421.4 ppb	22:40:55
3	Sn 189.927†	2194.4	2199.5	482.12 ug/L	482.12 ppb	22:41:15
3	Ti 334.940†	283051.1	285332.7	486.11 ug/L	486.11 ppb	22:40:55
3	Tl 190.801†	1252.9	1283.9	488.76 ug/L	488.76 ppb	22:41:15
3	U 409.014†	14784.6	17094.5	487.37 ug/L	487.37 ppb	22:40:55
3	V 292.402†	61921.9	63470.9	494.57 ug/L	494.57 ppb	22:40:55
3	Zn 213.857†	42251.0	41503.9	482.26 ug/L	482.26 ppb	22:40:55
3	SiO2†	66749.8	66518.3	5170.4 ug/L	5170.4 ppb	22:41:31

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	826407.0	99.913 %		0.3965			0.40%
Sc Radial	4376.7	99.1 %		0.98			0.99%
Y 371.029	693860.6	98.683 %		0.5189			0.53%
Y RADIAL	4751.5	98.94 %		1.204			1.22%
Ag 328.068†	97861.9	489.11 ug/L		4.734	489.11 ppb	4.734	0.97%
QC value within limits for Ag 328.068 Recovery = 97.82%							
Al 396.153Radial†	5105.4	4940.4 ug/L		26.53	4940.4 ppb	26.53	0.54%
QC value within limits for Al 396.153Radial Recovery = 98.81%							
As 188.979†	908.3	494.17 ug/L		2.046	494.17 ppb	2.046	0.41%
QC value within limits for As 188.979 Recovery = 98.83%							
B 249.677†	17406.8	472.99 ug/L		5.416	472.99 ppb	5.416	1.14%
QC value within limits for B 249.677 Recovery = 94.60%							
Ba 233.527†	53877.2	490.96 ug/L		5.024	490.96 ppb	5.024	1.02%
QC value within limits for Ba 233.527 Recovery = 98.19%							
Be 313.107†	1200833.0	497.82 ug/L		0.831	497.82 ppb	0.831	0.17%
QC value within limits for Be 313.107 Recovery = 99.56%							
Ca 317.933Radial†	2733.1	5016.4 ug/L		61.71	5016.4 ppb	61.71	1.23%

QC value within limits for Ca 317.933 Radial Recovery = 100.33%							
Cd 226.502†	35165.0	490.60 ug/L	4.380	490.60 ppb	4.380	0.89%	
QC value within limits for Cd 226.502 Recovery = 98.12%							
Co 228.616†	19850.5	503.55 ug/L	5.267	503.55 ppb	5.267	1.05%	
QC value within limits for Co 228.616 Recovery = 100.71%							
Cr 267.716†	38014.9	490.62 ug/L	2.956	490.62 ppb	2.956	0.60%	
QC value within limits for Cr 267.716 Recovery = 98.12%							
Cu 324.752†	151229.8	487.01 ug/L	5.503	487.01 ppb	5.503	1.13%	
QC value within limits for Cu 324.752 Recovery = 97.40%							
Fe 238.204 Radial†	449.3	5030.6 ug/L	52.96	5030.6 ppb	52.96	1.05%	
QC value within limits for Fe 238.204 Radial Recovery = 100.61%							
K 766.490 Radial†	25770.2	4995.7 ug/L	15.21	4995.7 ppb	15.21	0.30%	
QC value within limits for K 766.490 Radial Recovery = 99.91%							
Mg 279.077 IEC†	129.1	5136.8 ug/L	136.10	5136.8 ppb	136.10	2.65%	
QC value within limits for Mg 279.077 IEC Recovery = 102.74%							
Mn 257.610†	377272.1	487.25 ug/L	5.004	487.25 ppb	5.004	1.03%	
QC value within limits for Mn 257.610 Recovery = 97.45%							
Mo 202.031†	5712.6	490.02 ug/L	1.471	490.02 ppb	1.471	0.30%	
QC value within limits for Mo 202.031 Recovery = 98.00%							
Na 589.592 Radial†	27973.9	9573.8 ug/L	22.50	9573.8 ppb	22.50	0.23%	
QC value within limits for Na 589.592 Radial Recovery = 95.74%							
Ni 231.604†	16216.9	501.08 ug/L	5.707	501.08 ppb	5.707	1.14%	
QC value within limits for Ni 231.604 Recovery = 100.22%							
P 214.914†	3365.0	2361.2 ug/L	19.20	2361.2 ppb	19.20	0.81%	
QC value within limits for P 214.914 Recovery = 94.45%							
Pb 220.353†	3280.9	493.18 ug/L	0.470	493.18 ppb	0.470	0.10%	
QC value within limits for Pb 220.353 Recovery = 98.64%							
S 181.975 Axial†	559.4	979.57 ug/L	14.762	979.57 ppb	14.762	1.51%	
QC value within limits for S 181.975 Axial Recovery = 97.96%							
Sb 206.836†	1204.5	507.00 ug/L	1.742	507.00 ppb	1.742	0.34%	
QC value within limits for Sb 206.836 Recovery = 101.40%							
Se 196.026†	618.9	512.05 ug/L	4.253	512.05 ppb	4.253	0.83%	
QC value within limits for Se 196.026 Recovery = 102.41%							
Si 251.611†	66761.9	2430.1 ug/L	28.06	2430.1 ppb	28.06	1.15%	
QC value within limits for Si 251.611 Recovery = 97.20%							
Sn 189.927†	2216.7	485.87 ug/L	3.285	485.87 ppb	3.285	0.68%	
QC value within limits for Sn 189.927 Recovery = 97.17%							
Sr 421.552†	63715.2	492.71 ug/L	0.547	492.71 ppb	0.547	0.11%	
QC value within limits for Sr 421.552 Recovery = 98.54%							
Ti 334.940†	285422.8	486.26 ug/L	4.936	486.26 ppb	4.936	1.02%	
QC value within limits for Ti 334.940 Recovery = 97.25%							
Tl 190.801†	1290.2	491.12 ug/L	2.875	491.12 ppb	2.875	0.59%	
QC value within limits for Tl 190.801 Recovery = 98.22%							
U 409.014†	17176.2	489.71 ug/L	4.512	489.71 ppb	4.512	0.92%	
QC value within limits for U 409.014 Recovery = 97.94%							
V 292.402†	63440.7	494.37 ug/L	3.916	494.37 ppb	3.916	0.79%	
QC value within limits for V 292.402 Recovery = 98.87%							
Zn 213.857†	41635.8	483.80 ug/L	4.592	483.80 ppb	4.592	0.95%	
QC value within limits for Zn 213.857 Recovery = 96.76%							
SiO2†	66405.7	5161.6 ug/L	8.03	5161.6 ppb	8.03	0.16%	
QC value within limits for SiO2 Recovery = 96.52%							
All analyte(s) passed QC.							

Sequence No.: 31

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 3/17/2010 22:43:40

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	4327.0	4327.0	98.0 %		22:45:52
1	Y RADIAL	4842.4	4842.4	100.8 %		22:45:32
1	Al 396.153Radial†	-73.7	-1.9	-1.8633 ug/L	-1.8633 ppb	22:45:52
1	Ca 317.933Radial†	16.9	-3.8	-6.9982 ug/L	-6.9982 ppb	22:45:52
1	Fe 238.204 Radial†	11.1	3.9	43.988 ug/L	43.988 ppb	22:45:52
1	K 766.490 Radial†	2533.4	-28.2	-5.4726 ug/L	-5.4726 ppb	22:45:32
1	Mg 279.077 IEC†	1.8	0.8	32.373 ug/L	32.373 ppb	22:45:52
1	Na 589.592 Radial†	-834.5	55.6	19.022 ug/L	19.022 ppb	22:45:32
1	Sr 421.552†	25.8	5.6	0.0431 ug/L	0.0431 ppb	22:45:32
1	Sc 361.383	818624.0	818624.0	98.972 %		22:46:49
1	Y 371.029	697317.5	697317.5	99.175 %		22:46:49
1	Ag 328.068†	85.2	-163.0	-0.7991 ug/L	-0.7991 ppb	22:46:49
1	As 188.979†	-25.5	-3.7	-1.9763 ug/L	-1.9763 ppb	22:47:09
1	B 249.677†	-346.5	-165.3	-4.5209 ug/L	-4.5209 ppb	22:47:09
1	Ba 233.527†	0.8	-11.7	-0.1052 ug/L	-0.1052 ppb	22:47:09
1	Be 313.107†	-3794.1	-61.4	-0.0253 ug/L	-0.0253 ppb	22:46:49
1	Cd 226.502†	-160.9	-5.8	-0.0852 ug/L	-0.0852 ppb	22:47:09
1	Co 228.616†	-45.3	2.5	0.0645 ug/L	0.0645 ppb	22:47:09
1	Cr 267.716†	60.0	-20.6	-0.2618 ug/L	-0.2618 ppb	22:47:09
1	Cu 324.752†	5762.4	38.2	0.1242 ug/L	0.1242 ppb	22:46:49
1	Mn 257.610†	442.5	21.3	0.0305 ug/L	0.0305 ppb	22:47:09
1	Mo 202.031†	14.3	3.5	0.3069 ug/L	0.3069 ppb	22:47:09
1	Ni 231.604†	80.9	-6.1	-0.1901 ug/L	-0.1901 ppb	22:47:09
1	P 214.914†	206.6	25.8	18.805 ug/L	18.805 ppb	22:47:09
1	Pb 220.353†	-50.6	-1.3	-0.1993 ug/L	-0.1993 ppb	22:47:09
1	S 181.975 Axial†	33.5	4.9	8.6718 ug/L	8.6718 ppb	22:47:09
1	Sb 206.836†	25.7	-2.6	-1.0412 ug/L	-1.0412 ppb	22:47:09
1	Se 196.026†	-27.2	-7.7	-6.0217 ug/L	-6.0217 ppb	22:47:09
1	Si 251.611†	508.4	10.8	0.3918 ug/L	0.3918 ppb	22:47:09
1	Sn 189.927†	11.3	7.5	1.6320 ug/L	1.6320 ppb	22:47:09
1	Ti 334.940†	-1087.4	11.4	0.0149 ug/L	0.0149 ppb	22:46:49
1	Tl 190.801†	-38.9	-13.5	-5.1058 ug/L	-5.1058 ppb	22:47:09
1	U 409.014†	-2146.4	80.0	2.2847 ug/L	2.2847 ppb	22:46:49
1	V 292.402†	-1313.8	-34.8	-0.2643 ug/L	-0.2643 ppb	22:46:49
1	Zn 213.857†	1478.5	571.9	6.7026 ug/L	6.7026 ppb	22:47:09
1	SiO2†	526.9	24.6	1.9065 ug/L	1.9065 ppb	22:48:20
2	Sc Radial	4320.7	4320.7	97.8 %		22:46:17
2	Y RADIAL	4909.8	4909.8	102.2 %		22:45:57
2	Al 396.153Radial†	-74.4	-2.7	-2.6093 ug/L	-2.6093 ppb	22:46:17
2	Ca 317.933Radial†	18.0	-2.7	-5.0403 ug/L	-5.0403 ppb	22:46:17
2	Fe 238.204 Radial†	6.4	-0.9	-9.7974 ug/L	-9.7974 ppb	22:46:17
2	K 766.490 Radial†	2680.1	125.6	24.378 ug/L	24.378 ppb	22:45:57
2	Mg 279.077 IEC†	2.8	1.9	74.011 ug/L	74.011 ppb	22:46:17
2	Na 589.592 Radial†	-855.2	33.1	11.332 ug/L	11.332 ppb	22:45:57
2	Sr 421.552†	8.6	-11.9	-0.0921 ug/L	-0.0921 ppb	22:45:57
2	Sc 361.383	819963.2	819963.2	99.134 %		22:47:14
2	Y 371.029	697197.0	697197.0	99.158 %		22:47:14
2	Ag 328.068†	261.9	15.1	0.0694 ug/L	0.0694 ppb	22:47:14
2	As 188.979†	-25.2	-3.4	-1.8270 ug/L	-1.8270 ppb	22:47:34
2	B 249.677†	-382.5	-201.0	-5.4877 ug/L	-5.4877 ppb	22:47:34
2	Ba 233.527†	-1.7	-14.2	-0.1299 ug/L	-0.1299 ppb	22:47:34
2	Be 313.107†	-3736.9	2.6	0.0009 ug/L	0.0009 ppb	22:47:14
2	Cd 226.502†	-173.3	-18.1	-0.2505 ug/L	-0.2505 ppb	22:47:34
2	Co 228.616†	-39.4	8.6	0.2178 ug/L	0.2178 ppb	22:47:34
2	Cr 267.716†	85.2	4.8	0.0593 ug/L	0.0593 ppb	22:47:34
2	Cu 324.752†	5707.0	-27.1	-0.0886 ug/L	-0.0886 ppb	22:47:14
2	Mn 257.610†	441.0	19.0	0.0206 ug/L	0.0206 ppb	22:47:34
2	Mo 202.031†	11.6	0.8	0.0652 ug/L	0.0652 ppb	22:47:34
2	Ni 231.604†	100.9	13.8	0.4280 ug/L	0.4280 ppb	22:47:34

2	P 214.914†	199.0	17.8	13.035 ug/L	13.035 ppb	22:47:34
2	Pb 220.353†	-31.0	18.5	2.7776 ug/L	2.7776 ppb	22:47:34
2	S 181.975 Axial†	33.1	4.4	7.7967 ug/L	7.7967 ppb	22:47:34
2	Sb 206.836†	21.6	-6.8	-2.7207 ug/L	-2.7207 ppb	22:47:34
2	Se 196.026†	-16.7	2.9	2.3024 ug/L	2.3024 ppb	22:47:34
2	Si 251.611†	510.9	12.5	0.4557 ug/L	0.4557 ppb	22:47:34
2	Sn 189.927†	10.3	6.4	1.4019 ug/L	1.4019 ppb	22:47:34
2	Ti 334.940†	-1131.9	-31.7	-0.0614 ug/L	-0.0614 ppb	22:47:14
2	Tl 190.801†	-23.6	2.0	0.7425 ug/L	0.7425 ppb	22:47:34
2	U 409.014†	-2183.4	46.2	1.3224 ug/L	1.3224 ppb	22:47:14
2	V 292.402†	-1323.7	-42.6	-0.3211 ug/L	-0.3211 ppb	22:47:14
2	Zn 213.857†	1473.3	564.1	6.6164 ug/L	6.6164 ppb	22:47:34
2	SiO2†	524.3	21.1	1.6417 ug/L	1.6417 ppb	22:48:40
3	Sc Radial	4325.1	4325.1	97.9 %		22:46:42
3	Y RADIAL	4906.1	4906.1	102.2 %		22:46:22
3	Al 396.153Radial†	-78.9	-7.3	-7.0585 ug/L	-7.0585 ppb	22:46:42
3	Ca 317.933Radial†	18.3	-2.4	-4.4355 ug/L	-4.4355 ppb	22:46:42
3	Fe 238.204 Radial†	9.1	1.9	21.169 ug/L	21.169 ppb	22:46:42
3	K 766.490 Radial†	2675.6	118.2	22.944 ug/L	22.944 ppb	22:46:22
3	Mg 279.077 IEC†	1.8	0.8	33.197 ug/L	33.197 ppb	22:46:42
3	Na 589.592 Radial†	-876.5	12.3	4.2185 ug/L	4.2185 ppb	22:46:22
3	Sr 421.552†	21.5	1.3	0.0098 ug/L	0.0098 ppb	22:46:22
3	Sc 361.383	807815.2	807815.2	97.665 %		22:47:39
3	Y 371.029	687988.8	687988.8	97.848 %		22:47:39
3	Ag 328.068†	105.7	-140.8	-0.6971 ug/L	-0.6971 ppb	22:47:39
3	As 188.979†	-26.1	-4.6	-2.4921 ug/L	-2.4921 ppb	22:47:59
3	B 249.677†	-365.2	-189.1	-5.1672 ug/L	-5.1672 ppb	22:47:59
3	Ba 233.527†	-5.5	-18.0	-0.1632 ug/L	-0.1632 ppb	22:47:59
3	Be 313.107†	-3737.1	-54.3	-0.0227 ug/L	-0.0227 ppb	22:47:39
3	Cd 226.502†	-166.4	-13.6	-0.1903 ug/L	-0.1903 ppb	22:47:59
3	Co 228.616†	-38.4	9.0	0.2277 ug/L	0.2277 ppb	22:47:59
3	Cr 267.716†	85.5	6.3	0.0816 ug/L	0.0816 ppb	22:47:59
3	Cu 324.752†	5755.3	108.9	0.3491 ug/L	0.3491 ppb	22:47:39
3	Mn 257.610†	441.1	25.8	0.0341 ug/L	0.0341 ppb	22:47:59
3	Mo 202.031†	3.7	-7.1	-0.6055 ug/L	-0.6055 ppb	22:47:59
3	Ni 231.604†	97.1	11.5	0.3548 ug/L	0.3548 ppb	22:47:59
3	P 214.914†	177.4	-1.3	-1.0026 ug/L	-1.0026 ppb	22:47:59
3	Pb 220.353†	-58.7	-10.3	-1.5467 ug/L	-1.5467 ppb	22:47:59
3	S 181.975 Axial†	32.7	4.6	8.0208 ug/L	8.0208 ppb	22:47:59
3	Sb 206.836†	31.7	3.8	1.5665 ug/L	1.5665 ppb	22:47:59
3	Se 196.026†	-14.3	5.1	4.1207 ug/L	4.1207 ppb	22:47:59
3	Si 251.611†	529.3	39.1	1.4350 ug/L	1.4350 ppb	22:47:59
3	Sn 189.927†	9.5	5.8	1.2603 ug/L	1.2603 ppb	22:47:59
3	Ti 334.940†	-1159.9	-77.6	-0.1376 ug/L	-0.1376 ppb	22:47:39
3	Tl 190.801†	-32.2	-7.1	-2.7038 ug/L	-2.7038 ppb	22:47:59
3	U 409.014†	-2034.0	166.1	4.7481 ug/L	4.7481 ppb	22:47:39
3	V 292.402†	-1271.9	-9.6	-0.0756 ug/L	-0.0756 ppb	22:47:39
3	Zn 213.857†	1474.3	587.5	6.8861 ug/L	6.8861 ppb	22:47:59
3	SiO2†	527.9	32.7	2.5628 ug/L	2.5628 ppb	22:49:00

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	815467.5	98.590 %	0.8053			0.82%
Sc Radial	4324.3	97.9 %	0.07			0.07%
Y 371.029	694167.8	98.727 %	0.7611			0.77%
Y RADIAL	4886.1	101.7 %	0.79			0.78%
Ag 328.068†	-96.3	-0.4756 ug/L	0.47472	-0.4756 ppb	0.47472	99.82%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-4.0	-3.8437 ug/L	2.80898	-3.8437 ppb	2.80898	73.08%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-3.9	-2.0985 ug/L	0.34897	-2.0985 ppb	0.34897	16.63%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-185.2	-5.0586 ug/L	0.49249	-5.0586 ppb	0.49249	9.74%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-14.6	-0.1328 ug/L	0.02913	-0.1328 ppb	0.02913	21.95%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-37.7	-0.0157 ug/L	0.01448	-0.0157 ppb	0.01448	92.12%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-3.0	-5.4913 ug/L	1.33954	-5.4913 ppb	1.33954	24.39%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	-12.5	-0.1753 ug/L	0.08366	-0.1753 ppb	0.08366	47.71%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	6.7	0.1700 ug/L	0.09148	0.1700 ppb	0.09148	53.81%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-3.2	-0.0403 ug/L	0.19215	-0.0403 ppb	0.19215	477.06%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	40.0	0.1282 ug/L	0.21889	0.1282 ppb	0.21889	170.72%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	1.7	18.453 ug/L	26.9952	18.453 ppb	26.9952	146.29%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	71.9	13.950 ug/L	16.8353	13.950 ppb	16.8353	120.69%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	1.2	46.527 ug/L	23.8053	46.527 ppb	23.8053	51.16%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	22.1	0.0284 ug/L	0.00701	0.0284 ppb	0.00701	24.68%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-0.9	-0.0778 ug/L	0.47276	-0.0778 ppb	0.47276	607.71%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	33.7	11.524 ug/L	7.4034	11.524 ppb	7.4034	64.24%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	6.4	0.1975 ug/L	0.33772	0.1975 ppb	0.33772	170.97%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	14.1	10.279 ug/L	10.1875	10.279 ppb	10.1875	99.11%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	2.3	0.3439 ug/L	2.21273	0.3439 ppb	2.21273	643.46%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	4.7	8.1631 ug/L	0.45457	8.1631 ppb	0.45457	5.57%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-1.9	-0.7318 ug/L	2.16028	-0.7318 ppb	2.16028	295.19%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	0.1	0.1338 ug/L	5.40780	0.1338 ppb	5.40780	>999.9%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	20.8	0.7608 ug/L	0.58471	0.7608 ppb	0.58471	76.85%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	6.5	1.4314 ug/L	0.18757	1.4314 ppb	0.18757	13.10%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-1.7	-0.0131 ug/L	0.07041	-0.0131 ppb	0.07041	538.91%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-32.6	-0.0614 ug/L	0.07628	-0.0614 ppb	0.07628	124.32%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-6.2	-2.3557 ug/L	2.93962	-2.3557 ppb	2.93962	124.79%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	97.4	2.7851 ug/L	1.76685	2.7851 ppb	1.76685	63.44%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-29.0	-0.2204 ug/L	0.12854	-0.2204 ppb	0.12854	58.33%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	574.5	6.7350 ug/L	0.13775	6.7350 ppb	0.13775	2.05%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	26.1	2.0370 ug/L	0.47419	2.0370 ppb	0.47419	23.28%	
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 32
 Sample ID: 1202049256|955808|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 63
 Date Collected: 3/17/2010 22:51:10
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 1202049256|955808|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4391.0	4391.0	99.4 %		22:53:23
1	Y RADIAL	4955.4	4955.4	103.2 %		22:53:03
1	Al 396.153Radial†	-75.5	-2.6	-2.5549 ug/L	-2.5549 ppb	22:53:23
1	Ca 317.933Radial†	26.6	5.6	10.278 ug/L	10.278 ppb	22:53:23
1	Fe 238.204 Radial†	10.7	3.3	37.248 ug/L	37.248 ppb	22:53:23
1	K 766.490 Radial†	2520.3	-79.0	-15.348 ug/L	-15.348 ppb	22:53:03
1	Mg 279.077 IEC†	1.6	0.6	21.962 ug/L	21.962 ppb	22:53:23
1	Na 589.592 Radial†	-843.7	58.7	20.083 ug/L	20.083 ppb	22:53:03
1	Sr 421.552†	14.4	-6.2	-0.0483 ug/L	-0.0483 ppb	22:53:03
1	Sc 361.383	835886.6	835886.6	101.06 %		22:54:20
1	Y 371.029	714117.9	714117.9	101.56 %		22:54:20
1	Ag 328.068†	36.1	-213.4	-1.0486 ug/L	-1.0486 ppb	22:54:20
1	As 188.979†	-19.2	3.1	1.6983 ug/L	1.6983 ppb	22:54:40
1	B 249.677†	-365.1	-176.4	-4.8231 ug/L	-4.8231 ppb	22:54:40
1	Ba 233.527†	18.0	5.4	0.0509 ug/L	0.0509 ppb	22:54:40
1	Be 313.107†	-3955.9	-142.4	-0.0584 ug/L	-0.0584 ppb	22:54:20
1	Cd 226.502†	-175.3	-16.6	-0.2357 ug/L	-0.2357 ppb	22:54:40
1	Co 228.616†	-51.4	-2.5	-0.0639 ug/L	-0.0639 ppb	22:54:40
1	Cr 267.716†	91.8	9.6	0.1272 ug/L	0.1272 ppb	22:54:40
1	Cu 324.752†	5855.8	10.4	0.0344 ug/L	0.0344 ppb	22:54:20
1	Mn 257.610†	512.0	80.9	0.1072 ug/L	0.1072 ppb	22:54:40
1	Mo 202.031†	17.6	6.5	0.5589 ug/L	0.5589 ppb	22:54:40
1	Ni 231.604†	89.6	0.8	0.0235 ug/L	0.0235 ppb	22:54:40
1	P 214.914†	193.7	8.8	6.3826 ug/L	6.3826 ppb	22:54:40
1	Pb 220.353†	-59.8	-9.3	-1.4034 ug/L	-1.4034 ppb	22:54:40
1	S 181.975 Axial†	32.2	2.9	5.1208 ug/L	5.1208 ppb	22:54:40
1	Sb 206.836†	32.8	3.9	1.5945 ug/L	1.5945 ppb	22:54:40
1	Se 196.026†	-16.2	3.7	3.0725 ug/L	3.0725 ppb	22:54:40
1	Si 251.611†	924.4	411.9	15.022 ug/L	15.022 ppb	22:54:40
1	Sn 189.927†	7.6	3.6	0.7829 ug/L	0.7829 ppb	22:54:40
1	Ti 334.940†	-992.1	128.3	0.2173 ug/L	0.2173 ppb	22:54:20
1	Tl 190.801†	-38.6	-12.4	-4.6950 ug/L	-4.6950 ppb	22:54:40
1	U 409.014†	-2197.2	74.5	2.1256 ug/L	2.1256 ppb	22:54:20
1	V 292.402†	-1259.7	46.2	0.3619 ug/L	0.3619 ppb	22:54:20
1	Zn 213.857†	903.0	-28.5	-0.3396 ug/L	-0.3396 ppb	22:54:40
1	SiO2†	984.7	466.6	36.347 ug/L	36.347 ppb	22:55:36
2	Sc Radial	4357.0	4357.0	98.7 %		22:53:48
2	Y RADIAL	4896.1	4896.1	102.0 %		22:53:28
2	Al 396.153Radial†	-75.5	-3.3	-3.1570 ug/L	-3.1570 ppb	22:53:48
2	Ca 317.933Radial†	21.2	0.4	0.7586 ug/L	0.7586 ppb	22:53:48
2	Fe 238.204 Radial†	10.0	2.7	30.544 ug/L	30.544 ppb	22:53:48
2	K 766.490 Radial†	2574.0	-4.8	-0.9365 ug/L	-0.9365 ppb	22:53:28
2	Mg 279.077 IEC†	-0.1	-1.2	-46.737 ug/L	-46.737 ppb	22:53:48
2	Na 589.592 Radial†	-802.5	93.8	32.099 ug/L	32.099 ppb	22:53:28
2	Sr 421.552†	26.6	6.2	0.0483 ug/L	0.0483 ppb	22:53:28
2	Sc 361.383	814980.3	814980.3	98.532 %		22:54:45
2	Y 371.029	695531.2	695531.2	98.921 %		22:54:45
2	Ag 328.068†	60.4	-187.8	-0.9303 ug/L	-0.9303 ppb	22:54:45
2	As 188.979†	-13.7	8.2	4.4298 ug/L	4.4298 ppb	22:55:05
2	B 249.677†	-387.4	-208.3	-5.6933 ug/L	-5.6933 ppb	22:55:05
2	Ba 233.527†	2.5	-9.8	-0.0899 ug/L	-0.0899 ppb	22:55:05
2	Be 313.107†	-3712.8	3.9	0.0019 ug/L	0.0019 ppb	22:54:45
2	Cd 226.502†	-172.8	-18.6	-0.2609 ug/L	-0.2609 ppb	22:55:05
2	Co 228.616†	-44.7	3.0	0.0738 ug/L	0.0738 ppb	22:55:05
2	Cr 267.716†	92.9	13.1	0.1682 ug/L	0.1682 ppb	22:55:05
2	Cu 324.752†	5683.2	-16.1	-0.0534 ug/L	-0.0534 ppb	22:54:45
2	Mn 257.610†	518.1	100.0	0.1341 ug/L	0.1341 ppb	22:55:05
2	Mo 202.031†	8.9	-1.8	-0.1553 ug/L	-0.1553 ppb	22:55:05
2	Ni 231.604†	89.5	2.9	0.0910 ug/L	0.0910 ppb	22:55:05

2	P 214.914†	199.0	19.1	13.918 ug/L	13.918 ppb	22:55:05
2	Pb 220.353†	-54.0	-4.9	-0.7461 ug/L	-0.7461 ppb	22:55:05
2	S 181.975 Axial†	25.1	-3.5	-6.0554 ug/L	-6.0554 ppb	22:55:05
2	Sb 206.836†	35.5	7.5	3.0393 ug/L	3.0393 ppb	22:55:05
2	Se 196.026†	-24.0	-4.6	-3.6275 ug/L	-3.6275 ppb	22:55:05
2	Si 251.611†	905.2	415.9	15.176 ug/L	15.176 ppb	22:55:05
2	Sn 189.927†	5.3	1.4	0.3049 ug/L	0.3049 ppb	22:55:05
2	Ti 334.940†	-1036.1	58.5	0.1010 ug/L	0.1010 ppb	22:54:45
2	Tl 190.801†	-34.0	-8.7	-3.2732 ug/L	-3.2732 ppb	22:55:05
2	U 409.014†	-2017.8	200.8	5.7404 ug/L	5.7404 ppb	22:54:45
2	V 292.402†	-1348.2	-75.7	-0.5786 ug/L	-0.5786 ppb	22:54:45
2	Zn 213.857†	914.8	6.4	0.0703 ug/L	0.0703 ppb	22:55:05
2	SiO2†	930.6	436.7	34.036 ug/L	34.036 ppb	22:55:41
3	Sc Radial	4399.4	4399.4	99.6 %		22:54:13
3	Y RADIAL	4881.2	4881.2	101.6 %		22:53:53
3	Al 396.153Radial†	-73.2	-0.2	-0.1232 ug/L	-0.1232 ppb	22:54:13
3	Ca 317.933Radial†	18.9	-2.2	-3.9983 ug/L	-3.9983 ppb	22:54:13
3	Fe 238.204 Radial†	6.9	-0.5	-5.2548 ug/L	-5.2548 ppb	22:54:13
3	K 766.490 Radial†	2545.2	-58.9	-11.437 ug/L	-11.437 ppb	22:53:53
3	Mg 279.077 IEC†	0.7	-0.3	-11.435 ug/L	-11.435 ppb	22:54:13
3	Na 589.592 Radial†	-812.7	91.4	31.291 ug/L	31.291 ppb	22:53:53
3	Sr 421.552†	30.1	9.5	0.0738 ug/L	0.0738 ppb	22:53:53
3	Sc 361.383	818016.9	818016.9	98.899 %		22:55:11
3	Y 371.029	698255.1	698255.1	99.308 %		22:55:11
3	Ag 328.068†	194.4	-52.5	-0.2672 ug/L	-0.2672 ppb	22:55:11
3	As 188.979†	-21.6	0.2	0.1057 ug/L	0.1057 ppb	22:55:31
3	B 249.677†	-371.6	-190.9	-5.2128 ug/L	-5.2128 ppb	22:55:31
3	Ba 233.527†	13.1	0.8	0.0065 ug/L	0.0065 ppb	22:55:31
3	Be 313.107†	-3775.5	-45.4	-0.0185 ug/L	-0.0185 ppb	22:55:11
3	Cd 226.502†	-168.7	-13.8	-0.1907 ug/L	-0.1907 ppb	22:55:31
3	Co 228.616†	-41.6	6.3	0.1584 ug/L	0.1584 ppb	22:55:31
3	Cr 267.716†	68.8	-11.6	-0.1521 ug/L	-0.1521 ppb	22:55:31
3	Cu 324.752†	5814.4	95.2	0.3037 ug/L	0.3037 ppb	22:55:11
3	Mn 257.610†	516.2	96.1	0.1240 ug/L	0.1240 ppb	22:55:31
3	Mo 202.031†	1.0	-9.9	-0.8467 ug/L	-0.8467 ppb	22:55:31
3	Ni 231.604†	89.0	2.1	0.0642 ug/L	0.0642 ppb	22:55:31
3	P 214.914†	197.8	17.0	12.396 ug/L	12.396 ppb	22:55:31
3	Pb 220.353†	-53.9	-4.6	-0.6974 ug/L	-0.6974 ppb	22:55:31
3	S 181.975 Axial†	28.8	0.1	0.2461 ug/L	0.2461 ppb	22:55:31
3	Sb 206.836†	28.7	0.5	0.2019 ug/L	0.2019 ppb	22:55:31
3	Se 196.026†	-27.0	-7.5	-6.0491 ug/L	-6.0491 ppb	22:55:31
3	Si 251.611†	918.5	425.9	15.551 ug/L	15.551 ppb	22:55:31
3	Sn 189.927†	10.3	6.5	1.4253 ug/L	1.4253 ppb	22:55:31
3	Ti 334.940†	-1027.8	70.8	0.1191 ug/L	0.1191 ppb	22:55:11
3	Tl 190.801†	-30.3	-4.8	-1.8178 ug/L	-1.8178 ppb	22:55:31
3	U 409.014†	-2062.4	163.3	4.6717 ug/L	4.6717 ppb	22:55:11
3	V 292.402†	-1305.6	-27.5	-0.2140 ug/L	-0.2140 ppb	22:55:11
3	Zn 213.857†	919.1	7.3	0.0852 ug/L	0.0852 ppb	22:55:31
3	SiO2†	915.8	418.2	32.613 ug/L	32.613 ppb	22:55:46

Mean Data: 1202049256|955808|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Sc 361.383	822961.3	99.496 %		1.3657			1.37%
Sc Radial	4382.5	99.2 %		0.51			0.51%
Y 371.029	702634.7	99.931 %		1.4276			1.43%
Y RADIAL	4910.9	102.3 %		0.82			0.80%
Ag 328.068†	-151.2	-0.7487 ug/L		0.42115	-0.7487 ppb	0.42115	56.25%
Al 396.153Radial†	-2.0	-1.9450 ug/L		1.60624	-1.9450 ppb	1.60624	82.58%
As 188.979†	3.8	2.0780 ug/L		2.18693	2.0780 ppb	2.18693	105.24%
B 249.677†	-191.9	-5.2431 ug/L		0.43589	-5.2431 ppb	0.43589	8.31%
Ba 233.527†	-1.2	-0.0108 ug/L		0.07196	-0.0108 ppb	0.07196	664.22%
Be 313.107†	-61.3	-0.0250 ug/L		0.03065	-0.0250 ppb	0.03065	122.53%
Ca 317.933Radial†	1.3	2.3460 ug/L		7.26911	2.3460 ppb	7.26911	309.86%
Cd 226.502†	-16.3	-0.2291 ug/L		0.03555	-0.2291 ppb	0.03555	15.52%
Co 228.616†	2.3	0.0561 ug/L		0.11218	0.0561 ppb	0.11218	199.95%
Cr 267.716†	3.7	0.0478 ug/L		0.17432	0.0478 ppb	0.17432	364.83%
Cu 324.752†	29.8	0.0949 ug/L		0.18612	0.0949 ppb	0.18612	196.14%
Fe 238.204 Radial†	1.9	20.846 ug/L		22.8508	20.846 ppb	22.8508	109.62%
K 766.490 Radial†	-47.5	-9.2405 ug/L		7.45254	-9.2405 ppb	7.45254	80.65%

Mg 279.077 IEC†	-0.3	-12.070 ug/L	34.3540	-12.070 ppb	34.3540	284.62%
Mn 257.610†	92.3	0.1218 ug/L	0.01357	0.1218 ppb	0.01357	11.15%
Mo 202.031†	-1.7	-0.1477 ug/L	0.70283	-0.1477 ppb	0.70283	475.81%
Na 589.592 Radial†	81.3	27.825 ug/L	6.7161	27.825 ppb	6.7161	24.14%
Ni 231.604†	1.9	0.0596 ug/L	0.03400	0.0596 ppb	0.03400	57.09%
P 214.914†	15.0	10.899 ug/L	3.9845	10.899 ppb	3.9845	36.56%
Pb 220.353†	-6.3	-0.9490 ug/L	0.39427	-0.9490 ppb	0.39427	41.55%
S 181.975 Axial†	-0.1	-0.2295 ug/L	5.60324	-0.2295 ppb	5.60324	>999.9%
Sb 206.836†	3.9	1.6119 ug/L	1.41875	1.6119 ppb	1.41875	88.02%
Se 196.026†	-2.8	-2.2014 ug/L	4.72506	-2.2014 ppb	4.72506	214.64%
Si 251.611†	417.9	15.250 ug/L	0.2718	15.250 ppb	0.2718	1.78%
Sn 189.927†	3.8	0.8377 ug/L	0.56221	0.8377 ppb	0.56221	67.11%
Sr 421.552†	3.2	0.0246 ug/L	0.06442	0.0246 ppb	0.06442	262.20%
Ti 334.940†	85.9	0.1458 ug/L	0.06256	0.1458 ppb	0.06256	42.90%
Tl 190.801†	-8.6	-3.2620 ug/L	1.43860	-3.2620 ppb	1.43860	44.10%
U 409.014†	146.2	4.1792 ug/L	1.85703	4.1792 ppb	1.85703	44.43%
V 292.402†	-19.0	-0.1436 ug/L	0.47419	-0.1436 ppb	0.47419	330.26%
Zn 213.857†	-4.9	-0.0614 ug/L	0.24107	-0.0614 ppb	0.24107	392.86%
SiO2†	440.5	34.332 ug/L	1.8845	34.332 ppb	1.8845	5.49%

Sequence No.: 33
 Sample ID: 1202049257|955808|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 64
 Date Collected: 3/17/2010 22:57:57
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 1202049257|955808|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4483.3	4483.3	102 %		22:59:50
1	Y RADIAL	4876.8	4876.8	101.6 %		22:59:50
1	Al 396.153Radial†	5379.5	5372.7	5199.7 ug/L	5199.7 ppb	22:59:50
1	Ca 317.933Radial†	2890.7	2826.6	5187.9 ug/L	5187.9 ppb	23:00:10
1	Fe 238.204 Radial†	480.7	466.1	5218.5 ug/L	5218.5 ppb	23:00:10
1	K 766.490 Radial†	29985.8	26925.2	5221.5 ug/L	5221.5 ppb	22:59:50
1	Mg 279.077 IEC†	135.0	131.9	5249.6 ug/L	5249.6 ppb	23:00:10
1	Na 589.592 Radial†	14497.1	15188.5	5198.1 ug/L	5198.1 ppb	22:59:50
1	Sr 421.552†	68909.9	67862.8	524.78 ug/L	524.78 ppb	22:59:50
1	Sc 361.383	834220.7	834220.7	100.86 %		23:01:07
1	Y 371.029	699256.4	699256.4	99.451 %		23:01:07
1	Ag 328.068†	100353.0	99250.4	496.12 ug/L	496.12 ppb	23:01:13
1	As 188.979†	923.6	937.9	510.27 ug/L	510.27 ppb	23:01:33
1	B 249.677†	18116.5	18147.2	493.15 ug/L	493.15 ppb	23:01:13
1	Ba 233.527†	57456.5	56955.5	519.00 ug/L	519.00 ppb	23:01:13
1	Be 313.107†	1247882.1	1241041.6	514.49 ug/L	514.49 ppb	23:01:07
1	Cd 226.502†	36282.4	36130.6	504.08 ug/L	504.08 ppb	23:01:13
1	Co 228.616†	20385.9	20260.9	513.95 ug/L	513.95 ppb	23:01:13
1	Cr 267.716†	39822.9	39403.0	508.53 ug/L	508.53 ppb	23:01:13
1	Cu 324.752†	166456.8	159257.2	512.85 ug/L	512.85 ppb	23:01:13
1	Mn 257.610†	403127.7	399273.5	515.66 ug/L	515.66 ppb	23:01:07
1	Mo 202.031†	5909.6	5848.4	501.67 ug/L	501.67 ppb	23:01:33
1	Ni 231.604†	17142.9	16909.2	522.47 ug/L	522.47 ppb	23:01:13
1	P 214.914†	1003.7	812.2	492.90 ug/L	492.90 ppb	23:01:33
1	Pb 220.353†	3361.2	3382.4	508.44 ug/L	508.44 ppb	23:01:33
1	S 181.975 Axial†	2971.8	2917.6	5112.6 ug/L	5112.6 ppb	23:01:33
1	Sb 206.836†	1338.0	1298.1	545.70 ug/L	545.70 ppb	23:01:33
1	Se 196.026†	609.5	624.1	516.80 ug/L	516.80 ppb	23:01:33
1	Si 251.611†	137611.3	135938.2	4954.2 ug/L	4954.2 ppb	23:01:13
1	Sn 189.927†	2366.9	2342.9	513.51 ug/L	513.51 ppb	23:01:33
1	Ti 334.940†	298322.9	296895.9	505.81 ug/L	505.81 ppb	23:01:13
1	Tl 190.801†	1326.1	1340.7	510.43 ug/L	510.43 ppb	23:01:33
1	U 409.014†	16497.0	18605.3	530.54 ug/L	530.54 ppb	23:01:13
1	V 292.402†	65625.5	66360.0	517.01 ug/L	517.01 ppb	23:01:13
1	Zn 213.857†	44248.4	42950.1	499.02 ug/L	499.02 ppb	23:01:13
1	SiO2†	137956.2	136275.2	10606 ug/L	10606 ppb	23:02:40
2	Sc Radial	4373.1	4373.1	99.0 %		23:00:15
2	Y RADIAL	4728.1	4728.1	98.45 %		23:00:15
2	Al 396.153Radial†	5247.5	5373.0	5199.9 ug/L	5199.9 ppb	23:00:15
2	Ca 317.933Radial†	2907.1	2914.9	5350.1 ug/L	5350.1 ppb	23:00:35
2	Fe 238.204 Radial†	479.4	476.7	5337.0 ug/L	5337.0 ppb	23:00:35
2	K 766.490 Radial†	29427.4	27106.0	5256.5 ug/L	5256.5 ppb	23:00:15
2	Mg 279.077 IEC†	138.1	138.5	5510.2 ug/L	5510.2 ppb	23:00:35
2	Na 589.592 Radial†	14209.9	15258.5	5222.1 ug/L	5222.1 ppb	23:00:15
2	Sr 421.552†	67295.3	67943.8	525.41 ug/L	525.41 ppb	23:00:15
2	Sc 361.383	830781.7	830781.7	100.44 %		23:01:38
2	Y 371.029	698119.4	698119.4	99.289 %		23:01:38
2	Ag 328.068†	101032.9	100339.2	501.57 ug/L	501.57 ppb	23:01:44
2	As 188.979†	940.9	958.8	521.64 ug/L	521.64 ppb	23:02:04
2	B 249.677†	18304.1	18408.3	500.24 ug/L	500.24 ppb	23:01:44
2	Ba 233.527†	57667.1	57400.9	523.06 ug/L	523.06 ppb	23:01:44
2	Be 313.107†	1243243.2	1241544.8	514.71 ug/L	514.71 ppb	23:01:38
2	Cd 226.502†	36363.0	36359.8	507.27 ug/L	507.27 ppb	23:01:44
2	Co 228.616†	20486.0	20444.2	518.59 ug/L	518.59 ppb	23:01:44
2	Cr 267.716†	39869.2	39612.5	511.24 ug/L	511.24 ppb	23:01:44
2	Cu 324.752†	167927.3	161404.4	519.76 ug/L	519.76 ppb	23:01:44
2	Mn 257.610†	400225.3	398038.5	514.07 ug/L	514.07 ppb	23:01:38
2	Mo 202.031†	5904.5	5867.6	503.32 ug/L	503.32 ppb	23:02:04
2	Ni 231.604†	17220.0	17056.3	527.02 ug/L	527.02 ppb	23:01:44

2	P 214.914†	1002.3	815.0	493.43 ug/L	493.43 ppb	23:02:04
2	Pb 220.353†	3347.4	3382.5	508.44 ug/L	508.44 ppb	23:02:04
2	S 181.975 Axial†	2970.6	2928.6	5131.8 ug/L	5131.8 ppb	23:02:04
2	Sb 206.836†	1313.2	1278.8	537.87 ug/L	537.87 ppb	23:02:04
2	Se 196.026†	598.2	615.3	510.13 ug/L	510.13 ppb	23:02:04
2	Si 251.611†	138232.1	137121.0	4997.3 ug/L	4997.3 ppb	23:01:44
2	Sn 189.927†	2347.4	2333.1	511.40 ug/L	511.40 ppb	23:02:04
2	Ti 334.940†	300111.2	299900.7	510.92 ug/L	510.92 ppb	23:01:44
2	Tl 190.801†	1327.9	1347.9	513.15 ug/L	513.15 ppb	23:02:04
2	U 409.014†	16822.1	18996.7	541.71 ug/L	541.71 ppb	23:01:44
2	V 292.402†	65922.5	66925.1	521.38 ug/L	521.38 ppb	23:01:44
2	Zn 213.857†	44359.9	43242.6	502.40 ug/L	502.40 ppb	23:01:44
2	SiO2†	138020.1	136905.0	10655 ug/L	10655 ppb	23:02:45
3	Sc Radial	4462.6	4462.6	101 %		23:00:40
3	Y RADIAL	4848.7	4848.7	101.0 %		23:00:40
3	Al 396.153Radial†	5340.3	5358.5	5185.7 ug/L	5185.7 ppb	23:00:40
3	Ca 317.933Radial†	2930.6	2879.2	5284.6 ug/L	5284.6 ppb	23:01:00
3	Fe 238.204 Radial†	490.1	477.6	5346.9 ug/L	5346.9 ppb	23:01:00
3	K 766.490 Radial†	29844.1	26922.0	5220.8 ug/L	5220.8 ppb	23:00:40
3	Mg 279.077 IEC†	138.7	136.2	5420.1 ug/L	5420.1 ppb	23:01:00
3	Na 589.592 Radial†	14417.8	15176.3	5193.9 ug/L	5193.9 ppb	23:00:40
3	Sr 421.552†	68527.4	67799.1	524.29 ug/L	524.29 ppb	23:00:40
3	Sc 361.383	833469.1	833469.1	100.77 %		23:02:09
3	Y 371.029	700234.4	700234.4	99.590 %		23:02:09
3	Ag 328.068†	101343.4	100323.0	501.50 ug/L	501.50 ppb	23:02:15
3	As 188.979†	930.3	945.3	514.37 ug/L	514.37 ppb	23:02:35
3	B 249.677†	18454.5	18498.8	502.71 ug/L	502.71 ppb	23:02:15
3	Ba 233.527†	57985.1	57531.4	524.25 ug/L	524.25 ppb	23:02:15
3	Be 313.107†	1248319.0	1242591.0	515.15 ug/L	515.15 ppb	23:02:09
3	Cd 226.502†	36618.2	36496.3	509.18 ug/L	509.18 ppb	23:02:15
3	Co 228.616†	20572.6	20464.4	519.11 ug/L	519.11 ppb	23:02:15
3	Cr 267.716†	40176.7	39789.7	513.53 ug/L	513.53 ppb	23:02:15
3	Cu 324.752†	168212.1	161148.0	518.94 ug/L	518.94 ppb	23:02:15
3	Mn 257.610†	401907.4	398423.0	514.57 ug/L	514.57 ppb	23:02:09
3	Mo 202.031†	5943.0	5886.9	504.98 ug/L	504.98 ppb	23:02:35
3	Ni 231.604†	17338.9	17119.0	528.96 ug/L	528.96 ppb	23:02:15
3	P 214.914†	1011.6	820.9	497.96 ug/L	497.96 ppb	23:02:35
3	Pb 220.353†	3400.0	3423.9	514.64 ug/L	514.64 ppb	23:02:35
3	S 181.975 Axial†	2995.7	2943.9	5158.7 ug/L	5158.7 ppb	23:02:35
3	Sb 206.836†	1320.7	1282.0	539.27 ug/L	539.27 ppb	23:02:35
3	Se 196.026†	605.7	620.8	514.58 ug/L	514.58 ppb	23:02:35
3	Si 251.611†	138803.4	137244.2	5001.8 ug/L	5001.8 ppb	23:02:15
3	Sn 189.927†	2368.8	2346.8	514.39 ug/L	514.39 ppb	23:02:35
3	Ti 334.940†	301456.0	300271.9	511.56 ug/L	511.56 ppb	23:02:15
3	Tl 190.801†	1322.4	1338.2	509.50 ug/L	509.50 ppb	23:02:35
3	U 409.014†	16558.0	18680.7	532.67 ug/L	532.67 ppb	23:02:15
3	V 292.402†	66356.8	67144.5	523.07 ug/L	523.07 ppb	23:02:15
3	Zn 213.857†	44636.9	43375.2	503.94 ug/L	503.94 ppb	23:02:15
3	SiO2†	136972.5	135422.3	10540 ug/L	10540 ppb	23:02:50

Mean Data: 1202049257|955808|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	832823.8	100.69 %	%	0.219			0.22%
Sc Radial	4439.7	101 %	%	1.3			1.32%
Y 371.029	699203.4	99.443 %	%	0.1505			0.15%
Y RADIAL	4817.9	100.3 %	%	1.65			1.64%
Ag 328.068†	99970.9	499.73 ug/L	ug/L	3.129	499.73 ppb	3.129	0.63%
Al 396.153Radial†	5368.1	5195.1 ug/L	ug/L	8.15	5195.1 ppb	8.15	0.16%
As 188.979†	947.3	515.43 ug/L	ug/L	5.756	515.43 ppb	5.756	1.12%
B 249.677†	18351.5	498.70 ug/L	ug/L	4.965	498.70 ppb	4.965	1.00%
Ba 233.527†	57295.9	522.10 ug/L	ug/L	2.754	522.10 ppb	2.754	0.53%
Be 313.107†	1241725.8	514.79 ug/L	ug/L	0.333	514.79 ppb	0.333	0.06%
Ca 317.933Radial†	2873.6	5274.2 ug/L	ug/L	81.56	5274.2 ppb	81.56	1.55%
Cd 226.502†	36328.9	506.84 ug/L	ug/L	2.574	506.84 ppb	2.574	0.51%
Co 228.616†	20389.8	517.22 ug/L	ug/L	2.839	517.22 ppb	2.839	0.55%
Cr 267.716†	39601.8	511.10 ug/L	ug/L	2.504	511.10 ppb	2.504	0.49%
Cu 324.752†	160603.2	517.18 ug/L	ug/L	3.778	517.18 ppb	3.778	0.73%
Fe 238.204 Radial†	473.5	5300.8 ug/L	ug/L	71.43	5300.8 ppb	71.43	1.35%
K 766.490 Radial†	26984.4	5232.9 ug/L	ug/L	20.42	5232.9 ppb	20.42	0.39%

Mg 279.077 IEC†	135.5	5393.3 ug/L	132.34	5393.3 ppb	132.34	2.45%
Mn 257.610†	398578.3	514.77 ug/L	0.815	514.77 ppb	0.815	0.16%
Mo 202.031†	5867.6	503.32 ug/L	1.652	503.32 ppb	1.652	0.33%
Na 589.592 Radial†	15207.8	5204.7 ug/L	15.19	5204.7 ppb	15.19	0.29%
Ni 231.604†	17028.2	526.15 ug/L	3.329	526.15 ppb	3.329	0.63%
P 214.914†	816.1	494.76 ug/L	2.778	494.76 ppb	2.778	0.56%
Pb 220.353†	3396.3	510.51 ug/L	3.584	510.51 ppb	3.584	0.70%
S 181.975 Axial†	2930.0	5134.4 ug/L	23.19	5134.4 ppb	23.19	0.45%
Sb 206.836†	1286.3	540.95 ug/L	4.180	540.95 ppb	4.180	0.77%
Se 196.026†	620.1	513.84 ug/L	3.398	513.84 ppb	3.398	0.66%
Si 251.611†	136767.8	4984.5 ug/L	26.30	4984.5 ppb	26.30	0.53%
Sn 189.927†	2340.9	513.10 ug/L	1.536	513.10 ppb	1.536	0.30%
Sr 421.552†	67868.6	524.83 ug/L	0.560	524.83 ppb	0.560	0.11%
Ti 334.940†	299022.9	509.43 ug/L	3.152	509.43 ppb	3.152	0.62%
Tl 190.801†	1342.2	511.03 ug/L	1.900	511.03 ppb	1.900	0.37%
U 409.014†	18760.9	534.97 ug/L	5.934	534.97 ppb	5.934	1.11%
V 292.402†	66809.9	520.49 ug/L	3.127	520.49 ppb	3.127	0.60%
Zn 213.857†	43189.3	501.79 ug/L	2.515	501.79 ppb	2.515	0.50%
SiO2†	136200.8	10600 ug/L	58.0	10600 ppb	58.0	0.55%

Sequence No.: 36

Sample ID: 1202049258|955808|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 67

Date Collected: 3/17/2010 23:18:35

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202049258|955808|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4564.9	4564.9	103 %		23:20:28
1	Y RADIAL	4966.6	4966.6	103.4 %		23:20:28
1	Al 396.153Radial†	-9.9	63.7	61.927 ug/L	61.927 ppb	23:20:48
1	Ca 317.933Radial†	52.9	30.1	55.225 ug/L	55.225 ppb	23:20:48
1	Fe 238.204 Radial†	14.2	6.3	70.302 ug/L	70.302 ppb	23:20:48
1	K 766.490 Radial†	2732.3	29.5	5.6179 ug/L	5.6179 ppb	23:20:28
1	Mg 279.077 IEC†	3.2	2.0	81.364 ug/L	81.364 ppb	23:20:48
1	Na 589.592 Radial†	-284.1	632.4	216.43 ug/L	216.43 ppb	23:20:28
1	Sr 421.552†	171.9	145.6	1.1258 ug/L	1.1258 ppb	23:20:28
1	Sc 361.383	824163.9	824163.9	99.642 %		23:21:45
1	Y 371.029	700228.1	700228.1	99.589 %		23:21:45
1	Ag 328.068†	56.9	-192.0	-0.9342 ug/L	-0.9342 ppb	23:21:45
1	As 188.979†	-27.2	-5.2	-2.8075 ug/L	-2.8075 ppb	23:22:05
1	B 249.677†	-402.2	-218.8	-5.9853 ug/L	-5.9853 ppb	23:22:05
1	Ba 233.527†	98.8	86.8	0.7902 ug/L	0.7902 ppb	23:22:05
1	Be 313.107†	-3794.1	-35.6	-0.0126 ug/L	-0.0126 ppb	23:21:45
1	Cd 226.502†	-169.2	-13.0	-0.1892 ug/L	-0.1892 ppb	23:22:05
1	Co 228.616†	-50.3	-2.1	-0.0559 ug/L	-0.0559 ppb	23:22:05
1	Cr 267.716†	150.8	70.1	0.9103 ug/L	0.9103 ppb	23:22:05
1	Cu 324.752†	6002.9	240.5	0.7778 ug/L	0.7778 ppb	23:21:45
1	Mn 257.610†	2632.7	2216.3	2.8643 ug/L	2.8643 ppb	23:22:05
1	Mo 202.031†	14.2	3.4	0.2965 ug/L	0.2965 ppb	23:22:05
1	Ni 231.604†	89.0	1.4	0.0438 ug/L	0.0438 ppb	23:22:05
1	P 214.914†	198.7	16.5	11.842 ug/L	11.842 ppb	23:22:05
1	Pb 220.353†	-58.5	-8.8	-1.3203 ug/L	-1.3203 ppb	23:22:05
1	S 181.975 Axial†	40.6	11.8	20.622 ug/L	20.622 ppb	23:22:05
1	Sb 206.836†	29.0	0.5	0.2193 ug/L	0.2193 ppb	23:22:05
1	Se 196.026†	-11.1	8.6	7.0978 ug/L	7.0978 ppb	23:22:05
1	Si 251.611†	3722.0	3232.5	117.95 ug/L	117.95 ppb	23:22:05
1	Sn 189.927†	9.1	5.2	1.1466 ug/L	1.1466 ppb	23:22:05
1	Ti 334.940†	-563.4	544.6	0.9284 ug/L	0.9284 ppb	23:21:45
1	Tl 190.801†	-32.9	-7.2	-2.7096 ug/L	-2.7096 ppb	23:22:05
1	U 409.014†	-2226.5	14.2	0.3954 ug/L	0.3954 ppb	23:21:45
1	V 292.402†	-1324.8	-36.9	-0.2887 ug/L	-0.2887 ppb	23:21:45
1	Zn 213.857†	1024.9	106.5	1.2380 ug/L	1.2380 ppb	23:22:05
1	SiO2†	3875.9	3382.0	263.55 ug/L	263.55 ppb	23:23:01
2	Sc Radial	4562.5	4562.5	103 %		23:20:54
2	Y RADIAL	4957.3	4957.3	103.2 %		23:20:54
2	Al 396.153Radial†	-12.0	61.7	60.029 ug/L	60.029 ppb	23:21:14
2	Ca 317.933Radial†	48.9	26.3	48.225 ug/L	48.225 ppb	23:21:14
2	Fe 238.204 Radial†	13.4	5.6	62.395 ug/L	62.395 ppb	23:21:14
2	K 766.490 Radial†	2865.4	159.8	30.916 ug/L	30.916 ppb	23:20:54
2	Mg 279.077 IEC†	3.8	2.6	105.23 ug/L	105.23 ppb	23:21:14
2	Na 589.592 Radial†	-348.1	570.3	195.18 ug/L	195.18 ppb	23:20:54
2	Sr 421.552†	130.8	105.9	0.8189 ug/L	0.8189 ppb	23:20:54
2	Sc 361.383	831160.9	831160.9	100.49 %		23:22:11
2	Y 371.029	707314.9	707314.9	100.60 %		23:22:11
2	Ag 328.068†	24.4	-224.9	-1.1037 ug/L	-1.1037 ppb	23:22:11
2	As 188.979†	-20.6	1.6	0.8735 ug/L	0.8735 ppb	23:22:31
2	B 249.677†	-396.4	-209.7	-5.7362 ug/L	-5.7362 ppb	23:22:31
2	Ba 233.527†	91.1	78.2	0.7133 ug/L	0.7133 ppb	23:22:31
2	Be 313.107†	-3812.2	-21.6	-0.0068 ug/L	-0.0068 ppb	23:22:11
2	Cd 226.502†	-179.8	-22.2	-0.3143 ug/L	-0.3143 ppb	23:22:31
2	Co 228.616†	-44.2	4.4	0.1087 ug/L	0.1087 ppb	23:22:31
2	Cr 267.716†	139.3	57.5	0.7438 ug/L	0.7438 ppb	23:22:31
2	Cu 324.752†	6044.3	231.0	0.7429 ug/L	0.7429 ppb	23:22:11
2	Mn 257.610†	2634.6	2196.0	2.8364 ug/L	2.8364 ppb	23:22:31
2	Mo 202.031†	11.3	0.4	0.0374 ug/L	0.0374 ppb	23:22:31
2	Ni 231.604†	81.1	-7.2	-0.2242 ug/L	-0.2242 ppb	23:22:31

2	P 214.914†	196.0	12.1	8.6627 ug/L	8.6627 ppb	23:22:31
2	Pb 220.353†	-50.0	0.1	0.0166 ug/L	0.0166 ppb	23:22:31
2	S 181.975 Axial†	37.9	8.7	15.316 ug/L	15.316 ppb	23:22:31
2	Sb 206.836†	23.9	-4.8	-1.9388 ug/L	-1.9388 ppb	23:22:31
2	Se 196.026†	-10.9	8.9	7.3091 ug/L	7.3091 ppb	23:22:31
2	Si 251.611†	3730.9	3209.9	117.13 ug/L	117.13 ppb	23:22:31
2	Sn 189.927†	3.9	-0.0	-0.0036 ug/L	-0.0036 ppb	23:22:31
2	Ti 334.940†	-564.0	548.8	0.9294 ug/L	0.9294 ppb	23:22:11
2	Tl 190.801†	-29.5	-3.5	-1.3048 ug/L	-1.3048 ppb	23:22:31
2	U 409.014†	-1988.0	270.3	7.7244 ug/L	7.7244 ppb	23:22:11
2	V 292.402†	-1274.6	24.2	0.1932 ug/L	0.1932 ppb	23:22:11
2	Zn 213.857†	1039.4	112.3	1.3084 ug/L	1.3084 ppb	23:22:31
2	SiO2†	3915.0	3388.2	264.04 ug/L	264.04 ppb	23:23:06
3	Sc Radial	4528.9	4528.9	103 %		23:21:19
3	Y RADIAL	4916.5	4916.5	102.4 %		23:21:19
3	Al 396.153Radial†	-8.4	65.1	63.263 ug/L	63.263 ppb	23:21:39
3	Ca 317.933Radial†	51.4	29.0	53.221 ug/L	53.221 ppb	23:21:39
3	Fe 238.204 Radial†	15.0	7.2	80.225 ug/L	80.225 ppb	23:21:39
3	K 766.490 Radial†	2926.7	240.1	46.507 ug/L	46.507 ppb	23:21:19
3	Mg 279.077 IEC†	5.5	4.3	171.21 ug/L	171.21 ppb	23:21:39
3	Na 589.592 Radial†	-343.3	572.5	195.94 ug/L	195.94 ppb	23:21:19
3	Sr 421.552†	109.2	85.8	0.6629 ug/L	0.6629 ppb	23:21:19
3	Sc 361.383	843008.1	843008.1	101.92 %		23:22:36
3	Y 371.029	717125.6	717125.6	101.99 %		23:22:36
3	Ag 328.068†	158.5	-93.5	-0.4447 ug/L	-0.4447 ppb	23:22:36
3	As 188.979†	-30.8	-8.1	-4.3376 ug/L	-4.3376 ppb	23:22:56
3	B 249.677†	-423.3	-230.5	-6.3061 ug/L	-6.3061 ppb	23:22:56
3	Ba 233.527†	111.2	96.7	0.8815 ug/L	0.8815 ppb	23:22:56
3	Be 313.107†	-3849.1	-4.4	0.0008 ug/L	0.0008 ppb	23:22:36
3	Cd 226.502†	-171.3	-11.3	-0.1644 ug/L	-0.1644 ppb	23:22:56
3	Co 228.616†	-51.4	-2.1	-0.0551 ug/L	-0.0551 ppb	23:22:56
3	Cr 267.716†	123.8	40.2	0.5246 ug/L	0.5246 ppb	23:22:56
3	Cu 324.752†	5977.4	80.8	0.2611 ug/L	0.2611 ppb	23:22:36
3	Mn 257.610†	2613.4	2138.4	2.7611 ug/L	2.7611 ppb	23:22:56
3	Mo 202.031†	16.7	5.5	0.4742 ug/L	0.4742 ppb	23:22:56
3	Ni 231.604†	97.9	8.1	0.2506 ug/L	0.2506 ppb	23:22:56
3	P 214.914†	211.9	25.0	18.161 ug/L	18.161 ppb	23:22:56
3	Pb 220.353†	-49.0	1.8	0.2685 ug/L	0.2685 ppb	23:22:56
3	S 181.975 Axial†	32.0	2.5	4.3466 ug/L	4.3466 ppb	23:22:56
3	Sb 206.836†	39.6	10.3	4.1847 ug/L	4.1847 ppb	23:22:56
3	Se 196.026†	-19.1	1.0	1.0508 ug/L	1.0508 ppb	23:22:56
3	Si 251.611†	3733.2	3160.0	115.30 ug/L	115.30 ppb	23:22:56
3	Sn 189.927†	4.0	-0.0	0.0022 ug/L	0.0022 ppb	23:22:56
3	Ti 334.940†	-433.3	684.9	1.1576 ug/L	1.1576 ppb	23:22:36
3	Tl 190.801†	-30.1	-3.8	-1.3975 ug/L	-1.3975 ppb	23:22:56
3	U 409.014†	-2077.1	210.7	6.0163 ug/L	6.0163 ppb	23:22:36
3	V 292.402†	-1292.5	24.5	0.1966 ug/L	0.1966 ppb	23:22:36
3	Zn 213.857†	1036.7	95.1	1.1020 ug/L	1.1020 ppb	23:22:56
3	SiO2†	3864.0	3283.4	255.86 ug/L	255.86 ppb	23:23:11

Mean Data: 1202049258|955808|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	832777.6	100.68 %	1.152			1.14%
Sc Radial	4552.1	103 %	0.5			0.44%
Y 371.029	708222.9	100.73 %	1.207			1.20%
Y RADIAL	4946.8	103.0 %	0.56			0.54%
Ag 328.068†	-170.1	-0.8276 ug/L	0.34222	-0.8276 ppb	0.34222	41.35%
Al 396.153Radial†	63.5	61.740 ug/L	1.6255	61.740 ppb	1.6255	2.63%
As 188.979†	-3.9	-2.0905 ug/L	2.67849	-2.0905 ppb	2.67849	128.12%
B 249.677†	-219.7	-6.0092 ug/L	0.28568	-6.0092 ppb	0.28568	4.75%
Ba 233.527†	87.2	0.7950 ug/L	0.08420	0.7950 ppb	0.08420	10.59%
Be 313.107†	-20.5	-0.0062 ug/L	0.00673	-0.0062 ppb	0.00673	108.59%
Ca 317.933Radial†	28.5	52.224 ug/L	3.6052	52.224 ppb	3.6052	6.90%
Cd 226.502†	-15.5	-0.2226 ug/L	0.08038	-0.2226 ppb	0.08038	36.10%
Co 228.616†	0.1	-0.0008 ug/L	0.09478	-0.0008 ppb	0.09478	>999.9%
Cr 267.716†	55.9	0.7262 ug/L	0.19346	0.7262 ppb	0.19346	26.64%
Cu 324.752†	184.1	0.5940 ug/L	0.28880	0.5940 ppb	0.28880	48.62%
Fe 238.204 Radial†	6.4	70.974 ug/L	8.9341	70.974 ppb	8.9341	12.59%
K 766.490 Radial†	143.1	27.680 ug/L	20.6358	27.680 ppb	20.6358	74.55%

Mg 279.077 IEC†	3.0	119.27 ug/L	46.542	119.27 ppb	46.542	39.02%
Mn 257.610†	2183.6	2.8206 ug/L	0.05341	2.8206 ppb	0.05341	1.89%
Mo 202.031†	3.1	0.2693 ug/L	0.21965	0.2693 ppb	0.21965	81.55%
Na 589.592 Radial†	591.7	202.52 ug/L	12.057	202.52 ppb	12.057	5.95%
Ni 231.604†	0.8	0.0234 ug/L	0.23804	0.0234 ppb	0.23804	>999.9%
P 214.914†	17.9	12.889 ug/L	4.8349	12.889 ppb	4.8349	37.51%
Pb 220.353†	-2.3	-0.3451 ug/L	0.85391	-0.3451 ppb	0.85391	247.46%
S 181.975 Axial†	7.7	13.428 ug/L	8.3001	13.428 ppb	8.3001	61.81%
Sb 206.836†	2.0	0.8217 ug/L	3.10586	0.8217 ppb	3.10586	377.97%
Se 196.026†	6.2	5.1526 ug/L	3.55381	5.1526 ppb	3.55381	68.97%
Si 251.611†	3200.8	116.80 ug/L	1.355	116.80 ppb	1.355	1.16%
Sn 189.927†	1.7	0.3818 ug/L	0.66240	0.3818 ppb	0.66240	173.51%
Sr 421.552†	112.4	0.8692 ug/L	0.23555	0.8692 ppb	0.23555	27.10%
Ti 334.940†	592.8	1.0051 ug/L	0.13204	1.0051 ppb	0.13204	13.14%
Tl 190.801†	-4.8	-1.8040 ug/L	0.78569	-1.8040 ppb	0.78569	43.55%
U 409.014†	165.0	4.7120 ug/L	3.83462	4.7120 ppb	3.83462	81.38%
V 292.402†	3.9	0.0337 ug/L	0.27919	0.0337 ppb	0.27919	827.94%
Zn 213.857†	104.7	1.2161 ug/L	0.10490	1.2161 ppb	0.10490	8.63%
SiO2†	3351.2	261.15 ug/L	4.589	261.15 ppb	4.589	1.76%

Sequence No.: 37

Sample ID: 1202049259|955808|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 68

Date Collected: 3/17/2010 23:25:23

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202049259|955808|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4494.4	4494.4	102 %		23:27:15
1	Y RADIAL	4867.1	4867.1	101.3 %		23:27:15
1	Al 396.153Radial†	5333.0	5314.0	5142.9 ug/L	5142.9 ppb	23:27:15
1	Ca 317.933Radial†	2889.0	2817.8	5171.9 ug/L	5171.9 ppb	23:27:35
1	Fe 238.204 Radial†	482.5	466.7	5224.4 ug/L	5224.4 ppb	23:27:35
1	K 766.490 Radial†	29984.3	26851.1	5207.0 ug/L	5207.0 ppb	23:27:15
1	Mg 279.077 IEC†	135.7	132.3	5265.9 ug/L	5265.9 ppb	23:27:35
1	Na 589.592 Radial†	15272.3	15915.2	5446.8 ug/L	5446.8 ppb	23:27:15
1	Sr 421.552†	68867.5	67654.3	523.17 ug/L	523.17 ppb	23:27:15
1	Sc 361.383	841504.5	841504.5	101.74 %		23:28:33
1	Y 371.029	705466.8	705466.8	100.33 %		23:28:33
1	Ag 328.068†	99865.8	97910.4	489.43 ug/L	489.43 ppb	23:28:38
1	As 188.979†	914.3	920.7	500.99 ug/L	500.99 ppb	23:28:58
1	B 249.677†	18092.4	17968.0	488.27 ug/L	488.27 ppb	23:28:38
1	Ba 233.527†	57166.0	56176.8	511.90 ug/L	511.90 ppb	23:28:38
1	Be 313.107†	1238882.5	1221486.5	506.39 ug/L	506.39 ppb	23:28:33
1	Cd 226.502†	35942.5	35485.2	495.07 ug/L	495.07 ppb	23:28:38
1	Co 228.616†	20285.7	19987.4	507.02 ug/L	507.02 ppb	23:28:38
1	Cr 267.716†	39549.2	38792.2	500.65 ug/L	500.65 ppb	23:28:38
1	Cu 324.752†	166452.9	157824.8	508.23 ug/L	508.23 ppb	23:28:38
1	Mn 257.610†	402893.5	395583.7	510.90 ug/L	510.90 ppb	23:28:33
1	Mo 202.031†	5888.9	5777.4	495.58 ug/L	495.58 ppb	23:28:58
1	Ni 231.604†	17008.6	16630.1	513.85 ug/L	513.85 ppb	23:28:38
1	P 214.914†	1001.8	801.7	486.04 ug/L	486.04 ppb	23:28:58
1	Pb 220.353†	3336.8	3329.6	500.50 ug/L	500.50 ppb	23:28:58
1	S 181.975 Axial†	2958.7	2879.2	5045.2 ug/L	5045.2 ppb	23:28:58
1	Sb 206.836†	1328.4	1277.1	536.86 ug/L	536.86 ppb	23:28:58
1	Se 196.026†	599.2	608.7	504.53 ug/L	504.53 ppb	23:28:58
1	Si 251.611†	140924.5	138013.8	5030.0 ug/L	5030.0 ppb	23:28:38
1	Sn 189.927†	2332.0	2288.2	501.55 ug/L	501.55 ppb	23:28:58
1	Ti 334.940†	297032.2	293067.1	499.28 ug/L	499.28 ppb	23:28:38
1	Tl 190.801†	1314.4	1317.8	501.74 ug/L	501.74 ppb	23:28:58
1	U 409.014†	16554.4	18520.2	528.12 ug/L	528.12 ppb	23:28:38
1	V 292.402†	65125.2	65305.1	508.81 ug/L	508.81 ppb	23:28:38
1	Zn 213.857†	43794.9	42124.5	489.40 ug/L	489.40 ppb	23:28:38
1	SiO2†	139198.2	136312.0	10609 ug/L	10609 ppb	23:30:05
2	Sc Radial	4567.8	4567.8	103 %		23:27:40
2	Y RADIAL	4920.6	4920.6	102.5 %		23:27:40
2	Al 396.153Radial†	5417.1	5311.1	5139.9 ug/L	5139.9 ppb	23:27:40
2	Ca 317.933Radial†	2915.7	2798.0	5135.6 ug/L	5135.6 ppb	23:28:01
2	Fe 238.204 Radial†	485.6	462.1	5173.6 ug/L	5173.6 ppb	23:28:01
2	K 766.490 Radial†	30357.9	26738.5	5185.2 ug/L	5185.2 ppb	23:27:40
2	Mg 279.077 IEC†	139.3	133.6	5317.3 ug/L	5317.3 ppb	23:28:01
2	Na 589.592 Radial†	15436.0	15832.1	5418.4 ug/L	5418.4 ppb	23:27:40
2	Sr 421.552†	69847.4	67513.4	522.08 ug/L	522.08 ppb	23:27:40
2	Sc 361.383	834967.7	834967.7	100.95 %		23:29:04
2	Y 371.029	701396.0	701396.0	99.755 %		23:29:04
2	Ag 328.068†	99228.0	98047.0	490.11 ug/L	490.11 ppb	23:29:09
2	As 188.979†	920.8	934.3	508.29 ug/L	508.29 ppb	23:29:29
2	B 249.677†	17846.0	17863.2	485.42 ug/L	485.42 ppb	23:29:09
2	Ba 233.527†	56985.8	56438.1	514.28 ug/L	514.28 ppb	23:29:09
2	Be 313.107†	1230044.9	1222265.1	506.72 ug/L	506.72 ppb	23:29:04
2	Cd 226.502†	35798.6	35619.2	496.94 ug/L	496.94 ppb	23:29:09
2	Co 228.616†	20142.5	20001.7	507.39 ug/L	507.39 ppb	23:29:09
2	Cr 267.716†	39337.1	38886.5	501.87 ug/L	501.87 ppb	23:29:09
2	Cu 324.752†	165040.2	157706.3	507.85 ug/L	507.85 ppb	23:29:09
2	Mn 257.610†	398381.1	394213.9	509.12 ug/L	509.12 ppb	23:29:04
2	Mo 202.031†	5888.3	5822.1	499.41 ug/L	499.41 ppb	23:29:29
2	Ni 231.604†	16906.9	16660.2	514.78 ug/L	514.78 ppb	23:29:09

2	P 214.914†	1000.4	808.1	490.84 ug/L	490.84 ppb	23:29:29
2	Pb 220.353†	3336.5	3355.0	504.32 ug/L	504.32 ppb	23:29:29
2	S 181.975 Axial†	2959.1	2902.3	5085.8 ug/L	5085.8 ppb	23:29:29
2	Sb 206.836†	1334.0	1292.9	543.41 ug/L	543.41 ppb	23:29:29
2	Se 196.026†	593.9	608.1	503.87 ug/L	503.87 ppb	23:29:29
2	Si 251.611†	139875.8	138059.3	5031.6 ug/L	5031.6 ppb	23:29:09
2	Sn 189.927†	2331.8	2306.0	505.43 ug/L	505.43 ppb	23:29:29
2	Ti 334.940†	295633.5	293967.1	500.81 ug/L	500.81 ppb	23:29:09
2	Tl 190.801†	1315.6	1329.1	506.02 ug/L	506.02 ppb	23:29:29
2	U 409.014†	16341.4	18436.6	525.73 ug/L	525.73 ppb	23:29:09
2	V 292.402†	64921.1	65604.1	511.17 ug/L	511.17 ppb	23:29:09
2	Zn 213.857†	43534.1	42203.3	490.32 ug/L	490.32 ppb	23:29:09
2	SiO2†	137719.8	135918.6	10578 ug/L	10578 ppb	23:30:11
3	Sc Radial	4464.6	4464.6	101 %		23:28:06
3	Y RADIAL	4836.9	4836.9	100.7 %		23:28:06
3	Al 396.153Radial†	5360.5	5376.2	5203.6 ug/L	5203.6 ppb	23:28:06
3	Ca 317.933Radial†	2864.5	2812.6	5162.3 ug/L	5162.3 ppb	23:28:26
3	Fe 238.204 Radial†	480.3	467.8	5236.2 ug/L	5236.2 ppb	23:28:26
3	K 766.490 Radial†	30091.6	27153.9	5265.8 ug/L	5265.8 ppb	23:28:06
3	Mg 279.077 IEC†	132.2	129.7	5163.3 ug/L	5163.3 ppb	23:28:26
3	Na 589.592 Radial†	15219.5	15963.1	5463.2 ug/L	5463.2 ppb	23:28:06
3	Sr 421.552†	68550.7	67792.6	524.24 ug/L	524.24 ppb	23:28:06
3	Sc 361.383	844041.9	844041.9	102.05 %		23:29:35
3	Y 371.029	708749.9	708749.9	100.80 %		23:29:35
3	Ag 328.068†	99287.9	97048.9	485.15 ug/L	485.15 ppb	23:29:40
3	As 188.979†	911.0	914.8	497.80 ug/L	497.80 ppb	23:30:00
3	B 249.677†	17978.4	17802.9	483.77 ug/L	483.77 ppb	23:29:40
3	Ba 233.527†	56820.4	55669.2	507.28 ug/L	507.28 ppb	23:29:40
3	Be 313.107†	1244910.1	1223732.5	507.31 ug/L	507.31 ppb	23:29:35
3	Cd 226.502†	35717.2	35158.1	490.50 ug/L	490.50 ppb	23:29:40
3	Co 228.616†	20162.8	19807.0	502.44 ug/L	502.44 ppb	23:29:40
3	Cr 267.716†	39347.2	38477.4	496.60 ug/L	496.60 ppb	23:29:40
3	Cu 324.752†	165652.7	156548.8	504.13 ug/L	504.13 ppb	23:29:40
3	Mn 257.610†	403392.3	394882.0	510.00 ug/L	510.00 ppb	23:29:35
3	Mo 202.031†	5862.4	5734.0	491.86 ug/L	491.86 ppb	23:30:00
3	Ni 231.604†	16933.9	16506.6	510.03 ug/L	510.03 ppb	23:29:40
3	P 214.914†	992.8	790.0	478.25 ug/L	478.25 ppb	23:30:00
3	Pb 220.353†	3350.3	3333.0	501.01 ug/L	501.01 ppb	23:30:00
3	S 181.975 Axial†	2952.3	2864.2	5019.0 ug/L	5019.0 ppb	23:30:00
3	Sb 206.836†	1318.3	1263.3	531.15 ug/L	531.15 ppb	23:30:00
3	Se 196.026†	595.0	602.8	499.86 ug/L	499.86 ppb	23:30:00
3	Si 251.611†	140064.7	136754.8	4984.1 ug/L	4984.1 ppb	23:29:40
3	Sn 189.927†	2333.1	2282.4	500.27 ug/L	500.27 ppb	23:30:00
3	Ti 334.940†	295852.7	291033.5	495.83 ug/L	495.83 ppb	23:29:40
3	Tl 190.801†	1318.4	1317.8	501.75 ug/L	501.75 ppb	23:30:00
3	U 409.014†	16479.9	18398.3	524.64 ug/L	524.64 ppb	23:29:40
3	V 292.402†	64961.1	64951.9	506.04 ug/L	506.04 ppb	23:29:40
3	Zn 213.857†	43708.2	41910.2	486.91 ug/L	486.91 ppb	23:29:40
3	SiO2†	139582.9	136277.7	10607 ug/L	10607 ppb	23:30:16

Mean Data: 1202049259|955808|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	840171.3	101.58 %		0.566			0.56%
Sc Radial	4508.9	102 %		1.2			1.18%
Y 371.029	705204.3	100.30 %		0.524			0.52%
Y RADIAL	4874.9	101.5 %		0.88			0.87%
Ag 328.068†	97668.8	488.23 ug/L		2.689	488.23 ppb	2.689	0.55%
Al 396.153Radial†	5333.7	5162.1 ug/L		35.93	5162.1 ppb	35.93	0.70%
As 188.979†	923.3	502.36 ug/L		5.377	502.36 ppb	5.377	1.07%
B 249.677†	17878.0	485.82 ug/L		2.275	485.82 ppb	2.275	0.47%
Ba 233.527†	56094.7	511.15 ug/L		3.559	511.15 ppb	3.559	0.70%
Be 313.107†	1222494.7	506.81 ug/L		0.467	506.81 ppb	0.467	0.09%
Ca 317.933Radial†	2809.5	5156.6 ug/L		18.84	5156.6 ppb	18.84	0.37%
Cd 226.502†	35420.9	494.17 ug/L		3.314	494.17 ppb	3.314	0.67%
Co 228.616†	19932.1	505.61 ug/L		2.756	505.61 ppb	2.756	0.55%
Cr 267.716†	38718.7	499.71 ug/L		2.759	499.71 ppb	2.759	0.55%
Cu 324.752†	157360.0	506.74 ug/L		2.268	506.74 ppb	2.268	0.45%
Fe 238.204 Radial†	465.5	5211.4 ug/L		33.27	5211.4 ppb	33.27	0.64%
K 766.490 Radial†	26914.5	5219.3 ug/L		41.69	5219.3 ppb	41.69	0.80%

Mg 279.077 IEC†	131.9	5248.8 ug/L	78.44	5248.8 ppb	78.44	1.49%
Mn 257.610†	394893.2	510.01 ug/L	0.888	510.01 ppb	0.888	0.17%
Mo 202.031†	5777.8	495.62 ug/L	3.772	495.62 ppb	3.772	0.76%
Na 589.592 Radial†	15903.5	5442.8 ug/L	22.67	5442.8 ppb	22.67	0.42%
Ni 231.604†	16599.0	512.89 ug/L	2.515	512.89 ppb	2.515	0.49%
P 214.914†	799.9	485.04 ug/L	6.356	485.04 ppb	6.356	1.31%
Pb 220.353†	3339.2	501.94 ug/L	2.075	501.94 ppb	2.075	0.41%
S 181.975 Axial†	2881.9	5050.0 ug/L	33.70	5050.0 ppb	33.70	0.67%
Sb 206.836†	1277.8	537.14 ug/L	6.131	537.14 ppb	6.131	1.14%
Se 196.026†	606.5	502.75 ug/L	2.526	502.75 ppb	2.526	0.50%
Si 251.611†	137609.3	5015.3 ug/L	26.98	5015.3 ppb	26.98	0.54%
Sn 189.927†	2292.2	502.41 ug/L	2.688	502.41 ppb	2.688	0.54%
Sr 421.552†	67653.5	523.17 ug/L	1.079	523.17 ppb	1.079	0.21%
Ti 334.940†	292689.2	498.64 ug/L	2.552	498.64 ppb	2.552	0.51%
Tl 190.801†	1321.6	503.17 ug/L	2.467	503.17 ppb	2.467	0.49%
U 409.014†	18451.7	526.16 ug/L	1.780	526.16 ppb	1.780	0.34%
V 292.402†	65287.0	508.68 ug/L	2.567	508.68 ppb	2.567	0.50%
Zn 213.857†	42079.3	488.88 ug/L	1.765	488.88 ppb	1.765	0.36%
SiO2†	136169.4	10598 ug/L	17.1	10598 ppb	17.1	0.16%

Sequence No.: 38
 Sample ID: 1202049260|955808|5
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 69
 Date Collected: 3/17/2010 23:32:26
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 1202049260|955808|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4550.7	4550.7	103 %		23:34:20
1	Y RADIAL	4968.6	4968.6	103.5 %		23:34:20
1	Al 396.153Radial†	-56.4	18.6	18.005 ug/L	18.005 ppb	23:34:40
1	Ca 317.933Radial†	28.3	6.3	11.592 ug/L	11.592 ppb	23:34:40
1	Fe 238.204 Radial†	10.7	3.0	32.945 ug/L	32.945 ppb	23:34:40
1	K 766.490 Radial†	2540.1	-148.8	-28.909 ug/L	-28.909 ppb	23:34:20
1	Mg 279.077 IEC†	1.8	0.7	29.574 ug/L	29.574 ppb	23:34:40
1	Na 589.592 Radial†	-757.7	172.0	58.860 ug/L	58.860 ppb	23:34:20
1	Sr 421.552†	60.7	38.2	0.2956 ug/L	0.2956 ppb	23:34:20
1	Sc 361.383	813048.4	813048.4	98.298 %		23:35:36
1	Y 371.029	690948.1	690948.1	98.269 %		23:35:36
1	Ag 328.068†	214.3	-31.1	-0.1473 ug/L	-0.1473 ppb	23:35:36
1	As 188.979†	-17.9	3.9	2.1233 ug/L	2.1233 ppb	23:35:56
1	B 249.677†	-303.6	-124.0	-3.3913 ug/L	-3.3913 ppb	23:35:56
1	Ba 233.527†	34.8	23.0	0.2090 ug/L	0.2090 ppb	23:35:56
1	Be 313.107†	-3723.3	-15.7	-0.0056 ug/L	-0.0056 ppb	23:35:36
1	Cd 226.502†	-173.5	-19.8	-0.2788 ug/L	-0.2788 ppb	23:35:56
1	Co 228.616†	-55.6	-8.2	-0.2070 ug/L	-0.2070 ppb	23:35:56
1	Cr 267.716†	65.3	-14.8	-0.1882 ug/L	-0.1882 ppb	23:35:56
1	Cu 324.752†	5756.2	71.9	0.2330 ug/L	0.2330 ppb	23:35:36
1	Mn 257.610†	877.7	467.2	0.6050 ug/L	0.6050 ppb	23:35:56
1	Mo 202.031†	19.5	8.9	0.7649 ug/L	0.7649 ppb	23:35:56
1	Ni 231.604†	97.0	10.7	0.3324 ug/L	0.3324 ppb	23:35:56
1	P 214.914†	190.2	10.6	7.6892 ug/L	7.6892 ppb	23:35:56
1	Pb 220.353†	-50.9	-2.0	-0.2943 ug/L	-0.2943 ppb	23:35:56
1	S 181.975 Axial†	35.7	7.3	12.875 ug/L	12.875 ppb	23:35:56
1	Sb 206.836†	46.4	18.6	7.5908 ug/L	7.5908 ppb	23:35:56
1	Se 196.026†	-15.5	4.0	3.2905 ug/L	3.2905 ppb	23:35:56
1	Si 251.611†	1178.4	696.0	25.388 ug/L	25.388 ppb	23:35:56
1	Sn 189.927†	8.8	5.0	1.0861 ug/L	1.0861 ppb	23:35:56
1	Ti 334.940†	-878.8	216.1	0.3672 ug/L	0.3672 ppb	23:35:36
1	Tl 190.801†	-29.0	-3.7	-1.3817 ug/L	-1.3817 ppb	23:35:56
1	U 409.014†	-2191.3	19.4	0.5508 ug/L	0.5508 ppb	23:35:36
1	V 292.402†	-1345.4	-76.0	-0.5771 ug/L	-0.5771 ppb	23:35:36
1	Zn 213.857†	1142.0	239.8	2.8051 ug/L	2.8051 ppb	23:35:56
1	SiO2†	1199.5	712.4	55.497 ug/L	55.497 ppb	23:36:53
2	Sc Radial	4474.8	4474.8	101 %		23:34:45
2	Y RADIAL	4859.9	4859.9	101.2 %		23:34:45
2	Al 396.153Radial†	-52.8	21.3	20.657 ug/L	20.657 ppb	23:35:05
2	Ca 317.933Radial†	24.0	2.6	4.7014 ug/L	4.7014 ppb	23:35:05
2	Fe 238.204 Radial†	11.3	3.8	42.123 ug/L	42.123 ppb	23:35:05
2	K 766.490 Radial†	2542.7	-104.4	-20.274 ug/L	-20.274 ppb	23:34:45
2	Mg 279.077 IEC†	1.3	0.3	11.212 ug/L	11.212 ppb	23:35:05
2	Na 589.592 Radial†	-783.9	133.6	45.719 ug/L	45.719 ppb	23:34:45
2	Sr 421.552†	60.7	39.2	0.3031 ug/L	0.3031 ppb	23:34:45
2	Sc 361.383	813882.9	813882.9	98.399 %		23:36:02
2	Y 371.029	692709.0	692709.0	98.520 %		23:36:02
2	Ag 328.068†	68.4	-179.6	-0.8819 ug/L	-0.8819 ppb	23:36:02
2	As 188.979†	-20.5	1.2	0.6834 ug/L	0.6834 ppb	23:36:22
2	B 249.677†	-325.8	-146.3	-4.0003 ug/L	-4.0003 ppb	23:36:22
2	Ba 233.527†	22.5	10.5	0.0962 ug/L	0.0962 ppb	23:36:22
2	Be 313.107†	-3731.7	-20.3	-0.0078 ug/L	-0.0078 ppb	23:36:02
2	Cd 226.502†	-174.3	-20.3	-0.2871 ug/L	-0.2871 ppb	23:36:22
2	Co 228.616†	-50.5	-3.0	-0.0759 ug/L	-0.0759 ppb	23:36:22
2	Cr 267.716†	72.7	-7.3	-0.0909 ug/L	-0.0909 ppb	23:36:22
2	Cu 324.752†	5774.7	84.7	0.2736 ug/L	0.2736 ppb	23:36:02
2	Mn 257.610†	885.2	473.8	0.6152 ug/L	0.6152 ppb	23:36:22
2	Mo 202.031†	13.4	2.7	0.2350 ug/L	0.2350 ppb	23:36:22
2	Ni 231.604†	103.0	16.8	0.5186 ug/L	0.5186 ppb	23:36:22

2	P 214.914†	200.0	20.4	14.789 ug/L	14.789 ppb	23:36:22
2	Pb 220.353†	-55.5	-6.6	-0.9847 ug/L	-0.9847 ppb	23:36:22
2	S 181.975 Axial†	28.6	0.2	0.2764 ug/L	0.2764 ppb	23:36:22
2	Sb 206.836†	17.5	-10.8	-4.3917 ug/L	-4.3917 ppb	23:36:22
2	Se 196.026†	-21.4	-2.0	-1.4636 ug/L	-1.4636 ppb	23:36:22
2	Si 251.611†	1169.6	685.8	25.022 ug/L	25.022 ppb	23:36:22
2	Sn 189.927†	1.3	-2.7	-0.5864 ug/L	-0.5864 ppb	23:36:22
2	Ti 334.940†	-936.3	158.6	0.2689 ug/L	0.2689 ppb	23:36:02
2	Tl 190.801†	-30.8	-5.4	-2.0476 ug/L	-2.0476 ppb	23:36:22
2	U 409.014†	-2129.6	84.4	2.4113 ug/L	2.4113 ppb	23:36:02
2	V 292.402†	-1292.9	-21.3	-0.1618 ug/L	-0.1618 ppb	23:36:02
2	Zn 213.857†	1135.6	232.0	2.7119 ug/L	2.7119 ppb	23:36:22
2	SiO2†	1201.0	712.7	55.533 ug/L	55.533 ppb	23:36:58
3	Sc Radial	4556.3	4556.3	103 %		23:35:10
3	Y RADIAL	4936.4	4936.4	102.8 %		23:35:10
3	Al 396.153Radial†	-52.7	22.2	21.580 ug/L	21.580 ppb	23:35:30
3	Ca 317.933Radial†	27.7	5.7	10.544 ug/L	10.544 ppb	23:35:30
3	Fe 238.204 Radial†	10.3	2.6	28.718 ug/L	28.718 ppb	23:35:30
3	K 766.490 Radial†	2719.7	22.3	4.3027 ug/L	4.3027 ppb	23:35:10
3	Mg 279.077 IEC†	2.2	1.1	42.705 ug/L	42.705 ppb	23:35:30
3	Na 589.592 Radial†	-718.1	211.3	72.299 ug/L	72.299 ppb	23:35:10
3	Sr 421.552†	60.1	37.5	0.2900 ug/L	0.2900 ppb	23:35:10
3	Sc 361.383	814803.5	814803.5	98.510 %		23:36:27
3	Y 371.029	692738.7	692738.7	98.524 %		23:36:27
3	Ag 328.068†	127.3	-119.9	-0.5896 ug/L	-0.5896 ppb	23:36:27
3	As 188.979†	-23.0	-1.2	-0.6624 ug/L	-0.6624 ppb	23:36:47
3	B 249.677†	-339.8	-160.1	-4.3750 ug/L	-4.3750 ppb	23:36:47
3	Ba 233.527†	33.6	21.7	0.1967 ug/L	0.1967 ppb	23:36:47
3	Be 313.107†	-3763.5	-48.3	-0.0198 ug/L	-0.0198 ppb	23:36:27
3	Cd 226.502†	-180.3	-26.3	-0.3695 ug/L	-0.3695 ppb	23:36:47
3	Co 228.616†	-62.2	-14.8	-0.3767 ug/L	-0.3767 ppb	23:36:47
3	Cr 267.716†	91.8	12.0	0.1561 ug/L	0.1561 ppb	23:36:47
3	Cu 324.752†	5760.4	63.5	0.2058 ug/L	0.2058 ppb	23:36:27
3	Mn 257.610†	891.8	479.5	0.6201 ug/L	0.6201 ppb	23:36:47
3	Mo 202.031†	12.7	2.0	0.1700 ug/L	0.1700 ppb	23:36:47
3	Ni 231.604†	86.4	-0.2	-0.0064 ug/L	-0.0064 ppb	23:36:47
3	P 214.914†	197.6	17.7	12.832 ug/L	12.832 ppb	23:36:47
3	Pb 220.353†	-52.1	-3.1	-0.4590 ug/L	-0.4590 ppb	23:36:47
3	S 181.975 Axial†	31.4	2.9	5.1539 ug/L	5.1539 ppb	23:36:47
3	Sb 206.836†	29.2	1.1	0.4493 ug/L	0.4493 ppb	23:36:47
3	Se 196.026†	-16.5	3.0	2.4644 ug/L	2.4644 ppb	23:36:47
3	Si 251.611†	1193.8	709.1	25.872 ug/L	25.872 ppb	23:36:47
3	Sn 189.927†	6.8	3.0	0.6527 ug/L	0.6527 ppb	23:36:47
3	Ti 334.940†	-1063.8	30.2	0.0490 ug/L	0.0490 ppb	23:36:27
3	Tl 190.801†	-24.6	0.8	0.3130 ug/L	0.3130 ppb	23:36:47
3	U 409.014†	-2190.3	25.3	0.7188 ug/L	0.7188 ppb	23:36:27
3	V 292.402†	-1350.8	-78.5	-0.6035 ug/L	-0.6035 ppb	23:36:27
3	Zn 213.857†	1131.3	226.3	2.6505 ug/L	2.6505 ppb	23:36:47
3	SiO2†	1197.1	707.4	55.122 ug/L	55.122 ppb	23:37:03

Mean Data: 1202049260|955808|5

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	813911.6	98.402 %	0.1061			0.11%
Sc Radial	4527.3	103 %	1.0			1.01%
Y 371.029	692131.9	98.438 %	0.1458			0.15%
Y RADIAL	4921.6	102.5 %	1.16			1.14%
Ag 328.068†	-110.2	-0.5396 ug/L	0.36982	-0.5396 ppb	0.36982	68.54%
Al 396.153Radial†	20.7	20.081 ug/L	1.8560	20.081 ppb	1.8560	9.24%
As 188.979†	1.3	0.7147 ug/L	1.39315	0.7147 ppb	1.39315	194.91%
B 249.677†	-143.5	-3.9222 ug/L	0.49648	-3.9222 ppb	0.49648	12.66%
Ba 233.527†	18.4	0.1673 ug/L	0.06188	0.1673 ppb	0.06188	36.98%
Be 313.107†	-28.1	-0.0111 ug/L	0.00766	-0.0111 ppb	0.00766	69.02%
Ca 317.933Radial†	4.9	8.9459 ug/L	3.71305	8.9459 ppb	3.71305	41.51%
Cd 226.502†	-22.1	-0.3118 ug/L	0.05015	-0.3118 ppb	0.05015	16.08%
Co 228.616†	-8.7	-0.2199 ug/L	0.15081	-0.2199 ppb	0.15081	68.59%
Cr 267.716†	-3.4	-0.0410 ug/L	0.17750	-0.0410 ppb	0.17750	433.10%
Cu 324.752†	73.4	0.2375 ug/L	0.03415	0.2375 ppb	0.03415	14.38%
Fe 238.204 Radial†	3.1	34.596 ug/L	6.8533	34.596 ppb	6.8533	19.81%
K 766.490 Radial†	-76.9	-14.960 ug/L	17.2316	-14.960 ppb	17.2316	115.18%

Mg 279.077 IEC†	0.7	27.831 ug/L	15.8185	27.831 ppb	15.8185	56.84%
Mn 257.610†	473.5	0.6134 ug/L	0.00768	0.6134 ppb	0.00768	1.25%
Mo 202.031†	4.5	0.3900 ug/L	0.32631	0.3900 ppb	0.32631	83.68%
Na 589.592 Radial†	172.3	58.959 ug/L	13.2900	58.959 ppb	13.2900	22.54%
Ni 231.604†	9.1	0.2815 ug/L	0.26621	0.2815 ppb	0.26621	94.56%
P 214.914†	16.2	11.770 ug/L	3.6671	11.770 ppb	3.6671	31.16%
Pb 220.353†	-3.9	-0.5793 ug/L	0.36060	-0.5793 ppb	0.36060	62.24%
S 181.975 Axial†	3.5	6.1018 ug/L	6.35271	6.1018 ppb	6.35271	104.11%
Sb 206.836†	3.0	1.2161 ug/L	6.02792	1.2161 ppb	6.02792	495.66%
Se 196.026†	1.7	1.4305 ug/L	2.54010	1.4305 ppb	2.54010	177.57%
Si 251.611†	697.0	25.427 ug/L	0.4263	25.427 ppb	0.4263	1.68%
Sn 189.927†	1.8	0.3842 ug/L	0.86799	0.3842 ppb	0.86799	225.94%
Sr 421.552†	38.3	0.2962 ug/L	0.00658	0.2962 ppb	0.00658	2.22%
Ti 334.940†	134.9	0.2284 ug/L	0.16290	0.2284 ppb	0.16290	71.33%
Tl 190.801†	-2.8	-1.0387 ug/L	1.21710	-1.0387 ppb	1.21710	117.17%
U 409.014†	43.0	1.2270 ug/L	1.02910	1.2270 ppb	1.02910	83.87%
V 292.402†	-58.6	-0.4475 ug/L	0.24777	-0.4475 ppb	0.24777	55.37%
Zn 213.857†	232.7	2.7225 ug/L	0.07783	2.7225 ppb	0.07783	2.86%
SiO2†	710.8	55.384 ug/L	0.2274	55.384 ppb	0.2274	0.41%

Sequence No.: 40

Sample ID: 247560001|955808|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 71

Date Collected: 3/17/2010 23:46:00

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 247560001|955808|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4622.3	4622.3	105 %		23:47:53
1	Y RADIAL	5032.0	5032.0	104.8 %		23:47:53
1	Al 396.153Radial†	-23.6	50.7	49.318 ug/L	49.318 ppb	23:48:13
1	Ca 317.933Radial†	83.8	59.0	108.30 ug/L	108.30 ppb	23:48:13
1	Fe 238.204 Radial†	13.7	5.7	63.166 ug/L	63.166 ppb	23:48:13
1	K 766.490 Radial†	4527.7	1712.2	332.17 ug/L	332.17 ppb	23:47:53
1	Mg 279.077 IEC†	3.1	1.9	76.622 ug/L	76.622 ppb	23:48:13
1	Na 589.592 Radial†	-7.9	899.7	307.92 ug/L	307.92 ppb	23:47:53
1	Sr 421.552†	77.3	53.1	0.4101 ug/L	0.4101 ppb	23:47:53
1	Sc 361.383	832275.9	832275.9	100.62 %		23:49:10
1	Y 371.029	707491.2	707491.2	100.62 %		23:49:10
1	Ag 328.068†	238.8	-11.8	-0.0457 ug/L	-0.0457 ppb	23:49:10
1	As 188.979†	-18.8	3.4	1.8811 ug/L	1.8811 ppb	23:49:30
1	B 249.677†	566.4	747.7	20.404 ug/L	20.404 ppb	23:49:30
1	Ba 233.527†	89.2	76.2	0.6931 ug/L	0.6931 ppb	23:49:30
1	Be 313.107†	-3862.3	-66.3	-0.0250 ug/L	-0.0250 ppb	23:49:10
1	Cd 226.502†	-173.6	-15.8	-0.2255 ug/L	-0.2255 ppb	23:49:30
1	Co 228.616†	-50.4	-1.8	-0.0476 ug/L	-0.0476 ppb	23:49:30
1	Cr 267.716†	122.2	40.2	0.5224 ug/L	0.5224 ppb	23:49:30
1	Cu 324.752†	8071.3	2237.3	7.2063 ug/L	7.2063 ppb	23:49:10
1	Mn 257.610†	1701.1	1264.8	1.6356 ug/L	1.6356 ppb	23:49:30
1	Mo 202.031†	13.3	2.3	0.2006 ug/L	0.2006 ppb	23:49:30
1	Ni 231.604†	100.6	12.1	0.3744 ug/L	0.3744 ppb	23:49:30
1	P 214.914†	200.7	16.5	10.575 ug/L	10.575 ppb	23:49:30
1	Pb 220.353†	-45.1	5.0	0.7540 ug/L	0.7540 ppb	23:49:30
1	S 181.975 Axial†	59.3	30.0	52.614 ug/L	52.614 ppb	23:49:30
1	Sb 206.836†	33.1	4.3	1.7420 ug/L	1.7420 ppb	23:49:30
1	Se 196.026†	-14.4	5.5	4.5563 ug/L	4.5563 ppb	23:49:30
1	Si 251.611†	61112.0	60231.0	2197.8 ug/L	2197.8 ppb	23:49:10
1	Sn 189.927†	3.7	-0.2	-0.0354 ug/L	-0.0354 ppb	23:49:30
1	Ti 334.940†	-492.1	621.0	1.0648 ug/L	1.0648 ppb	23:49:10
1	Tl 190.801†	-31.4	-5.4	-2.0353 ug/L	-2.0353 ppb	23:49:30
1	U 409.014†	-2129.4	132.4	3.7798 ug/L	3.7798 ppb	23:49:10
1	V 292.402†	-1372.0	-70.9	-0.5439 ug/L	-0.5439 ppb	23:49:10
1	Zn 213.857†	1473.7	542.5	6.3422 ug/L	6.3422 ppb	23:49:30
1	SiO2†	60603.2	59720.4	4653.9 ug/L	4653.9 ppb	23:50:26
2	Sc Radial	4607.9	4607.9	104 %		23:48:18
2	Y RADIAL	5019.9	5019.9	104.5 %		23:48:18
2	Al 396.153Radial†	-14.9	59.0	57.344 ug/L	57.344 ppb	23:48:38
2	Ca 317.933Radial†	83.4	58.8	107.89 ug/L	107.89 ppb	23:48:38
2	Fe 238.204 Radial†	11.1	3.2	35.496 ug/L	35.496 ppb	23:48:38
2	K 766.490 Radial†	4484.1	1683.9	326.67 ug/L	326.67 ppb	23:48:18
2	Mg 279.077 IEC†	2.3	1.2	46.254 ug/L	46.254 ppb	23:48:38
2	Na 589.592 Radial†	73.8	978.1	334.73 ug/L	334.73 ppb	23:48:18
2	Sr 421.552†	57.7	34.6	0.2667 ug/L	0.2667 ppb	23:48:18
2	Sc 361.383	823563.7	823563.7	99.569 %		23:49:36
2	Y 371.029	701762.2	701762.2	99.807 %		23:49:36
2	Ag 328.068†	160.6	-87.8	-0.4327 ug/L	-0.4327 ppb	23:49:36
2	As 188.979†	-15.2	6.8	3.6993 ug/L	3.6993 ppb	23:49:56
2	B 249.677†	536.8	723.9	19.758 ug/L	19.758 ppb	23:49:56
2	Ba 233.527†	82.9	70.9	0.6452 ug/L	0.6452 ppb	23:49:56
2	Be 313.107†	-3839.5	-83.9	-0.0321 ug/L	-0.0321 ppb	23:49:36
2	Cd 226.502†	-179.5	-23.5	-0.3302 ug/L	-0.3302 ppb	23:49:56
2	Co 228.616†	-49.8	-1.7	-0.0445 ug/L	-0.0445 ppb	23:49:56
2	Cr 267.716†	148.3	67.8	0.8734 ug/L	0.8734 ppb	23:49:56
2	Cu 324.752†	8023.2	2273.9	7.3206 ug/L	7.3206 ppb	23:49:36
2	Mn 257.610†	1701.6	1283.2	1.6579 ug/L	1.6579 ppb	23:49:56
2	Mo 202.031†	15.5	4.7	0.4060 ug/L	0.4060 ppb	23:49:56
2	Ni 231.604†	98.9	11.4	0.3526 ug/L	0.3526 ppb	23:49:56

2	P 214.914†	199.7	17.7	11.430 ug/L	11.430 ppb	23:49:56
2	Pb 220.353†	-66.8	-17.2	-2.5791 ug/L	-2.5791 ppb	23:49:56
2	S 181.975 Axial†	62.1	33.5	58.656 ug/L	58.656 ppb	23:49:56
2	Sb 206.836†	34.1	5.7	2.3134 ug/L	2.3134 ppb	23:49:56
2	Se 196.026†	-19.7	0.0	0.1239 ug/L	0.1239 ppb	23:49:56
2	Si 251.611†	60469.1	60227.8	2197.7 ug/L	2197.7 ppb	23:49:36
2	Sn 189.927†	5.3	1.3	0.3089 ug/L	0.3089 ppb	23:49:56
2	Ti 334.940†	-432.9	675.3	1.1580 ug/L	1.1580 ppb	23:49:36
2	Tl 190.801†	-31.8	-6.1	-2.2793 ug/L	-2.2793 ppb	23:49:56
2	U 409.014†	-1983.1	257.0	7.3460 ug/L	7.3460 ppb	23:49:36
2	V 292.402†	-1288.5	-1.4	0.0031 ug/L	0.0031 ppb	23:49:36
2	Zn 213.857†	1485.6	570.0	6.6686 ug/L	6.6686 ppb	23:49:56
2	SiO2†	60474.4	60228.2	4693.5 ug/L	4693.5 ppb	23:50:31
3	Sc Radial	4533.1	4533.1	103 %		23:48:44
3	Y RADIAL	4933.1	4933.1	102.7 %		23:48:44
3	Al 396.153Radial†	-12.4	61.2	59.520 ug/L	59.520 ppb	23:49:04
3	Ca 317.933Radial†	89.7	66.3	121.69 ug/L	121.69 ppb	23:49:04
3	Fe 238.204 Radial†	13.2	5.5	60.849 ug/L	60.849 ppb	23:49:04
3	K 766.490 Radial†	4386.9	1660.1	322.05 ug/L	322.05 ppb	23:48:44
3	Mg 279.077 IEC†	0.8	-0.2	-9.2635 ug/L	-9.2635 ppb	23:49:04
3	Na 589.592 Radial†	105.5	1010.1	345.69 ug/L	345.69 ppb	23:48:44
3	Sr 421.552†	60.2	37.9	0.2924 ug/L	0.2924 ppb	23:48:44
3	Sc 361.383	822620.7	822620.7	99.455 %		23:50:01
3	Y 371.029	701832.9	701832.9	99.817 %		23:50:01
3	Ag 328.068†	123.4	-125.1	-0.6071 ug/L	-0.6071 ppb	23:50:01
3	As 188.979†	-19.4	2.6	1.4077 ug/L	1.4077 ppb	23:50:21
3	B 249.677†	557.8	745.6	20.348 ug/L	20.348 ppb	23:50:21
3	Ba 233.527†	90.6	78.6	0.7169 ug/L	0.7169 ppb	23:50:21
3	Be 313.107†	-3816.2	-64.9	-0.0245 ug/L	-0.0245 ppb	23:50:01
3	Cd 226.502†	-182.5	-26.7	-0.3781 ug/L	-0.3781 ppb	23:50:21
3	Co 228.616†	-55.7	-7.7	-0.1976 ug/L	-0.1976 ppb	23:50:21
3	Cr 267.716†	120.2	39.6	0.5154 ug/L	0.5154 ppb	23:50:21
3	Cu 324.752†	8003.9	2263.8	7.2910 ug/L	7.2910 ppb	23:50:01
3	Mn 257.610†	1698.4	1281.9	1.6610 ug/L	1.6610 ppb	23:50:21
3	Mo 202.031†	15.9	5.0	0.4377 ug/L	0.4377 ppb	23:50:21
3	Ni 231.604†	99.7	12.3	0.3818 ug/L	0.3818 ppb	23:50:21
3	P 214.914†	205.4	23.6	15.769 ug/L	15.769 ppb	23:50:21
3	Pb 220.353†	-43.2	6.4	0.9613 ug/L	0.9613 ppb	23:50:21
3	S 181.975 Axial†	59.8	31.2	54.594 ug/L	54.594 ppb	23:50:21
3	Sb 206.836†	33.2	4.8	1.9697 ug/L	1.9697 ppb	23:50:21
3	Se 196.026†	-23.4	-3.8	-2.8383 ug/L	-2.8383 ppb	23:50:21
3	Si 251.611†	60360.1	60187.8	2196.2 ug/L	2196.2 ppb	23:50:01
3	Sn 189.927†	8.7	4.8	1.0749 ug/L	1.0749 ppb	23:50:21
3	Ti 334.940†	-499.7	607.6	1.0506 ug/L	1.0506 ppb	23:50:01
3	Tl 190.801†	-28.9	-3.2	-1.1990 ug/L	-1.1990 ppb	23:50:21
3	U 409.014†	-2091.9	145.3	4.1497 ug/L	4.1497 ppb	23:50:01
3	V 292.402†	-1275.7	9.9	0.0802 ug/L	0.0802 ppb	23:50:01
3	Zn 213.857†	1476.8	562.8	6.5810 ug/L	6.5810 ppb	23:50:21
3	SiO2†	59982.8	59803.6	4660.4 ug/L	4660.4 ppb	23:50:36

Mean Data: 247560001|955808|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	826153.4	99.882 %	%	0.6436			0.64%
Sc Radial	4587.8	104 %	%	1.1			1.04%
Y 371.029	703695.5	100.08 %	%	0.468			0.47%
Y RADIAL	4995.0	104.0 %	%	1.12			1.08%
Ag 328.068†	-74.9	-0.3619 ug/L	ug/L	0.28732	-0.3619 ppb	0.28732	79.40%
Al 396.153Radial†	57.0	55.394 ug/L	ug/L	5.3732	55.394 ppb	5.3732	9.70%
As 188.979†	4.3	2.3294 ug/L	ug/L	1.20980	2.3294 ppb	1.20980	51.94%
B 249.677†	739.1	20.170 ug/L	ug/L	0.3583	20.170 ppb	0.3583	1.78%
Ba 233.527†	75.2	0.6851 ug/L	ug/L	0.03655	0.6851 ppb	0.03655	5.34%
Be 313.107†	-71.7	-0.0272 ug/L	ug/L	0.00424	-0.0272 ppb	0.00424	15.59%
Ca 317.933Radial†	61.4	112.63 ug/L	ug/L	7.854	112.63 ppb	7.854	6.97%
Cd 226.502†	-22.0	-0.3113 ug/L	ug/L	0.07807	-0.3113 ppb	0.07807	25.08%
Co 228.616†	-3.7	-0.0966 ug/L	ug/L	0.08749	-0.0966 ppb	0.08749	90.62%
Cr 267.716†	49.2	0.6371 ug/L	ug/L	0.20469	0.6371 ppb	0.20469	32.13%
Cu 324.752†	2258.3	7.2726 ug/L	ug/L	0.05932	7.2726 ppb	0.05932	0.82%
Fe 238.204 Radial†	4.8	53.170 ug/L	ug/L	15.3499	53.170 ppb	15.3499	28.87%
K 766.490 Radial†	1685.4	326.96 ug/L	ug/L	5.066	326.96 ppb	5.066	1.55%

Mg 279.077 IEC†	1.0	37.871 ug/L	43.5520	37.871 ppb	43.5520	115.00%
Mn 257.610†	1276.6	1.6515 ug/L	0.01385	1.6515 ppb	0.01385	0.84%
Mo 202.031†	4.0	0.3481 ug/L	0.12874	0.3481 ppb	0.12874	36.98%
Na 589.592 Radial†	962.6	329.45 ug/L	19.429	329.45 ppb	19.429	5.90%
Ni 231.604†	12.0	0.3696 ug/L	0.01518	0.3696 ppb	0.01518	4.11%
P 214.914†	19.3	12.591 ug/L	2.7847	12.591 ppb	2.7847	22.12%
Pb 220.353†	-1.9	-0.2879 ug/L	1.98692	-0.2879 ppb	1.98692	690.09%
S 181.975 Axial†	31.6	55.288 ug/L	3.0801	55.288 ppb	3.0801	5.57%
Sb 206.836†	4.9	2.0084 ug/L	0.28765	2.0084 ppb	0.28765	14.32%
Se 196.026†	0.6	0.6140 ug/L	3.72157	0.6140 ppb	3.72157	606.12%
Si 251.611†	60215.6	2197.3 ug/L	0.88	2197.3 ppb	0.88	0.04%
Sn 189.927†	2.0	0.4495 ug/L	0.56838	0.4495 ppb	0.56838	126.45%
Sr 421.552†	41.9	0.3230 ug/L	0.07644	0.3230 ppb	0.07644	23.66%
Ti 334.940†	634.7	1.0911 ug/L	0.05834	1.0911 ppb	0.05834	5.35%
Tl 190.801†	-4.9	-1.8378 ug/L	0.56658	-1.8378 ppb	0.56658	30.83%
U 409.014†	178.2	5.0918 ug/L	1.96092	5.0918 ppb	1.96092	38.51%
V 292.402†	-20.8	-0.1535 ug/L	0.34028	-0.1535 ppb	0.34028	221.63%
Zn 213.857†	558.4	6.5306 ug/L	0.16894	6.5306 ppb	0.16894	2.59%
SiO2†	59917.4	4669.3 ug/L	21.22	4669.3 ppb	21.22	0.45%

Sequence No.: 42

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 1

Date Collected: 3/17/2010 23:59:36

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	4429.9	4429.9	100 %		00:01:27
1	Y RADIAL	4767.1	4767.1	99.27 %		00:01:27
1	Al 396.153Radial†	5009.2	5067.5	4903.8 ug/L	4903.8 ppb	00:01:27
1	Ca 317.933Radial†	2697.4	2668.1	4897.2 ug/L	4897.2 ppb	00:01:48
1	Fe 238.204 Radial†	445.8	437.0	4893.1 ug/L	4893.1 ppb	00:01:48
1	K 766.490 Radial†	28219.2	25520.5	4947.2 ug/L	4947.2 ppb	00:01:27
1	Mg 279.077 IEC†	125.3	123.8	4929.2 ug/L	4929.2 ppb	00:01:48
1	Na 589.592 Radial†	27705.3	28529.4	9763.9 ug/L	9763.9 ppb	00:01:27
1	Sr 421.552†	64150.3	63936.9	494.43 ug/L	494.43 ppb	00:01:27
1	Sc 361.383	831801.1	831801.1	100.57 %		00:02:45
1	Y 371.029	697645.7	697645.7	99.222 %		00:02:45
1	Ag 328.068†	97723.7	96925.4	484.40 ug/L	484.40 ppb	00:02:50
1	As 188.979†	876.8	894.0	486.36 ug/L	486.36 ppb	00:03:10
1	B 249.677†	17154.5	17242.9	468.55 ug/L	468.55 ppb	00:02:50
1	Ba 233.527†	53697.7	53383.5	486.46 ug/L	486.46 ppb	00:02:50
1	Be 313.107†	1191736.5	1188810.7	492.83 ug/L	492.83 ppb	00:02:45
1	Cd 226.502†	34824.9	34786.0	485.33 ug/L	485.33 ppb	00:02:50
1	Co 228.616†	19714.0	19651.6	498.51 ug/L	498.51 ppb	00:02:50
1	Cr 267.716†	37886.3	37592.2	485.15 ug/L	485.15 ppb	00:02:50
1	Cu 324.752†	156247.5	149585.4	481.71 ug/L	481.71 ppb	00:02:50
1	Mn 257.610†	386219.9	383623.4	495.44 ug/L	495.44 ppb	00:02:45
1	Mo 202.031†	5685.7	5642.9	484.02 ug/L	484.02 ppb	00:03:10
1	Ni 231.604†	16242.7	16063.5	496.34 ug/L	496.34 ppb	00:02:50
1	P 214.914†	3517.5	3314.8	2325.6 ug/L	2325.6 ppb	00:03:10
1	Pb 220.353†	3225.0	3256.7	489.54 ug/L	489.54 ppb	00:03:10
1	S 181.975 Axial†	587.8	555.5	972.72 ug/L	972.72 ppb	00:03:10
1	Sb 206.836†	1231.8	1196.3	503.44 ug/L	503.44 ppb	00:03:10
1	Se 196.026†	594.8	611.2	505.44 ug/L	505.44 ppb	00:03:10
1	Si 251.611†	66968.0	66088.8	2405.6 ug/L	2405.6 ppb	00:02:50
1	Sn 189.927†	2208.0	2191.7	480.38 ug/L	480.38 ppb	00:03:10
1	Ti 334.940†	283129.3	282648.1	481.54 ug/L	481.54 ppb	00:02:50
1	Tl 190.801†	1268.6	1287.3	490.08 ug/L	490.08 ppb	00:03:10
1	U 409.014†	14787.7	16953.2	483.36 ug/L	483.36 ppb	00:02:50
1	V 292.402†	61746.5	62692.2	488.54 ug/L	488.54 ppb	00:02:50
1	Zn 213.857†	42266.8	41107.2	477.66 ug/L	477.66 ppb	00:02:50
1	SiO2†	67159.7	66274.4	5151.5 ug/L	5151.5 ppb	00:04:18
2	Sc Radial	4400.2	4400.2	99.6 %		00:01:53
2	Y RADIAL	4761.5	4761.5	99.15 %		00:01:53
2	Al 396.153Radial†	4985.2	5077.0	4912.9 ug/L	4912.9 ppb	00:01:53
2	Ca 317.933Radial†	2717.7	2706.7	4967.9 ug/L	4967.9 ppb	00:02:13
2	Fe 238.204 Radial†	449.5	443.7	4967.7 ug/L	4967.7 ppb	00:02:13
2	K 766.490 Radial†	28252.0	25742.8	4990.3 ug/L	4990.3 ppb	00:01:53
2	Mg 279.077 IEC†	131.3	130.8	5205.8 ug/L	5205.8 ppb	00:02:13
2	Na 589.592 Radial†	27564.5	28574.1	9779.2 ug/L	9779.2 ppb	00:01:53
2	Sr 421.552†	63915.2	64131.7	495.93 ug/L	495.93 ppb	00:01:53
2	Sc 361.383	822515.8	822515.8	99.443 %		00:03:16
2	Y 371.029	691140.1	691140.1	98.296 %		00:03:16
2	Ag 328.068†	97489.3	97786.6	488.72 ug/L	488.72 ppb	00:03:21
2	As 188.979†	876.9	903.9	491.74 ug/L	491.74 ppb	00:03:41
2	B 249.677†	17111.2	17391.9	472.60 ug/L	472.60 ppb	00:03:21
2	Ba 233.527†	53421.6	53708.6	489.43 ug/L	489.43 ppb	00:03:21
2	Be 313.107†	1179972.0	1190358.0	493.49 ug/L	493.49 ppb	00:03:16
2	Cd 226.502†	34610.8	34961.6	487.77 ug/L	487.77 ppb	00:03:21
2	Co 228.616†	19662.4	19821.0	502.80 ug/L	502.80 ppb	00:03:21
2	Cr 267.716†	37726.6	37856.9	488.58 ug/L	488.58 ppb	00:03:21
2	Cu 324.752†	156365.5	151458.0	487.74 ug/L	487.74 ppb	00:03:21
2	Mn 257.610†	381045.5	382755.5	494.32 ug/L	494.32 ppb	00:03:16
2	Mo 202.031†	5668.9	5689.8	488.05 ug/L	488.05 ppb	00:03:41
2	Ni 231.604†	16140.6	16143.2	498.80 ug/L	498.80 ppb	00:03:21

2	P 214.914†	3493.8	3330.5	2335.8 ug/L	2335.8 ppb	00:03:41
2	Pb 220.353†	3171.8	3239.4	486.95 ug/L	486.95 ppb	00:03:41
2	S 181.975 Axial†	578.3	552.6	967.52 ug/L	967.52 ppb	00:03:41
2	Sb 206.836†	1214.2	1192.5	502.03 ug/L	502.03 ppb	00:03:41
2	Se 196.026†	585.2	608.2	503.30 ug/L	503.30 ppb	00:03:41
2	Si 251.611†	66707.4	66578.5	2423.4 ug/L	2423.4 ppb	00:03:21
2	Sn 189.927†	2198.3	2206.7	483.68 ug/L	483.68 ppb	00:03:41
2	Ti 334.940†	282598.8	285292.9	486.03 ug/L	486.03 ppb	00:03:21
2	Tl 190.801†	1249.0	1281.9	488.01 ug/L	488.01 ppb	00:03:41
2	U 409.014†	14769.7	17101.1	487.58 ug/L	487.58 ppb	00:03:21
2	V 292.402†	61784.3	63423.3	494.22 ug/L	494.22 ppb	00:03:21
2	Zn 213.857†	42112.8	41426.8	481.37 ug/L	481.37 ppb	00:03:21
2	SiO2†	67254.1	67123.2	5217.5 ug/L	5217.5 ppb	00:04:23
3	Sc Radial	4424.7	4424.7	100 %		00:02:18
3	Y RADIAL	4779.8	4779.8	99.53 %		00:02:18
3	Al 396.153Radial†	5003.2	5067.3	4903.3 ug/L	4903.3 ppb	00:02:18
3	Ca 317.933Radial†	2721.5	2695.4	4947.3 ug/L	4947.3 ppb	00:02:38
3	Fe 238.204 Radial†	454.4	446.1	4994.9 ug/L	4994.9 ppb	00:02:38
3	K 766.490 Radial†	28237.7	25572.0	4957.1 ug/L	4957.1 ppb	00:02:18
3	Mg 279.077 IEC†	127.8	126.5	5034.6 ug/L	5034.6 ppb	00:02:38
3	Na 589.592 Radial†	27645.2	28501.9	9754.5 ug/L	9754.5 ppb	00:02:18
3	Sr 421.552†	64125.1	63986.9	494.81 ug/L	494.81 ppb	00:02:18
3	Sc 361.383	820931.0	820931.0	99.251 %		00:03:47
3	Y 371.029	689125.4	689125.4	98.010 %		00:03:47
3	Ag 328.068†	97955.8	98445.9	492.00 ug/L	492.00 ppb	00:03:52
3	As 188.979†	883.0	911.8	496.02 ug/L	496.02 ppb	00:04:12
3	B 249.677†	17287.1	17602.3	478.33 ug/L	478.33 ppb	00:03:52
3	Ba 233.527†	53615.8	54008.0	492.15 ug/L	492.15 ppb	00:03:52
3	Be 313.107†	1179931.1	1192607.5	494.42 ug/L	494.42 ppb	00:03:47
3	Cd 226.502†	34821.9	35241.5	491.68 ug/L	491.68 ppb	00:03:52
3	Co 228.616†	19730.7	19928.0	505.52 ug/L	505.52 ppb	00:03:52
3	Cr 267.716†	37905.2	38110.0	491.84 ug/L	491.84 ppb	00:03:52
3	Cu 324.752†	156754.5	152153.4	489.98 ug/L	489.98 ppb	00:03:52
3	Mn 257.610†	381820.9	384276.5	496.29 ug/L	496.29 ppb	00:03:47
3	Mo 202.031†	5687.1	5719.1	490.57 ug/L	490.57 ppb	00:04:12
3	Ni 231.604†	16204.3	16238.6	501.75 ug/L	501.75 ppb	00:03:52
3	P 214.914†	3528.1	3371.8	2365.5 ug/L	2365.5 ppb	00:04:12
3	Pb 220.353†	3207.3	3281.3	493.23 ug/L	493.23 ppb	00:04:12
3	S 181.975 Axial†	588.4	563.9	987.46 ug/L	987.46 ppb	00:04:12
3	Sb 206.836†	1235.0	1215.8	511.62 ug/L	511.62 ppb	00:04:12
3	Se 196.026†	592.6	616.8	510.21 ug/L	510.21 ppb	00:04:12
3	Si 251.611†	66938.8	66941.2	2436.6 ug/L	2436.6 ppb	00:03:52
3	Sn 189.927†	2212.6	2225.4	487.76 ug/L	487.76 ppb	00:04:12
3	Ti 334.940†	283634.7	286885.2	488.75 ug/L	488.75 ppb	00:03:52
3	Tl 190.801†	1263.2	1298.5	494.33 ug/L	494.33 ppb	00:04:12
3	U 409.014†	15017.6	17379.6	495.53 ug/L	495.53 ppb	00:03:52
3	V 292.402†	61954.7	63714.9	496.50 ug/L	496.50 ppb	00:03:52
3	Zn 213.857†	42302.1	41699.3	484.55 ug/L	484.55 ppb	00:03:52
3	SiO2†	66917.9	66915.1	5201.2 ug/L	5201.2 ppb	00:04:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	825082.6	99.753 %	0.7099			0.71%
Sc Radial	4418.2	100 %	0.4			0.36%
Y 371.029	692637.1	98.509 %	0.6333			0.64%
Y RADIAL	4769.5	99.32 %	0.195			0.20%
Ag 328.068†	97719.3	488.37 ug/L	3.814	488.37 ppb	3.814	0.78%
QC value within limits for Ag 328.068 Recovery = 97.67%						
Al 396.153Radial†	5070.6	4906.7 ug/L	5.37	4906.7 ppb	5.37	0.11%
QC value within limits for Al 396.153Radial Recovery = 98.13%						
As 188.979†	903.2	491.37 ug/L	4.844	491.37 ppb	4.844	0.99%
QC value within limits for As 188.979 Recovery = 98.27%						
B 249.677†	17412.4	473.16 ug/L	4.913	473.16 ppb	4.913	1.04%
QC value within limits for B 249.677 Recovery = 94.63%						
Ba 233.527†	53700.1	489.35 ug/L	2.849	489.35 ppb	2.849	0.58%
QC value within limits for Ba 233.527 Recovery = 97.87%						
Be 313.107†	1190592.1	493.58 ug/L	0.798	493.58 ppb	0.798	0.16%
QC value within limits for Be 313.107 Recovery = 98.72%						
Ca 317.933Radial†	2690.1	4937.4 ug/L	36.37	4937.4 ppb	36.37	0.74%

QC value within limits for Ca 317.933 Radial Recovery = 98.75%

Cd	226.502†	34996.3	488.26 ug/L	3.204	488.26 ppb	3.204	0.66%
QC value within limits for Cd 226.502 Recovery = 97.65%							
Co	228.616†	19800.2	502.28 ug/L	3.534	502.28 ppb	3.534	0.70%
QC value within limits for Co 228.616 Recovery = 100.46%							
Cr	267.716†	37853.0	488.52 ug/L	3.344	488.52 ppb	3.344	0.68%
QC value within limits for Cr 267.716 Recovery = 97.70%							
Cu	324.752†	151065.6	486.47 ug/L	4.277	486.47 ppb	4.277	0.88%
QC value within limits for Cu 324.752 Recovery = 97.29%							
Fe	238.204 Radial†	442.3	4951.9 ug/L	52.70	4951.9 ppb	52.70	1.06%
QC value within limits for Fe 238.204 Radial Recovery = 99.04%							
K	766.490 Radial†	25611.7	4964.9 ug/L	22.58	4964.9 ppb	22.58	0.45%
QC value within limits for K 766.490 Radial Recovery = 99.30%							
Mg	279.077 IEC†	127.0	5056.5 ug/L	139.57	5056.5 ppb	139.57	2.76%
QC value within limits for Mg 279.077 IEC Recovery = 101.13%							
Mn	257.610†	383551.8	495.35 ug/L	0.990	495.35 ppb	0.990	0.20%
QC value within limits for Mn 257.610 Recovery = 99.07%							
Mo	202.031†	5683.9	487.55 ug/L	3.302	487.55 ppb	3.302	0.68%
QC value within limits for Mo 202.031 Recovery = 97.51%							
Na	589.592 Radial†	28535.2	9765.9 ug/L	12.48	9765.9 ppb	12.48	0.13%
QC value within limits for Na 589.592 Radial Recovery = 97.66%							
Ni	231.604†	16148.4	498.96 ug/L	2.709	498.96 ppb	2.709	0.54%
QC value within limits for Ni 231.604 Recovery = 99.79%							
P	214.914†	3339.0	2342.3 ug/L	20.75	2342.3 ppb	20.75	0.89%
QC value within limits for P 214.914 Recovery = 93.69%							
Pb	220.353†	3259.1	489.91 ug/L	3.152	489.91 ppb	3.152	0.64%
QC value within limits for Pb 220.353 Recovery = 97.98%							
S	181.975 Axial†	557.3	975.90 ug/L	10.342	975.90 ppb	10.342	1.06%
QC value within limits for S 181.975 Axial Recovery = 97.59%							
Sb	206.836†	1201.5	505.70 ug/L	5.178	505.70 ppb	5.178	1.02%
QC value within limits for Sb 206.836 Recovery = 101.14%							
Se	196.026†	612.1	506.32 ug/L	3.536	506.32 ppb	3.536	0.70%
QC value within limits for Se 196.026 Recovery = 101.26%							
Si	251.611†	66536.2	2421.9 ug/L	15.57	2421.9 ppb	15.57	0.64%
QC value within limits for Si 251.611 Recovery = 96.88%							
Sn	189.927†	2207.9	483.94 ug/L	3.693	483.94 ppb	3.693	0.76%
QC value within limits for Sn 189.927 Recovery = 96.79%							
Sr	421.552†	64018.5	495.06 ug/L	0.782	495.06 ppb	0.782	0.16%
QC value within limits for Sr 421.552 Recovery = 99.01%							
Ti	334.940†	284942.1	485.44 ug/L	3.642	485.44 ppb	3.642	0.75%
QC value within limits for Ti 334.940 Recovery = 97.09%							
Tl	190.801†	1289.2	490.81 ug/L	3.222	490.81 ppb	3.222	0.66%
QC value within limits for Tl 190.801 Recovery = 98.16%							
U	409.014†	17144.6	488.82 ug/L	6.180	488.82 ppb	6.180	1.26%
QC value within limits for U 409.014 Recovery = 97.76%							
V	292.402†	63276.8	493.08 ug/L	4.097	493.08 ppb	4.097	0.83%
QC value within limits for V 292.402 Recovery = 98.62%							
Zn	213.857†	41411.1	481.19 ug/L	3.446	481.19 ppb	3.446	0.72%
QC value within limits for Zn 213.857 Recovery = 96.24%							
SiO2†		66770.9	5190.1 ug/L	34.40	5190.1 ppb	34.40	0.66%
QC value within limits for SiO2 Recovery = 97.06%							

All analyte(s) passed QC.

Sequence No.: 43

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 6

Date Collected: 3/18/2010 00:06:37

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	4560.2	4560.2	103 %		00:08:29
1	Y RADIAL	4952.6	4952.6	103.1 %		00:08:29
1	Al 396.153Radial†	-70.8	4.8	4.6377 ug/L	4.6377 ppb	00:08:49
1	Ca 317.933Radial†	21.0	-0.8	-1.3767 ug/L	-1.3767 ppb	00:08:49
1	Fe 238.204 Radial†	10.7	3.0	33.279 ug/L	33.279 ppb	00:08:49
1	K 766.490 Radial†	2492.4	-200.1	-38.842 ug/L	-38.842 ppb	00:08:29
1	Mg 279.077 IEC†	0.0	-1.0	-41.268 ug/L	-41.268 ppb	00:08:49
1	Na 589.592 Radial†	-861.4	73.1	25.009 ug/L	25.009 ppb	00:08:29
1	Sr 421.552†	10.5	-10.5	-0.0814 ug/L	-0.0814 ppb	00:08:29
1	Sc 361.383	801914.9	801914.9	96.952 %		00:09:46
1	Y 371.029	682602.6	682602.6	97.082 %		00:09:46
1	Ag 328.068†	210.8	-31.7	-0.1523 ug/L	-0.1523 ppb	00:09:46
1	As 188.979†	-16.8	4.8	2.5806 ug/L	2.5806 ppb	00:10:06
1	B 249.677†	-320.7	-146.0	-3.9906 ug/L	-3.9906 ppb	00:10:06
1	Ba 233.527†	2.8	-9.5	-0.0867 ug/L	-0.0867 ppb	00:10:06
1	Be 313.107†	-3797.1	-144.4	-0.0600 ug/L	-0.0600 ppb	00:09:46
1	Cd 226.502†	-174.5	-23.2	-0.3269 ug/L	-0.3269 ppb	00:10:06
1	Co 228.616†	-50.5	-3.7	-0.0945 ug/L	-0.0945 ppb	00:10:06
1	Cr 267.716†	69.9	-9.1	-0.1155 ug/L	-0.1155 ppb	00:10:06
1	Cu 324.752†	5714.6	110.3	0.3551 ug/L	0.3551 ppb	00:09:46
1	Mn 257.610†	444.4	32.6	0.0471 ug/L	0.0471 ppb	00:10:06
1	Mo 202.031†	14.6	4.2	0.3584 ug/L	0.3584 ppb	00:10:06
1	Ni 231.604†	84.3	-1.0	-0.0300 ug/L	-0.0300 ppb	00:10:06
1	P 214.914†	187.7	10.6	7.6713 ug/L	7.6713 ppb	00:10:06
1	Pb 220.353†	-54.3	-6.2	-0.9290 ug/L	-0.9290 ppb	00:10:06
1	S 181.975 Axial†	27.2	-0.9	-1.5210 ug/L	-1.5210 ppb	00:10:06
1	Sb 206.836†	28.0	0.3	0.1267 ug/L	0.1267 ppb	00:10:06
1	Se 196.026†	-18.2	1.0	0.8905 ug/L	0.8905 ppb	00:10:06
1	Si 251.611†	501.4	14.3	0.5183 ug/L	0.5183 ppb	00:10:06
1	Sn 189.927†	6.3	2.5	0.5463 ug/L	0.5463 ppb	00:10:06
1	Ti 334.940†	-1146.2	-72.2	-0.1214 ug/L	-0.1214 ppb	00:09:46
1	Tl 190.801†	-16.0	9.3	3.5089 ug/L	3.5089 ppb	00:10:06
1	U 409.014†	-2061.0	122.9	3.5124 ug/L	3.5124 ppb	00:09:46
1	V 292.402†	-1327.9	-77.0	-0.5858 ug/L	-0.5858 ppb	00:09:46
1	Zn 213.857†	1469.2	593.3	6.9546 ug/L	6.9546 ppb	00:10:06
1	SiO2†	489.6	-2.8	-0.2252 ug/L	-0.2252 ppb	00:11:02
2	Sc Radial	4465.2	4465.2	101 %		00:08:54
2	Y RADIAL	4889.1	4889.1	101.8 %		00:08:54
2	Al 396.153Radial†	-84.0	-9.8	-9.5337 ug/L	-9.5337 ppb	00:09:14
2	Ca 317.933Radial†	18.4	-3.0	-5.4210 ug/L	-5.4210 ppb	00:09:14
2	Fe 238.204 Radial†	9.1	1.6	17.962 ug/L	17.962 ppb	00:09:14
2	K 766.490 Radial†	2652.4	9.6	1.8550 ug/L	1.8550 ppb	00:08:54
2	Mg 279.077 IEC†	3.1	2.0	79.697 ug/L	79.697 ppb	00:09:14
2	Na 589.592 Radial†	-910.1	7.1	2.4404 ug/L	2.4404 ppb	00:08:54
2	Sr 421.552†	51.2	29.9	0.2313 ug/L	0.2313 ppb	00:08:54
2	Sc 361.383	811078.7	811078.7	98.060 %		00:10:11
2	Y 371.029	691201.8	691201.8	98.305 %		00:10:11
2	Ag 328.068†	147.5	-98.7	-0.4833 ug/L	-0.4833 ppb	00:10:11
2	As 188.979†	-17.1	4.6	2.5063 ug/L	2.5063 ppb	00:10:31
2	B 249.677†	-319.5	-141.0	-3.8552 ug/L	-3.8552 ppb	00:10:31
2	Ba 233.527†	6.1	-6.2	-0.0559 ug/L	-0.0559 ppb	00:10:31
2	Be 313.107†	-3727.2	-28.8	-0.0118 ug/L	-0.0118 ppb	00:10:11
2	Cd 226.502†	-169.6	-16.1	-0.2270 ug/L	-0.2270 ppb	00:10:31
2	Co 228.616†	-21.0	27.0	0.6845 ug/L	0.6845 ppb	00:10:31
2	Cr 267.716†	81.8	2.2	0.0305 ug/L	0.0305 ppb	00:10:31
2	Cu 324.752†	5700.6	29.4	0.0960 ug/L	0.0960 ppb	00:10:11
2	Mn 257.610†	423.6	6.2	0.0065 ug/L	0.0065 ppb	00:10:31
2	Mo 202.031†	16.6	6.0	0.5151 ug/L	0.5151 ppb	00:10:31
2	Ni 231.604†	88.8	2.7	0.0818 ug/L	0.0818 ppb	00:10:31

2	P 214.914†	191.3	12.1	8.8433 ug/L	8.8433 ppb	00:10:31
2	Pb 220.353†	-50.6	-1.7	-0.2652 ug/L	-0.2652 ppb	00:10:31
2	S 181.975 Axial†	26.9	-1.5	-2.6210 ug/L	-2.6210 ppb	00:10:31
2	Sb 206.836†	36.2	8.3	3.4181 ug/L	3.4181 ppb	00:10:31
2	Se 196.026†	-19.3	0.1	0.0934 ug/L	0.0934 ppb	00:10:31
2	Si 251.611†	521.6	29.1	1.0545 ug/L	1.0545 ppb	00:10:31
2	Sn 189.927†	11.4	7.7	1.6780 ug/L	1.6780 ppb	00:10:31
2	Ti 334.940†	-1050.3	39.0	0.0595 ug/L	0.0595 ppb	00:10:11
2	Tl 190.801†	-27.0	-1.7	-0.6374 ug/L	-0.6374 ppb	00:10:31
2	U 409.014†	-2232.4	-27.9	-0.8002 ug/L	-0.8002 ppb	00:10:11
2	V 292.402†	-1253.2	14.7	0.1175 ug/L	0.1175 ppb	00:10:11
2	Zn 213.857†	1465.1	572.0	6.7070 ug/L	6.7070 ppb	00:10:31
2	SiO2†	498.4	0.4	0.0195 ug/L	0.0195 ppb	00:11:07
3	Sc Radial	4492.8	4492.8	102 %		00:09:19
3	Y RADIAL	4852.3	4852.3	101.0 %		00:09:19
3	Al 396.153Radial†	-81.3	-6.6	-6.4465 ug/L	-6.4465 ppb	00:09:39
3	Ca 317.933Radial†	19.7	-1.8	-3.2502 ug/L	-3.2502 ppb	00:09:39
3	Fe 238.204 Radial†	10.5	2.9	31.881 ug/L	31.881 ppb	00:09:39
3	K 766.490 Radial†	2583.3	-74.6	-14.487 ug/L	-14.487 ppb	00:09:19
3	Mg 279.077 IEC†	2.5	1.4	55.023 ug/L	55.023 ppb	00:09:39
3	Na 589.592 Radial†	-830.5	90.9	31.099 ug/L	31.099 ppb	00:09:19
3	Sr 421.552†	42.6	21.1	0.1633 ug/L	0.1633 ppb	00:09:19
3	Sc 361.383	816146.9	816146.9	98.673 %		00:10:36
3	Y 371.029	695417.8	695417.8	98.905 %		00:10:36
3	Ag 328.068†	147.5	-99.6	-0.4871 ug/L	-0.4871 ppb	00:10:36
3	As 188.979†	-23.2	-1.5	-0.7864 ug/L	-0.7864 ppb	00:10:56
3	B 249.677†	-335.1	-154.8	-4.2309 ug/L	-4.2309 ppb	00:10:56
3	Ba 233.527†	2.0	-10.4	-0.0948 ug/L	-0.0948 ppb	00:10:56
3	Be 313.107†	-3805.6	-84.7	-0.0352 ug/L	-0.0352 ppb	00:10:36
3	Cd 226.502†	-171.1	-16.6	-0.2354 ug/L	-0.2354 ppb	00:10:56
3	Co 228.616†	-45.6	2.1	0.0533 ug/L	0.0533 ppb	00:10:56
3	Cr 267.716†	65.6	-14.7	-0.1865 ug/L	-0.1865 ppb	00:10:56
3	Cu 324.752†	5774.8	68.5	0.2227 ug/L	0.2227 ppb	00:10:36
3	Mn 257.610†	421.9	1.8	0.0033 ug/L	0.0033 ppb	00:10:56
3	Mo 202.031†	15.3	4.6	0.3961 ug/L	0.3961 ppb	00:10:56
3	Ni 231.604†	99.5	12.9	0.3988 ug/L	0.3988 ppb	00:10:56
3	P 214.914†	182.1	1.7	1.1727 ug/L	1.1727 ppb	00:10:56
3	Pb 220.353†	-54.4	-5.3	-0.8040 ug/L	-0.8040 ppb	00:10:56
3	S 181.975 Axial†	34.6	6.1	10.756 ug/L	10.756 ppb	00:10:56
3	Sb 206.836†	31.4	3.3	1.3732 ug/L	1.3732 ppb	00:10:56
3	Se 196.026†	-11.4	8.2	6.6533 ug/L	6.6533 ppb	00:10:56
3	Si 251.611†	497.6	1.5	0.0492 ug/L	0.0492 ppb	00:10:56
3	Sn 189.927†	12.3	8.6	1.8716 ug/L	1.8716 ppb	00:10:56
3	Ti 334.940†	-1127.9	-33.0	-0.0608 ug/L	-0.0608 ppb	00:10:36
3	Tl 190.801†	-28.0	-2.5	-0.9550 ug/L	-0.9550 ppb	00:10:56
3	U 409.014†	-2239.4	-20.8	-0.5997 ug/L	-0.5997 ppb	00:10:36
3	V 292.402†	-1368.6	-94.3	-0.7245 ug/L	-0.7245 ppb	00:10:36
3	Zn 213.857†	1466.4	564.1	6.6093 ug/L	6.6093 ppb	00:10:56
3	SiO2†	567.1	66.9	5.2049 ug/L	5.2049 ppb	00:11:12

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	809713.5	97.895 %	0.8721			0.89%
Sc Radial	4506.1	102 %	1.1			1.09%
Y 371.029	689740.7	98.097 %	0.9289			0.95%
Y RADIAL	4898.0	102.0 %	1.06			1.04%
Ag 328.068†	-76.6	-0.3743 ug/L	0.19221	-0.3743 ppb	0.19221	51.36%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-3.9	-3.7808 ug/L	7.45229	-3.7808 ppb	7.45229	197.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	2.6	1.4335 ug/L	1.92284	1.4335 ppb	1.92284	134.13%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-147.3	-4.0256 ug/L	0.19029	-4.0256 ppb	0.19029	4.73%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-8.7	-0.0792 ug/L	0.02053	-0.0792 ppb	0.02053	25.93%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-86.0	-0.0356 ug/L	0.02412	-0.0356 ppb	0.02412	67.66%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-1.8	-3.3493 ug/L	2.02395	-3.3493 ppb	2.02395	60.43%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd	226.502†	-18.7	-0.2631 ug/L	0.05537	-0.2631 ppb	0.05537	21.04%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co	228.616†	8.4	0.2144 ug/L	0.41376	0.2144 ppb	0.41376	192.94%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr	267.716†	-7.2	-0.0905 ug/L	0.11064	-0.0905 ppb	0.11064	122.19%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	69.4	0.2246 ug/L	0.12957	0.2246 ppb	0.12957	57.68%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	2.5	27.707 ug/L	8.4683	27.707 ppb	8.4683	30.56%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	-88.4	-17.158 ug/L	20.4798	-17.158 ppb	20.4798	119.36%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	0.8	31.151 ug/L	63.9181	31.151 ppb	63.9181	205.19%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	13.6	0.0190 ug/L	0.02442	0.0190 ppb	0.02442	128.80%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	4.9	0.4232 ug/L	0.08181	0.4232 ppb	0.08181	19.33%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	57.0	19.516 ug/L	15.0982	19.516 ppb	15.0982	77.36%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	4.9	0.1502 ug/L	0.22241	0.1502 ppb	0.22241	148.08%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	8.2	5.8958 ug/L	4.13207	5.8958 ppb	4.13207	70.09%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	-4.4	-0.6661 ug/L	0.35270	-0.6661 ppb	0.35270	52.95%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	1.3	2.2048 ug/L	7.42631	2.2048 ppb	7.42631	336.82%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	4.0	1.6393 ug/L	1.66179	1.6393 ppb	1.66179	101.37%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	3.1	2.5457 ug/L	3.57949	2.5457 ppb	3.57949	140.61%
QC value within limits for Se 196.026 Recovery = Not calculated							
Si	251.611†	15.0	0.5407 ug/L	0.50302	0.5407 ppb	0.50302	93.03%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	6.2	1.3653 ug/L	0.71586	1.3653 ppb	0.71586	52.43%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	13.5	0.1044 ug/L	0.16447	0.1044 ppb	0.16447	157.50%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	-22.1	-0.0409 ug/L	0.09207	-0.0409 ppb	0.09207	225.04%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	1.7	0.6388 ug/L	2.49064	0.6388 ppb	2.49064	389.88%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	24.7	0.7042 ug/L	2.43409	0.7042 ppb	2.43409	345.66%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	-52.2	-0.3976 ug/L	0.45144	-0.3976 ppb	0.45144	113.54%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	576.5	6.7570 ug/L	0.17801	6.7570 ppb	0.17801	2.63%
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†		21.5	1.6664 ug/L	3.06685	1.6664 ppb	3.06685	184.04%
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

ICPMS#3 Daily Performance Report

Sample ID: Sample

Sample Date/Time: Saturday, March 20, 2010 12:14:06

Sample Description:

Method File: C:\elandata\Method\daily2.mth

Dataset File: c:\elandata\Dataset\default\Sample.7567

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		347.4		347.404		13.484		3.9
Mg	24.0		4299.4		4299.447		142.440		3.3
Co	58.9		15458.0		15457.960		213.058		1.4
Rh	102.9		43019.5		43019.485		553.928		1.3
In	114.9		61425.0		61424.979		485.145		0.8
Pb	208.0		53466.7		53466.672		406.508		0.8
[> Ba	137.9		54741.6		54741.609		412.277		0.8
[Ba++	69.0		1090.4		0.020		0.001		3.2
[> Ce	139.9		70737.5		70737.520		833.430		1.2
[CeO	155.9		1288.7		0.018		0.000		0.9
Bkgd	220.0		2.1		2.100		1.084		51.6

Current Optimization File Data

Current Value	Description
1.04	Nebulizer Gas Flow
9.50	Lens Voltage
1450.00	ICP RF Power
-1984.00	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	9.5	817.4
Co	59	21	10.5	20830.2
In	115	21	12.0	112390.4

Sample ID: Sample

Report Date/Time: Saturday, March 20, 2010 12:15:26

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ICPMS#3 Instrument Tuning Report

File Name: 100320.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	587	2060	0.647
Be	9.0	9.0	2047	2040	0.687
Mg	24.0	24.0	5712	2110	0.614
Mg	25.0	25.0	5900	2020	0.636
Mg	26.0	26.0	6225	2140	0.631
Co	58.9	59.0	14205	2115	0.636
Rh	102.9	102.9	24902	2165	0.677
In	114.9	114.9	27823	2180	0.663
Ce	139.9	139.9	33915	2220	0.627
Pb	206.0	206.0	50004	2280	0.715
Pb	207.0	207.0	50272	2310	0.663
Pb	208.0	208.0	50498	2300	0.660
U	238.1	238.0	57837	2340	0.701

ICPMS#3 - Summary Report

Sample ID: Blank

Sample Date/Time: Sunday, March 21, 2010 09:07:22

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100320\Blank.284

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175	ug/L		149452	
|	Tl	205	ug/L		321	
|	Pb	208	ug/L		552	
[U	238	ug/L		554	

Sample ID: Blank

Report Date/Time: Sunday, March 21, 2010 09:07:48

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Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	
Pb	208Linear Thru Zero	
U	238Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Lu	175					
|	Tl	205					
|	Pb	208					
[	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Sunday, March 21, 2010 09:09:46

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100320\Standard 1.285

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu 175		ug/L		151180	151180.307
|	Tl 205	10.000	ug/L	1.915	69995	0.461
|	Pb 208	10.000	ug/L	1.260	84618	0.556
|	U 238	10.000	ug/L	1.549	105406	0.694

Sample ID: Standard 1

Report Date/Time: Sunday, March 21, 2010 09:10:08

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike	% Recovery	Dilution	% Diff	Dup.	Rel. % Diff
[>	Lu		175									
|	Tl		205									
|	Pb		208									
[	U		238									

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Sunday, March 21, 2010 09:12:07

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100320\Standard 2.286

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu 175		ug/L		158836	158835.850
|	Tl 205	100.001	ug/L	1.256	733139	4.616
|	Pb 208	99.990	ug/L	1.248	875080	5.508
[	U 238	99.969	ug/L	2.307	1068295	6.729

Sample ID: Standard 2

Report Date/Time: Sunday, March 21, 2010 09:12:30

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike	% Recovery	Dilution	% Diff	Dup. Rel.	% Diff
[>	Lu		175									
|	Tl		205									
|	Pb		208									
[	U		238									

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Sunday, March 21, 2010 09:14:29

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100320\QC Std 1.287

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu 175		ug/L		160135	160134.985
|	Tl 205	49.259	ug/L	2.145	364352	2.274
|	Pb 208	50.459	ug/L	1.807	445687	2.779
L	U 238	52.456	ug/L	1.359	565864	3.531

Sample ID: QC Std 1

Report Date/Time: Sunday, March 21, 2010 09:14:52

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Lu	175			107.1		
|	Tl	205	98.517				
|	Pb	208	100.918				
[	U	238	104.911				

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: Sunday, March 21, 2010 09:16:53

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100320\QC Std 2.288

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu 175		ug/L		152575	152575.072
|	Tl 205	0.266	ug/L	2.698	2199	0.012
|	Pb 208	0.003	ug/L	109.058	586	0.000
[	U 238	0.014	ug/L	7.709	711	0.001

Sample ID: QC Std 2

Report Date/Time: Sunday, March 21, 2010 09:17:19

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Lu	175		102.1		
|	Tl	205				
|	Pb	208				
[	U	238				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Sunday, March 21, 2010 09:19:18

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100320\QC Std 3.289

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175	ug/L		153209	153209.005
|	Tl	205	1.185 ug/L	2.737	8708	0.055
|	Pb	208	2.225 ug/L	3.254	19333	0.123
[	U	238	0.227 ug/L	0.480	2904	0.015

Sample ID: QC Std 3

Report Date/Time: Sunday, March 21, 2010 09:19:41

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Lu	175		102.5		
|	Tl	205		118.480		
|	Pb	208		111.265		
[	U	238		113.255		

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: Sunday, March 21, 2010 09:21:41

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100320\QC Std 4.290

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu 175		ug/L		140946	140945.799
|	Tl 205	0.040	ug/L	15.064	563	0.002
|	Pb 208	0.170	ug/L	3.666	1839	0.009
[	U 238	-0.047	ug/L	2.676	77	-0.003

Sample ID: QC Std 4

Report Date/Time: Sunday, March 21, 2010 09:22:04

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Lu	175			94.3		
|	Tl	205					
|	Pb	208	89.826				
[	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: Sunday, March 21, 2010 09:24:04

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100320\QC Std 5.291

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175	ug/L		143147	143147.184
|	Tl	205	19.589 ug/L	1.388	129733	0.904
|	Pb	208	20.525 ug/L	1.380	162378	1.131
|	U	238	22.647 ug/L	0.789	218708	1.524

Sample ID: QC Std 5

Report Date/Time: Sunday, March 21, 2010 09:24:28

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Lu	175		95.8			
|	Tl	205	97.945				
|	Pb	208	101.663				
[	U	238	113.233				

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: Sunday, March 21, 2010 09:26:29

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100320\QC Std 6.292

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu 175		ug/L		159899	159899.279
|	TI 205	50.424	ug/L	0.759	372426	2.328
|	Pb 208	51.084	ug/L	2.110	450499	2.814
|	U 238	51.254	ug/L	1.007	552209	3.450

Sample ID: QC Std 6

Report Date/Time: Sunday, March 21, 2010 09:26:54

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Lu	175		107.0		
|	Tl	205	100.847			
|	Pb	208	102.167			
[	U	238	102.507			

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: Sunday, March 21, 2010 09:28:55

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100320\QC Std 7.293

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu 175		ug/L		152837	152836.601
|	Tl 205	0.266	ug/L	3.195	2208	0.012
|	Pb 208	0.014	ug/L	111.063	681	0.001
[	U 238	0.010	ug/L	1.034	673	0.001

Sample ID: QC Std 7

Report Date/Time: Sunday, March 21, 2010 09:29:21

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Lu	175		102.3			
|	Tl	205					
|	Pb	208					
[U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Sunday, March 21, 2010 09:55:26

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100320\QC Std 6.304

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu 175		ug/L		159726	159725.659
|	Tl 205	50.013	ug/L	2.609	368615	2.309
|	Pb 208	51.196	ug/L	2.461	450477	2.820
[	U 238	51.472	ug/L	1.820	553462	3.465

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Lu 175			106.9		
|	Tl 205	100.026				
|	Pb 208	102.392				
[	U 238	102.944				

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: Sunday, March 21, 2010 09:55:51

Page 1

ICPMS#3 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Sunday, March 21, 2010 09:57:52

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100320\QC Std 7.305

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu 175		ug/L		153782	153781.639
|	Tl 205	0.429	ug/L	6.559	3377	0.020
|	Pb 208	0.002	ug/L	81.370	586	0.000
L	U 238	0.012	ug/L	24.205	697	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Lu 175		102.9			
|	Tl 205					
|	Pb 208					
L	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: Sunday, March 21, 2010 09:58:18

Page 1

ICPMS#3 - Summary Report

Sample ID: 1202049261

Sample Date/Time: Sunday, March 21, 2010 10:00:18

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 955810|1|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100320\1202049261.306

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu 175		ug/L		149460	149459.533
|	Tl 205	0.148	ug/L	4.606	1342	0.007
|	Pb 208	-0.052	ug/L	2.034	127	-0.003
[	U 238	-0.050	ug/L	2.647	49	-0.003

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Lu 175			100.0		
|	Tl 205					
|	Pb 208					
[U 238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202049261

Report Date/Time: Sunday, March 21, 2010 10:00:42

Page 1

ICPMS#3 - Summary Report

Sample ID: 1202049262

Sample Date/Time: Sunday, March 21, 2010 10:02:43

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 955810|1|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100320\1202049262.307

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu 175		ug/L		156130	156130.197
|	Tl 205	44.051	ug/L	1.183	317668	2.033
|	Pb 208	50.163	ug/L	2.003	431588	2.763
[	U 238	52.376	ug/L	1.666	550583	3.525

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Lu 175			104.5		
|	Tl 205					
|	Pb 208					
[U 238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202049262

Report Date/Time: Sunday, March 21, 2010 10:03:07

Page 1

ICPMS#3 - Summary Report

Sample ID: 1202049263

Sample Date/Time: Sunday, March 21, 2010 10:10:01

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 955810|1|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100320\1202049263.310

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu 175		ug/L		152401	152401.067
|	Tl 205	0.162	ug/L	6.125	1469	0.007
|	Pb 208	0.077	ug/L	7.469	1207	0.004
|	U 238	-0.042	ug/L	1.073	137	-0.003

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Lu 175		102.0			
|	Tl 205					
|	Pb 208					
|	U 238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202049263

Report Date/Time: Sunday, March 21, 2010 10:10:27

Page 1

ICPMS#3 - Summary Report

Sample ID: 1202049264

Sample Date/Time: Sunday, March 21, 2010 10:12:27

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 955810|1|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100320\1202049264.311

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu 175		ug/L		160075	160075.333
|	Tl 205	93.196	ug/L	0.941	689193	4.302
|	Pb 208	42.906	ug/L	1.254	378773	2.363
|	U 238	55.513	ug/L	0.975	598529	3.736

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Lu 175			107.1		
|	Tl 205					
|	Pb 208					
	U 238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202049264

Report Date/Time: Sunday, March 21, 2010 10:12:51

Page 1

ICPMS#3 - Summary Report

Sample ID: 1202049265

Sample Date/Time: Sunday, March 21, 2010 10:14:51

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 955810|5|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100320\1202049265.312

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu 175		ug/L		161077	161077.361
|	Tl 205	1.126	ug/L	2.160	8717	0.052
|	Pb 208	-0.024	ug/L	17.569	378	-0.001
[	U 238	-0.036	ug/L	9.484	203	-0.002

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Lu 175			107.8		
|	Tl 205					
|	Pb 208					
[	U 238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202049265

Report Date/Time: Sunday, March 21, 2010 10:15:15

Page 1

ICPMS#3 - Summary Report

Sample ID: 247560001

Sample Date/Time: Sunday, March 21, 2010 10:19:41

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955810|1|prb

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100320\247560001.314

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu 175		ug/L		150244	150244.059
|	Tl 205	0.298	ug/L	9.968	2394	0.014
|	Pb 208	0.118	ug/L	2.304	1530	0.006
L	U 238	-0.039	ug/L	4.535	166	-0.003

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Lu 175			100.5		
|	Tl 205					
|	Pb 208					
L	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: 247560001

Report Date/Time: Sunday, March 21, 2010 10:20:06

Page 1

ICPMS#3 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Sunday, March 21, 2010 10:24:33

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100320\QC Std 6.316

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu 175		ug/L		155606	155606.307
|	Tl 205	48.952	ug/L	0.332	351952	2.260
|	Pb 208	50.567	ug/L	0.673	433970	2.785
L	U 238	50.929	ug/L	0.977	533937	3.428

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Lu 175			104.1		
|	Tl 205	97.904				
|	Pb 208	101.135				
L	U 238	101.857				

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: Sunday, March 21, 2010 10:24:58

Page 1

ICPMS#3 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Sunday, March 21, 2010 10:26:59

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\misc.mth

Dataset File: C:\elandata\Dataset\100320\QC Std 7.317

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu 175		ug/L		150558	150558.279
|	Tl 205	0.474	ug/L	4.636	3622	0.022
|	Pb 208	0.005	ug/L	32.718	597	0.000
|	U 238	0.013	ug/L	28.131	689	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Lu 175		100.7			
|	Tl 205					
|	Pb 208					
|	U 238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Sunday, March 21, 2010 10:27:25

Page 1

ICPMS #5 Daily Performance Report

Sample ID: Sample

Sample Date/Time: Thursday, March 18, 2010 13:32:09

Sample Description:

Method File: c:\elandata\Method\Daily2.mth

Dataset File: c:\elandata\Dataset\default\Sample.859

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	5223.8	5223.755	95.191	1.8
Mg	24.0	73610.0	73609.967	583.600	0.8
Co	58.9	110755.1	110755.084	517.527	0.5
Rh	102.9	220456.5	220456.498	1763.983	0.8
In	114.9	299028.0	299027.951	2320.120	0.8
Pb	208.0	348201.8	348201.830	2481.134	0.7
[> Ba	137.9	307265.7	307265.711	1608.255	0.5
[Ba++	69.0	4313.6	0.014	0.000	1.4
[> Ce	139.9	369035.2	369035.153	2658.374	0.7
[CeO	155.9	8816.0	0.024	0.001	2.8
Bkgd	220.0	15.7	15.700	2.080	13.2

Current Optimization File Data

Current Value	Description
0.89	Nebulizer Gas Flow
6.75	Lens Voltage
1450.00	ICP RF Power
-1812.50	Analog Stage Voltage
1300.00	Pulse Stage Voltage
200.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	15	7.3	5888.2
Co	59	15	8.0	113356.0
In	115	15	9.0	306684.3

ICPMS #5 Instrument Tuning Report

File Name: 100318c.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	588	2072	0.607
Be	9.0	9.0	2047	2088	0.590
Mg	24.0	24.0	5687	2100	0.592
Mg	25.0	25.0	5939	2100	0.551
Mg	26.0	26.0	6183	2100	0.587
Co	58.9	58.9	14169	2125	0.590
Rh	102.9	102.9	24874	2180	0.582
In	114.9	114.9	27789	2200	0.585
Ce	139.9	139.9	33872	2220	0.595
Pb	206.0	206.0	49948	2305	0.589
Pb	207.0	207.0	50171	2240	0.662
Pb	208.0	208.0	50439	2280	0.700
U	238.1	238.1	57731	2295	0.704

Report Date/Time: Thursday, March 18, 2010 13:31:42

Page 1

ICPMS#5 - Summary Report

Sample ID: Blank

Sample Date/Time: Thursday, March 18, 2010 23:04:21

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl er.mth

Dataset File: C:\elandata\Dataset\100318\Blank.202

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9		ug/L		20	
>	Sc	45		ug/L		338356	
[	Mn	55		ug/L		1125	
[	Cd	111		ug/L		29	
|	Cd	114		ug/L		49	
>	In	115		ug/L		277178	
|	Sb	121		ug/L		181	
[	Sb	123		ug/L		153	
>	Lu	175		ug/L		571092	
|	Tl	205		ug/L		3491	
|	Pb	208		ug/L		797	
[	U	238		ug/L		408	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Simple Linear	
Sc	45	Linear Thru Zero	
Mn	55	Simple Linear	
Cd	111	Simple Linear	
Cd	114	Simple Linear	
In	115	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
Pb	208	Simple Linear	
U	238	Simple 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					
[	Cd	111					
|	Cd	114					
>	In	115					
|	Sb	121					
[	Sb	123					
>	Lu	175					
|	Tl	205					
|	Pb	208					
[U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: Blank

Report Date/Time: Thursday, March 18, 2010 23:05:22

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 18, 2010 23:08:19

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\anl er.mth

Dataset File: C:\elandata\Dataset\100318\Standard 1.203

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	10.000	ug/L	1.926	4840	0.015
|>	Sc	45		ug/L		329101	329100.895
[	Mn	55	10.000	ug/L	0.278	81133	0.243
[	Cd	111	10.000	ug/L	1.350	15522	0.057
|	Cd	114		ug/L		36391	0.133
|>	In	115		ug/L		274020	274019.992
|	Sb	121	10.000	ug/L	2.057	48060	0.175
[	Sb	123		ug/L		38068	0.138
|>	Lu	175		ug/L		565128	565128.266
|	Tl	205	10.000	ug/L	1.064	237591	0.414
|	Pb	208	10.000	ug/L	0.677	418679	0.739
[	U	238	10.000	ug/L	0.793	518428	0.917

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
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
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	1.0000
Pb	208	Linear Thru Zero	1.0000
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
[	Be	9				
|>	Sc	45				
[	Mn	55				
[	Cd	111				
|	Cd	114				
|>	In	115				
|	Sb	121				
[	Sb	123				
|>	Lu	175				
|	Tl	205				
|	Pb	208				
[	U	238				

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: Standard 1

Report Date/Time: Thursday, March 18, 2010 23:09:18

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 18, 2010 23:12:16

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\anl er.mth

Dataset File: C:\elandata\Dataset\100318\Standard 2.204

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	100.025	ug/L	0.181	46685	0.150
Sc	45		ug/L		310455	310454.908
Mn	55	100.022	ug/L	1.666	773039	2.487
Cd	111	100.033	ug/L	3.127	155687	0.585
Cd	114		ug/L		358417	1.347
In	115		ug/L		266091	266091.299
Sb	121	100.074	ug/L	1.826	502714	1.889
Sb	123		ug/L		391094	1.469
Lu	175		ug/L		543853	543853.024
Tl	205	99.758	ug/L	0.208	1813189	3.328
Pb	208	99.872	ug/L	1.180	3561623	6.548
U	238	99.744	ug/L	2.231	3957898	7.277

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
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
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	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9997

QC Calculated Values

Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike	% Recov	Dilution	% Di	Duplicate	Rel. % Difference
Be	9										
Sc	45										
Mn	55										
Cd	111										
Cd	114										
In	115										
Sb	121										
Sb	123										
Lu	175										
Tl	205										
Pb	208										
U	238										

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: Standard 2

Report Date/Time: Thursday, March 18, 2010 23:13:15

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 18, 2010 23:16:13

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanier.mth

Dataset File: C:\elandata\Dataset\100318\QC Std 1.205

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	48.324	ug/L	0.965	23382	0.073
Sc	45		ug/L		321700	321700.106
Mn	55	50.258	ug/L	0.772	403070	1.250
Cd	111	49.414	ug/L	1.318	78849	0.289
Cd	114		ug/L		184254	0.676
In	115		ug/L		272661	272660.647
Sb	121	51.889	ug/L	1.521	267229	0.979
Sb	123		ug/L		209795	0.769
Lu	175		ug/L		553920	553919.998
Tl	205	60.008	ug/L	2.513	1112159	2.002
Pb	208	56.400	ug/L	1.578	2048900	3.698
U	238	51.484	ug/L	0.791	2081076	3.756

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
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
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	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9997

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9	96.649				
Sc	45		95.1			
Mn	55	100.515				
Cd	111	98.828				
Cd	114					
In	115		98.4			
Sb	121	103.779				
Sb	123					
Lu	175		97.0			
Tl	205	120.016				
Pb	208	112.799				
U	238	102.968				

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: QC Std 1

Report Date/Time: Thursday, March 18, 2010 23:17:12

Page 1

QC Std 1	Tl	205ICV is out of limits (+/- 10%)
QC Std 1	Pb	208ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Thursday, March 18, 2010 23:20:12

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\analyzer.mth

Dataset File: C:\elandata\Dataset\100318\QC Std 2.206

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	-0.003	ug/L	196.681	19	-0.000
Sc	45		ug/L		343314	343313.619
Mn	55	-0.007	ug/L	64.138	1078	-0.000
Cd	111	-0.003	ug/L	188.319	25	-0.000
Cd	114		ug/L		48	-0.000
In	115		ug/L		283461	283461.089
Sb	121	0.183	ug/L	4.282	1166	0.003
Sb	123		ug/L		886	0.003
Lu	175		ug/L		580522	580521.584
Tl	205	0.110	ug/L	10.859	5669	0.004
Pb	208	0.002	ug/L	48.431	876	0.000
U	238	0.002	ug/L	47.528	517	0.000

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
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
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	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9997

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution %	Duplicate Rel. % Difference
Be	9					
Sc	45		101.5			
Mn	55					
Cd	111					
Cd	114					
In	115		102.3			
Sb	121					
Sb	123					
Lu	175		101.7			
Tl	205					
Pb	208					
U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

Sample ID: QC Std 2

Report Date/Time: Thursday, March 18, 2010 23:21:14

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 18, 2010 23:24:12

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\anl er.mth

Dataset File: C:\elandata\Dataset\100318\QC Std 3.207

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.530	ug/L	2.600	292	0.001
Sc	45		ug/L		341816	341816.482
Mn	55	5.416	ug/L	2.564	47165	0.135
Cd	111	1.015	ug/L	4.587	1714	0.006
Cd	114		ug/L		3959	0.014
In	115		ug/L		283439	283439.195
Sb	121	2.923	ug/L	3.328	15824	0.055
Sb	123		ug/L		12349	0.043
Lu	175		ug/L		588148	588148.030
Tl	205	1.248	ug/L	3.034	28075	0.042
Pb	208	2.375	ug/L	1.053	92417	0.156
U	238	0.303	ug/L	1.058	13425	0.022

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
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
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	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9997

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9	105.946					
Sc	45		101.0				
Mn	55	108.325					
Cd	111	101.515					
Cd	114						
In	115		102.3				
Sb	121	97.425					
Sb	123						
Lu	175		103.0				
Tl	205	124.764					
Pb	208	118.771					
U	238	151.529					

QC Out Of Limits

Measurement Type Analyte

Mass Out of Limits Message

Sample ID: QC Std 3

Report Date/Time: Thursday, March 18, 2010 23:25:12

Page 1

QC Std 3

U

238CRDL is out of limits

QC Action

QC Action Line: Continue

Sample ID: QC Std 3

Report Date/Time: Thursday, March 18, 2010 23:25:12

Page 2

ICPMS#5 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Thursday, March 18, 2010 23:28:10

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\anl er.mth

Dataset File: C:\elandata\Dataset\100318\QC Std 4.208

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.086	ug/L	24.338	58	0.000
Sc	45		ug/L		310761	310761.157
Mn	55	5.452	ug/L	1.272	43160	0.136
Cd	111	0.435	ug/L	7.957	732	0.003
Cd	114		ug/L		8876	0.032
In	115		ug/L		275952	275952.303
Sb	121	0.100	ug/L	7.656	703	0.002
Sb	123		ug/L		542	0.001
Lu	175		ug/L		563413	563412.983
Tl	205	-0.047	ug/L	11.248	2558	-0.002
Pb	208	0.223	ug/L	0.755	9013	0.015
U	238	-0.005	ug/L	8.242	187	-0.000

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
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
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	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9997

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
Sc	45		91.8				
Mn	55	94.007					
Cd	111	98.012					
Cd	114						
In	115		99.6				
Sb	121						
Sb	123						
Lu	175		98.7				
Tl	205						
Pb	208	117.843					
U	238						

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: QC Std 4

Report Date/Time: Thursday, March 18, 2010 23:29:10

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 18, 2010 23:32:08

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\Nanl er.mth

Dataset File: C:\elandata\Dataset\100318\QC Std 5.209

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	17.248	ug/L	2.019	8145	0.026
> Sc	45		ug/L		313515	313514.554
Mn	55	25.470	ug/L	0.394	199580	0.633
Cd	111	18.374	ug/L	1.628	30129	0.107
Cd	114		ug/L		78366	0.280
> In	115		ug/L		280034	280034.049
Sb	121	19.651	ug/L	0.650	104054	0.371
Sb	123		ug/L		82331	0.293
> Lu	175		ug/L		566624	566624.096
Tl	205	22.986	ug/L	1.813	437924	0.767
Pb	208	21.388	ug/L	1.443	795302	1.402
U	238	25.140	ug/L	1.329	1039739	1.834

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
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
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	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9997

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9	86.240				
> Sc	45		92.7			
Mn	55	98.719				
Cd	111	89.876				
Cd	114					
> In	115		101.0			
Sb	121	98.256				
Sb	123					
> Lu	175		99.2			
Tl	205	114.929				
Pb	208	105.938				
U	238	125.700				

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: QC Std 5

Report Date/Time: Thursday, March 18, 2010 23:33:09

Page 1

QC Std 5

U

238ICSAB is out of limits

QC Action

QC Action Line: Continue

Sample ID: QC Std 5

Report Date/Time: Thursday, March 18, 2010 23:33:09

Page 2

ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Thursday, March 18, 2010 23:36:07

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\anal er.mth

Dataset File: C:\elandata\Dataset\100318\QC Std 6.210

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	48.920	ug/L	1.660	23136	0.074
> Sc	45		ug/L		314537	314537.424
Mn	55	51.434	ug/L	2.481	403143	1.279
Cd	111	49.218	ug/L	1.334	80322	0.288
Cd	114		ug/L		186732	0.669
> In	115		ug/L		278867	278867.380
Sb	121	51.653	ug/L	1.217	272070	0.975
Sb	123		ug/L		214714	0.769
> Lu	175		ug/L		568244	568244.233
Tl	205	59.949	ug/L	0.429	1139878	2.000
Pb	208	56.003	ug/L	1.213	2086900	3.672
U	238	51.733	ug/L	1.240	2144928	3.775

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
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
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	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9997

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9	97.841					
> Sc	45		93.0				
Mn	55	102.867					
Cd	111	98.436					
Cd	114						
> In	115		100.6				
Sb	121	103.306					
Sb	123						
> Lu	175		99.5				
Tl	205	119.897					
Pb	208	112.005					
U	238	103.465					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

Sample ID: QC Std 6

Report Date/Time: Thursday, March 18, 2010 23:37:08

Page 1

QC Std 6	Tl	205CCV is out of limits (+/- 10%)
QC Std 6	Pb	208CCV 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 18, 2010 23:40:08

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\anl er.mth

Dataset File: C:\elandata\Dataset\100318\QC Std 7.211

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.000	ug/L	1285.512	20	0.000
> Sc	45		ug/L		340685	340684.964
Mn	55	-0.013	ug/L	17.683	1021	-0.000
Cd	111	-0.000	ug/L	2873.717	31	-0.000
Cd	114		ug/L		63	0.000
> In	115		ug/L		293729	293729.425
Sb	121	0.044	ug/L	3.509	436	0.001
Sb	123		ug/L		329	0.001
> Lu	175		ug/L		597759	597758.756
Tl	205	0.121	ug/L	14.147	6061	0.004
Pb	208	0.001	ug/L	148.515	863	0.000
U	238	0.003	ug/L	45.732	546	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9997
Pb	208Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9997

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution %	Duplicate Rel. %	Difference
Be	9						
> Sc	45		100.7				
Mn	55						
Cd	111						
Cd	114						
> In	115		106.0				
Sb	121						
Sb	123						
> Lu	175		104.7				
Tl	205						
Pb	208						
U	238						

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: QC Std 7

Report Date/Time: Thursday, March 18, 2010 23:41:09

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Friday, March 19, 2010 00:11:58

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl er.mth

Dataset File: C:\elandata\Dataset\100318\QC Std 8.219

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	49.319	ug/L	0.521	23451	0.074
Sc	45		ug/L		316163	316163.344
Mn	55	51.883	ug/L	0.924	408901	1.290
Cd	111	49.640	ug/L	0.320	81080	0.290
Cd	114		ug/L		190531	0.683
In	115		ug/L		279085	279084.820
Sb	121	51.874	ug/L	1.053	273453	0.979
Sb	123		ug/L		215654	0.772
Lu	175		ug/L		567413	567413.158
Tl	205	60.166	ug/L	1.168	1142304	2.007
Pb	208	56.229	ug/L	0.959	2092517	3.687
U	238	52.054	ug/L	1.366	2155336	3.798

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
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
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	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9997

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9	98.639				
Sc	45		93.4			
Mn	55	103.767				
Cd	111	99.280				
Cd	114					
In	115		100.7			
Sb	121	103.747				
Sb	123					
Lu	175		99.4			
Tl	205	120.332				
Pb	208	112.459				
U	238	104.108				

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: QC Std 8

Report Date/Time: Friday, March 19, 2010 00:12:58

Page 1

QC Std 8	Tl	205CCV is out of limits (+/- 10%)
QC Std 8	Pb	208CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Friday, March 19, 2010 00:15:58

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\anl er.mth

Dataset File: C:\elandata\Dataset\100318\QC Std 9.220

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.005	ug/L	73.397	22	0.000
> Sc	45		ug/L		338131	338131.371
[Mn	55	-0.012	ug/L	14.650	1028	-0.000
[Cd	111	-0.002	ug/L	86.142	27	-0.000
| Cd	114		ug/L		66	0.000
> In	115		ug/L		284554	284554.260
| Sb	121	0.014	ug/L	45.054	263	0.000
[Sb	123		ug/L		223	0.000
> Lu	175		ug/L		585066	585065.827
| Tl	205	0.192	ug/L	6.261	7313	0.006
| Pb	208	0.001	ug/L	45.259	866	0.000
[U	238	0.002	ug/L	38.910	517	0.000

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
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
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	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9997

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
> Sc	45		99.9				
[Mn	55						
[Cd	111						
| Cd	114						
> In	115		102.7				
| Sb	121						
[Sb	123						
> Lu	175		102.4				
| Tl	205						
| Pb	208						
[U	238						

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: QC Std 9

Report Date/Time: Friday, March 19, 2010 00:17:00

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Friday, March 19, 2010 00:47:53

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl er.mth

Dataset File: C:\elandata\Dataset\100318\QC Std 8.228

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	48.366	ug/L	1.058	23034	0.073
Sc	45		ug/L		316682	316681.585
Mn	55	49.751	ug/L	1.578	392735	1.237
Cd	111	47.796	ug/L	0.412	77693	0.280
Cd	114		ug/L		182106	0.656
In	115		ug/L		277730	277729.806
Sb	121	49.986	ug/L	1.800	262219	0.944
Sb	123		ug/L		206768	0.744
Lu	175		ug/L		564450	564449.776
Tl	205	58.737	ug/L	1.563	1109485	1.959
Pb	208	55.224	ug/L	0.690	2044497	3.621
U	238	50.360	ug/L	0.909	2074356	3.674

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
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
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	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9997

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9	96.733				
Sc	45		93.6			
Mn	55	99.502				
Cd	111	95.593				
Cd	114					
In	115		100.2			
Sb	121	99.971				
Sb	123					
Lu	175		98.8			
Tl	205	117.474				
Pb	208	110.448				
U	238	100.721				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

Sample ID: QC Std 8

Report Date/Time: Friday, March 19, 2010 00:48:54

Page 1

QC Std 8	Tl	205CCV is out of limits (+/- 10%)
QC Std 8	Pb	208CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Friday, March 19, 2010 00:51:54

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\Vanier.mth

Dataset File: C:\elandata\Dataset\100318\QC Std 9.229

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	0.010	ug/L	9.624	24	0.000
> Sc	45		ug/L		322361	322360.508
[Mn	55	-0.003	ug/L	207.745	1047	-0.000
[Cd	111	-0.003	ug/L	52.852	24	-0.000
| Cd	114		ug/L		54	0.000
> In	115		ug/L		271529	271529.492
| Sb	121	0.016	ug/L	14.448	261	0.000
[Sb	123		ug/L		209	0.000
> Lu	175		ug/L		566423	566423.194
| Tl	205	0.228	ug/L	6.792	7770	0.008
| Pb	208	0.002	ug/L	63.665	851	0.000
[U	238	0.003	ug/L	29.546	531	0.000

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
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
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	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9997

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[Be	9						
> Sc	45		95.3				
[Mn	55						
[Cd	111						
| Cd	114						
> In	115		98.0				
| Sb	121						
[Sb	123						
> Lu	175		99.2				
| Tl	205						
| Pb	208						
[U	238						

QC Out Of Limits

Measurement Type Analyte

Mass Out of Limits Message

Sample ID: QC Std 9

Report Date/Time: Friday, March 19, 2010 00:52:55

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Friday, March 19, 2010 01:31:52

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\Nanl er.mth

Dataset File: C:\elandata\Dataset\100318\QC Std 8.239

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	50.514	ug/L	1.763	22591	0.076
Sc	45		ug/L		297405	297405.473
Mn	55	50.715	ug/L	1.395	375979	1.261
Cd	111	49.519	ug/L	1.471	74704	0.290
Cd	114		ug/L		173268	0.672
In	115		ug/L		257775	257775.410
Sb	121	50.727	ug/L	0.386	247002	0.958
Sb	123		ug/L		195708	0.759
Lu	175		ug/L		532716	532715.650
Tl	205	58.720	ug/L	1.835	1046782	1.959
Pb	208	56.300	ug/L	0.790	1967009	3.691
U	238	52.481	ug/L	0.741	2040137	3.829

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9997
Pb	208Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9997

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9	101.028					
Sc	45		87.9				
Mn	55	101.431					
Cd	111	99.038					
Cd	114						
In	115		93.0				
Sb	121	101.454					
Sb	123						
Lu	175		93.3				
Tl	205	117.441					
Pb	208	112.600					
U	238	104.962					

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: QC Std 8

Report Date/Time: Friday, March 19, 2010 01:32:53

Page 1

QC Std 8	Tl	205CCV is out of limits (+/- 10%)
QC Std 8	Pb	208CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Friday, March 19, 2010 01:35:53

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\anl er.mth

Dataset File: C:\elandata\Dataset\100318\QC Std 9.240

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	-0.004	ug/L	325.372	16	-0.000
> Sc	45		ug/L		301344	301343.803
Mn	55	-0.003	ug/L	60.517	977	-0.000
Cd	111	-0.001	ug/L	385.457	26	-0.000
Cd	114		ug/L		56	0.000
> In	115		ug/L		256995	256994.995
Sb	121	0.008	ug/L	64.555	209	0.000
Sb	123		ug/L		182	0.000
> Lu	175		ug/L		531713	531712.799
Tl	205	0.507	ug/L	2.046	12240	0.017
Pb	208	0.002	ug/L	38.774	816	0.000
U	238	0.003	ug/L	27.742	499	0.000

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
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
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	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9997

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
> Sc	45		89.1				
Mn	55						
Cd	111						
Cd	114						
> In	115		92.7				
Sb	121						
Sb	123						
> Lu	175		93.1				
Tl	205						
Pb	208						
U	238						

QC Out Of Limits

Measurement Type Analyte

Mass Out of Limits Message

Sample ID: QC Std 9

Report Date/Time: Friday, March 19, 2010 01:36:54

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202049261

Sample Date/Time: Friday, March 19, 2010 01:39:53

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 955810|1|skj

Method File: c:\elandata\Method\lanl er.mth

Dataset File: C:\elandata\Dataset\100318\1202049261.241

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	-0.014	ug/L	67.946	11	-0.000
> Sc	45		ug/L		296786	296785.947
Mn	55	0.163	ug/L	6.730	2192	0.004
Cd	111	-0.011	ug/L	60.467	9	-0.000
Cd	114		ug/L		32	-0.000
> In	115		ug/L		238857	238856.989
Sb	121	0.016	ug/L	31.869	227	0.000
Sb	123		ug/L		177	0.000
> Lu	175		ug/L		506554	506553.949
Tl	205	0.143	ug/L	9.569	5509	0.005
Pb	208	-0.003	ug/L	23.532	619	-0.000
U	238	-0.008	ug/L	2.472	65	-0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9997
Pb	208Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9997

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
> Sc	45		87.7				
Mn	55						
Cd	111						
Cd	114						
> In	115		86.2				
Sb	121						
Sb	123						
> Lu	175		88.7				
Tl	205						
Pb	208						
U	238						

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: 1202049261

Report Date/Time: Friday, March 19, 2010 01:40:54

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202049262

Sample Date/Time: Friday, March 19, 2010 01:43:53

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 955810|1|skj

Method File: c:\elandata\Method\anl er.mth

Dataset File: C:\elandata\Dataset\100318\1202049262.242

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	45.436	ug/L	0.729	19930	0.068
> Sc	45		ug/L		291633	291633.398
Mn	55	46.815	ug/L	0.125	340431	1.164
Cd	111	44.911	ug/L	1.511	62716	0.263
Cd	114		ug/L		145449	0.609
> In	115		ug/L		238593	238593.156
Sb	121	49.968	ug/L	2.273	225203	0.943
Sb	123		ug/L		178551	0.748
> Lu	175		ug/L		511168	511167.785
Tl	205	48.992	ug/L	2.662	838682	1.634
Pb	208	50.648	ug/L	0.297	1698071	3.321
U	238	47.696	ug/L	1.099	1779327	3.480

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
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
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	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9997

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
> Sc	45		86.2			
Mn	55					
Cd	111					
Cd	114					
> In	115		86.1			
Sb	121					
Sb	123					
> Lu	175		89.5			
Tl	205					
Pb	208					
U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

Sample ID: 1202049262

Report Date/Time: Friday, March 19, 2010 01:44:54

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202049263

Sample Date/Time: Friday, March 19, 2010 01:55:54

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 955810|1|sk|

Method File: c:\elandata\Method\lanl er.mth

Dataset File: C:\elandata\Dataset\100318\1202049263.245

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	-0.005	ug/L	164.546	14	-0.000
> Sc	45		ug/L		279607	279607.435
Mn	55	3.419	ug/L	0.791	24700	0.085
Cd	111	0.010	ug/L	63.289	38	0.000
Cd	114		ug/L		89	0.000
> In	115		ug/L		233160	233160.083
Sb	121	-0.012	ug/L	19.359	98	-0.000
Sb	123		ug/L		90	-0.000
> Lu	175		ug/L		503292	503292.233
Tl	205	0.080	ug/L	23.518	4425	0.003
Pb	208	0.129	ug/L	2.045	4947	0.008
U	238	0.003	ug/L	19.557	479	0.000

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
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
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	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9997

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
> Sc	45		82.6			
Mn	55					
Cd	111					
Cd	114					
> In	115		84.1			
Sb	121					
Sb	123					
> Lu	175		88.1			
Tl	205					
Pb	208					
U	238					

QC Out Of Limits

Measurement Type Analyte

Mass Out of Limits Message

Sample ID: 1202049263

Report Date/Time: Friday, March 19, 2010 01:56:55

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202049264

Sample Date/Time: Friday, March 19, 2010 01:59:54

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 955810|1|skj

Method File: c:\elandata\Method\lanl er.mth

Dataset File: C:\elandata\Dataset\100318\1202049264.246

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	45.634	ug/L	1.696	19267	0.069
> Sc	45		ug/L		280754	280753.763
Mn	55	51.137	ug/L	1.578	357859	1.271
Cd	111	9.611	ug/L	1.181	13044	0.056
Cd	114		ug/L		29310	0.126
> In	115		ug/L		231520	231520.077
Sb	121	183.242	ug/L	0.536	800945	3.459
Sb	123		ug/L		630384	2.723
> Lu	175		ug/L		497478	497478.089
Tl	205	99.792	ug/L	1.739	1659529	3.329
Pb	208	43.762	ug/L	1.612	1427738	2.869
U	238	53.087	ug/L	1.737	1926779	3.873

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
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
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	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9997

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution %	Duplicate Rel. % Difference
Be	9					
> Sc	45		83.0			
Mn	55					
Cd	111					
Cd	114					
> In	115		83.5			
Sb	121					
Sb	123					
> Lu	175		87.1			
Tl	205					
Pb	208					
U	238					

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: 1202049264

Report Date/Time: Friday, March 19, 2010 02:00:56

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202049265

Sample Date/Time: Friday, March 19, 2010 02:03:55

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 955810|5|skj

Method File: c:\elandata\Method\lanl er.mth

Dataset File: C:\elandata\Dataset\100318\1202049265.247

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	-0.005	ug/L	286.810	15	-0.000
> Sc	45		ug/L		284157	284156.788
Mn	55	0.713	ug/L	1.912	5986	0.018
Cd	111	-0.002	ug/L	233.163	22	-0.000
Cd	114		ug/L		49	0.000
> In	115		ug/L		240497	240497.085
Sb	121	0.004	ug/L	203.202	174	0.000
Sb	123		ug/L		140	0.000
> Lu	175		ug/L		507843	507843.386
Tl	205	1.563	ug/L	3.625	29569	0.052
Pb	208	0.025	ug/L	4.227	1555	0.002
U	238	-0.002	ug/L	52.880	301	-0.000

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
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
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	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9997

QC Calculated Values

Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike	% Recov	Dilution	% Dif	Duplicate	Rel. % Difference
Be	9										
> Sc	45				84.0						
Mn	55										
Cd	111										
Cd	114										
> In	115				86.8						
Sb	121										
Sb	123										
> Lu	175				88.9						
Tl	205										
Pb	208										
U	238										

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

Sample ID: 1202049265

Report Date/Time: Friday, March 19, 2010 02:04:56

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 247560001

Sample Date/Time: Friday, March 19, 2010 02:11:57

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 9558101|skj

Method File: c:\elandata\Method\lanl er.mth

Dataset File: C:\elandata\Dataset\100318\247560001.249

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.013	ug/L	158.284	22	0.000
Sc	45		ug/L		283388	283387.691
Mn	55	1.577	ug/L	2.071	12052	0.039
Cd	111	0.002	ug/L	493.160	27	0.000
Cd	114		ug/L		59	0.000
In	115		ug/L		228374	228374.302
Sb	121	-0.006	ug/L	37.282	124	-0.000
Sb	123		ug/L		98	-0.000
Lu	175		ug/L		487014	487013.723
Tl	205	0.320	ug/L	8.999	8179	0.011
Pb	208	0.176	ug/L	3.144	6303	0.012
U	238	0.009	ug/L	13.480	672	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
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
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	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9997

QC Calculated Values

Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike	% Recov	Dilution	% Dil	Duplicate	Rel. % Difference
Be	9										
Sc	45				83.8						
Mn	55										
Cd	111										
Cd	114										
In	115				82.4						
Sb	121										
Sb	123										
Lu	175				85.3						
Tl	205										
Pb	208										
U	238										

QC Out Of Limits

Measurement Type Analyte

Mass Out of Limits Message

Sample ID: 247560001

Report Date/Time: Friday, March 19, 2010 02:12:58

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: Friday, March 19, 2010 02:19:58

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\anl er.mth

Dataset File: C:\elandata\Dataset\100318\QC Std 6.251

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	51.533	ug/L	1.761	22088	0.077
> Sc	45		ug/L		285016	285015.998
Mn	55	51.353	ug/L	0.354	364865	1.277
Cd	111	47.204	ug/L	8.564	69609	0.276
Cd	114		ug/L		169054	0.671
> In	115		ug/L		252042	252041.503
Sb	121	50.668	ug/L	1.851	241209	0.956
Sb	123		ug/L		190822	0.757
> Lu	175		ug/L		537077	537076.924
Tl	205	54.669	ug/L	3.268	982681	1.824
Pb	208	55.356	ug/L	0.544	1949933	3.629
U	238	51.754	ug/L	0.776	2028367	3.776

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
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
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	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9997

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9	103.065				
> Sc	45		84.2			
Mn	55	102.705				
Cd	111	94.407				
Cd	114					
> In	115		90.9			
Sb	121	101.336				
Sb	123					
> Lu	175		94.0			
Tl	205	109.337				
Pb	208	110.712				
U	238	103.507				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

Sample ID: QC Std 6

Report Date/Time: Friday, March 19, 2010 02:20:58

Page 1

QC Std 6

Pb

208CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

Sample ID: QC Std 6

Report Date/Time: Friday, March 19, 2010 02:20:58

Page 2

ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Friday, March 19, 2010 02:23:58

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\anl er.mth

Dataset File: C:\elandata\Dataset\100318\QC Std 7.252

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.002	ug/L	635.796	19	0.000
> Sc	45		ug/L		297772	297772.342
Mn	55	-0.003	ug/L	8.190	970	-0.000
Cd	111	0.000	ug/L	702.815	28	0.000
Cd	114		ug/L		51	0.000
> In	115		ug/L		256057	256056.670
Sb	121	0.019	ug/L	31.263	257	0.000
Sb	123		ug/L		205	0.000
> Lu	175		ug/L		530636	530636.438
Tl	205	0.860	ug/L	2.583	18461	0.029
Pb	208	0.002	ug/L	30.837	806	0.000
U	238	0.004	ug/L	21.000	546	0.000

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
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
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	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9997

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
Be	9						
> Sc	45		88.0				
Mn	55						
Cd	111						
Cd	114						
> In	115		92.4				
Sb	121						
Sb	123						
> Lu	175		92.9				
Tl	205						
Pb	208						
U	238						

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: QC Std 7

Report Date/Time: Friday, March 19, 2010 02:24:59

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS #6 Daily Performance Report

Sample ID: Sample

Sample Date/Time: Friday, March 19, 2010 20:10:42

Sample Description:

Method File: C:\elandata\Method\Daily2.mth

Dataset File: c:\elandata\Dataset\100318\Sample.301

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		2092.8		2092.753	42.063	2.0
Mg	24.0		26958.0		26958.016	371.179	1.4
Co	58.9		36322.5		36322.523	413.529	1.1
Rh	102.9		69674.5		69674.505	596.093	0.9
In	114.9		76811.3		76811.350	372.060	0.5
Pb	208.0		41087.0		41087.007	505.911	1.2
[> Ba	137.9		69276.7		69276.726	941.574	1.4
[Ba++	69.0		1977.3		0.029	0.001	2.1
[> Ce	139.9		89510.2		89510.194	1302.404	1.5
[CeO	155.9		1337.6		0.015	0.000	2.4
Bkgd	220.0		13.9		13.900	1.194	8.6

Current Optimization File Data

Current Value	Description
0.80	Nebulizer Gas Flow
8.75	Lens Voltage
1450.00	ICP RF Power
-1800.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
30.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	6.5	4422.0
Co	59	21	7.3	57833.8
In	115	21	8.5	116713.8

ICPMS #6 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	584	2080	0.651
Be	9.0	9.0	2025	2080	0.673
Mg	24.0	24.0	5686	2120	0.636
Mg	25.0	25.0	5918	2080	0.717
Mg	26.0	26.1	6161	2120	0.680
Co	58.9	58.9	14184	2170	0.661
Rh	102.9	102.8	24853	2230	0.722
In	114.9	114.8	27769	2260	0.706
Ce	139.9	139.9	33854	2280	0.760
Pb	206.0	206.0	49936	2420	0.665
Pb	207.0	206.9	50147	2385	0.708
Pb	208.0	208.0	50427	2430	0.725
U	238.1	238.0	57729	2470	0.707

ICPMS#6 - Summary Report

Sample ID: Blank

Sample Date/Time: Saturday, March 20, 2010 13:46:14

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ltpbsb.mth

Dataset File: C:\elandata\Dataset\100319\Blank.269

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115	ug/L		111466	
|	Sb	121	ug/L		185	
|	Sb	123	ug/L		136	
[>	Lu	175	ug/L		145420	
|	Tl	205	ug/L		316	
|	Pb	208	ug/L		1757	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	
Pb	208	Simple Linear	

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	In	115				
|	Sb	121				
|	Sb	123				
[>	Lu	175				
|	Tl	205				
	Pb	208				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Saturday, March 20, 2010 13:50:14

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ltpbsb.mth

Dataset File: C:\elandata\Dataset\100319\Standard 1.270

Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> In 115		ug/L		113603	113602.635
| Sb 121	10.000	ug/L	4.947	23055	0.201
| Sb 123		ug/L		17280	0.151
[> Lu 175		ug/L		145956	145955.501
| Tl 205	10.000	ug/L	3.225	48794	0.332
| Pb 208	10.000	ug/L	5.399	77336	0.518

Calibration

Analyte	Mass Curve Type	Correlation Coefficient
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000

QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
[> In 115					
| Sb 121					
| Sb 123					
[> Lu 175					
| Tl 205					
| Pb 208					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Saturday, March 20, 2010 13:54:11

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ltpbsb.mth

Dataset File: C:\elandata\Dataset\100319\Standard 2.271

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In 115		ug/L		110073	110072.600
|	Sb 121	100.036	ug/L	4.259	230080	2.090
|	Sb 123		ug/L		177411	1.612
[>	Lu 175		ug/L		146851	146850.667
|	Tl 205	99.985	ug/L	3.107	481013	3.273
|	Pb 208	99.965	ug/L	4.826	736478	5.009

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
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	1.0000
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	In 115					
|	Sb 121					
|	Sb 123					
[>	Lu 175					
|	Tl 205					
|	Pb 208					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Saturday, March 20, 2010 13:58:08

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ltpbsb.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 1.272

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> In	115		ug/L		109464	109463.850
| Sb	121	52.942	ug/L	4.615	121142	1.106
| Sb	123		ug/L		94368	0.861
[> Lu	175		ug/L		141520	141520.086
| Tl	205	50.352	ug/L	4.440	233467	1.648
| Pb	208	53.739	ug/L	4.720	382406	2.693

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
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	1.0000
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel.	% Difference
[> In	115		98.2				
| Sb	121	105.884					
| Sb	123						
[> Lu	175		97.3				
| Tl	205	100.705					
| Pb	208	107.478					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Saturday, March 20, 2010 14:02:08

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\1p1psb.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 2.273

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In 115		ug/L		107547	107546.816
|	Sb 121	0.495	ug/L	6.276	1289	0.010
|	Sb 123		ug/L		947	0.008
[>	Lu 175		ug/L		139127	139127.397
|	Tl 205	0.286	ug/L	6.253	1603	0.009
|	Pb 208	-0.015	ug/L	64.137	1577	-0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	In 115		96.5				
|	Sb 121						
|	Sb 123						
[>	Lu 175		95.7				
|	Tl 205						
|	Pb 208						

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Saturday, March 20, 2010 14:06:08

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ltpbsb.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 3.274

Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> In 115		ug/L		112732	112732.104
| Sb 121	3.200	ug/L	7.529	7709	0.067
| Sb 123		ug/L		5946	0.052
[> Lu 175		ug/L		145930	145929.647
| Tl 205	1.145	ug/L	6.163	5782	0.037
| Pb 208	2.238	ug/L	2.237	18125	0.112

Calibration

Analyte	MassCurve Type	Correlation Coefficient
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000

QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[> In 115		101.1			
| Sb 121	106.671				
| Sb 123					
[> Lu 175		100.4			
| Tl 205	114.492				
| Pb 208	111.904				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Saturday, March 20, 2010 14:10:06

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ltpbsb.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 4.275

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> In	115		ug/L		106934	106933.741
| Sb	121	0.143	ug/L	4.979	497	0.003
| Sb	123		ug/L		394	0.002
[> Lu	175		ug/L		144381	144381.074
| Tl	205	0.054	ug/L	20.149	568	0.002
| Pb	208	0.771	ug/L	8.835	7311	0.039

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
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	1.0000
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[> In	115		95.9				
| Sb	121						
| Sb	123						
[> Lu	175		99.3				
| Tl	205						
Pb	208	407.800					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Saturday, March 20, 2010 14:14:05

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ltpbsb.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 5.276

Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> In 115		ug/L		106889	106888.624
| Sb 121	21.901	ug/L	5.886	49016	0.458
| Sb 123		ug/L		37580	0.351
[> Lu 175		ug/L		144204	144203.807
| Tl 205	19.635	ug/L	2.421	92980	0.643
| Pb 208	21.171	ug/L	4.432	154569	1.061

Calibration

Analyte	MassCurve Type	Correlation Coefficient
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000

QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[> In 115		95.9			
| Sb 121	109.505				
| Sb 123					
[> Lu 175		99.2			
| Tl 205	98.177				
| Pb 208	104.809				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Saturday, March 20, 2010 14:18:04

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ltpbsb.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 6.277

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> In	115		ug/L		110371	110370.958
| Sb	121	53.359	ug/L	7.086	123025	1.115
| Sb	123		ug/L		94250	0.853
[> Lu	175		ug/L		145425	145425.405
| Tl	205	51.156	ug/L	4.988	243731	1.675
| Pb	208	52.854	ug/L	3.381	386798	2.648

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
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	1.0000
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel.	% Difference
[> In	115			99.0			
| Sb	121	106.717					
| Sb	123						
[> Lu	175		100.0				
| Tl	205	102.311					
Pb	208	105.707					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Saturday, March 20, 2010 14:22:03

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ltpbsb.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 7.278

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In 115		ug/L		108879	108879.388
|	Sb 121	0.113	ug/L	5.267	436	0.002
|	Sb 123		ug/L		323	0.002
[>	Lu 175		ug/L		142712	142711.958
|	Tl 205	0.286	ug/L	10.427	1641	0.009
|	Pb 208	-0.029	ug/L	38.485	1512	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
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	1.0000
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	In 115		97.7			
|	Sb 121					
|	Sb 123					
[>	Lu 175		98.1			
|	Tl 205					
|	Pb 208					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Saturday, March 20, 2010 14:57:53

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ltpbsb.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 8.287

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> In	115		ug/L		111728	111727.883
| Sb	121	53.657	ug/L	5.623	125246	1.121
| Sb	123		ug/L		98060	0.878
[> Lu	175		ug/L		147632	147631.868
| Tl	205	50.997	ug/L	5.796	246654	1.669
| Pb	208	54.125	ug/L	3.498	401920	2.712

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
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	1.0000
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[> In	115		100.2			
| Sb	121	107.313				
| Sb	123					
[> Lu	175		101.5			
| Tl	205	101.993				
| Pb	208	108.251				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Saturday, March 20, 2010 15:01:53

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\11pbsb.mth

Dataset File: C:\elandata\Dataset\1100319\QC Std 9.288

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In 115		ug/L		107769	107769.374
|	Sb 121	0.035	ug/L	30.394	256	0.001
|	Sb 123		ug/L		189	0.001
[>	Lu 175		ug/L		141169	141168.734
|	Tl 205	0.308	ug/L	6.963	1728	0.010
|	Pb 208	-0.002	ug/L	633.222	1687	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
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	1.0000
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Duplicate Rel. % Difference
[>	In 115		96.7			
|	Sb 121					
|	Sb 123					
[>	Lu 175		97.1			
|	Tl 205					
	Pb 208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Saturday, March 20, 2010 15:33:46

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ltpbsb.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 8.296

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In 115		ug/L		116637	116637.184
|	Sb 121	52.832	ug/L	7.717	128685	1.104
|	Sb 123		ug/L		98707	0.847
[>	Lu 175		ug/L		154601	154601.178
|	Tl 205	51.331	ug/L	3.394	259946	1.680
|	Pb 208	53.548	ug/L	4.700	416244	2.683

Calibration

Analyte	MassCurve Type	Correlation Coefficient
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	In 115		104.6			
|	Sb 121	105.664				
|	Sb 123					
[>	Lu 175		106.3			
|	Tl 205	102.663				
|	Pb 208	107.097				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Saturday, March 20, 2010 15:37:46

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\vipbsb.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 9.297

Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> In 115		ug/L		113657	113657.161
| Sb 121	0.016	ug/L	91.294	226	0.000
| Sb 123		ug/L		176	0.000
[> Lu 175		ug/L		148692	148691.855
| Tl 205	0.263	ug/L	12.862	1602	0.009
| Pb 208	0.011	ug/L	88.449	1878	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000

QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[> In 115		102.0				
| Sb 121						
| Sb 123						
[> Lu 175		102.2				
| Tl 205						
| Pb 208						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Saturday, March 20, 2010 16:05:42

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\11pbsb.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 8.304

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> In	115		ug/L		119746	119745.719
| Sb	121	53.034	ug/L	9.639	132463	1.108
| Sb	123		ug/L		104001	0.869
[> Lu	175		ug/L		158354	158353.516
| Tl	205	50.946	ug/L	5.600	264178	1.668
| Pb	208	53.878	ug/L	3.782	429090	2.700

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
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	1.0000
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel.	% Difference
[> In	115		107.4				
| Sb	121	106.069					
| Sb	123						
[> Lu	175		108.9				
| Tl	205	101.891					
| Pb	208	107.755					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Saturday, March 20, 2010 16:09:43

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ltpbsb.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 9.305

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In 115		ug/L		114513	114513.355
|	Sb 121	0.009	ug/L	48.931	211	0.000
|	Sb 123		ug/L		164	0.000
[>	Lu 175		ug/L		150541	150540.683
|	Tl 205	0.268	ug/L	6.314	1644	0.009
|	Pb 208	0.011	ug/L	179.634	1900	0.001

Calibration

Analyte	Mass Curve Type	Correlation Coefficient
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel.	% Difference
[>	In 115		102.7				
|	Sb 121						
|	Sb 123						
[>	Lu 175		103.5				
|	Tl 205						
|	Pb 208						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Saturday, March 20, 2010 16:41:40

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ltpbsb.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 8.313

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In 115		ug/L		119631	119630.871
|	Sb 121	52.733	ug/L	9.461	131589	1.102
|	Sb 123		ug/L		102291	0.856
[>	Lu 175		ug/L		156619	156619.449
|	Tl 205	51.632	ug/L	6.800	264681	1.690
|	Pb 208	54.204	ug/L	3.895	426870	2.716

Calibration

Analyte	Mass Curve Type	Correlation Coefficient
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	In 115		107.3			
|	Sb 121	105.465				
|	Sb 123					
[>	Lu 175		107.7			
|	Tl 205	103.264				
|	Pb 208	108.407				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Saturday, March 20, 2010 16:45:41

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ltpbsb.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 9.314

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In 115		ug/L		113719	113719.316
|	Sb 121	0.011	ug/L	94.836	213	0.000
|	Sb 123		ug/L		167	0.000
[>	Lu 175		ug/L		150136	150135.971
|	Tl 205	0.357	ug/L	5.995	2075	0.012
|	Pb 208	-0.090	ug/L	8.285	1137	-0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
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	1.0000
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel.	% Difference
[>	In 115		102.0				
|	Sb 121						
|	Sb 123						
[>	Lu 175		103.2				
|	Tl 205						
|	Pb 208						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Saturday, March 20, 2010 17:25:42

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ltpbsb.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 8.324

Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> In 115		ug/L		116479	116478.771
| Sb 121	55.380	ug/L	9.738	134468	1.157
| Sb 123		ug/L		102357	0.880
[> Lu 175		ug/L		156352	156351.796
| Tl 205	51.364	ug/L	5.404	262964	1.681
| Pb 208	54.226	ug/L	3.416	426422	2.717

Calibration

Analyte	MassCurve Type	Correlation Coefficient
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000

QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
[> In 115		104.5			
| Sb 121	110.759				
| Sb 123					
[> Lu 175		107.5			
| Tl 205	102.727				
| Pb 208	108.452				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 8	Sb	121CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Saturday, March 20, 2010 17:29:42

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ltpbsb.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 9.325

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In 115		ug/L		116158	116157.501
|	Sb 121	0.008	ug/L	65.843	211	0.000
|	Sb 123		ug/L		179	0.000
[>	Lu 175		ug/L		155524	155524.002
|	Tl 205	0.660	ug/L	11.875	3693	0.022
|	Pb 208	-0.113	ug/L	9.868	994	-0.006

Calibration

Analyte	MassCurve Type	Correlation Coefficient
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	In 115		104.2				
|	Sb 121						
|	Sb 123						
[>	Lu 175		106.9				
|	Tl 205						
|	Pb 208						

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202049261

Sample Date/Time: Saturday, March 20, 2010 17:33:43

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 955810|1|prb

Method File: c:\elandata\Method\1\pbsb.mth

Dataset File: C:\elandata\Dataset\100319\1202049261.326

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In 115		ug/L		117125	117125.185
|	Sb 121	0.065	ug/L	10.006	354	0.001
|	Sb 123		ug/L		275	0.001
[>	Lu 175		ug/L		153189	153189.040
|	Tl 205	0.190	ug/L	10.868	1284	0.006
|	Pb 208	-0.139	ug/L	3.595	783	-0.007

Calibration

Analyte	MassCurve Type	Correlation Coefficient
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	In 115		105.1			
|	Sb 121					
|	Sb 123					
[>	Lu 175		105.3			
|	Tl 205					
|	Pb 208					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202049262

Sample Date/Time: Saturday, March 20, 2010 17:37:44

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 955810|1|prb

Method File: c:\elandata\Method\1\pbsb.mth

Dataset File: C:\elandata\Dataset\100319\1202049262.327

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In 115		ug/L		113481	113481.186
|	Sb 121	59.594	ug/L	6.525	141199	1.245
|	Sb 123		ug/L		108991	0.961
[>	Lu 175		ug/L		149598	149598.185
|	Tl 205	48.029	ug/L	2.338	235504	1.572
|	Pb 208	53.423	ug/L	5.575	401684	2.677

Calibration

Analyte	MassCurve Type	Correlation Coefficient
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	In 115		101.8			
|	Sb 121					
|	Sb 123					
[>	Lu 175		102.9			
|	Tl 205					
|	Pb 208					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202049263

Sample Date/Time: Saturday, March 20, 2010 17:49:45

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 955810|1|prb

Method File: c:\elandata\Method\l\pbsb.mth

Dataset File: C:\elandata\Dataset\100319\1202049263.330

Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> In 115		ug/L		117487	117487.398
| Sb 121	0.061	ug/L	4.763	343	0.001
| Sb 123		ug/L		277	0.001
[> Lu 175		ug/L		153276	153276.133
| Tl 205	0.153	ug/L	5.963	1097	0.005
| Pb 208	-0.007	ug/L	172.336	1799	-0.000

Calibration

Analyte	Mass Curve Type	Correlation Coefficient
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000

QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[> In 115		105.4			
| Sb 121					
| Sb 123					
[> Lu 175		105.4			
| Tl 205					
Pb 208					

QC Out Of Limits

Measurement Type	Analyte	Mass Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202049264

Sample Date/Time: Saturday, March 20, 2010 17:53:46

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 955810|1|prb

Method File: c:\elandata\Method\ltpbsb.mth

Dataset File: C:\elandata\Dataset\100319\1202049264.331

Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> In 115		ug/L		114143	114143.458
| Sb 121	222.636	ug/L	7.667	529794	4.651
| Sb 123		ug/L		410198	3.605
[> Lu 175		ug/L		153456	153456.103
| Tl 205	100.322	ug/L	3.879	503606	3.284
| Pb 208	44.320	ug/L	7.930	341505	2.221

Calibration

Analyte	MassCurve Type	Correlation Coefficient
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000

QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[> In 115		102.4				
| Sb 121						
| Sb 123						
[> Lu 175		105.5				
| Tl 205						
| Pb 208						

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202049265

Sample Date/Time: Saturday, March 20, 2010 17:57:47

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 955810|5|prb

Method File: c:\elandata\Method\tipbsb.mth

Dataset File: C:\elandata\Dataset\100319\1202049265.332

Concentration Results

Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> In 115		ug/L		113578	113577.790
| Sb 121	0.017	ug/L	52.707	229	0.000
| Sb 123		ug/L		193	0.000
[> Lu 175		ug/L		151550	151549.758
| Tl 205	0.771	ug/L	2.435	4153	0.025
| Pb 208	-0.087	ug/L	16.708	1169	-0.004

Calibration

Analyte	Mass Curve Type	Correlation Coefficient
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000

QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[> In 115		101.9			
| Sb 121					
| Sb 123					
[> Lu 175		104.2			
| Tl 205					
| Pb 208					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 247560001

Sample Date/Time: Saturday, March 20, 2010 18:09:49

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955810|1|prb

Method File: c:\elandata\Method\ltpbsb.mth

Dataset File: C:\elandata\Dataset\100319\247560001.335

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> In	115		ug/L		115841	115841.359
| Sb	121	0.062	ug/L	5.580	341	0.001
| Sb	123		ug/L		296	0.001
[> Lu	175		ug/L		155369	155368.800
| Tl	205	0.161	ug/L	10.145	1156	0.005
| Pb	208	0.033	ug/L	43.139	2129	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
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	1.0000
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[> In	115		103.9			
| Sb	121					
| Sb	123					
[> Lu	175		106.8			
| Tl	205					
Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Saturday, March 20, 2010 18:17:50

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ltpbsb.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 8.337

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In 115		ug/L		118933	118932.517
|	Sb 121	53.280	ug/L	4.611	132468	1.113
|	Sb 123		ug/L		103041	0.866
[>	Lu 175		ug/L		158038	158037.801
|	Tl 205	49.296	ug/L	4.256	255304	1.614
|	Pb 208	54.414	ug/L	3.540	432663	2.726

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
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	1.0000
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	In 115		106.7				
|	Sb 121	106.560					
|	Sb 123						
[>	Lu 175		108.7				
|	Tl 205	98.592					
	Pb 208	108.829					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Saturday, March 20, 2010 18:21:51

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ltpbsb.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 9.338

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In 115		ug/L		114344	114343.768
|	Sb 121	0.014	ug/L	36.362	222	0.000
|	Sb 123		ug/L		178	0.000
[>	Lu 175		ug/L		154019	154018.518
|	Tl 205	0.772	ug/L	4.168	4223	0.025
|	Pb 208	-0.109	ug/L	7.919	1018	-0.005

Calibration

Analyte	MassCurve Type	Correlation Coefficient
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[>	In 115		102.6				
|	Sb 121						
|	Sb 123						
[>	Lu 175		105.9				
|	Tl 205						
|	Pb 208						

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Method Name: WATER
 Method Description: 7470A, 245.2, ILM04 ANALYST JXL
 Element: Hg

Date: 02/25/2010
 Technique: FI-MHS
 Calibration Type:
 Hg, Calc. Intercept : Linear
 Wavelength: 253.7 nm
 Sample Info Name: 022510W1.SIF Results Data Set Name: 022510W1

Element: Hg Seq. No.: 36 AS Loc.: 1 Date: 02/25/2010
 Sample ID: Calib Blank

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1			0.0015	0.0015	10:54:34	No
2			0.0014	0.0014	10:55:09	No
Mean:			0.0015			
SD :			0.0001			
%RSD:			5.3762			

Auto-zero performed.

Element: Hg Seq. No.: 37 AS Loc.: 2 Date: 02/25/2010
 Sample ID: S0.2

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1			0.0011	0.0026	10:56:32	No
2			0.0011	0.0026	10:57:07	No
Mean:			0.0011			
SD :			0.0000			
%RSD:			2.3514			

[Hg] Standard number 1 applied. [0.200]
 Correlation Coefficient: 1.00000 Slope: 0.00551
 Intercept : 0.00000

Element: Hg Seq. No.: 38 AS Loc.: 3 Date: 02/25/2010
 Sample ID: S0.5

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1			0.0035	0.0049	10:58:31	No
2			0.0033	0.0048	10:59:06	No
Mean:			0.0034			
SD :			0.0001			
%RSD:			3.7263			

[Hg] Standard number 2 applied. [0.500]
 Correlation Coefficient: 0.99653 Slope: 0.00682
 Intercept : -0.00010

Element: Hg Seq. No.: 39 AS Loc.: 4 Date: 02/25/2010
 Sample ID: S2.0

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1			0.0133	0.0148	11:00:31	No
2			0.0133	0.0148	11:01:05	No
Mean:			0.0133			
SD :			0.0000			
%RSD:			0.2404			

[Hg] Standard number 3 applied. [2.000]

Correlation Coefficient: 0.99980
Intercept : -0.00007

Slope: 0.00670

=====

Element: Hg Seq. No.: 40 AS Loc.: 5 Date: 02/25/2010
Sample ID: S5.0

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1			0.0332	0.0346	11:02:31	No
2			0.0330	0.0345	11:03:06	No
Mean:			0.0331			
SD :			0.0001			
%RSD:			0.2985			

[Hg] Standard number 4 applied. [5.000]

Correlation Coefficient: 0.99996

Slope: 0.00663

Intercept : -0.00004

=====

Element: Hg Seq. No.: 41 AS Loc.: 6 Date: 02/25/2010
Sample ID: S10

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1			0.0658	0.0673	11:04:33	No
2			0.0657	0.0672	11:05:07	No
Mean:			0.0658			
SD :			0.0001			
%RSD:						

[Hg] Standard number 5 applied. [10.00]

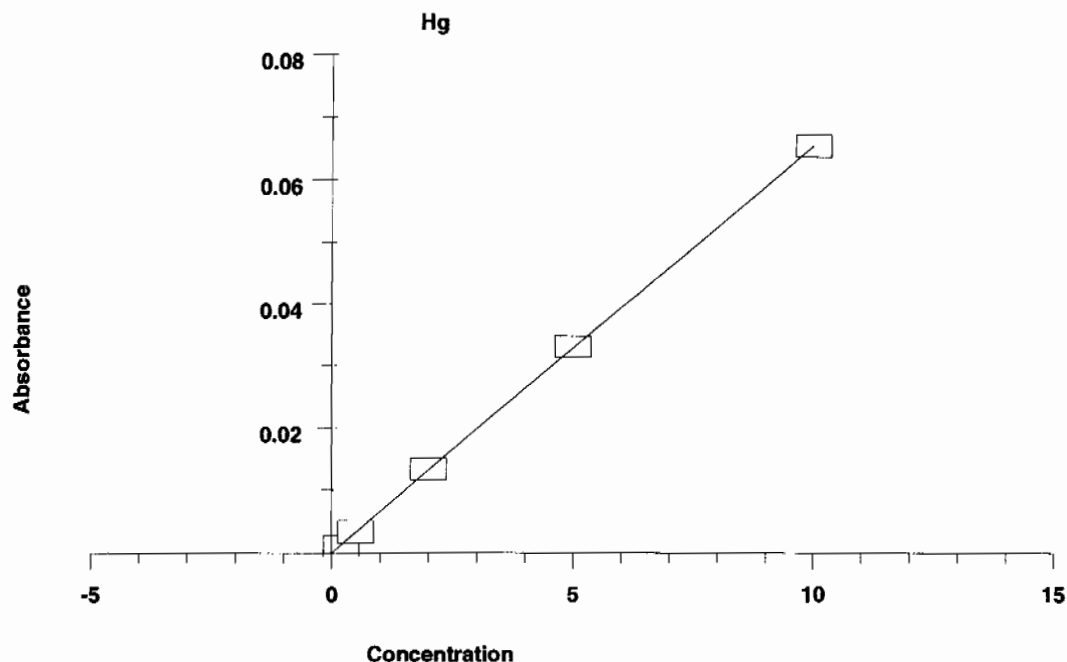
Correlation Coefficient: 0.99998

Slope: 0.00658

Intercept : 0.00002

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0015	---	----	----	----
S0.2	0.0011	0.200	0.165	0.0000	2.4
S0.5	0.0034	0.500	0.510	0.0001	3.7
S2.0	0.0133	2.000	2.019	0.0000	0.2
S5.0	0.0331	5.000	5.024	0.0001	0.3
S10	0.0658	10.000	9.984	0.0001	----
Correlation Coefficient: 0.99998		Slope:	0.00658	Intercept:	0.0000



=====
 Element: Hg Seq. No.: 42 AS Loc.: 9 Date: 02/25/2010
 Sample ID: ICV

Repl #	SampleConc µg/L	StdndConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	5.138	5.138	0.0338	0.0353	11:06:35	No
2	5.110	5.110	0.0337	0.0351	11:07:09	No
Mean:	5.124	5.124	0.0338			
SD :	0.0203	0.0203	0.0001			
%RSD:	0.4	0.4	0.3959			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 43 AS Loc.: 10 Date: 02/25/2010
 Sample ID: ICB

Repl #	SampleConc µg/L	StdndConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.006	0.006	0.0001	0.0015	11:08:31	No
2	-0.010	-0.010	0.0000	0.0014	11:09:06	No
Mean:	-0.002	-0.002	0.0000			
SD :	0.0111	0.0111	0.0001			
%RSD:	647.6	647.6	1145.2686			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 44 AS Loc.: 11 Date: 02/25/2010
 Sample ID: CRDL

Repl #	SampleConc µg/L	StdndConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.258	0.258	0.0017	0.0032	11:10:28	No
2	0.257	0.257	0.0017	0.0032	11:11:03	No
Mean:	0.257	0.257	0.0017			
SD :	0.0012	0.0012	0.0000			
%RSD:	0.4	0.4	0.4436			

QC value within specified limits.

=====

Element: Hg Seq. No.: 45 AS Loc.: 7 Date: 02/25/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	4.949	4.949	0.0326	0.0341	11:12:28	No
2	4.924	4.924	0.0324	0.0339	11:13:03	No
Mean:	4.937	4.937	0.0325			
SD :	0.0175	0.0175	0.0001			
%RSD:	0.4	0.4	0.3545			

QC value within specified limits.

=====

Element: Hg Seq. No.: 46 AS Loc.: 8 Date: 02/25/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	0.044	0.044	0.0003	0.0018	11:14:31	No
2	0.017	0.017	0.0001	0.0016	11:15:06	No
Mean:	0.031	0.031	0.0002			
SD :	0.0186	0.0186	0.0001			
%RSD:	60.9	60.9	56.0211			

QC value within specified limits.

=====

Element: Hg Seq. No.: 47 AS Loc.: 22 Date: 02/25/2010
Sample ID: 1202051914|i||956984|MB

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	0.040	0.040	0.0003	0.0018	11:16:31	No
2	0.002	0.002	0.0000	0.0015	11:17:06	No
Mean:	0.021	0.021	0.0002			
SD :	0.0270	0.0270	0.0002			
%RSD:	129.8	129.8	114.9934			

=====

Element: Hg Seq. No.: 48 AS Loc.: 23 Date: 02/25/2010
Sample ID: 1202051915|i||LCS

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	2.109	2.109	0.0139	0.0154	11:18:30	No
2	2.117	2.117	0.0140	0.0154	11:19:05	No
Mean:	2.113	2.113	0.0139			
SD :	0.0053	0.0053	0.0000			
%RSD:	0.3	0.3	0.2514			

=====

Element: Hg Seq. No.: 49 AS Loc.: 24 Date: 02/25/2010
Sample ID: 247850001|i|||

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	0.041	0.041	0.0003	0.0018	11:20:29	No
2	0.023	0.023	0.0002	0.0016	11:21:04	No
Mean:	0.032	0.032	0.0002			
SD :	0.0127	0.0127	0.0001			
%RSD:	40.1	40.1	36.9422			

=====

Element: Hg Seq. No.: 50 AS Loc.: 25 Date: 02/25/2010
Sample ID: 1202051916|i|||DUP

%RSD: 67.0 67.0 31.8435

=====
 Element: Hg Seq. No.: 56 AS Loc.: 31 Date: 02/25/2010
 Sample ID: 247850005|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.477	0.477	0.0032	0.0046	11:34:35	No
2	0.440	0.440	0.0029	0.0044	11:35:10	No
Mean:	0.459	0.459	0.0030			
SD :	0.0260	0.0260	0.0002			
%RSD:	5.7	5.7	5.6376			

=====
 Element: Hg Seq. No.: 57 AS Loc.: 7 Date: 02/25/2010
 Sample ID: CCV

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	5.027	5.027	0.0331	0.0346	11:36:37	No
2	5.029	5.029	0.0331	0.0346	11:37:11	No
Mean:	5.028	5.028	0.0331			
SD :	0.0012	0.0012	0.0000			

%RSD:
 QC value within specified limits.

=====
 Element: Hg Seq. No.: 58 AS Loc.: 8 Date: 02/25/2010
 Sample ID: CCB

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.027	0.027	0.0002	0.0017	11:38:39	No
2	0.004	0.004	0.0000	0.0015	11:39:14	No
Mean:	0.015	0.015	0.0001			
SD :	0.0162	0.0162	0.0001			
%RSD:	105.3	105.3	89.6157			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 59 AS Loc.: 32 Date: 02/25/2010
 Sample ID: 247850006|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.452	0.452	0.0030	0.0045	11:40:38	No
2	0.437	0.437	0.0029	0.0044	11:41:13	No
Mean:	0.444	0.444	0.0029			
SD :	0.0107	0.0107	0.0001			
%RSD:	2.4	2.4	2.3869			

=====
 Element: Hg Seq. No.: 60 AS Loc.: 33 Date: 02/25/2010
 Sample ID: 247850007|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0015	11:42:33	No
2	-0.009	-0.009	0.0000	0.0014	11:43:07	No
Mean:	-0.006	-0.006	0.0000			
SD :	0.0034	0.0034	0.0000			
%RSD:	52.8	52.8	91.2736			

=====
 Element: Hg Seq. No.: 61 AS Loc.: 34 Date: 02/25/2010
 Sample ID: 247850008|i|||

%RSD: 64.2 64.2 73.9600

=====
Element: Hg Seq. No.: 67 AS Loc.: 40 Date: 02/25/2010
Sample ID: 246883001|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	0.007	0.007	0.0001	0.0015	11:56:13	No
2	-0.011	-0.011	-0.0001	0.0014	11:56:48	No
Mean:	-0.002	-0.002	0.0000			
SD :	0.0131	0.0131	0.0001			
%RSD:	702.5	702.5	1607.0531			

=====
Element: Hg Seq. No.: 68 AS Loc.: 41 Date: 02/25/2010
Sample ID: 246883002|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	0.014	0.014	0.0001	0.0016	11:58:12	No
2	0.010	0.010	0.0001	0.0016	11:58:47	No
Mean:	0.012	0.012	0.0001			
SD :	0.0033	0.0033	0.0000			
%RSD:	27.1	27.1	22.1377			

=====
Element: Hg Seq. No.: 69 AS Loc.: 7 Date: 02/25/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StdConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	5.321	5.321	0.0351	0.0365	12:00:13	No
2	5.286	5.286	0.0348	0.0363	12:00:47	No
Mean:	5.304	5.304	0.0349			
SD :	0.0249	0.0249	0.0002			
%RSD:	0.5	0.5	0.4690			

QC value within specified limits.

=====
Element: Hg Seq. No.: 70 AS Loc.: 8 Date: 02/25/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StdConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	0.033	0.033	0.0002	0.0017	12:02:15	No
2	0.037	0.037	0.0003	0.0017	12:02:50	No
Mean:	0.035	0.035	0.0002			
SD :	0.0030	0.0030	0.0000			
%RSD:	8.6	8.6	8.0146			

QC value within specified limits.

=====
Element: Hg Seq. No.: 71 AS Loc.: 42 Date: 02/25/2010
Sample ID: 246883003|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	0.015	0.015	0.0001	0.0016	12:04:16	No
2	0.019	0.019	0.0001	0.0016	12:04:51	No
Mean:	0.017	0.017	0.0001			
SD :	0.0024	0.0024	0.0000			
%RSD:	14.0	14.0	12.0684			

=====
Element: Hg Seq. No.: 72 AS Loc.: 43 Date: 02/25/2010
Sample ID: 246883004|i|||

%RSD: 36.0 36.0 20.1861

=====
 Element: Hg Seq. No.: 78 AS Loc.: 49 Date: 02/25/2010
 Sample ID: 247039002|i|||

Repl #	SampleConc µg/L	StdndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.027	0.027	0.0002	0.0017	12:18:12	No
2	0.010	0.010	0.0001	0.0016	12:18:47	No
Mean:	0.018	0.018	0.0001			
SD :	0.0119	0.0119	0.0001			
%RSD:	64.7	64.7	56.4602			

=====
 Element: Hg Seq. No.: 79 AS Loc.: 50 Date: 02/25/2010
 Sample ID: 247039003|i|||

Repl #	SampleConc µg/L	StdndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.015	0.015	0.0001	0.0016	12:20:07	No
2	0.005	0.005	0.0001	0.0015	12:20:42	No
Mean:	0.010	0.010	0.0001			
SD :	0.0068	0.0068	0.0000			
%RSD:	68.3	68.3	53.8421			

=====
 Element: Hg Seq. No.: 80 AS Loc.: 51 Date: 02/25/2010
 Sample ID: 247039004|i|||

Repl #	SampleConc µg/L	StdndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0000	0.0015	12:22:03	No
2	-0.014	-0.014	-0.0001	0.0014	12:22:39	No
Mean:	-0.006	-0.006	0.0000			
SD :	0.0115	0.0115	0.0001			
%RSD:	192.3	192.3	348.5142			

=====
 Element: Hg Seq. No.: 81 AS Loc.: 7 Date: 02/25/2010
 Sample ID: CCV

Repl #	SampleConc µg/L	StdndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.031	5.031	0.0331	0.0346	12:24:03	No
2	5.034	5.034	0.0332	0.0346	12:24:38	No
Mean:	5.032	5.032	0.0332			
SD :	0.0018	0.0018	0.0000			
%RSD:						

QC value within specified limits.

=====
 Element: Hg Seq. No.: 82 AS Loc.: 8 Date: 02/25/2010
 Sample ID: CCB

Repl #	SampleConc µg/L	StdndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.029	0.029	0.0002	0.0017	12:26:06	No
2	0.016	0.016	0.0001	0.0016	12:26:41	No
Mean:	0.022	0.022	0.0002			
SD :	0.0087	0.0087	0.0001			
%RSD:	39.1	39.1	34.9168			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 83 AS Loc.: 52 Date: 02/25/2010
 Sample ID: 247098001|i|||

%RSD: 78.9 78.9 64.7392

=====
 Element: Hg Seq. No.: 89 AS Loc.: 58 Date: 02/25/2010
 Sample ID: 247098004|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.006	0.006	0.0001	0.0015	12:39:55	No
2	-0.002	-0.002	0.0000	0.0015	12:40:30	No
Mean:	0.002	0.002	0.0000			
SD :	0.0058	0.0058	0.0000			
%RSD:	251.8	251.8	116.7255			

=====
 Element: Hg Seq. No.: 90 AS Loc.: 59 Date: 02/25/2010
 Sample ID: 1202052034|i||957034|MB

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.027	0.027	0.0002	0.0017	12:41:55	No
2	-0.003	-0.003	0.0000	0.0015	12:42:30	No
Mean:	0.012	0.012	0.0001			
SD :	0.0209	0.0209	0.0001			
%RSD:	176.4	176.4	143.7482			

=====
 Element: Hg Seq. No.: 91 AS Loc.: 60 Date: 02/25/2010
 Sample ID: 1202052035|i||LCS

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	2.345	2.345	0.0155	0.0169	12:43:56	No
2	2.330	2.330	0.0154	0.0168	12:44:31	No
Mean:	2.338	2.338	0.0154			
SD :	0.0108	0.0108	0.0001			
%RSD:	0.5	0.5	0.4613			

=====
 Element: Hg Seq. No.: 92 AS Loc.: 61 Date: 02/25/2010
 Sample ID: 247182001|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0015	12:45:57	No
2	-0.003	-0.003	0.0000	0.0015	12:46:31	No
Mean:	-0.003	-0.003	0.0000			
SD :	0.0009	0.0009	0.0000			
%RSD:	27.6	27.6	131.6391			

=====
 Element: Hg Seq. No.: 93 AS Loc.: 7 Date: 02/25/2010
 Sample ID: CCV

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	5.071	5.071	0.0334	0.0349	12:47:58	No
2	5.094	5.094	0.0336	0.0350	12:48:32	No
Mean:	5.083	5.083	0.0335			
SD :	0.0159	0.0159	0.0001			
%RSD:	0.3	0.3	0.3128			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 94 AS Loc.: 8 Date: 02/25/2010
 Sample ID: CCB

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.006	-0.006	0.0000	0.0015	12:50:00	No
2	-0.002	-0.002	0.0000	0.0015	12:50:35	No
Mean:	-0.004	-0.004	0.0000			
SD :	0.0023	0.0023	0.0000			
%RSD:	57.3	57.3	177.8653			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 95 AS Loc.: 62 Date: 02/25/2010
 Sample ID: 247192001|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.038	-0.038	-0.0002	0.0012	12:52:02	No
2	-0.039	-0.039	-0.0002	0.0012	12:52:37	No
Mean:	-0.039	-0.039	-0.0002			
SD :	0.0013	0.0013	0.0000			
%RSD:	3.2	3.2	3.4875			

=====
 Element: Hg Seq. No.: 96 AS Loc.: 63 Date: 02/25/2010
 Sample ID: 247250001|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.041	-0.041	-0.0003	0.0012	12:54:00	No
2	-0.057	-0.057	-0.0004	0.0011	12:54:35	No
Mean:	-0.049	-0.049	-0.0003			
SD :	0.0115	0.0115	0.0001			
%RSD:	23.5	23.5	24.8640			

=====
 Element: Hg Seq. No.: 97 AS Loc.: 64 Date: 02/25/2010
 Sample ID: 247250002|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.036	-0.036	-0.0002	0.0013	12:55:55	No
2	-0.051	-0.051	-0.0003	0.0012	12:56:30	No
Mean:	-0.043	-0.043	-0.0003			
SD :	0.0105	0.0105	0.0001			
%RSD:	24.2	24.2	25.8362			

=====
 Element: Hg Seq. No.: 98 AS Loc.: 65 Date: 02/25/2010
 Sample ID: 247256001|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.042	-0.042	-0.0003	0.0012	12:57:49	No
2	-0.056	-0.056	-0.0004	0.0011	12:58:25	No
Mean:	-0.049	-0.049	-0.0003			
SD :	0.0103	0.0103	0.0001			
%RSD:	21.0	21.0	22.2172			

=====
 Element: Hg Seq. No.: 99 AS Loc.: 66 Date: 02/25/2010
 Sample ID: 247256002|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.027	-0.027	-0.0002	0.0013	12:59:46	No
2	-0.038	-0.038	-0.0002	0.0012	13:00:21	No
Mean:	-0.032	-0.032	-0.0002			
SD :	0.0077	0.0077	0.0001			

%RSD: 23.7 23.7 25.8136

=====
 Element: Hg Seq. No.: 100 AS Loc.: 67 Date: 02/25/2010
 Sample ID: 247322001|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.008	-0.008	0.0000	0.0014	13:01:42	No
2	-0.016	-0.016	-0.0001	0.0014	13:02:16	No
Mean:	-0.012	-0.012	-0.0001			
SD :	0.0051	0.0051	0.0000			
%RSD:	42.3	42.3	54.3606			

=====
 Element: Hg Seq. No.: 101 AS Loc.: 68 Date: 02/25/2010
 Sample ID: 247322002|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.040	-0.040	-0.0002	0.0012	13:03:37	No
2	-0.016	-0.016	-0.0001	0.0014	13:04:11	No
Mean:	-0.028	-0.028	-0.0002			
SD :	0.0170	0.0170	0.0001			
%RSD:	61.5	61.5	68.0719			

=====
 Element: Hg Seq. No.: 102 AS Loc.: 69 Date: 02/25/2010
 Sample ID: 247335001|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.046	-0.046	-0.0003	0.0012	13:05:33	No
2	-0.033	-0.033	-0.0002	0.0013	13:06:08	No
Mean:	-0.039	-0.039	-0.0002			
SD :	0.0094	0.0094	0.0001			
%RSD:	23.8	23.8	25.4861			

=====
 Element: Hg Seq. No.: 103 AS Loc.: 70 Date: 02/25/2010
 Sample ID: 247339001|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.063	-0.063	-0.0004	0.0011	13:07:30	No
2	-0.074	-0.074	-0.0005	0.0010	13:08:05	No
Mean:	-0.068	-0.068	-0.0004			
SD :	0.0077	0.0077	0.0001			
%RSD:	11.3	11.3	11.7966			

=====
 Element: Hg Seq. No.: 104 AS Loc.: 71 Date: 02/25/2010
 Sample ID: 247339002|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.066	-0.066	-0.0004	0.0011	13:09:28	No
2	-0.070	-0.070	-0.0004	0.0010	13:10:03	No
Mean:	-0.068	-0.068	-0.0004			
SD :	0.0029	0.0029	0.0000			
%RSD:	4.2	4.2	4.3655			

=====
 Element: Hg Seq. No.: 105 AS Loc.: 7 Date: 02/25/2010
 Sample ID: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Time	Peak
------	------------	---------	---------	------	------	------

#	µg/L	µg/L	Signal	Height		Stored
1	5.211	5.211	0.0343	0.0358	13:11:29	No
2	5.179	5.179	0.0341	0.0356	13:12:04	No
Mean:	5.195	5.195	0.0342			
SD :	0.0223	0.0223	0.0001			
%RSD:	0.4	0.4	0.4289			

QC value within specified limits.

=====

Element: Hg Seq. No.: 106 AS Loc.: 8 Date: 02/25/2010

Sample ID: CCB

Repl #	SampleConc µg/L	StdConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	-0.046	-0.046	-0.0003	0.0012	13:13:32	No
2	-0.053	-0.053	-0.0003	0.0011	13:14:07	No
Mean:	-0.050	-0.050	-0.0003			
SD :	0.0052	0.0052	0.0000			
%RSD:	10.6	10.6	11.1757			

QC value within specified limits.

=====

Element: Hg Seq. No.: 107 AS Loc.: 72 Date: 02/25/2010

Sample ID: 247350001|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	-0.061	-0.061	-0.0004	0.0011	13:15:32	No
2	-0.057	-0.057	-0.0004	0.0011	13:16:06	No
Mean:	-0.059	-0.059	-0.0004			
SD :	0.0028	0.0028	0.0000			
%RSD:	4.8	4.8	5.0087			

=====

Element: Hg Seq. No.: 108 AS Loc.: 73 Date: 02/25/2010

Sample ID: 247424001|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	-0.039	-0.039	-0.0002	0.0012	13:17:30	No
2	-0.037	-0.037	-0.0002	0.0013	13:18:05	No
Mean:	-0.038	-0.038	-0.0002			
SD :	0.0016	0.0016	0.0000			
%RSD:	4.2	4.2	4.5125			

=====

Element: Hg Seq. No.: 109 AS Loc.: 74 Date: 02/25/2010

Sample ID: 247458001|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	-0.037	-0.037	-0.0002	0.0013	13:19:29	No
2	-0.043	-0.043	-0.0003	0.0012	13:20:03	No
Mean:	-0.040	-0.040	-0.0002			
SD :	0.0042	0.0042	0.0000			
%RSD:	10.4	10.4	11.1477			

=====

Element: Hg Seq. No.: 110 AS Loc.: 75 Date: 02/25/2010

Sample ID: 247540001|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	-0.039	-0.039	-0.0002	0.0012	13:21:27	No
2	-0.061	-0.061	-0.0004	0.0011	13:22:02	No
Mean:	-0.050	-0.050	-0.0003			
SD :	0.0156	0.0156	0.0001			

%RSD: 31.2 31.2 32.9893

=====
 Element: Hg Seq. No.: 111 AS Loc.: 76 Date: 02/25/2010
 Sample ID: 247548001|i|||

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	-0.048	-0.048	-0.0003	0.0012	13:23:29	No
2	-0.042	-0.042	-0.0003	0.0012	13:24:04	No
Mean:	-0.045	-0.045	-0.0003			
SD :	0.0045	0.0045	0.0000			
%RSD:	9.9	9.9	10.4989			

=====
 Element: Hg Seq. No.: 112 AS Loc.: 77 Date: 02/25/2010
 Sample ID: 1202052036|i|||DUP

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	-0.062	-0.062	-0.0004	0.0011	13:25:30	No
2	-0.063	-0.063	-0.0004	0.0011	13:26:05	No
Mean:	-0.062	-0.062	-0.0004			
SD :	0.0003	0.0003	0.0000			
%RSD:	0.5	0.5	0.5072			

=====
 Element: Hg Seq. No.: 113 AS Loc.: 78 Date: 02/25/2010
 Sample ID: 1202052037|i|||MS

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	2.257	2.257	0.0149	0.0164	13:27:27	No
2	2.246	2.246	0.0148	0.0163	13:28:02	No
Mean:	2.252	2.252	0.0148			
SD :	0.0078	0.0078	0.0001			
%RSD:	0.3	0.3	0.3455			

=====
 Element: Hg Seq. No.: 114 AS Loc.: 79 Date: 02/25/2010
 Sample ID: 1202052041|i|5|SDILT

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	-0.109	-0.109	-0.0007	0.0008	13:29:21	No
2	-0.095	-0.095	-0.0006	0.0009	13:29:56	No
Mean:	-0.102	-0.102	-0.0007			
SD :	0.0094	0.0094	0.0001			
%RSD:	9.3	9.3	9.5254			

=====
 Element: Hg Seq. No.: 115 AS Loc.: 80 Date: 02/25/2010
 Sample ID: 247548002|i|||

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	-0.073	-0.073	-0.0005	0.0010	13:31:16	No
2	-0.037	-0.037	-0.0002	0.0013	13:31:50	No
Mean:	-0.055	-0.055	-0.0003			
SD :	0.0256	0.0256	0.0002			
%RSD:	46.6	46.6	48.9887			

=====
 Element: Hg Seq. No.: 116 AS Loc.: 81 Date: 02/25/2010
 Sample ID: 247559001|i|||

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
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#	µg/L	µg/L	Signal	Height		Stored
1	-0.055	-0.055	-0.0003	0.0011	13:33:10	No
2	-0.060	-0.060	-0.0004	0.0011	13:33:46	No
Mean:	-0.057	-0.057	-0.0004			
SD :	0.0031	0.0031	0.0000			
%RSD:	5.4	5.4	5.6309			

=====
 Element: Hg Seq. No.: 117 AS Loc.: 7 Date: 02/25/2010
 Sample ID: CCV

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	5.524	5.524	0.0364	0.0379	13:35:10	No
2	5.556	5.556	0.0366	0.0381	13:35:45	No
Mean:	5.540	5.540	0.0365			
SD :	0.0221	0.0221	0.0001			
%RSD:	0.4	0.4	0.3993			

QC failed, value greater than upper limit for Hg.
 Current analysis method being continued.

=====
 Element: Hg Seq. No.: 118 AS Loc.: 8 Date: 02/25/2010
 Sample ID: CCB

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.005	0.005	0.0000	0.0015	13:37:13	No
2	-0.142	-0.142	-0.0009	0.0006	13:37:48	No
Mean:	-0.069	-0.069	-0.0004			
SD :	0.1036	0.1036	0.0007			
%RSD:	151.1	151.1	157.2977			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 119 AS Loc.: 82 Date: 02/25/2010
 Sample ID: 247560001|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.012	-0.012	-0.0001	0.0014	13:39:12	No
2	0.012	0.012	0.0001	0.0016	13:39:47	No
Mean:	0.000	0.000	0.0000			
SD :	0.0172	0.0172	0.0001			
%RSD:	7437	7437	589.4619			

=====
 Element: Hg Seq. No.: 120 AS Loc.: 83 Date: 02/25/2010
 Sample ID: 247567001|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.007	0.007	0.0001	0.0015	13:41:09	No
2	-0.006	-0.006	0.0000	0.0015	13:41:44	No
Mean:	0.000	0.000	0.0000			
SD :	0.0087	0.0087	0.0001			
%RSD:	2194	2194	281.1419			

=====
 Element: Hg Seq. No.: 121 AS Loc.: 84 Date: 02/25/2010
 Sample ID: 1202049850|i||956966|TB

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.020	0.020	0.0001	0.0016	13:43:06	No
2	0.028	0.028	0.0002	0.0017	13:43:41	No
Mean:	0.024	0.024	0.0002			

Repl #	SampleConc µg/L	StdndConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.091	-0.091	-0.0006	0.0009	13:54:56	No
2	-0.097	-0.097	-0.0006	0.0009	13:55:31	No
Mean:	-0.094	-0.094	-0.0006			
SD :	0.0044	0.0044	0.0000			
%RSD:	4.7	4.7	4.8024			

=====
 Element: Hg Seq. No.: 128 AS Loc.: 91 Date: 02/25/2010
 Sample ID: 246689002|i|||

Repl #	SampleConc µg/L	StdndConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.031	0.031	0.0002	0.0017	13:56:57	No
2	0.012	0.012	0.0001	0.0016	13:57:33	No
Mean:	0.021	0.021	0.0002			
SD :	0.0133	0.0133	0.0001			
%RSD:	62.3	62.3	55.3296			

=====
 Element: Hg Seq. No.: 129 AS Loc.: 7 Date: 02/25/2010
 Sample ID: CCV

Repl #	SampleConc µg/L	StdndConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	5.721	5.721	0.0377	0.0392	13:58:59	No
2	5.543	5.543	0.0365	0.0380	13:59:34	No
Mean:	5.632	5.632	0.0371			
SD :	0.1260	0.1260	0.0008			
%RSD:	2.2	2.2	2.2358			

QC failed, value greater than upper limit for Hg.
 Current analysis method being continued.

=====
 Element: Hg Seq. No.: 130 AS Loc.: 8 Date: 02/25/2010
 Sample ID: CCB

Repl #	SampleConc µg/L	StdndConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.005	0.005	0.0001	0.0015	14:01:02	No
2	0.022	0.022	0.0002	0.0016	14:01:37	No
Mean:	0.013	0.013	0.0001			
SD :	0.0116	0.0116	0.0001			
%RSD:	86.2	86.2	71.8641			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 131 AS Loc.: 92 Date: 02/25/2010
 Sample ID: 246689003|i|||

Repl #	SampleConc µg/L	StdndConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.001	0.001	0.0000	0.0015	14:03:01	No
2	0.008	0.008	0.0001	0.0016	14:03:35	No
Mean:	0.005	0.005	0.0000			
SD :	0.0054	0.0054	0.0000			
%RSD:	115.0	115.0	72.9472			

=====
 Element: Hg Seq. No.: 132 AS Loc.: 93 Date: 02/25/2010
 Sample ID: 246689004|i|||

Repl #	SampleConc µg/L	StdndConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.012	-0.012	-0.0001	0.0014	14:04:54	No
2	-0.012	-0.012	-0.0001	0.0014	14:05:29	No

Miscellaneous

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: 955807.0

Analyst: Barry Audain

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Sartorius Balance B-001

Verified by:

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202049257	Metals Spike Mix I	U1100205-01	.25	mL
LCS	1202049257	Metals Spike Mix II	U1100205-06	.25	mL
MS	1202049259	Metals Spike Mix I	U1100205-01	.25	mL
MS	1202049259	Metals Spike Mix II	U1100205-06	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202049256 MB	24-FEB-2010 17:47:00	Water	50	50	1	<2
1202049257 LCS	24-FEB-2010 17:47:00	Water	50	50	1	<2
247540001	24-FEB-2010 17:47:00	Water	50	50	1	<2
247548001	24-FEB-2010 17:47:00	Water	50	50	1	<2
1202049258 DUP (247548001)	24-FEB-2010 17:47:00	Water	50	50	1	<2
1202049259 MS (247548001)	24-FEB-2010 17:47:00	Water	50	50	1	<2
1202049260 SDILT (247548001)	24-FEB-2010 17:47:00	Water	50	50	1	<2
247548002	24-FEB-2010 17:47:00	Water	50	50	1	<2
247560001	24-FEB-2010 17:47:00	Water	50	50	1	<2
247567001	24-FEB-2010 17:47:00	Water	50	50	1	<2

Comments:

Reagent/Solvent Lot ID	Description	Amount
1265209	HYDROCHLORIC ACID	2.5 mL
1268732	Nitric Acid CONC.	1 mL

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: 955809.0

Verified by:

Analyst: Barry Audain

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202049262	ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).	U1100205-A	.5	mL
LCS	1202049262	MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).	U1100205-B	.5	mL
MS	1202049264	ICP-MS DOE liquid Spike Solution A	U1090930-A	.5	mL
MS	1202049264	ICP-MS DOE Liquid Spike Solution B	U1090930-B	.5	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202049261 MB	24-FEB-2010 17:52:00	Water	50	50	1	<2
1202049262 LCS	24-FEB-2010 17:52:00	Water	50	50	1	<2
247540001	24-FEB-2010 17:52:00	Water	50	50	1	<2
247548001	24-FEB-2010 17:52:00	Water	50	50	1	<2
1202049263 DUP (247548001)	24-FEB-2010 17:52:00	Water	50	50	1	<2
1202049264 MS (247548001)	24-FEB-2010 17:52:00	Water	50	50	1	<2
1202049265 SDILT (247548001)	24-FEB-2010 17:52:00	Water	50	50	1	<2
247548002	24-FEB-2010 17:52:00	Water	50	50	1	<2
247560001	24-FEB-2010 17:52:00	Water	50	50	1	<2
247567001	24-FEB-2010 17:52:00	Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount	Comments:
1265209	HYDROCHLORIC ACID	2.5 mL	
1268732	Nitric Acid CONC.	1 mL	

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: 957032.0
Analyst: Tara Griffin
Method: SW846 7470A Prep
Lab SOP: GL-MA-E-010 REV# 23
Instrument: No analytical instrument

Verified by: _____

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
1202052034 MB	24-FEB-2010 12:10:00	Water	20	20	1	<2	LCS	1202052035	Mercury working intermediate standard for LCS/MS	WHG100224-13	.2	mL
1202052035 LCS	24-FEB-2010 12:10:00	Water	20	20	1	<2	MS	1202052037	Mercury working intermediate standard for LCS/MS	WHG100224-13	.2	mL
247182001	24-FEB-2010 12:10:00	Water	20	20	1	<2						
247192001	24-FEB-2010 12:10:00	Water	20	20	1	<2						
247250001	24-FEB-2010 12:10:00	Water	20	20	1	<2						
247250002	24-FEB-2010 12:10:00	Water	20	20	1	<2						
247256001	24-FEB-2010 12:10:00	Water	20	20	1	<2						
247256002	24-FEB-2010 12:10:00	Water	20	20	1	<2						
247322001	24-FEB-2010 12:10:00	Water	20	20	1	<2						
247322002	24-FEB-2010 12:10:00	Water	20	20	1	<2						
247335001	24-FEB-2010 12:10:00	Water	20	20	1	<2						
247339001	24-FEB-2010 12:10:00	Water	20	20	1	<2						
247339002	24-FEB-2010 12:10:00	Water	20	20	1	<2						
247350001	24-FEB-2010 12:10:00	Water	20	20	1	<2						
247424001	24-FEB-2010 12:10:00	Water	20	20	1	<2						
247458001	24-FEB-2010 12:10:00	Water	20	20	1	<2						
247540001	24-FEB-2010 12:10:00	Water	20	20	1	<2						
247548001	24-FEB-2010 12:10:00	Water	20	20	1	<2						
1202052036 DUP (247548001)	24-FEB-2010 12:10:00	Water	20	20	1	<2						
1202052037 MS (247548001)	24-FEB-2010 12:10:00	Water	20	20	1	<2						
1202052041 SDILT (247548001)	24-FEB-2010 12:10:00	Water	20	20	1	<2						
247548002	24-FEB-2010 12:10:00	Water	20	20	1	<2						
247559001	24-FEB-2010 12:10:00	Water	20	20	1	<2						
247560001	24-FEB-2010 12:10:00	Water	20	20	1	<2						
247567001	24-FEB-2010 12:10:00	Water	20	20	1	<2						

Reagent/Solvent Lot ID	Description	Amount	Comments:
	Analytical Logbook version 1 11-04-2002		GEL Laboratories LLC

Prep Logbook

Batch ID: 957032.0
Analyst: Tara Griffin
Method: SW846 7470A Prep
Lab SOP: GL-MA-E-010 REV# 23
Instrument: No analytical instrument

Verified by: _____

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check	Serial Number	Spike Amount	Spike Units
1176183	Sulfuric Acid, Concentrated		1 mL						
125532-C	Hg reducing agent		1 mL				WHG100224-13	.2	mL
1261483-C	5% Potassium Persulfate		1.5 mL						
1274391-I	NITRIC ACID		.5 mL				WHG100224-13	.2	mL
1274397-C	5% KMnO4 solution		3 mL						
WHG100224-01a	Mercury Working 1st Source CAL 0.2/CRA		20 uL						
WHG100224-02	Mercury Working 1st Source CAL 0.5		50 uL						
WHG100224-03	Mercury Working 1st Source CAL 2.0		200 uL						
WHG100224-04	Mercury Working 1st Source CAL 5.0/CCV		500 uL						
WHG100224-05	Mercury Working 1st Source CAL 10.0		1 mL						
WHG100224-06	Mercury Working 2nd Source 5.0/ICV		500 uL						

Digestion Start Date: 24-FEB-10 12:10
 Digestion End Date: 24-FEB-10 14:10

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: UI090421-40 **Opened:** 09-OCT-09 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 21-APR-09 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 09-OCT-10 **Lot Number :** 0830227
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

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

Standard Logbook

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		

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
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: O2SI
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

Standard Logbook

Analyte	Concentration	Analyte	Concentration
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
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: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Standard Logbook

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI090930-A **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE liquid Spike Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI090930-B **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L +/- 0.3% in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H2O/tr HF
Supplier: ENVIRONMENTAL EXPRESS
Description: SILICON 1000mg/L H2O/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: 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: Q2SI
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: OSI
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: UI100205-01 **Opened:** 05-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 05-FEB-10
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: OSI
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI100205-06 **Opened:** 05-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 05-FEB-10
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: OSI
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
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI100205-A **Opened:** 05-FEB-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 05-FEB-10 **Lot Number :** 1018516
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI100205-B **Opened:** 05-FEB-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 05-FEB-10 **Lot Number :** 1018516
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Standard Logbook

Serial ID: UI100217-48 **Opened:** 04-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 17-FEB-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 19-MAR-10 **Lot Number :** 1018878
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: 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

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI100312-40 **Opened:** 14-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 12-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 14-MAR-11 **Lot Number :** 1018981
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO₃
Supplier: O2SI
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

Standard Logbook

Analyte	Concentration	Analyte	Concentration
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: UI100312-41 **Opened:** 14-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 12-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 14-MAR-11 **Lot Number :** 1018981
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
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100317-06 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-MAR-10 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019161
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: UI100317-07 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-MAR-10 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019162
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
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: UI100317-08 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-MAR-10 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019163
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: UI100318-11 **Opened:** 18-MAR-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 18-MAR-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 18-MAR-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UMS100226-01 **Opened:** 26-FEB-10 **Amount :** 250 mL
Name: ICPMS CalSPIKEB **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

Standard Logbook

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: ICPMSCalSPIKEA 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		

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: IHG100224-01 Opened: 24-FEB-10 Instrument Id : Mercury
 Name: MHGINTER1 Received: 24-FEB-10 Pipet Id : Minou1
 Type: Intermediate Expires: 25-FEB-10 Solvent : 1mL HNO3 + Typel H2O
 Employee: Tara Griffin
 Supplier: GEL

Standard Logbook

Description: Mercury Intermediate 1st Source 200 ug/L

Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100224-02 Opened: 24-FEB-10 Pipet Id : Minou1
 Name: MHGINTER2 Received: 24-FEB-10 Solvent : 2% HNO3-1274391
 Type: Intermediate Expires: 25-FEB-10
 Employee: Tara Griffin
 Supplier: GEL
 Description: Mercury Intermediate 2nd Source 200 ug/L
 Comments: None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100224-01a Opened: 24-FEB-10 Pipet Id : Hg1289245
 Name: MHGWORKCAL0.2CRA Received: 24-FEB-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 25-FEB-10
 Employee: Tara Griffin
 Supplier: GEL
 Description: Mercury Working 1st Source CAL 0.2/CRA
 Comments: None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
IHG100224-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Serial ID: WHG100224-02 Opened: 24-FEB-10 Pipet Id : Hg1289245
 Name: MHGWORKCAL0.5 Received: 24-FEB-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 25-FEB-10
 Employee: Tara Griffin
 Supplier: GEL
 Description: Mercury Working 1st Source CAL 0.5
 Comments: None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
IHG100224-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG100224-03 Opened: 24-FEB-10 Pipet Id : Hg1289245
 Name: MHGWORKCAL2.0 Received: 24-FEB-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 25-FEB-10
 Employee: Tara Griffin Verified: 20-JUL-07
 Supplier: GEL
 Description: Mercury Working 1st Source CAL 2.0

Standard Logbook

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100224-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG100224-04 Opened: 24-FEB-10 Pipet Id : Hg1289245
 Name: MHGWORKCAL5.0CCV Received: 24-FEB-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 25-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.
IHG100224-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100224-05 Opened: 24-FEB-10 Pipet Id : Hg1289245
 Name: MHGWORKCAL10.0 Received: 24-FEB-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 25-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.
IHG100224-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Serial ID: WHG100224-06 Opened: 24-FEB-10 Pipet Id : Hg1289245
 Name: MHGWORK5.0ICV Received: 24-FEB-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 25-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.
IHG100224-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100224-13 Opened: 24-FEB-10 Pipet Id : Hg1289245
 Name: MHGLIQLCSMSSPIKE Received: 24-FEB-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 25-FEB-10
 Employee: Tara Griffin Verified: 20-JUL-07
 Supplier: GEL
 Description: Mercury working intermediate standard for LCS/MS
 Comments: None

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: WI100317-42 **Opened:** 17-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 18-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1285629
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.
WI100317-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100317-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100317-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100317-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100317-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100317-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100317-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100317-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100317-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100317-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100317-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Serial ID: WI100317-43 **Opened:** 17-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 18-MAR-10 **Solvent :** 3%HCL and 1%HNO3 --1285629
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.
UI090421-40	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: W1100317-44 **Opened:** 17-MAR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 18-MAR-10 **Solvent :** 3%HCL and 1 %HNO3-1285629
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100317-45 **Opened:** 17-MAR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 18-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1285629
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
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

Serial ID: WI100317-46 **Opened:** 17-MAR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 18-MAR-10 **Solvent :** 3%HCL AND 1%HNO3-1285629
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100317-47 **Opened:** 17-MAR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 18-MAR-10 **Solvent :** 3%HCL &1%HNO3-1285629
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Allquot	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: WMS100318-04 **Opened:** 18-MAR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 18-MAR-10 **Balance Id :** 4025216
Type: Working **Expires:** 19-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1285348
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Allquot	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
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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: WMS100318-04A **Opened:** 18-MAR-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 18-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 19-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1285348
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100318-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100318-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100318-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100318-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100318-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100318-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100318-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100318-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100318-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100318-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100318-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: <u>WMS100318-05</u>	Opened: <u>18-MAR-10</u>	Balance Id : <u>40245216</u>
Name: <u>ICPMS ICV</u>	Received: <u>18-MAR-10</u>	Pipet Id : <u>3541598</u>
Type: <u>Working</u>	Expires: <u>19-MAR-10</u>	Solvent : <u>2%HNO3/1%HCl - 1285348</u>
Employee: <u>Paul Boyd</u>		
Supplier: <u>GEL</u>		
Description: <u>ICPMS ICV</u>		
Comments: <u>None</u>		

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100318-06
Name: ICPMS CRDL
Type: Working
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Opened: 18-MAR-10 **Balance Id :** 40245216
Received: 18-MAR-10 **Pipet Id :** 3820544
Expires: 19-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1285348

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: WMS100318-07 **Opened:** 18-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 18-MAR-10 **Lot Number :** 1010773
Type: Working **Expires:** 19-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1285348
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: WMS100318-08 **Opened:** 18-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 18-MAR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 19-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1285348
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: WMS100319-04AB **Opened:** 19-MAR-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 19-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 20-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1285348
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100319-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100319-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100319-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100319-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100319-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100319-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100319-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100319-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100319-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100319-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100319-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100319-04B **Opened:** 19-MAR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 19-MAR-10 **Balance Id :** 40245216
Type: Working **Expires:** 20-MAR-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1285348
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Allquot	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: WMS100319-05B **Opened:** 19-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 19-MAR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 20-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1285348
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100319-06B **Opened:** 19-MAR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 19-MAR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 20-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1285348
Employee: Rose Jenkins **Verified:** 06-MAR-10
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: WMS100319-07B **Opened:** 19-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 19-MAR-10 **Lot Number :** 1010773
Type: Working **Expires:** 20-MAR-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1285348
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100318-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100318-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100318-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100319-08B **Opened:** 19-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 19-MAR-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 20-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1285348
Employee: Rose Jenkins
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
UI100318-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100318-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100318-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100320-04 **Opened:** 20-MAR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 20-MAR-10 **Balance Id :** 4025216
Type: Working **Expires:** 21-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1285348
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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
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: WMS100320-04A **Opened:** 20-MAR-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 20-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 21-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1285348
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100320-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100320-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100320-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100320-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100320-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100320-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100320-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100320-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100320-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100320-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100320-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100320-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100320-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100320-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100320-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100320-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100320-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100320-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100320-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100320-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100320-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100320-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100320-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100320-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100320-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100320-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100320-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100320-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100320-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100320-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100320-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100320-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100320-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100320-05 **Opened:** 20-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 20-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 21-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1285348
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100320-06 **Opened:** 20-MAR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 20-MAR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 21-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1285348
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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

Serial ID: WMS100320-07 **Opened:** 20-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 20-MAR-10 **Lot Number :** 1010773
Type: Working **Expires:** 21-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1285348
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100318-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100318-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100318-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS100320-08 **Opened:** 20-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 20-MAR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 21-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1285348
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Allquot	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
UI100318-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100318-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100318-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	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.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: 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: 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: 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.

Standard Logbook

Comments: None

Serial ID: 1274391-1 Opened: 24-FEB-10 Instrument Id : MERCURY
 Name: B-HNO3-MER Received: 24-FEB-10 Lot Number : H44025
 Type: Reagent/Solvent Expires: 24-FEB-11
 Employee: Tara Griffin
 Supplier: Mallinckrodt Chemicals
 Description: NITRIC ACID
 Comments: None

Serial ID: 1274397-C Opened: 24-FEB-10 Balance Id : BAL-002
 Name: B-KMnO4-MER Received: 24-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: 1285348 Opened: 15-MAR-10 Solvent : Type I Water
 Name: B-2%HNO3/1%HCl-ICPMS Received: 15-MAR-10
 Type: Reagent/Solvent Expires: 22-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

Serial ID: 1285629 Opened: 15-MAR-10 Amount : 20 L
 Name: B-ICP-RINSE SOLN Received: 05-MAR-10 Lot Number : H04040+G34050
 Type: Reagent/Solvent Expires: 21-MAR-10 Solvent : 3%HCL+1%HNO3
 Employee: Helen Camello
 Supplier: GEL
 Description: 3%HCL+1%HNO3 RINSE SOLN.
 Comments: None

Metals Analysis

Case Narrative

**Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1951-1**

Sample Analysis

Sample ID	Client ID
247561001	RE15-10-8314
247561002	RE15-10-8313
247561003	RE15-10-8312
247561004	RE15-10-8315
247561005	RE15-10-8311
247561006	RE15-10-8310
247561007	RE15-10-8303
247561008	RE15-10-8302
1202049278	Method Blank (MB) ICP
1202049283	Laboratory Control Sample (LCS)
1202049280	247561001(RE15-10-8314L) Serial Dilution (SD)
1202049279	247561001(RE15-10-8314D) Sample Duplicate (DUP)
1202049281	247561001(RE15-10-8314S) Matrix Spike (MS)
1202049282	247561001(RE15-10-8314SD) Matrix Spike Duplicate (MSD)
1202049284	Method Blank (MB) ICP-MS
1202049289	Laboratory Control Sample (LCS)
1202049286	247561001(RE15-10-8314L) Serial Dilution (SD)
1202049285	247561001(RE15-10-8314D) Sample Duplicate (DUP)
1202049287	247561001(RE15-10-8314S) Matrix Spike (MS)
1202049288	247561001(RE15-10-8314SD) Matrix Spike Duplicate (MSD)

1202055973	Method Blank (MB) CVAA
1202055974	Laboratory Control Sample (LCS)
1202055977	247558001(RE16-10-1514L) Serial Dilution (SD)
1202055975	247558001(RE16-10-1514D) Sample Duplicate (DUP)
1202055976	247558001(RE16-10-1514S) Matrix Spike (MS)
1202055978	247558001(RE16-10-1514SD) Matrix Spike Duplicate (MSD)

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

Method/Analysis Information

Analytical Batch:	955816, 955818 and 958657
Prep Batch :	955815, 955817 and 958644
Standard Operating Procedures:	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
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	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 standards met the advisory control limits with the exceptions of thallium and uranium, which recovered outside of the advisory limits of 70-130%.

ICSA/ICSAB Statement

All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements

All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements

All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement

The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement

The following samples were selected as the quality control (QC) samples for this SDG: 247561001 (RE15-10-8314) and 247558001 (RE16-10-1514).

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 calcium, magnesium, potassium, sodium and selenium, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement

The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of calcium, magnesium and potassium, as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement

The relative percent difference (RPD) obtained from the designated matrix spike duplicate (MSD) is evaluated based on acceptance criteria of 20%. The RPD between qualifying elements results in the MS and MSD were within the acceptance limits of 20% with the exception of calcium, as indicated by the "*" qualifiers.

Duplicate Relative Percent Difference (RPD) Statement

The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exceptions of calcium, iron, uranium and zinc, 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 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: 806530 and 807237. 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 Pausen Date: 3/23/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1951-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247561001

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8314

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 97.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2580000	ug/Kg		6670	19600	19600	1	P	HSC	03/19/10 07:37	031910D-1	955816
7440-36-0	Antimony	981	ug/Kg	U	324	981	981	1	P	HSC	03/19/10 07:37	031910D-1	955816
7440-38-2	Arsenic	0.942	mg/kg	J	0.204	1.02	1.02	2	MS	SKJ	03/19/10 18:12	100319-3	955818
7440-39-3	Barium	35900	ug/Kg		98.1	491	491	1	P	HSC	03/19/10 07:37	031910D-1	955816
7440-41-7	Beryllium	0.447	mg/kg		0.0204	0.102	0.102	2	MS	SKJ	03/19/10 18:12	100319-3	955818
7440-43-9	Cadmium	112	ug/Kg	J	98.1	491	491	1	P	HSC	03/19/10 07:37	031910D-1	955816
7440-70-2	Calcium	954000	ug/Kg	*N	7850	24500	24500	1	P	HSC	03/19/10 07:37	031910D-1	955816
7440-47-3	Chromium	2160	ug/Kg		147	491	491	1	P	HSC	03/19/10 07:37	031910D-1	955816
7440-48-4	Cobalt	862	ug/Kg		147	491	491	1	P	HSC	03/19/10 07:37	031910D-1	955816
7440-50-8	Copper	2730	ug/Kg		294	981	981	1	P	HSC	03/19/10 07:37	031910D-1	955816
7439-89-6	Iron	7670000	ug/Kg	*	7850	24500	24500	1	P	HSC	03/19/10 07:37	031910D-1	955816
7439-92-1	Lead	5380	ug/Kg		245	981	981	1	P	HSC	03/19/10 07:37	031910D-1	955816
7439-95-4	Magnesium	459000	ug/Kg	N	8340	29400	29400	1	P	HSC	03/19/10 07:37	031910D-1	955816
7439-96-5	Manganese	229000	ug/Kg		196	981	981	1	P	HSC	03/19/10 07:37	031910D-1	955816
7439-97-6	Mercury	10.8	ug/kg	U	3.67	10.8	10.8	1	AV	JXL1	03/02/10 15:05	030210S1-4	958657
7440-02-0	Nickel	2.31	mg/kg		0.102	0.409	0.409	2	MS	SKJ	03/19/10 18:12	100319-3	955818
7440-09-7	Potassium	624000	ug/Kg	N	6280	24500	24500	1	P	HSC	03/19/10 07:37	031910D-1	955816
7782-49-2	Selenium	1.02	mg/kg	UN	0.511	1.02	1.02	2	MS	SKJ	03/19/10 05:20	100318-2	955818
7440-22-4	Silver	491	ug/Kg	U	98.1	491	491	1	P	HSC	03/19/10 07:37	031910D-1	955816
7440-23-5	Sodium	269000	ug/Kg	N	6870	24500	24500	1	P	HSC	03/19/10 07:37	031910D-1	955816
7440-28-0	Thallium	0.0732	mg/kg	J	0.0613	0.204	0.204	2	MS	SKJ	03/19/10 05:20	100318-2	955818
7440-61-1	Uranium	1.37	mg/kg	*	0.0135	0.0409	0.0409	2	MS	SKJ	03/19/10 18:12	100319-3	955818
7440-62-2	Vanadium	5680	ug/Kg		98.1	491	491	1	P	HSC	03/19/10 07:37	031910D-1	955816
7440-66-6	Zinc	33800	ug/Kg	*	324	981	981	1	P	HSC	03/19/10 07:37	031910D-1	955816

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955816	955815	SW846 3050B	0.524	g	50	mL	02/25/10	AXG2
955818	955817	SW846 3050B	0.503	g	50	mL	02/25/10	AXG2
958657	958644	SW846 7471A Prep	0.571	g	30	mL	03/01/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1951-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247561002

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8313

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 96.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2630000	ug/Kg		6590	19400	19400	1	P	HSC	03/19/10 08:03	031910D-1	955816
7440-36-0	Antimony	530	ug/Kg	J	320	969	969	1	P	HSC	03/19/10 08:03	031910D-1	955816
7440-38-2	Arsenic	0.897	mg/kg	J	0.207	1.03	1.03	2	MS	SKJ	03/19/10 18:36	100319-3	955818
7440-39-3	Barium	36100	ug/Kg		96.9	485	485	1	P	HSC	03/19/10 08:03	031910D-1	955816
7440-41-7	Beryllium	0.368	mg/kg		0.0207	0.103	0.103	2	MS	SKJ	03/19/10 18:36	100319-3	955818
7440-43-9	Cadmium	147	ug/Kg	J	96.9	485	485	1	P	HSC	03/19/10 08:03	031910D-1	955816
7440-70-2	Calcium	2100000	ug/Kg	*N	7750	24200	24200	1	P	HSC	03/19/10 08:03	031910D-1	955816
7440-47-3	Chromium	2110	ug/Kg		145	485	485	1	P	HSC	03/19/10 08:03	031910D-1	955816
7440-48-4	Cobalt	817	ug/Kg		145	485	485	1	P	HSC	03/19/10 08:03	031910D-1	955816
7440-50-8	Copper	3650	ug/Kg		291	969	969	1	P	HSC	03/19/10 08:03	031910D-1	955816
7439-89-6	Iron	7910000	ug/Kg	*	7750	24200	24200	1	P	HSC	03/19/10 08:03	031910D-1	955816
7439-92-1	Lead	8810	ug/Kg		242	969	969	1	P	HSC	03/19/10 08:03	031910D-1	955816
7439-95-4	Magnesium	470000	ug/Kg	N	8240	29100	29100	1	P	HSC	03/19/10 08:03	031910D-1	955816
7439-96-5	Manganese	196000	ug/Kg		194	969	969	1	P	HSC	03/19/10 08:03	031910D-1	955816
7439-97-6	Mercury	4.22	ug/kg	J	3.95	11.6	11.6	1	AV	JXL1	03/02/10 15:07	030210S1-4	958657
7440-02-0	Nickel	2.44	mg/kg		0.103	0.413	0.413	2	MS	SKJ	03/19/10 18:36	100319-3	955818
7440-09-7	Potassium	464000	ug/Kg	N	6200	24200	24200	1	P	HSC	03/19/10 08:03	031910D-1	955816
7782-49-2	Selenium	1.03	mg/kg	UN	0.517	1.03	1.03	2	MS	SKJ	03/19/10 05:38	100318-2	955818
7440-22-4	Silver	117	ug/Kg	J	96.9	485	485	1	P	HSC	03/19/10 08:03	031910D-1	955816
7440-23-5	Sodium	192000	ug/Kg	N	6790	24200	24200	1	P	HSC	03/19/10 08:03	031910D-1	955816
7440-28-0	Thallium	0.207	mg/kg	U	0.062	0.207	0.207	2	MS	SKJ	03/19/10 05:38	100318-2	955818
7440-61-1	Uranium	4.7	mg/kg	*	0.0136	0.0413	0.0413	2	MS	SKJ	03/19/10 18:36	100319-3	955818
7440-62-2	Vanadium	5470	ug/Kg		96.9	485	485	1	P	HSC	03/19/10 08:03	031910D-1	955816
7440-66-6	Zinc	45800	ug/Kg	*	320	969	969	1	P	HSC	03/19/10 08:03	031910D-1	955816

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955816	955815	SW846 3050B	0.535	g	50	mL	02/25/10	AXG2
955818	955817	SW846 3050B	0.502	g	50	mL	02/25/10	AXG2
958657	958644	SW846 7471A Prep	0.535	g	30	mL	03/01/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1951-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247561003

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8312

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 94.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3580000	ug/Kg		7040	20700	20700	1	P	HSC	03/19/10 08:07	031910D-1	955816
7440-36-0	Antimony	800	ug/Kg	J	342	1040	1040	1	P	HSC	03/19/10 08:07	031910D-1	955816
7440-38-2	Arsenic	1.03	mg/kg		0.199	0.995	0.995	2	MS	SKJ	03/19/10 18:39	100319-3	955818
7440-39-3	Barium	49200	ug/Kg		104	518	518	1	P	HSC	03/19/10 08:07	031910D-1	955816
7440-41-7	Beryllium	0.452	mg/kg		0.0199	0.0995	0.0995	2	MS	SKJ	03/19/10 18:39	100319-3	955818
7440-43-9	Cadmium	188	ug/Kg	J	104	518	518	1	P	HSC	03/19/10 08:07	031910D-1	955816
7440-70-2	Calcium	2670000	ug/Kg	*N	8290	25900	25900	1	P	HSC	03/19/10 08:07	031910D-1	955816
7440-47-3	Chromium	3000	ug/Kg		155	518	518	1	P	HSC	03/19/10 08:07	031910D-1	955816
7440-48-4	Cobalt	1090	ug/Kg		155	518	518	1	P	HSC	03/19/10 08:07	031910D-1	955816
7440-50-8	Copper	4210	ug/Kg		311	1040	1040	1	P	HSC	03/19/10 08:07	031910D-1	955816
7439-89-6	Iron	9080000	ug/Kg	*	8290	25900	25900	1	P	HSC	03/19/10 08:07	031910D-1	955816
7439-92-1	Lead	9490	ug/Kg		259	1040	1040	1	P	HSC	03/19/10 08:07	031910D-1	955816
7439-95-4	Magnesium	619000	ug/Kg	N	8800	31100	31100	1	P	HSC	03/19/10 08:07	031910D-1	955816
7439-96-5	Manganese	248000	ug/Kg		207	1040	1040	1	P	HSC	03/19/10 08:07	031910D-1	955816
7439-97-6	Mercury	11.7	ug/kg	U	3.99	11.7	11.7	1	AV	JXL1	03/02/10 15:09	030210S1-4	958657
7440-02-0	Nickel	4.02	mg/kg		0.0995	0.398	0.398	2	MS	SKJ	03/19/10 18:39	100319-3	955818
7440-09-7	Potassium	592000	ug/Kg	N	6630	25900	25900	1	P	HSC	03/19/10 08:07	031910D-1	955816
7782-49-2	Selenium	0.995	mg/kg	UN	0.497	0.995	0.995	2	MS	SKJ	03/19/10 05:49	100318-2	955818
7440-22-4	Silver	112	ug/Kg	J	104	518	518	1	P	HSC	03/19/10 08:07	031910D-1	955816
7440-23-5	Sodium	153000	ug/Kg	N	7250	25900	25900	1	P	HSC	03/19/10 08:07	031910D-1	955816
7440-28-0	Thallium	0.199	mg/kg	U	0.0597	0.199	0.199	2	MS	SKJ	03/19/10 05:49	100318-2	955818
7440-61-1	Uranium	2.48	mg/kg	*	0.0131	0.0398	0.0398	2	MS	SKJ	03/19/10 18:39	100319-3	955818
7440-62-2	Vanadium	6770	ug/Kg		104	518	518	1	P	HSC	03/19/10 08:07	031910D-1	955816
7440-66-6	Zinc	76400	ug/Kg	*	342	1040	1040	1	P	HSC	03/19/10 08:07	031910D-1	955816

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt/vol.	Units	Final wt/vol.	Units	Date	Analyst
955816	955815	SW846 3050B	0.509	g	50	mL	02/25/10	AXG2
955818	955817	SW846 3050B	0.53	g	50	mL	02/25/10	AXG2
958657	958644	SW846 7471A Prep	0.539	g	30	mL	03/01/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1951-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247561004

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8315

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 96.6

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2330000	ug/Kg		6610	19400	19400	1	P	HSC	03/19/10 08:10	031910D-1	955816
7440-36-0	Antimony	972	ug/Kg	U	321	972	972	1	P	HSC	03/19/10 08:10	031910D-1	955816
7440-38-2	Arsenic	1.15	mg/kg		0.204	1.02	1.02	2	MS	SKJ	03/19/10 18:42	100319-3	955818
7440-39-3	Barium	37200	ug/Kg		97.2	486	486	1	P	HSC	03/19/10 08:10	031910D-1	955816
7440-41-7	Beryllium	0.526	mg/kg		0.0204	0.102	0.102	2	MS	SKJ	03/19/10 18:42	100319-3	955818
7440-43-9	Cadmium	140	ug/Kg	J	97.2	486	486	1	P	HSC	03/19/10 08:10	031910D-1	955816
7440-70-2	Calcium	1740000	ug/Kg	*N	7780	24300	24300	1	P	HSC	03/19/10 08:10	031910D-1	955816
7440-47-3	Chromium	2100	ug/Kg		146	486	486	1	P	HSC	03/19/10 08:10	031910D-1	955816
7440-48-4	Cobalt	768	ug/Kg		146	486	486	1	P	HSC	03/19/10 08:10	031910D-1	955816
7440-50-8	Copper	4040	ug/Kg		292	972	972	1	P	HSC	03/19/10 08:10	031910D-1	955816
7439-89-6	Iron	8720000	ug/Kg	*	7780	24300	24300	1	P	HSC	03/19/10 08:10	031910D-1	955816
7439-92-1	Lead	13400	ug/Kg		243	972	972	1	P	HSC	03/19/10 08:10	031910D-1	955816
7439-95-4	Magnesium	409000	ug/Kg	N	8270	29200	29200	1	P	HSC	03/19/10 08:10	031910D-1	955816
7439-96-5	Manganese	232000	ug/Kg		194	972	972	1	P	HSC	03/19/10 08:10	031910D-1	955816
7439-97-6	Mercury	11.7	ug/kg	U	3.98	11.7	11.7	1	AV	JXL1	03/02/10 15:11	030210S1-4	958657
7440-02-0	Nickel	2.95	mg/kg		0.102	0.408	0.408	2	MS	SKJ	03/19/10 18:42	100319-3	955818
7440-09-7	Potassium	558000	ug/Kg	N	6220	24300	24300	1	P	HSC	03/19/10 08:10	031910D-1	955816
7782-49-2	Selenium	1.02	mg/kg	UN	0.51	1.02	1.02	2	MS	SKJ	03/19/10 05:52	100318-2	955818
7440-22-4	Silver	486	ug/Kg	U	97.2	486	486	1	P	HSC	03/19/10 08:10	031910D-1	955816
7440-23-5	Sodium	268000	ug/Kg	N	6810	24300	24300	1	P	HSC	03/19/10 08:10	031910D-1	955816
7440-28-0	Thallium	0.0694	mg/kg	J	0.0612	0.204	0.204	2	MS	SKJ	03/19/10 05:52	100318-2	955818
7440-61-1	Uranium	1.1	mg/kg	*	0.0135	0.0408	0.0408	2	MS	SKJ	03/19/10 18:42	100319-3	955818
7440-62-2	Vanadium	5030	ug/Kg		97.2	486	486	1	P	HSC	03/19/10 08:10	031910D-1	955816
7440-66-6	Zinc	39300	ug/Kg	*	321	972	972	1	P	HSC	03/19/10 08:10	031910D-1	955816

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955816	955815	SW846 3050B	0.532	g	50	mL	02/25/10	AXG2
955818	955817	SW846 3050B	0.507	g	50	mL	02/25/10	AXG2
958657	958644	SW846 7471A Prep	0.53	g	30	mL	03/01/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1951-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247561005

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8311

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 96.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2400000	ug/Kg		6760	19900	19900	1	P	HSC	03/19/10 08:14	031910D-1	955816
7440-36-0	Antimony	994	ug/Kg	U	328	994	994	1	P	HSC	03/19/10 08:14	031910D-1	955816
7440-38-2	Arsenic	0.712	mg/kg	J	0.199	0.996	0.996	2	MS	SKJ	03/19/10 18:46	100319-3	955818
7440-39-3	Barium	29500	ug/Kg		99.4	497	497	1	P	HSC	03/19/10 08:14	031910D-1	955816
7440-41-7	Beryllium	0.398	mg/kg		0.0199	0.0996	0.0996	2	MS	SKJ	03/19/10 18:46	100319-3	955818
7440-43-9	Cadmium	100	ug/Kg	J	99.4	497	497	1	P	HSC	03/19/10 08:14	031910D-1	955816
7440-70-2	Calcium	1000000	ug/Kg	*N	7960	24900	24900	1	P	HSC	03/19/10 08:14	031910D-1	955816
7440-47-3	Chromium	2100	ug/Kg		149	497	497	1	P	HSC	03/19/10 08:14	031910D-1	955816
7440-48-4	Cobalt	693	ug/Kg		149	497	497	1	P	HSC	03/19/10 08:14	031910D-1	955816
7440-50-8	Copper	2890	ug/Kg		298	994	994	1	P	HSC	03/19/10 08:14	031910D-1	955816
7439-89-6	Iron	8020000	ug/Kg	*	7960	24900	24900	1	P	HSC	03/19/10 08:14	031910D-1	955816
7439-92-1	Lead	6590	ug/Kg		249	994	994	1	P	HSC	03/19/10 08:14	031910D-1	955816
7439-95-4	Magnesium	382000	ug/Kg	N	8450	29800	29800	1	P	HSC	03/19/10 08:14	031910D-1	955816
7439-96-5	Manganese	211000	ug/Kg		199	994	994	1	P	HSC	03/19/10 08:14	031910D-1	955816
7439-97-6	Mercury	12.1	ug/kg	U	4.11	12.1	12.1	1	AV	JXL1	03/02/10 15:13	030210S1-4	958657
7440-02-0	Nickel	1.64	mg/kg		0.0996	0.399	0.399	2	MS	SKJ	03/19/10 18:46	100319-3	955818
7440-09-7	Potassium	542000	ug/Kg	N	6360	24900	24900	1	P	HSC	03/19/10 08:14	031910D-1	955816
7782-49-2	Selenium	0.996	mg/kg	UN	0.498	0.996	0.996	2	MS	SKJ	03/19/10 05:56	100318-2	955818
7440-22-4	Silver	497	ug/Kg	U	99.4	497	497	1	P	HSC	03/19/10 08:14	031910D-1	955816
7440-23-5	Sodium	274000	ug/Kg	N	6960	24900	24900	1	P	HSC	03/19/10 08:14	031910D-1	955816
7440-28-0	Thallium	0.199	mg/kg	U	0.0598	0.199	0.199	2	MS	SKJ	03/19/10 05:56	100318-2	955818
7440-61-1	Uranium	1.2	mg/kg	*	0.0132	0.0399	0.0399	2	MS	SKJ	03/19/10 18:46	100319-3	955818
7440-62-2	Vanadium	4730	ug/Kg		99.4	497	497	1	P	HSC	03/19/10 08:14	031910D-1	955816
7440-66-6	Zinc	42000	ug/Kg	*	328	994	994	1	P	HSC	03/19/10 08:14	031910D-1	955816

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955816	955815	SW846 3050B	0.522	g	50	mL	02/25/10	AXG2
955818	955817	SW846 3050B	0.521	g	50	mL	02/25/10	AXG2
958657	958644	SW846 7471A Prep	0.515	g	30	mL	03/01/10	TXB3

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1951-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247561006

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8310

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 96.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3570000	ug/Kg		6610	19400	19400	1	P	HSC	03/19/10 08:18	031910D-1	955816
7440-36-0	Antimony	445	ug/Kg	J	321	972	972	1	P	HSC	03/19/10 08:18	031910D-1	955816
7440-38-2	Arsenic	1.02	mg/kg	J	0.205	1.03	1.03	2	MS	SKJ	03/19/10 18:49	100319-3	955818
7440-39-3	Barium	51000	ug/Kg		97.2	486	486	1	P	HSC	03/19/10 08:18	031910D-1	955816
7440-41-7	Beryllium	0.386	mg/kg		0.0205	0.103	0.103	2	MS	SKJ	03/19/10 18:49	100319-3	955818
7440-43-9	Cadmium	209	ug/Kg	J	97.2	486	486	1	P	HSC	03/19/10 08:18	031910D-1	955816
7440-70-2	Calcium	3000000	ug/Kg	*N	7770	24300	24300	1	P	HSC	03/19/10 08:18	031910D-1	955816
7440-47-3	Chromium	2900	ug/Kg		146	486	486	1	P	HSC	03/19/10 08:18	031910D-1	955816
7440-48-4	Cobalt	1170	ug/Kg		146	486	486	1	P	HSC	03/19/10 08:18	031910D-1	955816
7440-50-8	Copper	4330	ug/Kg		292	972	972	1	P	HSC	03/19/10 08:18	031910D-1	955816
7439-89-6	Iron	9810000	ug/Kg	*	7770	24300	24300	1	P	HSC	03/19/10 08:18	031910D-1	955816
7439-92-1	Lead	12900	ug/Kg		243	972	972	1	P	HSC	03/19/10 08:18	031910D-1	955816
7439-95-4	Magnesium	625000	ug/Kg	N	8260	29200	29200	1	P	HSC	03/19/10 08:18	031910D-1	955816
7439-96-5	Manganese	262000	ug/Kg		194	972	972	1	P	HSC	03/19/10 08:18	031910D-1	955816
7439-97-6	Mercury	11.1	ug/kg	U	3.79	11.1	11.1	1	AV	JXL1	03/02/10 15:15	030210S1-4	958657
7440-02-0	Nickel	2.64	mg/kg		0.103	0.41	0.41	2	MS	SKJ	03/19/10 18:49	100319-3	955818
7440-09-7	Potassium	614000	ug/Kg	N	6220	24300	24300	1	P	HSC	03/19/10 08:18	031910D-1	955816
7782-49-2	Selenium	1.03	mg/kg	UN	0.513	1.03	1.03	2	MS	SKJ	03/19/10 06:00	100318-2	955818
7440-22-4	Silver	107	ug/Kg	J	97.2	486	486	1	P	HSC	03/19/10 08:18	031910D-1	955816
7440-23-5	Sodium	208000	ug/Kg	N	6800	24300	24300	1	P	HSC	03/19/10 08:18	031910D-1	955816
7440-28-0	Thallium	0.205	mg/kg	U	0.0615	0.205	0.205	2	MS	SKJ	03/19/10 06:00	100318-2	955818
7440-61-1	Uranium	2.32	mg/kg	*	0.0135	0.041	0.041	2	MS	SKJ	03/19/10 18:49	100319-3	955818
7440-62-2	Vanadium	7060	ug/Kg		97.2	486	486	1	P	HSC	03/19/10 08:18	031910D-1	955816
7440-66-6	Zinc	54400	ug/Kg	*	321	972	972	1	P	HSC	03/19/10 08:18	031910D-1	955816

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955816	955815	SW846 3050B	0.534	g	50	ml.	02/25/10	AXG2
955818	955817	SW846 3050B	0.506	g	50	ml	02/25/10	AXG2
958657	958644	SW846 7471A Prep	0.559	g	30	ml.	03/01/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1951-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247561007

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8303

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 96.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3180000	ug/Kg		6820	20100	20100	1	P	HSC	03/19/10 08:21	031910D-1	955816
7440-36-0	Antimony	1000	ug/Kg	U	331	1000	1000	1	P	HSC	03/19/10 08:21	031910D-1	955816
7440-38-2	Arsenic	0.763	mg/kg	J	0.189	0.946	0.946	2	MS	SKJ	03/19/10 18:53	100319-3	955818
7440-39-3	Barium	47200	ug/Kg		100	501	501	1	P	HSC	03/19/10 08:21	031910D-1	955816
7440-41-7	Beryllium	0.361	mg/kg		0.0189	0.0946	0.0946	2	MS	SKJ	03/19/10 18:53	100319-3	955818
7440-43-9	Cadmium	191	ug/Kg	J	100	501	501	1	P	HSC	03/19/10 08:21	031910D-1	955816
7440-70-2	Calcium	2420000	ug/Kg	*N	8020	25100	25100	1	P	HSC	03/19/10 08:21	031910D-1	955816
7440-47-3	Chromium	2860	ug/Kg		150	501	501	1	P	HSC	03/19/10 08:21	031910D-1	955816
7440-48-4	Cobalt	1220	ug/Kg		150	501	501	1	P	HSC	03/19/10 08:21	031910D-1	955816
7440-50-8	Copper	4790	ug/Kg		301	1000	1000	1	P	HSC	03/19/10 08:21	031910D-1	955816
7439-89-6	Iron	9570000	ug/Kg	*	8020	25100	25100	1	P	HSC	03/19/10 08:21	031910D-1	955816
7439-92-1	Lead	8530	ug/Kg		251	1000	1000	1	P	HSC	03/19/10 08:21	031910D-1	955816
7439-95-4	Magnesium	551000	ug/Kg	N	8520	30100	30100	1	P	HSC	03/19/10 08:21	031910D-1	955816
7439-96-5	Manganese	270000	ug/Kg		201	1000	1000	1	P	HSC	03/19/10 08:21	031910D-1	955816
7439-97-6	Mercury	12	ug/kg	U	4.08	12	12	1	AV	JXL1	03/02/10 15:17	030210S1-4	958657
7440-02-0	Nickel	2.22	mg/kg		0.0946	0.378	0.378	2	MS	SKJ	03/19/10 18:53	100319-3	955818
7440-09-7	Potassium	529000	ug/Kg	N	6420	25100	25100	1	P	HSC	03/19/10 08:21	031910D-1	955816
7782-49-2	Selenium	0.946	mg/kg	UN	0.473	0.946	0.946	2	MS	SKJ	03/19/10 06:03	100318-2	955818
7440-22-4	Silver	115	ug/Kg	J	100	501	501	1	P	HSC	03/19/10 08:21	031910D-1	955816
7440-23-5	Sodium	190000	ug/Kg	N	7020	25100	25100	1	P	HSC	03/19/10 08:21	031910D-1	955816
7440-28-0	Thallium	0.189	mg/kg	U	0.0567	0.189	0.189	2	MS	SKJ	03/19/10 06:03	100318-2	955818
7440-61-1	Uranium	1.74	mg/kg	*	0.0125	0.0378	0.0378	2	MS	SKJ	03/19/10 18:53	100319-3	955818
7440-62-2	Vanadium	7100	ug/Kg		100	501	501	1	P	HSC	03/19/10 08:21	031910D-1	955816
7440-66-6	Zinc	53100	ug/Kg	*	331	1000	1000	1	P	HSC	03/19/10 08:21	031910D-1	955816

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955816	955815	SW846 3050B	0.515	g	50	mL	02/25/10	AXG2
955818	955817	SW846 3050B	0.546	g	50	mL	02/25/10	AXG2
958657	958644	SW846 7471A Prep	0.517	g	30	mL	03/01/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1951-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247561008

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8302

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 94.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3710000	ug/Kg		7020	20600	20600	1	P	HSC	03/19/10 08:25	031910D-1	955816
7440-36-0	Antimony	498	ug/Kg	J	341	1030	1030	1	P	HSC	03/19/10 08:25	031910D-1	955816
7440-38-2	Arsenic	1.09	mg/kg		0.204	1.02	1.02	2	MS	SKJ	03/19/10 18:56	100319-3	955818
7440-39-3	Barium	49300	ug/Kg		103	516	516	1	P	HSC	03/19/10 08:25	031910D-1	955816
7440-41-7	Beryllium	0.435	mg/kg		0.0204	0.102	0.102	2	MS	SKJ	03/19/10 18:56	100319-3	955818
7440-43-9	Cadmium	257	ug/Kg	J	103	516	516	1	P	HSC	03/19/10 08:25	031910D-1	955816
7440-70-2	Calcium	6640000	ug/Kg	*N	8260	25800	25800	1	P	HSC	03/19/10 08:25	031910D-1	955816
7440-47-3	Chromium	3920	ug/Kg		155	516	516	1	P	HSC	03/19/10 08:25	031910D-1	955816
7440-48-4	Cobalt	1160	ug/Kg		155	516	516	1	P	HSC	03/19/10 08:25	031910D-1	955816
7440-50-8	Copper	10600	ug/Kg		310	1030	1030	1	P	HSC	03/19/10 08:25	031910D-1	955816
7439-89-6	Iron	9380000	ug/Kg	*	8260	25800	25800	1	P	HSC	03/19/10 08:25	031910D-1	955816
7439-92-1	Lead	12500	ug/Kg		258	1030	1030	1	P	HSC	03/19/10 08:25	031910D-1	955816
7439-95-4	Magnesium	659000	ug/Kg	N	8770	31000	31000	1	P	HSC	03/19/10 08:25	031910D-1	955816
7439-96-5	Manganese	226000	ug/Kg		206	1030	1030	1	P	HSC	03/19/10 08:25	031910D-1	955816
7439-97-6	Mercury	11.8	ug/kg	U	4.02	11.8	11.8	1	AV	JXL1	03/02/10 15:19	030210S1-4	958657
7440-02-0	Nickel	3.32	mg/kg		0.102	0.407	0.407	2	MS	SKJ	03/19/10 18:56	100319-3	955818
7440-09-7	Potassium	599000	ug/Kg	N	6600	25800	25800	1	P	HSC	03/19/10 08:25	031910D-1	955816
7782-49-2	Selenium	1.02	mg/kg	UN	0.509	1.02	1.02	2	MS	SKJ	03/19/10 06:07	100318-2	955818
7440-22-4	Silver	123	ug/Kg	J	103	516	516	1	P	HSC	03/19/10 08:25	031910D-1	955816
7440-23-5	Sodium	151000	ug/Kg	N	7220	25800	25800	1	P	HSC	03/19/10 08:25	031910D-1	955816
7440-28-0	Thallium	0.204	mg/kg	U	0.0611	0.204	0.204	2	MS	SKJ	03/19/10 06:07	100318-2	955818
7440-61-1	Uranium	1.95	mg/kg	*	0.0134	0.0407	0.0407	2	MS	SKJ	03/19/10 18:56	100319-3	955818
7440-62-2	Vanadium	8000	ug/Kg		103	516	516	1	P	HSC	03/19/10 08:25	031910D-1	955816
7440-66-6	Zinc	114000	ug/Kg	*	341	1030	1030	1	P	HSC	03/19/10 08:25	031910D-1	955816

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955816	955815	SW846 3050B	0.511	g	50	mL	02/25/10	AXG2
955818	955817	SW846 3050B	0.518	g	50	mL	02/25/10	AXG2
958657	958644	SW846 7471A Prep	0.535	g	30	mL	03/01/10	TXB3

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1951-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICV01										
	Mercury	5.16	ug/L	5	ug/L	103.2	90.0 – 110.0	AV	02-MAR-10 08:46	030210S1-4
	Selenium	54.1	ug/L	50	ug/L	108.2	90.0 – 110.0	MS	19-MAR-10 04:29	100318-2
	Thallium	54.5	ug/L	50	ug/L	109.1	90.0 – 110.0	MS	19-MAR-10 04:29	100318-2
	Aluminum	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	19-MAR-10 06:30	031910D-1
	Antimony	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	19-MAR-10 06:30	031910D-1
	Barium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	19-MAR-10 06:30	031910D-1
	Cadmium	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	19-MAR-10 06:30	031910D-1
	Calcium	5080	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	19-MAR-10 06:30	031910D-1
	Chromium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	19-MAR-10 06:30	031910D-1
	Cobalt	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	19-MAR-10 06:30	031910D-1
	Copper	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	19-MAR-10 06:30	031910D-1
	Iron	5230	ug/L	5000	ug/L	104.6	90.0 – 110.0	P	19-MAR-10 06:30	031910D-1
	Lead	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	19-MAR-10 06:30	031910D-1
	Magnesium	5320	ug/L	5000	ug/L	106.5	90.0 – 110.0	P	19-MAR-10 06:30	031910D-1
	Manganese	526	ug/L	500	ug/L	105.1	90.0 – 110.0	P	19-MAR-10 06:30	031910D-1
	Potassium	2530	ug/L	2500	ug/L	101.1	90.0 – 110.0	P	19-MAR-10 06:30	031910D-1
	Silver	260	ug/L	250	ug/L	104.1	90.0 – 110.0	P	19-MAR-10 06:30	031910D-1
	Sodium	2550	ug/L	2500	ug/L	101.9	90.0 – 110.0	P	19-MAR-10 06:30	031910D-1
	Vanadium	518	ug/L	500	ug/L	103.7	90.0 – 110.0	P	19-MAR-10 06:30	031910D-1
	Zinc	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	19-MAR-10 06:30	031910D-1
	Arsenic	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	19-MAR-10 17:16	100319-3
	Beryllium	49.1	ug/L	50	ug/L	98.3	90.0 – 110.0	MS	19-MAR-10 17:16	100319-3
	Nickel	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	19-MAR-10 17:16	100319-3
	Uranium	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	19-MAR-10 17:16	100319-3
CCV01										
	Mercury	5.01	ug/L	5	ug/L	100.3	80.0 – 120.0	AV	02-MAR-10 08:52	030210S1-4
	Selenium	51.8	ug/L	50	ug/L	103.6	90.0 – 110.0	MS	19-MAR-10 04:47	100318-2
	Thallium	54.7	ug/L	50	ug/L	109.3	90.0 – 110.0	MS	19-MAR-10 04:47	100318-2
	Aluminum	4780	ug/L	5000	ug/L	95.5	90.0 – 110.0	P	19-MAR-10 06:53	031910D-1
	Antimony	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	19-MAR-10 06:53	031910D-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1951-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Barium	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	19-MAR-10 06:53	031910D-1
	Cadmium	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	19-MAR-10 06:53	031910D-1
	Calcium	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	P	19-MAR-10 06:53	031910D-1
	Chromium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	19-MAR-10 06:53	031910D-1
	Cobalt	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	19-MAR-10 06:53	031910D-1
	Copper	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	19-MAR-10 06:53	031910D-1
	Iron	4870	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	19-MAR-10 06:53	031910D-1
	Lead	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	19-MAR-10 06:53	031910D-1
	Magnesium	4940	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	19-MAR-10 06:53	031910D-1
	Manganese	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	19-MAR-10 06:53	031910D-1
	Potassium	5250	ug/L	5000	ug/L	105	90.0 – 110.0	P	19-MAR-10 06:53	031910D-1
	Silver	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	19-MAR-10 06:53	031910D-1
	Sodium	9830	ug/L	10000	ug/L	98.3	90.0 – 110.0	P	19-MAR-10 06:53	031910D-1
	Vanadium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	19-MAR-10 06:53	031910D-1
	Zinc	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	19-MAR-10 06:53	031910D-1
	Arsenic	49.9	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	19-MAR-10 17:32	100319-3
	Beryllium	48.2	ug/L	50	ug/L	96.4	90.0 – 110.0	MS	19-MAR-10 17:32	100319-3
	Nickel	49.6	ug/L	50	ug/L	99.2	90.0 – 110.0	MS	19-MAR-10 17:32	100319-3
	Uranium	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	19-MAR-10 17:32	100319-3
CCV02										
	Mercury	5.14	ug/L	5	ug/L	102.8	80.0 – 120.0	AV	02-MAR-10 09:16	030210S1-4
	Selenium	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	19-MAR-10 05:12	100318-2
	Thallium	55.2	ug/L	50	ug/L	110.3	90.0 – 110.0	MS	19-MAR-10 05:12	100318-2
	Aluminum	4830	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	19-MAR-10 07:12	031910D-1
	Antimony	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	19-MAR-10 07:12	031910D-1
	Barium	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	19-MAR-10 07:12	031910D-1
	Cadmium	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	19-MAR-10 07:12	031910D-1
	Calcium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	19-MAR-10 07:12	031910D-1
	Chromium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	19-MAR-10 07:12	031910D-1
	Cobalt	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	19-MAR-10 07:12	031910D-1

METALS

-2a-

Initial and Continuing Calibration Verification

SDG No: 10-1951-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	19-MAR-10 07:12	031910D-1
	Iron	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	19-MAR-10 07:12	031910D-1
	Lead	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	19-MAR-10 07:12	031910D-1
	Magnesium	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	19-MAR-10 07:12	031910D-1
	Manganese	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	19-MAR-10 07:12	031910D-1
	Potassium	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	19-MAR-10 07:12	031910D-1
	Silver	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	19-MAR-10 07:12	031910D-1
	Sodium	9770	ug/L	10000	ug/L	97.7	90.0 – 110.0	P	19-MAR-10 07:12	031910D-1
	Vanadium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	19-MAR-10 07:12	031910D-1
	Zinc	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	19-MAR-10 07:12	031910D-1
	Arsenic	49.7	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	19-MAR-10 17:39	100319-3
	Beryllium	48	ug/L	50	ug/L	96	90.0 – 110.0	MS	19-MAR-10 17:39	100319-3
	Nickel	50.8	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	19-MAR-10 17:39	100319-3
	Uranium	50.5	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	19-MAR-10 17:39	100319-3
CCV03										
	Mercury	5.21	ug/L	5	ug/L	104.2	80.0 – 120.0	AV	02-MAR-10 09:40	030210S1-4
	Selenium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	19-MAR-10 05:41	100318-2
	Thallium	54.5	ug/L	50	ug/L	109.1	90.0 – 110.0	MS	19-MAR-10 05:41	100318-2
	Aluminum	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	19-MAR-10 07:52	031910D-1
	Antimony	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	19-MAR-10 07:52	031910D-1
	Barium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	19-MAR-10 07:52	031910D-1
	Cadmium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	19-MAR-10 07:52	031910D-1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	19-MAR-10 07:52	031910D-1
	Chromium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	19-MAR-10 07:52	031910D-1
	Cobalt	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	19-MAR-10 07:52	031910D-1
	Copper	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19-MAR-10 07:52	031910D-1
	Iron	5130	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	19-MAR-10 07:52	031910D-1
	Lead	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	19-MAR-10 07:52	031910D-1
	Magnesium	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	19-MAR-10 07:52	031910D-1
	Manganese	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	19-MAR-10 07:52	031910D-1

METALS

-2a-

Initial and Continuing Calibration Verification

SDG No: 10-1951-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	19-MAR-10 07:52	031910D-1
	Silver	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	19-MAR-10 07:52	031910D-1
	Sodium	10200	ug/L	10000	ug/L	102.2	90.0 – 110.0	P	19-MAR-10 07:52	031910D-1
	Vanadium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	19-MAR-10 07:52	031910D-1
	Zinc	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	19-MAR-10 07:52	031910D-1
	Arsenic	48.6	ug/L	50	ug/L	97.1	90.0 – 110.0	MS	19-MAR-10 17:59	100319-3
	Beryllium	49.8	ug/L	50	ug/L	99.6	90.0 – 110.0	MS	19-MAR-10 17:59	100319-3
	Nickel	51.1	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	19-MAR-10 17:59	100319-3
	Uranium	50.9	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	19-MAR-10 17:59	100319-3
CCV04										
	Mercury	5	ug/L	5	ug/L	100.1	80.0 – 120.0	AV	02-MAR-10 10:08	030210S1-4
	Selenium	52	ug/L	50	ug/L	104	90.0 – 110.0	MS	19-MAR-10 06:10	100318-2
	Thallium	55.2	ug/L	50	ug/L	110.5	90.0 – 110.0	MS	19-MAR-10 06:10	100318-2
	Aluminum	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	19-MAR-10 08:29	031910D-1
	Antimony	520	ug/L	500	ug/L	104	90.0 – 110.0	P	19-MAR-10 08:29	031910D-1
	Barium	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	19-MAR-10 08:29	031910D-1
	Cadmium	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	19-MAR-10 08:29	031910D-1
	Calcium	5220	ug/L	5000	ug/L	104.4	90.0 – 110.0	P	19-MAR-10 08:29	031910D-1
	Chromium	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	19-MAR-10 08:29	031910D-1
	Cobalt	516	ug/L	500	ug/L	103.3	90.0 – 110.0	P	19-MAR-10 08:29	031910D-1
	Copper	519	ug/L	500	ug/L	103.8	90.0 – 110.0	P	19-MAR-10 08:29	031910D-1
	Iron	5440	ug/L	5000	ug/L	108.8	90.0 – 110.0	P	19-MAR-10 08:29	031910D-1
	Lead	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	19-MAR-10 08:29	031910D-1
	Magnesium	5310	ug/L	5000	ug/L	106.1	90.0 – 110.0	P	19-MAR-10 08:29	031910D-1
	Manganese	529	ug/L	500	ug/L	105.8	90.0 – 110.0	P	19-MAR-10 08:29	031910D-1
	Potassium	5210	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	19-MAR-10 08:29	031910D-1
	Silver	521	ug/L	500	ug/L	104.3	90.0 – 110.0	P	19-MAR-10 08:29	031910D-1
	Sodium	10900	ug/L	10000	ug/L	108.7	90.0 – 110.0	P	19-MAR-10 08:29	031910D-1
	Vanadium	521	ug/L	500	ug/L	104.1	90.0 – 110.0	P	19-MAR-10 08:29	031910D-1
	Zinc	518	ug/L	500	ug/L	103.6	90.0 – 110.0	P	19-MAR-10 08:29	031910D-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1951-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CCV05	Arsenic	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	19-MAR-10 18:29	100319-3
	Beryllium	51.7	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	19-MAR-10 18:29	100319-3
	Nickel	49.7	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	19-MAR-10 18:29	100319-3
	Uranium	51.8	ug/L	50	ug/L	103.6	90.0 – 110.0	MS	19-MAR-10 18:29	100319-3
	Mercury	5.08	ug/L	5	ug/L	101.7	80.0 – 120.0	AV	02-MAR-10 10:32	030210S1-4
CCV06	Arsenic	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	19-MAR-10 18:59	100319-3
	Beryllium	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	19-MAR-10 18:59	100319-3
	Nickel	51.5	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	19-MAR-10 18:59	100319-3
	Uranium	52.2	ug/L	50	ug/L	104.4	90.0 – 110.0	MS	19-MAR-10 18:59	100319-3
	Mercury	5.22	ug/L	5	ug/L	104.3	80.0 – 120.0	AV	02-MAR-10 10:56	030210S1-4
CCV07	Mercury	5.16	ug/L	5	ug/L	103.2	80.0 – 120.0	AV	02-MAR-10 11:19	030210S1-4
	Mercury	5.23	ug/L	5	ug/L	104.6	80.0 – 120.0	AV	02-MAR-10 11:43	030210S1-4
CCV08	Mercury	3.17	ug/L	5	ug/L	63.3	80.0 – 120.0	AV	02-MAR-10 12:07	030210S1-4
	Mercury	3.88	ug/L	5	ug/L	77.6	80.0 – 120.0	AV	02-MAR-10 12:26	030210S1-4
CCV09	Mercury	4.28	ug/L	5	ug/L	85.6	80.0 – 120.0	AV	02-MAR-10 12:33	030210S1-4
	Mercury	4.59	ug/L	5	ug/L	91.8	80.0 – 120.0	AV	02-MAR-10 12:57	030210S1-4
CCV10	Mercury	4.5	ug/L	5	ug/L	90.1	80.0 – 120.0	AV	02-MAR-10 13:21	030210S1-4
	Mercury	4.74	ug/L	5	ug/L	94.7	80.0 – 120.0	AV	02-MAR-10 13:28	030210S1-4

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1951-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CCV15	Mercury	5.26	ug/L	5	ug/L	105.3	80.0 – 120.0	AV	02-MAR-10 13:55	030210S1-4
CCV16	Mercury	5.35	ug/L	5	ug/L	107	80.0 – 120.0	AV	02-MAR-10 14:19	030210S1-4
CCV17	Mercury	5.18	ug/L	5	ug/L	103.6	80.0 – 120.0	AV	02-MAR-10 14:35	030210S1-4
CCV18	Mercury	5.17	ug/L	5	ug/L	103.4	80.0 – 120.0	AV	02-MAR-10 14:59	030210S1-4
CCV19	Mercury	5.15	ug/L	5	ug/L	103	80.0 – 120.0	AV	02-MAR-10 15:23	030210S1-4

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-1951-1

Contract: LANL01004

Lab Code: GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS5,MER536,OPTIMA1

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Advisory Limits (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CRDL01										
	Mercury	.157	ug/L	.2	ug/L	78.6	70.0 - 130.0	AV	02-MAR-10 08:50	030210S1-4
	Selenium	6.11	ug/L	5	ug/L	122.3	70.0 - 130.0	MS	19-MAR-10 04:36	100318-2
	Thallium	1.35	ug/L	1	ug/L	135.4	70.0 - 130.0	MS	19-MAR-10 04:36	100318-2
	Nickel	2.27	ug/L	2	ug/L	113.5	70.0 - 130.0	MS	19-MAR-10 17:22	100319-3
	Arsenic	5.54	ug/L	5	ug/L	110.7	70.0 - 130.0	MS	19-MAR-10 17:22	100319-3
	Beryllium	.555	ug/L	.5	ug/L	111	70.0 - 130.0	MS	19-MAR-10 17:22	100319-3
	Uranium	.271	ug/L	.2	ug/L	135.5	70.0 - 130.0	MS	19-MAR-10 17:22	100319-3
PQL01										
	Aluminum	182	ug/L	200	ug/L	91.1	70.0 - 130.0	P	19-MAR-10 06:37	031910D-1
	Iron	73.9	ug/L	100	ug/L	73.9	70.0 - 130.0	P	19-MAR-10 06:37	031910D-1
	Lead	9.04	ug/L	10	ug/L	90.4	70.0 - 130.0	P	19-MAR-10 06:37	031910D-1
	Magnesium	319	ug/L	300	ug/L	106.5	70.0 - 130.0	P	19-MAR-10 06:37	031910D-1
	Manganese	8.22	ug/L	10	ug/L	82.2	70.0 - 130.0	P	19-MAR-10 06:37	031910D-1
	Potassium	137	ug/L	150	ug/L	91.5	70.0 - 130.0	P	19-MAR-10 06:37	031910D-1
	Silver	4.58	ug/L	5	ug/L	91.6	70.0 - 130.0	P	19-MAR-10 06:37	031910D-1
	Sodium	275	ug/L	300	ug/L	91.5	70.0 - 130.0	P	19-MAR-10 06:37	031910D-1
	Antimony	8.22	ug/L	10	ug/L	82.2	70.0 - 130.0	P	19-MAR-10 06:37	031910D-1
	Barium	4.34	ug/L	5	ug/L	86.8	70.0 - 130.0	P	19-MAR-10 06:37	031910D-1
	Cadmium	4.7	ug/L	5	ug/L	93.9	70.0 - 130.0	P	19-MAR-10 06:37	031910D-1
	Chromium	4.4	ug/L	5	ug/L	87.9	70.0 - 130.0	P	19-MAR-10 06:37	031910D-1
	Cobalt	4.19	ug/L	5	ug/L	83.9	70.0 - 130.0	P	19-MAR-10 06:37	031910D-1
	Copper	8.17	ug/L	10	ug/L	81.7	70.0 - 130.0	P	19-MAR-10 06:37	031910D-1
	Vanadium	4.74	ug/L	5	ug/L	94.9	70.0 - 130.0	P	19-MAR-10 06:37	031910D-1
	Zinc	11.9	ug/L	10	ug/L	119	70.0 - 130.0	P	19-MAR-10 06:37	031910D-1
	Calcium	190	ug/L	200	ug/L	94.8	70.0 - 130.0	P	19-MAR-10 06:37	031910D-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1951-1

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>
ICB01										
	Mercury	-0.112	+/-2	J	0.068	0.2	SOL	AV	02-MAR-10 08:48	030210S1-4
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	19-MAR-10 04:33	100318-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	19-MAR-10 04:33	100318-2
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-MAR-10 06:34	031910D-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-MAR-10 06:34	031910D-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 06:34	031910D-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 06:34	031910D-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-MAR-10 06:34	031910D-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-MAR-10 06:34	031910D-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-MAR-10 06:34	031910D-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-MAR-10 06:34	031910D-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-MAR-10 06:34	031910D-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-MAR-10 06:34	031910D-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-MAR-10 06:34	031910D-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-MAR-10 06:34	031910D-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-MAR-10 06:34	031910D-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 06:34	031910D-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-MAR-10 06:34	031910D-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 06:34	031910D-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-MAR-10 06:34	031910D-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	19-MAR-10 17:19	100319-3
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	19-MAR-10 17:19	100319-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	19-MAR-10 17:19	100319-3
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	19-MAR-10 17:19	100319-3
CCB01										
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	02-MAR-10 08:54	030210S1-4
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	19-MAR-10 04:51	100318-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	19-MAR-10 04:51	100318-2
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-MAR-10 06:56	031910D-1
	Antimony	6.45	+/-10	J	3.3	10.0	SOL	P	19-MAR-10 06:56	031910D-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 06:56	031910D-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1951-1

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	19-MAR-10 06:56	031910D-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-MAR-10 06:56	031910D-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-MAR-10 06:56	031910D-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-MAR-10 06:56	031910D-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-MAR-10 06:56	031910D-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-MAR-10 06:56	031910D-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-MAR-10 06:56	031910D-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-MAR-10 06:56	031910D-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-MAR-10 06:56	031910D-1
	Potassium	118.13	+/-250	J	64.0	250	SOL	P	19-MAR-10 06:56	031910D-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 06:56	031910D-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-MAR-10 06:56	031910D-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 06:56	031910D-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-MAR-10 06:56	031910D-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	19-MAR-10 17:36	100319-3
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	19-MAR-10 17:36	100319-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	19-MAR-10 17:36	100319-3
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	19-MAR-10 17:36	100319-3
CCB02										
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	02-MAR-10 09:18	030210SI-4
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	19-MAR-10 05:16	100318-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	19-MAR-10 05:16	100318-2
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-MAR-10 07:16	031910D-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-MAR-10 07:16	031910D-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 07:16	031910D-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 07:16	031910D-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-MAR-10 07:16	031910D-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-MAR-10 07:16	031910D-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-MAR-10 07:16	031910D-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-MAR-10 07:16	031910D-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-MAR-10 07:16	031910D-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1951-1

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>
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-MAR-10 07:16	031910D-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-MAR-10 07:16	031910D-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-MAR-10 07:16	031910D-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-MAR-10 07:16	031910D-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 07:16	031910D-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-MAR-10 07:16	031910D-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 07:16	031910D-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-MAR-10 07:16	031910D-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	19-MAR-10 17:42	100319-3
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	19-MAR-10 17:42	100319-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	19-MAR-10 17:42	100319-3
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	19-MAR-10 17:42	100319-3
CCB03										
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	02-MAR-10 09:42	030210S1-4
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	19-MAR-10 05:45	100318-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	19-MAR-10 05:45	100318-2
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-MAR-10 07:56	031910D-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-MAR-10 07:56	031910D-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 07:56	031910D-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 07:56	031910D-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-MAR-10 07:56	031910D-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-MAR-10 07:56	031910D-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-MAR-10 07:56	031910D-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-MAR-10 07:56	031910D-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-MAR-10 07:56	031910D-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-MAR-10 07:56	031910D-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-MAR-10 07:56	031910D-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-MAR-10 07:56	031910D-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-MAR-10 07:56	031910D-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 07:56	031910D-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-MAR-10 07:56	031910D-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1951-1

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>
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 07:56	031910D-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-MAR-10 07:56	031910D-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	19-MAR-10 18:02	100319-3
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	19-MAR-10 18:02	100319-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	19-MAR-10 18:02	100319-3
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	19-MAR-10 18:02	100319-3
CCB04	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	02-MAR-10 10:10	030210S1-4
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	19-MAR-10 06:14	100318-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	19-MAR-10 06:14	100318-2
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-MAR-10 08:32	031910D-1
	Antimony	4.66	+/-10	J	3.3	10.0	SOL	P	19-MAR-10 08:32	031910D-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 08:32	031910D-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 08:32	031910D-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-MAR-10 08:32	031910D-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-MAR-10 08:32	031910D-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-MAR-10 08:32	031910D-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-MAR-10 08:32	031910D-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-MAR-10 08:32	031910D-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-MAR-10 08:32	031910D-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-MAR-10 08:32	031910D-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-MAR-10 08:32	031910D-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-MAR-10 08:32	031910D-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 08:32	031910D-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-MAR-10 08:32	031910D-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 08:32	031910D-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-MAR-10 08:32	031910D-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	19-MAR-10 18:32	100319-3
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	19-MAR-10 18:32	100319-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	19-MAR-10 18:32	100319-3
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	19-MAR-10 18:32	100319-3

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1951-1

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>
CCB05	Mercury	-0.072	+/- .2	J	0.068	0.2	SOL	AV	02-MAR-10 10:34	030210S1-4
	Arsenic	1.0	+/- 5	U	1.0	5.0	SOL	MS	19-MAR-10 19:03	100319-3
	Beryllium	0.1	+/- .5	U	0.1	0.5	SOL	MS	19-MAR-10 19:03	100319-3
	Nickel	0.5	+/- .2	U	0.5	2.0	SOL	MS	19-MAR-10 19:03	100319-3
	Uranium	0.066	+/- .2	U	0.066	0.2	SOL	MS	19-MAR-10 19:03	100319-3
CCB06	Mercury	-0.074	+/- .2	J	0.068	0.2	SOL	AV	02-MAR-10 10:58	030210S1-4
CCB07	Mercury	-0.093	+/- .2	J	0.068	0.2	SOL	AV	02-MAR-10 11:22	030210S1-4
CCB08	Mercury	-0.114	+/- .2	J	0.068	0.2	SOL	AV	02-MAR-10 11:45	030210S1-4
CCB09	Mercury	-0.078	+/- .2	J	0.068	0.2	SOL	AV	02-MAR-10 12:09	030210S1-4
CCB10	Mercury	0.068	+/- .2	U	0.068	0.2	SOL	AV	02-MAR-10 12:28	030210S1-4
CCB11	Mercury	0.068	+/- .2	U	0.068	0.2	SOL	AV	02-MAR-10 12:35	030210S1-4
CCB12	Mercury	0.068	+/- .2	U	0.068	0.2	SOL	AV	02-MAR-10 12:59	030210S1-4
CCB13	Mercury	0.068	+/- .2	U	0.068	0.2	SOL	AV	02-MAR-10 13:23	030210S1-4
CCB14	Mercury	0.068	+/- .2	U	0.068	0.2	SOL	AV	02-MAR-10 13:30	030210S1-4
CCB15	Mercury	0.068	+/- .2	U	0.068	0.2	SOL	AV	02-MAR-10 13:57	030210S1-4
CCB16	Mercury	0.068	+/- .2	U	0.068	0.2	SOL	AV	02-MAR-10 14:21	030210S1-4
CCB17	Mercury	0.068	+/- .2	U	0.068	0.2	SOL	AV	02-MAR-10 14:37	030210S1-4
CCB18	Mercury	0.068	+/- .2	U	0.068	0.2	SOL	AV	02-MAR-10 15:01	030210S1-4

SW846

Metals

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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1951-1

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>
CCB19	Mercury	0.068	+/- .2	U	0.068	0.2	SOL	AV	02-MAR-10 15:25	030210S1-4

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 10-1951-1

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>
1202049278	Aluminum	6770	ug/Kg	+/-19900	U	P	6770	19900
	Antimony	329	ug/Kg	+/-996	U	P	329	996
	Barium	99.6	ug/Kg	+/-498	U	P	99.6	498
	Cadmium	99.6	ug/Kg	+/-498	U	P	99.6	498
	Calcium	7970	ug/Kg	+/-24900	U	P	7970	24900
	Chromium	149	ug/Kg	+/-498	U	P	149	498
	Cobalt	149	ug/Kg	+/-498	U	P	149	498
	Copper	299	ug/Kg	+/-996	U	P	299	996
	Iron	7970	ug/Kg	+/-24900	U	P	7970	24900
	Lead	249	ug/Kg	+/-996	U	P	249	996
	Magnesium	8470	ug/Kg	+/-29900	U	P	8470	29900
	Manganese	199	ug/Kg	+/-996	U	P	199	996
	Potassium	6370	ug/Kg	+/-24900	U	P	6370	24900
	Silver	99.6	ug/Kg	+/-498	U	P	99.6	498
	Sodium	6970	ug/Kg	+/-24900	U	P	6970	24900
	Vanadium	99.6	ug/Kg	+/-498	U	P	99.6	498
	Zinc	329	ug/Kg	+/-996	U	P	329	996
1202049284	Arsenic	0.183	mg/kg	+/-0.917	U	MS	0.183	0.917
	Beryllium	0.0184	mg/kg	+/-0.0917	U	MS	0.0184	0.0917
	Nickel	0.0917	mg/kg	+/-0.367	U	MS	0.0917	0.367
	Selenium	0.459	mg/kg	+/-0.917	U	MS	0.459	0.917
	Thallium	0.0551	mg/kg	+/-0.183	U	MS	0.0551	0.183
	Uranium	0.0121	mg/kg	+/-0.0367	U	MS	0.0121	0.0367
1202055973	Mercury	-5.95	ug/kg	+/-10	J	AV	3.4	10

METALS
-4-
Interference Check Sample

SDG No: 10-1951-1

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>
ICSA01									
	Aluminum	495000	ug/L	500000	ug/L	99	80.0 – 120.0	19-MAR-10 06:41	031910D-1
	Antimony	-0.915	ug/L					19-MAR-10 06:41	031910D-1
	Barium	6.66	ug/L					19-MAR-10 06:41	031910D-1
	Cadmium	3.71	ug/L					19-MAR-10 06:41	031910D-1
	Calcium	465000	ug/L	500000	ug/L	93	80.0 – 120.0	19-MAR-10 06:41	031910D-1
	Chromium	-2.01	ug/L					19-MAR-10 06:41	031910D-1
	Cobalt	2.37	ug/L					19-MAR-10 06:41	031910D-1
	Copper	11.2	ug/L					19-MAR-10 06:41	031910D-1
	Iron	179000	ug/L	200000	ug/L	89.6	80.0 – 120.0	19-MAR-10 06:41	031910D-1
	Lead	0.141	ug/L					19-MAR-10 06:41	031910D-1
	Magnesium	472000	ug/L	500000	ug/L	94.3	80.0 – 120.0	19-MAR-10 06:41	031910D-1
	Manganese	-1.01	ug/L					19-MAR-10 06:41	031910D-1
	Potassium	-69.5	ug/L					19-MAR-10 06:41	031910D-1
	Silver	1.33	ug/L					19-MAR-10 06:41	031910D-1
	Sodium	11.3	ug/L					19-MAR-10 06:41	031910D-1
	Vanadium	-2.38	ug/L					19-MAR-10 06:41	031910D-1
	Zinc	-2.87	ug/L					19-MAR-10 06:41	031910D-1
ICSAB01									
	Aluminum	497000	ug/L	500000	ug/L	99.3	80.0 – 120.0	19-MAR-10 06:43	031910D-1
	Antimony	508	ug/L	500	ug/L	102	80.0 – 120.0	19-MAR-10 06:43	031910D-1
	Barium	480	ug/L	500	ug/L	96	80.0 – 120.0	19-MAR-10 06:43	031910D-1
	Cadmium	446	ug/L	500	ug/L	89.3	80.0 – 120.0	19-MAR-10 06:43	031910D-1
	Calcium	469000	ug/L	500000	ug/L	93.9	80.0 – 120.0	19-MAR-10 06:43	031910D-1
	Chromium	463	ug/L	500	ug/L	92.7	80.0 – 120.0	19-MAR-10 06:43	031910D-1
	Cobalt	428	ug/L	500	ug/L	85.5	80.0 – 120.0	19-MAR-10 06:43	031910D-1
	Copper	543	ug/L	500	ug/L	109	80.0 – 120.0	19-MAR-10 06:43	031910D-1
	Iron	184000	ug/L	200000	ug/L	92.1	80.0 – 120.0	19-MAR-10 06:43	031910D-1
	Lead	467	ug/L	500	ug/L	93.4	80.0 – 120.0	19-MAR-10 06:43	031910D-1
	Magnesium	480000	ug/L	500000	ug/L	96.1	80.0 – 120.0	19-MAR-10 06:43	031910D-1

METALS

-4-

Interference Check Sample

SDG No: 10-1951-1

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	465	ug/L	500	ug/L	93	80.0 – 120.0	19-MAR-10 06:43	031910D-1
	Potassium	5030	ug/L	5000	ug/L	101	80.0 – 120.0	19-MAR-10 06:43	031910D-1
	Silver	258	ug/L	250	ug/L	103	80.0 – 120.0	19-MAR-10 06:43	031910D-1
	Sodium	5140	ug/L	5000	ug/L	103	80.0 – 120.0	19-MAR-10 06:43	031910D-1
	Vanadium	495	ug/L	500	ug/L	99.1	80.0 – 120.0	19-MAR-10 06:43	031910D-1
	Zinc	451	ug/L	500	ug/L	90.3	80.0 – 120.0	19-MAR-10 06:43	031910D-1

METALS
-4-
Interference Check Sample

SDG No: 10-1951-1

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	Selenium	-1.06	ug/L					19-MAR-10 04:40	100318-2
	Thallium	-0.104	ug/L					19-MAR-10 04:40	100318-2
ICSAB01	Selenium	19.5	ug/L	20	ug/L	97.7	80.0 - 120.0	19-MAR-10 04:43	100318-2
	Thallium	22.7	ug/L	20	ug/L	113	80.0 - 120.0	19-MAR-10 04:43	100318-2

METALS
-4-
Interference Check Sample

SDG No: 10-1951-1

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									
	Arsenic	-0.259	ug/L					19-MAR-10 17:26	100319-3
	Beryllium	0.097	ug/L					19-MAR-10 17:26	100319-3
	Nickel	3.08	ug/L					19-MAR-10 17:26	100319-3
	Uranium	0.001	ug/L					19-MAR-10 17:26	100319-3
ICSAB01									
	Arsenic	21.6	ug/L	20	ug/L	108	80.0 - 120.0	19-MAR-10 17:29	100319-3
	Beryllium	19.3	ug/L	20	ug/L	96.5	80.0 - 120.0	19-MAR-10 17:29	100319-3
	Nickel	22.8	ug/L	23.31	ug/L	97.9	80.0 - 120.0	19-MAR-10 17:29	100319-3
	Uranium	22.3	ug/L	20	ug/L	112	80.0 - 120.0	19-MAR-10 17:29	100319-3

METALS

-5a-

Matrix Spike Summary

SDG NO. 10-1951-1 Client ID RE15-10-8314S

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 97.3

Sample ID: 247561001 Spike ID: 1202049281

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Manganese	ug/Kg		310000		229000		49700	164	N/A	P
Potassium	ug/Kg	75-125	1320000		624000		497000	140	N	P
Silver	ug/Kg	75-125	51700		98.1	U	49700	104		P
Sodium	ug/Kg	75-125	928000		269000		497000	132	N	P
Vanadium	ug/Kg	75-125	58100		5680		49700	105		P
Zinc	ug/Kg	75-125	91200		33800		49700	115		P
Aluminum	ug/Kg		5170000		2580000		497000	520	N/A	P
Antimony	ug/Kg	75-125	49400		324	U	49700	99		P
Barium	ug/Kg	75-125	96300		35900		49700	121		P
Cadmium	ug/Kg	75-125	51400		112	J	49700	103		P
Calcium	ug/Kg	75-125	4850000		954000		497000	783	N	P
Chromium	ug/Kg	75-125	54500		2160		49700	105		P
Cobalt	ug/Kg	75-125	49400		862		49700	97.6		P
Copper	ug/Kg	75-125	59200		2730		49700	114		P
Iron	ug/Kg		9250000		7670000		497000	317	N/A	P
Lead	ug/Kg	75-125	57400		5380		49700	105		P
Magnesium	ug/Kg	75-125	1130000		459000		497000	136	N	P

METALS

-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-1951-1 Client ID RE15-10-8314SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 97.3

Sample ID: 247561001 Spike ID: 1202049282

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg		5720000		2580000		501000	627	N/A	P
Antimony	ug/Kg	75-125	49400		324	U	50100	98.2		P
Barium	ug/Kg	75-125	94800		35900		50100	117		P
Cadmium	ug/Kg	75-125	51200		112	J	50100	102		P
Calcium	ug/Kg	75-125	1850000		954000		501000	179	N	P
Chromium	ug/Kg	75-125	54300		2160		50100	104		P
Cobalt	ug/Kg	75-125	49600		862		50100	97.4		P
Copper	ug/Kg	75-125	58500		2730		50100	111		P
Iron	ug/Kg		9660000		7670000		501000	397	N/A	P
Lead	ug/Kg	75-125	58100		5380		50100	105		P
Magnesium	ug/Kg	75-125	1180000		459000		501000	143	N	P
Manganese	ug/Kg		263000		229000		50100	68.1	N/A	P
Potassium	ug/Kg	75-125	1340000		624000		501000	142	N	P
Silver	ug/Kg	75-125	51500		98.1	U	50100	103		P
Sodium	ug/Kg	75-125	791000		269000		501000	104		P
Vanadium	ug/Kg	75-125	58300		5680		50100	105		P
Zinc	ug/Kg	75-125	91400		33800		50100	115		P

METALS

-5a-

Matrix Spike Summary

SDG NO. 10-1951-1 Client ID RE15-10-8314S

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 97.3

Sample ID: 247561001 Spike ID: 1202049287

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75-125	8.82		0.942	J	8.11	97.1		MS
Beryllium	mg/kg	75-125	5.42		0.447		5.07	98.1		MS
Nickel	mg/kg	75-125	7.38		2.31		5.07	99.9		MS
Selenium	mg/kg	75-125	1.52		0.511	U	2.03	73.3	N	MS
Thallium	mg/kg	75-125	10.7		0.0732	J	10.1	105		MS
Uranium	mg/kg	75-125	6.15		1.37		5.07	94.3		MS

METALS

-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-1951-1 Client ID RE15-10-8314SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 97.3

Sample ID: 247561001 Spike ID: 1202049288

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75-125	8.58		0.942	J	8.14	93.8		MS
Beryllium	mg/kg	75-125	5.31		0.447		5.09	95.5		MS
Nickel	mg/kg	75-125	7.25		2.31		5.09	97		MS
Selenium	mg/kg	75-125	1.63		0.511	U	2.04	78.4		MS
Thallium	mg/kg	75-125	10.9		0.0732	J	10.2	107		MS
Uranium	mg/kg	75-125	6.44		1.37		5.09	99.6		MS

METALS

-5a-

Matrix Spike Summary

SDG NO. 10-1951-1 Client ID RE16-10-1514S

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 89

Sample ID: 247558001 Spike ID: 1202055976

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	128		4.16	U	120	107		AV

METALS

-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-1951-1 Client ID RE16-10-1514SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 89

Sample ID: 247558001 Spike ID: 1202055978

<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	137		4.16	U	133	103		AV

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1951-1

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE15-10-8314D

Sample ID: 247561001

Duplicate ID: 1202049279

Percent Solids for Dup: 97.3

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20%	2580000		2990000		14.9		P
Antimony	ug/Kg		324 U		318 U				P
Barium	ug/Kg	+/-20%	35900		41800		15.1		P
Cadmium	ug/Kg	+/-482	112 J		122 J		8.44		P
Calcium	ug/Kg	+/-20%	954000		1270000		28.7	*	P
Chromium	ug/Kg	+/-482	2160		2430		11.5		P
Cobalt	ug/Kg	+/-482	862		1000		14.9		P
Copper	ug/Kg	+/-964	2730		3190		15.5		P
Iron	ug/Kg	+/-20%	7670000		9430000		20.5	*	P
Lead	ug/Kg	+/-20%	5380		5850		8.32		P
Magnesium	ug/Kg	+/-20%	459000		543000		16.6		P
Manganese	ug/Kg	+/-20%	229000		237000		3.66		P
Potassium	ug/Kg	+/-20%	624000		654000		4.65		P
Silver	ug/Kg		98.1 U		96.4 U				P
Sodium	ug/Kg	+/-20%	269000		262000		2.94		P
Vanadium	ug/Kg	+/-20%	5680		6510		13.7		P
Zinc	ug/Kg	+/-20%	33800		42300		22.4	*	P

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1951-1

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE15-10-8314SD

Sample ID: 1202049281

Duplicate ID: 1202049282

Percent Solids for Dup: 97.3

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20	5170000		5720000		10.2		P
Antimony	ug/Kg	+/-20	49400		49400		.0552		P
Barium	ug/Kg	+/-20	96300		94800		1.56		P
Cadmium	ug/Kg	+/-20	51400		51200		.313		P
Calcium	ug/Kg	+/-20	4850000		1850000		89.5	*	P
Chromium	ug/Kg	+/-20	54500		54300		.367		P
Cobalt	ug/Kg	+/-20	49400		49600		.523		P
Copper	ug/Kg	+/-20	59200		58500		1.21		P
Iron	ug/Kg	+/-20	9250000		9660000		4.37		P
Lead	ug/Kg	+/-20	57400		58100		1.15		P
Magnesium	ug/Kg	+/-20	1130000		1180000		3.82		P
Manganese	ug/Kg	+/-20	310000		263000		16.5		P
Potassium	ug/Kg	+/-20	1320000		1340000		1.12		P
Silver	ug/Kg	+/-20	51700		51500		.427		P
Sodium	ug/Kg	+/-20	928000		791000		15.9		P
Vanadium	ug/Kg	+/-20	58100		58300		.379		P
Zinc	ug/Kg	+/-20	91200		91400		.268		P

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1951-1

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE15-10-8314D

Sample ID: 247561001

Duplicate ID: 1202049285

Percent Solids for Dup: 97.3

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/-1	0.942 J		1.15		19.5		MS
Beryllium	mg/kg	+/- .1	0.447		0.473		5.53		MS
Nickel	mg/kg	+/-20%	2.31		2.72		16.2		MS
Selenium	mg/kg		0.511 U		0.502 U				MS
Thallium	mg/kg	+/- .201	0.0732 J		0.0699 J		4.61		MS
Uranium	mg/kg	+/-20%	1.37		0.664		69.5	*	MS

Metals

-6-

Duplicate Sample Summary

SDG No.: 10-1951-1

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE15-10-8314SD

Sample ID: 1202049287

Duplicate ID: 1202049288

Percent Solids for Dup: 97.3

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/-20	8.82		8.58		2.73		MS
Beryllium	mg/kg	+/-20	5.42		5.31		2.07		MS
Nickel	mg/kg	+/-20	7.38		7.25		1.74		MS
Selenium	mg/kg	+/-20	1.52		1.63		6.96		MS
Thallium	mg/kg	+/-20	10.7		10.9		2.26		MS
Uranium	mg/kg	+/-20	6.15		6.44		4.55		MS

Metals

-6-

Duplicate Sample Summary

SDG No.: 10-1951-1

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE16-10-1514D

Sample ID: 247558001

Duplicate ID: 1202055975

Percent Solids for Dup: 89

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg		4.16 U		4.44 U				AV

Metals

-6-

Duplicate Sample Summary

SDG No.: 10-1951-1

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE16-10-1514SD

Sample ID: 1202055976

Duplicate ID: 1202055978

Percent Solids for Dup: 89

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-20	128		137		7.07		AV

METALS

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Laboratory Control Sample Summary

SDG NO. 10-1951-1

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>
1202049283								
	Aluminum	ug/Kg	10500000	9510000		90.6	56-144	P
	Antimony	ug/Kg	173000	125000		72.5	71-130	P
	Barium	ug/Kg	198000	205000		104	80-120	P
	Cadmium	ug/Kg	60700	62900		104	81-120	P
	Calcium	ug/Kg	9870000	10200000		103	83-117	P
	Chromium	ug/Kg	236000	260000		110	80-120	P
	Cobalt	ug/Kg	91200	95700		105	81-120	P
	Copper	ug/Kg	174000	202000		116	81-118	P
	Iron	ug/Kg	18000000	19600000		109	51-149	P
	Lead	ug/Kg	86000	89300		104	79-121	P
	Magnesium	ug/Kg	4000000	4020000		100	79-122	P
	Manganese	ug/Kg	558000	575000		103	81-119	P
	Potassium	ug/Kg	4300000	4190000		97.5	74-127	P
	Silver	ug/Kg	30100	32800		109	66-134	P
	Sodium	ug/Kg	1020000	1090000		107	74-127	P
	Vanadium	ug/Kg	115000	130000		113	79-121	P
	Zinc	ug/Kg	594000	629000		106	80-121	P

METALS

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Laboratory Control Sample Summary

SDG NO. 10-1951-1

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>
1202049289								
	Arsenic	mg/kg	104	108		104	78-123	MS
	Beryllium	mg/kg	77.6	81.9		106	84-116	MS
	Nickel	mg/kg	134	143		107	78-123	MS
	Selenium	mg/kg	286	286		99.9	77-123	MS
	Thallium	mg/kg	121	140		115	78-122	MS
	Uranium	mg/kg	2.13	2.1		98.8	73-127	MS

METALS

-7-

Laboratory Control Sample Summary

SDG NO. 10-1951-1

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>
1202055974	Mercury	ug/kg	5150	5060		98.3	71.6-128.3	AV

METALS

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Serial Dilution Sample Summary

SDG NO. 10-1951-1 Client ID RE15-10-8314L

Contract: LANL01004

Matrix: SOLID Level: Low

Sample ID: 247561001 Serial Dilution ID: 1202049280

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	26300		25800		2.09		10	P
Antimony	3.3	U	16.5	U				P
Barium	366		341		6.97		10	P
Cadmium	1.14	J	5	U	100			P
Calcium	9730		9550		1.85		10	P
Chromium	22.1		21	J	4.98			P
Cobalt	8.79		7.5	U	100			P
Copper	27.8		24.4	J	12.2			P
Iron	78200		78000		.256		10	P
Lead	54.9		42.8	J	22			P
Magnesium	4680		4550		2.78		10	P
Manganese	2330		2290		1.72		10	P
Potassium	6360		6050		4.87		10	P
Silver	1	U	5	U				P
Sodium	2750		2720		1.09			P
Vanadium	57.9		55.5		4.15		10	P
Zinc	345		319		7.68		10	P

METALS

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Serial Dilution Sample Summary

SDG NO. 10-1951-1 Client ID RE15-10-8314L

Contract: LANL01004

Matrix: SOLID Level: Low

Sample ID: 247561001 Serial Dilution ID: 1202049286

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	4.61	J	5.1	J	10.6			MS
Beryllium	2.19		2.28	J	4.11			MS
Nickel	11.3		11.7		3.1			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.358	J	1.5	U	100			MS
Uranium	6.71		6.9		2.83		10	MS

METALS

-9-

Serial Dilution Sample Summary

SDG NO. 10-1951-1 Client ID RE16-10-1514L

Contract: LANL01004

Matrix: SOLID Level: Low

Sample ID: 247558001 Serial Dilution ID: 1202055977

<u>Analyte</u>	<u>Initial Value ug/L</u>	<u>C</u>	<u>Serial Value ug/L</u>	<u>C</u>	<u>% Difference</u>	<u>Qual</u>	<u>Acceptance Limit</u>	<u>M</u>
Mercury	.068	U	.34	U				AV

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1951-1

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 955815							
1202049278	MB for batch 955815	MB	S	25-FEB-10	.502g	50mL	
1202049283	LCS for batch 955815	LCS	S	25-FEB-10	.509g	50mL	
1202049281	RE15-10-8314S	MS	S	25-FEB-10	.517g	50mL	
1202049282	RE15-10-8314SD	MSD	S	25-FEB-10	.513g	50mL	
1202049279	RE15-10-8314D	DUP	S	25-FEB-10	.533g	50mL	
247561001	RE15-10-8314	SAMPLE	S	25-FEB-10	.524g	50mL	
247561002	RE15-10-8313	SAMPLE	S	25-FEB-10	.535g	50mL	
247561003	RE15-10-8312	SAMPLE	S	25-FEB-10	.509g	50mL	
247561004	RE15-10-8315	SAMPLE	S	25-FEB-10	.532g	50mL	
247561005	RE15-10-8311	SAMPLE	S	25-FEB-10	.522g	50mL	
247561006	RE15-10-8310	SAMPLE	S	25-FEB-10	.534g	50mL	
247561007	RE15-10-8303	SAMPLE	S	25-FEB-10	.515g	50mL	
247561008	RE15-10-8302	SAMPLE	S	25-FEB-10	.511g	50mL	

SW846

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1951-1

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 955817							
1202049284	MB for batch 955817	MB	S	25-FEB-10	.545g	50mL	
1202049289	LCS for batch 955817	LCS	S	25-FEB-10	.521g	50mL	
1202049287	RE15-10-8314S	MS	S	25-FEB-10	.507g	50mL	
1202049288	RE15-10-8314SD	MSD	S	25-FEB-10	.505g	50mL	
1202049285	RE15-10-8314D	DUP	S	25-FEB-10	.512g	50mL	
247561001	RE15-10-8314	SAMPLE	S	25-FEB-10	.503g	50mL	
247561002	RE15-10-8313	SAMPLE	S	25-FEB-10	.502g	50mL	
247561003	RE15-10-8312	SAMPLE	S	25-FEB-10	.53g	50mL	
247561004	RE15-10-8315	SAMPLE	S	25-FEB-10	.507g	50mL	
247561005	RE15-10-8311	SAMPLE	S	25-FEB-10	.521g	50mL	
247561006	RE15-10-8310	SAMPLE	S	25-FEB-10	.506g	50mL	
247561007	RE15-10-8303	SAMPLE	S	25-FEB-10	.546g	50mL	
247561008	RE15-10-8302	SAMPLE	S	25-FEB-10	.518g	50mL	

SW846

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1951-1

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 958644							
1202055973	MB for batch 958644	MB	S	01-MAR-10	.6g	30mL	
1202055974	LCS for batch 958644	LCS	S	01-MAR-10	.208g	30mL	
1202055976	RE16-10-1514S	MS	S	01-MAR-10	.565g	30mL	
1202055978	RE16-10-1514SD	MSD	S	01-MAR-10	.508g	30mL	
1202055975	RE16-10-1514D	DUP	S	01-MAR-10	.518g	30mL	
247561001	RE15-10-8314	SAMPLE	S	01-MAR-10	.571g	30mL	
247561002	RE15-10-8313	SAMPLE	S	01-MAR-10	.535g	30mL	
247561003	RE15-10-8312	SAMPLE	S	01-MAR-10	.539g	30mL	
247561004	RE15-10-8315	SAMPLE	S	01-MAR-10	.53g	30mL	
247561005	RE15-10-8311	SAMPLE	S	01-MAR-10	.515g	30mL	
247561006	RE15-10-8310	SAMPLE	S	01-MAR-10	.559g	30mL	
247561007	RE15-10-8303	SAMPLE	S	01-MAR-10	.517g	30mL	
247561008	RE15-10-8302	SAMPLE	S	01-MAR-10	.535g	30mL	

SW846

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS5

Start Date: 19-MAR-10

End Date: 19-MAR-10

Client Sdg: 10-1951-1

Method MS

Data File: 100318-2

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	04:18																		X			X			
S10	1	04:22																		X			X			
S100	1	04:25																		X			X			
ICV01	1	04:29																		X			X			
ICB01	1	04:33																		X			X			
CRDL01	1	04:36																		X			X			
ICSA01	1	04:40																		X			X			
ICSAB01	1	04:43																		X			X			
CCV01	1	04:47																		X			X			
CCB01	1	04:51																		X			X			
1202049284	2	04:54																		X			X			
1202049289	40	04:58																		X			X			
ZZZZZZ	2	05:02																								
ZZZZZZ	2	05:05																								
ZZZZZZ	2	05:09																								
CCV02	1	05:12																		X			X			
CCB02	1	05:16																		X			X			
247561001	2	05:20																		X			X			
1202049285	2	05:23																		X			X			
1202049287	2	05:27																		X			X			
1202049288	2	05:31																		X			X			
1202049286	10	05:34																		X			X			
247561002	2	05:38																		X			X			
CCV03	1	05:41																		X			X			
CCB03	1	05:45																		X			X			
247561003	2	05:49																		X			X			
247561004	2	05:52																		X			X			
247561005	2	05:56																		X			X			
247561006	2	06:00																		X			X			
247561007	2	06:03																		X			X			
247561008	2	06:07																		X			X			
CCV04	1	06:10																		X			X			
CCB04	1	06:14																		X			X			

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS5

Start Date: 19-MAR-10

End Date: 19-MAR-10

Client Sdg: 10-1951-1

Method MS

Data File: 100319-3

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	17:06			X		X											X					X			
S10	1	17:09			X		X											X					X			
S100	1	17:12			X		X											X					X			
ICV01	1	17:16			X		X											X					X			
ICB01	1	17:19			X		X											X					X			
CRDL01	1	17:22			X		X											X					X			
ICSA01	1	17:26			X		X											X					X			
ICSAB01	1	17:29			X		X											X					X			
CCV01	1	17:32			X		X											X					X			
CCB01	1	17:36			X		X											X					X			
CCV02	1	17:39			X		X											X					X			
CCB02	1	17:42			X		X											X					X			
ZZZZZZ	1	17:46																								
1202049284	2	17:49			X		X											X					X			
1202049289	40	17:52			X		X											X					X			
ZZZZZZ	2	17:56																								
CCV03	1	17:59			X		X											X					X			
CCB03	1	18:02			X		X											X					X			
ZZZZZZ	2	18:06																								
ZZZZZZ	2	18:09																								
247561001	2	18:12			X		X											X					X			
1202049285	2	18:16			X		X											X					X			
1202049287	2	18:19			X		X											X					X			
1202049288	2	18:22			X		X											X					X			
1202049286	10	18:26			X		X											X					X			
CCV04	1	18:29			X		X											X					X			
CCB04	1	18:32			X		X											X					X			
247561002	2	18:36			X		X											X					X			
247561003	2	18:39			X		X											X					X			
247561004	2	18:42			X		X											X					X			
247561005	2	18:46			X		X											X					X			
247561006	2	18:49			X		X											X					X			
247561007	2	18:53			X		X											X					X			
247561008	2	18:56			X		X											X					X			
CCV05	1	18:59			X		X											X					X			
CCB05	1	19:03			X		X											X					X			

Metals
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Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: MER536

Start Date: 02-MAR-10

End Date: 02-MAR-10

Client Sdg: 10-1951-1

Method: AV

Data File: 030210S1-4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	08:34															X									
S0.2	1	08:36															X									
S0.5	1	08:38															X									
S2.0	1	08:40															X									
S5.0	1	08:42															X									
S10	1	08:44															X									
ICV01	1	08:46															X									
ICB01	1	08:48															X									
CRDL01	1	08:50															X									
CCV01	1	08:52															X									
CCB01	1	08:54															X									
ZZZZZZ	1	08:56																								
ZZZZZZ	10	08:58																								
ZZZZZZ	1	09:00																								
ZZZZZZ	1	09:02																								
ZZZZZZ	1	09:04																								
ZZZZZZ	1	09:06																								
ZZZZZZ	5	09:08																								
ZZZZZZ	1	09:10																								
ZZZZZZ	1	09:12																								
ZZZZZZ	1	09:14																								
CCV02	1	09:16															X									
CCB02	1	09:18															X									
ZZZZZZ	1	09:20																								
ZZZZZZ	1	09:22																								
ZZZZZZ	1	09:24																								
ZZZZZZ	1	09:26																								
ZZZZZZ	1	09:28																								
ZZZZZZ	1	09:30																								
ZZZZZZ	1	09:32																								
ZZZZZZ	1	09:34																								
ZZZZZZ	1	09:36																								
ZZZZZZ	1	09:38																								
CCV03	1	09:40															X									
CCB03	1	09:42															X									
ZZZZZZ	1	09:49																								
ZZZZZZ	1	09:51																								
ZZZZZZ	1	09:52																								
ZZZZZZ	1	09:54																								
ZZZZZZ	10	09:56																								

SW846

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
ZZZZZZ	1	11:17																								
CCV07	1	11:19															X									
CCB07	1	11:22															X									
ZZZZZZ	1	11:24																								
ZZZZZZ	1	11:25																								
ZZZZZZ	1	11:27																								
ZZZZZZ	1	11:29																								
ZZZZZZ	1	11:31																								
ZZZZZZ	1	11:34																								
ZZZZZZ	1	11:35																								
ZZZZZZ	1	11:37																								
ZZZZZZ	10	11:39																								
ZZZZZZ	1	11:41																								
CCV08	1	11:43															X									
CCB08	1	11:45															X									
ZZZZZZ	1	11:47																								
ZZZZZZ	1	11:49																								
ZZZZZZ	1	11:51																								
ZZZZZZ	5	11:53																								
ZZZZZZ	1	11:55																								
ZZZZZZ	1	11:57																								
ZZZZZZ	1	11:59																								
ZZZZZZ	1	12:01																								
ZZZZZZ	1	12:03																								
ZZZZZZ	1	12:05																								
CCV09	1	12:07															X									
CCB09	1	12:09															X									
ZZZZZZ	1	12:11																								
ZZZZZZ	1	12:13																								
ZZZZZZ	1	12:15																								
ZZZZZZ	1	12:17																								
CCV10	1	12:26															X									
CCB10	1	12:28															X									
CCV11	1	12:33															X									
CCB11	1	12:35															X									
ZZZZZZ	20	12:37																								
ZZZZZZ	1	12:39																								
ZZZZZZ	1	12:41																								
ZZZZZZ	1	12:43																								
ZZZZZZ	5	12:45																								

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time
ZZZZZZ	1	12:47
ZZZZZZ	1	12:49
ZZZZZZ	1	12:51
ZZZZZZ	1	12:53
ZZZZZZ	10	12:55
CCV12	1	12:57
CCB12	1	12:59
ZZZZZZ	1	13:01
ZZZZZZ	10	13:03
ZZZZZZ	1	13:05
ZZZZZZ	20	13:07
ZZZZZZ	1	13:09
ZZZZZZ	1	13:11
ZZZZZZ	1	13:13
ZZZZZZ	1	13:15
ZZZZZZ	1	13:17
ZZZZZZ	1	13:19
CCV13	1	13:21
CCB13	1	13:23
ZZZZZZ	100	13:26
CCV14	1	13:28
CCB14	1	13:30
ZZZZZZ	1	13:35
ZZZZZZ	10	13:37
ZZZZZZ	1	13:39
ZZZZZZ	1	13:41
ZZZZZZ	1	13:43
ZZZZZZ	1	13:45
ZZZZZZ	5	13:47
ZZZZZZ	1	13:49
ZZZZZZ	1	13:51
ZZZZZZ	1	13:53
CCV15	1	13:55
CCB15	1	13:57
ZZZZZZ	1	13:59
ZZZZZZ	1	14:01
ZZZZZZ	1	14:03
ZZZZZZ	1	14:05
ZZZZZZ	1	14:07
ZZZZZZ	1	14:09

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	14:11																								
ZZZZZZ	1	14:13																								
ZZZZZZ	1	14:15																								
ZZZZZZ	1	14:17																								
CCV16	1	14:19															X									
CCB16	1	14:21															X									
ZZZZZZ	1	14:23																								
ZZZZZZ	10	14:25																								
ZZZZZZ	1	14:27																								
ZZZZZZ	1	14:29																								
ZZZZZZ	1	14:31																								
ZZZZZZ	1	14:32																								
CCV17	1	14:35															X									
CCB17	1	14:37															X									
1202055973	1	14:39															X									
1202055974	10	14:41															X									
ZZZZZZ	1	14:43																								
1202055975	1	14:45															X									
1202055976	1	14:47															X									
1202055978	1	14:49															X									
1202055977	5	14:51															X									
ZZZZZZ	1	14:53																								
ZZZZZZ	1	14:55																								
ZZZZZZ	1	14:57																								
CCV18	1	14:59															X									
CCB18	1	15:01															X									
ZZZZZZ	1	15:03																								
247561001	1	15:05															X									
247561002	1	15:07															X									
247561003	1	15:09															X									
247561004	1	15:11															X									
247561005	1	15:13															X									
247561006	1	15:15															X									
247561007	1	15:17															X									
247561008	1	15:19															X									
ZZZZZZ	1	15:21																								
CCV19	1	15:23															X									
CCB19	1	15:25															X									

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: OPTIMA1

Start Date: 19-MAR-10

End Date: 19-MAR-10

Client Sdg: 10-1951-1

Method P

Data File: 031910D-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	06:14	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S0.1	1	06:18		X		X		X		X	X	X		X		X			X		X				X	X
S0.5	1	06:20	X	X		X		X	X	X	X	X		X	X	X			X		X				X	X
SCAL	1	06:24	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S10	1	06:28	X						X				X		X							X				
ICV01	1	06:30	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICB01	1	06:34	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
PQL01	1	06:37	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSA01	1	06:41	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSAB01	1	06:43	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR01	1	06:46	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR02	1	06:49	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV01	1	06:53	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB01	1	06:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR03	1	07:05	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR04	1	07:09	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV02	1	07:12	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB02	1	07:16	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202049278	1	07:19	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202049283	1	07:23	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZ	1	07:26																								
ZZZZZ	1	07:30																								
ZZZZZ	1	07:34																								
247561001	1	07:37	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202049279	1	07:41	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202049281	1	07:45	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202049282	1	07:48	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV03	1	07:52	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB03	1	07:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202049280	5	07:59	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
247561002	1	08:03	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
247561003	1	08:07	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
247561004	1	08:10	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
247561005	1	08:14	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
247561006	1	08:18	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
247561007	1	08:21	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
247561008	1	08:25	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV04	1	08:29	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB04	1	08:32	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. 10-1951-1

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. 10-1951-1

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 15-JUN-09

		<u>Wavelength</u> <u>(nm)</u>	<u>MDL</u> <u>ug/L</u>	<u>RDL</u> <u>ug/L</u>
MERCURY	<u>Analyte</u>			
SOLID	Mercury		0.068	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1951-1

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

ICP	<u>Analyte</u>	<u>Wavelength</u> <u>(nm)</u>	<u>MDL</u>	<u>RDL</u>
			<u>ug/L</u>	<u>ug/L</u>
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GELGEL Job No: **10-1951-1**

Contract: LANL01004

Instrument: OPTIMA1

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	0.00000	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: **10-1951-1**

Contract: LANL01004

Instrument: OPTIMA1

Effective Dates: **01-FEB-10**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Boron	Cadmium	Chromium	Cobalt	Copper
Parmname	Wavelength					
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	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: **10-1951-1**

Contract: LANL01004

Instrument: OPTIMA1

Effective Dates: **01-FEB-10**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Iron	Lead	Magnesium	Manganese	Molybdenum
Parmname	Wavelength					
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	20.5430
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-16.3320
Arsenic	188.979	-0.05800	0.00000	0.00000	0.00000	1.97700
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.13300	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	-0.90500
Copper	324.752	-0.13900	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.03800	-2.87600	0.00000	0.00000	0.00000
Magnesium	279.077	1.07300	0.00000	0.00000	0.00000	-16.8110
Manganese	257.61	-0.13900	0.00000	0.04000	0.00000	0.00000
Molybdenum	202.031	-0.03800	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	-0.01300	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.81200	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.88200	0.00000	0.28200	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	-0.06300	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.03900	0.00000	0.00000	-4.11700	0.00000
Tin	189.927	-0.09200	0.00000	-0.19600	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.07900	0.00000	0.00000
Uranium	409.014	0.13900	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	-0.05300	0.00000	0.00000	0.00000	-7.71400
Zinc	213.857	0.14460	0.00000	0.02030	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GELGEL Job No: **10-1951-1**

Contract: LANL01004

Instrument: OPTIMA1

Effective Dates: **01-FEB-10**

Interelement 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-
Interelement Correction Factors

Lab Code: GELGEL Job No: **10-1951-1**

Contract: LANL01004

Instrument: OPTIMA1

Effective Dates: **01-FEB-10**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Sulfur	Thallium	Tin	Titanium	Uranium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.38100	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	2.08700	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.04000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	-14.8110	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-8.68900	-1.22400
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	-1.03900
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL

GEL Job No: 10-1951-1

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. 10-1951-1

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. 10-1951-1

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

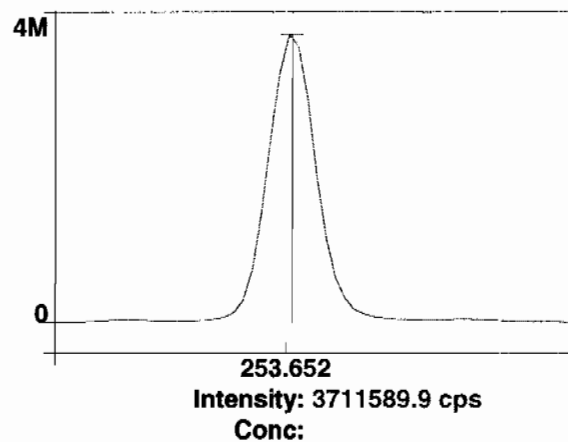
Raw Data

Method: Hg_ReAlign
Result: 032210

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1



1

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Analysis Begun

Start Time: 3/19/2010 06:14:29

Plasma On Time: 00:00:00

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\031910.sif

Batch ID:

Results Data Set: 031910D

Results Library: c:\pe\optimal\Results\Results.mdb
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Method Loaded

Method Name: Gen Eng fast_new Si

Method Last Saved: 3/17/2010 23:02:24

IEC File: 011510.iec

MSF File:

Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1

Autosampler Location: 8

Sample ID: S0

Date Collected: 3/19/2010 06:14:42

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:
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Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc RADIAL	87283.1	87283.1	99.5 %	06:15:21
1	Al 396.153Radial†	206.1	207.1	[0.00] µg/L	06:15:21
1	Ca 317.933Radial†	335.6	337.2	[0.00] µg/L	06:15:41
1	Fe 238.204 Radial†	11.1	11.2	[0.00] µg/L	06:15:41

1	K 766.490 Radial†	151.0	151.7	[0.00]	µg/L	06:15:21
1	Mg 279.077 IEC†	7.7	7.7	[0.00]	µg/L	06:15:41
1	Na 589.592 Radial†	115.3	115.8	[0.00]	µg/L	06:15:21
1	Sr 421.552†	182.2	183.0	[0.00]	µg/L	06:15:21
1	Sc 361.383	1990823.5	1990823.5	100.29	%	06:16:43
1	Y 371.029	1362845.6	1362845.6	100.37	%	06:16:43
1	Ag 328.068†	607.5	605.8	[0.00]	µg/L	06:16:49
1	As 188.979†	0.3	0.3	[0.00]	µg/L	06:17:09
1	B 249.677†	399.0	397.8	[0.00]	µg/L	06:17:09
1	Ba 233.527†	4.0	4.0	[0.00]	µg/L	06:17:09
1	Be 313.107†	-852.4	-850.0	[0.00]	µg/L	06:16:49
1	Cd 226.502†	-160.3	-159.8	[0.00]	µg/L	06:17:09
1	Co 228.616†	46.7	46.6	[0.00]	µg/L	06:17:09
1	Cr 267.716†	96.7	96.5	[0.00]	µg/L	06:17:09
1	Cu 324.752†	4336.7	4324.3	[0.00]	µg/L	06:16:49
1	Mn 257.610†	-224.9	-224.3	[0.00]	µg/L	06:17:09
1	Mo 202.031†	23.7	23.6	[0.00]	µg/L	06:17:09
1	Ni 231.604†	363.0	362.0	[0.00]	µg/L	06:17:09
1	P 214.914†	15.5	15.5	[0.00]	µg/L	06:17:09
1	Pb 220.353†	49.7	49.6	[0.00]	µg/L	06:17:09
1	S 181.975 Axial†	23.0	22.9	[0.00]	µg/L	06:17:09
1	Sb 206.836†	23.4	23.3	[0.00]	µg/L	06:17:09
1	Se 196.026†	22.5	22.5	[0.00]	µg/L	06:17:09
1	SiO2†	3004.2	2995.7	[0.00]	µg/L	06:17:09
1	Si 251.611†	726.4	724.4	[0.00]	µg/L	06:17:09
1	Sn 189.927†	6.6	6.6	[0.00]	µg/L	06:17:09
1	Ti 334.940†	4712.4	4699.0	[0.00]	µg/L	06:16:49
1	Tl 190.801†	-37.2	-37.1	[0.00]	µg/L	06:17:09
1	U 409.014†	8.6	8.6	[0.00]	µg/L	06:16:49
1	V 292.402†	-107.8	-107.5	[0.00]	µg/L	06:16:49
1	Zn 213.857†	904.4	901.8	[0.00]	µg/L	06:17:09
2	Sc RADIAL	87507.5	87507.5	99.8	%	06:15:47
2	Al 396.153Radial†	203.0	203.4	[0.00]	µg/L	06:15:47
2	Ca 317.933Radial†	334.7	335.4	[0.00]	µg/L	06:16:07
2	Fe 238.204 Radial†	12.7	12.8	[0.00]	µg/L	06:16:07
2	K 766.490 Radial†	185.8	186.2	[0.00]	µg/L	06:15:47
2	Mg 279.077 IEC†	7.9	8.0	[0.00]	µg/L	06:16:07
2	Na 589.592 Radial†	189.3	189.7	[0.00]	µg/L	06:15:47
2	Sr 421.552†	145.7	146.0	[0.00]	µg/L	06:15:47
2	Sc 361.383	1978664.2	1978664.2	99.674	%	06:17:15
2	Y 371.029	1355385.4	1355385.4	99.818	%	06:17:15
2	Ag 328.068†	594.8	596.7	[0.00]	µg/L	06:17:21
2	As 188.979†	-1.8	-1.8	[0.00]	µg/L	06:17:41
2	B 249.677†	396.2	397.5	[0.00]	µg/L	06:17:41
2	Ba 233.527†	1.3	1.3	[0.00]	µg/L	06:17:41
2	Be 313.107†	-901.3	-904.3	[0.00]	µg/L	06:17:21
2	Cd 226.502†	-167.9	-168.4	[0.00]	µg/L	06:17:41
2	Co 228.616†	55.6	55.8	[0.00]	µg/L	06:17:41
2	Cr 267.716†	78.1	78.3	[0.00]	µg/L	06:17:41
2	Cu 324.752†	4255.9	4269.8	[0.00]	µg/L	06:17:21
2	Mn 257.610†	-264.9	-265.8	[0.00]	µg/L	06:17:41
2	Mo 202.031†	24.0	24.1	[0.00]	µg/L	06:17:41
2	Ni 231.604†	367.1	368.3	[0.00]	µg/L	06:17:41
2	P 214.914†	15.3	15.3	[0.00]	µg/L	06:17:41
2	Pb 220.353†	32.8	32.9	[0.00]	µg/L	06:17:41
2	S 181.975 Axial†	20.9	21.0	[0.00]	µg/L	06:17:41
2	Sb 206.836†	28.0	28.1	[0.00]	µg/L	06:17:41
2	Se 196.026†	27.9	28.0	[0.00]	µg/L	06:17:41
2	SiO2†	3002.2	3012.1	[0.00]	µg/L	06:17:41
2	Si 251.611†	709.5	711.9	[0.00]	µg/L	06:17:41
2	Sn 189.927†	1.1	1.1	[0.00]	µg/L	06:17:41
2	Ti 334.940†	4967.2	4983.5	[0.00]	µg/L	06:17:21
2	Tl 190.801†	-30.1	-30.2	[0.00]	µg/L	06:17:41
2	U 409.014†	8.8	8.8	[0.00]	µg/L	06:17:21
2	V 292.402†	-180.0	-180.6	[0.00]	µg/L	06:17:21
2	Zn 213.857†	905.6	908.6	[0.00]	µg/L	06:17:41
3	Sc RADIAL	88268.9	88268.9	101	%	06:16:13
3	Al 396.153Radial†	208.9	207.6	[0.00]	µg/L	06:16:13
3	Ca 317.933Radial†	364.7	362.2	[0.00]	µg/L	06:16:33
3	Fe 238.204 Radial†	15.6	15.5	[0.00]	µg/L	06:16:33
3	K 766.490 Radial†	260.1	258.4	[0.00]	µg/L	06:16:13

3	Mg 279.077 IEC†	3.9	3.9	[0.00]	µg/L	06:16:33
3	Na 589.592 Radial†	184.4	183.2	[0.00]	µg/L	06:16:13
3	Sr 421.552†	146.4	145.4	[0.00]	µg/L	06:16:13
3	Sc 361.383	1985937.2	1985937.2	100.04	%	06:17:47
3	Y 371.029	1355353.4	1355353.4	99.815	%	06:17:47
3	Ag 328.068†	587.0	586.8	[0.00]	µg/L	06:17:53
3	As 188.979†	-0.3	-0.3	[0.00]	µg/L	06:18:13
3	B 249.677†	399.2	399.0	[0.00]	µg/L	06:18:13
3	Ba 233.527†	8.1	8.1	[0.00]	µg/L	06:18:13
3	Be 313.107†	-959.7	-959.3	[0.00]	µg/L	06:17:53
3	Cd 226.502†	-164.8	-164.8	[0.00]	µg/L	06:18:13
3	Co 228.616†	46.1	46.1	[0.00]	µg/L	06:18:13
3	Cr 267.716†	80.2	80.2	[0.00]	µg/L	06:18:13
3	Cu 324.752†	4272.3	4270.6	[0.00]	µg/L	06:17:53
3	Mn 257.610†	-337.7	-337.6	[0.00]	µg/L	06:18:13
3	Mo 202.031†	28.6	28.6	[0.00]	µg/L	06:18:13
3	Ni 231.604†	375.2	375.0	[0.00]	µg/L	06:18:13
3	P 214.914†	15.2	15.2	[0.00]	µg/L	06:18:13
3	Pb 220.353†	36.3	36.3	[0.00]	µg/L	06:18:13
3	S 181.975 Axial†	26.3	26.3	[0.00]	µg/L	06:18:13
3	Sb 206.836†	28.0	28.0	[0.00]	µg/L	06:18:13
3	Se 196.026†	23.2	23.2	[0.00]	µg/L	06:18:13
3	SiO2†	2985.3	2984.1	[0.00]	µg/L	06:18:13
3	Si 251.611†	702.3	702.1	[0.00]	µg/L	06:18:13
3	Sn 189.927†	-3.1	-3.1	[0.00]	µg/L	06:18:13
3	Ti 334.940†	4996.3	4994.3	[0.00]	µg/L	06:17:53
3	Tl 190.801†	-35.5	-35.5	[0.00]	µg/L	06:18:13
3	U 409.014†	-67.4	-67.4	[0.00]	µg/L	06:17:53
3	V 292.402†	-197.2	-197.1	[0.00]	µg/L	06:17:53
3	Zn 213.857†	930.1	929.7	[0.00]	µg/L	06:18:13

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1985141.6	6118.55	0.31%	100.00	%
Sc RADIAL	87686.5	516.73	0.59%	100	%
Y 371.029	1357861.4	4316.40	0.32%	100.00	%
Ag 328.068†	596.4	9.50	1.59%	[0.00]	µg/L
Al 396.153Radial†	206.0	2.25	1.09%	[0.00]	µg/L
As 188.979†	-0.6	1.08	179.14%	[0.00]	µg/L
B 249.677†	398.1	0.79	0.20%	[0.00]	µg/L
Ba 233.527†	4.4	3.40	76.43%	[0.00]	µg/L
Be 313.107†	-904.5	54.69	6.05%	[0.00]	µg/L
Ca 317.933Radial†	344.9	15.02	4.36%	[0.00]	µg/L
Cd 226.502†	-164.3	4.33	2.63%	[0.00]	µg/L
Co 228.616†	49.5	5.46	11.03%	[0.00]	µg/L
Cr 267.716†	85.0	9.98	11.75%	[0.00]	µg/L
Cu 324.752†	4288.3	31.24	0.73%	[0.00]	µg/L
Fe 238.204 Radial†	13.1	2.16	16.44%	[0.00]	µg/L
K 766.490 Radial†	198.7	54.43	27.39%	[0.00]	µg/L
Mg 279.077 IEC†	6.5	2.30	35.15%	[0.00]	µg/L
Mn 257.610†	-275.9	57.30	20.77%	[0.00]	µg/L
Mo 202.031†	25.4	2.76	10.86%	[0.00]	µg/L
Na 589.592 Radial†	162.9	40.93	25.13%	[0.00]	µg/L
Ni 231.604†	368.4	6.52	1.77%	[0.00]	µg/L
P 214.914†	15.3	0.16	1.07%	[0.00]	µg/L
Pb 220.353†	39.6	8.84	22.34%	[0.00]	µg/L
S 181.975 Axial†	23.4	2.69	11.50%	[0.00]	µg/L
Sb 206.836†	26.5	2.74	10.36%	[0.00]	µg/L
Se 196.026†	24.6	2.98	12.12%	[0.00]	µg/L
SiO2†	2997.3	14.07	0.47%	[0.00]	µg/L
Si 251.611†	712.8	11.19	1.57%	[0.00]	µg/L
Sn 189.927†	1.5	4.84	313.21%	[0.00]	µg/L
Sr 421.552†	158.1	21.54	13.62%	[0.00]	µg/L
Ti 334.940†	4892.3	167.49	3.42%	[0.00]	µg/L
Tl 190.801†	-34.2	3.60	10.52%	[0.00]	µg/L
U 409.014†	-16.7	43.91	263.38%	[0.00]	µg/L
V 292.402†	-161.7	47.70	29.50%	[0.00]	µg/L
Zn 213.857†	913.4	14.55	1.59%	[0.00]	µg/L

Sequence No.: 2
 Sample ID: S0.1
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 2
 Date Collected: 3/19/2010 06:18:22
 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	90291.0	90291.0	103 %	06:18:54
1	K 766.490 Radial†	2705.3	2428.5	[1000] µg/L	06:18:54
1	Sr 421.552†	17231.2	16576.0	[100] µg/L	06:18:54
1	Sc 361.383	2005872.6	2005872.6	101.04 %	06:19:16
1	Y 371.029	1367419.5	1367419.5	100.70 %	06:19:16
1	Ag 328.068†	14038.2	13296.7	[100] µg/L	06:19:21
1	As 188.979†	75.6	75.4	[100] µg/L	06:19:42
1	B 249.677†	2669.3	2243.6	[100] µg/L	06:19:21
1	Ba 233.527†	4887.4	4832.4	[100] µg/L	06:19:42
1	Be 313.107†	181114.0	180146.7	[100] µg/L	06:19:16
1	Cd 226.502†	4374.1	4493.2	[100] µg/L	06:19:42
1	Co 228.616†	2567.6	2491.6	[100] µg/L	06:19:42
1	Cr 267.716†	5147.7	5009.5	[100] µg/L	06:19:21
1	Cu 324.752†	20933.7	16429.1	[100] µg/L	06:19:21
1	Mn 257.610†	35475.4	35384.6	[100] µg/L	06:19:21
1	Mo 202.031†	1142.6	1105.3	[100] µg/L	06:19:42
1	Ni 231.604†	2325.8	1933.3	[100] µg/L	06:19:42
1	P 214.914†	329.7	310.9	[500] µg/L	06:19:42
1	Pb 220.353†	467.5	423.1	[100] µg/L	06:19:42
1	S 181.975 Axial†	92.7	68.3	[200] µg/L	06:19:42
1	Sb 206.836†	151.4	123.4	[100] µg/L	06:19:42
1	Se 196.026†	147.0	121.0	[100] µg/L	06:19:42
1	SiO2†	9050.9	5960.1	[1069.5] µg/L	06:19:21
1	Si 251.611†	8129.7	7332.9	[500] µg/L	06:19:21
1	Sn 189.927†	298.3	293.6	[100] µg/L	06:19:42
1	Ti 334.940†	44765.6	39410.7	[100] µg/L	06:19:21
1	Tl 190.801†	73.2	106.7	[100] µg/L	06:19:42
1	U 409.014†	1211.8	1215.9	[100] µg/L	06:19:21
1	V 292.402†	9773.8	9834.5	[100] µg/L	06:19:21
1	Zn 213.857†	5633.1	4661.5	[100] µg/L	06:19:42
2	Sc RADIAL	90234.5	90234.5	103 %	06:19:00
2	K 766.490 Radial†	2601.8	2329.5	[1000] µg/L	06:19:00
2	Sr 421.552†	17219.0	16574.6	[100] µg/L	06:19:00
2	Sc 361.383	2008678.4	2008678.4	101.19 %	06:19:48
2	Y 371.029	1373356.8	1373356.8	101.14 %	06:19:48
2	Ag 328.068†	14005.7	13245.1	[100] µg/L	06:19:54
2	As 188.979†	76.0	75.7	[100] µg/L	06:20:14
2	B 249.677†	2695.7	2266.0	[100] µg/L	06:19:54
2	Ba 233.527†	4874.8	4813.2	[100] µg/L	06:20:14
2	Be 313.107†	181571.9	180348.9	[100] µg/L	06:19:48
2	Cd 226.502†	4339.2	4452.7	[100] µg/L	06:20:14
2	Co 228.616†	2556.8	2477.4	[100] µg/L	06:20:14
2	Cr 267.716†	5129.0	4983.9	[100] µg/L	06:19:54
2	Cu 324.752†	20969.2	16435.3	[100] µg/L	06:19:54
2	Mn 257.610†	35444.1	35304.6	[100] µg/L	06:19:54
2	Mo 202.031†	1141.4	1102.6	[100] µg/L	06:20:14
2	Ni 231.604†	2301.7	1906.3	[100] µg/L	06:20:14
2	P 214.914†	324.6	305.5	[500] µg/L	06:20:14
2	Pb 220.353†	461.1	416.1	[100] µg/L	06:20:14
2	S 181.975 Axial†	86.1	61.7	[200] µg/L	06:20:14
2	Sb 206.836†	151.6	123.4	[100] µg/L	06:20:14
2	Se 196.026†	135.6	109.5	[100] µg/L	06:20:14
2	SiO2†	9074.3	5970.7	[1069.5] µg/L	06:19:54
2	Si 251.611†	8179.5	7370.9	[500] µg/L	06:19:54
2	Sn 189.927†	292.8	287.8	[100] µg/L	06:20:14
2	Ti 334.940†	45178.5	39756.8	[100] µg/L	06:19:54
2	Tl 190.801†	78.3	111.7	[100] µg/L	06:20:14
2	U 409.014†	1202.2	1204.8	[100] µg/L	06:19:54
2	V 292.402†	9758.7	9806.1	[100] µg/L	06:19:54

2	Zn 213.857†	5630.6	4651.3	[100]	µg/L	06:20:14
3	Sc RADIAL	90125.2	90125.2	103	%	06:19:05
3	K 766.490 Radial†	2648.3	2377.9	[1000]	µg/L	06:19:05
3	Sr 421.552†	17130.0	16508.3	[100]	µg/L	06:19:05
3	Sc 361.383	2007464.0	2007464.0	101.12	%	06:20:21
3	Y 371.029	1372253.0	1372253.0	101.06	%	06:20:21
3	Ag 328.068†	14067.9	13315.0	[100]	µg/L	06:20:26
3	As 188.979†	71.1	70.9	[100]	µg/L	06:20:47
3	B 249.677†	2706.3	2278.1	[100]	µg/L	06:20:26
3	Ba 233.527†	4883.9	4825.1	[100]	µg/L	06:20:47
3	Be 313.107†	181691.6	180575.7	[100]	µg/L	06:20:21
3	Cd 226.502†	4358.6	4474.5	[100]	µg/L	06:20:47
3	Co 228.616†	2568.2	2490.2	[100]	µg/L	06:20:47
3	Cr 267.716†	5119.7	4977.8	[100]	µg/L	06:20:26
3	Cu 324.752†	20900.2	16379.5	[100]	µg/L	06:20:26
3	Mn 257.610†	35578.1	35458.4	[100]	µg/L	06:20:26
3	Mo 202.031†	1142.1	1104.0	[100]	µg/L	06:20:47
3	Ni 231.604†	2314.6	1920.4	[100]	µg/L	06:20:47
3	P 214.914†	326.1	307.1	[500]	µg/L	06:20:47
3	Pb 220.353†	468.9	424.1	[100]	µg/L	06:20:47
3	S 181.975 Axial†	88.4	64.0	[200]	µg/L	06:20:47
3	Sb 206.836†	149.3	121.2	[100]	µg/L	06:20:47
3	Se 196.026†	138.7	112.6	[100]	µg/L	06:20:47
3	SiO2†	9140.6	6041.7	[1069.5]	µg/L	06:20:26
3	Si 251.611†	8252.2	7447.6	[500]	µg/L	06:20:26
3	Sn 189.927†	284.1	279.4	[100]	µg/L	06:20:47
3	Ti 334.940†	45448.3	40050.7	[100]	µg/L	06:20:26
3	Tl 190.801†	79.1	112.5	[100]	µg/L	06:20:47
3	U 409.014†	1177.8	1181.3	[100]	µg/L	06:20:26
3	V 292.402†	9800.6	9853.3	[100]	µg/L	06:20:26
3	Zn 213.857†	5624.0	4648.1	[100]	µg/L	06:20:47

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	2007338.3	1407.10	0.07%	101.12 %
Sc RADIAL	90216.9	84.27	0.09%	103 %
Y 371.029	1371009.8	3157.88	0.23%	100.97 %
Ag 328.068†	13285.6	36.24	0.27%	[100] µg/L
As 188.979†	74.0	2.68	3.63%	[100] µg/L
B 249.677†	2262.5	17.51	0.77%	[100] µg/L
Ba 233.527†	4823.6	9.68	0.20%	[100] µg/L
Be 313.107†	180357.1	214.62	0.12%	[100] µg/L
Cd 226.502†	4473.4	20.28	0.45%	[100] µg/L
Co 228.616†	2486.4	7.84	0.32%	[100] µg/L
Cr 267.716†	4990.4	16.82	0.34%	[100] µg/L
Cu 324.752†	16414.6	30.56	0.19%	[100] µg/L
K 766.490 Radial†	2378.6	49.48	2.08%	[1000] µg/L
Mn 257.610†	35382.5	76.89	0.22%	[100] µg/L
Mo 202.031†	1104.0	1.34	0.12%	[100] µg/L
Ni 231.604†	1920.0	13.53	0.70%	[100] µg/L
P 214.914†	307.8	2.80	0.91%	[500] µg/L
Pb 220.353†	421.1	4.34	1.03%	[100] µg/L
S 181.975 Axial†	64.7	3.39	5.24%	[200] µg/L
Sb 206.836†	122.7	1.27	1.04%	[100] µg/L
Se 196.026†	114.4	5.94	5.20%	[100] µg/L
SiO2†	5990.8	44.36	0.74%	[1069.5] µg/L
Si 251.611†	7383.8	58.43	0.79%	[500] µg/L
Sn 189.927†	286.9	7.18	2.50%	[100] µg/L
Sr 421.552†	16553.0	38.69	0.23%	[100] µg/L
Ti 334.940†	39739.4	320.35	0.81%	[100] µg/L
Tl 190.801†	110.3	3.11	2.82%	[100] µg/L
U 409.014†	1200.7	17.65	1.47%	[100] µg/L
V 292.402†	9831.3	23.76	0.24%	[100] µg/L
Zn 213.857†	4653.7	7.01	0.15%	[100] µg/L

Sequence No.: 3
 Sample ID: S0.5
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 3
 Date Collected: 3/19/2010 06:20:57
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc RADIAL	90118.9	90118.9	103 %	06:21:27
1	Al 396.153Radial†	10732.5	10236.8	[5000] µg/L	06:21:27
1	Ca 317.933Radial†	14463.8	13728.4	[5000] µg/L	06:21:27
1	K 766.490 Radial†	11339.1	10834.3	[5000] µg/L	06:21:27
1	Mg 279.077 IEC†	399.8	382.5	[5000] µg/L	06:21:48
1	Sr 421.552†	85794.4	83320.6	[500] µg/L	06:21:27
1	Sc 361.383	2007589.3	2007589.3	101.13 %	06:22:51
1	Y 371.029	1367229.1	1367229.1	100.69 %	06:22:51
1	Ag 328.068†	68338.8	66978.3	[500] µg/L	06:22:57
1	As 188.979†	378.6	374.9	[500] µg/L	06:23:17
1	B 249.677†	12187.3	11652.9	[500] µg/L	06:22:57
1	Ba 233.527†	24998.2	24714.2	[500] µg/L	06:22:57
1	Be 313.107†	918419.8	909055.1	[500] µg/L	06:22:51
1	Cd 226.502†	22800.9	22710.3	[500] µg/L	06:22:57
1	Co 228.616†	12910.7	12716.8	[500] µg/L	06:22:57
1	Cr 267.716†	25578.7	25207.8	[500] µg/L	06:22:57
1	Cu 324.752†	87837.2	82566.8	[500] µg/L	06:22:57
1	Mn 257.610†	180213.0	178473.8	[500] µg/L	06:22:51
1	Mo 202.031†	5689.0	5600.0	[500] µg/L	06:23:17
1	Ni 231.604†	10266.0	9782.8	[500] µg/L	06:22:57
1	P 214.914†	1585.6	1552.6	[2500] µg/L	06:23:17
1	Pb 220.353†	2159.0	2095.3	[500] µg/L	06:23:17
1	S 181.975 Axial†	370.0	342.4	[1000] µg/L	06:23:17
1	Sb 206.836†	673.5	639.5	[500] µg/L	06:23:17
1	Se 196.026†	607.5	576.2	[500] µg/L	06:23:17
1	SiO2†	35080.6	31691.1	[5347.5] µg/L	06:22:57
1	Si 251.611†	40026.1	38865.8	[2500] µg/L	06:22:57
1	Sn 189.927†	1444.4	1426.7	[500] µg/L	06:23:17
1	Ti 334.940†	230523.7	223053.8	[500] µg/L	06:22:51
1	Tl 190.801†	516.2	544.7	[500] µg/L	06:23:17
1	U 409.014†	6081.0	6029.7	[500] µg/L	06:22:57
1	V 292.402†	50140.5	49741.6	[500] µg/L	06:22:57
1	Zn 213.857†	25033.0	23839.7	[500] µg/L	06:22:57
2	Sc RADIAL	90568.5	90568.5	103 %	06:21:53
2	Al 396.153Radial†	10766.9	10218.3	[5000] µg/L	06:21:53
2	Ca 317.933Radial†	14616.4	13806.4	[5000] µg/L	06:21:53
2	K 766.490 Radial†	11346.4	10786.6	[5000] µg/L	06:21:53
2	Mg 279.077 IEC†	402.6	383.3	[5000] µg/L	06:22:14
2	Sr 421.552†	86390.4	83483.2	[500] µg/L	06:21:53
2	Sc 361.383	2005745.7	2005745.7	101.04 %	06:23:25
2	Y 371.029	1367428.5	1367428.5	100.70 %	06:23:25
2	Ag 328.068†	68398.0	67098.9	[500] µg/L	06:23:30
2	As 188.979†	371.6	368.4	[500] µg/L	06:23:51
2	B 249.677†	12146.7	11623.8	[500] µg/L	06:23:30
2	Ba 233.527†	24945.8	24685.1	[500] µg/L	06:23:30
2	Be 313.107†	915592.3	907091.4	[500] µg/L	06:23:25
2	Cd 226.502†	22790.4	22720.6	[500] µg/L	06:23:30
2	Co 228.616†	12891.2	12709.3	[500] µg/L	06:23:30
2	Cr 267.716†	25458.9	25112.4	[500] µg/L	06:23:30
2	Cu 324.752†	87733.6	82544.1	[500] µg/L	06:23:30
2	Mn 257.610†	179690.2	178120.2	[500] µg/L	06:23:25
2	Mo 202.031†	5595.6	5512.7	[500] µg/L	06:23:51
2	Ni 231.604†	10275.6	9801.7	[500] µg/L	06:23:30
2	P 214.914†	1575.7	1544.2	[2500] µg/L	06:23:51
2	Pb 220.353†	2132.5	2071.0	[500] µg/L	06:23:51
2	S 181.975 Axial†	359.4	332.3	[1000] µg/L	06:23:51
2	Sb 206.836†	659.6	626.3	[500] µg/L	06:23:51
2	Se 196.026†	605.6	574.8	[500] µg/L	06:23:51
2	SiO2†	35056.1	31698.7	[5347.5] µg/L	06:23:30

2	Si 251.611†	40183.9	39058.4	[2500]	µg/L	06:23:30
2	Sn 189.927†	1435.3	1419.1	[500]	µg/L	06:23:51
2	Ti 334.940†	230161.7	222905.1	[500]	µg/L	06:23:25
2	Tl 190.801†	522.0	550.8	[500]	µg/L	06:23:51
2	U 409.014†	6083.7	6037.9	[500]	µg/L	06:23:30
2	V 292.402†	50111.0	49757.9	[500]	µg/L	06:23:30
2	Zn 213.857†	25009.8	23839.5	[500]	µg/L	06:23:30
3	Sc RADIAL	90990.9	90990.9	104	%	06:22:19
3	Al 396.153Radial†	10880.6	10279.5	[5000]	µg/L	06:22:19
3	Ca 317.933Radial†	14682.7	13804.6	[5000]	µg/L	06:22:19
3	K 766.490 Radial†	11329.8	10719.7	[5000]	µg/L	06:22:19
3	Mg 279.077 IEC†	402.4	381.2	[5000]	µg/L	06:22:40
3	Sr 421.552†	86855.2	83543.0	[500]	µg/L	06:22:19
3	Sc 361.383	2002995.1	2002995.1	100.90	%	06:23:58
3	Y 371.029	1366038.5	1366038.5	100.60	%	06:23:58
3	Ag 328.068†	63657.7	62493.9	[500]	µg/L	06:24:04
3	As 188.979†	309.7	307.6	[500]	µg/L	06:24:24
3	B 249.677†	11192.2	10694.3	[500]	µg/L	06:24:04
3	Ba 233.527†	22341.4	22137.8	[500]	µg/L	06:24:04
3	Be 313.107†	846090.1	839453.1	[500]	µg/L	06:23:58
3	Cd 226.502†	20243.5	20227.4	[500]	µg/L	06:24:04
3	Co 228.616†	11339.6	11189.0	[500]	µg/L	06:24:04
3	Cr 267.716†	21837.4	21557.8	[500]	µg/L	06:24:04
3	Cu 324.752†	78242.4	73256.7	[500]	µg/L	06:24:04
3	Mn 257.610†	165949.4	164746.1	[500]	µg/L	06:23:58
3	Mo 202.031†	4558.7	4492.6	[500]	µg/L	06:24:24
3	Ni 231.604†	9096.8	8647.3	[500]	µg/L	06:24:04
3	P 214.914†	1307.2	1280.2	[2500]	µg/L	06:24:24
3	Pb 220.353†	1803.8	1748.2	[500]	µg/L	06:24:24
3	S 181.975 Axial†	316.6	290.4	[1000]	µg/L	06:24:24
3	Sb 206.836†	562.6	531.1	[500]	µg/L	06:24:24
3	Se 196.026†	514.3	485.2	[500]	µg/L	06:24:24
3	SiO2†	32233.7	28949.2	[5347.5]	µg/L	06:24:04
3	Si 251.611†	36685.4	35645.7	[2500]	µg/L	06:24:04
3	Sn 189.927†	1152.6	1140.8	[500]	µg/L	06:24:24
3	Ti 334.940†	211957.2	205175.7	[500]	µg/L	06:23:58
3	Tl 190.801†	452.4	482.6	[500]	µg/L	06:24:24
3	U 409.014†	5260.2	5230.0	[500]	µg/L	06:24:04
3	V 292.402†	43995.2	43764.8	[500]	µg/L	06:24:04
3	Zn 213.857†	22223.0	21111.6	[500]	µg/L	06:24:04

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Sc 361.383	2005443.3	2311.95	0.12%	101.02	%
Sc RADIAL	90559.4	436.06	0.48%	103	%
Y 371.029	1366898.7	751.61	0.05%	100.67	%
Ag 328.068†	65523.7	2624.57	4.01%	[500]	µg/L
Al 396.153Radial†	10244.8	31.38	0.31%	[5000]	µg/L
As 188.979†	350.3	37.16	10.61%	[500]	µg/L
B 249.677†	11323.7	545.25	4.82%	[500]	µg/L
Ba 233.527†	23845.7	1479.15	6.20%	[500]	µg/L
Be 313.107†	885199.9	39630.07	4.48%	[500]	µg/L
Ca 317.933Radial†	13779.8	44.49	0.32%	[5000]	µg/L
Cd 226.502†	21886.1	1436.51	6.56%	[500]	µg/L
Co 228.616†	12205.0	879.92	7.21%	[500]	µg/L
Cr 267.716†	23959.3	2080.33	8.68%	[500]	µg/L
Cu 324.752†	79455.9	5368.60	6.76%	[500]	µg/L
K 766.490 Radial†	10780.2	57.57	0.53%	[5000]	µg/L
Mg 279.077 IEC†	382.3	1.02	0.27%	[5000]	µg/L
Mn 257.610†	173780.1	7825.64	4.50%	[500]	µg/L
Mo 202.031†	5201.8	615.69	11.84%	[500]	µg/L
Ni 231.604†	9410.6	661.12	7.03%	[500]	µg/L
P 214.914†	1459.0	154.87	10.62%	[2500]	µg/L
Pb 220.353†	1971.5	193.77	9.83%	[500]	µg/L
S 181.975 Axial†	321.7	27.57	8.57%	[1000]	µg/L
Sb 206.836†	599.0	59.16	9.88%	[500]	µg/L
Se 196.026†	545.4	52.14	9.56%	[500]	µg/L
SiO2†	30779.7	1585.26	5.15%	[5347.5]	µg/L
Si 251.611†	37856.6	1917.16	5.06%	[2500]	µg/L

Sn 189.927†	1328.8	162.94	12.26%	[500]	µg/L
Sr 421.552†	83448.9	115.07	0.14%	[500]	µg/L
Ti 334.940†	217044.9	10279.29	4.74%	[500]	µg/L
Tl 190.801†	526.1	37.72	7.17%	[500]	µg/L
U 409.014†	5765.9	464.09	8.05%	[500]	µg/L
V 292.402†	47754.8	3455.43	7.24%	[500]	µg/L
Zn 213.857†	22930.3	1575.03	6.87%	[500]	µg/L

Sequence No.: 4
 Sample ID: SCAL
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 4
 Date Collected: 3/19/2010 06:24:34
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc RADIAL	92795.1	92795.1	106 %	06:25:04
1	Al 396.153Radial†	21085.5	19718.7	[10000] µg/L	06:25:04
1	Ca 317.933Radial†	28433.1	26522.8	[10000] µg/L	06:25:04
1	Fe 238.204 Radial†	839.9	780.6	[10000] µg/L	06:25:25
1	K 766.490 Radial†	22185.4	20765.3	[10000] µg/L	06:25:04
1	Mg 279.077 IEC†	783.4	733.7	[10000] µg/L	06:25:25
1	Na 589.592 Radial†	20418.2	19131.2	[10000] µg/L	06:25:04
1	Sr 421.552†	171761.8	162147.8	[1000] µg/L	06:25:04
1	Sc 361.383	2036949.6	2036949.6	102.61 %	06:26:29
1	Y 371.029	1384397.1	1384397.1	101.95 %	06:26:29
1	Ag 328.068†	133539.2	129546.3	[1000] µg/L	06:26:35
1	As 188.979†	748.7	730.2	[1000] µg/L	06:26:55
1	B 249.677†	23451.8	22457.2	[1000] µg/L	06:26:35
1	Ba 233.527†	48753.4	47509.0	[1000] µg/L	06:26:35
1	Be 313.107†	1800374.0	1755487.6	[1000] µg/L	06:26:29
1	Cd 226.502†	44190.3	43230.7	[1000] µg/L	06:26:35
1	Co 228.616†	24980.5	24295.6	[1000] µg/L	06:26:35
1	Cr 267.716†	49455.5	48112.6	[1000] µg/L	06:26:35
1	Cu 324.752†	167888.2	159329.9	[1000] µg/L	06:26:35
1	Mn 257.610†	350049.5	341422.2	[1000] µg/L	06:26:35
1	Mo 202.031†	11197.7	10887.5	[1000] µg/L	06:26:55
1	Ni 231.604†	19479.0	18615.1	[1000] µg/L	06:26:35
1	P 214.914†	3123.8	3029.0	[5000] µg/L	06:26:55
1	Pb 220.353†	4231.4	4084.2	[1000] µg/L	06:26:55
1	S 181.975 Axial†	702.2	660.9	[2000] µg/L	06:26:55
1	Sb 206.836†	1304.6	1245.0	[1000] µg/L	06:26:55
1	Se 196.026†	1168.1	1113.9	[1000] µg/L	06:26:55
1	SiO2†	65310.5	60652.1	[10695] µg/L	06:26:35
1	Si 251.611†	77401.7	74720.3	[5000] µg/L	06:26:35
1	Sn 189.927†	2868.8	2794.3	[1000] µg/L	06:26:55
1	Ti 334.940†	452496.4	436095.3	[1000] µg/L	06:26:29
1	Tl 190.801†	1063.0	1070.2	[1000] µg/L	06:26:55
1	U 409.014†	11947.0	11659.8	[1000] µg/L	06:26:35
1	V 292.402†	98167.3	95832.2	[1000] µg/L	06:26:35
1	Zn 213.857†	47367.8	45249.7	[1000] µg/L	06:26:35
2	Sc RADIAL	92538.6	92538.6	106 %	06:25:30
2	Al 396.153Radial†	21060.4	19750.1	[10000] µg/L	06:25:30
2	Ca 317.933Radial†	28436.4	26600.5	[10000] µg/L	06:25:30
2	Fe 238.204 Radial†	845.2	787.7	[10000] µg/L	06:25:51
2	K 766.490 Radial†	22068.2	20712.3	[10000] µg/L	06:25:30
2	Mg 279.077 IEC†	782.6	735.1	[10000] µg/L	06:25:51
2	Na 589.592 Radial†	20379.9	19148.4	[10000] µg/L	06:25:30
2	Sr 421.552†	171280.1	162141.2	[1000] µg/L	06:25:30
2	Sc 361.383	2020565.8	2020565.8	101.78 %	06:27:02
2	Y 371.029	1374546.6	1374546.6	101.23 %	06:27:02
2	Ag 328.068†	133796.5	130854.3	[1000] µg/L	06:27:08
2	As 188.979†	740.8	728.4	[1000] µg/L	06:27:28
2	B 249.677†	23526.4	22715.8	[1000] µg/L	06:27:08
2	Ba 233.527†	48865.5	48004.3	[1000] µg/L	06:27:08
2	Be 313.107†	1788416.1	1757966.4	[1000] µg/L	06:27:02
2	Cd 226.502†	44462.9	43847.7	[1000] µg/L	06:27:08
2	Co 228.616†	25024.2	24536.0	[1000] µg/L	06:27:08
2	Cr 267.716†	49737.2	48780.2	[1000] µg/L	06:27:08
2	Cu 324.752†	168387.3	161146.9	[1000] µg/L	06:27:08
2	Mn 257.610†	351347.0	345463.1	[1000] µg/L	06:27:08
2	Mo 202.031†	11072.9	10853.4	[1000] µg/L	06:27:28
2	Ni 231.604†	19545.9	18834.8	[1000] µg/L	06:27:08
2	P 214.914†	3088.2	3018.8	[5000] µg/L	06:27:28
2	Pb 220.353†	4194.1	4081.0	[1000] µg/L	06:27:28

2	S 181.975 Axial†	698.0	662.4	[2000]	µg/L	06:27:28
2	Sb 206.836†	1292.9	1243.8	[1000]	µg/L	06:27:28
2	Se 196.026†	1167.6	1122.6	[1000]	µg/L	06:27:28
2	SiO2†	65748.9	61599.0	[10695]	µg/L	06:27:08
2	Si 251.611†	77883.4	75805.2	[5000]	µg/L	06:27:08
2	Sn 189.927†	2836.2	2785.0	[1000]	µg/L	06:27:28
2	Ti 334.940†	449178.4	436411.2	[1000]	µg/L	06:27:02
2	Tl 190.801†	1051.1	1067.0	[1000]	µg/L	06:27:28
2	U 409.014†	11964.1	11771.0	[1000]	µg/L	06:27:08
2	V 292.402†	98403.7	96840.2	[1000]	µg/L	06:27:08
2	Zn 213.857†	47569.9	45822.6	[1000]	µg/L	06:27:08
3	Sc RADIAL	92857.8	92857.8	106	%	06:25:56
3	Al 396.153Radial†	21181.6	19796.0	[10000]	µg/L	06:25:56
3	Ca 317.933Radial†	28598.0	26660.4	[10000]	µg/L	06:25:56
3	Fe 238.204 Radial†	850.1	789.6	[10000]	µg/L	06:26:17
3	K 766.490 Radial†	22192.8	20758.1	[10000]	µg/L	06:25:56
3	Mg 279.077 IEC†	791.2	740.6	[10000]	µg/L	06:26:17
3	Na 589.592 Radial†	20414.3	19114.6	[10000]	µg/L	06:25:56
3	Sr 421.552†	171905.1	162173.4	[1000]	µg/L	06:25:56
3	Sc 361.383	2029616.5	2029616.5	102.24	%	06:27:35
3	Y 371.029	1379997.3	1379997.3	101.63	%	06:27:35
3	Ag 328.068†	128016.5	124614.8	[1000]	µg/L	06:27:41
3	As 188.979†	647.7	634.1	[1000]	µg/L	06:28:01
3	B 249.677†	22374.0	21485.6	[1000]	µg/L	06:27:41
3	Ba 233.527†	45336.2	44338.3	[1000]	µg/L	06:27:41
3	Be 313.107†	1701486.6	1665106.5	[1000]	µg/L	06:27:35
3	Cd 226.502†	41016.7	40282.2	[1000]	µg/L	06:27:41
3	Co 228.616†	22934.5	22382.4	[1000]	µg/L	06:27:41
3	Cr 267.716†	44605.0	43542.6	[1000]	µg/L	06:27:41
3	Cu 324.752†	155422.9	147728.9	[1000]	µg/L	06:27:41
3	Mn 257.610†	321999.8	315219.7	[1000]	µg/L	06:27:41
3	Mo 202.031†	9510.2	9276.4	[1000]	µg/L	06:28:01
3	Ni 231.604†	17976.7	17214.4	[1000]	µg/L	06:27:41
3	P 214.914†	2720.0	2645.1	[5000]	µg/L	06:28:01
3	Pb 220.353†	3709.3	3588.4	[1000]	µg/L	06:28:01
3	S 181.975 Axial†	625.5	588.4	[2000]	µg/L	06:28:01
3	Sb 206.836†	1143.7	1092.1	[1000]	µg/L	06:28:01
3	Se 196.026†	1056.5	1008.8	[1000]	µg/L	06:28:01
3	SiO2†	62263.5	57901.9	[10695]	µg/L	06:27:41
3	Si 251.611†	73548.5	71224.1	[5000]	µg/L	06:27:41
3	Sn 189.927†	2408.1	2353.8	[1000]	µg/L	06:28:01
3	Ti 334.940†	426369.6	412134.3	[1000]	µg/L	06:27:35
3	Tl 190.801†	968.7	981.7	[1000]	µg/L	06:28:01
3	U 409.014†	10900.2	10678.0	[1000]	µg/L	06:27:41
3	V 292.402†	90093.0	88280.5	[1000]	µg/L	06:27:41
3	Zn 213.857†	43770.8	41898.3	[1000]	µg/L	06:27:41

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	2029044.0	8206.88	0.40%	102.21 %
Sc RADIAL	92730.5	169.14	0.18%	106 %
Y 371.029	1379647.0	4934.59	0.36%	101.60 %
Ag 328.068†	128338.5	3290.42	2.56%	[1000] µg/L
Al 396.153Radial†	19754.9	38.88	0.20%	[10000] µg/L
As 188.979†	697.6	54.99	7.88%	[1000] µg/L
B 249.677†	22219.5	648.62	2.92%	[1000] µg/L
Ba 233.527†	46617.2	1989.09	4.27%	[1000] µg/L
Be 313.107†	1726186.8	52911.66	3.07%	[1000] µg/L
Ca 317.933Radial†	26594.6	68.99	0.26%	[10000] µg/L
Cd 226.502†	42453.5	1905.56	4.49%	[1000] µg/L
Co 228.616†	23738.0	1180.09	4.97%	[1000] µg/L
Cr 267.716†	46811.8	2850.82	6.09%	[1000] µg/L
Cu 324.752†	156068.5	7279.30	4.66%	[1000] µg/L
Fe 238.204 Radial†	786.0	4.77	0.61%	[10000] µg/L
K 766.490 Radial†	20745.3	28.74	0.14%	[10000] µg/L
Mg 279.077 IEC†	736.5	3.66	0.50%	[10000] µg/L
Mn 257.610†	334035.0	16419.34	4.92%	[1000] µg/L
Mo 202.031†	10339.1	920.46	8.90%	[1000] µg/L
Na 589.592 Radial†	19131.4	16.91	0.09%	[10000] µg/L

Ni 231.604†	18221.4	879.03	4.82%	[1000] µg/L
P 214.914†	2897.6	218.76	7.55%	[5000] µg/L
Pb 220.353†	3917.9	285.30	7.28%	[1000] µg/L
S 181.975 Axial†	637.2	42.29	6.64%	[2000] µg/L
Sb 206.836†	1193.6	87.90	7.36%	[1000] µg/L
Se 196.026†	1081.8	63.33	5.85%	[1000] µg/L
SiO2†	60051.0	1920.44	3.20%	[10695] µg/L
Si 251.611†	73916.5	2393.99	3.24%	[5000] µg/L
Sn 189.927†	2644.4	251.69	9.52%	[1000] µg/L
Sr 421.552†	162154.2	17.03	0.01%	[1000] µg/L
Ti 334.940†	428213.6	13925.97	3.25%	[1000] µg/L
Tl 190.801†	1039.6	50.19	4.83%	[1000] µg/L
U 409.014†	11369.6	601.52	5.29%	[1000] µg/L
V 292.402†	93651.0	4678.15	5.00%	[1000] µg/L
Zn 213.857†	44323.5	2119.74	4.78%	[1000] µg/L

Sequence No.: 5
 Sample ID: S10
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 5
 Date Collected: 3/19/2010 06:28:11
 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	91265.6	91265.6	104 %	06:28:41
1	Al 396.153Radial†	104067.9	99780.8	[50000] µg/L	06:28:41
1	Ca 317.933Radial†	137144.4	131421.2	[50000] µg/L	06:28:41
1	Fe 238.204 Radial†	1616.5	1540.0	[20000] µg/L	06:29:01
1	Mg 279.077 IEC†	3767.9	3613.6	[50000] µg/L	06:29:01
1	Na 589.592 Radial†	39147.6	37449.5	[20000] µg/L	06:28:41
1	Sc 361.383	2009205.4	2009205.4	101.21 %	06:30:05
1	Y 371.029	1357485.1	1357485.1	99.972 %	06:30:05
2	Sc RADIAL	90670.5	90670.5	103 %	06:29:07
2	Al 396.153Radial†	104456.3	100812.7	[50000] µg/L	06:29:07
2	Ca 317.933Radial†	137745.0	132866.9	[50000] µg/L	06:29:07
2	Fe 238.204 Radial†	1628.2	1561.5	[20000] µg/L	06:29:27
2	Mg 279.077 IEC†	3787.3	3656.1	[50000] µg/L	06:29:27
2	Na 589.592 Radial†	39474.5	38012.5	[20000] µg/L	06:29:07
2	Sc 361.383	2000659.0	2000659.0	100.78 %	06:30:13
2	Y 371.029	1351934.1	1351934.1	99.563 %	06:30:13
3	Sc RADIAL	90045.0	90045.0	103 %	06:29:33
3	Al 396.153Radial†	105211.6	102249.8	[50000] µg/L	06:29:33
3	Ca 317.933Radial†	138485.0	134512.9	[50000] µg/L	06:29:33
3	Fe 238.204 Radial†	1633.8	1577.9	[20000] µg/L	06:29:53
3	Mg 279.077 IEC†	3793.5	3687.6	[50000] µg/L	06:29:53
3	Na 589.592 Radial†	39608.9	38408.6	[20000] µg/L	06:29:33
3	Sc 361.383	2010145.5	2010145.5	101.26 %	06:30:20
3	Y 371.029	1360314.8	1360314.8	100.18 %	06:30:20

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	2006670.0	5226.84	0.26%	101.08 %
Sc RADIAL	90660.4	610.39	0.67%	103 %
Y 371.029	1356578.0	4263.34	0.31%	99.905 %
Al 396.153Radial†	100947.8	1240.07	1.23%	[50000] µg/L
Ca 317.933Radial†	132933.7	1546.94	1.16%	[50000] µg/L
Fe 238.204 Radial†	1559.8	19.02	1.22%	[20000] µg/L
Mg 279.077 IEC†	3652.4	37.16	1.02%	[50000] µg/L
Na 589.592 Radial†	37956.9	481.97	1.27%	[20000] µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	128.9	0.00000	0.999961	
Al 396.153Radial	3	Lin Thru 0	0.0	2.018	0.00000	0.999990	
As 188.979	3	Lin Thru 0	0.0	0.6985	0.00000	0.999984	
B 249.677	3	Lin Thru 0	0.0	22.31	0.00000	0.999970	
Ba 233.527	3	Lin Thru 0	0.0	46.84	0.00000	0.999955	
Be 313.107	3	Lin Thru 0	0.0	1736	0.00000	0.999942	
Ca 317.933Radial	3	Lin Thru 0	0.0	2.660	0.00000	0.999994	
Cd 226.502	3	Lin Thru 0	0.0	42.73	0.00000	0.999916	
Co 228.616	3	Lin Thru 0	0.0	23.88	0.00000	0.999930	
Cr 267.716	3	Lin Thru 0	0.0	47.06	0.00000	0.999941	
Cu 324.752	3	Lin Thru 0	0.0	156.7	0.00000	0.999965	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0781	0.00000	0.999995	
K 766.490 Radial	3	Lin Thru 0	0.0	2.093	0.00000	0.999805	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0731	0.00000	0.999989	
Mn 257.610	3	Lin Thru 0	0.0	336.9	0.00000	0.999862	
Mo 202.031	3	Lin Thru 0	0.0	10.36	0.00000	0.999980	
Na 589.592 Radia	2	Lin Thru 0	0.0	1.901	0.00000	0.999995	

Ni 231.604	3	Lin Thru 0	0.0	18.35	0.00000	0.999907
P 214.914	3	Lin Thru 0	0.0	0.5806	0.00000	0.999982
Pb 220.353	3	Lin Thru 0	0.0	3.925	0.00000	0.999976
S 181.975 Axial	3	Lin Thru 0	0.0	0.3193	0.00000	0.999992
Sb 206.836	3	Lin Thru 0	0.0	1.195	0.00000	0.999996
Se 196.026	3	Lin Thru 0	0.0	1.084	0.00000	0.999982
SiO2	3	Lin Thru 0	0.0	5.643	0.00000	0.999950
Si 251.611	3	Lin Thru 0	0.0	14.85	0.00000	0.999953
Sn 189.927	3	Lin Thru 0	0.0	2.649	0.00000	0.999970
Sr 421.552	3	Lin Thru 0	0.0	163.1	0.00000	0.999932
Ti 334.940	3	Lin Thru 0	0.0	429.1	0.00000	0.999963
Tl 190.801	3	Lin Thru 0	0.0	1.043	0.00000	0.999975
U 409.014	3	Lin Thru 0	0.0	11.41	0.00000	0.999973
V 292.402	3	Lin Thru 0	0.0	94.06	0.00000	0.999961
Zn 213.857	3	Lin Thru 0	0.0	44.65	0.00000	0.999899

Sequence No.: 6

Sample ID: ICV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 9

Date Collected: 3/19/2010 06:30:30

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	92499.8	92499.8	105 %		06:31:01
1	Al 396.153Radial†	10893.5	10120.6	5004.5 µg/L	5004.5 ppb	06:31:01
1	Ca 317.933Radial†	14577.3	13473.9	5066.1 µg/L	5066.1 ppb	06:31:01
1	Fe 238.204 Radial†	439.1	403.1	5172.4 µg/L	5172.4 ppb	06:31:21
1	K 766.490 Radial†	5814.3	5313.0	2538.3 µg/L	2538.3 ppb	06:31:01
1	Mg 279.077 IEC†	411.5	383.5	5250.7 µg/L	5250.7 ppb	06:31:21
1	Na 589.592 Radial†	5215.1	4780.8	2515.0 µg/L	2515.0 ppb	06:31:01
1	Sr 421.552†	92363.9	87399.5	535.79 µg/L	535.79 ppb	06:31:01
1	Sc 361.383	2020147.9	2020147.9	101.76 %		06:32:25
1	Y 371.029	1377292.2	1377292.2	101.43 %		06:32:25
1	Ag 328.068†	34692.5	33494.9	263.72 µg/L	263.72 ppb	06:32:31
1	As 188.979†	350.9	345.4	492.09 µg/L	492.09 ppb	06:32:51
1	B 249.677†	12465.0	11850.9	529.38 µg/L	529.38 ppb	06:32:31
1	Ba 233.527†	25068.3	24629.5	526.74 µg/L	526.74 ppb	06:32:31
1	Be 313.107†	482850.5	475387.9	273.71 µg/L	273.71 ppb	06:32:25
1	Cd 226.502†	22465.0	22240.0	520.38 µg/L	520.38 ppb	06:32:31
1	Co 228.616†	12896.2	12623.2	528.05 µg/L	528.05 ppb	06:32:31
1	Cr 267.716†	24712.7	24199.5	514.60 µg/L	514.60 ppb	06:32:31
1	Cu 324.752†	87712.5	81904.4	523.66 µg/L	523.66 ppb	06:32:31
1	Mn 257.610†	183813.4	180904.1	536.96 µg/L	536.96 ppb	06:32:25
1	Mo 202.031†	6049.5	5919.3	571.70 µg/L	571.70 ppb	06:32:51
1	Ni 231.604†	10191.3	9646.3	525.17 µg/L	525.17 ppb	06:32:31
1	P 214.914†	1586.0	1543.2	2608.5 µg/L	2608.5 ppb	06:32:51
1	Pb 220.353†	2124.8	2048.4	522.57 µg/L	522.57 ppb	06:32:51
1	S 181.975 Axial†	878.8	840.2	2631.5 µg/L	2631.5 ppb	06:32:51
1	Sb 206.836†	672.8	634.7	534.63 µg/L	534.63 ppb	06:32:51
1	Se 196.026†	2985.4	2909.1	2695.6 µg/L	2695.6 ppb	06:32:51
1	SiO2†	64838.3	60717.5	10760 µg/L	10760 ppb	06:32:31
1	Si 251.611†	76629.4	74588.8	5021.3 µg/L	5021.3 ppb	06:32:31
1	Sn 189.927†	1565.5	1536.8	580.71 µg/L	580.71 ppb	06:32:51
1	Ti 334.940†	229147.6	220284.6	512.99 µg/L	512.99 ppb	06:32:25
1	Tl 190.801†	542.2	567.1	549.49 µg/L	549.49 ppb	06:32:51
1	U 409.014†	5861.8	5776.9	505.41 µg/L	505.41 ppb	06:32:31
1	V 292.402†	50549.1	49834.9	536.04 µg/L	536.04 ppb	06:32:31
1	Zn 213.857†	25130.8	23782.0	528.97 µg/L	528.97 ppb	06:32:31
2	Sc RADIAL	91851.8	91851.8	105 %		06:31:27
2	Al 396.153Radial†	10840.4	10142.8	5015.5 µg/L	5015.5 ppb	06:31:27
2	Ca 317.933Radial†	14548.4	13543.8	5092.3 µg/L	5092.3 ppb	06:31:27
2	Fe 238.204 Radial†	441.5	408.4	5239.4 µg/L	5239.4 ppb	06:31:47
2	K 766.490 Radial†	5663.0	5207.4	2487.9 µg/L	2487.9 ppb	06:31:27
2	Mg 279.077 IEC†	416.8	391.3	5356.9 µg/L	5356.9 ppb	06:31:47
2	Na 589.592 Radial†	5263.1	4861.5	2557.5 µg/L	2557.5 ppb	06:31:27
2	Sr 421.552†	92145.8	87809.1	538.30 µg/L	538.30 ppb	06:31:27
2	Sc 361.383	2015578.6	2015578.6	101.53 %		06:32:58
2	Y 371.029	1373389.9	1373389.9	101.14 %		06:32:58
2	Ag 328.068†	34799.7	33677.7	265.15 µg/L	265.15 ppb	06:33:04
2	As 188.979†	355.6	350.8	499.80 µg/L	499.80 ppb	06:33:24
2	B 249.677†	12523.8	11936.6	533.18 µg/L	533.18 ppb	06:33:04
2	Ba 233.527†	25036.0	24653.5	527.26 µg/L	527.26 ppb	06:33:04
2	Be 313.107†	482286.7	475908.3	274.01 µg/L	274.01 ppb	06:32:58
2	Cd 226.502†	22480.1	22305.0	521.89 µg/L	521.89 ppb	06:33:04
2	Co 228.616†	12859.0	12615.4	527.72 µg/L	527.72 ppb	06:33:04
2	Cr 267.716†	24651.7	24194.5	514.50 µg/L	514.50 ppb	06:33:04
2	Cu 324.752†	87581.1	81970.3	524.10 µg/L	524.10 ppb	06:33:04
2	Mn 257.610†	183712.3	181214.0	537.87 µg/L	537.87 ppb	06:32:58
2	Mo 202.031†	6014.5	5898.2	569.67 µg/L	569.67 ppb	06:33:24
2	Ni 231.604†	10151.6	9629.9	524.28 µg/L	524.28 ppb	06:33:04
2	P 214.914†	1575.2	1536.1	2596.1 µg/L	2596.1 ppb	06:33:24
2	Pb 220.353†	2121.9	2050.2	523.02 µg/L	523.02 ppb	06:33:24

2	S 181.975 Axial†	879.3	842.6	2639.2 µg/L	2639.2 ppb	06:33:24
2	Sb 206.836†	669.6	633.0	533.24 µg/L	533.24 ppb	06:33:24
2	Se 196.026†	2966.9	2897.5	2685.0 µg/L	2685.0 ppb	06:33:24
2	SiO2†	64950.8	60972.7	10806 µg/L	10806 ppb	06:33:04
2	Si 251.611†	76688.2	74817.4	5036.7 µg/L	5036.7 ppb	06:33:04
2	Sn 189.927†	1557.2	1532.1	578.93 µg/L	578.93 ppb	06:33:24
2	Ti 334.940†	229010.9	220660.4	513.86 µg/L	513.86 ppb	06:32:58
2	Tl 190.801†	540.5	566.6	549.02 µg/L	549.02 ppb	06:33:24
2	U 409.014†	5905.8	5833.3	510.35 µg/L	510.35 ppb	06:33:04
2	V 292.402†	50565.2	49963.4	537.39 µg/L	537.39 ppb	06:33:04
2	Zn 213.857†	25100.1	23807.7	529.54 µg/L	529.54 ppb	06:33:04
3	Sc RADIAL	91447.3	91447.3	104 %		06:31:53
3	Al 396.153Radial†	10809.5	10158.9	5025.5 µg/L	5025.5 ppb	06:31:53
3	Ca 317.933Radial†	14495.3	13554.3	5096.3 µg/L	5096.3 ppb	06:31:53
3	Fe 238.204 Radial†	443.0	411.7	5280.3 µg/L	5280.3 ppb	06:32:13
3	K 766.490 Radial†	5778.6	5342.2	2552.3 µg/L	2552.3 ppb	06:31:53
3	Mg 279.077 IEC†	415.8	392.1	5366.5 µg/L	5366.5 ppb	06:32:13
3	Na 589.592 Radial†	5266.3	4886.8	2570.8 µg/L	2570.8 ppb	06:31:53
3	Sr 421.552†	92075.9	88131.2	540.28 µg/L	540.28 ppb	06:31:53
3	Sc 361.383	2006701.9	2006701.9	101.09 %		06:33:32
3	Y 371.029	1366524.2	1366524.2	100.64 %		06:33:32
3	Ag 328.068†	32934.4	31984.1	251.66 µg/L	251.66 ppb	06:33:37
3	As 188.979†	301.6	299.0	425.79 µg/L	425.79 ppb	06:33:58
3	B 249.677†	11651.4	11128.0	496.81 µg/L	496.81 ppb	06:33:37
3	Ba 233.527†	22788.0	22538.7	482.01 µg/L	482.01 ppb	06:33:37
3	Be 313.107†	445792.7	441907.5	254.44 µg/L	254.44 ppb	06:33:32
3	Cd 226.502†	20313.1	20259.1	473.96 µg/L	473.96 ppb	06:33:37
3	Co 228.616†	11562.7	11389.0	476.36 µg/L	476.36 ppb	06:33:37
3	Cr 267.716†	21476.9	21161.2	450.00 µg/L	450.00 ppb	06:33:37
3	Cu 324.752†	79272.6	74132.7	474.09 µg/L	474.09 ppb	06:33:37
3	Mn 257.610†	170666.7	169108.9	501.94 µg/L	501.94 ppb	06:33:32
3	Mo 202.031†	4961.7	4882.9	471.64 µg/L	471.64 ppb	06:33:58
3	Ni 231.604†	9170.7	8703.7	473.86 µg/L	473.86 ppb	06:33:37
3	P 214.914†	1326.7	1297.1	2188.2 µg/L	2188.2 ppb	06:33:58
3	Pb 220.353†	1809.8	1750.8	446.60 µg/L	446.60 ppb	06:33:58
3	S 181.975 Axial†	771.5	739.8	2317.2 µg/L	2317.2 ppb	06:33:58
3	Sb 206.836†	566.9	534.4	449.78 µg/L	449.78 ppb	06:33:58
3	Se 196.026†	2569.2	2517.0	2334.2 µg/L	2334.2 ppb	06:33:58
3	SiO2†	60404.1	56757.9	10059 µg/L	10059 ppb	06:33:37
3	Si 251.611†	71132.4	69655.4	4689.2 µg/L	4689.2 ppb	06:33:37
3	Sn 189.927†	1248.4	1233.4	466.16 µg/L	466.16 ppb	06:33:58
3	Ti 334.940†	210762.8	203606.1	474.11 µg/L	474.11 ppb	06:33:32
3	Tl 190.801†	482.8	511.9	496.18 µg/L	496.18 ppb	06:33:58
3	U 409.014†	5179.5	5140.5	449.61 µg/L	449.61 ppb	06:33:37
3	V 292.402†	45134.0	44810.7	481.66 µg/L	481.66 ppb	06:33:37
3	Zn 213.857†	22776.3	21618.2	480.80 µg/L	480.80 ppb	06:33:37

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2014142.8	101.46 %	0.344			0.34%
Sc RADIAL	91933.0	105 %	0.6			0.58%
Y 371.029	1372402.1	101.07 %	0.401			0.40%
Ag 328.068†	33052.2	260.18 µg/L	7.413	260.18 ppb	7.413	2.85%
QC value within limits for Ag 328.068 Recovery = 104.07%						
Al 396.153Radial†	10140.8	5015.2 µg/L	10.53	5015.2 ppb	10.53	0.21%
QC value within limits for Al 396.153Radial Recovery = 100.30%						
As 188.979†	331.7	472.56 µg/L	40.685	472.56 ppb	40.685	8.61%
QC value within limits for As 188.979 Recovery = 94.51%						
B 249.677†	11638.5	519.79 µg/L	19.990	519.79 ppb	19.990	3.85%
QC value within limits for B 249.677 Recovery = 103.96%						
Ba 233.527†	23940.5	512.00 µg/L	25.975	512.00 ppb	25.975	5.07%
QC value within limits for Ba 233.527 Recovery = 102.40%						
Be 313.107†	464401.2	267.39 µg/L	11.216	267.39 ppb	11.216	4.19%
QC value within limits for Be 313.107 Recovery = 106.95%						
Ca 317.933Radial†	13524.0	5084.9 µg/L	16.44	5084.9 ppb	16.44	0.32%
QC value within limits for Ca 317.933Radial Recovery = 101.70%						
Cd 226.502†	21601.4	505.41 µg/L	27.246	505.41 ppb	27.246	5.39%
QC value within limits for Cd 226.502 Recovery = 101.08%						
Co 228.616†	12209.2	510.71 µg/L	29.750	510.71 ppb	29.750	5.83%

QC value within limits for Co 228.616 Recovery = 102.14%							
Cr 267.716†	23185.1	493.04 µg/L	37.267	493.04 ppb	37.267	7.56%	
QC value within limits for Cr 267.716 Recovery = 98.61%							
Cu 324.752†	79335.8	507.28 µg/L	28.749	507.28 ppb	28.749	5.67%	
QC value within limits for Cu 324.752 Recovery = 101.46%							
Fe 238.204 Radial†	407.7	5230.7 µg/L	54.44	5230.7 ppb	54.44	1.04%	
QC value within limits for Fe 238.204 Radial Recovery = 104.61%							
K 766.490 Radial†	5287.5	2526.2 µg/L	33.87	2526.2 ppb	33.87	1.34%	
QC value within limits for K 766.490 Radial Recovery = 101.05%							
Mg 279.077 IEC†	389.0	5324.7 µg/L	64.28	5324.7 ppb	64.28	1.21%	
QC value within limits for Mg 279.077 IEC Recovery = 106.49%							
Mn 257.610†	177075.6	525.59 µg/L	20.486	525.59 ppb	20.486	3.90%	
QC value within limits for Mn 257.610 Recovery = 105.12%							
Mo 202.031†	5566.8	537.67 µg/L	57.190	537.67 ppb	57.190	10.64%	
QC value within limits for Mo 202.031 Recovery = 107.53%							
Na 589.592 Radial†	4843.0	2547.8 µg/L	29.11	2547.8 ppb	29.11	1.14%	
QC value within limits for Na 589.592 Radial Recovery = 101.91%							
Ni 231.604†	9326.6	507.77 µg/L	29.369	507.77 ppb	29.369	5.78%	
QC value within limits for Ni 231.604 Recovery = 101.55%							
P 214.914†	1458.8	2464.3 µg/L	239.18	2464.3 ppb	239.18	9.71%	
QC value within limits for P 214.914 Recovery = 98.57%							
Pb 220.353†	1949.8	497.40 µg/L	43.993	497.40 ppb	43.993	8.84%	
QC value within limits for Pb 220.353 Recovery = 99.48%							
S 181.975 Axial†	807.5	2529.3 µg/L	183.71	2529.3 ppb	183.71	7.26%	
QC value within limits for S 181.975 Axial Recovery = 101.17%							
Sb 206.836†	600.7	505.89 µg/L	48.592	505.89 ppb	48.592	9.61%	
QC value within limits for Sb 206.836 Recovery = 101.18%							
Se 196.026†	2774.5	2571.6 µg/L	205.68	2571.6 ppb	205.68	8.00%	
QC value within limits for Se 196.026 Recovery = 102.86%							
SiO2†	59482.7	10541 µg/L	418.8	10541 ppb	418.8	3.97%	
QC value within limits for SiO2 Recovery = 98.56%							
Si 251.611†	73020.5	4915.7 µg/L	196.34	4915.7 ppb	196.34	3.99%	
QC value within limits for Si 251.611 Recovery = 98.31%							
Sn 189.927†	1434.1	541.93 µg/L	65.629	541.93 ppb	65.629	12.11%	
QC value within limits for Sn 189.927 Recovery = 108.39%							
Sr 421.552†	87779.9	538.12 µg/L	2.248	538.12 ppb	2.248	0.42%	
QC value within limits for Sr 421.552 Recovery = 107.62%							
Ti 334.940†	214850.4	500.32 µg/L	22.699	500.32 ppb	22.699	4.54%	
QC value within limits for Ti 334.940 Recovery = 100.06%							
Tl 190.801†	548.5	531.57 µg/L	30.643	531.57 ppb	30.643	5.76%	
QC value within limits for Tl 190.801 Recovery = 106.31%							
U 409.014†	5583.6	488.46 µg/L	33.731	488.46 ppb	33.731	6.91%	
QC value within limits for U 409.014 Recovery = 97.69%							
V 292.402†	48203.0	518.36 µg/L	31.795	518.36 ppb	31.795	6.13%	
QC value within limits for V 292.402 Recovery = 103.67%							
Zn 213.857†	23069.3	513.10 µg/L	27.977	513.10 ppb	27.977	5.45%	
QC value within limits for Zn 213.857 Recovery = 102.62%							
All analyte(s) passed QC.							

Sequence No.: 7

Sample ID: ICB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 3/19/2010 06:34:07

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	89095.7	89095.7	102 %		06:34:38
1	Al 396.153Radial†	216.9	7.5	3.7016 µg/L	3.7016 ppb	06:34:38
1	Ca 317.933Radial†	331.5	-18.6	-7.0111 µg/L	-7.0111 ppb	06:34:58
1	Fe 238.204 Radial†	12.4	-0.9	-11.936 µg/L	-11.936 ppb	06:34:58
1	K 766.490 Radial†	86.9	-113.2	-54.085 µg/L	-54.085 ppb	06:34:38
1	Mg 279.077 IEC†	9.9	3.2	44.300 µg/L	44.300 ppb	06:34:58
1	Na 589.592 Radial†	137.5	-27.6	-14.502 µg/L	-14.502 ppb	06:34:38
1	Sr 421.552†	139.8	-20.5	-0.1259 µg/L	-0.1259 ppb	06:34:38
1	Sc 361.383	1998093.0	1998093.0	100.65 %		06:36:00
1	Y 371.029	1366214.0	1366214.0	100.62 %		06:36:00
1	Ag 328.068†	552.0	-48.0	-0.3742 µg/L	-0.3742 ppb	06:36:06
1	As 188.979†	1.0	1.6	2.3253 µg/L	2.3253 ppb	06:36:26
1	B 249.677†	468.6	67.5	3.0309 µg/L	3.0309 ppb	06:36:06
1	Ba 233.527†	-9.6	-14.0	-0.2982 µg/L	-0.2982 ppb	06:36:26
1	Be 313.107†	-1238.2	-325.6	-0.1829 µg/L	-0.1829 ppb	06:36:06
1	Cd 226.502†	-167.2	-1.7	-0.0394 µg/L	-0.0394 ppb	06:36:26
1	Co 228.616†	27.3	-22.4	-0.9108 µg/L	-0.9108 ppb	06:36:26
1	Cr 267.716†	100.0	14.4	0.3049 µg/L	0.3049 ppb	06:36:06
1	Cu 324.752†	4215.4	-100.2	-0.6418 µg/L	-0.6418 ppb	06:36:06
1	Mn 257.610†	-702.9	-422.4	-1.2576 µg/L	-1.2576 ppb	06:36:26
1	Mo 202.031†	23.6	-2.0	-0.1912 µg/L	-0.1912 ppb	06:36:26
1	Ni 231.604†	370.6	-0.2	-0.0082 µg/L	-0.0082 ppb	06:36:26
1	P 214.914†	8.3	-7.1	-12.096 µg/L	-12.096 ppb	06:36:26
1	Pb 220.353†	44.5	4.6	1.1729 µg/L	1.1729 ppb	06:36:26
1	S 181.975 Axial†	23.5	-0.1	-0.1986 µg/L	-0.1986 ppb	06:36:26
1	Sb 206.836†	26.1	-0.6	-0.4788 µg/L	-0.4788 ppb	06:36:26
1	Se 196.026†	16.8	-7.9	-7.3452 µg/L	-7.3452 ppb	06:36:26
1	SiO2†	2779.1	-236.2	-41.862 µg/L	-41.862 ppb	06:36:06
1	Si 251.611†	416.4	-299.1	-20.134 µg/L	-20.134 ppb	06:36:26
1	Sn 189.927†	4.2	2.6	0.9756 µg/L	0.9756 ppb	06:36:26
1	Ti 334.940†	-439.1	-5328.5	-12.420 µg/L	-12.420 ppb	06:36:06
1	Tl 190.801†	-35.6	-1.1	-1.1718 µg/L	-1.1718 ppb	06:36:26
1	U 409.014†	44.3	60.7	5.3252 µg/L	5.3252 ppb	06:36:06
1	V 292.402†	-178.0	-15.2	-0.1568 µg/L	-0.1568 ppb	06:36:06
1	Zn 213.857†	882.9	-36.2	-0.8114 µg/L	-0.8114 ppb	06:36:26
2	Sc RADIAL	88998.8	88998.8	101 %		06:35:04
2	Al 396.153Radial†	190.4	-18.5	-9.1535 µg/L	-9.1535 ppb	06:35:04
2	Ca 317.933Radial†	321.8	-27.9	-10.476 µg/L	-10.476 ppb	06:35:24
2	Fe 238.204 Radial†	13.8	0.5	6.3043 µg/L	6.3043 ppb	06:35:24
2	K 766.490 Radial†	131.7	-69.0	-32.971 µg/L	-32.971 ppb	06:35:04
2	Mg 279.077 IEC†	8.5	1.9	25.601 µg/L	25.601 ppb	06:35:24
2	Na 589.592 Radial†	202.1	36.2	19.060 µg/L	19.060 ppb	06:35:04
2	Sr 421.552†	67.5	-91.7	-0.5620 µg/L	-0.5620 ppb	06:35:04
2	Sc 361.383	1999299.3	1999299.3	100.71 %		06:36:32
2	Y 371.029	1367329.8	1367329.8	100.70 %		06:36:32
2	Ag 328.068†	595.1	-5.6	-0.0423 µg/L	-0.0423 ppb	06:36:38
2	As 188.979†	-2.8	-2.1	-3.0542 µg/L	-3.0542 ppb	06:36:58
2	B 249.677†	422.2	21.1	0.9427 µg/L	0.9427 ppb	06:36:38
2	Ba 233.527†	-6.7	-11.1	-0.2377 µg/L	-0.2377 ppb	06:36:58
2	Be 313.107†	-1270.2	-356.6	-0.2007 µg/L	-0.2007 ppb	06:36:38
2	Cd 226.502†	-179.7	-14.1	-0.3312 µg/L	-0.3312 ppb	06:36:58
2	Co 228.616†	36.2	-13.5	-0.5392 µg/L	-0.5392 ppb	06:36:58
2	Cr 267.716†	75.1	-10.4	-0.2213 µg/L	-0.2213 ppb	06:36:38
2	Cu 324.752†	4176.4	-141.4	-0.9015 µg/L	-0.9015 ppb	06:36:38
2	Mn 257.610†	-730.5	-449.4	-1.3355 µg/L	-1.3355 ppb	06:36:58
2	Mo 202.031†	25.1	-0.5	-0.0445 µg/L	-0.0445 ppb	06:36:58
2	Ni 231.604†	365.7	-5.3	-0.2873 µg/L	-0.2873 ppb	06:36:58
2	P 214.914†	16.9	1.4	2.5976 µg/L	2.5976 ppb	06:36:58
2	Pb 220.353†	31.0	-8.8	-2.2474 µg/L	-2.2474 ppb	06:36:58

2	S 181.975 Axial†	25.2	1.6	4.9720 µg/L	4.9720 ppb	06:36:58
2	Sb 206.836†	28.9	2.3	1.8953 µg/L	1.8953 ppb	06:36:58
2	Se 196.026†	20.0	-4.7	-4.3398 µg/L	-4.3398 ppb	06:36:58
2	SiO2†	2756.8	-260.0	-46.080 µg/L	-46.080 ppb	06:36:38
2	Si 251.611†	423.3	-292.5	-19.690 µg/L	-19.690 ppb	06:36:58
2	Sn 189.927†	4.3	2.8	1.0407 µg/L	1.0407 ppb	06:36:58
2	Ti 334.940†	-457.3	-5346.3	-12.461 µg/L	-12.461 ppb	06:36:38
2	Tl 190.801†	-38.8	-4.3	-4.2103 µg/L	-4.2103 ppb	06:36:58
2	U 409.014†	11.1	27.7	2.4251 µg/L	2.4251 ppb	06:36:38
2	V 292.402†	-158.8	4.0	0.0443 µg/L	0.0443 ppb	06:36:38
2	Zn 213.857†	879.6	-40.0	-0.8960 µg/L	-0.8960 ppb	06:36:58
3	Sc RADIAL	89020.4	89020.4	102 %		06:35:30
3	Al 396.153Radial†	175.8	-32.8	-16.277 µg/L	-16.277 ppb	06:35:30
3	Ca 317.933Radial†	333.4	-16.5	-6.2154 µg/L	-6.2154 ppb	06:35:50
3	Fe 238.204 Radial†	13.5	0.1	1.5218 µg/L	1.5218 ppb	06:35:50
3	K 766.490 Radial†	124.2	-76.4	-36.495 µg/L	-36.495 ppb	06:35:30
3	Mg 279.077 IEC†	6.8	0.2	2.4392 µg/L	2.4392 ppb	06:35:50
3	Na 589.592 Radial†	168.7	3.3	1.7462 µg/L	1.7462 ppb	06:35:30
3	Sr 421.552†	159.0	-1.6	-0.0095 µg/L	-0.0095 ppb	06:35:30
3	Sc 361.383	2005327.9	2005327.9	101.02 %		06:37:04
3	Y 371.029	1374582.6	1374582.6	101.23 %		06:37:04
3	Ag 328.068†	613.6	11.0	0.0844 µg/L	0.0844 ppb	06:37:10
3	As 188.979†	-4.8	-4.2	-5.9941 µg/L	-5.9941 ppb	06:37:30
3	B 249.677†	440.3	37.8	1.6916 µg/L	1.6916 ppb	06:37:10
3	Ba 233.527†	-7.4	-11.8	-0.2521 µg/L	-0.2521 ppb	06:37:30
3	Be 313.107†	-1232.1	-315.2	-0.1768 µg/L	-0.1768 ppb	06:37:10
3	Cd 226.502†	-168.4	-2.4	-0.0553 µg/L	-0.0553 ppb	06:37:30
3	Co 228.616†	40.3	-9.6	-0.3745 µg/L	-0.3745 ppb	06:37:30
3	Cr 267.716†	88.0	2.1	0.0453 µg/L	0.0453 ppb	06:37:10
3	Cu 324.752†	4159.4	-170.7	-1.0890 µg/L	-1.0890 ppb	06:37:10
3	Mn 257.610†	-733.9	-450.6	-1.3377 µg/L	-1.3377 ppb	06:37:30
3	Mo 202.031†	29.8	4.0	0.3888 µg/L	0.3888 ppb	06:37:30
3	Ni 231.604†	377.6	5.3	0.2913 µg/L	0.2913 ppb	06:37:30
3	P 214.914†	12.6	-2.8	-4.7840 µg/L	-4.7840 ppb	06:37:30
3	Pb 220.353†	45.3	5.3	1.3463 µg/L	1.3463 ppb	06:37:30
3	S 181.975 Axial†	21.5	-2.1	-6.6772 µg/L	-6.6772 ppb	06:37:30
3	Sb 206.836†	30.9	4.2	3.5024 µg/L	3.5024 ppb	06:37:30
3	Se 196.026†	29.0	4.1	3.7932 µg/L	3.7932 ppb	06:37:30
3	SiO2†	2819.7	-205.9	-36.493 µg/L	-36.493 ppb	06:37:10
3	Si 251.611†	429.5	-287.5	-19.357 µg/L	-19.357 ppb	06:37:30
3	Sn 189.927†	3.7	2.2	0.8148 µg/L	0.8148 ppb	06:37:30
3	Ti 334.940†	-508.8	-5396.0	-12.574 µg/L	-12.574 ppb	06:37:10
3	Tl 190.801†	-37.6	-2.9	-2.9236 µg/L	-2.9236 ppb	06:37:30
3	U 409.014†	-38.8	-21.8	-1.9093 µg/L	-1.9093 ppb	06:37:10
3	V 292.402†	-175.3	-11.9	-0.1252 µg/L	-0.1252 ppb	06:37:10
3	Zn 213.857†	919.5	-3.2	-0.0704 µg/L	-0.0704 ppb	06:37:30

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2000906.7	100.79 %	0.195			0.19%
Sc RADIAL	89038.3	102 %	0.1			0.06%
Y 371.029	1369375.5	100.85 %	0.335			0.33%
Ag 328.068†	-14.2	-0.1107 µg/L	0.23684	-0.1107 ppb	0.23684	213.90%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-14.6	-7.2431 µg/L	10.12556	-7.2431 ppb	10.12556	139.80%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-1.6	-2.2410 µg/L	4.21891	-2.2410 ppb	4.21891	188.26%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	42.1	1.8884 µg/L	1.05794	1.8884 ppb	1.05794	56.02%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-12.3	-0.2627 µg/L	0.03160	-0.2627 ppb	0.03160	12.03%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-332.5	-0.1868 µg/L	0.01244	-0.1868 ppb	0.01244	6.66%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-21.0	-7.9008 µg/L	2.26540	-7.9008 ppb	2.26540	28.67%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-6.1	-0.1419 µg/L	0.16407	-0.1419 ppb	0.16407	115.58%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-15.1	-0.6082 µg/L	0.27471	-0.6082 ppb	0.27471	45.17%

QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	2.0	0.0430 µg/L	0.26309	0.0430 ppb	0.26309	612.17%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-137.5	-0.8774 µg/L	0.22454	-0.8774 ppb	0.22454	25.59%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-0.1	-1.3701 µg/L	9.45791	-1.3701 ppb	9.45791	690.30%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	-86.2	-41.184 µg/L	11.3108	-41.184 ppb	11.3108	27.46%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	1.8	24.113 µg/L	20.9698	24.113 ppb	20.9698	86.96%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	-440.8	-1.3103 µg/L	0.04561	-1.3103 ppb	0.04561	3.48%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	0.5	0.0510 µg/L	0.30156	0.0510 ppb	0.30156	591.00%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	4.0	2.1012 µg/L	16.78382	2.1012 ppb	16.78382	798.78%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-0.0	-0.0014 µg/L	0.28938	-0.0014 ppb	0.28938	>999.9%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-2.8	-4.7609 µg/L	7.34700	-4.7609 ppb	7.34700	154.32%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	0.4	0.0906 µg/L	2.02663	0.0906 ppb	2.02663	>999.9%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-0.2	-0.6346 µg/L	5.83679	-0.6346 ppb	5.83679	919.76%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	2.0	1.6396 µg/L	2.00292	1.6396 ppb	2.00292	122.16%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-2.8	-2.6306 µg/L	5.76256	-2.6306 ppb	5.76256	219.06%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	-234.1	-41.478 µg/L	4.8048	-41.478 ppb	4.8048	11.58%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	-293.0	-19.727 µg/L	0.3898	-19.727 ppb	0.3898	1.98%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	2.5	0.9437 µg/L	0.11625	0.9437 ppb	0.11625	12.32%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-37.9	-0.2325 µg/L	0.29126	-0.2325 ppb	0.29126	125.28%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-5356.9	-12.485 µg/L	0.0798	-12.485 ppb	0.0798	0.64%
QC value less than the lower limit for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-2.8	-2.7686 µg/L	1.52521	-2.7686 ppb	1.52521	55.09%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	22.2	1.9470 µg/L	3.64091	1.9470 ppb	3.64091	187.00%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-7.7	-0.0792 µg/L	0.10815	-0.0792 ppb	0.10815	136.52%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	-26.5	-0.5926 µg/L	0.45425	-0.5926 ppb	0.45425	76.65%
QC value within limits for Zn 213.857 Recovery = Not calculated						
QC Failed. Continue with analysis.						

Sequence No.: 8

Sample ID: PQL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 101

Date Collected: 3/19/2010 06:37:41

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	92306.0	92306.0	105 %		06:38:11
1	Al 396.153Radial†	597.1	361.2	178.86 µg/L	178.86 ppb	06:38:11
1	Ca 317.933Radial†	881.1	492.0	185.00 µg/L	185.00 ppb	06:38:32
1	Fe 238.204 Radial†	19.4	5.3	67.387 µg/L	67.387 ppb	06:38:32
1	K 766.490 Radial†	537.7	312.0	149.06 µg/L	149.06 ppb	06:38:11
1	Mg 279.077 IEC†	33.1	25.0	341.41 µg/L	341.41 ppb	06:38:32
1	Na 589.592 Radial†	716.3	517.6	272.29 µg/L	272.29 ppb	06:38:11
1	Sr 421.552†	978.3	771.2	4.7276 µg/L	4.7276 ppb	06:38:11
1	Sc 361.383	2066064.1	2066064.1	104.08 %		06:39:34
1	Y 371.029	1413141.0	1413141.0	104.07 %		06:39:34
1	Ag 328.068†	1250.9	605.5	4.7341 µg/L	4.7341 ppb	06:39:39
1	As 188.979†	23.0	22.7	32.475 µg/L	32.475 ppb	06:40:00
1	B 249.677†	1494.0	1037.4	46.476 µg/L	46.476 ppb	06:40:00
1	Ba 233.527†	227.7	214.3	4.5836 µg/L	4.5836 ppb	06:40:00
1	Be 313.107†	7571.9	8179.8	4.7160 µg/L	4.7160 ppb	06:39:39
1	Cd 226.502†	46.0	208.6	4.8771 µg/L	4.8771 ppb	06:40:00
1	Co 228.616†	161.0	105.2	4.4280 µg/L	4.4280 ppb	06:40:00
1	Cr 267.716†	318.6	221.2	4.7029 µg/L	4.7029 ppb	06:40:00
1	Cu 324.752†	5867.5	1349.5	8.6247 µg/L	8.6247 ppb	06:39:39
1	Mn 257.610†	2813.6	2979.3	8.8249 µg/L	8.8249 ppb	06:40:00
1	Mo 202.031†	118.1	88.0	8.4994 µg/L	8.4994 ppb	06:40:00
1	Ni 231.604†	464.0	77.4	4.2127 µg/L	4.2127 ppb	06:40:00
1	P 214.914†	109.3	89.7	153.76 µg/L	153.76 ppb	06:40:00
1	Pb 220.353†	77.5	34.9	8.8620 µg/L	8.8620 ppb	06:40:00
1	S 181.975 Axial†	56.6	31.0	96.996 µg/L	96.996 ppb	06:40:00
1	Sb 206.836†	39.1	11.1	9.3772 µg/L	9.3772 ppb	06:40:00
1	Se 196.026†	60.7	33.7	31.069 µg/L	31.069 ppb	06:40:00
1	SiO2†	4003.0	849.0	150.45 µg/L	150.45 ppb	06:39:39
1	Si 251.611†	1874.9	1088.7	73.293 µg/L	73.293 ppb	06:40:00
1	Sn 189.927†	28.3	25.6	9.6941 µg/L	9.6941 ppb	06:40:00
1	Ti 334.940†	1635.9	-3320.4	-7.7615 µg/L	-7.7615 ppb	06:39:39
1	Tl 190.801†	-12.6	22.2	21.252 µg/L	21.252 ppb	06:40:00
1	U 409.014†	594.6	588.0	51.525 µg/L	51.525 ppb	06:39:39
1	V 292.402†	308.9	458.5	5.0056 µg/L	5.0056 ppb	06:39:39
1	Zn 213.857†	1533.9	560.4	12.498 µg/L	12.498 ppb	06:40:00
2	Sc RADIAL	91167.0	91167.0	104 %		06:38:37
2	Al 396.153Radial†	606.6	377.4	186.88 µg/L	186.88 ppb	06:38:37
2	Ca 317.933Radial†	890.7	511.7	192.41 µg/L	192.41 ppb	06:38:58
2	Fe 238.204 Radial†	19.8	5.9	75.921 µg/L	75.921 ppb	06:38:58
2	K 766.490 Radial†	465.6	249.1	119.01 µg/L	119.01 ppb	06:38:37
2	Mg 279.077 IEC†	29.7	22.1	301.84 µg/L	301.84 ppb	06:38:58
2	Na 589.592 Radial†	722.1	531.6	279.66 µg/L	279.66 ppb	06:38:37
2	Sr 421.552†	953.7	759.1	4.6538 µg/L	4.6538 ppb	06:38:37
2	Sc 361.383	2052274.6	2052274.6	103.38 %		06:40:06
2	Y 371.029	1400755.0	1400755.0	103.16 %		06:40:06
2	Ag 328.068†	1194.7	559.2	4.3760 µg/L	4.3760 ppb	06:40:11
2	As 188.979†	16.2	16.3	23.294 µg/L	23.294 ppb	06:40:32
2	B 249.677†	1491.0	1044.1	46.771 µg/L	46.771 ppb	06:40:32
2	Ba 233.527†	222.3	210.6	4.5042 µg/L	4.5042 ppb	06:40:32
2	Be 313.107†	7486.9	8146.5	4.6968 µg/L	4.6968 ppb	06:40:11
2	Cd 226.502†	46.1	208.9	4.8841 µg/L	4.8841 ppb	06:40:32
2	Co 228.616†	161.3	106.6	4.4867 µg/L	4.4867 ppb	06:40:32
2	Cr 267.716†	320.9	225.4	4.7936 µg/L	4.7936 ppb	06:40:32
2	Cu 324.752†	5819.3	1340.7	8.5701 µg/L	8.5701 ppb	06:40:11
2	Mn 257.610†	2770.1	2955.4	8.7572 µg/L	8.7572 ppb	06:40:32
2	Mo 202.031†	120.9	91.5	8.8346 µg/L	8.8346 ppb	06:40:32
2	Ni 231.604†	468.6	84.8	4.6200 µg/L	4.6200 ppb	06:40:32
2	P 214.914†	112.2	93.2	159.77 µg/L	159.77 ppb	06:40:32
2	Pb 220.353†	73.9	31.9	8.0979 µg/L	8.0979 ppb	06:40:32

2	S 181.975 Axial†	58.3	33.0	103.28 µg/L	103.28 ppb	06:40:32
2	Sb 206.836†	41.9	14.1	11.852 µg/L	11.852 ppb	06:40:32
2	Se 196.026†	64.1	37.5	34.578 µg/L	34.578 ppb	06:40:32
2	SiO2†	3978.7	851.3	150.86 µg/L	150.86 ppb	06:40:11
2	Si 251.611†	1869.6	1095.7	73.762 µg/L	73.762 ppb	06:40:32
2	Sn 189.927†	33.0	30.4	11.488 µg/L	11.488 ppb	06:40:32
2	Ti 334.940†	1629.4	-3316.2	-7.7484 µg/L	-7.7484 ppb	06:40:11
2	Tl 190.801†	-13.1	21.6	20.703 µg/L	20.703 ppb	06:40:32
2	U 409.014†	545.3	544.1	47.677 µg/L	47.677 ppb	06:40:11
2	V 292.402†	311.3	462.8	5.0507 µg/L	5.0507 ppb	06:40:11
2	Zn 213.857†	1519.7	556.6	12.412 µg/L	12.412 ppb	06:40:32
3	Sc RADIAL	91398.2	91398.2	104 %		06:39:03
3	Al 396.153Radial†	594.8	364.6	180.54 µg/L	180.54 ppb	06:39:03
3	Ca 317.933Radial†	889.7	508.6	191.23 µg/L	191.23 ppb	06:39:24
3	Fe 238.204 Radial†	20.1	6.1	78.369 µg/L	78.369 ppb	06:39:24
3	K 766.490 Radial†	520.5	300.6	143.61 µg/L	143.61 ppb	06:39:03
3	Mg 279.077 IEC†	30.8	23.0	314.96 µg/L	314.96 ppb	06:39:24
3	Na 589.592 Radial†	707.9	516.3	271.60 µg/L	271.60 ppb	06:39:03
3	Sr 421.552†	910.4	715.3	4.3850 µg/L	4.3850 ppb	06:39:03
3	Sc 361.383	2072909.2	2072909.2	104.42 %		06:40:38
3	Y 371.029	1416223.0	1416223.0	104.30 %		06:40:38
3	Ag 328.068†	1240.7	591.7	4.6230 µg/L	4.6230 ppb	06:40:43
3	As 188.979†	18.2	18.0	25.784 µg/L	25.784 ppb	06:41:04
3	B 249.677†	1368.0	911.9	40.844 µg/L	40.844 ppb	06:41:04
3	Ba 233.527†	196.8	184.0	3.9355 µg/L	3.9355 ppb	06:41:04
3	Be 313.107†	6634.9	7258.5	4.1854 µg/L	4.1854 ppb	06:40:43
3	Cd 226.502†	21.9	185.3	4.3299 µg/L	4.3299 ppb	06:41:04
3	Co 228.616†	142.5	87.0	3.6655 µg/L	3.6655 ppb	06:41:04
3	Cr 267.716†	270.0	173.6	3.6922 µg/L	3.6922 ppb	06:41:04
3	Cu 324.752†	5670.3	1142.0	7.3027 µg/L	7.3027 ppb	06:40:43
3	Mn 257.610†	2204.7	2387.3	7.0699 µg/L	7.0699 ppb	06:41:04
3	Mo 202.031†	109.1	79.1	7.6358 µg/L	7.6358 ppb	06:41:04
3	Ni 231.604†	448.6	61.2	3.3309 µg/L	3.3309 ppb	06:41:04
3	P 214.914†	93.1	73.9	126.58 µg/L	126.58 ppb	06:41:04
3	Pb 220.353†	83.1	40.0	10.160 µg/L	10.160 ppb	06:41:04
3	S 181.975 Axial†	51.2	25.6	80.142 µg/L	80.142 ppb	06:41:04
3	Sb 206.836†	31.8	4.0	3.4301 µg/L	3.4301 ppb	06:41:04
3	Se 196.026†	54.0	27.1	25.031 µg/L	25.031 ppb	06:41:04
3	SiO2†	3907.8	745.1	132.04 µg/L	132.04 ppb	06:40:43
3	Si 251.611†	1681.0	897.0	60.387 µg/L	60.387 ppb	06:41:04
3	Sn 189.927†	23.8	21.3	8.0552 µg/L	8.0552 ppb	06:41:04
3	Ti 334.940†	1384.2	-3566.7	-8.3331 µg/L	-8.3331 ppb	06:40:43
3	Tl 190.801†	-12.7	22.0	21.128 µg/L	21.128 ppb	06:41:04
3	U 409.014†	552.2	545.5	47.798 µg/L	47.798 ppb	06:40:43
3	V 292.402†	229.5	381.5	4.1751 µg/L	4.1751 ppb	06:40:43
3	Zn 213.857†	1458.6	483.5	10.781 µg/L	10.781 ppb	06:41:04

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2063749.3	103.96 %	0.529			0.51%
Sc RADIAL	91623.7	104 %	0.7			0.66%
Y 371.029	1410039.6	103.84 %	0.603			0.58%
Ag 328.068†	585.5	4.5777 µg/L	0.18329	4.5777 ppb	0.18329	4.00%
QC value within limits for Ag 328.068 Recovery = 91.55%						
Al 396.153Radial†	367.7	182.09 µg/L	4.227	182.09 ppb	4.227	2.32%
QC value within limits for Al 396.153Radial Recovery = 91.05%						
As 188.979†	19.0	27.184 µg/L	4.7478	27.184 ppb	4.7478	17.47%
QC value within limits for As 188.979 Recovery = 90.61%						
B 249.677†	997.8	44.697 µg/L	3.3402	44.697 ppb	3.3402	7.47%
QC value within limits for B 249.677 Recovery = 89.39%						
Ba 233.527†	203.0	4.3411 µg/L	0.35351	4.3411 ppb	0.35351	8.14%
QC value within limits for Ba 233.527 Recovery = 86.82%						
Be 313.107†	7861.6	4.5327 µg/L	0.30096	4.5327 ppb	0.30096	6.64%
QC value within limits for Be 313.107 Recovery = 90.65%						
Ca 317.933Radial†	504.1	189.55 µg/L	3.981	189.55 ppb	3.981	2.10%
QC value within limits for Ca 317.933Radial Recovery = 94.77%						
Cd 226.502†	200.9	4.6970 µg/L	0.31794	4.6970 ppb	0.31794	6.77%
QC value within limits for Cd 226.502 Recovery = 93.94%						
Co 228.616†	99.6	4.1934 µg/L	0.45813	4.1934 ppb	0.45813	10.93%

QC value within limits for Co 228.616 Recovery = 83.87%							
Cr 267.716†	206.7	4.3962 µg/L	0.61142	4.3962 ppb	0.61142	13.91%	
QC value within limits for Cr 267.716 Recovery = 87.92%							
Cu 324.752†	1277.4	8.1659 µg/L	0.74799	8.1659 ppb	0.74799	9.16%	
QC value within limits for Cu 324.752 Recovery = 81.66%							
Fe 238.204 Radial†	5.8	73.892 µg/L	5.7653	73.892 ppb	5.7653	7.80%	
QC value within limits for Fe 238.204 Radial Recovery = 73.89%							
K 766.490 Radial†	287.2	137.23 µg/L	16.012	137.23 ppb	16.012	11.67%	
QC value within limits for K 766.490 Radial Recovery = 91.48%							
Mg 279.077 IEC†	23.3	319.40 µg/L	20.159	319.40 ppb	20.159	6.31%	
QC value within limits for Mg 279.077 IEC Recovery = 106.47%							
Mn 257.610†	2774.0	8.2173 µg/L	0.99428	8.2173 ppb	0.99428	12.10%	
QC value within limits for Mn 257.610 Recovery = 82.17%							
Mo 202.031†	86.2	8.3233 µg/L	0.61854	8.3233 ppb	0.61854	7.43%	
QC value within limits for Mo 202.031 Recovery = 83.23%							
Na 589.592 Radial†	521.8	274.52 µg/L	4.465	274.52 ppb	4.465	1.63%	
QC value within limits for Na 589.592 Radial Recovery = 91.51%							
Ni 231.604†	74.5	4.0545 µg/L	0.65893	4.0545 ppb	0.65893	16.25%	
QC value within limits for Ni 231.604 Recovery = 81.09%							
P 214.914†	85.6	146.71 µg/L	17.682	146.71 ppb	17.682	12.05%	
QC value within limits for P 214.914 Recovery = 97.80%							
Pb 220.353†	35.6	9.0398 µg/L	1.04232	9.0398 ppb	1.04232	11.53%	
QC value within limits for Pb 220.353 Recovery = 90.40%							
S 181.975 Axial†	29.8	93.471 µg/L	11.9627	93.471 ppb	11.9627	12.80%	
QC value within limits for S 181.975 Axial Recovery = 93.47%							
Sb 206.836†	9.7	8.2199 µg/L	4.32877	8.2199 ppb	4.32877	52.66%	
QC value within limits for Sb 206.836 Recovery = 82.20%							
Se 196.026†	32.8	30.226 µg/L	4.8291	30.226 ppb	4.8291	15.98%	
QC value within limits for Se 196.026 Recovery = 100.75%							
SiO2†	815.1	144.45 µg/L	10.748	144.45 ppb	10.748	7.44%	
QC value less than the lower limit for SiO2 Recovery = 67.82%							
Si 251.611†	1027.2	69.148 µg/L	7.5904	69.148 ppb	7.5904	10.98%	
QC value less than the lower limit for Si 251.611 Recovery = 69.15%							
Sn 189.927†	25.8	9.7458 µg/L	1.71704	9.7458 ppb	1.71704	17.62%	
QC value within limits for Sn 189.927 Recovery = 97.46%							
Sr 421.552†	748.5	4.5888 µg/L	0.18034	4.5888 ppb	0.18034	3.93%	
QC value within limits for Sr 421.552 Recovery = 91.78%							
Ti 334.940†	-3401.1	-7.9477 µg/L	0.33390	-7.9477 ppb	0.33390	4.20%	
QC value less than the lower limit for Ti 334.940 Recovery = -158.95%							
Tl 190.801†	21.9	21.028 µg/L	0.2878	21.028 ppb	0.2878	1.37%	
QC value within limits for Tl 190.801 Recovery = 105.14%							
U 409.014†	559.2	49.000 µg/L	2.1876	49.000 ppb	2.1876	4.46%	
QC value within limits for U 409.014 Recovery = 98.00%							
V 292.402†	434.3	4.7438 µg/L	0.49302	4.7438 ppb	0.49302	10.39%	
QC value within limits for V 292.402 Recovery = 94.88%							
Zn 213.857†	533.5	11.897 µg/L	0.9671	11.897 ppb	0.9671	8.13%	
QC value within limits for Zn 213.857 Recovery = 118.97%							
QC Failed. Continue with analysis.							

Sequence No.: 9
 Sample ID: ICSA
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 103
 Date Collected: 3/19/2010 06:41:13
 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	88851.2	88851.2	101 %		06:41:52
1	Al 396.153Radial†	1013741.8	1000247.8	495770 µg/L	495770 ppb	06:41:47
1	Ca 317.933Radial†	1255835.1	1239029.0	465870 µg/L	465870 ppb	06:41:47
1	Fe 238.204 Radial†	14161.9	13963.2	178760 µg/L	178760 ppb	06:41:52
1	K 766.490 Radial†	143.1	-57.5	-27.471 µg/L	-27.471 ppb	06:41:52
1	Mg 279.077 IEC†	34876.3	34412.6	470540 µg/L	470540 ppb	06:41:52
1	Na 589.592 Radial†	176.1	10.9	5.7219 µg/L	5.7219 ppb	06:41:52
1	Sr 421.552†	712.5	545.0	3.3410 µg/L	3.3410 ppb	06:41:52
1	Sc 361.383	1944048.4	1944048.4	97.930 %		06:42:27
1	Y 371.029	1315299.0	1315299.0	96.865 %		06:42:27
1	Ag 328.068†	-1006.1	-1623.8	1.0974 µg/L	1.0974 ppb	06:42:48
1	As 188.979†	27.1	28.3	-38.294 µg/L	-38.294 ppb	06:42:48
1	B 249.677†	1395.5	1026.9	-47.247 µg/L	-47.247 ppb	06:42:27
1	Ba 233.527†	306.5	308.5	6.5717 µg/L	6.5717 ppb	06:42:48
1	Be 313.107†	-1808.4	-942.0	-0.5490 µg/L	-0.5490 ppb	06:42:27
1	Cd 226.502†	848.0	1030.3	3.9041 µg/L	3.9041 ppb	06:42:48
1	Co 228.616†	101.0	53.6	2.2029 µg/L	2.2029 ppb	06:42:48
1	Cr 267.716†	7.2	-77.6	-1.6539 µg/L	-1.6539 ppb	06:42:48
1	Cu 324.752†	755.7	-3516.6	11.165 µg/L	11.165 ppb	06:42:48
1	Mn 257.610†	6390.9	6801.9	-0.9538 µg/L	-0.9538 ppb	06:42:27
1	Mo 202.031†	-67.9	-94.8	-2.3560 µg/L	-2.3560 ppb	06:42:48
1	Ni 231.604†	268.8	-93.9	-2.7956 µg/L	-2.7956 ppb	06:42:48
1	P 214.914†	85.0	71.5	122.64 µg/L	122.64 ppb	06:42:48
1	Pb 220.353†	-120.3	-162.5	-1.2338 µg/L	-1.2338 ppb	06:42:48
1	S 181.975 Axial†	-37.0	-61.2	-191.59 µg/L	-191.59 ppb	06:42:48
1	Sb 206.836†	24.3	-1.7	-8.5069 µg/L	-8.5069 ppb	06:42:48
1	Se 196.026†	-166.3	-194.3	-1.9892 µg/L	-1.9892 ppb	06:42:48
1	SiO2†	2464.2	-481.0	-85.235 µg/L	-85.235 ppb	06:42:48
1	Si 251.611†	461.3	-241.7	-16.273 µg/L	-16.273 ppb	06:42:48
1	Sn 189.927†	-74.6	-77.7	18.390 µg/L	18.390 ppb	06:42:48
1	Ti 334.940†	11673.6	7028.1	-13.450 µg/L	-13.450 ppb	06:42:27
1	Tl 190.801†	-16.0	18.0	-19.362 µg/L	-19.362 ppb	06:42:48
1	U 409.014†	-93.0	-78.3	-60.131 µg/L	-60.131 ppb	06:42:27
1	V 292.402†	-895.7	-752.9	-2.0795 µg/L	-2.0795 ppb	06:42:48
1	Zn 213.857†	2304.0	1439.3	-2.8846 µg/L	-2.8846 ppb	06:42:48
2	Sc RADIAL	88920.1	88920.1	101 %		06:42:03
2	Al 396.153Radial†	1007242.1	993063.1	492200 µg/L	492200 ppb	06:41:58
2	Ca 317.933Radial†	1248693.1	1231025.6	462860 µg/L	462860 ppb	06:41:58
2	Fe 238.204 Radial†	14204.1	13993.9	179160 µg/L	179160 ppb	06:42:03
2	K 766.490 Radial†	-8.8	-207.4	-99.095 µg/L	-99.095 ppb	06:42:03
2	Mg 279.077 IEC†	34994.6	34502.6	471770 µg/L	471770 ppb	06:42:03
2	Na 589.592 Radial†	161.5	-3.6	-1.8946 µg/L	-1.8946 ppb	06:42:03
2	Sr 421.552†	669.5	502.1	3.0781 µg/L	3.0781 ppb	06:42:03
2	Sc 361.383	1932525.5	1932525.5	97.350 %		06:42:56
2	Y 371.029	1309558.6	1309558.6	96.443 %		06:42:56
2	Ag 328.068†	-984.5	-1607.8	1.2482 µg/L	1.2482 ppb	06:43:17
2	As 188.979†	26.6	27.9	-38.493 µg/L	-38.493 ppb	06:43:17
2	B 249.677†	1309.0	946.6	-51.055 µg/L	-51.055 ppb	06:42:56
2	Ba 233.527†	304.2	308.0	6.5604 µg/L	6.5604 ppb	06:43:17
2	Be 313.107†	-1725.6	-868.0	-0.5064 µg/L	-0.5064 ppb	06:42:56
2	Cd 226.502†	827.7	1014.6	3.4932 µg/L	3.4932 ppb	06:43:17
2	Co 228.616†	105.8	59.2	2.4356 µg/L	2.4356 ppb	06:43:17
2	Cr 267.716†	-28.0	-113.8	-2.4232 µg/L	-2.4232 ppb	06:43:17
2	Cu 324.752†	766.6	-3500.8	11.340 µg/L	11.340 ppb	06:43:17
2	Mn 257.610†	6384.7	6834.4	-0.9170 µg/L	-0.9170 ppb	06:42:56
2	Mo 202.031†	-71.5	-98.8	-2.7350 µg/L	-2.7350 ppb	06:43:17
2	Ni 231.604†	285.8	-74.8	-1.7502 µg/L	-1.7502 ppb	06:43:17
2	P 214.914†	87.6	74.7	126.86 µg/L	126.86 ppb	06:43:17
2	Pb 220.353†	-105.3	-147.8	2.2438 µg/L	2.2438 ppb	06:43:17

2	S 181.975 Axial†	-19.0	-42.9	-134.46 µg/L	-134.46 ppb	06:43:17
2	Sb 206.836†	31.3	5.6	-2.3438 µg/L	-2.3438 ppb	06:43:17
2	Se 196.026†	-183.5	-213.1	-18.614 µg/L	-18.614 ppb	06:43:17
2	SiO2†	2465.9	-464.2	-82.273 µg/L	-82.273 ppb	06:43:17
2	Si 251.611†	452.5	-248.0	-16.694 µg/L	-16.694 ppb	06:43:17
2	Sn 189.927†	-69.4	-72.9	19.939 µg/L	19.939 ppb	06:43:17
2	Ti 334.940†	11605.6	7029.3	-13.592 µg/L	-13.592 ppb	06:42:56
2	Tl 190.801†	-9.6	24.4	-12.736 µg/L	-12.736 ppb	06:43:17
2	U 409.014†	-105.4	-91.6	-61.171 µg/L	-61.171 ppb	06:42:56
2	V 292.402†	-945.6	-809.7	-2.6758 µg/L	-2.6758 ppb	06:43:17
2	Zn 213.857†	2290.9	1439.9	-2.9653 µg/L	-2.9653 ppb	06:43:17
3	Sc RADIAL	89204.4	89204.4	102 %		06:42:15
3	Al 396.153Radial†	1019342.2	1001791.8	496530 µg/L	496530 ppb	06:42:10
3	Ca 317.933Radial†	1260874.5	1239075.5	465880 µg/L	465880 ppb	06:42:10
3	Fe 238.204 Radial†	14278.2	14022.1	179520 µg/L	179520 ppb	06:42:15
3	K 766.490 Radial†	27.6	-171.6	-82.004 µg/L	-82.004 ppb	06:42:15
3	Mg 279.077 IEC†	35172.5	34567.5	472660 µg/L	472660 ppb	06:42:15
3	Na 589.592 Radial†	224.1	57.4	30.190 µg/L	30.190 ppb	06:42:15
3	Sr 421.552†	718.6	548.2	3.3608 µg/L	3.3608 ppb	06:42:15
3	Sc 361.383	1930113.7	1930113.7	97.228 %		06:43:25
3	Y 371.029	1308088.3	1308088.3	96.334 %		06:43:25
3	Ag 328.068†	-938.1	-1561.3	1.6385 µg/L	1.6385 ppb	06:43:46
3	As 188.979†	25.2	26.5	-40.919 µg/L	-40.919 ppb	06:43:46
3	B 249.677†	1350.3	990.7	-49.265 µg/L	-49.265 ppb	06:43:25
3	Ba 233.527†	316.7	321.3	6.8446 µg/L	6.8446 ppb	06:43:46
3	Be 313.107†	-1813.2	-960.3	-0.5597 µg/L	-0.5597 ppb	06:43:25
3	Cd 226.502†	838.6	1026.9	3.7405 µg/L	3.7405 ppb	06:43:46
3	Co 228.616†	106.8	60.4	2.4835 µg/L	2.4835 ppb	06:43:46
3	Cr 267.716†	-7.0	-92.1	-1.9633 µg/L	-1.9633 ppb	06:43:46
3	Cu 324.752†	719.2	-3548.6	11.103 µg/L	11.103 ppb	06:43:46
3	Mn 257.610†	6307.9	6763.6	-1.1655 µg/L	-1.1655 ppb	06:43:25
3	Mo 202.031†	-82.1	-109.9	-3.7854 µg/L	-3.7854 ppb	06:43:46
3	Ni 231.604†	280.7	-79.7	-2.0127 µg/L	-2.0127 ppb	06:43:46
3	P 214.914†	84.7	71.8	122.86 µg/L	122.86 ppb	06:43:46
3	Pb 220.353†	-117.3	-160.2	-0.5864 µg/L	-0.5864 ppb	06:43:46
3	S 181.975 Axial†	-23.7	-47.8	-149.61 µg/L	-149.61 ppb	06:43:46
3	Sb 206.836†	43.4	18.2	8.1067 µg/L	8.1067 ppb	06:43:46
3	Se 196.026†	-165.6	-194.9	-1.6796 µg/L	-1.6796 ppb	06:43:46
3	SiO2†	2463.7	-463.3	-82.111 µg/L	-82.111 ppb	06:43:46
3	Si 251.611†	459.2	-240.5	-16.188 µg/L	-16.188 ppb	06:43:46
3	Sn 189.927†	-79.2	-83.0	16.415 µg/L	16.415 ppb	06:43:46
3	Ti 334.940†	11733.6	7175.9	-13.273 µg/L	-13.273 ppb	06:43:25
3	Tl 190.801†	-14.2	19.7	-17.566 µg/L	-17.566 ppb	06:43:46
3	U 409.014†	-121.1	-107.9	-62.832 µg/L	-62.832 ppb	06:43:25
3	V 292.402†	-918.7	-783.2	-2.3905 µg/L	-2.3905 ppb	06:43:46
3	Zn 213.857†	2300.0	1452.2	-2.7554 µg/L	-2.7554 ppb	06:43:46

Mean Data: ICSEA

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1935562.5	97.502 %	0.3751			0.38%
Sc RADIAL	88991.9	101 %	0.2			0.21%
Y 371.029	1310982.0	96.548 %	0.2806			0.29%
Ag 328.068†	-1597.6	1.3280 µg/L	0.27924	1.3280 ppb	0.27924	21.03%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	998367.6	494830 µg/L	2308.8	494830 ppb	2308.8	0.47%
QC value within limits for Al 396.153Radial Recovery = 98.97%						
As 188.979†	27.6	-39.235 µg/L	1.4616	-39.235 ppb	1.4616	3.73%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	988.0	-49.189 µg/L	1.9052	-49.189 ppb	1.9052	3.87%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	312.6	6.6589 µg/L	0.16094	6.6589 ppb	0.16094	2.42%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-923.5	-0.5384 µg/L	0.02821	-0.5384 ppb	0.02821	5.24%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	1236376.7	464870 µg/L	1742.4	464870 ppb	1742.4	0.37%
QC value within limits for Ca 317.933Radial Recovery = 92.97%						
Cd 226.502†	1023.9	3.7126 µg/L	0.20683	3.7126 ppb	0.20683	5.57%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	57.7	2.3740 µg/L	0.15009	2.3740 ppb	0.15009	6.32%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr	267.716†	-94.5	-2.0135 µg/L	0.38711	-2.0135 ppb	0.38711	19.23%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	-3522.0	11.203 µg/L	0.1231	11.203 ppb	0.1231	1.10%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	13993.1	179140 µg/L	377.2	179140 ppb	377.2	0.21%
QC value within limits for Fe 238.204 Radial Recovery = 89.57%							
K	766.490 Radial†	-145.5	-69.523 µg/L	37.4073	-69.523 ppb	37.4073	53.81%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	34494.2	471660 µg/L	1063.7	471660 ppb	1063.7	0.23%
QC value within limits for Mg 279.077 IEC Recovery = 94.33%							
Mn	257.610†	6800.0	-1.0121 µg/L	0.13411	-1.0121 ppb	0.13411	13.25%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	-101.2	-2.9588 µg/L	0.74053	-2.9588 ppb	0.74053	25.03%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	21.6	11.339 µg/L	16.7636	11.339 ppb	16.7636	147.84%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	-82.8	-2.1862 µg/L	0.54385	-2.1862 ppb	0.54385	24.88%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	72.7	124.12 µg/L	2.378	124.12 ppb	2.378	1.92%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	-156.8	0.1412 µg/L	1.84944	0.1412 ppb	1.84944	>999.9%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	-50.6	-158.56 µg/L	29.598	-158.56 ppb	29.598	18.67%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	7.4	-0.9147 µg/L	8.39851	-0.9147 ppb	8.39851	918.19%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	-200.8	-7.4276 µg/L	9.68892	-7.4276 ppb	9.68892	130.44%
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†		-469.5	-83.206 µg/L	1.7586	-83.206 ppb	1.7586	2.11%
QC value within limits for SiO2 Recovery = Not calculated							
Si	251.611†	-243.4	-16.385 µg/L	0.2711	-16.385 ppb	0.2711	1.65%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	-77.9	18.248 µg/L	1.7660	18.248 ppb	1.7660	9.68%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	531.8	3.2600 µg/L	0.15784	3.2600 ppb	0.15784	4.84%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	7077.8	-13.438 µg/L	0.1600	-13.438 ppb	0.1600	1.19%
QC value less than the lower limit for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	20.7	-16.555 µg/L	3.4264	-16.555 ppb	3.4264	20.70%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	-92.6	-61.378 µg/L	1.3624	-61.378 ppb	1.3624	2.22%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	-781.9	-2.3819 µg/L	0.29824	-2.3819 ppb	0.29824	12.52%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	1443.8	-2.8684 µg/L	0.10588	-2.8684 ppb	0.10588	3.69%
QC value within limits for Zn 213.857 Recovery = Not calculated							
QC Failed. Continue with analysis.							

Sequence No.: 10
 Sample ID: ICSAB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 104
 Date Collected: 3/19/2010 06:43:56
 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	89875.1	89875.1	102 %		06:44:33
1	Al 396.153Radial†	1025534.6	1000355.4	495810 µg/L	495810 ppb	06:44:28
1	Ca 317.933Radial†	1276208.2	1244785.8	468030 µg/L	468030 ppb	06:44:28
1	Fe 238.204 Radial†	14704.9	14333.6	183510 µg/L	183510 ppb	06:44:33
1	K 766.490 Radial†	10952.5	10487.0	5010.3 µg/L	5010.3 ppb	06:44:33
1	Mg 279.077 IEC†	35977.3	35094.7	479880 µg/L	479880 ppb	06:44:33
1	Na 589.592 Radial†	10163.2	9752.8	5130.6 µg/L	5130.6 ppb	06:44:33
1	Sr 421.552†	82790.7	80616.5	494.21 µg/L	494.21 ppb	06:44:28
1	Sc 361.383	1935898.6	1935898.6	97.519 %		06:45:10
1	Y 371.029	1313042.6	1313042.6	96.699 %		06:45:10
1	Ag 328.068†	30808.4	30995.6	257.75 µg/L	257.75 ppb	06:45:10
1	As 188.979†	371.3	381.3	465.26 µg/L	465.26 ppb	06:45:31
1	B 249.677†	12274.3	12188.4	451.37 µg/L	451.37 ppb	06:45:10
1	Ba 233.527†	21902.9	22455.6	480.25 µg/L	480.25 ppb	06:45:31
1	Be 313.107†	395428.9	406391.9	233.96 µg/L	233.96 ppb	06:45:10
1	Cd 226.502†	19310.3	19965.8	446.91 µg/L	446.91 ppb	06:45:31
1	Co 228.616†	10030.6	10236.3	428.00 µg/L	428.00 ppb	06:45:31
1	Cr 267.716†	21339.2	21797.1	463.52 µg/L	463.52 ppb	06:45:31
1	Cu 324.752†	81929.5	79725.3	543.29 µg/L	543.29 ppb	06:45:10
1	Mn 257.610†	159372.2	163702.0	464.45 µg/L	464.45 ppb	06:45:10
1	Mo 202.031†	4898.9	4998.1	489.53 µg/L	489.53 ppb	06:45:31
1	Ni 231.604†	7933.7	7767.1	425.19 µg/L	425.19 ppb	06:45:31
1	P 214.914†	1503.6	1526.5	2576.0 µg/L	2576.0 ppb	06:45:31
1	Pb 220.353†	1675.6	1678.6	467.94 µg/L	467.94 ppb	06:45:31
1	S 181.975 Axial†	779.6	776.0	2430.5 µg/L	2430.5 ppb	06:45:31
1	Sb 206.836†	625.2	614.7	510.09 µg/L	510.09 ppb	06:45:31
1	Se 196.026†	2358.9	2394.4	2394.1 µg/L	2394.1 ppb	06:45:31
1	SiO2†	60717.9	59265.1	10503 µg/L	10503 ppb	06:45:10
1	Si 251.611†	72180.3	73303.5	4934.8 µg/L	4934.8 ppb	06:45:10
1	Sn 189.927†	1196.2	1225.1	510.48 µg/L	510.48 ppb	06:45:31
1	Ti 334.940†	221791.2	222540.6	488.05 µg/L	488.05 ppb	06:45:10
1	Tl 190.801†	440.1	485.5	434.80 µg/L	434.80 ppb	06:45:31
1	U 409.014†	5110.7	5257.4	406.84 µg/L	406.84 ppb	06:45:10
1	V 292.402†	44276.5	45564.5	495.79 µg/L	495.79 ppb	06:45:10
1	Zn 213.857†	22270.8	21923.9	452.43 µg/L	452.43 ppb	06:45:31
2	Sc RADIAL	89929.3	89929.3	103 %		06:44:45
2	Al 396.153Radial†	1033855.1	1007865.5	499530 µg/L	499530 ppb	06:44:39
2	Ca 317.933Radial†	1289776.8	1257265.7	472720 µg/L	472720 ppb	06:44:39
2	Fe 238.204 Radial†	14783.6	14401.7	184390 µg/L	184390 ppb	06:44:45
2	K 766.490 Radial†	10975.6	10503.1	5017.9 µg/L	5017.9 ppb	06:44:45
2	Mg 279.077 IEC†	35996.3	35092.1	479840 µg/L	479840 ppb	06:44:45
2	Na 589.592 Radial†	10181.6	9764.8	5136.9 µg/L	5136.9 ppb	06:44:45
2	Sr 421.552†	83739.5	81493.0	499.58 µg/L	499.58 ppb	06:44:39
2	Sc 361.383	1945475.6	1945475.6	98.002 %		06:45:40
2	Y 371.029	1318034.0	1318034.0	97.067 %		06:45:40
2	Ag 328.068†	30951.5	30986.1	257.73 µg/L	257.73 ppb	06:45:40
2	As 188.979†	372.0	380.2	463.04 µg/L	463.04 ppb	06:46:01
2	B 249.677†	12307.1	12159.9	449.63 µg/L	449.63 ppb	06:45:40
2	Ba 233.527†	21908.0	22350.2	478.00 µg/L	478.00 ppb	06:46:01
2	Be 313.107†	397435.3	406443.1	233.99 µg/L	233.99 ppb	06:45:40
2	Cd 226.502†	19293.8	19851.5	444.13 µg/L	444.13 ppb	06:46:01
2	Co 228.616†	10025.9	10180.9	425.68 µg/L	425.68 ppb	06:46:01
2	Cr 267.716†	21290.2	21639.3	460.17 µg/L	460.17 ppb	06:46:01
2	Cu 324.752†	82292.9	79682.5	543.18 µg/L	543.18 ppb	06:45:40
2	Mn 257.610†	160332.8	163877.7	465.02 µg/L	465.02 ppb	06:45:40
2	Mo 202.031†	4895.0	4969.3	486.79 µg/L	486.79 ppb	06:46:01
2	Ni 231.604†	7936.9	7730.3	423.20 µg/L	423.20 ppb	06:46:01
2	P 214.914†	1508.6	1524.1	2572.3 µg/L	2572.3 ppb	06:46:01
2	Pb 220.353†	1666.2	1660.6	463.64 µg/L	463.64 ppb	06:46:01

2	S 181.975 Axial†	788.6	781.3	2447.0 µg/L	2447.0 ppb	06:46:01
2	Sb 206.836†	622.0	608.3	504.64 µg/L	504.64 ppb	06:46:01
2	Se 196.026†	2359.5	2383.0	2385.9 µg/L	2385.9 ppb	06:46:01
2	SiO2†	61041.9	59289.2	10507 µg/L	10507 ppb	06:45:40
2	Si 251.611†	72584.1	73351.2	4938.0 µg/L	4938.0 ppb	06:45:40
2	Sn 189.927†	1213.9	1237.1	515.48 µg/L	515.48 ppb	06:46:01
2	Ti 334.940†	222527.5	222172.4	487.27 µg/L	487.27 ppb	06:45:40
2	Tl 190.801†	445.3	488.6	437.17 µg/L	437.17 ppb	06:46:01
2	U 409.014†	5025.5	5144.7	396.55 µg/L	396.55 ppb	06:45:40
2	V 292.402†	44391.3	45458.1	494.64 µg/L	494.64 ppb	06:45:40
2	Zn 213.857†	22212.7	21752.2	448.56 µg/L	448.56 ppb	06:46:01
3	Sc RADIAL	90577.5	90577.5	103 %		06:44:57
3	Al 396.153Radial†	1030335.1	997243.7	494270 µg/L	494270 ppb	06:44:51
3	Ca 317.933Radial†	1284939.0	1243582.4	467580 µg/L	467580 ppb	06:44:51
3	Fe 238.204 Radial†	14913.6	14424.5	184680 µg/L	184680 ppb	06:44:57
3	K 766.490 Radial†	11141.5	10587.1	5058.1 µg/L	5058.1 ppb	06:44:57
3	Mg 279.077 IEC†	36367.5	35200.3	481320 µg/L	481320 ppb	06:44:57
3	Na 589.592 Radial†	10276.7	9785.8	5148.0 µg/L	5148.0 ppb	06:44:57
3	Sr 421.552†	83412.9	80592.5	494.06 µg/L	494.06 ppb	06:44:51
3	Sc 361.383	1930209.8	1930209.8	97.233 %		06:46:10
3	Y 371.029	1309625.4	1309625.4	96.448 %		06:46:10
3	Ag 328.068†	30662.4	30938.6	257.39 µg/L	257.39 ppb	06:46:10
3	As 188.979†	366.2	377.3	459.37 µg/L	459.37 ppb	06:46:31
3	B 249.677†	12171.9	12120.1	447.70 µg/L	447.70 ppb	06:46:10
3	Ba 233.527†	21903.1	22522.0	481.67 µg/L	481.67 ppb	06:46:31
3	Be 313.107†	394388.1	406516.5	234.03 µg/L	234.03 ppb	06:46:10
3	Cd 226.502†	19313.7	20027.7	448.22 µg/L	448.22 ppb	06:46:31
3	Co 228.616†	10026.3	10262.1	429.09 µg/L	429.09 ppb	06:46:31
3	Cr 267.716†	21398.6	21922.6	466.19 µg/L	466.19 ppb	06:46:31
3	Cu 324.752†	81722.8	79760.3	543.73 µg/L	543.73 ppb	06:46:10
3	Mn 257.610†	159047.0	163849.2	464.86 µg/L	464.86 ppb	06:46:10
3	Mo 202.031†	4877.3	4990.7	488.86 µg/L	488.86 ppb	06:46:31
3	Ni 231.604†	7917.5	7774.4	425.60 µg/L	425.60 ppb	06:46:31
3	P 214.914†	1521.3	1549.3	2613.8 µg/L	2613.8 ppb	06:46:31
3	Pb 220.353†	1679.1	1687.3	470.04 µg/L	470.04 ppb	06:46:31
3	S 181.975 Axial†	785.2	784.1	2456.0 µg/L	2456.0 ppb	06:46:31
3	Sb 206.836†	621.6	612.8	508.50 µg/L	508.50 ppb	06:46:31
3	Se 196.026†	2339.8	2381.9	2385.2 µg/L	2385.2 ppb	06:46:31
3	SiO2†	60752.9	59484.6	10542 µg/L	10542 ppb	06:46:10
3	Si 251.611†	72178.6	73519.9	4949.3 µg/L	4949.3 ppb	06:46:10
3	Sn 189.927†	1193.7	1226.1	510.85 µg/L	510.85 ppb	06:46:31
3	Ti 334.940†	221140.9	222542.1	487.93 µg/L	487.93 ppb	06:46:10
3	Tl 190.801†	441.7	488.5	437.83 µg/L	437.83 ppb	06:46:31
3	U 409.014†	5173.0	5336.9	413.68 µg/L	413.68 ppb	06:46:10
3	V 292.402†	44132.0	45549.7	495.67 µg/L	495.67 ppb	06:46:10
3	Zn 213.857†	22241.6	21961.2	453.13 µg/L	453.13 ppb	06:46:31

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1937194.7	97.585 %	0.3886			0.40%
Sc RADIAL	90127.3	103 %	0.4			0.43%
Y 371.029	1313567.3	96.738 %	0.3114			0.32%
Ag 328.068†	30973.5	257.63 µg/L	0.201	257.63 ppb	0.201	0.08%
QC value within limits for Ag 328.068 Recovery = 103.05%						
Al 396.153Radial†	1001821.5	496530 µg/L	2706.5	496530 ppb	2706.5	0.55%
QC value within limits for Al 396.153Radial Recovery = 99.31%						
As 188.979†	379.6	462.56 µg/L	2.978	462.56 ppb	2.978	0.64%
QC value within limits for As 188.979 Recovery = 92.51%						
B 249.677†	12156.1	449.57 µg/L	1.832	449.57 ppb	1.832	0.41%
QC value within limits for B 249.677 Recovery = 89.91%						
Ba 233.527†	22442.6	479.97 µg/L	1.850	479.97 ppb	1.850	0.39%
QC value within limits for Ba 233.527 Recovery = 95.99%						
Be 313.107†	406450.5	233.99 µg/L	0.036	233.99 ppb	0.036	0.02%
QC value within limits for Be 313.107 Recovery = 93.60%						
Ca 317.933Radial†	1248544.7	469440 µg/L	2848.7	469440 ppb	2848.7	0.61%
QC value within limits for Ca 317.933Radial Recovery = 93.89%						
Cd 226.502†	19948.3	446.42 µg/L	2.088	446.42 ppb	2.088	0.47%
QC value within limits for Cd 226.502 Recovery = 89.28%						
Co 228.616†	10226.4	427.59 µg/L	1.739	427.59 ppb	1.739	0.41%

QC value within limits for Co 228.616 Recovery = 85.52%						
Cr 267.716†	21786.3	463.29 µg/L	3.018	463.29 ppb	3.018	0.65%
QC value within limits for Cr 267.716 Recovery = 92.66%						
Cu 324.752†	79722.7	543.40 µg/L	0.292	543.40 ppb	0.292	0.05%
QC value within limits for Cu 324.752 Recovery = 108.68%						
Fe 238.204 Radial†	14386.6	184190 µg/L	605.2	184190 ppb	605.2	0.33%
QC value within limits for Fe 238.204 Radial Recovery = 92.10%						
K 766.490 Radial†	10525.8	5028.8 µg/L	25.68	5028.8 ppb	25.68	0.51%
QC value within limits for K 766.490 Radial Recovery = 100.58%						
Mg 279.077 IEC†	35129.0	480350 µg/L	843.9	480350 ppb	843.9	0.18%
QC value within limits for Mg 279.077 IEC Recovery = 96.07%						
Mn 257.610†	163809.6	464.78 µg/L	0.296	464.78 ppb	0.296	0.06%
QC value within limits for Mn 257.610 Recovery = 92.96%						
Mo 202.031†	4986.0	488.40 µg/L	1.430	488.40 ppb	1.430	0.29%
QC value within limits for Mo 202.031 Recovery = 97.68%						
Na 589.592 Radial†	9767.8	5138.5 µg/L	8.80	5138.5 ppb	8.80	0.17%
QC value within limits for Na 589.592 Radial Recovery = 102.77%						
Ni 231.604†	7757.2	424.66 µg/L	1.285	424.66 ppb	1.285	0.30%
QC value within limits for Ni 231.604 Recovery = 84.93%						
P 214.914†	1533.3	2587.4 µg/L	22.99	2587.4 ppb	22.99	0.89%
QC value within limits for P 214.914 Recovery = 103.49%						
Pb 220.353†	1675.5	467.21 µg/L	3.260	467.21 ppb	3.260	0.70%
QC value within limits for Pb 220.353 Recovery = 93.44%						
S 181.975 Axial†	780.5	2444.5 µg/L	12.93	2444.5 ppb	12.93	0.53%
QC value within limits for S 181.975 Axial Recovery = 97.78%						
Sb 206.836†	611.9	507.74 µg/L	2.803	507.74 ppb	2.803	0.55%
QC value within limits for Sb 206.836 Recovery = 101.55%						
Se 196.026†	2386.4	2388.4 µg/L	4.93	2388.4 ppb	4.93	0.21%
QC value within limits for Se 196.026 Recovery = 95.54%						
SiO2†	59346.3	10517 µg/L	21.3	10517 ppb	21.3	0.20%
QC value within limits for SiO2 Recovery = 98.34%						
Si 251.611†	73391.6	4940.7 µg/L	7.65	4940.7 ppb	7.65	0.15%
QC value within limits for Si 251.611 Recovery = 98.81%						
Sn 189.927†	1229.4	512.27 µg/L	2.784	512.27 ppb	2.784	0.54%
QC value within limits for Sn 189.927 Recovery = 102.45%						
Sr 421.552†	80900.6	495.95 µg/L	3.145	495.95 ppb	3.145	0.63%
QC value within limits for Sr 421.552 Recovery = 99.19%						
Ti 334.940†	222418.3	487.75 µg/L	0.421	487.75 ppb	0.421	0.09%
QC value within limits for Ti 334.940 Recovery = 97.55%						
Tl 190.801†	487.6	436.60 µg/L	1.590	436.60 ppb	1.590	0.36%
QC value within limits for Tl 190.801 Recovery = 87.32%						
U 409.014†	5246.3	405.69 µg/L	8.620	405.69 ppb	8.620	2.12%
QC value within limits for U 409.014 Recovery = 81.14%						
V 292.402†	45524.1	495.37 µg/L	0.629	495.37 ppb	0.629	0.13%
QC value within limits for V 292.402 Recovery = 99.07%						
Zn 213.857†	21879.1	451.37 µg/L	2.463	451.37 ppb	2.463	0.55%
QC value within limits for Zn 213.857 Recovery = 90.27%						
All analyte(s) passed QC.						

Sequence No.: 11
 Sample ID: LR1
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 105
 Date Collected: 3/19/2010 06:46:40
 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	90956.4	90956.4	104 %		06:47:18
1	Al 396.153Radial†	1024453.4	987417.9	489410 µg/L	489410 ppb	06:47:13
1	Ca 317.933Radial†	1287480.5	1240850.2	466550 µg/L	466550 ppb	06:47:13
1	Fe 238.204 Radial†	35553.9	34262.5	438640 µg/L	438640 ppb	06:47:18
1	K 766.490 Radial†	163.6	-41.0	-19.597 µg/L	-19.597 ppb	06:47:18
1	Mg 279.077 IEC†	36127.4	34822.1	475870 µg/L	475870 ppb	06:47:18
1	Na 589.592 Radial†	963821.2	929008.6	488720 µg/L	488720 ppb	06:47:13
1	Sr 421.552†	2061.5	1829.2	11.214 µg/L	11.214 ppb	06:47:18
1	Sc 361.383	1918919.9	1918919.9	96.664 %		06:47:55
1	Y 371.029	1292803.6	1292803.6	95.209 %		06:47:55
1	Ag 328.068†	-3605.3	-4326.2	-0.0768 µg/L	-0.0768 ppb	06:47:55
1	As 188.979†	10.1	11.0	-95.181 µg/L	-95.181 ppb	06:48:16
1	B 249.677†	2651.5	2344.9	-123.76 µg/L	-123.76 ppb	06:47:55
1	Ba 233.527†	673.3	692.1	14.706 µg/L	14.706 ppb	06:48:16
1	Be 313.107†	-9524.4	-8948.6	-5.1650 µg/L	-5.1650 ppb	06:47:55
1	Cd 226.502†	2186.3	2426.0	7.1978 µg/L	7.1978 ppb	06:48:16
1	Co 228.616†	271.0	230.9	9.6004 µg/L	9.6004 ppb	06:48:16
1	Cr 267.716†	364.0	291.6	6.1732 µg/L	6.1732 ppb	06:48:16
1	Cu 324.752†	-2942.8	-7332.6	35.670 µg/L	35.670 ppb	06:48:16
1	Mn 257.610†	7546.2	8082.5	17.855 µg/L	17.855 ppb	06:47:55
1	Mo 202.031†	-171.7	-203.0	-2.9354 µg/L	-2.9354 ppb	06:48:16
1	Ni 231.604†	224.4	-136.3	-1.7375 µg/L	-1.7375 ppb	06:48:16
1	P 214.914†	254.5	248.0	216.50 µg/L	216.50 ppb	06:48:16
1	Pb 220.353†	-33.7	-74.4	10.107 µg/L	10.107 ppb	06:48:16
1	S 181.975 Axial†	-24.1	-48.4	-151.44 µg/L	-151.44 ppb	06:48:16
1	Sb 206.836†	33.2	7.9	-0.8137 µg/L	-0.8137 ppb	06:48:16
1	Se 196.026†	-410.8	-449.6	584.83 µg/L	584.83 ppb	06:48:16
1	SiO2†	2510.0	-400.6	-70.993 µg/L	-70.993 ppb	06:48:16
1	Si 251.611†	-39.5	-753.6	-50.732 µg/L	-50.732 ppb	06:48:16
1	Sn 189.927†	-59.1	-62.7	22.946 µg/L	22.946 ppb	06:48:16
1	Ti 334.940†	14586.4	10197.5	-6.4962 µg/L	-6.4962 ppb	06:47:55
1	Tl 190.801†	-46.7	-14.0	3.8131 µg/L	3.8131 ppb	06:48:16
1	U 409.014†	158877.1	164376.6	14321 µg/L	14321 ppb	06:47:55
1	V 292.402†	-3591.4	-3553.7	-8.2097 µg/L	-8.2097 ppb	06:48:16
1	Zn 213.857†	3819.2	3037.6	20.302 µg/L	20.302 ppb	06:48:16
2	Sc RADIAL	90441.8	90441.8	103 %		06:47:30
2	Al 396.153Radial†	1023857.4	992459.5	491910 µg/L	491910 ppb	06:47:25
2	Ca 317.933Radial†	1283998.0	1244536.0	467940 µg/L	467940 ppb	06:47:25
2	Fe 238.204 Radial†	35465.6	34372.0	440040 µg/L	440040 ppb	06:47:30
2	K 766.490 Radial†	264.3	57.5	27.458 µg/L	27.458 ppb	06:47:30
2	Mg 279.077 IEC†	36034.6	34930.3	477340 µg/L	477340 ppb	06:47:30
2	Na 589.592 Radial†	961437.7	931984.6	490290 µg/L	490290 ppb	06:47:25
2	Sr 421.552†	2092.8	1870.9	11.470 µg/L	11.470 ppb	06:47:30
2	Sc 361.383	1912799.5	1912799.5	96.356 %		06:48:24
2	Y 371.029	1290994.5	1290994.5	95.076 %		06:48:24
2	Ag 328.068†	-3545.4	-4276.0	0.4190 µg/L	0.4190 ppb	06:48:24
2	As 188.979†	15.6	16.8	-87.196 µg/L	-87.196 ppb	06:48:45
2	B 249.677†	2417.6	2110.9	-134.98 µg/L	-134.98 ppb	06:48:24
2	Ba 233.527†	668.1	688.9	14.639 µg/L	14.639 ppb	06:48:45
2	Be 313.107†	-9277.1	-8723.4	-5.0356 µg/L	-5.0356 ppb	06:48:24
2	Cd 226.502†	2179.5	2426.2	7.0455 µg/L	7.0455 ppb	06:48:45
2	Co 228.616†	256.8	217.1	9.0196 µg/L	9.0196 ppb	06:48:45
2	Cr 267.716†	370.1	299.1	6.3323 µg/L	6.3323 ppb	06:48:45
2	Cu 324.752†	-2822.2	-7217.2	36.670 µg/L	36.670 ppb	06:48:45
2	Mn 257.610†	7545.0	8106.3	17.909 µg/L	17.909 ppb	06:48:24
2	Mo 202.031†	-182.6	-215.0	-4.0323 µg/L	-4.0323 ppb	06:48:45
2	Ni 231.604†	251.6	-107.3	-0.1406 µg/L	-0.1406 ppb	06:48:45
2	P 214.914†	248.1	242.1	205.94 µg/L	205.94 ppb	06:48:45
2	Pb 220.353†	-24.2	-64.7	12.771 µg/L	12.771 ppb	06:48:45

2	S 181.975 Axial†	-39.4	-64.3	-201.49 µg/L	-201.49 ppb	06:48:45
2	Sb 206.836†	24.3	-1.3	-8.4835 µg/L	-8.4835 ppb	06:48:45
2	Se 196.026†	-397.0	-436.6	600.06 µg/L	600.06 ppb	06:48:45
2	SiO2†	2501.6	-401.0	-71.068 µg/L	-71.068 ppb	06:48:45
2	Si 251.611†	-44.5	-759.0	-51.095 µg/L	-51.095 ppb	06:48:45
2	Sn 189.927†	-53.6	-57.1	25.171 µg/L	25.171 ppb	06:48:45
2	Ti 334.940†	14896.2	10567.3	-5.7294 µg/L	-5.7294 ppb	06:48:24
2	Tl 190.801†	-42.0	-9.4	8.3852 µg/L	8.3852 ppb	06:48:45
2	U 409.014†	158481.1	164491.6	14331 µg/L	14331 ppb	06:48:24
2	V 292.402†	-3596.9	-3571.3	-8.3477 µg/L	-8.3477 ppb	06:48:45
2	Zn 213.857†	3818.6	3049.6	20.412 µg/L	20.412 ppb	06:48:45
3	Sc RADIAL	90943.8	90943.8	104 %		06:47:42
3	Al 396.153Radial†	1021951.0	985142.2	488280 µg/L	488280 ppb	06:47:36
3	Ca 317.933Radial†	1278222.9	1232096.4	463260 µg/L	463260 ppb	06:47:36
3	Fe 238.204 Radial†	35580.8	34293.2	439040 µg/L	439040 ppb	06:47:42
3	K 766.490 Radial†	134.5	-69.1	-32.990 µg/L	-32.990 ppb	06:47:42
3	Mg 279.077 IEC†	36086.2	34787.1	475390 µg/L	475390 ppb	06:47:42
3	Na 589.592 Radial†	960146.7	925594.6	486920 µg/L	486920 ppb	06:47:36
3	Sr 421.552†	2081.8	1849.1	11.336 µg/L	11.336 ppb	06:47:42
3	Sc 361.383	1920560.1	1920560.1	96.747 %		06:48:53
3	Y 371.029	1295744.0	1295744.0	95.425 %		06:48:53
3	Ag 328.068†	-3713.4	-4434.7	-0.8847 µg/L	-0.8847 ppb	06:48:53
3	As 188.979†	11.7	12.6	-92.506 µg/L	-92.506 ppb	06:49:14
3	B 249.677†	2659.2	2350.5	-123.71 µg/L	-123.71 ppb	06:48:53
3	Ba 233.527†	688.1	706.8	15.021 µg/L	15.021 ppb	06:49:14
3	Be 313.107†	-9644.5	-9064.3	-5.2320 µg/L	-5.2320 ppb	06:48:53
3	Cd 226.502†	2171.2	2408.6	6.7452 µg/L	6.7452 ppb	06:49:14
3	Co 228.616†	261.9	221.2	9.1937 µg/L	9.1937 ppb	06:49:14
3	Cr 267.716†	378.9	306.7	6.4941 µg/L	6.4941 ppb	06:49:14
3	Cu 324.752†	-2923.0	-7309.5	35.891 µg/L	35.891 ppb	06:49:14
3	Mn 257.610†	7502.1	8030.2	17.755 µg/L	17.755 ppb	06:48:53
3	Mo 202.031†	-173.4	-204.6	-3.0745 µg/L	-3.0745 ppb	06:49:14
3	Ni 231.604†	237.9	-122.5	-0.9808 µg/L	-0.9808 ppb	06:49:14
3	P 214.914†	245.3	238.2	199.10 µg/L	199.10 ppb	06:49:14
3	Pb 220.353†	-72.2	-114.2	-0.1283 µg/L	-0.1283 ppb	06:49:14
3	S 181.975 Axial†	-39.8	-64.5	-202.17 µg/L	-202.17 ppb	06:49:14
3	Sb 206.836†	22.8	-2.8	-9.7294 µg/L	-9.7294 ppb	06:49:14
3	Se 196.026†	-405.4	-443.6	592.23 µg/L	592.23 ppb	06:49:14
3	SiO2†	2502.1	-411.0	-72.837 µg/L	-72.837 ppb	06:49:14
3	Si 251.611†	-51.1	-765.5	-51.536 µg/L	-51.536 ppb	06:49:14
3	Sn 189.927†	-40.5	-43.4	29.908 µg/L	29.908 ppb	06:49:14
3	Ti 334.940†	14923.3	10532.9	-5.7289 µg/L	-5.7289 ppb	06:48:53
3	Tl 190.801†	-32.3	0.9	18.796 µg/L	18.796 ppb	06:49:14
3	U 409.014†	159205.1	164575.3	14338 µg/L	14338 ppb	06:48:53
3	V 292.402†	-3540.2	-3497.5	-7.5817 µg/L	-7.5817 ppb	06:49:14
3	Zn 213.857†	3835.4	3051.0	20.608 µg/L	20.608 ppb	06:49:14

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1917426.5	96.589 %		0.2060			0.21%
Sc RADIAL	90780.7	104 %		0.3			0.32%
Y 371.029	1293180.7	95.237 %		0.1765			0.19%
Ag 328.068†	-4345.6	-0.1808 µg/L		0.65803	-0.1808 ppb	0.65803	363.88%
Al 396.153Radial†	988339.8	489860 µg/L		1856.1	489860 ppb	1856.1	0.38%
QC value within limits for Al 396.153Radial Recovery = 97.97%							
As 188.979†	13.5	-91.628 µg/L		4.0647	-91.628 ppb	4.0647	4.44%
B 249.677†	2268.7	-127.48 µg/L		6.493	-127.48 ppb	6.493	5.09%
Ba 233.527†	695.9	14.789 µg/L		0.2040	14.789 ppb	0.2040	1.38%
Be 313.107†	-8912.1	-5.1442 µg/L		0.09983	-5.1442 ppb	0.09983	1.94%
Ca 317.933Radial†	1239160.8	465910 µg/L		2402.4	465910 ppb	2402.4	0.52%
QC value within limits for Ca 317.933Radial Recovery = 93.18%							
Cd 226.502†	2420.3	6.9962 µg/L		0.23031	6.9962 ppb	0.23031	3.29%
Co 228.616†	223.0	9.2712 µg/L		0.29803	9.2712 ppb	0.29803	3.21%
Cr 267.716†	299.1	6.3332 µg/L		0.16045	6.3332 ppb	0.16045	2.53%
Cu 324.752†	-7286.5	36.077 µg/L		0.5252	36.077 ppb	0.5252	1.46%
Fe 238.204 Radial†	34309.3	439240 µg/L		723.1	439240 ppb	723.1	0.16%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 87.85%							
K 766.490 Radial†	-17.5	-8.3762 µg/L		31.74786	-8.3762 ppb	31.74786	379.03%
Mg 279.077 IEC†	34846.5	476200 µg/L		1020.1	476200 ppb	1020.1	0.21%

QC value within limits for Mg 279.077 IEC Recovery = 95.24%							
Mn 257.610†	8073.0	17.840 µg/L	0.0779	17.840 ppb	0.0779	0.44%	
Mo 202.031†	-207.5	-3.3474 µg/L	0.59720	-3.3474 ppb	0.59720	17.84%	
Na 589.592 Radial†	928862.6	488640 µg/L	1682.1	488640 ppb	1682.1	0.34%	
QC value within limits for Na 589.592 Radial Recovery = 97.73%							
Ni 231.604†	-122.1	-0.9530 µg/L	0.79885	-0.9530 ppb	0.79885	83.83%	
P 214.914†	242.8	207.18 µg/L	8.767	207.18 ppb	8.767	4.23%	
Pb 220.353†	-84.4	7.5831 µg/L	6.80983	7.5831 ppb	6.80983	89.80%	
S 181.975 Axial†	-59.1	-185.03 µg/L	29.094	-185.03 ppb	29.094	15.72%	
Sb 206.836†	1.2	-6.3422 µg/L	4.82816	-6.3422 ppb	4.82816	76.13%	
Se 196.026†	-443.3	592.37 µg/L	7.613	592.37 ppb	7.613	1.29%	
SiO2†	-404.2	-71.632 µg/L	1.0437	-71.632 ppb	1.0437	1.46%	
Si 251.611†	-759.4	-51.121 µg/L	0.4026	-51.121 ppb	0.4026	0.79%	
Sn 189.927†	-54.4	26.009 µg/L	3.5558	26.009 ppb	3.5558	13.67%	
Sr 421.552†	1849.8	11.340 µg/L	0.1279	11.340 ppb	0.1279	1.13%	
Ti 334.940†	10432.6	-5.9848 µg/L	0.44284	-5.9848 ppb	0.44284	7.40%	
Tl 190.801†	-7.5	10.331 µg/L	7.6786	10.331 ppb	7.6786	74.32%	
U 409.014†	164481.2	14330 µg/L	8.8	14330 ppb	8.8	0.06%	
QC value within limits for U 409.014 Recovery = 95.53%							
V 292.402†	-3540.8	-8.0464 µg/L	0.40832	-8.0464 ppb	0.40832	5.07%	
Zn 213.857†	3046.1	20.440 µg/L	0.1549	20.440 ppb	0.1549	0.76%	
QC Failed. Continue with analysis.							

Sequence No.: 12

Sample ID: LR2

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 108

Date Collected: 3/19/2010 06:49:24

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	93282.1	93282.1	106 %		06:50:03
1	Al 396.153Radial†	1107.9	835.4	207.53 µg/L	207.53 ppb	06:50:03
1	Ca 317.933Radial†	524.5	148.1	55.697 µg/L	55.697 ppb	06:50:23
1	Fe 238.204 Radial†	12.0	-1.9	176.67 µg/L	176.67 ppb	06:50:23
1	K 766.490 Radial†	652321.9	612993.1	292860 µg/L	292860 ppb	06:49:57
1	Mg 279.077 IEC†	4.8	-2.0	141.24 µg/L	141.24 ppb	06:50:23
1	Na 589.592 Radial†	1086.4	858.3	451.52 µg/L	451.52 ppb	06:50:03
1	Sr 421.552†	1670561.5	1570193.4	9625.9 µg/L	9625.9 ppb	06:49:57
1	Sc 361.383	2025127.1	2025127.1	102.01 %		06:51:55
1	Y 371.029	1371146.7	1371146.7	100.98 %		06:51:55
1	Ag 328.068†	-8796.7	-9219.5	-5.7600 µg/L	-5.7600 ppb	06:52:01
1	As 188.979†	6791.6	6658.1	9511.8 µg/L	9511.8 ppb	06:52:01
1	B 249.677†	111744.3	109139.8	4931.4 µg/L	4931.4 ppb	06:51:55
1	Ba 233.527†	692937.0	679250.7	14519 µg/L	14519 ppb	06:51:55
1	Be 313.107†	5042348.7	4943693.5	2844.7 µg/L	2844.7 ppb	06:51:45
1	Cd 226.502†	420641.5	412500.4	9662.6 µg/L	9662.6 ppb	06:51:55
1	Co 228.616†	230911.3	226302.6	9465.1 µg/L	9465.1 ppb	06:51:55
1	Cr 267.716†	1169178.8	1146008.7	24360 µg/L	24360 ppb	06:51:55
1	Cu 324.752†	3215885.0	3148100.1	20090 µg/L	20090 ppb	06:51:55
1	Mn 257.610†	3253599.9	3189634.5	9468.3 µg/L	9468.3 ppb	06:51:55
1	Mo 202.031†	106260.0	104136.5	10054 µg/L	10054 ppb	06:51:55
1	Ni 231.604†	182505.9	178534.0	9719.0 µg/L	9719.0 ppb	06:51:55
1	P 214.914†	8901.7	8710.6	13032 µg/L	13032 ppb	06:52:01
1	Pb 220.353†	99318.3	97317.7	24789 µg/L	24789 ppb	06:51:55
1	S 181.975 Axial†	16772.3	16417.7	51423 µg/L	51423 ppb	06:52:01
1	Sb 206.836†	12596.0	12320.8	10201 µg/L	10201 ppb	06:52:01
1	Se 196.026†	10860.0	10621.1	9797.5 µg/L	9797.5 ppb	06:52:01
1	SiO2†	564961.3	550809.1	97614 µg/L	97614 ppb	06:51:55
1	Si 251.611†	689562.2	675234.2	45457 µg/L	45457 ppb	06:51:55
1	Sn 189.927†	27506.5	26961.8	10179 µg/L	10179 ppb	06:52:01
1	Ti 334.940†	4303949.1	4214076.7	9819.9 µg/L	9819.9 ppb	06:51:45
1	Tl 190.801†	10063.6	9899.1	9587.7 µg/L	9587.7 ppb	06:52:01
1	U 409.014†	-2284.8	-2223.0	-194.89 µg/L	-194.89 ppb	06:51:55
1	V 292.402†	956145.8	937428.6	10096 µg/L	10096 ppb	06:51:55
1	Zn 213.857†	663285.7	649276.0	14467 µg/L	14467 ppb	06:51:55
2	Sc RADIAL	92904.8	92904.8	106 %		06:50:35
2	Al 396.153Radial†	1079.9	813.2	201.14 µg/L	201.14 ppb	06:50:35
2	Ca 317.933Radial†	530.6	155.9	58.605 µg/L	58.605 ppb	06:50:55
2	Fe 238.204 Radial†	10.9	-2.9	158.85 µg/L	158.85 ppb	06:50:55
2	K 766.490 Radial†	646142.4	609651.3	291270 µg/L	291270 ppb	06:50:30
2	Mg 279.077 IEC†	4.2	-2.6	130.35 µg/L	130.35 ppb	06:50:55
2	Na 589.592 Radial†	837.9	628.0	330.35 µg/L	330.35 ppb	06:50:35
2	Sr 421.552†	1650749.3	1557872.3	9550.3 µg/L	9550.3 ppb	06:50:30
2	Sc 361.383	2015431.6	2015431.6	101.53 %		06:52:20
2	Y 371.029	1366420.1	1366420.1	100.63 %		06:52:20
2	Ag 328.068†	-8398.3	-8868.6	-4.6308 µg/L	-4.6308 ppb	06:52:26
2	As 188.979†	6707.2	6607.0	9439.1 µg/L	9439.1 ppb	06:52:26
2	B 249.677†	110197.2	108142.9	4885.7 µg/L	4885.7 ppb	06:52:20
2	Ba 233.527†	673486.5	663360.2	14179 µg/L	14179 ppb	06:52:20
2	Be 313.107†	4945601.1	4872178.1	2803.6 µg/L	2803.6 ppb	06:52:10
2	Cd 226.502†	409946.6	403949.8	9462.3 µg/L	9462.3 ppb	06:52:20
2	Co 228.616†	223681.2	220270.0	9212.6 µg/L	9212.6 ppb	06:52:20
2	Cr 267.716†	1131297.5	1114210.3	23685 µg/L	23685 ppb	06:52:20
2	Cu 324.752†	3134060.8	3082670.7	19673 µg/L	19673 ppb	06:52:20
2	Mn 257.610†	3148749.7	3101703.0	9207.3 µg/L	9207.3 ppb	06:52:20
2	Mo 202.031†	103384.4	101805.2	9829.2 µg/L	9829.2 ppb	06:52:20
2	Ni 231.604†	176946.5	173918.7	9467.8 µg/L	9467.8 ppb	06:52:20
2	P 214.914†	8732.1	8585.5	12856 µg/L	12856 ppb	06:52:26
2	Pb 220.353†	96941.5	95445.0	24312 µg/L	24312 ppb	06:52:20

2	S 181.975 Axial†	16595.5	16322.7	51125 µg/L	51125 ppb	06:52:26
2	Sb 206.836†	12366.9	12154.6	10066 µg/L	10066 ppb	06:52:26
2	Se 196.026†	10739.1	10553.2	9734.8 µg/L	9734.8 ppb	06:52:26
2	SiO2†	555054.0	543714.8	96356 µg/L	96356 ppb	06:52:20
2	Si 251.611†	677612.1	666715.5	44883 µg/L	44883 ppb	06:52:20
2	Sn 189.927†	26522.3	26122.2	9861.9 µg/L	9861.9 ppb	06:52:26
2	Ti 334.940†	4224672.4	4156287.5	9685.3 µg/L	9685.3 ppb	06:52:10
2	Tl 190.801†	10081.0	9963.8	9648.3 µg/L	9648.3 ppb	06:52:26
2	U 409.014†	-2202.9	-2153.1	-188.75 µg/L	-188.75 ppb	06:52:20
2	V 292.402†	928525.9	914732.8	9851.2 µg/L	9851.2 ppb	06:52:20
2	Zn 213.857†	644980.2	634373.4	14135 µg/L	14135 ppb	06:52:20
3	Sc RADIAL	90730.1	90730.1	103 %		06:51:07
3	Al 396.153Radial†	1009.6	769.7	202.94 µg/L	202.94 ppb	06:51:07
3	Ca 317.933Radial†	526.5	163.9	61.611 µg/L	61.611 ppb	06:51:28
3	Fe 238.204 Radial†	13.7	0.1	173.76 µg/L	173.76 ppb	06:51:28
3	K 766.490 Radial†	638164.4	616557.8	294570 µg/L	294570 ppb	06:51:01
3	Mg 279.077 IEC†	6.7	-0.1	145.28 µg/L	145.28 ppb	06:51:28
3	Na 589.592 Radial†	719.1	532.1	279.90 µg/L	279.90 ppb	06:51:07
3	Sr 421.552†	1632488.8	1577567.4	9671.1 µg/L	9671.1 ppb	06:51:01
3	Sc 361.383	2039745.7	2039745.7	102.75 %		06:52:45
3	Y 371.029	1383772.3	1383772.3	101.91 %		06:52:45
3	Ag 328.068†	-7202.1	-7605.8	-2.4004 µg/L	-2.4004 ppb	06:52:50
3	As 188.979†	5942.6	5784.1	8263.2 µg/L	8263.2 ppb	06:52:50
3	B 249.677†	102078.1	98947.3	4468.2 µg/L	4468.2 ppb	06:52:45
3	Ba 233.527†	609842.4	593512.5	12686 µg/L	12686 ppb	06:52:45
3	Be 313.107†	4592851.1	4470804.9	2572.6 µg/L	2572.6 ppb	06:52:34
3	Cd 226.502†	369800.8	360065.5	8434.3 µg/L	8434.3 ppb	06:52:45
3	Co 228.616†	200164.2	194756.3	8144.8 µg/L	8144.8 ppb	06:52:45
3	Cr 267.716†	987507.2	960986.6	20428 µg/L	20428 ppb	06:52:45
3	Cu 324.752†	2796965.6	2717802.5	17344 µg/L	17344 ppb	06:52:45
3	Mn 257.610†	2814460.2	2739392.9	8131.8 µg/L	8131.8 ppb	06:52:45
3	Mo 202.031†	92537.4	90034.7	8692.8 µg/L	8692.8 ppb	06:52:45
3	Ni 231.604†	158622.3	154007.6	8383.9 µg/L	8383.9 ppb	06:52:45
3	P 214.914†	7523.1	7306.4	10876 µg/L	10876 ppb	06:52:50
3	Pb 220.353†	88814.9	86397.8	22007 µg/L	22007 ppb	06:52:45
3	S 181.975 Axial†	14686.7	14270.1	44696 µg/L	44696 ppb	06:52:50
3	Sb 206.836†	10853.4	10536.4	8729.6 µg/L	8729.6 ppb	06:52:50
3	Se 196.026†	9469.6	9191.5	8478.9 µg/L	8478.9 ppb	06:52:50
3	SiO2†	512611.2	495891.3	87881 µg/L	87881 ppb	06:52:45
3	Si 251.611†	625556.7	608097.8	40937 µg/L	40937 ppb	06:52:45
3	Sn 189.927†	22693.7	22084.7	8337.6 µg/L	8337.6 ppb	06:52:50
3	Ti 334.940†	3925717.5	3815733.7	8891.7 µg/L	8891.7 ppb	06:52:34
3	Tl 190.801†	9131.7	8921.5	8640.8 µg/L	8640.8 ppb	06:52:50
3	U 409.014†	-1969.6	-1900.2	-166.59 µg/L	-166.59 ppb	06:52:45
3	V 292.402†	828869.3	806842.1	8688.4 µg/L	8688.4 ppb	06:52:45
3	Zn 213.857†	580196.6	563751.3	12562 µg/L	12562 ppb	06:52:45

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2026768.1	102.10 %	0.617			0.60%
Sc RADIAL	92305.7	105 %	1.6			1.49%
Y 371.029	1373779.7	101.17 %	0.661			0.65%
Ag 328.068†	-8564.6	-4.2637 µg/L	1.70959	-4.2637 ppb	1.70959	40.10%
Al 396.153Radial†	806.1	203.87 µg/L	3.294	203.87 ppb	3.294	1.62%
As 188.979†	6349.8	9071.4 µg/L	700.83	9071.4 ppb	700.83	7.73%
QC value within limits for As 188.979 Recovery = 90.71%						
B 249.677†	105410.0	4761.8 µg/L	255.25	4761.8 ppb	255.25	5.36%
QC value within limits for B 249.677 Recovery = 95.24%						
Ba 233.527†	645374.5	13794 µg/L	975.0	13794 ppb	975.0	7.07%
QC value within limits for Ba 233.527 Recovery = 91.96%						
Be 313.107†	4762225.5	2740.3 µg/L	146.68	2740.3 ppb	146.68	5.35%
QC value within limits for Be 313.107 Recovery = 91.34%						
Ca 317.933Radial†	156.0	58.637 µg/L	2.9571	58.637 ppb	2.9571	5.04%
Cd 226.502†	392171.9	9186.4 µg/L	659.02	9186.4 ppb	659.02	7.17%
QC value within limits for Cd 226.502 Recovery = 91.86%						
Co 228.616†	213776.3	8940.9 µg/L	700.85	8940.9 ppb	700.85	7.84%
QC value less than the lower limit for Co 228.616 Recovery = 89.41%						
Cr 267.716†	1073735.2	22824 µg/L	2102.8	22824 ppb	2102.8	9.21%
QC value within limits for Cr 267.716 Recovery = 91.30%						

Cu 324.752†	2982857.8	19036 µg/L	1479.7	19036 ppb	1479.7	7.77%
QC value within limits for Cu 324.752 Recovery = 95.18%						
Fe 238.204 Radial†	-1.6	169.76 µg/L	9.558	169.76 ppb	9.558	5.63%
K 766.490 Radial†	613067.4	292900 µg/L	1650.1	292900 ppb	1650.1	0.56%
QC value within limits for K 766.490 Radial Recovery = 97.63%						
Mg 279.077 IEC†	-1.5	138.95 µg/L	7.722	138.95 ppb	7.722	5.56%
Mn 257.610†	3010243.4	8935.8 µg/L	708.42	8935.8 ppb	708.42	7.93%
QC value less than the lower limit for Mn 257.610 Recovery = 89.36%						
Mo 202.031†	98658.8	9525.4 µg/L	729.82	9525.4 ppb	729.82	7.66%
QC value within limits for Mo 202.031 Recovery = 95.25%						
Na 589.592 Radial†	672.8	353.92 µg/L	88.209	353.92 ppb	88.209	24.92%
Ni 231.604†	168820.1	9190.2 µg/L	709.53	9190.2 ppb	709.53	7.72%
QC value within limits for Ni 231.604 Recovery = 91.90%						
P 214.914†	8200.8	12254 µg/L	1197.1	12254 ppb	1197.1	9.77%
QC value less than the lower limit for P 214.914 Recovery = 81.70%						
Pb 220.353†	93053.5	23703 µg/L	1487.4	23703 ppb	1487.4	6.28%
QC value within limits for Pb 220.353 Recovery = 94.81%						
S 181.975 Axial†	15670.2	49081 µg/L	3800.6	49081 ppb	3800.6	7.74%
QC value within limits for S 181.975 Axial Recovery = 98.16%						
Sb 206.836†	11670.6	9665.3 µg/L	813.22	9665.3 ppb	813.22	8.41%
QC value within limits for Sb 206.836 Recovery = 96.65%						
Se 196.026†	10121.9	9337.1 µg/L	743.90	9337.1 ppb	743.90	7.97%
QC value within limits for Se 196.026 Recovery = 93.37%						
SiO2†	530138.4	93950 µg/L	5293.6	93950 ppb	5293.6	5.63%
QC value less than the lower limit for SiO2 Recovery = 87.80%						
Si 251.611†	650015.8	43759 µg/L	2460.6	43759 ppb	2460.6	5.62%
QC value less than the lower limit for Si 251.611 Recovery = 87.52%						
Sn 189.927†	25056.2	9459.5 µg/L	984.40	9459.5 ppb	984.40	10.41%
QC value within limits for Sn 189.927 Recovery = 94.59%						
Sr 421.552†	1568544.4	9615.8 µg/L	61.00	9615.8 ppb	61.00	0.63%
QC value within limits for Sr 421.552 Recovery = 96.16%						
Ti 334.940†	4062032.6	9465.6 µg/L	501.59	9465.6 ppb	501.59	5.30%
QC value within limits for Ti 334.940 Recovery = 94.66%						
Tl 190.801†	9594.8	9292.3 µg/L	565.01	9292.3 ppb	565.01	6.08%
QC value within limits for Tl 190.801 Recovery = 92.92%						
U 409.014†	-2092.1	-183.41 µg/L	14.886	-183.41 ppb	14.886	8.12%
V 292.402†	886334.5	9545.1 µg/L	751.87	9545.1 ppb	751.87	7.88%
QC value within limits for V 292.402 Recovery = 95.45%						
Zn 213.857†	615800.2	13722 µg/L	1017.8	13722 ppb	1017.8	7.42%
QC value within limits for Zn 213.857 Recovery = 91.48%						
QC Failed. Continue with analysis.						

Sequence No.: 13
 Sample ID: CCV
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 7
 Date Collected: 3/19/2010 06:53:00
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	91396.9	91396.9	104 %		06:53:33
1	Al 396.153Radial†	10284.2	9660.7	4777.5 µg/L	4777.5 ppb	06:53:33
1	Ca 317.933Radial†	13880.0	12971.6	4877.2 µg/L	4877.2 ppb	06:53:33
1	Fe 238.204 Radial†	408.1	378.4	4855.1 µg/L	4855.1 ppb	06:53:53
1	K 766.490 Radial†	11823.2	11144.5	5324.3 µg/L	5324.3 ppb	06:53:33
1	Mg 279.077 IEC†	382.8	360.7	4938.0 µg/L	4938.0 ppb	06:53:53
1	Na 589.592 Radial†	19657.7	18696.8	9835.7 µg/L	9835.7 ppb	06:53:33
1	Sr 421.552†	82471.6	78965.4	484.09 µg/L	484.09 ppb	06:53:33
1	Sc 361.383	2025275.8	2025275.8	102.02 %		06:54:57
1	Y 371.029	1380350.4	1380350.4	101.66 %		06:54:57
1	Ag 328.068†	64939.5	63056.2	492.77 µg/L	492.77 ppb	06:55:02
1	As 188.979†	365.0	358.3	510.77 µg/L	510.77 ppb	06:55:23
1	B 249.677†	11653.5	11024.4	492.47 µg/L	492.47 ppb	06:55:02
1	Ba 233.527†	23558.6	23087.3	493.76 µg/L	493.76 ppb	06:55:02
1	Be 313.107†	871732.5	855362.2	492.65 µg/L	492.65 ppb	06:54:57
1	Cd 226.502†	21476.5	21215.2	496.41 µg/L	496.41 ppb	06:55:02
1	Co 228.616†	12135.0	11845.0	495.47 µg/L	495.47 ppb	06:55:02
1	Cr 267.716†	24043.2	23481.8	499.33 µg/L	499.33 ppb	06:55:02
1	Cu 324.752†	83855.4	77905.4	498.08 µg/L	498.08 ppb	06:55:02
1	Mn 257.610†	171088.9	167974.3	498.58 µg/L	498.58 ppb	06:54:57
1	Mo 202.031†	5576.9	5441.0	525.50 µg/L	525.50 ppb	06:55:23
1	Ni 231.604†	9675.6	9115.4	496.27 µg/L	496.27 ppb	06:55:02
1	P 214.914†	1514.3	1468.9	2482.5 µg/L	2482.5 ppb	06:55:23
1	Pb 220.353†	2052.9	1972.6	503.17 µg/L	503.17 ppb	06:55:23
1	S 181.975 Axial†	356.5	326.0	1021.2 µg/L	1021.2 ppb	06:55:23
1	Sb 206.836†	661.3	621.8	523.28 µg/L	523.28 ppb	06:55:23
1	Se 196.026†	586.1	549.9	518.58 µg/L	518.58 ppb	06:55:23
1	SiO2†	33103.0	29449.8	5219.1 µg/L	5219.1 ppb	06:55:02
1	Si 251.611†	37702.8	36242.9	2439.9 µg/L	2439.9 ppb	06:55:02
1	Sn 189.927†	1391.1	1362.0	514.68 µg/L	514.68 ppb	06:55:23
1	Ti 334.940†	219862.5	210613.3	490.47 µg/L	490.47 ppb	06:54:57
1	Tl 190.801†	493.5	517.9	502.09 µg/L	502.09 ppb	06:55:23
1	U 409.014†	5688.6	5592.5	489.31 µg/L	489.31 ppb	06:55:02
1	V 292.402†	47253.1	46478.4	499.93 µg/L	499.93 ppb	06:55:02
1	Zn 213.857†	23725.9	22342.3	496.93 µg/L	496.93 ppb	06:55:02
2	Sc RADIAL	90837.8	90837.8	104 %		06:53:59
2	Al 396.153Radial†	10228.0	9667.2	4780.8 µg/L	4780.8 ppb	06:53:59
2	Ca 317.933Radial†	13807.7	12983.8	4881.8 µg/L	4881.8 ppb	06:53:59
2	Fe 238.204 Radial†	409.3	381.9	4900.4 µg/L	4900.4 ppb	06:54:19
2	K 766.490 Radial†	11648.2	11045.4	5277.0 µg/L	5277.0 ppb	06:53:59
2	Mg 279.077 IEC†	381.3	361.5	4948.8 µg/L	4948.8 ppb	06:54:19
2	Na 589.592 Radial†	19561.8	18720.3	9848.1 µg/L	9848.1 ppb	06:53:59
2	Sr 421.552†	82124.6	79117.4	485.02 µg/L	485.02 ppb	06:53:59
2	Sc 361.383	2027871.1	2027871.1	102.15 %		06:55:30
2	Y 371.029	1382650.1	1382650.1	101.83 %		06:55:30
2	Ag 328.068†	65111.3	63142.9	493.46 µg/L	493.46 ppb	06:55:36
2	As 188.979†	359.0	352.0	501.76 µg/L	501.76 ppb	06:55:56
2	B 249.677†	11619.3	10976.4	490.29 µg/L	490.29 ppb	06:55:36
2	Ba 233.527†	23595.2	23093.6	493.89 µg/L	493.89 ppb	06:55:36
2	Be 313.107†	874501.1	856978.9	493.59 µg/L	493.59 ppb	06:55:30
2	Cd 226.502†	21480.7	21192.4	495.87 µg/L	495.87 ppb	06:55:36
2	Co 228.616†	12161.2	11855.4	495.90 µg/L	495.90 ppb	06:55:36
2	Cr 267.716†	24086.9	23494.4	499.60 µg/L	499.60 ppb	06:55:36
2	Cu 324.752†	83897.2	77841.1	497.68 µg/L	497.68 ppb	06:55:36
2	Mn 257.610†	171772.0	168428.4	499.93 µg/L	499.93 ppb	06:55:30
2	Mo 202.031†	5524.3	5382.5	519.86 µg/L	519.86 ppb	06:55:56
2	Ni 231.604†	9724.7	9151.3	498.23 µg/L	498.23 ppb	06:55:36
2	P 214.914†	1505.5	1458.5	2464.4 µg/L	2464.4 ppb	06:55:56
2	Pb 220.353†	2051.9	1969.1	502.24 µg/L	502.24 ppb	06:55:56

2	S 181.975 Axial†	355.2	324.3	1015.9 µg/L	1015.9 ppb	06:55:56
2	Sb 206.836†	661.1	620.7	522.28 µg/L	522.28 ppb	06:55:56
2	Se 196.026†	584.2	547.4	516.37 µg/L	516.37 ppb	06:55:56
2	SiO2†	33158.7	29462.7	5221.3 µg/L	5221.3 ppb	06:55:36
2	Si 251.611†	37910.1	36398.5	2450.3 µg/L	2450.3 ppb	06:55:36
2	Sn 189.927†	1376.1	1345.5	508.46 µg/L	508.46 ppb	06:55:56
2	Ti 334.940†	220401.4	210865.0	491.06 µg/L	491.06 ppb	06:55:30
2	Tl 190.801†	495.0	518.8	502.90 µg/L	502.90 ppb	06:55:56
2	U 409.014†	5766.4	5661.5	495.35 µg/L	495.35 ppb	06:55:36
2	V 292.402†	47440.9	46602.9	501.22 µg/L	501.22 ppb	06:55:36
2	Zn 213.857†	23797.1	22382.3	497.81 µg/L	497.81 ppb	06:55:36
3	Sc RADIAL	91828.2	91828.2	105 %		06:54:24
3	Al 396.153Radial†	10316.1	9644.8	4771.5 µg/L	4771.5 ppb	06:54:24
3	Ca 317.933Radial†	13888.1	12916.8	4856.6 µg/L	4856.6 ppb	06:54:24
3	Fe 238.204 Radial†	409.3	377.7	4845.5 µg/L	4845.5 ppb	06:54:45
3	K 766.490 Radial†	11494.7	10777.6	5149.1 µg/L	5149.1 ppb	06:54:24
3	Mg 279.077 IEC†	383.6	359.7	4922.8 µg/L	4922.8 ppb	06:54:45
3	Na 589.592 Radial†	19692.8	18641.7	9806.8 µg/L	9806.8 ppb	06:54:24
3	Sr 421.552†	83005.7	79103.8	484.94 µg/L	484.94 ppb	06:54:24
3	Sc 361.383	2030258.8	2030258.8	102.27 %		06:56:03
3	Y 371.029	1384244.6	1384244.6	101.94 %		06:56:03
3	Ag 328.068†	61607.7	59642.1	465.95 µg/L	465.95 ppb	06:56:09
3	As 188.979†	306.1	299.9	427.29 µg/L	427.29 ppb	06:56:29
3	B 249.677†	10893.7	10253.5	457.82 µg/L	457.82 ppb	06:56:09
3	Ba 233.527†	21552.8	21069.4	450.59 µg/L	450.59 ppb	06:56:09
3	Be 313.107†	810617.7	793508.4	457.03 µg/L	457.03 ppb	06:56:03
3	Cd 226.502†	19543.9	19273.9	450.93 µg/L	450.93 ppb	06:56:09
3	Co 228.616†	10972.4	10679.1	446.64 µg/L	446.64 ppb	06:56:09
3	Cr 267.716†	21119.8	20565.5	437.32 µg/L	437.32 ppb	06:56:09
3	Cu 324.752†	76312.0	70327.9	449.72 µg/L	449.72 ppb	06:56:09
3	Mn 257.610†	159719.8	156446.3	464.36 µg/L	464.36 ppb	06:56:03
3	Mo 202.031†	4587.0	4459.7	430.76 µg/L	430.76 ppb	06:56:29
3	Ni 231.604†	8759.7	8196.6	446.26 µg/L	446.26 ppb	06:56:09
3	P 214.914†	1273.1	1229.5	2073.8 µg/L	2073.8 ppb	06:56:29
3	Pb 220.353†	1773.7	1694.7	432.22 µg/L	432.22 ppb	06:56:29
3	S 181.975 Axial†	303.2	273.1	855.30 µg/L	855.30 ppb	06:56:29
3	Sb 206.836†	571.0	531.8	447.15 µg/L	447.15 ppb	06:56:29
3	Se 196.026†	503.0	467.2	442.31 µg/L	442.31 ppb	06:56:29
3	SiO2†	30981.7	27296.0	4837.4 µg/L	4837.4 ppb	06:56:09
3	Si 251.611†	35133.1	33639.6	2264.6 µg/L	2264.6 ppb	06:56:09
3	Sn 189.927†	1129.6	1102.9	416.87 µg/L	416.87 ppb	06:56:29
3	Ti 334.940†	203211.8	193803.6	451.30 µg/L	451.30 ppb	06:56:03
3	Tl 190.801†	445.0	469.4	455.11 µg/L	455.11 ppb	06:56:29
3	U 409.014†	5061.7	4965.9	434.38 µg/L	434.38 ppb	06:56:09
3	V 292.402†	42463.8	41681.9	448.02 µg/L	448.02 ppb	06:56:09
3	Zn 213.857†	21548.1	20155.9	448.26 µg/L	448.26 ppb	06:56:09

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2027801.9	102.15 %	0.126			0.12%
Sc RADIAL	91354.3	104 %	0.6			0.54%
Y 371.029	1382415.1	101.81 %	0.144			0.14%
Ag 328.068†	61947.1	484.06 µg/L	15.686	484.06 ppb	15.686	3.24%
QC value within limits for Ag 328.068 Recovery = 96.81%						
Al 396.153Radial†	9657.5	4776.6 µg/L	4.70	4776.6 ppb	4.70	0.10%
QC value within limits for Al 396.153Radial Recovery = 95.53%						
As 188.979†	336.8	479.94 µg/L	45.814	479.94 ppb	45.814	9.55%
QC value within limits for As 188.979 Recovery = 95.99%						
B 249.677†	10751.4	480.19 µg/L	19.410	480.19 ppb	19.410	4.04%
QC value within limits for B 249.677 Recovery = 96.04%						
Ba 233.527†	22416.8	479.41 µg/L	24.963	479.41 ppb	24.963	5.21%
QC value within limits for Ba 233.527 Recovery = 95.88%						
Be 313.107†	835283.1	481.09 µg/L	20.842	481.09 ppb	20.842	4.33%
QC value within limits for Be 313.107 Recovery = 96.22%						
Ca 317.933Radial†	12957.4	4871.9 µg/L	13.41	4871.9 ppb	13.41	0.28%
QC value within limits for Ca 317.933Radial Recovery = 97.44%						
Cd 226.502†	20560.5	481.07 µg/L	26.103	481.07 ppb	26.103	5.43%
QC value within limits for Cd 226.502 Recovery = 96.21%						
Co 228.616†	11459.9	479.34 µg/L	28.315	479.34 ppb	28.315	5.91%

QC value within limits for Co 228.616 Recovery = 95.87%						
Cr 267.716†	22513.9	478.75 µg/L	35.878	478.75 ppb	35.878	7.49%
QC value within limits for Cr 267.716 Recovery = 95.75%						
Cu 324.752†	75358.2	481.83 µg/L	27.805	481.83 ppb	27.805	5.77%
QC value within limits for Cu 324.752 Recovery = 96.37%						
Fe 238.204 Radial†	379.4	4867.0 µg/L	29.30	4867.0 ppb	29.30	0.60%
QC value within limits for Fe 238.204 Radial Recovery = 97.34%						
K 766.490 Radial†	10989.1	5250.1 µg/L	90.68	5250.1 ppb	90.68	1.73%
QC value within limits for K 766.490 Radial Recovery = 105.00%						
Mg 279.077 IEC†	360.7	4936.5 µg/L	13.08	4936.5 ppb	13.08	0.26%
QC value within limits for Mg 279.077 IEC Recovery = 98.73%						
Mn 257.610†	164283.0	487.62 µg/L	20.158	487.62 ppb	20.158	4.13%
QC value within limits for Mn 257.610 Recovery = 97.52%						
Mo 202.031†	5094.4	492.04 µg/L	53.145	492.04 ppb	53.145	10.80%
QC value within limits for Mo 202.031 Recovery = 98.41%						
Na 589.592 Radial†	18686.3	9830.2 µg/L	21.21	9830.2 ppb	21.21	0.22%
QC value within limits for Na 589.592 Radial Recovery = 98.30%						
Ni 231.604†	8821.1	480.25 µg/L	29.459	480.25 ppb	29.459	6.13%
QC value within limits for Ni 231.604 Recovery = 96.05%						
P 214.914†	1385.6	2340.2 µg/L	230.90	2340.2 ppb	230.90	9.87%
QC value within limits for P 214.914 Recovery = 93.61%						
Pb 220.353†	1878.8	479.21 µg/L	40.696	479.21 ppb	40.696	8.49%
QC value within limits for Pb 220.353 Recovery = 95.84%						
S 181.975 Axial†	307.8	964.12 µg/L	94.279	964.12 ppb	94.279	9.78%
QC value within limits for S 181.975 Axial Recovery = 96.41%						
Sb 206.836†	591.4	497.57 µg/L	43.667	497.57 ppb	43.667	8.78%
QC value within limits for Sb 206.836 Recovery = 99.51%						
Se 196.026†	521.5	492.42 µg/L	43.410	492.42 ppb	43.410	8.82%
QC value within limits for Se 196.026 Recovery = 98.48%						
SiO2†	28736.2	5092.6 µg/L	221.04	5092.6 ppb	221.04	4.34%
QC value within limits for SiO2 Recovery = 95.23%						
Si 251.611†	35427.0	2384.9 µg/L	104.34	2384.9 ppb	104.34	4.37%
QC value within limits for Si 251.611 Recovery = 95.40%						
Sn 189.927†	1270.1	480.00 µg/L	54.765	480.00 ppb	54.765	11.41%
QC value within limits for Sn 189.927 Recovery = 96.00%						
Sr 421.552†	79062.2	484.68 µg/L	0.516	484.68 ppb	0.516	0.11%
QC value within limits for Sr 421.552 Recovery = 96.94%						
Ti 334.940†	205094.0	477.61 µg/L	22.786	477.61 ppb	22.786	4.77%
QC value within limits for Ti 334.940 Recovery = 95.52%						
Tl 190.801†	502.0	486.70 µg/L	27.361	486.70 ppb	27.361	5.62%
QC value within limits for Tl 190.801 Recovery = 97.34%						
U 409.014†	5406.7	473.01 µg/L	33.596	473.01 ppb	33.596	7.10%
QC value within limits for U 409.014 Recovery = 94.60%						
V 292.402†	44921.1	483.06 µg/L	30.352	483.06 ppb	30.352	6.28%
QC value within limits for V 292.402 Recovery = 96.61%						
Zn 213.857†	21626.9	481.00 µg/L	28.360	481.00 ppb	28.360	5.90%
QC value within limits for Zn 213.857 Recovery = 96.20%						
All analyte(s) passed QC.						

Sequence No.: 14

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/19/2010 06:56:39

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	89306.9	89306.9	102 %		06:57:10
1	Al 396.153Radial†	180.6	-28.7	-14.240 µg/L	-14.240 ppb	06:57:10
1	Ca 317.933Radial†	343.2	-8.0	-3.0005 µg/L	-3.0005 ppb	06:57:30
1	Fe 238.204 Radial†	14.1	0.7	8.9287 µg/L	8.9287 ppb	06:57:30
1	K 766.490 Radial†	455.4	248.4	118.65 µg/L	118.65 ppb	06:57:10
1	Mg 279.077 IEC†	9.8	3.1	42.870 µg/L	42.870 ppb	06:57:30
1	Na 589.592 Radial†	268.6	100.8	53.019 µg/L	53.019 ppb	06:57:10
1	Sr 421.552†	194.2	32.5	0.1995 µg/L	0.1995 ppb	06:57:10
1	Sc 361.383	2022663.4	2022663.4	101.89 %		06:58:33
1	Y 371.029	1382169.0	1382169.0	101.79 %		06:58:33
1	Ag 328.068†	546.5	-60.1	-0.4641 µg/L	-0.4641 ppb	06:58:38
1	As 188.979†	-3.6	-2.9	-4.2031 µg/L	-4.2031 ppb	06:58:59
1	B 249.677†	473.5	66.5	2.9785 µg/L	2.9785 ppb	06:58:59
1	Ba 233.527†	8.5	3.9	0.0835 µg/L	0.0835 ppb	06:58:59
1	Be 313.107†	-1210.9	-283.9	-0.1590 µg/L	-0.1590 ppb	06:58:38
1	Cd 226.502†	-170.9	-3.4	-0.0820 µg/L	-0.0820 ppb	06:58:59
1	Co 228.616†	41.8	-8.4	-0.3274 µg/L	-0.3274 ppb	06:58:59
1	Cr 267.716†	97.7	10.9	0.2320 µg/L	0.2320 ppb	06:58:59
1	Cu 324.752†	4751.1	374.7	2.3927 µg/L	2.3927 ppb	06:58:38
1	Mn 257.610†	-663.3	-375.1	-1.1159 µg/L	-1.1159 ppb	06:58:59
1	Mo 202.031†	40.5	14.4	1.3863 µg/L	1.3863 ppb	06:58:59
1	Ni 231.604†	351.1	-23.9	-1.2997 µg/L	-1.2997 ppb	06:58:59
1	P 214.914†	11.0	-4.6	-8.0807 µg/L	-8.0807 ppb	06:58:59
1	Pb 220.353†	46.6	6.2	1.5728 µg/L	1.5728 ppb	06:58:59
1	S 181.975 Axial†	24.8	0.9	2.8149 µg/L	2.8149 ppb	06:58:59
1	Sb 206.836†	36.0	8.8	7.4207 µg/L	7.4207 ppb	06:58:59
1	Se 196.026†	21.3	-3.6	-3.3693 µg/L	-3.3693 ppb	06:58:59
1	SiO2†	2761.1	-287.4	-50.925 µg/L	-50.925 ppb	06:58:59
1	Si 251.611†	478.8	-242.8	-16.347 µg/L	-16.347 ppb	06:58:59
1	Sn 189.927†	9.2	7.5	2.8135 µg/L	2.8135 ppb	06:58:59
1	Ti 334.940†	-231.9	-5119.9	-11.934 µg/L	-11.934 ppb	06:58:38
1	Tl 190.801†	-34.4	0.5	0.3501 µg/L	0.3501 ppb	06:58:59
1	U 409.014†	-17.2	-0.2	-0.0187 µg/L	-0.0187 ppb	06:58:38
1	V 292.402†	-140.5	23.8	0.2647 µg/L	0.2647 ppb	06:58:38
1	Zn 213.857†	952.6	21.6	0.4826 µg/L	0.4826 ppb	06:58:59
2	Sc RADIAL	89177.1	89177.1	102 %		06:57:36
2	Al 396.153Radial†	186.8	-22.4	-11.123 µg/L	-11.123 ppb	06:57:36
2	Ca 317.933Radial†	343.2	-7.5	-2.8196 µg/L	-2.8196 ppb	06:57:57
2	Fe 238.204 Radial†	13.1	-0.3	-3.2753 µg/L	-3.2753 ppb	06:57:57
2	K 766.490 Radial†	443.3	237.2	113.31 µg/L	113.31 ppb	06:57:36
2	Mg 279.077 IEC†	7.2	0.5	7.1507 µg/L	7.1507 ppb	06:57:57
2	Na 589.592 Radial†	272.9	105.4	55.450 µg/L	55.450 ppb	06:57:36
2	Sr 421.552†	145.2	-15.4	-0.0941 µg/L	-0.0941 ppb	06:57:36
2	Sc 361.383	2024562.0	2024562.0	101.99 %		06:59:05
2	Y 371.029	1383116.4	1383116.4	101.86 %		06:59:05
2	Ag 328.068†	554.5	-52.8	-0.4079 µg/L	-0.4079 ppb	06:59:10
2	As 188.979†	0.2	0.8	1.1335 µg/L	1.1335 ppb	06:59:31
2	B 249.677†	463.3	56.1	2.5176 µg/L	2.5176 ppb	06:59:31
2	Ba 233.527†	-9.8	-14.1	-0.3005 µg/L	-0.3005 ppb	06:59:31
2	Be 313.107†	-1254.5	-325.5	-0.1830 µg/L	-0.1830 ppb	06:59:10
2	Cd 226.502†	-167.9	-0.3	-0.0082 µg/L	-0.0082 ppb	06:59:31
2	Co 228.616†	51.0	0.5	0.0471 µg/L	0.0471 ppb	06:59:31
2	Cr 267.716†	83.9	-2.7	-0.0564 µg/L	-0.0564 ppb	06:59:31
2	Cu 324.752†	4768.3	387.2	2.4702 µg/L	2.4702 ppb	06:59:10
2	Mn 257.610†	-676.0	-387.0	-1.1493 µg/L	-1.1493 ppb	06:59:31
2	Mo 202.031†	45.3	19.0	1.8306 µg/L	1.8306 ppb	06:59:31
2	Ni 231.604†	364.0	-11.5	-0.6267 µg/L	-0.6267 ppb	06:59:31
2	P 214.914†	21.7	5.9	9.9966 µg/L	9.9966 ppb	06:59:31
2	Pb 220.353†	36.9	-3.4	-0.8582 µg/L	-0.8582 ppb	06:59:31

2	S 181.975 Axial†	27.9	3.9	12.302 µg/L	12.302 ppb	06:59:31
2	Sb 206.836†	34.8	7.7	6.4370 µg/L	6.4370 ppb	06:59:31
2	Se 196.026†	22.3	-2.7	-2.5334 µg/L	-2.5334 ppb	06:59:31
2	SiO2†	2740.3	-310.3	-54.991 µg/L	-54.991 ppb	06:59:31
2	Si 251.611†	485.1	-237.1	-15.959 µg/L	-15.959 ppb	06:59:31
2	Sn 189.927†	10.9	9.1	3.4437 µg/L	3.4437 ppb	06:59:31
2	Ti 334.940†	-209.9	-5098.0	-11.880 µg/L	-11.880 ppb	06:59:10
2	Tl 190.801†	-34.6	0.4	0.2324 µg/L	0.2324 ppb	06:59:31
2	U 409.014†	17.8	34.1	2.9910 µg/L	2.9910 ppb	06:59:10
2	V 292.402†	-140.0	24.4	0.2765 µg/L	0.2765 ppb	06:59:10
2	Zn 213.857†	954.8	22.8	0.5099 µg/L	0.5099 ppb	06:59:31
3	Sc RADIAL	89288.7	89288.7	102 %		06:58:02
3	Al 396.153Radial†	199.7	-10.0	-4.9723 µg/L	-4.9723 ppb	06:58:02
3	Ca 317.933Radial†	340.8	-10.2	-3.8437 µg/L	-3.8437 ppb	06:58:23
3	Fe 238.204 Radial†	13.0	-0.4	-4.6705 µg/L	-4.6705 ppb	06:58:23
3	K 766.490 Radial†	463.3	256.3	122.44 µg/L	122.44 ppb	06:58:02
3	Mg 279.077 IEC†	9.0	2.3	32.121 µg/L	32.121 ppb	06:58:23
3	Na 589.592 Radial†	274.6	106.8	56.159 µg/L	56.159 ppb	06:58:02
3	Sr 421.552†	158.3	-2.7	-0.0167 µg/L	-0.0167 ppb	06:58:02
3	Sc 361.383	2004694.7	2004694.7	100.98 %		06:59:37
3	Y 371.029	1369114.0	1369114.0	100.83 %		06:59:37
3	Ag 328.068†	600.1	-2.2	-0.0162 µg/L	-0.0162 ppb	06:59:43
3	As 188.979†	-1.4	-0.7	-1.0653 µg/L	-1.0653 ppb	07:00:03
3	B 249.677†	443.2	40.8	1.8306 µg/L	1.8306 ppb	07:00:03
3	Ba 233.527†	-7.6	-11.9	-0.2545 µg/L	-0.2545 ppb	07:00:03
3	Be 313.107†	-1154.4	-238.7	-0.1329 µg/L	-0.1329 ppb	06:59:43
3	Cd 226.502†	-163.1	2.8	0.0659 µg/L	0.0659 ppb	07:00:03
3	Co 228.616†	40.5	-9.3	-0.3645 µg/L	-0.3645 ppb	07:00:03
3	Cr 267.716†	94.3	8.4	0.1781 µg/L	0.1781 ppb	07:00:03
3	Cu 324.752†	4778.9	444.1	2.8330 µg/L	2.8330 ppb	06:59:43
3	Mn 257.610†	-668.4	-386.0	-1.1484 µg/L	-1.1484 ppb	07:00:03
3	Mo 202.031†	43.5	17.6	1.6993 µg/L	1.6993 ppb	07:00:03
3	Ni 231.604†	363.4	-8.6	-0.4664 µg/L	-0.4664 ppb	07:00:03
3	P 214.914†	14.5	-1.0	-1.9779 µg/L	-1.9779 ppb	07:00:03
3	Pb 220.353†	50.2	10.2	2.5881 µg/L	2.5881 ppb	07:00:03
3	S 181.975 Axial†	24.1	0.5	1.4340 µg/L	1.4340 ppb	07:00:03
3	Sb 206.836†	33.3	6.5	5.4900 µg/L	5.4900 ppb	07:00:03
3	Se 196.026†	31.3	6.4	5.8954 µg/L	5.8954 ppb	07:00:03
3	SiO2†	2753.8	-270.3	-47.909 µg/L	-47.909 ppb	07:00:03
3	Si 251.611†	472.8	-244.6	-16.466 µg/L	-16.466 ppb	07:00:03
3	Sn 189.927†	6.7	5.1	1.9345 µg/L	1.9345 ppb	07:00:03
3	Ti 334.940†	-326.7	-5215.8	-12.157 µg/L	-12.157 ppb	06:59:43
3	Tl 190.801†	-36.3	-1.7	-1.6980 µg/L	-1.6980 ppb	07:00:03
3	U 409.014†	-15.6	1.2	0.1086 µg/L	0.1086 ppb	06:59:43
3	V 292.402†	-146.7	16.5	0.1884 µg/L	0.1884 ppb	06:59:43
3	Zn 213.857†	972.7	49.8	1.1118 µg/L	1.1118 ppb	07:00:03

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2017306.7	101.62 %	0.552			0.54%
Sc RADIAL	89257.6	102 %	0.1			0.08%
Y 371.029	1378133.1	101.49 %	0.576			0.57%
Ag 328.068†	-38.4	-0.2960 µg/L	0.24398	-0.2960 ppb	0.24398	82.41%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-20.3	-10.112 µg/L	4.7157	-10.112 ppb	4.7157	46.64%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-1.0	-1.3783 µg/L	2.68203	-1.3783 ppb	2.68203	194.59%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	54.5	2.4422 µg/L	0.57765	2.4422 ppb	0.57765	23.65%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-7.4	-0.1572 µg/L	0.20969	-0.1572 ppb	0.20969	133.42%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-282.7	-0.1583 µg/L	0.02509	-0.1583 ppb	0.02509	15.85%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-8.6	-3.2213 µg/L	0.54656	-3.2213 ppb	0.54656	16.97%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-0.3	-0.0081 µg/L	0.07397	-0.0081 ppb	0.07397	912.30%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-5.8	-0.2149 µg/L	0.22771	-0.2149 ppb	0.22771	105.94%

Cr	267.716†	5.5	0.1179 µg/L	0.15334	0.1179 ppb	0.15334	130.02%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	402.0	2.5653 µg/L	0.23507	2.5653 ppb	0.23507	9.16%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	0.0	0.3276 µg/L	7.48131	0.3276 ppb	7.48131	>999.9%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	247.3	118.13 µg/L	4.589	118.13 ppb	4.589	3.88%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	2.0	27.381 µg/L	18.3254	27.381 ppb	18.3254	66.93%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	-382.7	-1.1379 µg/L	0.01902	-1.1379 ppb	0.01902	1.67%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	17.0	1.6387 µg/L	0.22823	1.6387 ppb	0.22823	13.93%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	104.3	54.876 µg/L	1.6467	54.876 ppb	1.6467	3.00%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	-14.6	-0.7976 µg/L	0.44217	-0.7976 ppb	0.44217	55.44%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	0.1	-0.0207 µg/L	9.19624	-0.0207 ppb	9.19624	>999.9%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	4.3	1.1009 µg/L	1.77097	1.1009 ppb	1.77097	160.87%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	1.8	5.5169 µg/L	5.91639	5.5169 ppb	5.91639	107.24%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	7.7	6.4492 µg/L	0.96542	6.4492 ppb	0.96542	14.97%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	0.0	-0.0024 µg/L	5.12476	-0.0024 ppb	5.12476	>999.9%
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†		-289.3	-51.275 µg/L	3.5535	-51.275 ppb	3.5535	6.93%
QC value within limits for SiO2 Recovery = Not calculated							
Si	251.611†	-241.5	-16.257 µg/L	0.2653	-16.257 ppb	0.2653	1.63%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	7.2	2.7306 µg/L	0.75803	2.7306 ppb	0.75803	27.76%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	4.8	0.0295 µg/L	0.15217	0.0295 ppb	0.15217	515.16%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	-5144.6	-11.990 µg/L	0.1466	-11.990 ppb	0.1466	1.22%
QC value less than the lower limit for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	-0.3	-0.3718 µg/L	1.14997	-0.3718 ppb	1.14997	309.27%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	11.7	1.0269 µg/L	1.70206	1.0269 ppb	1.70206	165.74%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	21.6	0.2432 µg/L	0.04783	0.2432 ppb	0.04783	19.67%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	31.4	0.7014 µg/L	0.35567	0.7014 ppb	0.35567	50.71%
QC value within limits for Zn 213.857 Recovery = Not calculated							

QC Failed. Continue with analysis.

=====
Analysis Begun

Start Time: 3/19/2010 07:05:22

Plasma On Time: 00:00:00

Logged In Analyst: optima

Technique: ICP Continuous

Spectrometer Model: Optima 4300 DV, S/N 077N1030502 Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\031910.sif

Batch ID:

Results Data Set: 031910D

Results Library: c:\pe\optima1\Results\Results.mdb

=====
Method Loaded

Method Name: Gen Eng fast_new Si

Method Last Saved: 3/17/2010 23:02:24

IEC File: 011510.iec

MSF File:

Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1

Autosampler Location: 113

Sample ID: LR1

Date Collected: 3/19/2010 07:05:22

Analyst: HSC

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	91158.4	91158.4	104 %		07:05:59
1	Al 396.153Radial†	193.0	-20.4	-9.7380 µg/L	-9.7380 ppb	07:05:59
1	Ca 317.933Radial†	492.5	128.8	48.444 µg/L	48.444 ppb	07:06:19
1	Fe 238.204 Radial†	30851.9	29663.8	379770 µg/L	379770 ppb	07:05:59

1	K 766.490 Radial†	-25.2	-223.0	-106.55 µg/L	-106.55 ppb	07:05:59
1	Mg 279.077 IEC†	11.6	4.6	-344.30 µg/L	-344.30 ppb	07:06:19
1	Na 589.592 Radial†	240.2	68.2	35.875 µg/L	35.875 ppb	07:05:59
1	Sr 421.552†	191.4	26.0	0.1593 µg/L	0.1593 ppb	07:05:59
1	Sc 361.383	2029312.0	2029312.0	102.23 %		07:07:22
1	Y 371.029	1379469.2	1379469.2	101.59 %		07:07:22
1	Ag 328.068†	-2432.8	-2976.3	6.0142 µg/L	6.0142 ppb	07:07:28
1	As 188.979†	-22.1	-21.0	-76.973 µg/L	-76.973 ppb	07:07:48
1	B 249.677†	2332.1	1883.2	-113.75 µg/L	-113.75 ppb	07:07:28
1	Ba 233.527†	557.9	541.3	11.527 µg/L	11.527 ppb	07:07:48
1	Be 313.107†	-1456.3	-520.1	-0.2949 µg/L	-0.2949 ppb	07:07:28
1	Cd 226.502†	1919.5	2042.1	4.8684 µg/L	4.8684 ppb	07:07:28
1	Co 228.616†	515.7	454.9	19.062 µg/L	19.062 ppb	07:07:48
1	Cr 267.716†	-183.7	-264.7	-5.6346 µg/L	-5.6346 ppb	07:07:48
1	Cu 324.752†	-1662.6	-5914.7	33.650 µg/L	33.650 ppb	07:07:28
1	Mn 257.610†	297.0	566.5	24.159 µg/L	24.159 ppb	07:07:22
1	Mo 202.031†	-153.8	-175.9	-2.5531 µg/L	-2.5531 ppb	07:07:28
1	Ni 231.604†	286.4	-88.3	0.1022 µg/L	0.1022 ppb	07:07:48
1	P 214.914†	242.1	221.5	77.156 µg/L	77.156 ppb	07:07:48
1	Pb 220.353†	35.7	-4.7	5.1249 µg/L	5.1249 ppb	07:07:48
1	S 181.975 Axial†	-15.1	-38.2	-119.71 µg/L	-119.71 ppb	07:07:48
1	Sb 206.836†	9.5	-17.1	-14.546 µg/L	-14.546 ppb	07:07:48
1	Se 196.026†	-304.4	-322.3	910.28 µg/L	910.28 ppb	07:07:48
1	SiO2†	2491.5	-560.0	-99.247 µg/L	-99.247 ppb	07:07:28
1	Si 251.611†	-145.9	-855.5	-57.592 µg/L	-57.592 ppb	07:07:28
1	Sn 189.927†	18.0	16.0	4.2491 µg/L	4.2491 ppb	07:07:48
1	Ti 334.940†	-533.7	-5414.3	-12.621 µg/L	-12.621 ppb	07:07:28
1	Tl 190.801†	-58.7	-23.2	31.298 µg/L	31.298 ppb	07:07:48
1	U 409.014†	888.4	885.7	24.857 µg/L	24.857 ppb	07:07:28
1	V 292.402†	-1649.9	-1452.3	-2.7431 µg/L	-2.7431 ppb	07:07:28
1	Zn 213.857†	2996.1	2017.5	27.229 µg/L	27.229 ppb	07:07:48
2	Sc RADIAL	90038.0	90038.0	103 %		07:06:25
2	Al 396.153Radial†	198.1	-13.1	-6.2018 µg/L	-6.2018 ppb	07:06:25
2	Ca 317.933Radial†	485.0	127.4	47.914 µg/L	47.914 ppb	07:06:45
2	Fe 238.204 Radial†	30812.7	29994.8	384010 µg/L	384010 ppb	07:06:25
2	K 766.490 Radial†	17.3	-181.9	-86.893 µg/L	-86.893 ppb	07:06:25
2	Mg 279.077 IEC†	9.4	2.7	-375.79 µg/L	-375.79 ppb	07:06:45
2	Na 589.592 Radial†	206.8	38.5	20.244 µg/L	20.244 ppb	07:06:25
2	Sr 421.552†	196.0	32.7	0.2007 µg/L	0.2007 ppb	07:06:25
2	Sc 361.383	2009072.2	2009072.2	101.21 %		07:07:55
2	Y 371.029	1361849.3	1361849.3	100.29 %		07:07:55
2	Ag 328.068†	-2374.6	-2942.8	6.5960 µg/L	6.5960 ppb	07:08:00
2	As 188.979†	-22.8	-21.9	-78.744 µg/L	-78.744 ppb	07:08:21
2	B 249.677†	2262.7	1837.7	-118.00 µg/L	-118.00 ppb	07:08:00
2	Ba 233.527†	541.7	530.8	11.302 µg/L	11.302 ppb	07:08:21
2	Be 313.107†	-1459.5	-537.6	-0.3049 µg/L	-0.3049 ppb	07:08:00
2	Cd 226.502†	1892.3	2034.1	4.2026 µg/L	4.2026 ppb	07:08:00
2	Co 228.616†	505.3	449.8	18.847 µg/L	18.847 ppb	07:08:21
2	Cr 267.716†	-155.6	-238.7	-5.0832 µg/L	-5.0832 ppb	07:08:21
2	Cu 324.752†	-1681.7	-5949.9	34.222 µg/L	34.222 ppb	07:08:00
2	Mn 257.610†	346.3	618.1	24.565 µg/L	24.565 ppb	07:07:55
2	Mo 202.031†	-134.1	-157.9	-0.6552 µg/L	-0.6552 ppb	07:08:00
2	Ni 231.604†	271.6	-100.1	-0.4853 µg/L	-0.4853 ppb	07:08:21
2	P 214.914†	224.9	206.9	48.630 µg/L	48.630 ppb	07:08:21
2	Pb 220.353†	52.6	12.4	9.5635 µg/L	9.5635 ppb	07:08:21
2	S 181.975 Axial†	-8.3	-31.6	-99.086 µg/L	-99.086 ppb	07:08:21
2	Sb 206.836†	7.4	-19.2	-16.229 µg/L	-16.229 ppb	07:08:21
2	Se 196.026†	-299.8	-320.8	925.17 µg/L	925.17 ppb	07:08:21
2	SiO2†	2466.7	-559.9	-99.229 µg/L	-99.229 ppb	07:08:00
2	Si 251.611†	-141.5	-852.6	-57.397 µg/L	-57.397 ppb	07:08:00
2	Sn 189.927†	9.6	8.0	1.1883 µg/L	1.1883 ppb	07:08:21
2	Ti 334.940†	-540.4	-5426.2	-12.647 µg/L	-12.647 ppb	07:08:00
2	Tl 190.801†	-60.6	-25.7	29.513 µg/L	29.513 ppb	07:08:21
2	U 409.014†	767.1	774.7	14.533 µg/L	14.533 ppb	07:08:00
2	V 292.402†	-1693.9	-1512.1	-3.2313 µg/L	-3.2313 ppb	07:08:00
2	Zn 213.857†	2973.8	2025.0	27.200 µg/L	27.200 ppb	07:08:21
3	Sc RADIAL	90225.0	90225.0	103 %		07:06:51
3	Al 396.153Radial†	157.8	-52.6	-25.818 µg/L	-25.818 ppb	07:06:51
3	Ca 317.933Radial†	495.6	136.8	51.421 µg/L	51.421 ppb	07:07:11
3	Fe 238.204 Radial†	30889.1	30006.9	384160 µg/L	384160 ppb	07:06:51
3	K 766.490 Radial†	63.5	-137.0	-65.462 µg/L	-65.462 ppb	07:06:51

3	Mg 279.077 IEC†	8.5	1.7	-389.10	µg/L	-389.10	ppb	07:07:11
3	Na 589.592 Radial†	185.3	17.2	9.0459	µg/L	9.0459	ppb	07:06:51
3	Sr 421.552†	165.8	3.0	0.0182	µg/L	0.0182	ppb	07:06:51
3	Sc 361.383	2027444.9	2027444.9	102.13	%			07:08:27
3	Y 371.029	1376643.3	1376643.3	101.38	%			07:08:27
3	Ag 328.068†	-2114.4	-2666.7	8.7610	µg/L	8.7610	ppb	07:08:33
3	As 188.979†	-20.8	-19.7	-75.650	µg/L	-75.650	ppb	07:08:53
3	B 249.677†	2167.2	1723.9	-123.18	µg/L	-123.18	ppb	07:08:33
3	Ba 233.527†	467.1	452.9	9.6427	µg/L	9.6427	ppb	07:08:53
3	Be 313.107†	-1482.6	-547.1	-0.3104	µg/L	-0.3104	ppb	07:08:33
3	Cd 226.502†	1787.3	1914.3	1.3824	µg/L	1.3824	ppb	07:08:33
3	Co 228.616†	469.3	410.0	17.185	µg/L	17.185	ppb	07:08:53
3	Cr 267.716†	-122.2	-204.6	-4.3580	µg/L	-4.3580	ppb	07:08:53
3	Cu 324.752†	-1342.3	-5602.6	36.468	µg/L	36.468	ppb	07:08:33
3	Mn 257.610†	280.5	550.5	24.375	µg/L	24.375	ppb	07:08:27
3	Mo 202.031†	-111.1	-134.2	1.6400	µg/L	1.6400	ppb	07:08:33
3	Ni 231.604†	286.8	-87.6	0.1978	µg/L	0.1978	ppb	07:08:53
3	P 214.914†	192.9	173.6	-9.1270	µg/L	-9.1270	ppb	07:08:53
3	Pb 220.353†	49.5	8.9	8.6701	µg/L	8.6701	ppb	07:08:53
3	S 181.975 Axial†	-10.0	-33.2	-104.04	µg/L	-104.04	ppb	07:08:53
3	Sb 206.836†	16.1	-10.7	-9.1175	µg/L	-9.1175	ppb	07:08:53
3	Se 196.026†	-256.3	-275.5	967.50	µg/L	967.50	ppb	07:08:53
3	SiO2†	2528.0	-522.0	-92.510	µg/L	-92.510	ppb	07:08:33
3	Si 251.611†	-142.3	-852.1	-57.362	µg/L	-57.362	ppb	07:08:33
3	Sn 189.927†	15.4	13.5	3.2689	µg/L	3.2689	ppb	07:08:53
3	Ti 334.940†	-563.4	-5443.9	-12.687	µg/L	-12.687	ppb	07:08:33
3	Tl 190.801†	-55.4	-19.9	35.017	µg/L	35.017	ppb	07:08:53
3	U 409.014†	737.7	739.0	11.387	µg/L	11.387	ppb	07:08:33
3	V 292.402†	-1544.7	-1350.8	-1.4955	µg/L	-1.4955	ppb	07:08:33
3	Zn 213.857†	2697.7	1728.1	20.536	µg/L	20.536	ppb	07:08:53

Mean Data: LRL

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Sc 361.383	2021943.0	101.85	%	0.563			0.55%
Sc RADIAL	90473.8	103	%	0.7			0.66%
Y 371.029	1372653.9	101.09	%	0.697			0.69%
Ag 328.068†	-2861.9	7.1237	µg/L	1.44742	7.1237	ppb	1.44742 20.32%
Al 396.153Radial†	-28.7	-13.919	µg/L	10.4550	-13.919	ppb	10.4550 75.11%
As 188.979†	-20.9	-77.122	µg/L	1.5523	-77.122	ppb	1.5523 2.01%
B 249.677†	1814.9	-118.31	µg/L	4.723	-118.31	ppb	4.723 3.99%
Ba 233.527†	508.3	10.824	µg/L	1.0293	10.824	ppb	1.0293 9.51%
Be 313.107†	-534.9	-0.3034	µg/L	0.00788	-0.3034	ppb	0.00788 2.60%
Ca 317.933Radial†	131.0	49.260	µg/L	1.8904	49.260	ppb	1.8904 3.84%
Cd 226.502†	1996.8	3.4844	µg/L	1.85065	3.4844	ppb	1.85065 53.11%
Co 228.616†	438.2	18.365	µg/L	1.0270	18.365	ppb	1.0270 5.59%
Cr 267.716†	-236.0	-5.0253	µg/L	0.64026	-5.0253	ppb	0.64026 12.74%
Cu 324.752†	-5822.4	34.780	µg/L	1.4892	34.780	ppb	1.4892 4.28%
Fe 238.204 Radial†	29888.5	382640	µg/L	2492.8	382640	ppb	2492.8 0.65%
K 766.490 Radial†	-180.6	-86.302	µg/L	20.5507	-86.302	ppb	20.5507 23.81%
Mg 279.077 IEC†	3.0	-369.73	µg/L	23.008	-369.73	ppb	23.008 6.22%
Mn 257.610†	578.4	24.367	µg/L	0.2031	24.367	ppb	0.2031 0.83%
Mo 202.031†	-156.0	-0.5228	µg/L	2.09967	-0.5228	ppb	2.09967 401.62%
Na 589.592 Radial†	41.3	21.722	µg/L	13.4756	21.722	ppb	13.4756 62.04%
Ni 231.604†	-92.0	-0.0618	µg/L	0.36991	-0.0618	ppb	0.36991 598.87%
P 214.914†	200.7	38.886	µg/L	43.9592	38.886	ppb	43.9592 113.04%
Pb 220.353†	5.5	7.7861	µg/L	2.34761	7.7861	ppb	2.34761 30.15%
S 181.975 Axial†	-34.4	-107.61	µg/L	10.764	-107.61	ppb	10.764 10.00%
Sb 206.836†	-15.7	-13.297	µg/L	3.7165	-13.297	ppb	3.7165 27.95%
Se 196.026†	-306.2	934.32	µg/L	29.690	934.32	ppb	29.690 3.18%
SiO2†	-547.3	-96.995	µg/L	3.8845	-96.995	ppb	3.8845 4.00%
Si 251.611†	-853.4	-57.450	µg/L	0.1237	-57.450	ppb	0.1237 0.22%
Sn 189.927†	12.5	2.9021	µg/L	1.56300	2.9021	ppb	1.56300 53.86%
Sr 421.552†	20.6	0.1261	µg/L	0.09570	0.1261	ppb	0.09570 75.91%
Ti 334.940†	-5428.2	-12.652	µg/L	0.0331	-12.652	ppb	0.0331 0.26%
Tl 190.801†	-22.9	31.943	µg/L	2.8080	31.943	ppb	2.8080 8.79%
U 409.014†	799.8	16.926	µg/L	7.0465	16.926	ppb	7.0465 41.63%
V 292.402†	-1438.4	-2.4900	µg/L	0.89520	-2.4900	ppb	0.89520 35.95%
Zn 213.857†	1923.5	24.988	µg/L	3.8558	24.988	ppb	3.8558 15.43%

Sequence No.: 2

Sample ID: LR2

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 114

Date Collected: 3/19/2010 07:09:03

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	92419.0	92419.0	105 %		07:09:33
1	Al 396.153Radial†	200.4	-15.9	-7.8492 µg/L	-7.8492 ppb	07:09:33
1	Ca 317.933Radial†	402.9	37.3	14.030 µg/L	14.030 ppb	07:09:54
1	Fe 238.204 Radial†	13.4	-0.5	105.21 µg/L	105.21 ppb	07:09:54
1	K 766.490 Radial†	197.0	-11.8	-5.6397 µg/L	-5.6397 ppb	07:09:33
1	Mg 279.077 IEC†	9.6	2.6	34.937 µg/L	34.937 ppb	07:09:54
1	Na 589.592 Radial†	261.1	84.8	44.625 µg/L	44.625 ppb	07:09:33
1	Sr 421.552†	226.4	56.6	0.3472 µg/L	0.3472 ppb	07:09:33
1	Sc 361.383	2024659.6	2024659.6	101.99 %		07:10:57
1	Y 371.029	1378127.4	1378127.4	101.49 %		07:10:57
1	Ag 328.068†	707.3	97.0	0.7520 µg/L	0.7520 ppb	07:11:03
1	As 188.979†	1.1	1.6	2.3599 µg/L	2.3599 ppb	07:11:23
1	B 249.677†	872.0	456.8	20.484 µg/L	20.484 ppb	07:11:23
1	Ba 233.527†	9.3	4.7	0.1005 µg/L	0.1005 ppb	07:11:23
1	Be 313.107†	-1010.9	-86.7	-0.0459 µg/L	-0.0459 ppb	07:11:03
1	Cd 226.502†	-149.7	17.6	0.4167 µg/L	0.4167 ppb	07:11:23
1	Co 228.616†	127768.9	125225.6	5243.9 µg/L	5243.9 ppb	07:11:03
1	Cr 267.716†	148.5	60.6	1.2876 µg/L	1.2876 ppb	07:11:23
1	Cu 324.752†	4283.1	-88.7	-0.5674 µg/L	-0.5674 ppb	07:11:03
1	Mn 257.610†	1821667.5	1786387.5	5302.8 µg/L	5302.8 ppb	07:10:57
1	Mo 202.031†	19.9	-6.0	-0.5754 µg/L	-0.5754 ppb	07:11:23
1	Ni 231.604†	457.8	80.4	-1.8622 µg/L	-1.8622 ppb	07:11:23
1	P 214.914†	16.9	1.2	2.2230 µg/L	2.2230 ppb	07:11:23
1	Pb 220.353†	36.4	-3.9	-0.9749 µg/L	-0.9749 ppb	07:11:23
1	S 181.975 Axial†	17.7	-6.1	-19.063 µg/L	-19.063 ppb	07:11:23
1	Sb 206.836†	26.0	-0.9	-0.7904 µg/L	-0.7904 ppb	07:11:23
1	Se 196.026†	22.3	-2.7	-2.5074 µg/L	-2.5074 ppb	07:11:23
1	SiO2†	471639.1	459436.3	81421 µg/L	81421 ppb	07:10:57
1	Si 251.611†	571457.5	559590.8	37672 µg/L	37672 ppb	07:10:57
1	Sn 189.927†	9.0	7.3	2.7627 µg/L	2.7627 ppb	07:11:23
1	Ti 334.940†	383.4	-4516.4	-10.527 µg/L	-10.527 ppb	07:11:03
1	Tl 190.801†	-14.5	20.0	23.697 µg/L	23.697 ppb	07:11:23
1	U 409.014†	-231.7	-210.5	-18.456 µg/L	-18.456 ppb	07:11:03
1	V 292.402†	-170.5	-5.5	-0.0797 µg/L	-0.0797 ppb	07:11:03
1	Zn 213.857†	956.5	24.4	0.5272 µg/L	0.5272 ppb	07:11:23
2	Sc RADIAL	92954.6	92954.6	106 %		07:09:59
2	Al 396.153Radial†	202.9	-14.7	-7.2438 µg/L	-7.2438 ppb	07:09:59
2	Ca 317.933Radial†	396.1	28.8	10.812 µg/L	10.812 ppb	07:10:19
2	Fe 238.204 Radial†	13.5	-0.5	104.10 µg/L	104.10 ppb	07:10:19
2	K 766.490 Radial†	220.2	9.0	4.3083 µg/L	4.3083 ppb	07:09:59
2	Mg 279.077 IEC†	8.4	1.4	18.915 µg/L	18.915 ppb	07:10:19
2	Na 589.592 Radial†	222.9	47.3	24.903 µg/L	24.903 ppb	07:09:59
2	Sr 421.552†	166.2	-1.4	-0.0085 µg/L	-0.0085 ppb	07:09:59
2	Sc 361.383	2030004.3	2030004.3	102.26 %		07:11:30
2	Y 371.029	1382215.3	1382215.3	101.79 %		07:11:30
2	Ag 328.068†	750.7	137.7	1.0660 µg/L	1.0660 ppb	07:11:36
2	As 188.979†	-0.7	-0.0	-0.0606 µg/L	-0.0606 ppb	07:11:57
2	B 249.677†	868.4	451.1	20.226 µg/L	20.226 ppb	07:11:57
2	Ba 233.527†	13.7	9.0	0.1907 µg/L	0.1907 ppb	07:11:57
2	Be 313.107†	-966.6	-40.7	-0.0194 µg/L	-0.0194 ppb	07:11:36
2	Cd 226.502†	-149.5	18.1	0.4278 µg/L	0.4278 ppb	07:11:57
2	Co 228.616†	126527.5	123681.8	5179.3 µg/L	5179.3 ppb	07:11:36
2	Cr 267.716†	160.5	72.0	1.5295 µg/L	1.5295 ppb	07:11:57
2	Cu 324.752†	4226.3	-155.4	-0.9925 µg/L	-0.9925 ppb	07:11:36
2	Mn 257.610†	1828998.1	1788853.5	5310.1 µg/L	5310.1 ppb	07:11:30
2	Mo 202.031†	14.3	-11.5	-1.1066 µg/L	-1.1066 ppb	07:11:57
2	Ni 231.604†	446.2	67.9	-2.4692 µg/L	-2.4692 ppb	07:11:57
2	P 214.914†	17.9	2.2	3.9822 µg/L	3.9822 ppb	07:11:57
2	Pb 220.353†	40.9	0.4	0.1146 µg/L	0.1146 ppb	07:11:57

2	S 181.975 Axial†	24.9	0.9	2.7959 µg/L	2.7959 ppb	07:11:57
2	Sb 206.836†	33.2	6.0	4.9899 µg/L	4.9899 ppb	07:11:57
2	Se 196.026†	35.9	10.5	9.6898 µg/L	9.6898 ppb	07:11:57
2	SiO2†	474825.1	461334.3	81757 µg/L	81757 ppb	07:11:30
2	Si 251.611†	575832.6	562394.0	37860 µg/L	37860 ppb	07:11:30
2	Sn 189.927†	6.7	5.0	1.9026 µg/L	1.9026 ppb	07:11:57
2	Ti 334.940†	351.8	-4548.2	-10.600 µg/L	-10.600 ppb	07:11:36
2	Tl 190.801†	-15.0	19.5	23.477 µg/L	23.477 ppb	07:11:57
2	U 409.014†	-196.5	-175.4	-15.380 µg/L	-15.380 ppb	07:11:36
2	V 292.402†	-187.5	-21.7	-0.2519 µg/L	-0.2519 ppb	07:11:36
2	Zn 213.857†	966.3	31.6	0.6920 µg/L	0.6920 ppb	07:11:57
3	Sc RADIAL	92753.4	92753.4	106 %		07:10:25
3	Al 396.153Radial†	219.3	1.3	0.6586 µg/L	0.6586 ppb	07:10:25
3	Ca 317.933Radial†	392.0	25.7	9.6573 µg/L	9.6573 ppb	07:10:45
3	Fe 238.204 Radial†	13.9	-0.0	100.01 µg/L	100.01 ppb	07:10:45
3	K 766.490 Radial†	236.0	24.3	11.618 µg/L	11.618 ppb	07:10:25
3	Mg 279.077 IEC†	10.1	3.0	41.652 µg/L	41.652 ppb	07:10:45
3	Na 589.592 Radial†	218.3	43.5	22.885 µg/L	22.885 ppb	07:10:25
3	Sr 421.552†	204.1	34.8	0.2136 µg/L	0.2136 ppb	07:10:25
3	Sc 361.383	2030921.3	2030921.3	102.31 %		07:12:03
3	Y 371.029	1384301.2	1384301.2	101.95 %		07:12:03
3	Ag 328.068†	728.8	115.9	0.8957 µg/L	0.8957 ppb	07:12:09
3	As 188.979†	0.8	1.4	2.0488 µg/L	2.0488 ppb	07:12:29
3	B 249.677†	789.0	373.0	16.724 µg/L	16.724 ppb	07:12:29
3	Ba 233.527†	5.7	1.1	0.0232 µg/L	0.0232 ppb	07:12:29
3	Be 313.107†	-987.7	-60.9	-0.0311 µg/L	-0.0311 ppb	07:12:09
3	Cd 226.502†	-145.0	22.6	0.5320 µg/L	0.5320 ppb	07:12:29
3	Co 228.616†	115193.2	112547.1	4713.0 µg/L	4713.0 ppb	07:12:09
3	Cr 267.716†	140.7	52.6	1.1169 µg/L	1.1169 ppb	07:12:29
3	Cu 324.752†	4275.7	-108.9	-0.6949 µg/L	-0.6949 ppb	07:12:09
3	Mn 257.610†	1721438.3	1682910.6	4995.6 µg/L	4995.6 ppb	07:12:03
3	Mo 202.031†	10.3	-15.3	-1.4814 µg/L	-1.4814 ppb	07:12:29
3	Ni 231.604†	440.7	62.4	-2.2133 µg/L	-2.2133 ppb	07:12:29
3	P 214.914†	17.5	1.8	3.1312 µg/L	3.1312 ppb	07:12:29
3	Pb 220.353†	38.2	-2.3	-0.5655 µg/L	-0.5655 ppb	07:12:29
3	S 181.975 Axial†	17.0	-6.8	-21.186 µg/L	-21.186 ppb	07:12:29
3	Sb 206.836†	21.0	-5.9	-4.9835 µg/L	-4.9835 ppb	07:12:29
3	Se 196.026†	30.1	4.9	4.4611 µg/L	4.4611 ppb	07:12:29
3	SiO2†	456976.8	443678.7	78628 µg/L	78628 ppb	07:12:03
3	Si 251.611†	553519.9	540330.1	36375 µg/L	36375 ppb	07:12:03
3	Sn 189.927†	4.6	2.9	1.1101 µg/L	1.1101 ppb	07:12:29
3	Ti 334.940†	403.2	-4498.1	-10.485 µg/L	-10.485 ppb	07:12:09
3	Tl 190.801†	-16.8	17.9	22.117 µg/L	22.117 ppb	07:12:29
3	U 409.014†	-190.8	-169.8	-14.888 µg/L	-14.888 ppb	07:12:09
3	V 292.402†	-211.3	-44.8	-0.5008 µg/L	-0.5008 ppb	07:12:09
3	Zn 213.857†	1001.7	65.7	1.4564 µg/L	1.4564 ppb	07:12:29

Mean Data: LR2

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2028528.4	102.19 %		0.170			0.17%
Sc RADIAL	92709.0	106 %		0.3			0.29%
Y 371.029	1381548.0	101.74 %		0.231			0.23%
Ag 328.068†	116.9	0.9046 µg/L		0.15721	0.9046 ppb	0.15721	17.38%
Al 396.153Radial†	-9.8	-4.8115 µg/L		4.74686	-4.8115 ppb	4.74686	98.66%
As 188.979†	1.0	1.4494 µg/L		1.31690	1.4494 ppb	1.31690	90.86%
B 249.677†	427.0	19.145 µg/L		2.1004	19.145 ppb	2.1004	10.97%
Ba 233.527†	4.9	0.1048 µg/L		0.08384	0.1048 ppb	0.08384	80.01%
Be 313.107†	-62.8	-0.0321 µg/L		0.01329	-0.0321 ppb	0.01329	41.35%
Ca 317.933Radial†	30.6	11.500 µg/L		2.2660	11.500 ppb	2.2660	19.71%
Cd 226.502†	19.4	0.4588 µg/L		0.06358	0.4588 ppb	0.06358	13.86%
Co 228.616†	120484.8	5045.4 µg/L		289.67	5045.4 ppb	289.67	5.74%
Cr 267.716†	61.7	1.3113 µg/L		0.20731	1.3113 ppb	0.20731	15.81%
Cu 324.752†	-117.7	-0.7516 µg/L		0.21813	-0.7516 ppb	0.21813	29.02%
Fe 238.204 Radial†	-0.3	103.11 µg/L		2.735	103.11 ppb	2.735	2.65%
K 766.490 Radial†	7.2	3.4289 µg/L		8.66240	3.4289 ppb	8.66240	252.63%
Mg 279.077 IEC†	2.3	31.835 µg/L		11.6818	31.835 ppb	11.6818	36.70%
Mn 257.610†	1752717.2	5202.9 µg/L		179.49	5202.9 ppb	179.49	3.45%
Mo 202.031†	-10.9	-1.0545 µg/L		0.45522	-1.0545 ppb	0.45522	43.17%
Na 589.592 Radial†	58.6	30.804 µg/L		12.0119	30.804 ppb	12.0119	38.99%

Ni 231.604†	70.2	-2.1816 µg/L	0.30471	-2.1816 ppb	0.30471	13.97%
P 214.914†	1.7	3.1121 µg/L	0.87973	3.1121 ppb	0.87973	28.27%
Pb 220.353†	-1.9	-0.4753 µg/L	0.55029	-0.4753 ppb	0.55029	115.79%
S 181.975 Axial†	-4.0	-12.484 µg/L	13.2757	-12.484 ppb	13.2757	106.34%
Sb 206.836†	-0.3	-0.2613 µg/L	5.00767	-0.2613 ppb	5.00767	>999.9%
Se 196.026†	4.2	3.8812 µg/L	6.11925	3.8812 ppb	6.11925	157.66%
SiO2†	454816.4	80602 µg/L	1717.6	80602 ppb	1717.6	2.13%
Si 251.611†	554105.0	37302 µg/L	808.6	37302 ppb	808.6	2.17%
Sn 189.927†	5.1	1.9252 µg/L	0.82651	1.9252 ppb	0.82651	42.93%
Sr 421.552†	30.0	0.1841 µg/L	0.17963	0.1841 ppb	0.17963	97.58%
Ti 334.940†	-4520.9	-10.537 µg/L	0.0582	-10.537 ppb	0.0582	0.55%
Tl 190.801†	19.1	23.097 µg/L	0.8560	23.097 ppb	0.8560	3.71%
U 409.014†	-185.3	-16.242 µg/L	1.9335	-16.242 ppb	1.9335	11.90%
V 292.402†	-24.0	-0.2775 µg/L	0.21172	-0.2775 ppb	0.21172	76.30%
Zn 213.857†	40.6	0.8919 µg/L	0.49579	0.8919 ppb	0.49579	55.59%

Sequence No.: 3
 Sample ID: CCV
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 7
 Date Collected: 3/19/2010 07:12:38
 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	91545.3	91545.3	104 %		07:13:11
1	Al 396.153Radial†	10382.2	9738.6	4816.4 µg/L	4816.4 ppb	07:13:11
1	Ca 317.933Radial†	14007.4	13072.0	4915.0 µg/L	4915.0 ppb	07:13:11
1	Fe 238.204 Radial†	412.9	382.4	4905.6 µg/L	4905.6 ppb	07:13:31
1	K 766.490 Radial†	11058.0	10393.1	4965.4 µg/L	4965.4 ppb	07:13:11
1	Mg 279.077 IEC†	383.6	360.9	4940.8 µg/L	4940.8 ppb	07:13:31
1	Na 589.592 Radial†	19537.3	18550.8	9759.0 µg/L	9759.0 ppb	07:13:11
1	Sr 421.552†	83132.9	79470.6	487.18 µg/L	487.18 ppb	07:13:11
1	Sc 361.383	2035363.3	2035363.3	102.53 %		07:14:35
1	Y 371.029	1387151.5	1387151.5	102.16 %		07:14:35
1	Ag 328.068†	65287.6	63080.2	492.98 µg/L	492.98 ppb	07:14:41
1	As 188.979†	363.2	354.9	505.84 µg/L	505.84 ppb	07:15:01
1	B 249.677†	11612.2	10927.5	488.10 µg/L	488.10 ppb	07:14:41
1	Ba 233.527†	23766.3	23175.5	495.64 µg/L	495.64 ppb	07:14:41
1	Be 313.107†	882839.2	861960.0	496.46 µg/L	496.46 ppb	07:14:35
1	Cd 226.502†	21711.6	21340.2	499.33 µg/L	499.33 ppb	07:14:41
1	Co 228.616†	12224.3	11873.2	496.64 µg/L	496.64 ppb	07:14:41
1	Cr 267.716†	24258.6	23575.1	501.31 µg/L	501.31 ppb	07:14:41
1	Cu 324.752†	83756.6	77401.7	494.88 µg/L	494.88 ppb	07:14:41
1	Mn 257.610†	173083.9	169089.0	501.89 µg/L	501.89 ppb	07:14:35
1	Mo 202.031†	5447.2	5287.4	510.68 µg/L	510.68 ppb	07:15:01
1	Ni 231.604†	9747.2	9138.3	497.52 µg/L	497.52 ppb	07:14:41
1	P 214.914†	1511.2	1458.6	2465.0 µg/L	2465.0 ppb	07:15:01
1	Pb 220.353†	2064.9	1974.3	503.56 µg/L	503.56 ppb	07:15:01
1	S 181.975 Axial†	356.4	324.2	1015.4 µg/L	1015.4 ppb	07:15:01
1	Sb 206.836†	646.7	604.2	508.34 µg/L	508.34 ppb	07:15:01
1	Se 196.026†	577.0	538.2	507.98 µg/L	507.98 ppb	07:15:01
1	SiO2†	33280.9	29462.5	5221.3 µg/L	5221.3 ppb	07:14:41
1	Si 251.611†	38133.3	36479.6	2455.8 µg/L	2455.8 ppb	07:14:41
1	Sn 189.927†	1394.3	1358.4	513.32 µg/L	513.32 ppb	07:15:01
1	Ti 334.940†	220659.7	210322.8	489.80 µg/L	489.80 ppb	07:14:35
1	Tl 190.801†	505.0	526.8	510.58 µg/L	510.58 ppb	07:15:01
1	U 409.014†	5782.4	5656.4	494.90 µg/L	494.90 ppb	07:14:41
1	V 292.402†	47663.0	46648.7	501.64 µg/L	501.64 ppb	07:14:41
1	Zn 213.857†	23852.5	22350.6	497.11 µg/L	497.11 ppb	07:14:41
2	Sc RADIAL	91103.9	91103.9	104 %		07:13:37
2	Al 396.153Radial†	10370.9	9775.9	4834.9 µg/L	4834.9 ppb	07:13:37
2	Ca 317.933Radial†	13920.9	13053.8	4908.1 µg/L	4908.1 ppb	07:13:37
2	Fe 238.204 Radial†	411.6	383.0	4914.1 µg/L	4914.1 ppb	07:13:57
2	K 766.490 Radial†	10975.6	10365.2	4952.0 µg/L	4952.0 ppb	07:13:37
2	Mg 279.077 IEC†	382.6	361.8	4951.9 µg/L	4951.9 ppb	07:13:57
2	Na 589.592 Radial†	19481.2	18587.5	9778.3 µg/L	9778.3 ppb	07:13:37
2	Sr 421.552†	82828.5	79563.4	487.75 µg/L	487.75 ppb	07:13:37
2	Sc 361.383	2012539.1	2012539.1	101.38 %		07:15:08
2	Y 371.029	1370017.7	1370017.7	100.90 %		07:15:08
2	Ag 328.068†	65270.2	63785.3	498.47 µg/L	498.47 ppb	07:15:14
2	As 188.979†	356.9	352.7	502.67 µg/L	502.67 ppb	07:15:34
2	B 249.677†	11537.3	10982.2	490.55 µg/L	490.55 ppb	07:15:14
2	Ba 233.527†	23686.2	23359.3	499.57 µg/L	499.57 ppb	07:15:14
2	Be 313.107†	871446.5	860487.7	495.61 µg/L	495.61 ppb	07:15:08
2	Cd 226.502†	21531.2	21402.4	500.78 µg/L	500.78 ppb	07:15:14
2	Co 228.616†	12229.7	12013.7	502.52 µg/L	502.52 ppb	07:15:14
2	Cr 267.716†	24095.3	23682.4	503.60 µg/L	503.60 ppb	07:15:14
2	Cu 324.752†	83700.1	78272.4	500.44 µg/L	500.44 ppb	07:15:14
2	Mn 257.610†	171388.0	169330.7	502.61 µg/L	502.61 ppb	07:15:08
2	Mo 202.031†	5363.4	5265.0	508.52 µg/L	508.52 ppb	07:15:34
2	Ni 231.604†	9699.3	9198.9	500.81 µg/L	500.81 ppb	07:15:14
2	P 214.914†	1496.6	1460.9	2468.4 µg/L	2468.4 ppb	07:15:34
2	Pb 220.353†	2049.5	1982.0	505.51 µg/L	505.51 ppb	07:15:34

2	S 181.975 Axial†	347.2	319.0	999.23 µg/L	999.23 ppb	07:15:34
2	Sb 206.836†	645.2	610.0	513.06 µg/L	513.06 ppb	07:15:34
2	Se 196.026†	568.1	535.8	505.71 µg/L	505.71 ppb	07:15:34
2	SiO2†	33304.3	29853.6	5290.6 µg/L	5290.6 ppb	07:15:14
2	Si 251.611†	38000.9	36770.8	2475.4 µg/L	2475.4 ppb	07:15:14
2	Sn 189.927†	1370.0	1349.8	510.08 µg/L	510.08 ppb	07:15:34
2	Ti 334.940†	218332.5	210468.0	490.13 µg/L	490.13 ppb	07:15:08
2	Tl 190.801†	488.9	516.5	500.66 µg/L	500.66 ppb	07:15:34
2	U 409.014†	5742.8	5681.3	497.08 µg/L	497.08 ppb	07:15:14
2	V 292.402†	47467.1	46982.6	505.18 µg/L	505.18 ppb	07:15:14
2	Zn 213.857†	23763.7	22526.9	501.03 µg/L	501.03 ppb	07:15:14
3	Sc RADIAL	91601.9	91601.9	104 %		07:14:03
3	Al 396.153Radial†	10402.0	9751.4	4824.5 µg/L	4824.5 ppb	07:14:03
3	Ca 317.933Radial†	13975.3	13033.1	4900.3 µg/L	4900.3 ppb	07:14:03
3	Fe 238.204 Radial†	409.4	378.8	4858.7 µg/L	4858.7 ppb	07:14:23
3	K 766.490 Radial†	11021.8	10352.0	4945.7 µg/L	4945.7 ppb	07:14:03
3	Mg 279.077 IEC†	386.6	363.5	4974.9 µg/L	4974.9 ppb	07:14:23
3	Na 589.592 Radial†	19563.0	18563.9	9765.9 µg/L	9765.9 ppb	07:14:03
3	Sr 421.552†	83061.1	79352.6	486.46 µg/L	486.46 ppb	07:14:03
3	Sc 361.383	2019544.7	2019544.7	101.73 %		07:15:42
3	Y 371.029	1375705.8	1375705.8	101.31 %		07:15:42
3	Ag 328.068†	61816.9	60167.4	470.05 µg/L	470.05 ppb	07:15:47
3	As 188.979†	301.5	297.0	423.17 µg/L	423.17 ppb	07:16:08
3	B 249.677†	10843.5	10260.6	458.14 µg/L	458.14 ppb	07:15:47
3	Ba 233.527†	21639.0	21265.9	454.79 µg/L	454.79 ppb	07:15:47
3	Be 313.107†	816981.7	803968.9	463.06 µg/L	463.06 ppb	07:15:42
3	Cd 226.502†	19658.3	19487.8	455.94 µg/L	455.94 ppb	07:15:47
3	Co 228.616†	11034.0	10796.6	451.55 µg/L	451.55 ppb	07:15:47
3	Cr 267.716†	21217.4	20771.0	441.69 µg/L	441.69 ppb	07:15:47
3	Cu 324.752†	76027.3	70443.9	450.47 µg/L	450.47 ppb	07:15:47
3	Mn 257.610†	160774.8	158311.9	469.89 µg/L	469.89 ppb	07:15:42
3	Mo 202.031†	4478.7	4377.0	422.78 µg/L	422.78 ppb	07:16:08
3	Ni 231.604†	8799.0	8280.7	450.83 µg/L	450.83 ppb	07:15:47
3	P 214.914†	1283.9	1246.7	2103.3 µg/L	2103.3 ppb	07:16:08
3	Pb 220.353†	1781.0	1711.1	436.38 µg/L	436.38 ppb	07:16:08
3	S 181.975 Axial†	309.8	281.1	880.45 µg/L	880.45 ppb	07:16:08
3	Sb 206.836†	553.5	517.6	435.04 µg/L	435.04 ppb	07:16:08
3	Se 196.026†	505.4	472.2	446.88 µg/L	446.88 ppb	07:16:08
3	SiO2†	31029.0	27503.1	4874.1 µg/L	4874.1 ppb	07:15:47
3	Si 251.611†	35272.4	33958.8	2286.1 µg/L	2286.1 ppb	07:15:47
3	Sn 189.927†	1126.7	1105.9	418.01 µg/L	418.01 ppb	07:16:08
3	Ti 334.940†	203201.4	194847.6	453.73 µg/L	453.73 ppb	07:15:42
3	Tl 190.801†	454.5	481.0	466.31 µg/L	466.31 ppb	07:16:08
3	U 409.014†	5066.6	4997.0	437.10 µg/L	437.10 ppb	07:15:47
3	V 292.402†	42594.0	42030.1	451.67 µg/L	451.67 ppb	07:15:47
3	Zn 213.857†	21665.6	20383.2	453.32 µg/L	453.32 ppb	07:15:47

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2022482.4	101.88 %		0.589			0.58%
Sc RADIAL	91417.0	104 %		0.3			0.30%
Y 371.029	1377625.0	101.46 %		0.643			0.63%
Ag 328.068†	62344.3	487.17 µg/L		15.073	487.17 ppb	15.073	3.09%
QC value within limits for Ag 328.068 Recovery = 97.43%							
Al 396.153Radial†	9755.3	4825.3 µg/L		9.30	4825.3 ppb	9.30	0.19%
QC value within limits for Al 396.153Radial Recovery = 96.51%							
As 188.979†	334.9	477.23 µg/L		46.842	477.23 ppb	46.842	9.82%
QC value within limits for As 188.979 Recovery = 95.45%							
B 249.677†	10723.4	478.93 µg/L		18.050	478.93 ppb	18.050	3.77%
QC value within limits for B 249.677 Recovery = 95.79%							
Ba 233.527†	22600.2	483.33 µg/L		24.800	483.33 ppb	24.800	5.13%
QC value within limits for Ba 233.527 Recovery = 96.67%							
Be 313.107†	842138.9	485.04 µg/L		19.043	485.04 ppb	19.043	3.93%
QC value within limits for Be 313.107 Recovery = 97.01%							
Ca 317.933Radial†	13053.0	4907.8 µg/L		7.33	4907.8 ppb	7.33	0.15%
QC value within limits for Ca 317.933Radial Recovery = 98.16%							
Cd 226.502†	20743.5	485.35 µg/L		25.482	485.35 ppb	25.482	5.25%
QC value within limits for Cd 226.502 Recovery = 97.07%							
Co 228.616†	11561.2	483.57 µg/L		27.886	483.57 ppb	27.886	5.77%

QC value within limits for Co 228.616 Recovery = 96.71%							
Cr 267.716†	22676.1	482.20 µg/L	35.100	482.20 ppb	35.100	7.28%	
QC value within limits for Cr 267.716 Recovery = 96.44%							
Cu 324.752†	75372.7	481.93 µg/L	27.387	481.93 ppb	27.387	5.68%	
QC value within limits for Cu 324.752 Recovery = 96.39%							
Fe 238.204 Radial†	381.4	4892.8 µg/L	29.83	4892.8 ppb	29.83	0.61%	
QC value within limits for Fe 238.204 Radial Recovery = 97.86%							
K 766.490 Radial†	10370.1	4954.4 µg/L	10.04	4954.4 ppb	10.04	0.20%	
QC value within limits for K 766.490 Radial Recovery = 99.09%							
Mg 279.077 IEC†	362.1	4955.8 µg/L	17.41	4955.8 ppb	17.41	0.35%	
QC value within limits for Mg 279.077 IEC Recovery = 99.12%							
Mn 257.610†	165577.2	491.46 µg/L	18.684	491.46 ppb	18.684	3.80%	
QC value within limits for Mn 257.610 Recovery = 98.29%							
Mo 202.031†	4976.5	480.66 µg/L	50.137	480.66 ppb	50.137	10.43%	
QC value within limits for Mo 202.031 Recovery = 96.13%							
Na 589.592 Radial†	18567.4	9767.7 µg/L	9.79	9767.7 ppb	9.79	0.10%	
QC value within limits for Na 589.592 Radial Recovery = 97.68%							
Ni 231.604†	8872.6	483.06 µg/L	27.955	483.06 ppb	27.955	5.79%	
QC value within limits for Ni 231.604 Recovery = 96.61%							
P 214.914†	1388.7	2345.6 µg/L	209.79	2345.6 ppb	209.79	8.94%	
QC value within limits for P 214.914 Recovery = 93.82%							
Pb 220.353†	1889.2	481.82 µg/L	39.360	481.82 ppb	39.360	8.17%	
QC value within limits for Pb 220.353 Recovery = 96.36%							
S 181.975 Axial†	308.1	965.03 µg/L	73.692	965.03 ppb	73.692	7.64%	
QC value within limits for S 181.975 Axial Recovery = 96.50%							
Sb 206.836†	577.3	485.48 µg/L	43.746	485.48 ppb	43.746	9.01%	
QC value within limits for Sb 206.836 Recovery = 97.10%							
Se 196.026†	515.4	486.85 µg/L	34.639	486.85 ppb	34.639	7.11%	
QC value within limits for Se 196.026 Recovery = 97.37%							
SiO2†	28939.7	5128.7 µg/L	223.20	5128.7 ppb	223.20	4.35%	
QC value within limits for SiO2 Recovery = 95.91%							
Si 251.611†	35736.4	2405.8 µg/L	104.10	2405.8 ppb	104.10	4.33%	
QC value within limits for Si 251.611 Recovery = 96.23%							
Sn 189.927†	1271.4	480.47 µg/L	54.115	480.47 ppb	54.115	11.26%	
QC value within limits for Sn 189.927 Recovery = 96.09%							
Sr 421.552†	79462.2	487.13 µg/L	0.648	487.13 ppb	0.648	0.13%	
QC value within limits for Sr 421.552 Recovery = 97.43%							
Ti 334.940†	205212.8	477.89 µg/L	20.920	477.89 ppb	20.920	4.38%	
QC value within limits for Ti 334.940 Recovery = 95.58%							
Tl 190.801†	508.1	492.52 µg/L	23.231	492.52 ppb	23.231	4.72%	
QC value within limits for Tl 190.801 Recovery = 98.50%							
U 409.014†	5444.9	476.36 µg/L	34.019	476.36 ppb	34.019	7.14%	
QC value within limits for U 409.014 Recovery = 95.27%							
V 292.402†	45220.4	486.17 µg/L	29.925	486.17 ppb	29.925	6.16%	
QC value within limits for V 292.402 Recovery = 97.23%							
Zn 213.857†	21753.5	483.82 µg/L	26.487	483.82 ppb	26.487	5.47%	
QC value within limits for Zn 213.857 Recovery = 96.76%							

All analyte(s) passed QC.

Sequence No.: 4
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 8
 Date Collected: 3/19/2010 07:16:17
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	90998.5	90998.5	104 %		07:16:48
1	Al 396.153Radial†	159.7	-52.2	-25.844 µg/L	-25.844 ppb	07:16:48
1	Ca 317.933Radial†	329.2	-27.7	-10.417 µg/L	-10.417 ppb	07:17:08
1	Fe 238.204 Radial†	13.7	0.0	0.2671 µg/L	0.2671 ppb	07:17:08
1	K 766.490 Radial†	85.5	-116.4	-55.615 µg/L	-55.615 ppb	07:16:48
1	Mg 279.077 IEC†	8.6	1.8	24.453 µg/L	24.453 ppb	07:17:08
1	Na 589.592 Radial†	221.3	50.3	26.479 µg/L	26.479 ppb	07:16:48
1	Sr 421.552†	126.4	-36.3	-0.2225 µg/L	-0.2225 ppb	07:16:48
1	Sc 361.383	2021786.8	2021786.8	101.85 %		07:18:10
1	Y 371.029	1383693.5	1383693.5	101.90 %		07:18:10
1	Ag 328.068†	576.4	-30.4	-0.2369 µg/L	-0.2369 ppb	07:18:16
1	As 188.979†	-0.2	0.4	0.5198 µg/L	0.5198 ppb	07:18:36
1	B 249.677†	418.8	13.0	0.5833 µg/L	0.5833 ppb	07:18:16
1	Ba 233.527†	-4.8	-9.2	-0.1959 µg/L	-0.1959 ppb	07:18:36
1	Be 313.107†	-1192.5	-266.4	-0.1487 µg/L	-0.1487 ppb	07:18:16
1	Cd 226.502†	-171.0	-3.6	-0.0844 µg/L	-0.0844 ppb	07:18:36
1	Co 228.616†	42.5	-7.8	-0.2998 µg/L	-0.2998 ppb	07:18:36
1	Cr 267.716†	68.8	-17.4	-0.3708 µg/L	-0.3708 ppb	07:18:16
1	Cu 324.752†	4241.8	-123.4	-0.7873 µg/L	-0.7873 ppb	07:18:16
1	Mn 257.610†	-635.1	-347.7	-1.0337 µg/L	-1.0337 ppb	07:18:36
1	Mo 202.031†	14.4	-11.3	-1.0946 µg/L	-1.0946 ppb	07:18:36
1	Ni 231.604†	359.6	-15.3	-0.8343 µg/L	-0.8343 ppb	07:18:36
1	P 214.914†	19.3	3.7	6.4179 µg/L	6.4179 ppb	07:18:36
1	Pb 220.353†	45.3	4.9	1.2540 µg/L	1.2540 ppb	07:18:36
1	S 181.975 Axial†	25.5	1.6	5.1134 µg/L	5.1134 ppb	07:18:36
1	Sb 206.836†	35.0	7.9	6.6402 µg/L	6.6402 ppb	07:18:36
1	Se 196.026†	30.4	5.3	4.8775 µg/L	4.8775 ppb	07:18:36
1	Si02†	2823.6	-224.9	-39.852 µg/L	-39.852 ppb	07:18:16
1	Si 251.611†	481.1	-240.4	-16.186 µg/L	-16.186 ppb	07:18:36
1	Sn 189.927†	6.7	5.0	1.8818 µg/L	1.8818 ppb	07:18:36
1	Ti 334.940†	-555.4	-5437.5	-12.673 µg/L	-12.673 ppb	07:18:16
1	Tl 190.801†	-28.8	5.9	5.5841 µg/L	5.5841 ppb	07:18:36
1	U 409.014†	-15.4	1.5	0.1342 µg/L	0.1342 ppb	07:18:16
1	V 292.402†	-175.4	-10.5	-0.1207 µg/L	-0.1207 ppb	07:18:16
1	Zn 213.857†	934.4	4.1	0.0961 µg/L	0.0961 ppb	07:18:36
2	Sc RADIAL	89774.6	89774.6	102 %		07:17:14
2	Al 396.153Radial†	194.9	-15.7	-7.7641 µg/L	-7.7641 ppb	07:17:14
2	Ca 317.933Radial†	333.1	-19.6	-7.3648 µg/L	-7.3648 ppb	07:17:34
2	Fe 238.204 Radial†	11.3	-2.1	-26.807 µg/L	-26.807 ppb	07:17:34
2	K 766.490 Radial†	145.4	-56.7	-27.100 µg/L	-27.100 ppb	07:17:14
2	Mg 279.077 IEC†	9.2	2.4	33.324 µg/L	33.324 ppb	07:17:34
2	Na 589.592 Radial†	172.3	5.4	2.8425 µg/L	2.8425 ppb	07:17:14
2	Sr 421.552†	100.1	-60.4	-0.3702 µg/L	-0.3702 ppb	07:17:14
2	Sc 361.383	2015449.9	2015449.9	101.53 %		07:18:42
2	Y 371.029	1377453.1	1377453.1	101.44 %		07:18:42
2	Ag 328.068†	598.7	-6.8	-0.0588 µg/L	-0.0588 ppb	07:18:48
2	As 188.979†	1.5	2.1	3.0242 µg/L	3.0242 ppb	07:19:08
2	B 249.677†	425.9	21.4	0.9722 µg/L	0.9722 ppb	07:18:48
2	Ba 233.527†	-12.2	-16.5	-0.3534 µg/L	-0.3534 ppb	07:19:08
2	Be 313.107†	-1279.7	-355.9	-0.2003 µg/L	-0.2003 ppb	07:18:48
2	Cd 226.502†	-171.8	-4.9	-0.1115 µg/L	-0.1115 ppb	07:19:08
2	Co 228.616†	43.5	-6.7	-0.2528 µg/L	-0.2528 ppb	07:19:08
2	Cr 267.716†	73.4	-12.7	-0.2707 µg/L	-0.2707 ppb	07:18:48
2	Cu 324.752†	4267.3	-85.1	-0.5480 µg/L	-0.5480 ppb	07:18:48
2	Mn 257.610†	-647.5	-361.9	-1.0782 µg/L	-1.0782 ppb	07:19:08
2	Mo 202.031†	24.3	-1.5	-0.1490 µg/L	-0.1490 ppb	07:19:08
2	Ni 231.604†	359.9	-13.9	-0.7588 µg/L	-0.7588 ppb	07:19:08
2	P 214.914†	13.8	-1.7	-2.7881 µg/L	-2.7881 ppb	07:19:08
2	Pb 220.353†	42.6	2.4	0.6164 µg/L	0.6164 ppb	07:19:08

2	S 181.975 Axial†	25.8	2.0	6.1257 µg/L	6.1257 ppb	07:19:08
2	Sb 206.836†	32.2	5.2	4.3709 µg/L	4.3709 ppb	07:19:08
2	Se 196.026†	20.2	-4.7	-4.4106 µg/L	-4.4106 ppb	07:19:08
2	SiO2†	2788.0	-251.2	-44.515 µg/L	-44.515 ppb	07:18:48
2	Si 251.611†	501.5	-218.8	-14.727 µg/L	-14.727 ppb	07:19:08
2	Sn 189.927†	7.9	6.2	2.3534 µg/L	2.3534 ppb	07:19:08
2	Ti 334.940†	-527.3	-5411.7	-12.613 µg/L	-12.613 ppb	07:18:48
2	Tl 190.801†	-38.3	-3.5	-3.4302 µg/L	-3.4302 ppb	07:19:08
2	U 409.014†	-38.1	-20.8	-1.8227 µg/L	-1.8227 ppb	07:18:48
2	V 292.402†	-223.5	-58.4	-0.6254 µg/L	-0.6254 ppb	07:18:48
2	Zn 213.857†	924.2	-3.1	-0.0655 µg/L	-0.0655 ppb	07:19:08
3	Sc RADIAL	89659.5	89659.5	102 %		07:17:40
3	Al 396.153Radial†	156.0	-53.5	-26.490 µg/L	-26.490 ppb	07:17:40
3	Ca 317.933Radial†	334.5	-17.8	-6.6970 µg/L	-6.6970 ppb	07:18:00
3	Fe 238.204 Radial†	14.0	0.6	7.1958 µg/L	7.1958 ppb	07:18:00
3	K 766.490 Radial†	180.4	-22.4	-10.681 µg/L	-10.681 ppb	07:17:40
3	Mg 279.077 IEC†	7.8	1.1	15.438 µg/L	15.438 ppb	07:18:00
3	Na 589.592 Radial†	165.0	-1.5	-0.7922 µg/L	-0.7922 ppb	07:17:40
3	Sr 421.552†	75.8	-84.0	-0.5152 µg/L	-0.5152 ppb	07:17:40
3	Sc 361.383	2004122.1	2004122.1	100.96 %		07:19:15
3	Y 371.029	1370162.6	1370162.6	100.91 %		07:19:15
3	Ag 328.068†	620.7	18.4	0.1418 µg/L	0.1418 ppb	07:19:20
3	As 188.979†	-2.3	-1.7	-2.4427 µg/L	-2.4427 ppb	07:19:41
3	B 249.677†	439.3	37.0	1.6549 µg/L	1.6549 ppb	07:19:20
3	Ba 233.527†	-14.3	-18.6	-0.3976 µg/L	-0.3976 ppb	07:19:41
3	Be 313.107†	-1225.9	-309.8	-0.1737 µg/L	-0.1737 ppb	07:19:20
3	Cd 226.502†	-171.8	-5.8	-0.1375 µg/L	-0.1375 ppb	07:19:41
3	Co 228.616†	49.6	-0.4	0.0091 µg/L	0.0091 ppb	07:19:41
3	Cr 267.716†	80.6	-5.1	-0.1092 µg/L	-0.1092 ppb	07:19:20
3	Cu 324.752†	4321.6	-7.6	-0.0472 µg/L	-0.0472 ppb	07:19:20
3	Mn 257.610†	-664.6	-382.4	-1.1357 µg/L	-1.1357 ppb	07:19:41
3	Mo 202.031†	14.7	-10.9	-1.0516 µg/L	-1.0516 ppb	07:19:41
3	Ni 231.604†	358.7	-13.1	-0.7136 µg/L	-0.7136 ppb	07:19:41
3	P 214.914†	9.2	-6.2	-10.765 µg/L	-10.765 ppb	07:19:41
3	Pb 220.353†	53.8	13.8	3.4987 µg/L	3.4987 ppb	07:19:41
3	S 181.975 Axial†	24.9	1.2	3.8880 µg/L	3.8880 ppb	07:19:41
3	Sb 206.836†	25.2	-1.5	-1.3034 µg/L	-1.3034 ppb	07:19:41
3	Se 196.026†	17.8	-7.0	-6.4111 µg/L	-6.4111 ppb	07:19:41
3	SiO2†	2844.5	-179.7	-31.845 µg/L	-31.845 ppb	07:19:20
3	Si 251.611†	496.1	-221.3	-14.899 µg/L	-14.899 ppb	07:19:41
3	Sn 189.927†	-1.1	-2.6	-0.9906 µg/L	-0.9906 ppb	07:19:41
3	Ti 334.940†	-540.6	-5427.7	-12.649 µg/L	-12.649 ppb	07:19:20
3	Tl 190.801†	-34.1	0.5	0.3543 µg/L	0.3543 ppb	07:19:41
3	U 409.014†	-20.7	-3.9	-0.3393 µg/L	-0.3393 ppb	07:19:20
3	V 292.402†	-186.9	-23.4	-0.2574 µg/L	-0.2574 ppb	07:19:20
3	Zn 213.857†	947.9	25.5	0.5738 µg/L	0.5738 ppb	07:19:41

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2013786.3	101.44 %		0.451			0.44%
Sc RADIAL	90144.2	103 %		0.8			0.82%
Y 371.029	1377103.1	101.42 %		0.499			0.49%
Ag 328.068†	-6.3	-0.0513 µg/L		0.18946	-0.0513 ppb	0.18946	369.22%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	-40.4	-20.033 µg/L		10.6298	-20.033 ppb	10.6298	53.06%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	0.3	0.3671 µg/L		2.73668	0.3671 ppb	2.73668	745.49%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	23.8	1.0701 µg/L		0.54244	1.0701 ppb	0.54244	50.69%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	-14.8	-0.3156 µg/L		0.10599	-0.3156 ppb	0.10599	33.58%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	-310.7	-0.1742 µg/L		0.02580	-0.1742 ppb	0.02580	14.81%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	-21.7	-8.1596 µg/L		1.98320	-8.1596 ppb	1.98320	24.31%
QC value within limits for Ca 317.933Radial Recovery = Not calculated							
Cd 226.502†	-4.7	-0.1111 µg/L		0.02656	-0.1111 ppb	0.02656	23.90%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	-4.9	-0.1811 µg/L		0.16641	-0.1811 ppb	0.16641	91.86%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-11.8	-0.2502 µg/L	0.13197	-0.2502 ppb	0.13197	52.74%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-72.0	-0.4609 µg/L	0.37768	-0.4609 ppb	0.37768	81.95%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-0.5	-6.4480 µg/L	17.96837	-6.4480 ppb	17.96837	278.67%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-65.2	-31.132 µg/L	22.7366	-31.132 ppb	22.7366	73.03%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	1.8	24.405 µg/L	8.9435	24.405 ppb	8.9435	36.65%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-364.0	-1.0825 µg/L	0.05116	-1.0825 ppb	0.05116	4.73%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-7.9	-0.7650 µg/L	0.53397	-0.7650 ppb	0.53397	69.80%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	18.1	9.5098 µg/L	14.80783	9.5098 ppb	14.80783	155.71%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	-14.1	-0.7689 µg/L	0.06100	-0.7689 ppb	0.06100	7.93%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-1.4	-2.3783 µg/L	8.59863	-2.3783 ppb	8.59863	361.54%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	7.0	1.7897 µg/L	1.51399	1.7897 ppb	1.51399	84.59%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	1.6	5.0424 µg/L	1.12054	5.0424 ppb	1.12054	22.22%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	3.9	3.2359 µg/L	4.09161	3.2359 ppb	4.09161	126.44%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-2.1	-1.9814 µg/L	6.02363	-1.9814 ppb	6.02363	304.01%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	-218.6	-38.738 µg/L	6.4080	-38.738 ppb	6.4080	16.54%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	-226.8	-15.270 µg/L	0.7973	-15.270 ppb	0.7973	5.22%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	2.9	1.0815 µg/L	1.80992	1.0815 ppb	1.80992	167.35%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-60.2	-0.3693 µg/L	0.14635	-0.3693 ppb	0.14635	39.63%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-5425.6	-12.645 µg/L	0.0300	-12.645 ppb	0.0300	0.24%	
QC value less than the lower limit for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	1.0	0.8361 µg/L	4.52643	0.8361 ppb	4.52643	541.38%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-7.7	-0.6759 µg/L	1.02098	-0.6759 ppb	1.02098	151.05%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-30.8	-0.3345 µg/L	0.26104	-0.3345 ppb	0.26104	78.04%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	8.9	0.2015 µg/L	0.33240	0.2015 ppb	0.33240	164.99%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
QC Failed. Continue with analysis.							

Sequence No.: 5

Sample ID: 1202049278|955816|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 301

Date Collected: 3/19/2010 07:19:50

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202049278|955816|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	89632.9	89632.9	102 %		07:20:23
1	Al 396.153Radial†	179.8	-30.1	-14.895 µg/L	-14.895 ppb	07:20:23
1	Ca 317.933Radial†	362.9	10.1	3.8021 µg/L	3.8021 ppb	07:20:43
1	Fe 238.204 Radial†	15.2	1.8	22.446 µg/L	22.446 ppb	07:20:43
1	K 766.490 Radial†	296.9	91.7	43.813 µg/L	43.813 ppb	07:20:23
1	Mg 279.077 IEC†	8.2	1.5	20.177 µg/L	20.177 ppb	07:20:43
1	Na 589.592 Radial†	237.1	69.0	36.314 µg/L	36.314 ppb	07:20:23
1	Sr 421.552†	144.9	-16.4	-0.1005 µg/L	-0.1005 ppb	07:20:23
1	Sc 361.383	1996688.0	1996688.0	100.58 %		07:21:45
1	Y 371.029	1361855.4	1361855.4	100.29 %		07:21:45
1	Ag 328.068†	536.5	-63.1	-0.4886 µg/L	-0.4886 ppb	07:21:51
1	As 188.979†	-2.8	-2.2	-3.1236 µg/L	-3.1236 ppb	07:22:11
1	B 249.677†	498.7	97.7	4.3668 µg/L	4.3668 ppb	07:21:51
1	Ba 233.527†	3.3	-1.2	-0.0251 µg/L	-0.0251 ppb	07:22:11
1	Be 313.107†	-1187.4	-276.1	-0.1543 µg/L	-0.1543 ppb	07:21:51
1	Cd 226.502†	-166.8	-1.5	-0.0382 µg/L	-0.0382 ppb	07:22:11
1	Co 228.616†	44.1	-5.7	-0.2124 µg/L	-0.2124 ppb	07:22:11
1	Cr 267.716†	84.1	-1.3	-0.0286 µg/L	-0.0286 ppb	07:21:51
1	Cu 324.752†	4317.6	4.4	0.0322 µg/L	0.0322 ppb	07:21:51
1	Mn 257.610†	-424.7	-146.3	-0.4344 µg/L	-0.4344 ppb	07:22:11
1	Mo 202.031†	15.1	-10.4	-1.0034 µg/L	-1.0034 ppb	07:22:11
1	Ni 231.604†	370.4	-0.1	-0.0057 µg/L	-0.0057 ppb	07:22:11
1	P 214.914†	13.5	-1.9	-3.2141 µg/L	-3.2141 ppb	07:22:11
1	Pb 220.353†	42.8	3.0	0.7616 µg/L	0.7616 ppb	07:22:11
1	S 181.975 Axial†	29.9	6.4	19.907 µg/L	19.907 ppb	07:22:11
1	Sb 206.836†	21.8	-4.8	-4.0303 µg/L	-4.0303 ppb	07:22:11
1	Se 196.026†	28.7	3.9	3.6900 µg/L	3.6900 ppb	07:22:11
1	SiO2†	3018.8	4.0	0.7170 µg/L	0.7170 ppb	07:21:51
1	Si 251.611†	727.4	10.4	0.7034 µg/L	0.7034 ppb	07:22:11
1	Sn 189.927†	9.9	8.3	3.1508 µg/L	3.1508 ppb	07:22:11
1	Ti 334.940†	-425.1	-5314.9	-12.387 µg/L	-12.387 ppb	07:21:51
1	Tl 190.801†	-31.8	2.6	2.4113 µg/L	2.4113 ppb	07:22:11
1	U 409.014†	-56.4	-39.4	-3.4593 µg/L	-3.4593 ppb	07:21:51
1	V 292.402†	-177.3	-14.5	-0.1653 µg/L	-0.1653 ppb	07:21:51
1	Zn 213.857†	953.2	34.3	0.7655 µg/L	0.7655 ppb	07:22:11
2	Sc RADIAL	89458.4	89458.4	102 %		07:20:49
2	Al 396.153Radial†	153.0	-56.1	-27.763 µg/L	-27.763 ppb	07:20:49
2	Ca 317.933Radial†	357.7	5.6	2.1194 µg/L	2.1194 ppb	07:21:09
2	Fe 238.204 Radial†	15.6	2.1	27.273 µg/L	27.273 ppb	07:21:09
2	K 766.490 Radial†	162.8	-39.2	-18.719 µg/L	-18.719 ppb	07:20:49
2	Mg 279.077 IEC†	5.9	-0.7	-9.9873 µg/L	-9.9873 ppb	07:21:09
2	Na 589.592 Radial†	227.7	60.3	31.731 µg/L	31.731 ppb	07:20:49
2	Sr 421.552†	145.4	-15.6	-0.0959 µg/L	-0.0959 ppb	07:20:49
2	Sc 361.383	1999236.7	1999236.7	100.71 %		07:22:17
2	Y 371.029	1362394.9	1362394.9	100.33 %		07:22:17
2	Ag 328.068†	577.7	-22.8	-0.1744 µg/L	-0.1744 ppb	07:22:23
2	As 188.979†	-2.6	-2.0	-2.7983 µg/L	-2.7983 ppb	07:22:44
2	B 249.677†	444.3	43.1	1.9151 µg/L	1.9151 ppb	07:22:23
2	Ba 233.527†	-2.3	-6.7	-0.1429 µg/L	-0.1429 ppb	07:22:44
2	Be 313.107†	-1237.6	-324.3	-0.1821 µg/L	-0.1821 ppb	07:22:23
2	Cd 226.502†	-173.4	-7.8	-0.1866 µg/L	-0.1866 ppb	07:22:44
2	Co 228.616†	37.3	-12.4	-0.4946 µg/L	-0.4946 ppb	07:22:44
2	Cr 267.716†	67.0	-18.5	-0.3923 µg/L	-0.3923 ppb	07:22:23
2	Cu 324.752†	4307.2	-11.4	-0.0677 µg/L	-0.0677 ppb	07:22:23
2	Mn 257.610†	-423.3	-144.4	-0.4263 µg/L	-0.4263 ppb	07:22:44
2	Mo 202.031†	12.5	-13.0	-1.2569 µg/L	-1.2569 ppb	07:22:44
2	Ni 231.604†	358.4	-12.5	-0.6825 µg/L	-0.6825 ppb	07:22:44
2	P 214.914†	21.8	6.4	11.010 µg/L	11.010 ppb	07:22:44
2	Pb 220.353†	36.9	-2.9	-0.7414 µg/L	-0.7414 ppb	07:22:44

2	S 181.975 Axial†	28.3	4.7	14.580 µg/L	14.580 ppb	07:22:44
2	Sb 206.836†	25.9	-0.7	-0.5920 µg/L	-0.5920 ppb	07:22:44
2	Se 196.026†	28.2	3.5	3.3097 µg/L	3.3097 ppb	07:22:44
2	SiO2†	3022.1	3.5	0.6232 µg/L	0.6232 ppb	07:22:23
2	Si 251.611†	734.0	16.0	1.0799 µg/L	1.0799 ppb	07:22:44
2	Sn 189.927†	13.8	12.2	4.5997 µg/L	4.5997 ppb	07:22:44
2	Ti 334.940†	-449.6	-5338.7	-12.440 µg/L	-12.440 ppb	07:22:23
2	Tl 190.801†	-28.7	5.8	5.4462 µg/L	5.4462 ppb	07:22:44
2	U 409.014†	-78.1	-60.9	-5.3386 µg/L	-5.3386 ppb	07:22:23
2	V 292.402†	-153.8	9.0	0.0808 µg/L	0.0808 ppb	07:22:23
2	Zn 213.857†	960.6	40.5	0.9091 µg/L	0.9091 ppb	07:22:44
3	Sc RADIAL	89752.6	89752.6	102 %		07:21:15
3	Al 396.153Radial†	176.4	-33.7	-16.680 µg/L	-16.680 ppb	07:21:15
3	Ca 317.933Radial†	350.1	-2.9	-1.0881 µg/L	-1.0881 ppb	07:21:35
3	Fe 238.204 Radial†	17.7	4.1	52.736 µg/L	52.736 ppb	07:21:35
3	K 766.490 Radial†	253.4	48.8	23.331 µg/L	23.331 ppb	07:21:15
3	Mg 279.077 IEC†	8.0	1.3	17.750 µg/L	17.750 ppb	07:21:35
3	Na 589.592 Radial†	229.7	61.6	32.385 µg/L	32.385 ppb	07:21:15
3	Sr 421.552†	120.3	-40.6	-0.2490 µg/L	-0.2490 ppb	07:21:15
3	Sc 361.383	2008467.9	2008467.9	101.18 %		07:22:50
3	Y 371.029	1369855.2	1369855.2	100.88 %		07:22:50
3	Ag 328.068†	547.5	-55.3	-0.4241 µg/L	-0.4241 ppb	07:22:55
3	As 188.979†	-2.4	-1.7	-2.4770 µg/L	-2.4770 ppb	07:23:16
3	B 249.677†	462.6	59.1	2.6234 µg/L	2.6234 ppb	07:22:55
3	Ba 233.527†	2.8	-1.7	-0.0367 µg/L	-0.0367 ppb	07:23:16
3	Be 313.107†	-1218.5	-299.8	-0.1681 µg/L	-0.1681 ppb	07:22:55
3	Cd 226.502†	-168.5	-2.2	-0.0572 µg/L	-0.0572 ppb	07:23:16
3	Co 228.616†	41.0	-9.0	-0.3519 µg/L	-0.3519 ppb	07:23:16
3	Cr 267.716†	91.8	5.7	0.1220 µg/L	0.1220 ppb	07:22:55
3	Cu 324.752†	4320.2	-18.2	-0.1063 µg/L	-0.1063 ppb	07:22:55
3	Mn 257.610†	-447.1	-166.0	-0.4908 µg/L	-0.4908 ppb	07:23:16
3	Mo 202.031†	17.0	-8.7	-0.8332 µg/L	-0.8332 ppb	07:23:16
3	Ni 231.604†	371.0	-1.7	-0.0930 µg/L	-0.0930 ppb	07:23:16
3	P 214.914†	16.3	0.8	1.3741 µg/L	1.3741 ppb	07:23:16
3	Pb 220.353†	43.3	3.2	0.8207 µg/L	0.8207 ppb	07:23:16
3	S 181.975 Axial†	24.8	1.1	3.3297 µg/L	3.3297 ppb	07:23:16
3	Sb 206.836†	32.0	5.2	4.3385 µg/L	4.3385 ppb	07:23:16
3	Se 196.026†	22.5	-2.3	-1.9660 µg/L	-1.9660 ppb	07:23:16
3	SiO2†	3006.1	-26.1	-4.6263 µg/L	-4.6263 ppb	07:22:55
3	Si 251.611†	742.9	21.5	1.4470 µg/L	1.4470 ppb	07:23:16
3	Sn 189.927†	5.7	4.1	1.5388 µg/L	1.5388 ppb	07:23:16
3	Ti 334.940†	-384.8	-5272.6	-12.288 µg/L	-12.288 ppb	07:22:55
3	Tl 190.801†	-35.8	-1.1	-1.1576 µg/L	-1.1576 ppb	07:23:16
3	U 409.014†	11.4	28.0	2.4457 µg/L	2.4457 ppb	07:22:55
3	V 292.402†	-156.4	7.1	0.0734 µg/L	0.0734 ppb	07:22:55
3	Zn 213.857†	956.4	31.9	0.7117 µg/L	0.7117 ppb	07:23:16

Mean Data: 1202049278|955816|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2001464.2	100.82 %		0.312			0.31%
Sc RADIAL	89614.7	102 %		0.2			0.17%
Y 371.029	1364701.8	100.50 %		0.329			0.33%
Ag 328.068†	-47.1	-0.3624 µg/L		0.16598	-0.3624 ppb	0.16598	45.81%
Al 396.153Radial†	-39.9	-19.779 µg/L		6.9714	-19.779 ppb	6.9714	35.25%
As 188.979†	-2.0	-2.7996 µg/L		0.32333	-2.7996 ppb	0.32333	11.55%
B 249.677†	66.6	2.9684 µg/L		1.26176	2.9684 ppb	1.26176	42.51%
Ba 233.527†	-3.2	-0.0682 µg/L		0.06494	-0.0682 ppb	0.06494	95.16%
Be 313.107†	-300.1	-0.1682 µg/L		0.01390	-0.1682 ppb	0.01390	8.26%
Ca 317.933Radial†	4.3	1.6112 µg/L		2.48440	1.6112 ppb	2.48440	154.20%
Cd 226.502†	-3.8	-0.0940 µg/L		0.08079	-0.0940 ppb	0.08079	85.96%
Co 228.616†	-9.0	-0.3530 µg/L		0.14109	-0.3530 ppb	0.14109	39.97%
Cr 267.716†	-4.7	-0.0997 µg/L		0.26439	-0.0997 ppb	0.26439	265.31%
Cu 324.752†	-8.4	-0.0473 µg/L		0.07148	-0.0473 ppb	0.07148	151.24%
Fe 238.204 Radial†	2.7	34.152 µg/L		16.2743	34.152 ppb	16.2743	47.65%
K 766.490 Radial†	33.8	16.142 µg/L		31.8802	16.142 ppb	31.8802	197.50%
Mg 279.077 IEC†	0.7	9.3134 µg/L		16.75883	9.3134 ppb	16.75883	179.94%
Mn 257.610†	-152.2	-0.4505 µg/L		0.03512	-0.4505 ppb	0.03512	7.80%
Mo 202.031†	-10.7	-1.0312 µg/L		0.21320	-1.0312 ppb	0.21320	20.68%
Na 589.592 Radial†	63.6	33.476 µg/L		2.4787	33.476 ppb	2.4787	7.40%

Ni 231.604†	-4.8	-0.2604 µg/L	0.36815	-0.2604 ppb	0.36815	141.37%
P 214.914†	1.8	3.0567 µg/L	7.25987	3.0567 ppb	7.25987	237.51%
Pb 220.353†	1.1	0.2803 µg/L	0.88532	0.2803 ppb	0.88532	315.85%
S 181.975 Axial†	4.0	12.606 µg/L	8.4632	12.606 ppb	8.4632	67.14%
Sb 206.836†	-0.1	-0.0946 µg/L	4.20650	-0.0946 ppb	4.20650	>999.9%
Se 196.026†	1.7	1.6779 µg/L	3.16144	1.6779 ppb	3.16144	188.42%
SiO2†	-6.2	-1.0954 µg/L	3.05824	-1.0954 ppb	3.05824	279.19%
Si 251.611†	16.0	1.0768 µg/L	0.37182	1.0768 ppb	0.37182	34.53%
Sn 189.927†	8.2	3.0964 µg/L	1.53115	3.0964 ppb	1.53115	49.45%
Sr 421.552†	-24.2	-0.1485 µg/L	0.08707	-0.1485 ppb	0.08707	58.64%
Ti 334.940†	-5308.7	-12.372 µg/L	0.0770	-12.372 ppb	0.0770	0.62%
Tl 190.801†	2.4	2.2333 µg/L	3.30549	2.2333 ppb	3.30549	148.01%
U 409.014†	-24.1	-2.1174 µg/L	4.06190	-2.1174 ppb	4.06190	191.83%
V 292.402†	0.5	-0.0037 µg/L	0.14002	-0.0037 ppb	0.14002	>999.9%
Zn 213.857†	35.6	0.7955 µg/L	0.10205	0.7955 ppb	0.10205	12.83%

Sequence No.: 6
 Sample ID: 1202049283|955816|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 302
 Date Collected: 3/19/2010 07:23:26
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 1202049283|955816|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	92873.7	92873.7	106 %			07:23:57
1	Al 396.153Radial†	205963.8	194254.2	96269 µg/L		96269 ppb	07:23:57
1	Ca 317.933Radial†	291027.1	274427.6	103180 µg/L		103180 ppb	07:23:57
1	Fe 238.204 Radial†	16315.2	15390.8	197060 µg/L		197060 ppb	07:24:17
1	K 766.490 Radial†	94420.0	88947.6	42495 µg/L		42495 ppb	07:23:57
1	Mg 279.077 IEC†	3155.4	2972.6	40461 µg/L		40461 ppb	07:24:17
1	Na 589.592 Radial†	22455.6	21038.5	11068 µg/L		11068 ppb	07:23:57
1	Sr 421.552†	420883.3	397217.8	2435.1 µg/L		2435.1 ppb	07:23:57
1	Sc 361.383	1983845.9	1983845.9	99.935 %			07:25:27
1	Y 371.029	1378813.4	1378813.4	101.54 %			07:25:27
1	Ag 328.068†	40649.2	40079.3	334.77 µg/L		334.77 ppb	07:25:27
1	As 188.979†	829.1	830.2	1150.5 µg/L		1150.5 ppb	07:25:47
1	B 249.677†	38293.5	37920.4	1601.3 µg/L		1601.3 ppb	07:25:27
1	Ba 233.527†	98214.9	98274.6	2100.3 µg/L		2100.3 ppb	07:25:27
1	Be 313.107†	1490476.3	1492354.4	857.52 µg/L		857.52 ppb	07:25:27
1	Cd 226.502†	28509.6	28692.5	650.62 µg/L		650.62 ppb	07:25:47
1	Co 228.616†	24029.5	23995.7	992.53 µg/L		992.53 ppb	07:25:47
1	Cr 267.716†	125580.1	125577.2	2669.5 µg/L		2669.5 ppb	07:25:27
1	Cu 324.752†	323180.4	319103.3	2073.5 µg/L		2073.5 ppb	07:25:27
1	Mn 257.610†	1982704.1	1984274.9	5899.2 µg/L		5899.2 ppb	07:25:27
1	Mo 202.031†	5841.0	5819.4	569.35 µg/L		569.35 ppb	07:25:47
1	Ni 231.604†	27017.5	26666.7	1454.7 µg/L		1454.7 ppb	07:25:47
1	P 214.914†	5154.6	5142.7	8526.8 µg/L		8526.8 ppb	07:25:47
1	Pb 220.353†	3611.9	3574.7	919.54 µg/L		919.54 ppb	07:25:47
1	S 181.975 Axial†	1317.6	1295.0	4056.2 µg/L		4056.2 ppb	07:25:47
1	Sb 206.836†	1605.3	1579.9	1299.8 µg/L		1299.8 ppb	07:25:47
1	Se 196.026†	3493.9	3471.6	3788.7 µg/L		3788.7 ppb	07:25:47
1	SiO2†	567084.4	564457.6	100030 µg/L		100030 ppb	07:25:27
1	Si 251.611†	688431.3	688168.2	46327 µg/L		46327 ppb	07:25:27
1	Sn 189.927†	3032.7	3033.1	1154.4 µg/L		1154.4 ppb	07:25:47
1	Ti 334.940†	2637216.9	2634047.1	6136.5 µg/L		6136.5 ppb	07:25:27
1	Tl 190.801†	1318.7	1353.8	1385.9 µg/L		1385.9 ppb	07:25:47
1	U 409.014†	-1425.7	-1409.9	-157.29 µg/L		-157.29 ppb	07:25:27
1	V 292.402†	124026.1	124268.8	1337.7 µg/L		1337.7 ppb	07:25:27
1	Zn 213.857†	289325.1	288600.7	6442.8 µg/L		6442.8 ppb	07:25:27
2	Sc RADIAL	91862.0	91862.0	105 %			07:24:23
2	Al 396.153Radial†	204473.2	194973.1	96625 µg/L		96625 ppb	07:24:23
2	Ca 317.933Radial†	289140.8	275653.3	103640 µg/L		103640 ppb	07:24:23
2	Fe 238.204 Radial†	16424.2	15664.5	200560 µg/L		200560 ppb	07:24:44
2	K 766.490 Radial†	93956.7	89487.2	42753 µg/L		42753 ppb	07:24:23
2	Mg 279.077 IEC†	3183.8	3032.6	41277 µg/L		41277 ppb	07:24:44
2	Na 589.592 Radial†	22340.1	21161.8	11132 µg/L		11132 ppb	07:24:23
2	Sr 421.552†	418986.8	399784.0	2450.8 µg/L		2450.8 ppb	07:24:23
2	Sc 361.383	1983006.4	1983006.4	99.892 %			07:25:57
2	Y 371.029	1378684.9	1378684.9	101.53 %			07:25:57
2	Ag 328.068†	40559.0	40006.2	334.47 µg/L		334.47 ppb	07:25:57
2	As 188.979†	831.7	833.2	1154.3 µg/L		1154.3 ppb	07:26:18
2	B 249.677†	38259.5	37902.5	1598.7 µg/L		1598.7 ppb	07:25:57
2	Ba 233.527†	98205.2	98306.5	2101.0 µg/L		2101.0 ppb	07:25:57
2	Be 313.107†	1488800.0	1491307.6	856.92 µg/L		856.92 ppb	07:25:57
2	Cd 226.502†	28526.3	28721.3	650.90 µg/L		650.90 ppb	07:26:18
2	Co 228.616†	24001.9	23978.3	991.81 µg/L		991.81 ppb	07:26:18
2	Cr 267.716†	125394.6	125444.6	2666.7 µg/L		2666.7 ppb	07:25:57
2	Cu 324.752†	322857.8	318917.2	2073.0 µg/L		2073.0 ppb	07:25:57
2	Mn 257.610†	1978936.0	1981342.7	5890.6 µg/L		5890.6 ppb	07:25:57
2	Mo 202.031†	5835.1	5815.9	569.14 µg/L		569.14 ppb	07:26:18
2	Ni 231.604†	26956.3	26616.9	1452.1 µg/L		1452.1 ppb	07:26:18
2	P 214.914†	5155.1	5145.4	8528.8 µg/L		8528.8 ppb	07:26:18
2	Pb 220.353†	3623.6	3587.9	923.00 µg/L		923.00 ppb	07:26:18

2	S 181.975 Axial†	1319.1	1297.2	4062.9 µg/L	4062.9 ppb	07:26:18
2	Sb 206.836†	1606.6	1581.9	1301.4 µg/L	1301.4 ppb	07:26:18
2	Se 196.026†	3506.1	3485.3	3811.9 µg/L	3811.9 ppb	07:26:18
2	SiO2†	566154.9	563767.2	99910 µg/L	99910 ppb	07:25:57
2	Si 251.611†	687191.7	687218.9	46263 µg/L	46263 ppb	07:25:57
2	Sn 189.927†	3020.5	3022.2	1150.4 µg/L	1150.4 ppb	07:26:18
2	Ti 334.940†	2633744.5	2631688.1	6130.9 µg/L	6130.9 ppb	07:25:57
2	Tl 190.801†	1318.7	1354.4	1386.8 µg/L	1386.8 ppb	07:26:18
2	U 409.014†	-1415.9	-1400.8	-157.00 µg/L	-157.00 ppb	07:25:57
2	V 292.402†	123928.0	124223.2	1337.3 µg/L	1337.3 ppb	07:25:57
2	Zn 213.857†	288852.1	288249.8	6434.8 µg/L	6434.8 ppb	07:25:57
3	Sc RADIAL	91982.5	91982.5	105 %		07:24:50
3	Al 396.153Radial†	206782.4	196918.7	97590 µg/L	97590 ppb	07:24:50
3	Ca 317.933Radial†	290325.1	276420.6	103930 µg/L	103930 ppb	07:24:50
3	Fe 238.204 Radial†	16373.9	15596.0	199690 µg/L	199690 ppb	07:25:10
3	K 766.490 Radial†	94190.8	89592.9	42804 µg/L	42804 ppb	07:24:50
3	Mg 279.077 IEC†	3167.8	3013.3	41014 µg/L	41014 ppb	07:25:10
3	Na 589.592 Radial†	22493.1	21279.7	11195 µg/L	11195 ppb	07:24:50
3	Sr 421.552†	421027.2	401205.1	2459.5 µg/L	2459.5 ppb	07:24:50
3	Sc 361.383	1976454.1	1976454.1	99.562 %		07:26:28
3	Y 371.029	1374083.7	1374083.7	101.19 %		07:26:28
3	Ag 328.068†	40094.8	39674.6	331.64 µg/L	331.64 ppb	07:26:28
3	As 188.979†	777.2	781.2	1080.0 µg/L	1080.0 ppb	07:26:49
3	B 249.677†	37652.8	37420.2	1577.4 µg/L	1577.4 ppb	07:26:28
3	Ba 233.527†	96129.9	96548.0	2063.4 µg/L	2063.4 ppb	07:26:28
3	Be 313.107†	1452674.4	1459964.2	838.92 µg/L	838.92 ppb	07:26:28
3	Cd 226.502†	27155.1	27438.8	620.91 µg/L	620.91 ppb	07:26:49
3	Co 228.616†	22662.7	22712.8	939.09 µg/L	939.09 ppb	07:26:49
3	Cr 267.716†	121530.2	121979.4	2593.0 µg/L	2593.0 ppb	07:26:28
3	Cu 324.752†	314987.5	312083.7	2029.2 µg/L	2029.2 ppb	07:26:28
3	Mn 257.610†	1933570.2	1942345.0	5774.8 µg/L	5774.8 ppb	07:26:28
3	Mo 202.031†	5503.7	5502.4	538.84 µg/L	538.84 ppb	07:26:49
3	Ni 231.604†	25514.1	25257.8	1378.0 µg/L	1378.0 ppb	07:26:49
3	P 214.914†	4882.7	4888.9	8091.8 µg/L	8091.8 ppb	07:26:49
3	Pb 220.353†	3465.3	3440.9	885.60 µg/L	885.60 ppb	07:26:49
3	S 181.975 Axial†	1275.3	1257.5	3938.6 µg/L	3938.6 ppb	07:26:49
3	Sb 206.836†	1516.3	1496.5	1230.3 µg/L	1230.3 ppb	07:26:49
3	Se 196.026†	3378.0	3368.3	3701.3 µg/L	3701.3 ppb	07:26:49
3	SiO2†	555104.8	554547.5	98276 µg/L	98276 ppb	07:26:28
3	Si 251.611†	674210.6	676461.3	45539 µg/L	45539 ppb	07:26:28
3	Sn 189.927†	2862.5	2873.5	1094.2 µg/L	1094.2 ppb	07:26:49
3	Ti 334.940†	2563575.1	2569951.0	5987.1 µg/L	5987.1 ppb	07:26:28
3	Tl 190.801†	1280.0	1319.8	1352.0 µg/L	1352.0 ppb	07:26:49
3	U 409.014†	-1362.0	-1351.3	-152.56 µg/L	-152.56 ppb	07:26:28
3	V 292.402†	120738.0	121430.4	1307.2 µg/L	1307.2 ppb	07:26:28
3	Zn 213.857†	283364.1	283696.3	6333.2 µg/L	6333.2 ppb	07:26:28

Mean Data: 1202049283|955816|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1981102.1	99.797 %	0.2039			0.20%
Sc RADIAL	92239.4	105 %	0.6			0.60%
Y 371.029	1377194.0	101.42 %	0.198			0.20%
Ag 328.068†	39920.0	333.63 µg/L	1.731	333.63 ppb	1.731	0.52%
Al 396.153Radial†	195382.0	96828 µg/L	683.6	96828 ppb	683.6	0.71%
As 188.979†	814.9	1128.3 µg/L	41.83	1128.3 ppb	41.83	3.71%
B 249.677†	37747.7	1592.5 µg/L	13.11	1592.5 ppb	13.11	0.82%
Ba 233.527†	97709.7	2088.3 µg/L	21.51	2088.3 ppb	21.51	1.03%
Be 313.107†	1481208.7	851.12 µg/L	10.573	851.12 ppb	10.573	1.24%
Ca 317.933Radial†	275500.5	103590 µg/L	378.0	103590 ppb	378.0	0.36%
Cd 226.502†	28284.2	640.81 µg/L	17.235	640.81 ppb	17.235	2.69%
Co 228.616†	23562.2	974.48 µg/L	30.647	974.48 ppb	30.647	3.14%
Cr 267.716†	124333.7	2643.1 µg/L	43.36	2643.1 ppb	43.36	1.64%
Cu 324.752†	316701.4	2058.5 µg/L	25.43	2058.5 ppb	25.43	1.24%
Fe 238.204 Radial†	15550.4	199100 µg/L	1823.1	199100 ppb	1823.1	0.92%
K 766.490 Radial†	89342.6	42684 µg/L	165.4	42684 ppb	165.4	0.39%
Mg 279.077 IEC†	3006.2	40917 µg/L	416.8	40917 ppb	416.8	1.02%
Mn 257.610†	1969320.9	5854.9 µg/L	69.46	5854.9 ppb	69.46	1.19%
Mo 202.031†	5712.6	559.11 µg/L	17.552	559.11 ppb	17.552	3.14%
Na 589.592 Radial†	21160.0	11132 µg/L	63.4	11132 ppb	63.4	0.57%

Ni 231.604†	26180.5	1428.3 µg/L	43.53	1428.3 ppb	43.53	3.05%
P 214.914†	5059.0	8382.5 µg/L	251.75	8382.5 ppb	251.75	3.00%
Pb 220.353†	3534.5	909.38 µg/L	20.670	909.38 ppb	20.670	2.27%
S 181.975 Axial†	1283.2	4019.2 µg/L	69.92	4019.2 ppb	69.92	1.74%
Sb 206.836†	1552.8	1277.2 µg/L	40.59	1277.2 ppb	40.59	3.18%
Se 196.026†	3441.7	3767.3 µg/L	58.33	3767.3 ppb	58.33	1.55%
SiO2†	560924.1	99406 µg/L	980.6	99406 ppb	980.6	0.99%
Si 251.611†	683949.5	46043 µg/L	437.7	46043 ppb	437.7	0.95%
Sn 189.927†	2976.3	1133.0 µg/L	33.64	1133.0 ppb	33.64	2.97%
Sr 421.552†	399402.3	2448.5 µg/L	12.39	2448.5 ppb	12.39	0.51%
Ti 334.940†	2611895.4	6084.8 µg/L	84.69	6084.8 ppb	84.69	1.39%
Tl 190.801†	1342.7	1374.9 µg/L	19.84	1374.9 ppb	19.84	1.44%
U 409.014†	-1387.3	-155.62 µg/L	2.650	-155.62 ppb	2.650	1.70%
V 292.402†	123307.5	1327.4 µg/L	17.49	1327.4 ppb	17.49	1.32%
Zn 213.857†	286848.9	6403.6 µg/L	61.08	6403.6 ppb	61.08	0.95%

Sequence No.: 10
 Sample ID: 247561001|955816|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 306
 Date Collected: 3/19/2010 07:37:56
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 247561001|955816|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	88548.9	88548.9	101 %			07:38:27
1	Al 396.153Radial†	53691.9	52963.0	26251 µg/L		26251 ppb	07:38:27
1	Ca 317.933Radial†	26448.0	25845.5	9717.7 µg/L		9717.7 ppb	07:38:27
1	Fe 238.204 Radial†	6119.2	6046.5	77410 µg/L		77410 ppb	07:38:47
1	K 766.490 Radial†	13567.6	13236.7	6323.9 µg/L		6323.9 ppb	07:38:27
1	Mg 279.077 IEC†	353.4	343.5	4615.2 µg/L		4615.2 ppb	07:38:47
1	Na 589.592 Radial†	5471.7	5255.6	2764.8 µg/L		2764.8 ppb	07:38:27
1	Sr 421.552†	11732.6	11460.2	70.255 µg/L		70.255 ppb	07:38:27
1	Sc 361.383	1961750.5	1961750.5	98.822 %			07:39:53
1	Y 371.029	1398231.2	1398231.2	102.97 %			07:39:53
1	Ag 328.068†	-229.0	-828.2	-0.0996 µg/L		-0.0996 ppb	07:39:58
1	As 188.979†	15.3	16.1	12.338 µg/L		12.338 ppb	07:40:19
1	B 249.677†	1028.2	642.4	-11.559 µg/L		-11.559 ppb	07:39:58
1	Ba 233.527†	17201.4	17402.0	371.60 µg/L		371.60 ppb	07:39:58
1	Be 313.107†	9149.5	10163.1	4.6510 µg/L		4.6510 ppb	07:39:58
1	Cd 226.502†	276.5	444.1	1.6639 µg/L		1.6639 ppb	07:40:19
1	Co 228.616†	426.5	382.1	9.4071 µg/L		9.4071 ppb	07:40:19
1	Cr 267.716†	1163.2	1092.0	23.243 µg/L		23.243 ppb	07:40:19
1	Cu 324.752†	6313.2	2100.3	27.956 µg/L		27.956 ppb	07:39:58
1	Mn 257.610†	784513.5	794143.5	2361.6 µg/L		2361.6 ppb	07:39:53
1	Mo 202.031†	71.7	47.1	7.4897 µg/L		7.4897 ppb	07:40:19
1	Ni 231.604†	716.7	356.9	20.437 µg/L		20.437 ppb	07:40:19
1	P 214.914†	361.3	350.3	546.77 µg/L		546.77 ppb	07:40:19
1	Pb 220.353†	247.2	210.6	57.071 µg/L		57.071 ppb	07:40:19
1	S 181.975 Axial†	179.3	158.1	495.10 µg/L		495.10 ppb	07:40:19
1	Sb 206.836†	33.5	7.4	5.8779 µg/L		5.8779 ppb	07:40:19
1	Se 196.026†	-47.4	-72.5	174.88 µg/L		174.88 ppb	07:40:19
1	Si02†	410555.6	412453.6	73095 µg/L		73095 ppb	07:39:53
1	Si 251.611†	497567.2	502787.2	33848 µg/L		33848 ppb	07:39:53
1	Sn 189.927†	24.0	22.8	9.1956 µg/L		9.1956 ppb	07:40:19
1	Ti 334.940†	1345786.7	1356941.0	3161.8 µg/L		3161.8 ppb	07:39:53
1	Tl 190.801†	-63.8	-30.3	18.487 µg/L		18.487 ppb	07:40:19
1	U 409.014†	-1733.9	-1737.9	-163.71 µg/L		-163.71 ppb	07:39:53
1	V 292.402†	5083.8	5306.1	58.941 µg/L		58.941 ppb	07:39:58
1	Zn 213.857†	16491.8	15775.0	349.28 µg/L		349.28 ppb	07:39:58
2	Sc RADIAL	87754.0	87754.0	100 %			07:38:53
2	Al 396.153Radial†	53292.8	53045.7	26292 µg/L		26292 ppb	07:38:53
2	Ca 317.933Radial†	26215.0	25849.9	9719.4 µg/L		9719.4 ppb	07:38:53
2	Fe 238.204 Radial†	6174.5	6156.6	78819 µg/L		78819 ppb	07:39:13
2	K 766.490 Radial†	13590.7	13381.5	6393.1 µg/L		6393.1 ppb	07:38:53
2	Mg 279.077 IEC†	362.7	355.8	4783.1 µg/L		4783.1 ppb	07:39:13
2	Na 589.592 Radial†	5348.6	5181.6	2725.9 µg/L		2725.9 ppb	07:38:53
2	Sr 421.552†	11664.1	11497.0	70.481 µg/L		70.481 ppb	07:38:53
2	Sc 361.383	1959597.1	1959597.1	98.713 %			07:40:26
2	Y 371.029	1393913.8	1393913.8	102.66 %			07:40:26
2	Ag 328.068†	-189.5	-788.4	0.3205 µg/L		0.3205 ppb	07:40:32
2	As 188.979†	15.1	15.9	11.846 µg/L		11.846 ppb	07:40:52
2	B 249.677†	1039.7	655.1	-11.724 µg/L		-11.724 ppb	07:40:32
2	Ba 233.527†	17227.6	17447.7	372.57 µg/L		372.57 ppb	07:40:32
2	Be 313.107†	9213.5	10238.2	4.6965 µg/L		4.6965 ppb	07:40:32
2	Cd 226.502†	281.4	449.4	1.6280 µg/L		1.6280 ppb	07:40:52
2	Co 228.616†	422.5	378.5	9.2684 µg/L		9.2684 ppb	07:40:52
2	Cr 267.716†	1140.1	1070.0	22.774 µg/L		22.774 ppb	07:40:52
2	Cu 324.752†	6255.8	2049.1	27.895 µg/L		27.895 ppb	07:40:32
2	Mn 257.610†	783082.7	793566.5	2360.0 µg/L		2360.0 ppb	07:40:26
2	Mo 202.031†	64.3	39.7	6.8264 µg/L		6.8264 ppb	07:40:52
2	Ni 231.604†	712.6	353.4	20.268 µg/L		20.268 ppb	07:40:52
2	P 214.914†	361.2	350.6	546.08 µg/L		546.08 ppb	07:40:52
2	Pb 220.353†	245.4	209.0	56.697 µg/L		56.697 ppb	07:40:52

2	S 181.975 Axial†	167.5	146.2	458.07 µg/L	458.07 ppb	07:40:52
2	Sb 206.836†	23.8	-2.3	-2.3024 µg/L	-2.3024 ppb	07:40:52
2	Se 196.026†	-44.0	-69.1	182.34 µg/L	182.34 ppb	07:40:52
2	SiO2†	410111.5	412460.2	73096 µg/L	73096 ppb	07:40:26
2	Si 251.611†	496204.2	501959.7	33792 µg/L	33792 ppb	07:40:26
2	Sn 189.927†	21.9	20.7	8.4072 µg/L	8.4072 ppb	07:40:52
2	Ti 334.940†	1341826.4	1354425.6	3155.9 µg/L	3155.9 ppb	07:40:26
2	Tl 190.801†	-69.5	-36.1	13.065 µg/L	13.065 ppb	07:40:52
2	U 409.014†	-1756.7	-1763.0	-166.10 µg/L	-166.10 ppb	07:40:26
2	V 292.402†	5116.4	5344.8	59.391 µg/L	59.391 ppb	07:40:32
2	Zn 213.857†	16570.1	15872.7	351.40 µg/L	351.40 ppb	07:40:32
3	Sc RADIAL	88170.9	88170.9	101 %		07:39:19
3	Al 396.153Radial†	53607.3	53106.7	26322 µg/L	26322 ppb	07:39:19
3	Ca 317.933Radial†	26422.3	25932.2	9750.3 µg/L	9750.3 ppb	07:39:19
3	Fe 238.204 Radial†	6169.6	6122.6	78384 µg/L	78384 ppb	07:39:39
3	K 766.490 Radial†	13601.5	13328.0	6367.6 µg/L	6367.6 ppb	07:39:19
3	Mg 279.077 IEC†	354.5	346.0	4649.1 µg/L	4649.1 ppb	07:39:39
3	Na 589.592 Radial†	5413.5	5220.9	2746.5 µg/L	2746.5 ppb	07:39:19
3	Sr 421.552†	11795.5	11572.5	70.944 µg/L	70.944 ppb	07:39:19
3	Sc 361.383	1956673.9	1956673.9	98.566 %		07:41:00
3	Y 371.029	1390241.7	1390241.7	102.38 %		07:41:00
3	Ag 328.068†	-156.8	-755.5	0.5149 µg/L	0.5149 ppb	07:41:06
3	As 188.979†	9.7	10.4	4.0464 µg/L	4.0464 ppb	07:41:26
3	B 249.677†	938.8	554.4	-16.018 µg/L	-16.018 ppb	07:41:06
3	Ba 233.527†	16346.2	16579.6	354.03 µg/L	354.03 ppb	07:41:06
3	Be 313.107†	8644.3	9674.6	4.4193 µg/L	4.4193 ppb	07:41:06
3	Cd 226.502†	215.9	383.4	0.1310 µg/L	0.1310 ppb	07:41:26
3	Co 228.616†	378.7	334.8	7.6952 µg/L	7.6952 ppb	07:41:26
3	Cr 267.716†	1016.9	946.8	20.153 µg/L	20.153 ppb	07:41:26
3	Cu 324.752†	6219.0	2021.2	27.635 µg/L	27.635 ppb	07:41:06
3	Mn 257.610†	753628.4	764868.9	2274.8 µg/L	2274.8 ppb	07:41:00
3	Mo 202.031†	66.0	41.5	6.9864 µg/L	6.9864 ppb	07:41:26
3	Ni 231.604†	675.3	316.7	18.261 µg/L	18.261 ppb	07:41:26
3	P 214.914†	324.6	314.0	483.49 µg/L	483.49 ppb	07:41:26
3	Pb 220.353†	222.2	185.9	50.794 µg/L	50.794 ppb	07:41:26
3	S 181.975 Axial†	165.1	144.1	451.22 µg/L	451.22 ppb	07:41:26
3	Sb 206.836†	29.8	3.8	2.8637 µg/L	2.8637 ppb	07:41:26
3	Se 196.026†	-39.3	-64.4	185.39 µg/L	185.39 ppb	07:41:26
3	SiO2†	398177.6	400973.5	71060 µg/L	71060 ppb	07:41:00
3	Si 251.611†	482423.7	488729.7	32901 µg/L	32901 ppb	07:41:00
3	Sn 189.927†	19.1	17.9	7.3506 µg/L	7.3506 ppb	07:41:26
3	Ti 334.940†	1287088.3	1300921.9	3031.3 µg/L	3031.3 ppb	07:41:00
3	Tl 190.801†	-63.9	-30.6	16.894 µg/L	16.894 ppb	07:41:26
3	U 409.014†	-1772.9	-1782.0	-167.71 µg/L	-167.71 ppb	07:41:00
3	V 292.402†	4729.4	4959.9	55.278 µg/L	55.278 ppb	07:41:06
3	Zn 213.857†	15727.9	15043.3	332.86 µg/L	332.86 ppb	07:41:06

Mean Data: 247561001|955816|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1959340.5	98.700 %	0.1284			0.13%
Sc RADIAL	88157.9	101 %	0.5			0.45%
Y 371.029	1394128.9	102.67 %	0.295			0.29%
Ag 328.068†	-790.7	0.2453 µg/L	0.31407	0.2453 ppb	0.31407	128.06%
Al 396.153Radial†	53038.5	26288 µg/L	35.8	26288 ppb	35.8	0.14%
As 188.979†	14.2	9.4101 µg/L	4.65159	9.4101 ppb	4.65159	49.43%
B 249.677†	617.3	-13.100 µg/L	2.5279	-13.100 ppb	2.5279	19.30%
Ba 233.527†	17143.1	366.07 µg/L	10.434	366.07 ppb	10.434	2.85%
Be 313.107†	10025.3	4.5889 µg/L	0.14867	4.5889 ppb	0.14867	3.24%
Ca 317.933Radial†	25875.9	9729.1 µg/L	18.38	9729.1 ppb	18.38	0.19%
Cd 226.502†	425.6	1.1410 µg/L	0.87483	1.1410 ppb	0.87483	76.67%
Co 228.616†	365.1	8.7902 µg/L	0.95087	8.7902 ppb	0.95087	10.82%
Cr 267.716†	1036.3	22.057 µg/L	1.6651	22.057 ppb	1.6651	7.55%
Cu 324.752†	2056.9	27.829 µg/L	0.1705	27.829 ppb	0.1705	0.61%
Fe 238.204 Radial†	6108.6	78204 µg/L	721.5	78204 ppb	721.5	0.92%
K 766.490 Radial†	13315.4	6361.5 µg/L	34.99	6361.5 ppb	34.99	0.55%
Mg 279.077 IEC†	348.4	4682.5 µg/L	88.76	4682.5 ppb	88.76	1.90%
Mn 257.610†	784193.0	2332.1 µg/L	49.67	2332.1 ppb	49.67	2.13%
Mo 202.031†	42.8	7.1008 µg/L	0.34615	7.1008 ppb	0.34615	4.87%
Na 589.592 Radial†	5219.4	2745.7 µg/L	19.47	2745.7 ppb	19.47	0.71%

Ni 231.604†	342.3	19.655 µg/L	1.2106	19.655 ppb	1.2106	6.16%
P 214.914†	338.3	525.45 µg/L	36.333	525.45 ppb	36.333	6.91%
Pb 220.353†	201.8	54.854 µg/L	3.5207	54.854 ppb	3.5207	6.42%
S 181.975 Axial†	149.5	468.13 µg/L	23.605	468.13 ppb	23.605	5.04%
Sb 206.836†	3.0	2.1464 µg/L	4.13705	2.1464 ppb	4.13705	192.74%
Se 196.026†	-68.7	180.87 µg/L	5.410	180.87 ppb	5.410	2.99%
SiO2†	408629.1	72417 µg/L	1175.0	72417 ppb	1175.0	1.62%
Si 251.611†	497825.5	33514 µg/L	531.0	33514 ppb	531.0	1.58%
Sn 189.927†	20.4	8.3178 µg/L	0.92573	8.3178 ppb	0.92573	11.13%
Sr 421.552†	11509.9	70.560 µg/L	0.3511	70.560 ppb	0.3511	0.50%
Ti 334.940†	1337429.5	3116.3 µg/L	73.73	3116.3 ppb	73.73	2.37%
Tl 190.801†	-32.3	16.149 µg/L	2.7865	16.149 ppb	2.7865	17.26%
U 409.014†	-1761.0	-165.84 µg/L	2.016	-165.84 ppb	2.016	1.22%
V 292.402†	5203.6	57.870 µg/L	2.2562	57.870 ppb	2.2562	3.90%
Zn 213.857†	15563.7	344.51 µg/L	10.149	344.51 ppb	10.149	2.95%

Sequence No.: 11
 Sample ID: 1202049279|955816|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 307
 Date Collected: 3/19/2010 07:41:36
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 1202049279|955816|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	87979.1	87979.1	100 %		07:42:06
1	Al 396.153Radial†	62944.8	62529.4	30992 µg/L	30992 ppb	07:42:06
1	Ca 317.933Radial†	35554.7	35091.5	13194 µg/L	13194 ppb	07:42:06
1	Fe 238.204 Radial†	7671.9	7633.2	97724 µg/L	97724 ppb	07:42:26
1	K 766.490 Radial†	14370.9	14124.3	6748.0 µg/L	6748.0 ppb	07:42:06
1	Mg 279.077 IEC†	427.9	420.0	5640.0 µg/L	5640.0 ppb	07:42:26
1	Na 589.592 Radial†	5347.5	5166.8	2718.1 µg/L	2718.1 ppb	07:42:06
1	Sr 421.552†	14382.0	14176.0	86.904 µg/L	86.904 ppb	07:42:06
1	Sc 361.383	1950805.4	1950805.4	98.270 %		07:43:32
1	Y 371.029	1402115.2	1402115.2	103.26 %		07:43:32
1	Ag 328.068†	-379.0	-982.1	0.3318 µg/L	0.3318 ppb	07:43:37
1	As 188.979†	9.5	10.3	1.0503 µg/L	1.0503 ppb	07:43:58
1	B 249.677†	1105.9	727.3	-18.349 µg/L	-18.349 ppb	07:43:37
1	Ba 233.527†	20314.4	20667.5	441.33 µg/L	441.33 ppb	07:43:37
1	Be 313.107†	11174.8	12276.0	5.5529 µg/L	5.5529 ppb	07:43:37
1	Cd 226.502†	362.2	532.9	1.4498 µg/L	1.4498 ppb	07:43:58
1	Co 228.616†	507.3	466.8	11.226 µg/L	11.226 ppb	07:43:58
1	Cr 267.716†	1292.9	1230.6	26.194 µg/L	26.194 ppb	07:43:58
1	Cu 324.752†	6550.3	2377.4	33.544 µg/L	33.544 ppb	07:43:37
1	Mn 257.610†	823140.8	837904.8	2492.7 µg/L	2492.7 ppb	07:43:32
1	Mo 202.031†	101.5	77.8	11.225 µg/L	11.225 ppb	07:43:58
1	Ni 231.604†	744.2	388.9	22.440 µg/L	22.440 ppb	07:43:58
1	P 214.914†	469.5	462.4	724.49 µg/L	724.49 ppb	07:43:58
1	Pb 220.353†	264.0	229.1	62.516 µg/L	62.516 ppb	07:43:58
1	S 181.975 Axial†	252.6	233.6	731.63 µg/L	731.63 ppb	07:43:58
1	Sb 206.836†	25.4	-0.6	-0.8678 µg/L	-0.8678 ppb	07:43:58
1	Se 196.026†	-75.6	-101.5	211.55 µg/L	211.55 ppb	07:43:58
1	SiO2†	441820.9	446600.1	79146 µg/L	79146 ppb	07:43:32
1	Si 251.611†	535139.7	543846.0	36612 µg/L	36612 ppb	07:43:32
1	Sn 189.927†	25.9	24.8	10.205 µg/L	10.205 ppb	07:43:58
1	Ti 334.940†	1687550.2	1712360.6	3990.0 µg/L	3990.0 ppb	07:43:32
1	Tl 190.801†	-73.6	-40.6	18.794 µg/L	18.794 ppb	07:43:58
1	U 409.014†	-2045.5	-2064.9	-195.41 µg/L	-195.41 ppb	07:43:32
1	V 292.402†	5940.4	6206.7	69.197 µg/L	69.197 ppb	07:43:37
1	Zn 213.857†	20733.5	20185.1	447.03 µg/L	447.03 ppb	07:43:37
2	Sc RADIAL	88064.1	88064.1	100 %		07:42:32
2	Al 396.153Radial†	63100.8	62624.2	31039 µg/L	31039 ppb	07:42:32
2	Ca 317.933Radial†	35683.5	35185.6	13229 µg/L	13229 ppb	07:42:32
2	Fe 238.204 Radial†	7646.5	7600.6	97306 µg/L	97306 ppb	07:42:52
2	K 766.490 Radial†	14520.5	14259.5	6812.6 µg/L	6812.6 ppb	07:42:32
2	Mg 279.077 IEC†	426.9	418.6	5621.5 µg/L	5621.5 ppb	07:42:52
2	Na 589.592 Radial†	5337.7	5151.9	2710.3 µg/L	2710.3 ppb	07:42:32
2	Sr 421.552†	14484.8	14264.6	87.447 µg/L	87.447 ppb	07:42:32
2	Sc 361.383	1960630.3	1960630.3	98.765 %		07:44:06
2	Y 371.029	1410405.3	1410405.3	103.87 %		07:44:06
2	Ag 328.068†	-368.0	-969.1	0.3976 µg/L	0.3976 ppb	07:44:11
2	As 188.979†	15.8	16.6	10.105 µg/L	10.105 ppb	07:44:32
2	B 249.677†	1113.1	728.9	-18.056 µg/L	-18.056 ppb	07:44:11
2	Ba 233.527†	20326.5	20576.1	439.37 µg/L	439.37 ppb	07:44:11
2	Be 313.107†	11238.0	12283.0	5.5594 µg/L	5.5594 ppb	07:44:11
2	Cd 226.502†	386.5	555.6	2.0272 µg/L	2.0272 ppb	07:44:32
2	Co 228.616†	494.0	450.7	10.566 µg/L	10.566 ppb	07:44:32
2	Cr 267.716†	1285.3	1216.4	25.892 µg/L	25.892 ppb	07:44:32
2	Cu 324.752†	6589.9	2384.1	33.508 µg/L	33.508 ppb	07:44:11
2	Mn 257.610†	825277.7	835871.1	2486.6 µg/L	2486.6 ppb	07:44:06
2	Mo 202.031†	95.2	70.9	10.547 µg/L	10.547 ppb	07:44:32
2	Ni 231.604†	729.7	370.4	21.432 µg/L	21.432 ppb	07:44:32
2	P 214.914†	472.8	463.4	726.59 µg/L	726.59 ppb	07:44:32
2	Pb 220.353†	255.1	218.7	59.852 µg/L	59.852 ppb	07:44:32

2	S 181.975 Axial†	256.5	236.3	740.25 µg/L	740.25 ppb	07:44:32
2	Sb 206.836†	22.8	-3.4	-3.2383 µg/L	-3.2383 ppb	07:44:32
2	Se 196.026†	-61.9	-87.2	223.43 µg/L	223.43 ppb	07:44:32
2	SiO2†	443442.7	445989.3	79038 µg/L	79038 ppb	07:44:06
2	Si 251.611†	537072.5	543074.0	36560 µg/L	36560 ppb	07:44:06
2	Sn 189.927†	23.3	22.0	9.1742 µg/L	9.1742 ppb	07:44:32
2	Ti 334.940†	1693274.5	1709551.2	3983.5 µg/L	3983.5 ppb	07:44:06
2	Tl 190.801†	-67.9	-34.5	24.485 µg/L	24.485 ppb	07:44:32
2	U 409.014†	-2001.1	-2009.4	-190.49 µg/L	-190.49 ppb	07:44:06
2	V 292.402†	5926.4	6162.2	68.710 µg/L	68.710 ppb	07:44:11
2	Zn 213.857†	20784.8	20131.3	445.85 µg/L	445.85 ppb	07:44:11
3	Sc RADIAL	87707.3	87707.3	100 %		07:42:58
3	Al 396.153Radial†	62913.0	62692.1	31073 µg/L	31073 ppb	07:42:58
3	Ca 317.933Radial†	35541.6	35188.3	13231 µg/L	13231 ppb	07:42:58
3	Fe 238.204 Radial†	7686.6	7671.7	98216 µg/L	98216 ppb	07:43:18
3	K 766.490 Radial†	14383.7	14181.6	6775.4 µg/L	6775.4 ppb	07:42:58
3	Mg 279.077 IEC†	425.0	418.4	5617.7 µg/L	5617.7 ppb	07:43:18
3	Na 589.592 Radial†	5311.3	5147.2	2707.8 µg/L	2707.8 ppb	07:42:58
3	Sr 421.552†	14405.6	14244.0	87.321 µg/L	87.321 ppb	07:42:58
3	Sc 361.383	1955279.2	1955279.2	98.496 %		07:44:39
3	Y 371.029	1404401.2	1404401.2	103.43 %		07:44:39
3	Ag 328.068†	-404.2	-1006.8	0.1481 µg/L	0.1481 ppb	07:44:45
3	As 188.979†	14.3	15.1	7.8903 µg/L	7.8903 ppb	07:45:05
3	B 249.677†	1093.2	711.7	-19.306 µg/L	-19.306 ppb	07:44:45
3	Ba 233.527†	19345.5	19636.5	419.31 µg/L	419.31 ppb	07:44:45
3	Be 313.107†	10427.3	11491.1	5.1643 µg/L	5.1643 ppb	07:44:45
3	Cd 226.502†	317.6	486.8	0.3118 µg/L	0.3118 ppb	07:45:05
3	Co 228.616†	456.5	414.0	9.3643 µg/L	9.3643 ppb	07:45:05
3	Cr 267.716†	1166.6	1099.4	23.403 µg/L	23.403 ppb	07:45:05
3	Cu 324.752†	6336.0	2144.6	32.151 µg/L	32.151 ppb	07:44:45
3	Mn 257.610†	795200.8	807621.5	2402.8 µg/L	2402.8 ppb	07:44:39
3	Mo 202.031†	82.9	58.7	9.3982 µg/L	9.3982 ppb	07:45:05
3	Ni 231.604†	703.4	345.7	20.098 µg/L	20.098 ppb	07:45:05
3	P 214.914†	435.0	426.3	662.10 µg/L	662.10 ppb	07:45:05
3	Pb 220.353†	253.2	217.5	59.553 µg/L	59.553 ppb	07:45:05
3	S 181.975 Axial†	242.8	223.1	698.65 µg/L	698.65 ppb	07:45:05
3	Sb 206.836†	29.8	3.8	2.8121 µg/L	2.8121 ppb	07:45:05
3	Se 196.026†	-57.2	-82.6	230.57 µg/L	230.57 ppb	07:45:05
3	SiO2†	429722.0	433287.8	76787 µg/L	76787 ppb	07:44:39
3	Si 251.611†	520525.0	527762.1	35529 µg/L	35529 ppb	07:44:39
3	Sn 189.927†	26.4	25.3	10.406 µg/L	10.406 ppb	07:45:05
3	Ti 334.940†	1620806.9	1640668.8	3823.0 µg/L	3823.0 ppb	07:44:39
3	Tl 190.801†	-68.0	-34.8	22.652 µg/L	22.652 ppb	07:45:05
3	U 409.014†	-1884.1	-1896.2	-180.69 µg/L	-180.69 ppb	07:44:39
3	V 292.402†	5533.9	5780.1	64.674 µg/L	64.674 ppb	07:44:45
3	Zn 213.857†	19748.9	19137.1	423.55 µg/L	423.55 ppb	07:44:45

Mean Data: 1202049279|955816|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1955571.6	98.510	%	0.2478			0.25%
Sc RADIAL	87916.9	100	%	0.2			0.21%
Y 371.029	1405640.6	103.52	%	0.315			0.30%
Ag 328.068†	-986.0	0.2925	µg/L	0.12929	0.2925 ppb	0.12929	44.20%
Al 396.153Radial†	62615.3	31035	µg/L	40.5	31035 ppb	40.5	0.13%
As 188.979†	14.0	6.3484	µg/L	4.71996	6.3484 ppb	4.71996	74.35%
B 249.677†	722.6	-18.570	µg/L	0.6538	-18.570 ppb	0.6538	3.52%
Ba 233.527†	20293.4	433.34	µg/L	12.188	433.34 ppb	12.188	2.81%
Be 313.107†	12016.7	5.4255	µg/L	0.22627	5.4255 ppb	0.22627	4.17%
Ca 317.933Radial†	35155.1	13218	µg/L	20.7	13218 ppb	20.7	0.16%
Cd 226.502†	525.1	1.2629	µg/L	0.87285	1.2629 ppb	0.87285	69.11%
Co 228.616†	443.8	10.385	µg/L	0.9438	10.385 ppb	0.9438	9.09%
Cr 267.716†	1182.2	25.163	µg/L	1.5314	25.163 ppb	1.5314	6.09%
Cu 324.752†	2302.0	33.067	µg/L	0.7942	33.067 ppb	0.7942	2.40%
Fe 238.204 Radial†	7635.2	97749	µg/L	455.3	97749 ppb	455.3	0.47%
K 766.490 Radial†	14188.5	6778.7	µg/L	32.42	6778.7 ppb	32.42	0.48%
Mg 279.077 IEC†	419.0	5626.4	µg/L	11.91	5626.4 ppb	11.91	0.21%
Mn 257.610†	827132.4	2460.7	µg/L	50.22	2460.7 ppb	50.22	2.04%
Mo 202.031†	69.1	10.390	µg/L	0.9236	10.390 ppb	0.9236	8.89%
Na 589.592 Radial†	5155.3	2712.0	µg/L	5.38	2712.0 ppb	5.38	0.20%

Ni 231.604†	368.3	21.323 µg/L	1.1748	21.323 ppb	1.1748	5.51%
P 214.914†	450.7	704.39 µg/L	36.642	704.39 ppb	36.642	5.20%
Pb 220.353†	221.8	60.641 µg/L	1.6315	60.641 ppb	1.6315	2.69%
S 181.975 Axial†	231.0	723.51 µg/L	21.956	723.51 ppb	21.956	3.03%
Sb 206.836†	-0.1	-0.4313 µg/L	3.04872	-0.4313 ppb	3.04872	706.86%
Se 196.026†	-90.5	221.85 µg/L	9.606	221.85 ppb	9.606	4.33%
SiO2†	441959.0	78323 µg/L	1331.9	78323 ppb	1331.9	1.70%
Si 251.611†	538227.4	36233 µg/L	610.7	36233 ppb	610.7	1.69%
Sn 189.927†	24.0	9.9284 µg/L	0.66078	9.9284 ppb	0.66078	6.66%
Sr 421.552†	14228.2	87.224 µg/L	0.2843	87.224 ppb	0.2843	0.33%
Ti 334.940†	1687526.8	3932.1 µg/L	94.62	3932.1 ppb	94.62	2.41%
Tl 190.801†	-36.6	21.977 µg/L	2.9053	21.977 ppb	2.9053	13.22%
U 409.014†	-1990.2	-188.86 µg/L	7.493	-188.86 ppb	7.493	3.97%
V 292.402†	6049.7	67.527 µg/L	2.4828	67.527 ppb	2.4828	3.68%
Zn 213.857†	19817.8	438.81 µg/L	13.230	438.81 ppb	13.230	3.01%

Sequence No.: 12

Sample ID: 1202049281|955816|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 308

Date Collected: 3/19/2010 07:45:15

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202049281|955816|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	89087.5	89087.5	102 %		07:45:46
1	Al 396.153Radial†	106759.9	104875.0	51970 µg/L	51970 ppb	07:45:46
1	Ca 317.933Radial†	132505.0	130076.4	48908 µg/L	48908 ppb	07:45:46
1	Fe 238.204 Radial†	7385.2	7255.9	92904 µg/L	92904 ppb	07:46:06
1	K 766.490 Radial†	28540.4	27892.8	13326 µg/L	13326 ppb	07:45:46
1	Mg 279.077 IEC†	858.6	838.6	11380 µg/L	11380 ppb	07:46:06
1	Na 589.592 Radial†	18125.8	17677.9	9299.7 µg/L	9299.7 ppb	07:45:46
1	Sr 421.552†	117935.9	115923.1	710.65 µg/L	710.65 ppb	07:45:46
1	Sc 361.383	1963588.0	1963588.0	98.914 %		07:47:12
1	Y 371.029	1422081.9	1422081.9	104.73 %		07:47:12
1	Ag 328.068†	65919.7	66046.9	523.35 µg/L	523.35 ppb	07:47:18
1	As 188.979†	394.1	399.0	552.71 µg/L	552.71 ppb	07:47:38
1	B 249.677†	12975.2	12719.5	522.60 µg/L	522.60 ppb	07:47:18
1	Ba 233.527†	45404.5	45898.4	980.89 µg/L	980.89 ppb	07:47:18
1	Be 313.107†	928374.6	939469.6	539.63 µg/L	539.63 ppb	07:47:12
1	Cd 226.502†	22370.7	22780.6	523.13 µg/L	523.13 ppb	07:47:18
1	Co 228.616†	12350.6	12436.7	512.12 µg/L	512.12 ppb	07:47:38
1	Cr 267.716†	26004.9	26205.3	557.27 µg/L	557.27 ppb	07:47:18
1	Cu 324.752†	95398.1	92157.0	605.59 µg/L	605.59 ppb	07:47:18
1	Mn 257.610†	1049149.2	1060941.2	3154.1 µg/L	3154.1 ppb	07:47:12
1	Mo 202.031†	5463.3	5497.9	534.34 µg/L	534.34 ppb	07:47:38
1	Ni 231.604†	10087.7	9830.0	536.33 µg/L	536.33 ppb	07:47:38
1	P 214.914†	810.4	804.0	1270.0 µg/L	1270.0 ppb	07:47:38
1	Pb 220.353†	2306.4	2292.1	589.56 µg/L	589.56 ppb	07:47:38
1	S 181.975 Axial†	2247.8	2249.1	7044.6 µg/L	7044.6 ppb	07:47:38
1	Sb 206.836†	628.8	609.2	511.55 µg/L	511.55 ppb	07:47:38
1	Se 196.026†	521.5	502.6	745.63 µg/L	745.63 ppb	07:47:38
1	SiO2†	515666.0	518329.1	91858 µg/L	91858 ppb	07:47:12
1	Si 251.611†	625120.7	631269.6	42497 µg/L	42497 ppb	07:47:12
1	Sn 189.927†	1395.6	1409.4	536.46 µg/L	536.46 ppb	07:47:38
1	Ti 334.940†	1866964.1	1882564.8	4386.7 µg/L	4386.7 ppb	07:47:12
1	Tl 190.801†	476.4	515.9	551.25 µg/L	551.25 ppb	07:47:38
1	U 409.014†	4204.3	4267.2	358.19 µg/L	358.19 ppb	07:47:18
1	V 292.402†	54274.6	55032.1	593.88 µg/L	593.88 ppb	07:47:18
1	Zn 213.857†	42250.7	41801.1	927.90 µg/L	927.90 ppb	07:47:18
2	Sc RADIAL	88700.4	88700.4	101 %		07:46:12
2	Al 396.153Radial†	106146.8	104727.5	51896 µg/L	51896 ppb	07:46:12
2	Ca 317.933Radial†	131647.7	129798.0	48803 µg/L	48803 ppb	07:46:12
2	Fe 238.204 Radial†	7371.0	7273.6	93130 µg/L	93130 ppb	07:46:32
2	K 766.490 Radial†	28361.6	27838.7	13300 µg/L	13300 ppb	07:46:12
2	Mg 279.077 IEC†	861.6	845.2	11471 µg/L	11471 ppb	07:46:32
2	Na 589.592 Radial†	18150.9	17780.5	9353.7 µg/L	9353.7 ppb	07:46:12
2	Sr 421.552†	117800.9	116296.2	712.94 µg/L	712.94 ppb	07:46:12
2	Sc 361.383	1960111.8	1960111.8	98.739 %		07:47:46
2	Y 371.029	1419639.5	1419639.5	104.55 %		07:47:46
2	Ag 328.068†	65859.6	66104.2	523.82 µg/L	523.82 ppb	07:47:52
2	As 188.979†	383.5	389.0	538.39 µg/L	538.39 ppb	07:48:12
2	B 249.677†	12948.0	12715.2	522.30 µg/L	522.30 ppb	07:47:52
2	Ba 233.527†	45537.8	46114.8	985.51 µg/L	985.51 ppb	07:47:52
2	Be 313.107†	924616.2	937327.7	538.40 µg/L	538.40 ppb	07:47:46
2	Cd 226.502†	22344.6	22794.2	523.42 µg/L	523.42 ppb	07:47:52
2	Co 228.616†	12259.7	12366.7	509.21 µg/L	509.21 ppb	07:48:12
2	Cr 267.716†	26062.7	26310.6	559.50 µg/L	559.50 ppb	07:47:52
2	Cu 324.752†	95264.7	92193.0	605.86 µg/L	605.86 ppb	07:47:52
2	Mn 257.610†	1045952.1	1059584.4	3150.1 µg/L	3150.1 ppb	07:47:46
2	Mo 202.031†	5440.3	5484.3	533.05 µg/L	533.05 ppb	07:48:12
2	Ni 231.604†	10028.0	9787.7	534.03 µg/L	534.03 ppb	07:48:12
2	P 214.914†	811.2	806.3	1273.7 µg/L	1273.7 ppb	07:48:12
2	Pb 220.353†	2294.0	2283.8	587.42 µg/L	587.42 ppb	07:48:12

2	S 181.975 Axial†	2241.7	2246.9	7037.7 µg/L	7037.7 ppb	07:48:12
2	Sb 206.836†	623.4	604.9	507.89 µg/L	507.89 ppb	07:48:12
2	Se 196.026†	524.3	506.5	749.84 µg/L	749.84 ppb	07:48:12
2	SiO2†	513466.3	517025.8	91627 µg/L	91627 ppb	07:47:46
2	Si 251.611†	622400.7	629635.7	42387 µg/L	42387 ppb	07:47:46
2	Sn 189.927†	1379.6	1395.7	531.27 µg/L	531.27 ppb	07:48:12
2	Ti 334.940†	1859861.3	1878718.6	4377.8 µg/L	4377.8 ppb	07:47:46
2	Tl 190.801†	478.3	518.7	553.87 µg/L	553.87 ppb	07:48:12
2	U 409.014†	4232.5	4303.2	361.33 µg/L	361.33 ppb	07:47:52
2	V 292.402†	54398.8	55255.1	596.26 µg/L	596.26 ppb	07:47:52
2	Zn 213.857†	42354.0	41981.4	931.93 µg/L	931.93 ppb	07:47:52
3	Sc RADIAL	88969.4	88969.4	101 %		07:46:38
3	Al 396.153Radial†	106715.9	104971.0	52018 µg/L	52018 ppb	07:46:38
3	Ca 317.933Radial†	131331.5	129092.8	48538 µg/L	48538 ppb	07:46:38
3	Fe 238.204 Radial†	7379.3	7259.7	92952 µg/L	92952 ppb	07:46:58
3	K 766.490 Radial†	28277.4	27670.9	13220 µg/L	13220 ppb	07:46:38
3	Mg 279.077 IEC†	855.9	837.0	11358 µg/L	11358 ppb	07:46:58
3	Na 589.592 Radial†	18162.7	17737.9	9331.3 µg/L	9331.3 ppb	07:46:38
3	Sr 421.552†	117781.5	115925.0	710.66 µg/L	710.66 ppb	07:46:38
3	Sc 361.383	1963288.7	1963288.7	98.899 %		07:48:20
3	Y 371.029	1418413.6	1418413.6	104.46 %		07:48:20
3	Ag 328.068†	64491.6	64613.0	512.03 µg/L	512.03 ppb	07:48:25
3	As 188.979†	366.6	371.2	513.10 µg/L	513.10 ppb	07:48:46
3	B 249.677†	12620.0	12362.3	506.52 µg/L	506.52 ppb	07:48:25
3	Ba 233.527†	43415.9	43894.7	938.06 µg/L	938.06 ppb	07:48:25
3	Be 313.107†	896380.0	907261.9	521.14 µg/L	521.14 ppb	07:48:20
3	Cd 226.502†	21526.6	21930.6	503.19 µg/L	503.19 ppb	07:48:25
3	Co 228.616†	11315.7	11392.2	468.68 µg/L	468.68 ppb	07:48:46
3	Cr 267.716†	24562.0	24750.4	526.33 µg/L	526.33 ppb	07:48:25
3	Cu 324.752†	90805.6	87528.1	576.06 µg/L	576.06 ppb	07:48:25
3	Mn 257.610†	1017238.6	1028837.1	3058.8 µg/L	3058.8 ppb	07:48:20
3	Mo 202.031†	5033.1	5063.7	492.42 µg/L	492.42 ppb	07:48:46
3	Ni 231.604†	9280.4	9015.3	491.98 µg/L	491.98 ppb	07:48:46
3	P 214.914†	743.2	736.1	1155.6 µg/L	1155.6 ppb	07:48:46
3	Pb 220.353†	2170.3	2154.9	554.54 µg/L	554.54 ppb	07:48:46
3	S 181.975 Axial†	2127.1	2127.4	6663.3 µg/L	6663.3 ppb	07:48:46
3	Sb 206.836†	582.9	562.9	472.46 µg/L	472.46 ppb	07:48:46
3	Se 196.026†	502.2	483.3	727.98 µg/L	727.98 ppb	07:48:46
3	SiO2†	499622.8	502186.8	88997 µg/L	88997 ppb	07:48:20
3	Si 251.611†	605494.9	611521.7	41168 µg/L	41168 ppb	07:48:20
3	Sn 189.927†	1268.0	1280.6	487.79 µg/L	487.79 ppb	07:48:46
3	Ti 334.940†	1797893.2	1813012.9	4224.7 µg/L	4224.7 ppb	07:48:20
3	Tl 190.801†	454.7	494.0	528.63 µg/L	528.63 ppb	07:48:46
3	U 409.014†	4005.2	4066.4	340.61 µg/L	340.61 ppb	07:48:25
3	V 292.402†	51460.1	52194.6	563.31 µg/L	563.31 ppb	07:48:25
3	Zn 213.857†	40603.9	40142.5	890.99 µg/L	890.99 ppb	07:48:25

Mean Data: 1202049281|955816|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1962329.5	98.851 %		0.0970			0.10%
Sc RADIAL	88919.1	101 %		0.2			0.22%
Y 371.029	1420045.0	104.58 %		0.138			0.13%
Ag 328.068†	65588.0	519.73 µg/L		6.677	519.73 ppb	6.677	1.28%
Al 396.153Radial†	104857.8	51961 µg/L		61.2	51961 ppb	61.2	0.12%
As 188.979†	386.4	534.74 µg/L		20.058	534.74 ppb	20.058	3.75%
B 249.677†	12599.0	517.14 µg/L		9.200	517.14 ppb	9.200	1.78%
Ba 233.527†	45302.7	968.15 µg/L		26.165	968.15 ppb	26.165	2.70%
Be 313.107†	928019.7	533.06 µg/L		10.341	533.06 ppb	10.341	1.94%
Ca 317.933Radial†	129655.7	48750 µg/L		190.6	48750 ppb	190.6	0.39%
Cd 226.502†	22501.8	516.58 µg/L		11.598	516.58 ppb	11.598	2.25%
Co 228.616†	12065.2	496.67 µg/L		24.283	496.67 ppb	24.283	4.89%
Cr 267.716†	25755.4	547.70 µg/L		18.542	547.70 ppb	18.542	3.39%
Cu 324.752†	90626.0	595.83 µg/L		17.129	595.83 ppb	17.129	2.87%
Fe 238.204 Radial†	7263.1	92995 µg/L		119.1	92995 ppb	119.1	0.13%
K 766.490 Radial†	27800.8	13282 µg/L		55.3	13282 ppb	55.3	0.42%
Mg 279.077 IEC†	840.3	11403 µg/L		60.0	11403 ppb	60.0	0.53%
Mn 257.610†	1049787.6	3121.0 µg/L		53.90	3121.0 ppb	53.90	1.73%
Mo 202.031†	5348.6	519.94 µg/L		23.837	519.94 ppb	23.837	4.58%
Na 589.592 Radial†	17732.1	9328.2 µg/L		27.12	9328.2 ppb	27.12	0.29%

Ni 231.604†	9544.3	520.78 µg/L	24.968	520.78 ppb	24.968	4.79%
P 214.914†	782.1	1233.1 µg/L	67.16	1233.1 ppb	67.16	5.45%
Pb 220.353†	2243.6	577.17 µg/L	19.631	577.17 ppb	19.631	3.40%
S 181.975 Axial†	2207.8	6915.2 µg/L	218.15	6915.2 ppb	218.15	3.15%
Sb 206.836†	592.4	497.30 µg/L	21.590	497.30 ppb	21.590	4.34%
Se 196.026†	497.4	741.15 µg/L	11.596	741.15 ppb	11.596	1.56%
SiO2†	512513.9	90827 µg/L	1589.2	90827 ppb	1589.2	1.75%
Si 251.611†	624142.3	42017 µg/L	737.8	42017 ppb	737.8	1.76%
Sn 189.927†	1361.9	518.51 µg/L	26.728	518.51 ppb	26.728	5.15%
Sr 421.552†	116048.1	711.42 µg/L	1.317	711.42 ppb	1.317	0.19%
Ti 334.940†	1858098.8	4329.7 µg/L	91.10	4329.7 ppb	91.10	2.10%
Tl 190.801†	509.5	544.58 µg/L	13.879	544.58 ppb	13.879	2.55%
U 409.014†	4212.3	353.38 µg/L	11.167	353.38 ppb	11.167	3.16%
V 292.402†	54160.6	584.48 µg/L	18.376	584.48 ppb	18.376	3.14%
Zn 213.857†	41308.3	916.94 µg/L	22.563	916.94 ppb	22.563	2.46%

Sequence No.: 13
 Sample ID: 1202049282|955816|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 309
 Date Collected: 3/19/2010 07:48:55
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 1202049282|955816|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	88934.4	88934.4	101 %		07:49:26
1	Al 396.153Radial†	116947.1	115100.1	57038 µg/L	57038 ppb	07:49:26
1	Ca 317.933Radial†	50056.8	49009.4	18427 µg/L	18427 ppb	07:49:26
1	Fe 238.204 Radial†	7648.8	7528.3	96392 µg/L	96392 ppb	07:49:46
1	K 766.490 Radial†	28366.2	27769.4	13267 µg/L	13267 ppb	07:49:26
1	Mg 279.077 IEC†	889.4	870.4	11811 µg/L	11811 ppb	07:49:46
1	Na 589.592 Radial†	15333.5	14955.4	7867.5 µg/L	7867.5 ppb	07:49:26
1	Sr 421.552†	99502.1	97947.8	600.46 µg/L	600.46 ppb	07:49:26
1	Sc 361.383	1970234.5	1970234.5	99.249 %		07:50:52
1	Y 371.029	1425807.0	1425807.0	105.00 %		07:50:52
1	Ag 328.068†	64952.9	64847.9	514.28 µg/L	514.28 ppb	07:50:58
1	As 188.979†	386.9	390.4	543.70 µg/L	543.70 ppb	07:51:18
1	B 249.677†	12574.9	12271.9	500.71 µg/L	500.71 ppb	07:50:58
1	Ba 233.527†	44387.3	44718.7	955.69 µg/L	955.69 ppb	07:50:58
1	Be 313.107†	922717.6	930603.6	534.44 µg/L	534.44 ppb	07:50:52
1	Cd 226.502†	22128.8	22460.5	515.24 µg/L	515.24 ppb	07:50:58
1	Co 228.616†	12380.7	12424.9	511.18 µg/L	511.18 ppb	07:51:18
1	Cr 267.716†	25710.0	25819.6	549.06 µg/L	549.06 ppb	07:50:58
1	Cu 324.752†	93056.8	89472.6	589.11 µg/L	589.11 ppb	07:50:58
1	Mn 257.610†	884397.8	891365.2	2650.9 µg/L	2650.9 ppb	07:50:52
1	Mo 202.031†	5408.6	5424.1	527.36 µg/L	527.36 ppb	07:51:18
1	Ni 231.604†	10114.9	9823.0	536.00 µg/L	536.00 ppb	07:51:18
1	P 214.914†	726.7	716.9	1120.5 µg/L	1120.5 ppb	07:51:18
1	Pb 220.353†	2313.4	2291.3	589.83 µg/L	589.83 ppb	07:51:18
1	S 181.975 Axial†	1946.5	1937.9	6069.7 µg/L	6069.7 ppb	07:51:18
1	Sb 206.836†	625.5	603.8	507.40 µg/L	507.40 ppb	07:51:18
1	Se 196.026†	511.8	491.1	748.91 µg/L	748.91 ppb	07:51:18
1	SiO2†	473656.9	474243.4	84045 µg/L	84045 ppb	07:50:52
1	Si 251.611†	573948.9	577578.7	38882 µg/L	38882 ppb	07:50:52
1	Sn 189.927†	1411.5	1420.6	537.74 µg/L	537.74 ppb	07:51:18
1	Ti 334.940†	1962313.6	1972268.5	4595.3 µg/L	4595.3 ppb	07:50:52
1	Tl 190.801†	462.4	500.1	542.74 µg/L	542.74 ppb	07:51:18
1	U 409.014†	3938.2	3984.7	334.80 µg/L	334.80 ppb	07:50:58
1	V 292.402†	53991.4	54561.6	588.90 µg/L	588.90 ppb	07:50:58
1	Zn 213.857†	42016.4	41421.0	919.23 µg/L	919.23 ppb	07:50:58
2	Sc RADIAL	89453.4	89453.4	102 %		07:49:52
2	Al 396.153Radial†	117334.5	114810.9	56894 µg/L	56894 ppb	07:49:52
2	Ca 317.933Radial†	50419.4	49078.6	18453 µg/L	18453 ppb	07:49:52
2	Fe 238.204 Radial†	7646.5	7482.4	95803 µg/L	95803 ppb	07:50:12
2	K 766.490 Radial†	28690.2	27924.8	13341 µg/L	13341 ppb	07:49:52
2	Mg 279.077 IEC†	887.3	863.3	11715 µg/L	11715 ppb	07:50:12
2	Na 589.592 Radial†	15443.0	14975.1	7877.9 µg/L	7877.9 ppb	07:49:52
2	Sr 421.552†	100373.5	98232.8	602.20 µg/L	602.20 ppb	07:49:52
2	Sc 361.383	1964522.6	1964522.6	98.961 %		07:51:26
2	Y 371.029	1421811.1	1421811.1	104.71 %		07:51:26
2	Ag 328.068†	65353.8	65443.3	518.89 µg/L	518.89 ppb	07:51:32
2	As 188.979†	377.8	382.4	532.27 µg/L	532.27 ppb	07:51:52
2	B 249.677†	12653.7	12388.3	506.24 µg/L	506.24 ppb	07:51:32
2	Ba 233.527†	44485.6	44948.0	960.60 µg/L	960.60 ppb	07:51:32
2	Be 313.107†	920843.4	931412.8	534.91 µg/L	534.91 ppb	07:51:26
2	Cd 226.502†	22225.9	22623.5	519.12 µg/L	519.12 ppb	07:51:32
2	Co 228.616†	12296.7	12376.3	509.14 µg/L	509.14 ppb	07:51:52
2	Cr 267.716†	25871.8	26058.4	554.14 µg/L	554.14 ppb	07:51:32
2	Cu 324.752†	93754.1	90449.8	595.24 µg/L	595.24 ppb	07:51:32
2	Mn 257.610†	882011.0	891544.1	2651.4 µg/L	2651.4 ppb	07:51:26
2	Mo 202.031†	5377.2	5408.2	525.80 µg/L	525.80 ppb	07:51:52
2	Ni 231.604†	10047.3	9784.3	533.89 µg/L	533.89 ppb	07:51:52
2	P 214.914†	718.9	711.2	1110.4 µg/L	1110.4 ppb	07:51:52
2	Pb 220.353†	2320.9	2305.7	593.46 µg/L	593.46 ppb	07:51:52

2	S 181.975 Axial†	1935.2	1932.1	6051.7 µg/L	6051.7 ppb	07:51:52
2	Sb 206.836†	619.6	599.6	503.87 µg/L	503.87 ppb	07:51:52
2	Se 196.026†	537.4	518.5	772.38 µg/L	772.38 ppb	07:51:52
2	SiO2†	471381.4	473331.6	83883 µg/L	83883 ppb	07:51:26
2	Si 251.611†	571365.5	576649.6	38820 µg/L	38820 ppb	07:51:26
2	Sn 189.927†	1411.2	1424.5	539.20 µg/L	539.20 ppb	07:51:52
2	Ti 334.940†	1957549.3	1973202.9	4597.5 µg/L	4597.5 ppb	07:51:26
2	Tl 190.801†	465.9	505.0	547.37 µg/L	547.37 ppb	07:51:52
2	U 409.014†	3947.7	4005.8	336.74 µg/L	336.74 ppb	07:51:32
2	V 292.402†	54393.0	55125.6	594.87 µg/L	594.87 ppb	07:51:32
2	Zn 213.857†	42275.3	41805.7	927.88 µg/L	927.88 ppb	07:51:32
3	Sc RADIAL	89136.1	89136.1	102 %		07:50:18
3	Al 396.153Radial†	117800.1	115678.3	57325 µg/L	57325 ppb	07:50:18
3	Ca 317.933Radial†	50471.4	49305.6	18539 µg/L	18539 ppb	07:50:18
3	Fe 238.204 Radial†	7714.4	7575.8	96998 µg/L	96998 ppb	07:50:38
3	K 766.490 Radial†	28664.1	27999.2	13377 µg/L	13377 ppb	07:50:18
3	Mg 279.077 IEC†	886.0	865.1	11738 µg/L	11738 ppb	07:50:38
3	Na 589.592 Radial†	15505.8	15090.8	7938.7 µg/L	7938.7 ppb	07:50:18
3	Sr 421.552†	100489.9	98697.5	605.05 µg/L	605.05 ppb	07:50:18
3	Sc 361.383	1964327.6	1964327.6	98.952 %		07:52:00
3	Y 371.029	1417156.9	1417156.9	104.37 %		07:52:00
3	Ag 328.068†	63890.2	63970.7	507.35 µg/L	507.35 ppb	07:52:05
3	As 188.979†	351.9	356.2	494.79 µg/L	494.79 ppb	07:52:26
3	B 249.677†	12283.7	12015.7	488.86 µg/L	488.86 ppb	07:52:05
3	Ba 233.527†	42647.6	43095.1	920.99 µg/L	920.99 ppb	07:52:05
3	Be 313.107†	888193.0	898508.8	516.01 µg/L	516.01 ppb	07:52:00
3	Cd 226.502†	21362.1	21752.8	498.57 µg/L	498.57 ppb	07:52:05
3	Co 228.616†	11266.4	11336.3	465.90 µg/L	465.90 ppb	07:52:26
3	Cr 267.716†	24336.1	24509.0	521.20 µg/L	521.20 ppb	07:52:05
3	Cu 324.752†	89475.1	86134.9	567.93 µg/L	567.93 ppb	07:52:05
3	Mn 257.610†	854319.2	863647.4	2568.6 µg/L	2568.6 ppb	07:52:00
3	Mo 202.031†	4951.0	4978.1	484.31 µg/L	484.31 ppb	07:52:26
3	Ni 231.604†	9255.9	8985.5	490.42 µg/L	490.42 ppb	07:52:26
3	P 214.914†	662.5	654.2	1013.7 µg/L	1013.7 ppb	07:52:26
3	Pb 220.353†	2170.5	2153.9	554.77 µg/L	554.77 ppb	07:52:26
3	S 181.975 Axial†	1828.9	1824.8	5715.7 µg/L	5715.7 ppb	07:52:26
3	Sb 206.836†	577.8	557.5	468.27 µg/L	468.27 ppb	07:52:26
3	Se 196.026†	491.7	472.4	733.62 µg/L	733.62 ppb	07:52:26
3	SiO2†	458732.7	460596.2	81626 µg/L	81626 ppb	07:52:00
3	Si 251.611†	555665.7	560840.8	37756 µg/L	37756 ppb	07:52:00
3	Sn 189.927†	1295.4	1307.6	495.08 µg/L	495.08 ppb	07:52:26
3	Ti 334.940†	1887008.9	1902111.4	4431.8 µg/L	4431.8 ppb	07:52:00
3	Tl 190.801†	431.7	470.5	512.82 µg/L	512.82 ppb	07:52:26
3	U 409.014†	3772.4	3829.1	321.07 µg/L	321.07 ppb	07:52:05
3	V 292.402†	51427.0	52133.6	562.70 µg/L	562.70 ppb	07:52:05
3	Zn 213.857†	40579.5	40096.1	889.76 µg/L	889.76 ppb	07:52:05

Mean Data: 1202049282|955816|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1966361.6	99.054 %		0.1690			0.17%
Sc RADIAL	89174.6	102 %		0.3			0.29%
Y 371.029	1421591.7	104.69 %		0.319			0.30%
Ag 328.068†	64754.0	513.51 µg/L		5.809	513.51 ppb	5.809	1.13%
Al 396.153Radial†	115196.5	57086 µg/L		219.4	57086 ppb	219.4	0.38%
As 188.979†	376.3	523.59 µg/L		25.583	523.59 ppb	25.583	4.89%
B 249.677†	12225.3	498.60 µg/L		8.879	498.60 ppb	8.879	1.78%
Ba 233.527†	44253.9	945.76 µg/L		21.595	945.76 ppb	21.595	2.28%
Be 313.107†	920175.1	528.45 µg/L		10.777	528.45 ppb	10.777	2.04%
Ca 317.933Radial†	49131.2	18473 µg/L		58.3	18473 ppb	58.3	0.32%
Cd 226.502†	22279.0	510.98 µg/L		10.921	510.98 ppb	10.921	2.14%
Co 228.616†	12045.8	495.41 µg/L		25.575	495.41 ppb	25.575	5.16%
Cr 267.716†	25462.3	541.47 µg/L		17.738	541.47 ppb	17.738	3.28%
Cu 324.752†	88685.8	584.09 µg/L		14.331	584.09 ppb	14.331	2.45%
Fe 238.204 Radial†	7528.8	96397 µg/L		597.5	96397 ppb	597.5	0.62%
K 766.490 Radial†	27897.8	13328 µg/L		56.0	13328 ppb	56.0	0.42%
Mg 279.077 IEC†	866.2	11755 µg/L		50.3	11755 ppb	50.3	0.43%
Mn 257.610†	882185.6	2623.6 µg/L		47.63	2623.6 ppb	47.63	1.82%
Mo 202.031†	5270.1	512.49 µg/L		24.412	512.49 ppb	24.412	4.76%
Na 589.592 Radial†	15007.1	7894.7 µg/L		38.47	7894.7 ppb	38.47	0.49%

Ni 231.604†	9530.9	520.10 µg/L	25.728	520.10 ppb	25.728	4.95%
P 214.914†	694.1	1081.6 µg/L	58.95	1081.6 ppb	58.95	5.45%
Pb 220.353†	2250.3	579.35 µg/L	21.363	579.35 ppb	21.363	3.69%
S 181.975 Axial†	1898.3	5945.7 µg/L	199.40	5945.7 ppb	199.40	3.35%
Sb 206.836†	587.0	493.18 µg/L	21.648	493.18 ppb	21.648	4.39%
Se 196.026†	494.0	751.64 µg/L	19.523	751.64 ppb	19.523	2.60%
SiO2†	469390.4	83185 µg/L	1352.1	83185 ppb	1352.1	1.63%
Si 251.611†	571689.7	38486 µg/L	633.3	38486 ppb	633.3	1.65%
Sn 189.927†	1384.2	524.01 µg/L	25.067	524.01 ppb	25.067	4.78%
Sr 421.552†	98292.7	602.57 µg/L	2.320	602.57 ppb	2.320	0.39%
Ti 334.940†	1949194.3	4541.5 µg/L	95.02	4541.5 ppb	95.02	2.09%
Tl 190.801†	491.9	534.31 µg/L	18.752	534.31 ppb	18.752	3.51%
U 409.014†	3939.9	330.87 µg/L	8.542	330.87 ppb	8.542	2.58%
V 292.402†	53940.3	582.16 µg/L	17.114	582.16 ppb	17.114	2.94%
Zn 213.857†	41107.6	912.29 µg/L	19.981	912.29 ppb	19.981	2.19%

Sequence No.: 14
 Sample ID: CCV
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 7
 Date Collected: 3/19/2010 07:52:35
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	89022.7	89022.7	102 %			07:53:10
1	Al 396.153Radial†	10484.6	10121.2	5005.6 µg/L	5005.6 ppb	5005.6 ppb	07:53:10
1	Ca 317.933Radial†	14073.1	13517.0	5082.3 µg/L	5082.3 ppb	5082.3 ppb	07:53:10
1	Fe 238.204 Radial†	418.4	399.0	5119.0 µg/L	5119.0 ppb	5119.0 ppb	07:53:30
1	K 766.490 Radial†	11173.3	10806.8	5163.0 µg/L	5163.0 ppb	5163.0 ppb	07:53:10
1	Mg 279.077 IEC†	384.9	372.6	5100.1 µg/L	5100.1 ppb	5100.1 ppb	07:53:30
1	Na 589.592 Radial†	19898.9	19437.3	10225 µg/L	10225 ppb	10225 ppb	07:53:10
1	Sr 421.552†	84451.2	83025.4	508.98 µg/L	508.98 ppb	508.98 ppb	07:53:10
1	Sc 361.383	1988414.5	1988414.5	100.16 %			07:54:34
1	Y 371.029	1356436.5	1356436.5	99.895 %			07:54:34
1	Ag 328.068†	66612.4	65906.3	515.04 µg/L	515.04 ppb	515.04 ppb	07:54:39
1	As 188.979†	365.6	365.6	521.08 µg/L	521.08 ppb	521.08 ppb	07:55:00
1	B 249.677†	11763.6	11346.1	506.78 µg/L	506.78 ppb	506.78 ppb	07:54:39
1	Ba 233.527†	24047.1	24003.1	513.34 µg/L	513.34 ppb	513.34 ppb	07:54:39
1	Be 313.107†	893866.0	893299.2	514.50 µg/L	514.50 ppb	514.50 ppb	07:54:34
1	Cd 226.502†	21801.4	21929.8	513.12 µg/L	513.12 ppb	513.12 ppb	07:54:39
1	Co 228.616†	12431.9	12362.0	517.08 µg/L	517.08 ppb	517.08 ppb	07:54:39
1	Cr 267.716†	24476.2	24350.9	517.81 µg/L	517.81 ppb	517.81 ppb	07:54:39
1	Cu 324.752†	85307.6	80879.0	517.11 µg/L	517.11 ppb	517.11 ppb	07:54:39
1	Mn 257.610†	176068.2	176054.3	522.57 µg/L	522.57 ppb	522.57 ppb	07:54:34
1	Mo 202.031†	5534.3	5499.8	531.20 µg/L	531.20 ppb	531.20 ppb	07:55:00
1	Ni 231.604†	9864.2	9479.6	516.10 µg/L	516.10 ppb	516.10 ppb	07:54:39
1	P 214.914†	1523.8	1505.9	2544.3 µg/L	2544.3 ppb	2544.3 ppb	07:55:00
1	Pb 220.353†	2082.8	2039.8	520.25 µg/L	520.25 ppb	520.25 ppb	07:55:00
1	S 181.975 Axial†	357.3	333.3	1043.9 µg/L	1043.9 ppb	1043.9 ppb	07:55:00
1	Sb 206.836†	661.3	633.7	533.16 µg/L	533.16 ppb	533.16 ppb	07:55:00
1	Se 196.026†	577.4	551.9	521.07 µg/L	521.07 ppb	521.07 ppb	07:55:00
1	SiO2†	34063.6	31010.3	5495.6 µg/L	5495.6 ppb	5495.6 ppb	07:54:39
1	Si 251.611†	39036.8	38259.8	2575.6 µg/L	2575.6 ppb	2575.6 ppb	07:54:39
1	Sn 189.927†	1402.5	1398.7	528.54 µg/L	528.54 ppb	528.54 ppb	07:55:00
1	Ti 334.940†	224847.4	219585.1	511.37 µg/L	511.37 ppb	511.37 ppb	07:54:34
1	Tl 190.801†	510.9	544.3	527.60 µg/L	527.60 ppb	527.60 ppb	07:55:00
1	U 409.014†	5870.5	5877.5	514.24 µg/L	514.24 ppb	514.24 ppb	07:54:39
1	V 292.402†	48329.4	48411.6	520.61 µg/L	520.61 ppb	520.61 ppb	07:54:39
1	Zn 213.857†	24121.8	23168.7	515.30 µg/L	515.30 ppb	515.30 ppb	07:54:39
2	Sc RADIAL	88862.7	88862.7	101 %			07:53:36
2	Al 396.153Radial†	10427.5	10083.5	4987.0 µg/L	4987.0 ppb	4987.0 ppb	07:53:36
2	Ca 317.933Radial†	13992.5	13462.4	5061.8 µg/L	5061.8 ppb	5061.8 ppb	07:53:36
2	Fe 238.204 Radial†	420.3	401.6	5152.1 µg/L	5152.1 ppb	5152.1 ppb	07:53:56
2	K 766.490 Radial†	11064.8	10719.6	5121.4 µg/L	5121.4 ppb	5121.4 ppb	07:53:36
2	Mg 279.077 IEC†	388.9	377.2	5162.9 µg/L	5162.9 ppb	5162.9 ppb	07:53:56
2	Na 589.592 Radial†	19861.9	19436.1	10225 µg/L	10225 ppb	10225 ppb	07:53:36
2	Sr 421.552†	84056.4	82785.8	507.51 µg/L	507.51 ppb	507.51 ppb	07:53:36
2	Sc 361.383	1986641.2	1986641.2	100.08 %			07:55:07
2	Y 371.029	1353063.9	1353063.9	99.647 %			07:55:07
2	Ag 328.068†	66524.1	65877.4	514.81 µg/L	514.81 ppb	514.81 ppb	07:55:13
2	As 188.979†	357.2	357.5	509.52 µg/L	509.52 ppb	509.52 ppb	07:55:33
2	B 249.677†	11722.4	11315.5	505.39 µg/L	505.39 ppb	505.39 ppb	07:55:13
2	Ba 233.527†	23973.9	23951.4	512.24 µg/L	512.24 ppb	512.24 ppb	07:55:13
2	Be 313.107†	893291.8	893522.0	514.63 µg/L	514.63 ppb	514.63 ppb	07:55:07
2	Cd 226.502†	21901.4	22049.2	515.91 µg/L	515.91 ppb	515.91 ppb	07:55:13
2	Co 228.616†	12358.6	12299.8	514.47 µg/L	514.47 ppb	514.47 ppb	07:55:13
2	Cr 267.716†	24494.5	24391.0	518.66 µg/L	518.66 ppb	518.66 ppb	07:55:13
2	Cu 324.752†	85181.0	80828.5	516.79 µg/L	516.79 ppb	516.79 ppb	07:55:13
2	Mn 257.610†	175722.4	175865.7	522.01 µg/L	522.01 ppb	522.01 ppb	07:55:07
2	Mo 202.031†	5444.3	5414.7	522.98 µg/L	522.98 ppb	522.98 ppb	07:55:33
2	Ni 231.604†	9871.5	9495.7	516.98 µg/L	516.98 ppb	516.98 ppb	07:55:13
2	P 214.914†	1516.2	1499.7	2533.5 µg/L	2533.5 ppb	2533.5 ppb	07:55:33
2	Pb 220.353†	2071.9	2030.8	517.94 µg/L	517.94 ppb	517.94 ppb	07:55:33

2	S 181.975 Axial†	351.6	327.9	1027.2 µg/L	1027.2 ppb	07:55:33
2	Sb 206.836†	637.2	610.2	513.35 µg/L	513.35 ppb	07:55:33
2	Se 196.026†	588.4	563.4	531.76 µg/L	531.76 ppb	07:55:33
2	SiO2†	34070.7	31047.7	5502.2 µg/L	5502.2 ppb	07:55:13
2	Si 251.611†	38948.9	38206.8	2572.1 µg/L	2572.1 ppb	07:55:13
2	Sn 189.927†	1383.1	1380.5	521.69 µg/L	521.69 ppb	07:55:33
2	Ti 334.940†	224782.4	219720.5	511.68 µg/L	511.68 ppb	07:55:07
2	Tl 190.801†	504.7	538.6	522.17 µg/L	522.17 ppb	07:55:33
2	U 409.014†	5826.8	5839.0	510.87 µg/L	510.87 ppb	07:55:13
2	V 292.402†	48095.8	48221.2	518.52 µg/L	518.52 ppb	07:55:13
2	Zn 213.857†	24075.4	23143.9	514.73 µg/L	514.73 ppb	07:55:13
3	Sc RADIAL	89882.9	89882.9	103 %		07:54:02
3	Al 396.153Radial†	10492.0	10029.6	4962.2 µg/L	4962.2 ppb	07:54:02
3	Ca 317.933Radial†	14171.7	13480.4	5068.5 µg/L	5068.5 ppb	07:54:02
3	Fe 238.204 Radial†	423.7	400.2	5132.9 µg/L	5132.9 ppb	07:54:22
3	K 766.490 Radial†	11217.0	10744.1	5133.1 µg/L	5133.1 ppb	07:54:02
3	Mg 279.077 IEC†	390.7	374.6	5126.5 µg/L	5126.5 ppb	07:54:22
3	Na 589.592 Radial†	20046.4	19393.6	10202 µg/L	10202 ppb	07:54:02
3	Sr 421.552†	84999.2	82764.0	507.37 µg/L	507.37 ppb	07:54:02
3	Sc 361.383	1990619.1	1990619.1	100.28 %		07:55:40
3	Y 371.029	1356873.3	1356873.3	99.927 %		07:55:40
3	Ag 328.068†	63022.5	62252.6	486.35 µg/L	486.35 ppb	07:55:46
3	As 188.979†	309.4	309.1	440.46 µg/L	440.46 ppb	07:56:07
3	B 249.677†	11007.6	10579.2	472.30 µg/L	472.30 ppb	07:55:46
3	Ba 233.527†	21984.5	21919.6	468.77 µg/L	468.77 ppb	07:55:46
3	Be 313.107†	835535.1	834140.6	480.43 µg/L	480.43 ppb	07:55:40
3	Cd 226.502†	19884.7	19994.3	467.77 µg/L	467.77 ppb	07:55:46
3	Co 228.616†	11161.8	11081.6	463.45 µg/L	463.45 ppb	07:55:46
3	Cr 267.716†	21655.5	21510.9	457.43 µg/L	457.43 ppb	07:55:46
3	Cu 324.752†	77727.7	73225.6	468.27 µg/L	468.27 ppb	07:55:46
3	Mn 257.610†	164771.4	164593.9	488.55 µg/L	488.55 ppb	07:55:40
3	Mo 202.031†	4535.3	4497.4	434.41 µg/L	434.41 ppb	07:56:07
3	Ni 231.604†	8914.9	8521.9	463.97 µg/L	463.97 ppb	07:55:46
3	P 214.914†	1282.9	1264.0	2131.3 µg/L	2131.3 ppb	07:56:07
3	Pb 220.353†	1802.1	1757.6	448.23 µg/L	448.23 ppb	07:56:07
3	S 181.975 Axial†	310.7	286.4	897.08 µg/L	897.08 ppb	07:56:07
3	Sb 206.836†	552.3	524.3	440.71 µg/L	440.71 ppb	07:56:07
3	Se 196.026†	514.6	488.6	462.77 µg/L	462.77 ppb	07:56:07
3	SiO2†	31943.2	28858.0	5114.2 µg/L	5114.2 ppb	07:55:46
3	Si 251.611†	36384.1	35571.2	2394.6 µg/L	2394.6 ppb	07:55:46
3	Sn 189.927†	1131.6	1127.0	425.97 µg/L	425.97 ppb	07:56:07
3	Ti 334.940†	209039.9	203572.4	474.05 µg/L	474.05 ppb	07:55:40
3	Tl 190.801†	444.9	477.9	463.55 µg/L	463.55 ppb	07:56:07
3	U 409.014†	5191.4	5193.8	454.30 µg/L	454.30 ppb	07:55:46
3	V 292.402†	43345.9	43388.3	466.26 µg/L	466.26 ppb	07:55:46
3	Zn 213.857†	21938.5	20964.7	466.24 µg/L	466.24 ppb	07:55:46

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1988558.3	100.17 %	0.100			0.10%
Sc RADIAL	89256.1	102 %	0.6			0.61%
Y 371.029	1355457.9	99.823 %	0.1535			0.15%
Ag 328.068†	64678.8	505.40 µg/L	16.499	505.40 ppb	16.499	3.26%
QC value within limits for Ag 328.068 Recovery = 101.08%						
Al 396.153Radial†	10078.1	4984.9 µg/L	21.79	4984.9 ppb	21.79	0.44%
QC value within limits for Al 396.153Radial Recovery = 99.70%						
As 188.979†	344.1	490.35 µg/L	43.595	490.35 ppb	43.595	8.89%
QC value within limits for As 188.979 Recovery = 98.07%						
B 249.677†	11080.2	494.82 µg/L	19.520	494.82 ppb	19.520	3.94%
QC value within limits for B 249.677 Recovery = 98.96%						
Ba 233.527†	23291.4	498.12 µg/L	25.421	498.12 ppb	25.421	5.10%
QC value within limits for Ba 233.527 Recovery = 99.62%						
Be 313.107†	873653.9	503.19 µg/L	19.708	503.19 ppb	19.708	3.92%
QC value within limits for Be 313.107 Recovery = 100.64%						
Ca 317.933Radial†	13486.6	5070.9 µg/L	10.45	5070.9 ppb	10.45	0.21%
QC value within limits for Ca 317.933Radial Recovery = 101.42%						
Cd 226.502†	21324.5	498.93 µg/L	27.023	498.93 ppb	27.023	5.42%
QC value within limits for Cd 226.502 Recovery = 99.79%						
Co 228.616†	11914.5	498.33 µg/L	30.235	498.33 ppb	30.235	6.07%

QC value within limits for Co 228.616 Recovery = 99.67%						
Cr 267.716†	23417.6	497.97 µg/L	35.112	497.97 ppb	35.112	7.05%
QC value within limits for Cr 267.716 Recovery = 99.59%						
Cu 324.752†	78311.0	500.72 µg/L	28.107	500.72 ppb	28.107	5.61%
QC value within limits for Cu 324.752 Recovery = 100.14%						
Fe 238.204 Radial†	400.2	5134.7 µg/L	16.63	5134.7 ppb	16.63	0.32%
QC value within limits for Fe 238.204 Radial Recovery = 102.69%						
K 766.490 Radial†	10756.8	5139.2 µg/L	21.49	5139.2 ppb	21.49	0.42%
QC value within limits for K 766.490 Radial Recovery = 102.78%						
Mg 279.077 IEC†	374.8	5129.8 µg/L	31.50	5129.8 ppb	31.50	0.61%
QC value within limits for Mg 279.077 IEC Recovery = 102.60%						
Mn 257.610†	172171.3	511.04 µg/L	19.482	511.04 ppb	19.482	3.81%
QC value within limits for Mn 257.610 Recovery = 102.21%						
Mo 202.031†	5137.3	496.20 µg/L	53.664	496.20 ppb	53.664	10.82%
QC value within limits for Mo 202.031 Recovery = 99.24%						
Na 589.592 Radial†	19422.3	10217 µg/L	13.1	10217 ppb	13.1	0.13%
QC value within limits for Na 589.592 Radial Recovery = 102.17%						
Ni 231.604†	9165.7	499.02 µg/L	30.354	499.02 ppb	30.354	6.08%
QC value within limits for Ni 231.604 Recovery = 99.80%						
P 214.914†	1423.2	2403.0 µg/L	235.38	2403.0 ppb	235.38	9.80%
QC value within limits for P 214.914 Recovery = 96.12%						
Pb 220.353†	1942.7	495.47 µg/L	40.933	495.47 ppb	40.933	8.26%
QC value within limits for Pb 220.353 Recovery = 99.09%						
S 181.975 Axial†	315.9	989.38 µg/L	80.370	989.38 ppb	80.370	8.12%
QC value within limits for S 181.975 Axial Recovery = 98.94%						
Sb 206.836†	589.4	495.74 µg/L	48.674	495.74 ppb	48.674	9.82%
QC value within limits for Sb 206.836 Recovery = 99.15%						
Se 196.026†	534.6	505.20 µg/L	37.130	505.20 ppb	37.130	7.35%
QC value within limits for Se 196.026 Recovery = 101.04%						
SiO2†	30305.3	5370.7 µg/L	222.15	5370.7 ppb	222.15	4.14%
QC value within limits for SiO2 Recovery = 100.43%						
Si 251.611†	37345.9	2514.1 µg/L	103.48	2514.1 ppb	103.48	4.12%
QC value within limits for Si 251.611 Recovery = 100.56%						
Sn 189.927†	1302.0	492.07 µg/L	57.340	492.07 ppb	57.340	11.65%
QC value within limits for Sn 189.927 Recovery = 98.41%						
Sr 421.552†	82858.4	507.95 µg/L	0.889	507.95 ppb	0.889	0.18%
QC value within limits for Sr 421.552 Recovery = 101.59%						
Ti 334.940†	214292.7	499.03 µg/L	21.635	499.03 ppb	21.635	4.34%
QC value within limits for Ti 334.940 Recovery = 99.81%						
Tl 190.801†	520.3	504.44 µg/L	35.514	504.44 ppb	35.514	7.04%
QC value within limits for Tl 190.801 Recovery = 100.89%						
U 409.014†	5636.8	493.14 µg/L	33.674	493.14 ppb	33.674	6.83%
QC value within limits for U 409.014 Recovery = 98.63%						
V 292.402†	46673.7	501.80 µg/L	30.790	501.80 ppb	30.790	6.14%
QC value within limits for V 292.402 Recovery = 100.36%						
Zn 213.857†	22425.8	498.76 µg/L	28.163	498.76 ppb	28.163	5.65%
QC value within limits for Zn 213.857 Recovery = 99.75%						
All analyte(s) passed QC.						

Sequence No.: 15
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 8
 Date Collected: 3/19/2010 07:56:17
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	88487.4	88487.4	101 %		07:56:47
1	Al 396.153Radial†	236.9	28.7	14.217 µg/L	14.217 ppb	07:56:47
1	Ca 317.933Radial†	328.8	-19.1	-7.1706 µg/L	-7.1706 ppb	07:57:07
1	Fe 238.204 Radial†	13.9	0.7	8.4696 µg/L	8.4696 ppb	07:57:07
1	K 766.490 Radial†	198.3	-2.2	-1.0629 µg/L	-1.0629 ppb	07:56:47
1	Mg 279.077 IEC†	11.3	4.6	63.393 µg/L	63.393 ppb	07:57:07
1	Na 589.592 Radial†	181.9	17.4	9.1573 µg/L	9.1573 ppb	07:56:47
1	Sr 421.552†	173.3	13.6	0.0833 µg/L	0.0833 ppb	07:56:47
1	Sc 361.383	1962248.5	1962248.5	98.847 %		07:58:09
1	Y 371.029	1342652.3	1342652.3	98.880 %		07:58:09
1	Ag 328.068†	510.1	-80.4	-0.6238 µg/L	-0.6238 ppb	07:58:15
1	As 188.979†	-1.8	-1.2	-1.6962 µg/L	-1.6962 ppb	07:58:35
1	B 249.677†	439.8	46.8	2.0922 µg/L	2.0922 ppb	07:58:15
1	Ba 233.527†	-4.5	-9.0	-0.1931 µg/L	-0.1931 ppb	07:58:35
1	Be 313.107†	-1146.1	-255.0	-0.1423 µg/L	-0.1423 ppb	07:58:15
1	Cd 226.502†	-174.4	-12.1	-0.2838 µg/L	-0.2838 ppb	07:58:35
1	Co 228.616†	30.1	-19.0	-0.7694 µg/L	-0.7694 ppb	07:58:35
1	Cr 267.716†	84.5	0.5	0.0099 µg/L	0.0099 ppb	07:58:15
1	Cu 324.752†	4251.2	12.5	0.0815 µg/L	0.0815 ppb	07:58:15
1	Mn 257.610†	-659.3	-391.1	-1.1647 µg/L	-1.1647 ppb	07:58:35
1	Mo 202.031†	37.6	12.6	1.2160 µg/L	1.2160 ppb	07:58:35
1	Ni 231.604†	377.8	13.8	0.7542 µg/L	0.7542 ppb	07:58:35
1	P 214.914†	18.5	3.4	5.8440 µg/L	5.8440 ppb	07:58:35
1	Pb 220.353†	32.6	-6.6	-1.6820 µg/L	-1.6820 ppb	07:58:35
1	S 181.975 Axial†	22.0	-1.2	-3.6305 µg/L	-3.6305 ppb	07:58:35
1	Sb 206.836†	33.0	6.9	5.8058 µg/L	5.8058 ppb	07:58:35
1	Se 196.026†	22.7	-1.6	-1.4884 µg/L	-1.4884 ppb	07:58:35
1	SiO2†	2844.9	-119.2	-21.127 µg/L	-21.127 ppb	07:58:15
1	Si 251.611†	533.7	-172.9	-11.639 µg/L	-11.639 ppb	07:58:35
1	Sn 189.927†	12.8	11.4	4.3026 µg/L	4.3026 ppb	07:58:35
1	Ti 334.940†	-266.4	-5161.8	-12.034 µg/L	-12.034 ppb	07:58:15
1	Tl 190.801†	-43.1	-9.4	-9.1186 µg/L	-9.1186 ppb	07:58:35
1	U 409.014†	-17.1	-0.6	-0.0562 µg/L	-0.0562 ppb	07:58:15
1	V 292.402†	-165.5	-5.8	-0.0518 µg/L	-0.0518 ppb	07:58:15
1	Zn 213.857†	932.7	30.2	0.6697 µg/L	0.6697 ppb	07:58:35
2	Sc RADIAL	88589.9	88589.9	101 %		07:57:13
2	Al 396.153Radial†	198.5	-9.6	-4.7672 µg/L	-4.7672 ppb	07:57:13
2	Ca 317.933Radial†	330.9	-17.4	-6.5449 µg/L	-6.5449 ppb	07:57:33
2	Fe 238.204 Radial†	15.3	2.0	26.050 µg/L	26.050 ppb	07:57:33
2	K 766.490 Radial†	172.1	-28.4	-13.550 µg/L	-13.550 ppb	07:57:13
2	Mg 279.077 IEC†	7.1	0.5	6.5556 µg/L	6.5556 ppb	07:57:33
2	Na 589.592 Radial†	206.2	41.2	21.680 µg/L	21.680 ppb	07:57:13
2	Sr 421.552†	91.3	-67.8	-0.4154 µg/L	-0.4154 ppb	07:57:13
2	Sc 361.383	1964739.5	1964739.5	98.972 %		07:58:41
2	Y 371.029	1342043.1	1342043.1	98.835 %		07:58:41
2	Ag 328.068†	546.7	-44.1	-0.3393 µg/L	-0.3393 ppb	07:58:47
2	As 188.979†	-1.0	-0.4	-0.5664 µg/L	-0.5664 ppb	07:59:07
2	B 249.677†	426.1	32.4	1.4373 µg/L	1.4373 ppb	07:58:47
2	Ba 233.527†	-15.7	-20.3	-0.4342 µg/L	-0.4342 ppb	07:59:07
2	Be 313.107†	-1149.8	-257.2	-0.1435 µg/L	-0.1435 ppb	07:58:47
2	Cd 226.502†	-164.7	-2.1	-0.0517 µg/L	-0.0517 ppb	07:59:07
2	Co 228.616†	30.6	-18.5	-0.7494 µg/L	-0.7494 ppb	07:59:07
2	Cr 267.716†	74.9	-9.3	-0.1974 µg/L	-0.1974 ppb	07:58:47
2	Cu 324.752†	4200.3	-44.3	-0.2777 µg/L	-0.2777 ppb	07:58:47
2	Mn 257.610†	-649.3	-380.1	-1.1273 µg/L	-1.1273 ppb	07:59:07
2	Mo 202.031†	29.1	4.0	0.3865 µg/L	0.3865 ppb	07:59:07
2	Ni 231.604†	355.8	-8.9	-0.4830 µg/L	-0.4830 ppb	07:59:07
2	P 214.914†	11.5	-3.7	-6.2733 µg/L	-6.2733 ppb	07:59:07
2	Pb 220.353†	27.6	-11.6	-2.9684 µg/L	-2.9684 ppb	07:59:07

2	S 181.975 Axial†	18.6	-4.7	-14.611 µg/L	-14.611 ppb	07:59:07
2	Sb 206.836†	27.3	1.1	0.9594 µg/L	0.9594 ppb	07:59:07
2	Se 196.026†	29.3	5.0	4.7172 µg/L	4.7172 ppb	07:59:07
2	SiO2†	2805.6	-162.6	-28.808 µg/L	-28.808 ppb	07:58:47
2	Si 251.611†	543.6	-163.5	-11.008 µg/L	-11.008 ppb	07:59:07
2	Sn 189.927†	7.1	5.7	2.1367 µg/L	2.1367 ppb	07:59:07
2	Ti 334.940†	-409.5	-5306.0	-12.365 µg/L	-12.365 ppb	07:58:47
2	Tl 190.801†	-32.9	1.0	0.8234 µg/L	0.8234 ppb	07:59:07
2	U 409.014†	19.0	35.9	3.1425 µg/L	3.1425 ppb	07:58:47
2	V 292.402†	-147.6	12.5	0.1399 µg/L	0.1399 ppb	07:58:47
2	Zn 213.857†	925.9	22.2	0.4973 µg/L	0.4973 ppb	07:59:07
3	Sc RADIAL	88736.3	88736.3	101 %		07:57:39
3	Al 396.153Radial†	176.8	-31.3	-15.533 µg/L	-15.533 ppb	07:57:39
3	Ca 317.933Radial†	330.9	-18.0	-6.7653 µg/L	-6.7653 ppb	07:57:59
3	Fe 238.204 Radial†	15.2	1.8	23.500 µg/L	23.500 ppb	07:57:59
3	K 766.490 Radial†	145.4	-55.1	-26.312 µg/L	-26.312 ppb	07:57:39
3	Mg 279.077 IEC†	7.7	1.1	15.155 µg/L	15.155 ppb	07:57:59
3	Na 589.592 Radial†	166.5	1.6	0.8359 µg/L	0.8359 ppb	07:57:39
3	Sr 421.552†	155.3	-4.7	-0.0285 µg/L	-0.0285 ppb	07:57:39
3	Sc 361.383	1946503.9	1946503.9	98.054 %		07:59:13
3	Y 371.029	1329233.0	1329233.0	97.892 %		07:59:13
3	Ag 328.068†	543.1	-42.5	-0.3278 µg/L	-0.3278 ppb	07:59:19
3	As 188.979†	-0.7	-0.1	-0.1027 µg/L	-0.1027 ppb	07:59:39
3	B 249.677†	394.4	4.1	0.1700 µg/L	0.1700 ppb	07:59:19
3	Ba 233.527†	-3.5	-8.0	-0.1718 µg/L	-0.1718 ppb	07:59:39
3	Be 313.107†	-1090.9	-208.1	-0.1152 µg/L	-0.1152 ppb	07:59:19
3	Cd 226.502†	-170.2	-9.2	-0.2192 µg/L	-0.2192 ppb	07:59:39
3	Co 228.616†	34.1	-14.7	-0.5914 µg/L	-0.5914 ppb	07:59:39
3	Cr 267.716†	81.7	-1.6	-0.0343 µg/L	-0.0343 ppb	07:59:19
3	Cu 324.752†	4189.3	-15.7	-0.0961 µg/L	-0.0961 ppb	07:59:19
3	Mn 257.610†	-662.1	-399.3	-1.1850 µg/L	-1.1850 ppb	07:59:39
3	Mo 202.031†	24.1	-0.8	-0.0785 µg/L	-0.0785 ppb	07:59:39
3	Ni 231.604†	354.0	-7.4	-0.4041 µg/L	-0.4041 ppb	07:59:39
3	P 214.914†	13.5	-1.6	-2.7057 µg/L	-2.7057 ppb	07:59:39
3	Pb 220.353†	37.9	-0.9	-0.2259 µg/L	-0.2259 ppb	07:59:39
3	S 181.975 Axial†	25.8	2.9	9.0332 µg/L	9.0332 ppb	07:59:39
3	Sb 206.836†	28.1	2.2	1.8123 µg/L	1.8123 ppb	07:59:39
3	Se 196.026†	23.5	-0.6	-0.4766 µg/L	-0.4766 ppb	07:59:39
3	SiO2†	2845.2	-95.5	-16.931 µg/L	-16.931 ppb	07:59:19
3	Si 251.611†	538.7	-163.3	-10.996 µg/L	-10.996 ppb	07:59:39
3	Sn 189.927†	4.4	2.9	1.1078 µg/L	1.1078 ppb	07:59:39
3	Ti 334.940†	-340.6	-5239.6	-12.211 µg/L	-12.211 ppb	07:59:19
3	Tl 190.801†	-36.8	-3.3	-3.2622 µg/L	-3.2622 ppb	07:59:39
3	U 409.014†	-64.4	-49.0	-4.2975 µg/L	-4.2975 ppb	07:59:19
3	V 292.402†	-155.2	3.4	0.0322 µg/L	0.0322 ppb	07:59:19
3	Zn 213.857†	958.5	64.2	1.4374 µg/L	1.4374 ppb	07:59:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1957830.6	98.624 %	0.4981			0.51%
Sc RADIAL	88604.5	101 %	0.1			0.14%
Y 371.029	1337976.1	98.536 %	0.5581			0.57%
Ag 328.068†	-55.7	-0.4303 µg/L	0.16764	-0.4303 ppb	0.16764	38.96%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-4.1	-2.0277 µg/L	15.06285	-2.0277 ppb	15.06285	742.85%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-0.5	-0.7884 µg/L	0.81961	-0.7884 ppb	0.81961	103.96%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	27.7	1.2332 µg/L	0.97721	1.2332 ppb	0.97721	79.24%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-12.5	-0.2663 µg/L	0.14574	-0.2663 ppb	0.14574	54.72%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-240.1	-0.1337 µg/L	0.01598	-0.1337 ppb	0.01598	11.96%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-18.2	-6.8269 µg/L	0.31734	-6.8269 ppb	0.31734	4.65%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-7.8	-0.1849 µg/L	0.11979	-0.1849 ppb	0.11979	64.78%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-17.4	-0.7034 µg/L	0.09750	-0.7034 ppb	0.09750	13.86%

QC value within limits for Co 228.616	Recovery = Not calculated		
Cr 267.716†	-3.5 -0.0739 µg/L	0.10919 -0.0739 ppb	0.10919 147.70%
QC value within limits for Cr 267.716	Recovery = Not calculated		
Cu 324.752†	-15.8 -0.0974 µg/L	0.17963 -0.0974 ppb	0.17963 184.40%
QC value within limits for Cu 324.752	Recovery = Not calculated		
Fe 238.204 Radial†	1.5 19.340 µg/L	9.4998 19.340 ppb	9.4998 49.12%
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
K 766.490 Radial†	-28.6 -13.641 µg/L	12.6247 -13.641 ppb	12.6247 92.55%
QC value within limits for K 766.490 Radial	Recovery = Not calculated		
Mg 279.077 IEC†	2.1 28.368 µg/L	30.6359 28.368 ppb	30.6359 107.99%
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
Mn 257.610†	-390.2 -1.1590 µg/L	0.02931 -1.1590 ppb	0.02931 2.53%
QC value within limits for Mn 257.610	Recovery = Not calculated		
Mo 202.031†	5.3 0.5080 µg/L	0.65578 0.5080 ppb	0.65578 129.09%
QC value within limits for Mo 202.031	Recovery = Not calculated		
Na 589.592 Radial†	20.1 10.558 µg/L	10.4926 10.558 ppb	10.4926 99.38%
QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
Ni 231.604†	-0.8 -0.0443 µg/L	0.69270 -0.0443 ppb	0.69270 >999.9%
QC value within limits for Ni 231.604	Recovery = Not calculated		
P 214.914†	-0.6 -1.0450 µg/L	6.22699 -1.0450 ppb	6.22699 595.89%
QC value within limits for P 214.914	Recovery = Not calculated		
Pb 220.353†	-6.4 -1.6254 µg/L	1.37215 -1.6254 ppb	1.37215 84.42%
QC value within limits for Pb 220.353	Recovery = Not calculated		
S 181.975 Axial†	-1.0 -3.0694 µg/L	11.83208 -3.0694 ppb	11.83208 385.48%
QC value within limits for S 181.975 Axial	Recovery = Not calculated		
Sb 206.836†	3.4 2.8592 µg/L	2.58726 2.8592 ppb	2.58726 90.49%
QC value within limits for Sb 206.836	Recovery = Not calculated		
Se 196.026†	0.9 0.9174 µg/L	3.32938 0.9174 ppb	3.32938 362.91%
QC value within limits for Se 196.026	Recovery = Not calculated		
SiO2†	-125.8 -22.289 µg/L	6.0232 -22.289 ppb	6.0232 27.02%
QC value within limits for SiO2	Recovery = Not calculated		
Si 251.611†	-166.6 -11.214 µg/L	0.3676 -11.214 ppb	0.3676 3.28%
QC value within limits for Si 251.611	Recovery = Not calculated		
Sn 189.927†	6.7 2.5157 µg/L	1.63077 2.5157 ppb	1.63077 64.82%
QC value within limits for Sn 189.927	Recovery = Not calculated		
Sr 421.552†	-19.6 -0.1202 µg/L	0.26171 -0.1202 ppb	0.26171 217.72%
QC value within limits for Sr 421.552	Recovery = Not calculated		
Ti 334.940†	-5235.8 -12.203 µg/L	0.1659 -12.203 ppb	0.1659 1.36%
QC value less than the lower limit for Ti 334.940	Recovery = Not calculated		
Tl 190.801†	-3.9 -3.8525 µg/L	4.99718 -3.8525 ppb	4.99718 129.71%
QC value within limits for Tl 190.801	Recovery = Not calculated		
U 409.014†	-4.6 -0.4037 µg/L	3.73217 -0.4037 ppb	3.73217 924.45%
QC value within limits for U 409.014	Recovery = Not calculated		
V 292.402†	3.4 0.0401 µg/L	0.09606 0.0401 ppb	0.09606 239.49%
QC value within limits for V 292.402	Recovery = Not calculated		
Zn 213.857†	38.9 0.8681 µg/L	0.50048 0.8681 ppb	0.50048 57.65%
QC value within limits for Zn 213.857	Recovery = Not calculated		
QC Failed. Continue with analysis.			

Sequence No.: 16

Sample ID: 1202049280|955816|5

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 310

Date Collected: 3/19/2010 07:59:49

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202049280|955816|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	87755.0	87755.0	100 %		08:00:23
1	Al 396.153Radial†	10635.1	10420.8	5165.0 µg/L	5165.0 ppb	08:00:23
1	Ca 317.933Radial†	5419.7	5070.5	1906.5 µg/L	1906.5 ppb	08:00:23
1	Fe 238.204 Radial†	1226.4	1212.3	15520 µg/L	15520 ppb	08:00:43
1	K 766.490 Radial†	2667.0	2466.2	1178.2 µg/L	1178.2 ppb	08:00:23
1	Mg 279.077 IEC†	73.3	66.7	895.79 µg/L	895.79 ppb	08:00:43
1	Na 589.592 Radial†	1196.4	1032.6	543.22 µg/L	543.22 ppb	08:00:23
1	Sr 421.552†	2374.2	2214.2	13.574 µg/L	13.574 ppb	08:00:23
1	Sc 361.383	1978722.7	1978722.7	99.677 %		08:01:46
1	Y 371.029	1359306.5	1359306.5	100.11 %		08:01:46
1	Ag 328.068†	440.2	-154.8	0.0673 µg/L	0.0673 ppb	08:01:52
1	As 188.979†	-1.7	-1.1	-3.7031 µg/L	-3.7031 ppb	08:02:12
1	B 249.677†	512.3	115.9	-2.8970 µg/L	-2.8970 ppb	08:02:12
1	Ba 233.527†	3352.7	3359.1	71.730 µg/L	71.730 ppb	08:02:12
1	Be 313.107†	868.9	1776.3	0.7890 µg/L	0.7890 ppb	08:01:52
1	Cd 226.502†	-80.4	83.7	0.2077 µg/L	0.2077 ppb	08:02:12
1	Co 228.616†	113.4	64.3	1.4075 µg/L	1.4075 ppb	08:02:12
1	Cr 267.716†	303.7	219.7	4.6762 µg/L	4.6762 ppb	08:02:12
1	Cu 324.752†	4580.2	306.8	4.8759 µg/L	4.8759 ppb	08:01:52
1	Mn 257.610†	156005.5	156787.5	466.27 µg/L	466.27 ppb	08:01:46
1	Mo 202.031†	24.8	-0.6	0.5356 µg/L	0.5356 ppb	08:02:12
1	Ni 231.604†	437.4	70.4	4.0378 µg/L	4.0378 ppb	08:02:12
1	P 214.914†	80.4	65.3	101.20 µg/L	101.20 ppb	08:02:12
1	Pb 220.353†	69.9	30.6	8.4621 µg/L	8.4621 ppb	08:02:12
1	S 181.975 Axial†	55.3	32.1	100.42 µg/L	100.42 ppb	08:02:12
1	Sb 206.836†	30.1	3.8	3.0576 µg/L	3.0576 ppb	08:02:12
1	Se 196.026†	2.5	-22.1	28.146 µg/L	28.146 ppb	08:02:12
1	SiO2†	81029.0	78294.6	13875 µg/L	13875 ppb	08:01:52
1	Si 251.611†	96278.3	95877.8	6454.5 µg/L	6454.5 ppb	08:01:52
1	Sn 189.927†	6.8	5.3	2.1068 µg/L	2.1068 ppb	08:02:12
1	Ti 334.940†	268096.0	264073.4	615.32 µg/L	615.32 ppb	08:01:46
1	Tl 190.801†	-36.9	-2.7	6.7260 µg/L	6.7260 ppb	08:02:12
1	U 409.014†	-349.5	-333.9	-31.549 µg/L	-31.549 ppb	08:01:52
1	V 292.402†	899.2	1063.8	11.810 µg/L	11.810 ppb	08:01:52
1	Zn 213.857†	3937.3	3036.7	67.209 µg/L	67.209 ppb	08:02:12
2	Sc RADIAL	87913.7	87913.7	100 %		08:00:49
2	Al 396.153Radial†	10558.6	10325.3	5117.7 µg/L	5117.7 ppb	08:00:49
2	Ca 317.933Radial†	5426.0	5067.0	1905.2 µg/L	1905.2 ppb	08:00:49
2	Fe 238.204 Radial†	1230.8	1214.5	15548 µg/L	15548 ppb	08:01:09
2	K 766.490 Radial†	2785.3	2579.3	1232.3 µg/L	1232.3 ppb	08:00:49
2	Mg 279.077 IEC†	75.3	68.5	920.75 µg/L	920.75 ppb	08:01:09
2	Na 589.592 Radial†	1163.7	997.8	524.89 µg/L	524.89 ppb	08:00:49
2	Sr 421.552†	2391.3	2227.0	13.652 µg/L	13.652 ppb	08:00:49
2	Sc 361.383	1962243.4	1962243.4	98.847 %		08:02:19
2	Y 371.029	1349618.8	1349618.8	99.393 %		08:02:19
2	Ag 328.068†	422.1	-169.4	-0.0479 µg/L	-0.0479 ppb	08:02:25
2	As 188.979†	-2.8	-2.3	-5.4190 µg/L	-5.4190 ppb	08:02:45
2	B 249.677†	494.1	101.8	-3.5449 µg/L	-3.5449 ppb	08:02:45
2	Ba 233.527†	3327.3	3361.7	71.785 µg/L	71.785 ppb	08:02:45
2	Be 313.107†	890.1	1805.0	0.8056 µg/L	0.8056 ppb	08:02:25
2	Cd 226.502†	-77.7	85.7	0.2521 µg/L	0.2521 ppb	08:02:45
2	Co 228.616†	118.8	70.7	1.6768 µg/L	1.6768 ppb	08:02:45
2	Cr 267.716†	283.8	202.2	4.3034 µg/L	4.3034 ppb	08:02:45
2	Cu 324.752†	4548.7	313.5	4.9237 µg/L	4.9237 ppb	08:02:25
2	Mn 257.610†	154782.1	156864.2	466.50 µg/L	466.50 ppb	08:02:19
2	Mo 202.031†	23.0	-2.1	0.3843 µg/L	0.3843 ppb	08:02:45
2	Ni 231.604†	431.9	68.6	3.9347 µg/L	3.9347 ppb	08:02:45
2	P 214.914†	76.4	61.9	95.295 µg/L	95.295 ppb	08:02:45
2	Pb 220.353†	68.1	29.3	8.1375 µg/L	8.1375 ppb	08:02:45

2	S 181.975 Axial†	50.5	27.7	86.845 µg/L	86.845 ppb	08:02:45
2	Sb 206.836†	31.7	5.6	4.6322 µg/L	4.6322 ppb	08:02:45
2	Se 196.026†	8.3	-16.1	33.689 µg/L	33.689 ppb	08:02:45
2	SiO2†	80908.6	78855.5	13975 µg/L	13975 ppb	08:02:25
2	Si 251.611†	96148.6	96557.8	6500.3 µg/L	6500.3 ppb	08:02:25
2	Sn 189.927†	-0.2	-1.8	-0.5440 µg/L	-0.5440 ppb	08:02:45
2	Ti 334.940†	265822.8	264032.6	615.22 µg/L	615.22 ppb	08:02:19
2	Tl 190.801†	-38.1	-4.3	5.1899 µg/L	5.1899 ppb	08:02:45
2	U 409.014†	-388.7	-376.6	-35.293 µg/L	-35.293 ppb	08:02:25
2	V 292.402†	833.0	1004.4	11.174 µg/L	11.174 ppb	08:02:25
2	Zn 213.857†	3893.6	3025.6	66.958 µg/L	66.958 ppb	08:02:45
3	Sc RADIAL	87367.1	87367.1	99.6 %		08:01:15
3	Al 396.153Radial†	10564.5	10397.1	5153.2 µg/L	5153.2 ppb	08:01:15
3	Ca 317.933Radial†	5414.3	5089.1	1913.5 µg/L	1913.5 ppb	08:01:15
3	Fe 238.204 Radial†	1229.0	1220.4	15624 µg/L	15624 ppb	08:01:35
3	K 766.490 Radial†	2755.5	2566.8	1226.3 µg/L	1226.3 ppb	08:01:15
3	Mg 279.077 IEC†	74.2	67.9	912.38 µg/L	912.38 ppb	08:01:35
3	Na 589.592 Radial†	1228.7	1070.3	563.07 µg/L	563.07 ppb	08:01:15
3	Sr 421.552†	2382.1	2232.6	13.687 µg/L	13.687 ppb	08:01:15
3	Sc 361.383	1964770.8	1964770.8	98.974 %		08:02:52
3	Y 371.029	1350136.7	1350136.7	99.431 %		08:02:52
3	Ag 328.068†	434.7	-157.2	0.0460 µg/L	0.0460 ppb	08:02:58
3	As 188.979†	4.5	5.1	5.1882 µg/L	5.1882 ppb	08:03:18
3	B 249.677†	487.0	93.9	-3.9370 µg/L	-3.9370 ppb	08:03:18
3	Ba 233.527†	2827.9	2852.7	60.917 µg/L	60.917 ppb	08:03:18
3	Be 313.107†	726.5	1638.5	0.7250 µg/L	0.7250 ppb	08:02:58
3	Cd 226.502†	-91.4	71.9	-0.0788 µg/L	-0.0788 ppb	08:03:18
3	Co 228.616†	105.6	57.3	1.1975 µg/L	1.1975 ppb	08:03:18
3	Cr 267.716†	252.4	170.1	3.6201 µg/L	3.6201 ppb	08:03:18
3	Cu 324.752†	4540.7	299.6	4.8490 µg/L	4.8490 ppb	08:02:58
3	Mn 257.610†	146377.0	148170.5	440.70 µg/L	440.70 ppb	08:02:52
3	Mo 202.031†	23.3	-1.9	0.4063 µg/L	0.4063 ppb	08:03:18
3	Ni 231.604†	421.7	57.6	3.3416 µg/L	3.3416 ppb	08:03:18
3	P 214.914†	62.2	47.5	70.448 µg/L	70.448 ppb	08:03:18
3	Pb 220.353†	71.9	33.0	9.0813 µg/L	9.0813 ppb	08:03:18
3	S 181.975 Axial†	51.4	28.5	89.231 µg/L	89.231 ppb	08:03:18
3	Sb 206.836†	23.5	-2.7	-2.3154 µg/L	-2.3154 ppb	08:03:18
3	Se 196.026†	7.2	-17.3	32.837 µg/L	32.837 ppb	08:03:18
3	SiO2†	75602.2	73388.8	13006 µg/L	13006 ppb	08:02:58
3	Si 251.611†	89638.5	89855.1	6049.0 µg/L	6049.0 ppb	08:02:58
3	Sn 189.927†	8.1	6.6	2.6222 µg/L	2.6222 ppb	08:03:18
3	Ti 334.940†	249040.5	246730.3	574.90 µg/L	574.90 ppb	08:02:52
3	Tl 190.801†	-37.9	-4.0	5.0638 µg/L	5.0638 ppb	08:03:18
3	U 409.014†	-256.2	-242.2	-23.524 µg/L	-23.524 ppb	08:02:58
3	V 292.402†	746.1	915.5	10.243 µg/L	10.243 ppb	08:02:58
3	Zn 213.857†	3456.4	2578.8	56.950 µg/L	56.950 ppb	08:03:18

Mean Data: 1202049280|955816|5

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1968579.0	99.166 %		0.4471			0.45%
Sc RADIAL	87678.6	100.0 %		0.32			0.32%
Y 371.029	1353020.7	99.643 %		0.4014			0.40%
Ag 328.068†	-160.5	0.0218 µg/L		0.06131	0.0218 ppb	0.06131	281.64%
Al 396.153Radial†	10381.0	5145.3 µg/L		24.64	5145.3 ppb	24.64	0.48%
As 188.979†	0.6	-1.3113 µg/L		5.69374	-1.3113 ppb	5.69374	434.20%
B 249.677†	103.8	-3.4597 µg/L		0.52524	-3.4597 ppb	0.52524	15.18%
Ba 233.527†	3191.2	68.144 µg/L		6.2586	68.144 ppb	6.2586	9.18%
Be 313.107†	1739.9	0.7732 µg/L		0.04253	0.7732 ppb	0.04253	5.50%
Ca 317.933Radial†	5075.6	1908.4 µg/L		4.47	1908.4 ppb	4.47	0.23%
Cd 226.502†	80.4	0.1270 µg/L		0.17959	0.1270 ppb	0.17959	141.45%
Co 228.616†	64.1	1.4273 µg/L		0.24028	1.4273 ppb	0.24028	16.84%
Cr 267.716†	197.3	4.1999 µg/L		0.53562	4.1999 ppb	0.53562	12.75%
Cu 324.752†	306.6	4.8828 µg/L		0.03784	4.8828 ppb	0.03784	0.77%
Fe 238.204 Radial†	1215.7	15564 µg/L		53.4	15564 ppb	53.4	0.34%
K 766.490 Radial†	2537.4	1212.3 µg/L		29.63	1212.3 ppb	29.63	2.44%
Mg 279.077 IEC†	67.7	909.64 µg/L		12.707	909.64 ppb	12.707	1.40%
Mn 257.610†	153940.7	457.82 µg/L		14.831	457.82 ppb	14.831	3.24%
Mo 202.031†	-1.5	0.4421 µg/L		0.08177	0.4421 ppb	0.08177	18.50%
Na 589.592 Radial†	1033.6	543.73 µg/L		19.094	543.73 ppb	19.094	3.51%

Ni 231.604†	65.5	3.7714 µg/L	0.37579	3.7714 ppb	0.37579	9.96%
P 214.914†	58.3	88.982 µg/L	16.3205	88.982 ppb	16.3205	18.34%
Pb 220.353†	31.0	8.5603 µg/L	0.47952	8.5603 ppb	0.47952	5.60%
S 181.975 Axial†	29.4	92.165 µg/L	7.2474	92.165 ppb	7.2474	7.86%
Sb 206.836†	2.2	1.7915 µg/L	3.64273	1.7915 ppb	3.64273	203.34%
Se 196.026†	-18.5	31.557 µg/L	2.9847	31.557 ppb	2.9847	9.46%
SiO2†	76846.3	13619 µg/L	533.0	13619 ppb	533.0	3.91%
Si 251.611†	94096.9	6334.6 µg/L	248.36	6334.6 ppb	248.36	3.92%
Sn 189.927†	3.4	1.3950 µg/L	1.69890	1.3950 ppb	1.69890	121.79%
Sr 421.552†	2224.6	13.638 µg/L	0.0581	13.638 ppb	0.0581	0.43%
Ti 334.940†	258278.8	601.82 µg/L	23.306	601.82 ppb	23.306	3.87%
Tl 190.801†	-3.7	5.6599 µg/L	0.92544	5.6599 ppb	0.92544	16.35%
U 409.014†	-317.6	-30.122 µg/L	6.0127	-30.122 ppb	6.0127	19.96%
V 292.402†	994.6	11.076 µg/L	0.7886	11.076 ppb	0.7886	7.12%
Zn 213.857†	2880.4	63.706 µg/L	5.8519	63.706 ppb	5.8519	9.19%

Sequence No.: 17
 Sample ID: 247561002|955816|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 311
 Date Collected: 3/19/2010 08:03:27
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 247561002|955816|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	91898.3	91898.3	105 %		08:03:58
1	Al 396.153Radial†	57730.0	54878.1	27200 µg/L	27200 ppb	08:03:58
1	Ca 317.933Radial†	60808.3	57676.5	21686 µg/L	21686 ppb	08:03:58
1	Fe 238.204 Radial†	6669.9	6351.1	81309 µg/L	81309 ppb	08:04:18
1	K 766.490 Radial†	10699.1	10010.0	4782.4 µg/L	4782.4 ppb	08:03:58
1	Mg 279.077 IEC†	383.6	359.5	4830.3 µg/L	4830.3 ppb	08:04:18
1	Na 589.592 Radial†	4100.5	3749.7	1972.6 µg/L	1972.6 ppb	08:03:58
1	Sr 421.552†	20067.3	18989.4	116.41 µg/L	116.41 ppb	08:03:58
1	Sc 361.383	2019920.3	2019920.3	101.75 %		08:05:23
1	Y 371.029	1434648.2	1434648.2	105.65 %		08:05:23
1	Ag 328.068†	-103.5	-698.2	1.2004 µg/L	1.2004 ppb	08:05:29
1	As 188.979†	13.6	14.0	7.3239 µg/L	7.3239 ppb	08:05:49
1	B 249.677†	1015.9	600.3	-15.483 µg/L	-15.483 ppb	08:05:29
1	Ba 233.527†	18124.5	17808.0	380.26 µg/L	380.26 ppb	08:05:29
1	Be 313.107†	8336.1	9097.1	4.0829 µg/L	4.0829 ppb	08:05:29
1	Cd 226.502†	315.7	474.6	1.9419 µg/L	1.9419 ppb	08:05:49
1	Co 228.616†	423.0	366.3	8.9950 µg/L	8.9950 ppb	08:05:49
1	Cr 267.716†	1173.8	1068.6	22.743 µg/L	22.743 ppb	08:05:49
1	Cu 324.752†	7981.6	3555.9	37.979 µg/L	37.979 ppb	08:05:29
1	Mn 257.610†	698321.9	686574.2	2042.5 µg/L	2042.5 ppb	08:05:23
1	Mo 202.031†	74.6	47.9	7.7172 µg/L	7.7172 ppb	08:05:49
1	Ni 231.604†	825.2	442.6	25.161 µg/L	25.161 ppb	08:05:49
1	P 214.914†	461.6	438.4	694.54 µg/L	694.54 ppb	08:05:49
1	Pb 220.353†	394.7	348.3	92.274 µg/L	92.274 ppb	08:05:49
1	S 181.975 Axial†	147.8	121.8	381.62 µg/L	381.62 ppb	08:05:49
1	Sb 206.836†	35.1	8.1	6.2618 µg/L	6.2618 ppb	08:05:49
1	Se 196.026†	-55.5	-79.1	179.77 µg/L	179.77 ppb	08:05:49
1	SiO2†	419926.0	409698.5	72606 µg/L	72606 ppb	08:05:23
1	Si 251.611†	508179.1	498716.6	33573 µg/L	33573 ppb	08:05:23
1	Sn 189.927†	20.7	18.8	8.8322 µg/L	8.8322 ppb	08:05:49
1	Ti 334.940†	1332790.8	1304950.7	3040.8 µg/L	3040.8 ppb	08:05:23
1	Tl 190.801†	-58.2	-22.9	21.447 µg/L	21.447 ppb	08:05:49
1	U 409.014†	-1682.8	-1637.1	-156.15 µg/L	-156.15 ppb	08:05:23
1	V 292.402†	5111.7	5185.4	57.797 µg/L	57.797 ppb	08:05:29
1	Zn 213.857†	22941.6	21633.2	480.26 µg/L	480.26 ppb	08:05:29
2	Sc RADIAL	91645.9	91645.9	105 %		08:04:24
2	Al 396.153Radial†	57458.4	54770.0	27146 µg/L	27146 ppb	08:04:24
2	Ca 317.933Radial†	60637.7	57673.1	21685 µg/L	21685 ppb	08:04:24
2	Fe 238.204 Radial†	6688.2	6386.2	81758 µg/L	81758 ppb	08:04:44
2	K 766.490 Radial†	10736.0	10073.4	4812.7 µg/L	4812.7 ppb	08:04:24
2	Mg 279.077 IEC†	387.3	364.0	4891.5 µg/L	4891.5 ppb	08:04:44
2	Na 589.592 Radial†	4131.1	3789.8	1993.7 µg/L	1993.7 ppb	08:04:24
2	Sr 421.552†	19943.3	18923.6	116.01 µg/L	116.01 ppb	08:04:24
2	Sc 361.383	2028018.1	2028018.1	102.16 %		08:05:57
2	Y 371.029	1439376.8	1439376.8	106.00 %		08:05:57
2	Ag 328.068†	-132.3	-725.9	1.0196 µg/L	1.0196 ppb	08:06:03
2	As 188.979†	13.4	13.7	6.8979 µg/L	6.8979 ppb	08:06:23
2	B 249.677†	1044.6	624.4	-14.636 µg/L	-14.636 ppb	08:06:03
2	Ba 233.527†	18043.2	17657.3	377.04 µg/L	377.04 ppb	08:06:03
2	Be 313.107†	8379.2	9106.6	4.0903 µg/L	4.0903 ppb	08:06:03
2	Cd 226.502†	314.5	472.2	1.8357 µg/L	1.8357 ppb	08:06:23
2	Co 228.616†	412.1	353.9	8.4897 µg/L	8.4897 ppb	08:06:23
2	Cr 267.716†	1158.6	1049.1	22.330 µg/L	22.330 ppb	08:06:23
2	Cu 324.752†	8012.8	3555.1	38.059 µg/L	38.059 ppb	08:06:03
2	Mn 257.610†	700504.5	685970.3	2040.8 µg/L	2040.8 ppb	08:05:57
2	Mo 202.031†	78.4	51.3	8.0572 µg/L	8.0572 ppb	08:06:23
2	Ni 231.604†	827.8	441.9	25.130 µg/L	25.130 ppb	08:06:23
2	P 214.914†	474.2	448.9	712.19 µg/L	712.19 ppb	08:06:23
2	Pb 220.353†	399.1	351.1	92.979 µg/L	92.979 ppb	08:06:23

2	S 181.975 Axial†	152.2	125.5	393.18 µg/L	393.18 ppb	08:06:23
2	Sb 206.836†	33.6	6.4	4.8938 µg/L	4.8938 ppb	08:06:23
2	Se 196.026†	-53.7	-77.1	182.99 µg/L	182.99 ppb	08:06:23
2	SiO2†	420774.9	408881.6	72462 µg/L	72462 ppb	08:05:57
2	Si 251.611†	509260.8	497781.2	33511 µg/L	33511 ppb	08:05:57
2	Sn 189.927†	19.3	17.3	8.2882 µg/L	8.2882 ppb	08:06:23
2	Ti 334.940†	1335994.5	1302856.6	3036.0 µg/L	3036.0 ppb	08:05:57
2	Tl 190.801†	-58.9	-23.4	20.986 µg/L	20.986 ppb	08:06:23
2	U 409.014†	-1686.6	-1634.3	-155.96 µg/L	-155.96 ppb	08:05:57
2	V 292.402†	5130.1	5183.3	57.792 µg/L	57.792 ppb	08:06:03
2	Zn 213.857†	22986.2	21586.8	479.20 µg/L	479.20 ppb	08:06:03
3	Sc RADIAL	91738.5	91738.5	105 %		08:04:50
3	Al 396.153Radial†	57626.8	54875.5	27199 µg/L	27199 ppb	08:04:50
3	Ca 317.933Radial†	60548.5	57529.2	21631 µg/L	21631 ppb	08:04:50
3	Fe 238.204 Radial†	6690.0	6381.4	81697 µg/L	81697 ppb	08:05:10
3	K 766.490 Radial†	10619.2	9951.4	4754.4 µg/L	4754.4 ppb	08:04:50
3	Mg 279.077 IEC†	381.9	358.5	4816.2 µg/L	4816.2 ppb	08:05:10
3	Na 589.592 Radial†	4111.0	3766.5	1981.5 µg/L	1981.5 ppb	08:04:50
3	Sr 421.552†	20029.1	18986.3	116.39 µg/L	116.39 ppb	08:04:50
3	Sc 361.383	2029471.9	2029471.9	102.23 %		08:06:31
3	Y 371.029	1437337.7	1437337.7	105.85 %		08:06:31
3	Ag 328.068†	-76.1	-670.9	1.4159 µg/L	1.4159 ppb	08:06:37
3	As 188.979†	16.1	16.3	10.657 µg/L	10.657 ppb	08:06:57
3	B 249.677†	993.9	574.1	-16.862 µg/L	-16.862 ppb	08:06:37
3	Ba 233.527†	17248.6	16867.4	360.18 µg/L	360.18 ppb	08:06:37
3	Be 313.107†	7854.5	8587.5	3.8353 µg/L	3.8353 ppb	08:06:37
3	Cd 226.502†	267.9	426.4	0.7669 µg/L	0.7669 ppb	08:06:57
3	Co 228.616†	389.9	331.9	7.8081 µg/L	7.8081 ppb	08:06:57
3	Cr 267.716†	1052.1	944.1	20.096 µg/L	20.096 ppb	08:06:57
3	Cu 324.752†	7835.4	3376.0	36.904 µg/L	36.904 ppb	08:06:37
3	Mn 257.610†	678004.4	663470.4	1974.0 µg/L	1974.0 ppb	08:06:31
3	Mo 202.031†	69.0	42.1	7.1675 µg/L	7.1675 ppb	08:06:57
3	Ni 231.604†	777.4	392.0	22.412 µg/L	22.412 ppb	08:06:57
3	P 214.914†	423.3	398.7	626.04 µg/L	626.04 ppb	08:06:57
3	Pb 220.353†	376.4	328.6	87.251 µg/L	87.251 ppb	08:06:57
3	S 181.975 Axial†	145.4	118.8	372.15 µg/L	372.15 ppb	08:06:57
3	Sb 206.836†	34.1	6.9	5.2612 µg/L	5.2612 ppb	08:06:57
3	Se 196.026†	-52.8	-76.2	183.69 µg/L	183.69 ppb	08:06:57
3	SiO2†	410847.7	398876.2	70688 µg/L	70688 ppb	08:06:31
3	Si 251.611†	496962.8	485394.8	32677 µg/L	32677 ppb	08:06:31
3	Sn 189.927†	16.0	14.1	7.0456 µg/L	7.0456 ppb	08:06:57
3	Ti 334.940†	1286221.5	1253234.0	2920.3 µg/L	2920.3 ppb	08:06:31
3	Tl 190.801†	-54.0	-18.6	24.356 µg/L	24.356 ppb	08:06:57
3	U 409.014†	-1632.3	-1580.0	-151.18 µg/L	-151.18 ppb	08:06:31
3	V 292.402†	4754.9	4812.7	53.843 µg/L	53.843 ppb	08:06:37
3	Zn 213.857†	21993.8	20600.0	457.12 µg/L	457.12 ppb	08:06:37

Mean Data: 247561002|955816|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2025803.5	102.05 %	0.259			0.25%
Sc RADIAL	91760.9	105 %	0.1			0.14%
Y 371.029	1437120.9	105.84 %	0.175			0.17%
Ag 328.068†	-698.3	1.2120 µg/L	0.19837	1.2120 ppb	0.19837	16.37%
Al 396.153Radial†	54841.2	27182 µg/L	30.6	27182 ppb	30.6	0.11%
As 188.979†	14.7	8.2928 µg/L	2.05815	8.2928 ppb	2.05815	24.82%
B 249.677†	599.6	-15.660 µg/L	1.1236	-15.660 ppb	1.1236	7.18%
Ba 233.527†	17444.2	372.49 µg/L	10.789	372.49 ppb	10.789	2.90%
Be 313.107†	8930.4	4.0028 µg/L	0.14516	4.0028 ppb	0.14516	3.63%
Ca 317.933Radial†	57626.3	21667 µg/L	31.6	21667 ppb	31.6	0.15%
Cd 226.502†	457.7	1.5148 µg/L	0.64990	1.5148 ppb	0.64990	42.90%
Co 228.616†	350.7	8.4309 µg/L	0.59561	8.4309 ppb	0.59561	7.06%
Cr 267.716†	1020.6	21.723 µg/L	1.4241	21.723 ppb	1.4241	6.56%
Cu 324.752†	3495.7	37.647 µg/L	0.6449	37.647 ppb	0.6449	1.71%
Fe 238.204 Radial†	6372.9	81588 µg/L	243.5	81588 ppb	243.5	0.30%
K 766.490 Radial†	10011.6	4783.1 µg/L	29.15	4783.1 ppb	29.15	0.61%
Mg 279.077 IEC†	360.7	4846.0 µg/L	40.03	4846.0 ppb	40.03	0.83%
Mn 257.610†	678671.6	2019.1 µg/L	39.08	2019.1 ppb	39.08	1.94%
Mo 202.031†	47.1	7.6473 µg/L	0.44893	7.6473 ppb	0.44893	5.87%
Na 589.592 Radial†	3768.7	1982.6 µg/L	10.58	1982.6 ppb	10.58	0.53%

Ni 231.604†	425.5	24.234 µg/L	1.5781	24.234 ppb	1.5781	6.51%
P 214.914†	428.7	677.59 µg/L	45.509	677.59 ppb	45.509	6.72%
Pb 220.353†	342.7	90.835 µg/L	3.1236	90.835 ppb	3.1236	3.44%
S 181.975 Axial†	122.1	382.32 µg/L	10.533	382.32 ppb	10.533	2.76%
Sb 206.836†	7.1	5.4723 µg/L	0.70801	5.4723 ppb	0.70801	12.94%
Se 196.026†	-77.5	182.15 µg/L	2.091	182.15 ppb	2.091	1.15%
SiO2†	405818.8	71919 µg/L	1068.0	71919 ppb	1068.0	1.48%
Si 251.611†	493964.2	33254 µg/L	500.6	33254 ppb	500.6	1.51%
Sn 189.927†	16.7	8.0553 µg/L	0.91581	8.0553 ppb	0.91581	11.37%
Sr 421.552†	18966.4	116.27 µg/L	0.228	116.27 ppb	0.228	0.20%
Ti 334.940†	1287013.7	2999.0 µg/L	68.21	2999.0 ppb	68.21	2.27%
Tl 190.801†	-21.6	22.263 µg/L	1.8270	22.263 ppb	1.8270	8.21%
U 409.014†	-1617.1	-154.43 µg/L	2.812	-154.43 ppb	2.812	1.82%
V 292.402†	5060.5	56.478 µg/L	2.2813	56.478 ppb	2.2813	4.04%
Zn 213.857†	21273.3	472.20 µg/L	13.067	472.20 ppb	13.067	2.77%

Sequence No.: 18

Sample ID: 247561003|955816|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 312

Date Collected: 3/19/2010 08:07:06

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 247561003|955816|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	90575.2	90575.2	103 %		08:07:37
1	Al 396.153Radial†	72161.3	69653.9	34523 µg/L	34523 ppb	08:07:37
1	Ca 317.933Radial†	71355.8	68735.2	25844 µg/L	25844 ppb	08:07:37
1	Fe 238.204 Radial†	7045.1	6807.3	87149 µg/L	87149 ppb	08:07:57
1	K 766.490 Radial†	12590.6	11990.3	5728.5 µg/L	5728.5 ppb	08:07:37
1	Mg 279.077 IEC†	467.0	445.6	6001.6 µg/L	6001.6 ppb	08:07:57
1	Na 589.592 Radial†	3061.7	2801.2	1473.6 µg/L	1473.6 ppb	08:07:37
1	Sr 421.552†	26290.7	25294.1	155.06 µg/L	155.06 ppb	08:07:37
1	Sc 361.383	2000699.8	2000699.8	100.78 %		08:09:02
1	Y 371.029	1422398.3	1422398.3	104.75 %		08:09:02
1	Ag 328.068†	-259.2	-853.6	0.5043 µg/L	0.5043 ppb	08:09:08
1	As 188.979†	20.4	20.8	15.898 µg/L	15.898 ppb	08:09:29
1	B 249.677†	1092.3	685.7	-14.688 µg/L	-14.688 ppb	08:09:08
1	Ba 233.527†	22734.8	22553.6	481.59 µg/L	481.59 ppb	08:09:08
1	Be 313.107†	9950.6	10777.8	4.9830 µg/L	4.9830 ppb	08:09:08
1	Cd 226.502†	354.0	515.5	2.2402 µg/L	2.2402 ppb	08:09:29
1	Co 228.616†	474.7	421.5	10.934 µg/L	10.934 ppb	08:09:29
1	Cr 267.716†	1499.0	1402.3	29.842 µg/L	29.842 ppb	08:09:29
1	Cu 324.752†	8249.1	3896.7	41.252 µg/L	41.252 ppb	08:09:08
1	Mn 257.610†	819409.7	813313.6	2419.0 µg/L	2419.0 ppb	08:09:02
1	Mo 202.031†	74.4	48.4	7.9828 µg/L	7.9828 ppb	08:09:29
1	Ni 231.604†	810.7	436.0	24.875 µg/L	24.875 ppb	08:09:29
1	P 214.914†	538.3	518.8	830.08 µg/L	830.08 ppb	08:09:29
1	Pb 220.353†	393.0	350.4	93.438 µg/L	93.438 ppb	08:09:29
1	S 181.975 Axial†	211.7	186.7	584.70 µg/L	584.70 ppb	08:09:29
1	Sb 206.836†	37.4	10.7	8.2820 µg/L	8.2820 ppb	08:09:29
1	Se 196.026†	-67.0	-91.0	186.06 µg/L	186.06 ppb	08:09:29
1	SiO2†	431361.4	425009.7	75320 µg/L	75320 ppb	08:09:02
1	Si 251.611†	522065.8	517293.3	34824 µg/L	34824 ppb	08:09:02
1	Sn 189.927†	4.6	3.0	3.2755 µg/L	3.2755 ppb	08:09:29
1	Ti 334.940†	1397638.0	1381877.2	3220.1 µg/L	3220.1 ppb	08:09:02
1	Tl 190.801†	-61.3	-26.6	21.531 µg/L	21.531 ppb	08:09:29
1	U 409.014†	-1603.0	-1573.8	-151.66 µg/L	-151.66 ppb	08:09:08
1	V 292.402†	5929.0	6044.6	67.149 µg/L	67.149 ppb	08:09:29
1	Zn 213.857†	34780.0	33596.2	747.87 µg/L	747.87 ppb	08:09:08
2	Sc RADIAL	90265.2	90265.2	103 %		08:08:03
2	Al 396.153Radial†	71899.1	69639.0	34516 µg/L	34516 ppb	08:08:03
2	Ca 317.933Radial†	70988.2	68615.3	25799 µg/L	25799 ppb	08:08:03
2	Fe 238.204 Radial†	7066.1	6851.1	87710 µg/L	87710 ppb	08:08:23
2	K 766.490 Radial†	12510.7	11954.5	5711.4 µg/L	5711.4 ppb	08:08:03
2	Mg 279.077 IEC†	460.5	440.8	5936.1 µg/L	5936.1 ppb	08:08:23
2	Na 589.592 Radial†	3046.9	2797.0	1471.4 µg/L	1471.4 ppb	08:08:03
2	Sr 421.552†	26179.9	25273.9	154.94 µg/L	154.94 ppb	08:08:03
2	Sc 361.383	2006488.1	2006488.1	101.08 %		08:09:36
2	Y 371.029	1425965.7	1425965.7	105.02 %		08:09:36
2	Ag 328.068†	-171.4	-766.1	1.2313 µg/L	1.2313 ppb	08:09:41
2	As 188.979†	16.9	17.3	10.837 µg/L	10.837 ppb	08:10:02
2	B 249.677†	1113.7	703.7	-14.174 µg/L	-14.174 ppb	08:09:41
2	Ba 233.527†	22954.0	22705.4	484.83 µg/L	484.83 ppb	08:09:41
2	Be 313.107†	9951.9	10750.5	4.9645 µg/L	4.9645 ppb	08:09:41
2	Cd 226.502†	368.2	528.6	2.4832 µg/L	2.4832 ppb	08:10:02
2	Co 228.616†	481.0	426.4	11.126 µg/L	11.126 ppb	08:10:02
2	Cr 267.716†	1521.8	1420.6	30.231 µg/L	30.231 ppb	08:10:02
2	Cu 324.752†	8191.0	3815.6	40.840 µg/L	40.840 ppb	08:09:41
2	Mn 257.610†	823454.3	814969.7	2424.0 µg/L	2424.0 ppb	08:09:36
2	Mo 202.031†	76.8	50.6	8.2175 µg/L	8.2175 ppb	08:10:02
2	Ni 231.604†	815.8	438.7	25.028 µg/L	25.028 ppb	08:10:02
2	P 214.914†	544.2	523.1	837.09 µg/L	837.09 ppb	08:10:02
2	Pb 220.353†	406.2	362.3	96.466 µg/L	96.466 ppb	08:10:02

2	S 181.975 Axial†	215.5	189.8	594.52 µg/L	594.52 ppb	08:10:02
2	Sb 206.836†	30.5	3.7	2.4639 µg/L	2.4639 ppb	08:10:02
2	Se 196.026†	-71.2	-95.0	184.22 µg/L	184.22 ppb	08:10:02
2	SiO2†	433579.0	425969.0	75490 µg/L	75490 ppb	08:09:36
2	Si 251.611†	524928.4	518631.0	34914 µg/L	34914 ppb	08:09:36
2	Sn 189.927†	3.8	2.3	2.9724 µg/L	2.9724 ppb	08:10:02
2	Ti 334.940†	1404910.6	1385071.9	3227.5 µg/L	3227.5 ppb	08:09:36
2	Tl 190.801†	-58.6	-23.7	24.445 µg/L	24.445 ppb	08:10:02
2	U 409.014†	-1554.6	-1521.4	-147.14 µg/L	-147.14 ppb	08:09:41
2	V 292.402†	6015.8	6113.5	67.908 µg/L	67.908 ppb	08:10:02
2	Zn 213.857†	35139.5	33852.3	753.58 µg/L	753.58 ppb	08:09:41
3	Sc RADIAL	89488.3	89488.3	102 %		08:08:29
3	Al 396.153Radial†	71458.0	69813.3	34602 µg/L	34602 ppb	08:08:29
3	Ca 317.933Radial†	70470.0	68706.3	25833 µg/L	25833 ppb	08:08:29
3	Fe 238.204 Radial†	7048.1	6893.0	88247 µg/L	88247 ppb	08:08:49
3	K 766.490 Radial†	12408.1	11959.5	5713.8 µg/L	5713.8 ppb	08:08:29
3	Mg 279.077 IEC†	460.0	444.2	5981.5 µg/L	5981.5 ppb	08:08:49
3	Na 589.592 Radial†	3049.0	2824.7	1486.0 µg/L	1486.0 ppb	08:08:29
3	Sr 421.552†	26020.3	25338.3	155.33 µg/L	155.33 ppb	08:08:29
3	Sc 361.383	2018813.1	2018813.1	101.70 %		08:10:09
3	Y 371.029	1431225.2	1431225.2	105.40 %		08:10:09
3	Ag 328.068†	-133.8	-728.0	1.5224 µg/L	1.5224 ppb	08:10:15
3	As 188.979†	18.4	18.7	12.694 µg/L	12.694 ppb	08:10:35
3	B 249.677†	1063.8	647.9	-16.960 µg/L	-16.960 ppb	08:10:15
3	Ba 233.527†	21808.6	21440.4	457.81 µg/L	457.81 ppb	08:10:15
3	Be 313.107†	9256.2	10006.3	4.5844 µg/L	4.5844 ppb	08:10:15
3	Cd 226.502†	296.6	456.0	0.7206 µg/L	0.7206 ppb	08:10:35
3	Co 228.616†	437.6	380.8	9.4797 µg/L	9.4797 ppb	08:10:35
3	Cr 267.716†	1371.7	1263.8	26.894 µg/L	26.894 ppb	08:10:35
3	Cu 324.752†	8054.6	3632.0	39.769 µg/L	39.769 ppb	08:10:15
3	Mn 257.610†	798967.6	785917.6	2337.8 µg/L	2337.8 ppb	08:10:09
3	Mo 202.031†	70.4	43.8	7.5795 µg/L	7.5795 ppb	08:10:35
3	Ni 231.604†	791.0	409.4	23.438 µg/L	23.438 ppb	08:10:35
3	P 214.914†	498.0	474.4	752.96 µg/L	752.96 ppb	08:10:35
3	Pb 220.353†	362.4	316.8	84.887 µg/L	84.887 ppb	08:10:35
3	S 181.975 Axial†	201.1	174.4	546.19 µg/L	546.19 ppb	08:10:35
3	Sb 206.836†	42.8	15.6	12.433 µg/L	12.433 ppb	08:10:35
3	Se 196.026†	-45.4	-69.2	209.67 µg/L	209.67 ppb	08:10:35
3	SiO2†	424233.8	414160.8	73397 µg/L	73397 ppb	08:10:09
3	Si 251.611†	513592.0	504313.1	33950 µg/L	33950 ppb	08:10:09
3	Sn 189.927†	5.4	3.8	3.5365 µg/L	3.5365 ppb	08:10:35
3	Ti 334.940†	1357777.2	1330238.8	3099.7 µg/L	3099.7 ppb	08:10:09
3	Tl 190.801†	-63.2	-27.9	19.030 µg/L	19.030 ppb	08:10:35
3	U 409.014†	-1477.6	-1436.3	-139.75 µg/L	-139.75 ppb	08:10:15
3	V 292.402†	5391.4	5463.2	61.008 µg/L	61.008 ppb	08:10:35
3	Zn 213.857†	33406.7	31936.1	710.65 µg/L	710.65 ppb	08:10:15

Mean Data: 247561003|955816|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	2008667.0	101.19 %	0.466			0.46%
Sc RADIAL	90109.6	103 %	0.6			0.62%
Y 371.029	1426529.7	105.06 %	0.327			0.31%
Ag 328.068†	-782.5	1.0860 µg/L	0.52437	1.0860 ppb	0.52437	48.29%
Al 396.153Radial†	69702.1	34547 µg/L	47.9	34547 ppb	47.9	0.14%
As 188.979†	19.0	13.143 µg/L	2.5602	13.143 ppb	2.5602	19.48%
B 249.677†	679.1	-15.274 µg/L	1.4829	-15.274 ppb	1.4829	9.71%
Ba 233.527†	22233.1	474.74 µg/L	14.752	474.74 ppb	14.752	3.11%
Be 313.107†	10511.6	4.8440 µg/L	0.22500	4.8440 ppb	0.22500	4.64%
Ca 317.933Radial†	68685.6	25825 µg/L	23.5	25825 ppb	23.5	0.09%
Cd 226.502†	500.1	1.8147 µg/L	0.95525	1.8147 ppb	0.95525	52.64%
Co 228.616†	409.6	10.513 µg/L	0.8999	10.513 ppb	0.8999	8.56%
Cr 267.716†	1362.2	28.989 µg/L	1.8245	28.989 ppb	1.8245	6.29%
Cu 324.752†	3781.4	40.620 µg/L	0.7655	40.620 ppb	0.7655	1.88%
Fe 238.204 Radial†	6850.4	87702 µg/L	549.0	87702 ppb	549.0	0.63%
K 766.490 Radial†	11968.1	5717.9 µg/L	9.25	5717.9 ppb	9.25	0.16%
Mg 279.077 IEC†	443.5	5973.1 µg/L	33.57	5973.1 ppb	33.57	0.56%
Mn 257.610†	804733.6	2393.6 µg/L	48.41	2393.6 ppb	48.41	2.02%
Mo 202.031†	47.6	7.9266 µg/L	0.32272	7.9266 ppb	0.32272	4.07%
Na 589.592 Radial†	2807.6	1477.0 µg/L	7.86	1477.0 ppb	7.86	0.53%

Ni 231.604†	428.0	24.447 µg/L	0.8769	24.447 ppb	0.8769	3.59%
P 214.914†	505.4	806.71 µg/L	46.679	806.71 ppb	46.679	5.79%
Pb 220.353†	343.2	91.597 µg/L	6.0047	91.597 ppb	6.0047	6.56%
S 181.975 Axial†	183.6	575.14 µg/L	25.548	575.14 ppb	25.548	4.44%
Sb 206.836†	10.0	7.7262 µg/L	5.00765	7.7262 ppb	5.00765	64.81%
Se 196.026†	-85.1	193.32 µg/L	14.194	193.32 ppb	14.194	7.34%
SiO2†	421713.2	74736 µg/L	1162.2	74736 ppb	1162.2	1.56%
Si 251.611†	513412.5	34563 µg/L	532.4	34563 ppb	532.4	1.54%
Sn 189.927†	3.0	3.2615 µg/L	0.28233	3.2615 ppb	0.28233	8.66%
Sr 421.552†	25302.1	155.11 µg/L	0.202	155.11 ppb	0.202	0.13%
Ti 334.940†	1365729.3	3182.4 µg/L	71.72	3182.4 ppb	71.72	2.25%
Tl 190.801†	-26.1	21.669 µg/L	2.7101	21.669 ppb	2.7101	12.51%
U 409.014†	-1510.5	-146.19 µg/L	6.011	-146.19 ppb	6.011	4.11%
V 292.402†	5873.8	65.355 µg/L	3.7841	65.355 ppb	3.7841	5.79%
Zn 213.857†	33128.2	737.37 µg/L	23.316	737.37 ppb	23.316	3.16%

Sequence No.: 19

Sample ID: 247561004|955816|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 313

Date Collected: 3/19/2010 08:10:45

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 247561004|955816|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	86936.7	86936.7	99.1 %		08:11:16
1	Al 396.153Radial†	48099.0	48307.8	23943 µg/L	23943 ppb	08:11:16
1	Ca 317.933Radial†	47428.6	47492.7	17857 µg/L	17857 ppb	08:11:16
1	Fe 238.204 Radial†	7003.5	7050.8	90267 µg/L	90267 ppb	08:11:36
1	K 766.490 Radial†	12094.6	12000.2	5733.2 µg/L	5733.2 ppb	08:11:16
1	Mg 279.077 IEC†	322.8	319.0	4267.5 µg/L	4267.5 ppb	08:11:36
1	Na 589.592 Radial†	5325.2	5208.2	2739.9 µg/L	2739.9 ppb	08:11:16
1	Sr 421.552†	15970.8	15950.3	97.782 µg/L	97.782 ppb	08:11:16
1	Sc 361.383	1958783.5	1958783.5	98.672 %		08:12:41
1	Y 371.029	1408072.3	1408072.3	103.70 %		08:12:41
1	Ag 328.068†	-283.0	-883.3	0.4134 µg/L	0.4134 ppb	08:12:47
1	As 188.979†	14.5	15.3	8.5176 µg/L	8.5176 ppb	08:13:08
1	B 249.677†	1014.9	630.4	-18.804 µg/L	-18.804 ppb	08:12:47
1	Ba 233.527†	17869.8	18105.8	386.61 µg/L	386.61 ppb	08:12:47
1	Be 313.107†	10030.4	11069.9	5.0786 µg/L	5.0786 ppb	08:12:47
1	Cd 226.502†	347.3	516.3	1.9038 µg/L	1.9038 ppb	08:13:08
1	Co 228.616†	412.5	368.6	8.3237 µg/L	8.3237 ppb	08:13:08
1	Cr 267.716†	1137.8	1068.1	22.730 µg/L	22.730 ppb	08:13:08
1	Cu 324.752†	8099.6	3920.3	41.989 µg/L	41.989 ppb	08:12:47
1	Mn 257.610†	798751.1	809775.3	2408.8 µg/L	2408.8 ppb	08:12:41
1	Mo 202.031†	107.2	83.2	11.461 µg/L	11.461 ppb	08:13:08
1	Ni 231.604†	767.0	408.9	23.442 µg/L	23.442 ppb	08:13:08
1	P 214.914†	602.1	594.9	955.61 µg/L	955.61 ppb	08:13:08
1	Pb 220.353†	565.4	533.4	139.36 µg/L	139.36 ppb	08:13:08
1	S 181.975 Axial†	206.6	185.9	582.37 µg/L	582.37 ppb	08:13:08
1	Sb 206.836†	23.3	-2.8	-2.7780 µg/L	-2.7780 ppb	08:13:08
1	Se 196.026†	-64.8	-90.2	198.77 µg/L	198.77 ppb	08:13:08
1	SiO2†	398260.0	400621.8	70998 µg/L	70998 ppb	08:12:41
1	Si 251.611†	482274.4	488051.3	32856 µg/L	32856 ppb	08:12:41
1	Sn 189.927†	19.0	17.7	8.0262 µg/L	8.0262 ppb	08:13:08
1	Ti 334.940†	1449167.7	1463776.0	3410.9 µg/L	3410.9 ppb	08:12:41
1	Tl 190.801†	-65.2	-31.8	19.477 µg/L	19.477 ppb	08:13:08
1	U 409.014†	-1853.3	-1861.6	-176.83 µg/L	-176.83 ppb	08:12:41
1	V 292.402†	4392.0	4612.8	52.016 µg/L	52.016 ppb	08:12:47
1	Zn 213.857†	19074.7	18418.0	407.86 µg/L	407.86 ppb	08:12:47
2	Sc RADIAL	87304.7	87304.7	99.6 %		08:11:42
2	Al 396.153Radial†	48294.4	48299.6	23939 µg/L	23939 ppb	08:11:42
2	Ca 317.933Radial†	47806.8	47671.0	17924 µg/L	17924 ppb	08:11:42
2	Fe 238.204 Radial†	7001.7	7019.2	89862 µg/L	89862 ppb	08:12:02
2	K 766.490 Radial†	12091.6	11945.7	5707.1 µg/L	5707.1 ppb	08:11:42
2	Mg 279.077 IEC†	319.0	313.8	4196.4 µg/L	4196.4 ppb	08:12:02
2	Na 589.592 Radial†	5389.8	5250.4	2762.1 µg/L	2762.1 ppb	08:11:42
2	Sr 421.552†	16001.7	15913.5	97.556 µg/L	97.556 ppb	08:11:42
2	Sc 361.383	1951983.7	1951983.7	98.330 %		08:13:15
2	Y 371.029	1401903.1	1401903.1	103.24 %		08:13:15
2	Ag 328.068†	-288.6	-890.0	0.3378 µg/L	0.3378 ppb	08:13:21
2	As 188.979†	8.2	9.0	-0.4701 µg/L	-0.4701 ppb	08:13:42
2	B 249.677†	1038.9	658.4	-17.341 µg/L	-17.341 ppb	08:13:21
2	Ba 233.527†	17904.0	18203.6	388.70 µg/L	388.70 ppb	08:13:21
2	Be 313.107†	10065.9	11141.5	5.1207 µg/L	5.1207 ppb	08:13:21
2	Cd 226.502†	345.6	515.8	1.9381 µg/L	1.9381 ppb	08:13:42
2	Co 228.616†	415.6	373.2	8.5220 µg/L	8.5220 ppb	08:13:42
2	Cr 267.716†	1102.8	1036.6	22.060 µg/L	22.060 ppb	08:13:42
2	Cu 324.752†	8082.1	3931.2	41.982 µg/L	41.982 ppb	08:13:21
2	Mn 257.610†	796533.7	810340.1	2410.5 µg/L	2410.5 ppb	08:13:15
2	Mo 202.031†	111.1	87.6	11.870 µg/L	11.870 ppb	08:13:42
2	Ni 231.604†	771.9	416.6	23.856 µg/L	23.856 ppb	08:13:42
2	P 214.914†	604.4	599.4	963.68 µg/L	963.68 ppb	08:13:42
2	Pb 220.353†	572.8	542.9	141.78 µg/L	141.78 ppb	08:13:42

2	S 181.975 Axial†	203.3	183.4	574.33 µg/L	574.33 ppb	08:13:42
2	Sb 206.836†	30.4	4.5	3.3510 µg/L	3.3510 ppb	08:13:42
2	Se 196.026†	-56.8	-82.4	204.81 µg/L	204.81 ppb	08:13:42
2	SiO2†	396605.3	400345.1	70949 µg/L	70949 ppb	08:13:15
2	Si 251.611†	479998.4	487439.3	32814 µg/L	32814 ppb	08:13:15
2	Sn 189.927†	16.2	14.9	6.9757 µg/L	6.9757 ppb	08:13:42
2	Ti 334.940†	1443187.1	1462810.0	3408.7 µg/L	3408.7 ppb	08:13:15
2	Tl 190.801†	-65.7	-32.5	18.677 µg/L	18.677 ppb	08:13:42
2	U 409.014†	-1865.6	-1880.6	-178.45 µg/L	-178.45 ppb	08:13:15
2	V 292.402†	4482.2	4720.0	53.142 µg/L	53.142 ppb	08:13:21
2	Zn 213.857†	19173.8	18586.2	411.65 µg/L	411.65 ppb	08:13:21
3	Sc RADIAL	87914.7	87914.7	100 %		08:12:07
3	Al 396.153Radial†	48888.9	48556.0	24066 µg/L	24066 ppb	08:12:07
3	Ca 317.933Radial†	48221.0	47750.9	17954 µg/L	17954 ppb	08:12:07
3	Fe 238.204 Radial†	6981.2	6949.9	88975 µg/L	88975 ppb	08:12:28
3	K 766.490 Radial†	12298.5	12067.9	5765.5 µg/L	5765.5 ppb	08:12:07
3	Mg 279.077 IEC†	316.9	309.5	4138.9 µg/L	4138.9 ppb	08:12:28
3	Na 589.592 Radial†	5418.1	5241.2	2757.2 µg/L	2757.2 ppb	08:12:07
3	Sr 421.552†	16208.7	16008.5	98.138 µg/L	98.138 ppb	08:12:07
3	Sc 361.383	1955267.2	1955267.2	98.495 %		08:13:49
3	Y 371.029	1401938.2	1401938.2	103.25 %		08:13:49
3	Ag 328.068†	-162.7	-761.7	1.2447 µg/L	1.2447 ppb	08:13:55
3	As 188.979†	11.8	12.6	4.7778 µg/L	4.7778 ppb	08:14:15
3	B 249.677†	948.4	564.8	-21.079 µg/L	-21.079 ppb	08:13:55
3	Ba 233.527†	17119.8	17377.0	371.05 µg/L	371.05 ppb	08:13:55
3	Be 313.107†	9548.4	10598.8	4.8604 µg/L	4.8604 ppb	08:13:55
3	Cd 226.502†	280.6	449.3	0.4794 µg/L	0.4794 ppb	08:14:15
3	Co 228.616†	370.1	326.3	6.8417 µg/L	6.8417 ppb	08:14:15
3	Cr 267.716†	1005.3	935.7	19.914 µg/L	19.914 ppb	08:14:15
3	Cu 324.752†	7925.8	3758.6	40.714 µg/L	40.714 ppb	08:13:55
3	Mn 257.610†	771241.4	783301.0	2330.2 µg/L	2330.2 ppb	08:13:49
3	Mo 202.031†	94.5	70.5	10.188 µg/L	10.188 ppb	08:14:15
3	Ni 231.604†	737.0	379.8	21.842 µg/L	21.842 ppb	08:14:15
3	P 214.914†	550.3	543.4	868.12 µg/L	868.12 ppb	08:14:15
3	Pb 220.353†	535.4	504.0	131.85 µg/L	131.85 ppb	08:14:15
3	S 181.975 Axial†	187.8	167.3	524.00 µg/L	524.00 ppb	08:14:15
3	Sb 206.836†	28.6	2.6	1.8136 µg/L	1.8136 ppb	08:14:15
3	Se 196.026†	-52.7	-78.0	206.01 µg/L	206.01 ppb	08:14:15
3	SiO2†	387025.4	389941.4	69105 µg/L	69105 ppb	08:13:49
3	Si 251.611†	468297.3	474739.7	31959 µg/L	31959 ppb	08:13:49
3	Sn 189.927†	4.7	3.2	2.5577 µg/L	2.5577 ppb	08:14:15
3	Ti 334.940†	1387564.0	1403872.2	3271.3 µg/L	3271.3 ppb	08:13:49
3	Tl 190.801†	-65.4	-32.2	17.389 µg/L	17.389 ppb	08:14:15
3	U 409.014†	-1803.6	-1814.4	-172.53 µg/L	-172.53 ppb	08:13:49
3	V 292.402†	4207.8	4433.8	50.058 µg/L	50.058 ppb	08:13:55
3	Zn 213.857†	18386.8	17754.3	393.07 µg/L	393.07 ppb	08:13:55

Mean Data: 247561004|955816|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Std.Dev.	RSD
Sc 361.383	1955344.8	98.499 %		0.1713			0.17%
Sc RADIAL	87385.4	99.7 %		0.56			0.57%
Y 371.029	1403971.2	103.40 %		0.262			0.25%
Ag 328.068†	-845.0	0.6653 µg/L		0.50319	0.6653 ppb	0.50319	75.63%
Al 396.153Radial†	48387.8	23983 µg/L		72.2	23983 ppb	72.2	0.30%
As 188.979†	12.3	4.2751 µg/L		4.51488	4.2751 ppb	4.51488	105.61%
B 249.677†	617.9	-19.074 µg/L		1.8836	-19.074 ppb	1.8836	9.87%
Ba 233.527†	17895.5	382.12 µg/L		9.645	382.12 ppb	9.645	2.52%
Be 313.107†	10936.7	5.0199 µg/L		0.13974	5.0199 ppb	0.13974	2.78%
Ca 317.933Radial†	47638.2	17912 µg/L		49.7	17912 ppb	49.7	0.28%
Cd 226.502†	493.8	1.4404 µg/L		0.83243	1.4404 ppb	0.83243	57.79%
Co 228.616†	356.0	7.8958 µg/L		0.91827	7.8958 ppb	0.91827	11.63%
Cr 267.716†	1013.5	21.568 µg/L		1.4707	21.568 ppb	1.4707	6.82%
Cu 324.752†	3870.0	41.562 µg/L		0.7340	41.562 ppb	0.7340	1.77%
Fe 238.204 Radial†	7006.6	89702 µg/L		660.7	89702 ppb	660.7	0.74%
K 766.490 Radial†	12004.6	5735.3 µg/L		29.24	5735.3 ppb	29.24	0.51%
Mg 279.077 IEC†	314.1	4200.9 µg/L		64.40	4200.9 ppb	64.40	1.53%
Mn 257.610†	801138.8	2383.2 µg/L		45.90	2383.2 ppb	45.90	1.93%
Mo 202.031†	80.4	11.173 µg/L		0.8771	11.173 ppb	0.8771	7.85%
Na 589.592 Radial†	5233.3	2753.0 µg/L		11.67	2753.0 ppb	11.67	0.42%

Ni 231.604†	401.8	23.047 µg/L	1.0634	23.047 ppb	1.0634	4.61%
P 214.914†	579.2	929.14 µg/L	52.996	929.14 ppb	52.996	5.70%
Pb 220.353†	526.8	137.66 µg/L	5.175	137.66 ppb	5.175	3.76%
S 181.975 Axial†	178.9	560.23 µg/L	31.634	560.23 ppb	31.634	5.65%
Sb 206.836†	1.4	0.7955 µg/L	3.18883	0.7955 ppb	3.18883	400.84%
Se 196.026†	-83.5	203.20 µg/L	3.876	203.20 ppb	3.876	1.91%
SiO2†	396969.5	70350 µg/L	1078.9	70350 ppb	1078.9	1.53%
Si 251.611†	483410.1	32543 µg/L	505.9	32543 ppb	505.9	1.55%
Sn 189.927†	12.0	5.8532 µg/L	2.90193	5.8532 ppb	2.90193	49.58%
Sr 421.552†	15957.5	97.825 µg/L	0.2933	97.825 ppb	0.2933	0.30%
Ti 334.940†	1443486.1	3363.7 µg/L	79.95	3363.7 ppb	79.95	2.38%
Tl 190.801†	-32.2	18.514 µg/L	1.0536	18.514 ppb	1.0536	5.69%
U 409.014†	-1852.2	-175.94 µg/L	3.061	-175.94 ppb	3.061	1.74%
V 292.402†	4588.9	51.739 µg/L	1.5606	51.739 ppb	1.5606	3.02%
Zn 213.857†	18252.8	404.19 µg/L	9.816	404.19 ppb	9.816	2.43%

Sequence No.: 20

Sample ID: 247561005|955816|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 314

Date Collected: 3/19/2010 08:14:25

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 247561005|955816|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	87669.6	87669.6	100.0 %		08:14:55
1	Al 396.153Radial†	48902.1	48705.5	24140 µg/L	24140 ppb	08:14:55
1	Ca 317.933Radial†	27095.9	26756.2	10060 µg/L	10060 ppb	08:14:55
1	Fe 238.204 Radial†	6353.2	6341.3	81184 µg/L	81184 ppb	08:15:15
1	K 766.490 Radial†	11585.2	11388.7	5441.0 µg/L	5441.0 ppb	08:14:55
1	Mg 279.077 IEC†	296.8	290.4	3885.1 µg/L	3885.1 ppb	08:15:15
1	Na 589.592 Radial†	5416.3	5254.4	2764.2 µg/L	2764.2 ppb	08:14:55
1	Sr 421.552†	11598.1	11442.2	70.145 µg/L	70.145 ppb	08:14:55
1	Sc 361.383	1944803.6	1944803.6	97.968 %		08:16:21
1	Y 371.029	1399424.4	1399424.4	103.06 %		08:16:21
1	Ag 328.068†	-218.1	-819.1	0.1957 µg/L	0.1957 ppb	08:16:26
1	As 188.979†	9.8	10.6	3.9392 µg/L	3.9392 ppb	08:16:47
1	B 249.677†	932.3	553.5	-17.512 µg/L	-17.512 ppb	08:16:26
1	Ba 233.527†	14010.6	14296.7	305.29 µg/L	305.29 ppb	08:16:26
1	Be 313.107†	9124.7	10218.4	4.5699 µg/L	4.5699 ppb	08:16:26
1	Cd 226.502†	288.4	458.7	1.5733 µg/L	1.5733 ppb	08:16:47
1	Co 228.616†	396.6	355.4	7.6690 µg/L	7.6690 ppb	08:16:47
1	Cr 267.716†	1101.7	1039.6	22.123 µg/L	22.123 ppb	08:16:47
1	Cu 324.752†	6394.0	2238.4	29.547 µg/L	29.547 ppb	08:16:26
1	Mn 257.610†	705312.0	720217.0	2142.5 µg/L	2142.5 ppb	08:16:21
1	Mo 202.031†	93.1	69.6	9.8055 µg/L	9.8055 ppb	08:16:47
1	Ni 231.604†	601.2	245.2	14.403 µg/L	14.403 ppb	08:16:47
1	P 214.914†	492.6	487.5	779.29 µg/L	779.29 ppb	08:16:47
1	Pb 220.353†	299.9	266.5	71.244 µg/L	71.244 ppb	08:16:47
1	S 181.975 Axial†	81.8	60.1	188.31 µg/L	188.31 ppb	08:16:47
1	Sb 206.836†	27.4	1.5	0.9764 µg/L	0.9764 ppb	08:16:47
1	Se 196.026†	-47.6	-73.2	186.75 µg/L	186.75 ppb	08:16:47
1	SiO2†	402544.3	407896.4	72287 µg/L	72287 ppb	08:16:21
1	Si 251.611†	487226.8	496619.8	33432 µg/L	33432 ppb	08:16:21
1	Sn 189.927†	21.4	20.3	8.2687 µg/L	8.2687 ppb	08:16:47
1	Ti 334.940†	1458821.3	1484187.2	3458.4 µg/L	3458.4 ppb	08:16:21
1	Tl 190.801†	-61.8	-28.8	21.924 µg/L	21.924 ppb	08:16:47
1	U 409.014†	-1886.0	-1908.4	-179.20 µg/L	-179.20 ppb	08:16:21
1	V 292.402†	4121.9	4369.1	49.104 µg/L	49.104 ppb	08:16:26
1	Zn 213.857†	20025.8	19527.8	433.23 µg/L	433.23 ppb	08:16:26
2	Sc RADIAL	88504.4	88504.4	101 %		08:15:21
2	Al 396.153Radial†	49195.1	48534.5	24056 µg/L	24056 ppb	08:15:21
2	Ca 317.933Radial†	27454.1	26855.4	10097 µg/L	10097 ppb	08:15:21
2	Fe 238.204 Radial†	6355.0	6283.1	80440 µg/L	80440 ppb	08:15:41
2	K 766.490 Radial†	11714.8	11407.8	5450.1 µg/L	5450.1 ppb	08:15:21
2	Mg 279.077 IEC†	293.9	284.6	3807.5 µg/L	3807.5 ppb	08:15:41
2	Na 589.592 Radial†	5413.8	5200.9	2736.0 µg/L	2736.0 ppb	08:15:21
2	Sr 421.552†	11693.6	11427.4	70.054 µg/L	70.054 ppb	08:15:21
2	Sc 361.383	1961996.3	1961996.3	98.834 %		08:16:55
2	Y 371.029	1408825.0	1408825.0	103.75 %		08:16:55
2	Ag 328.068†	-220.8	-819.8	0.1288 µg/L	0.1288 ppb	08:17:00
2	As 188.979†	9.7	10.4	3.6849 µg/L	3.6849 ppb	08:17:21
2	B 249.677†	987.4	600.9	-15.001 µg/L	-15.001 ppb	08:17:00
2	Ba 233.527†	13952.5	14112.6	301.36 µg/L	301.36 ppb	08:17:00
2	Be 313.107†	9119.0	10131.1	4.5193 µg/L	4.5193 ppb	08:17:00
2	Cd 226.502†	278.4	446.1	1.3624 µg/L	1.3624 ppb	08:17:21
2	Co 228.616†	385.1	340.2	7.0310 µg/L	7.0310 ppb	08:17:21
2	Cr 267.716†	1095.2	1023.1	21.772 µg/L	21.772 ppb	08:17:21
2	Cu 324.752†	6404.0	2191.3	29.107 µg/L	29.107 ppb	08:17:00
2	Mn 257.610†	712728.9	721412.7	2146.0 µg/L	2146.0 ppb	08:16:55
2	Mo 202.031†	86.5	62.1	9.0558 µg/L	9.0558 ppb	08:17:21
2	Ni 231.604†	615.3	254.1	14.879 µg/L	14.879 ppb	08:17:21
2	P 214.914†	482.9	473.3	755.39 µg/L	755.39 ppb	08:17:21
2	Pb 220.353†	279.4	243.1	65.259 µg/L	65.259 ppb	08:17:21

2	S 181.975 Axial†	78.4	55.9	175.24 µg/L	175.24 ppb	08:17:21
2	Sb 206.836†	23.3	-2.9	-2.7489 µg/L	-2.7489 ppb	08:17:21
2	Se 196.026†	-53.1	-78.3	179.67 µg/L	179.67 ppb	08:17:21
2	SiO2†	406122.7	407916.4	72290 µg/L	72290 ppb	08:16:55
2	Si 251.611†	491417.2	496501.6	33424 µg/L	33424 ppb	08:16:55
2	Sn 189.927†	20.8	19.5	7.9871 µg/L	7.9871 ppb	08:17:21
2	Ti 334.940†	1472025.5	1484498.4	3459.1 µg/L	3459.1 ppb	08:16:55
2	Tl 190.801†	-69.2	-35.8	15.159 µg/L	15.159 ppb	08:17:21
2	U 409.014†	-1919.2	-1925.2	-180.57 µg/L	-180.57 ppb	08:16:55
2	V 292.402†	4104.5	4314.6	48.492 µg/L	48.492 ppb	08:17:00
2	Zn 213.857†	20018.0	19340.7	429.08 µg/L	429.08 ppb	08:17:00
3	Sc RADIAL	88874.7	88874.7	101 %		08:15:47
3	Al 396.153Radial†	49516.7	48648.7	24112 µg/L	24112 ppb	08:15:47
3	Ca 317.933Radial†	27489.8	26777.4	10068 µg/L	10068 ppb	08:15:47
3	Fe 238.204 Radial†	6373.9	6275.5	80342 µg/L	80342 ppb	08:16:07
3	K 766.490 Radial†	11815.2	11458.5	5474.4 µg/L	5474.4 ppb	08:15:47
3	Mg 279.077 IEC†	296.0	285.5	3819.2 µg/L	3819.2 ppb	08:16:07
3	Na 589.592 Radial†	5490.7	5254.4	2764.1 µg/L	2764.1 ppb	08:15:47
3	Sr 421.552†	11763.2	11447.8	70.179 µg/L	70.179 ppb	08:15:47
3	Sc 361.383	1956680.0	1956680.0	98.566 %		08:17:29
3	Y 371.029	1403136.4	1403136.4	103.33 %		08:17:29
3	Ag 328.068†	-159.6	-758.3	0.5757 µg/L	0.5757 ppb	08:17:34
3	As 188.979†	8.9	9.6	2.6086 µg/L	2.6086 ppb	08:17:55
3	B 249.677†	933.2	548.7	-17.296 µg/L	-17.296 ppb	08:17:34
3	Ba 233.527†	13059.6	13245.1	282.83 µg/L	282.83 ppb	08:17:34
3	Be 313.107†	8354.2	9380.3	4.1445 µg/L	4.1445 ppb	08:17:34
3	Cd 226.502†	223.4	391.0	0.0837 µg/L	0.0837 ppb	08:17:55
3	Co 228.616†	357.5	313.2	6.2165 µg/L	6.2165 ppb	08:17:55
3	Cr 267.716†	990.5	919.9	19.577 µg/L	19.577 ppb	08:17:55
3	Cu 324.752†	6278.4	2081.5	28.388 µg/L	28.388 ppb	08:17:34
3	Mn 257.610†	683920.1	694144.2	2065.0 µg/L	2065.0 ppb	08:17:29
3	Mo 202.031†	76.8	52.5	8.1239 µg/L	8.1239 ppb	08:17:55
3	Ni 231.604†	594.0	234.2	13.794 µg/L	13.794 ppb	08:17:55
3	P 214.914†	445.2	436.3	691.87 µg/L	691.87 ppb	08:17:55
3	Pb 220.353†	266.8	231.1	62.189 µg/L	62.189 ppb	08:17:55
3	S 181.975 Axial†	79.5	57.2	179.24 µg/L	179.24 ppb	08:17:55
3	Sb 206.836†	27.8	1.7	1.1710 µg/L	1.1710 ppb	08:17:55
3	Se 196.026†	-51.6	-76.9	180.68 µg/L	180.68 ppb	08:17:55
3	SiO2†	393376.3	396101.0	70197 µg/L	70197 ppb	08:17:29
3	Si 251.611†	475687.1	481893.7	32441 µg/L	32441 ppb	08:17:29
3	Sn 189.927†	15.6	14.3	6.0200 µg/L	6.0200 ppb	08:17:55
3	Ti 334.940†	1403920.9	1419449.9	3307.6 µg/L	3307.6 ppb	08:17:29
3	Tl 190.801†	-61.7	-28.4	20.625 µg/L	20.625 ppb	08:17:55
3	U 409.014†	-1733.6	-1742.1	-164.51 µg/L	-164.51 ppb	08:17:29
3	V 292.402†	3774.9	3991.5	45.059 µg/L	45.059 ppb	08:17:34
3	Zn 213.857†	18836.2	18196.8	403.46 µg/L	403.46 ppb	08:17:34

Mean Data: 247561005|955816|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1954493.3	98.456 %		0.4434			0.45%
Sc RADIAL	88349.6	101 %		0.7			0.70%
Y 371.029	1403795.3	103.38 %		0.349			0.34%
Ag 328.068†	-799.1	0.3001 µg/L		0.24104	0.3001 ppb	0.24104	80.33%
Al 396.153Radial†	48629.6	24103 µg/L		43.2	24103 ppb	43.2	0.18%
As 188.979†	10.2	3.4109 µg/L		0.70633	3.4109 ppb	0.70633	20.71%
B 249.677†	567.7	-16.603 µg/L		1.3916	-16.603 ppb	1.3916	8.38%
Ba 233.527†	13884.8	296.49 µg/L		11.993	296.49 ppb	11.993	4.04%
Be 313.107†	9909.9	4.4113 µg/L		0.23241	4.4113 ppb	0.23241	5.27%
Ca 317.933Radial†	26796.3	10075 µg/L		19.7	10075 ppb	19.7	0.20%
Cd 226.502†	431.9	1.0064 µg/L		0.80608	1.0064 ppb	0.80608	80.09%
Co 228.616†	336.2	6.9722 µg/L		0.72801	6.9722 ppb	0.72801	10.44%
Cr 267.716†	994.2	21.157 µg/L		1.3796	21.157 ppb	1.3796	6.52%
Cu 324.752†	2170.4	29.014 µg/L		0.5852	29.014 ppb	0.5852	2.02%
Fe 238.204 Radial†	6300.0	80655 µg/L		460.5	80655 ppb	460.5	0.57%
K 766.490 Radial†	11418.3	5455.2 µg/L		17.24	5455.2 ppb	17.24	0.32%
Mg 279.077 IEC†	286.8	3837.2 µg/L		41.83	3837.2 ppb	41.83	1.09%
Mn 257.610†	711924.6	2117.8 µg/L		45.76	2117.8 ppb	45.76	2.16%
Mo 202.031†	61.4	8.9951 µg/L		0.84249	8.9951 ppb	0.84249	9.37%
Na 589.592 Radial†	5236.6	2754.8 µg/L		16.24	2754.8 ppb	16.24	0.59%

Ni 231.604†	244.5	14.359 µg/L	0.5437	14.359 ppb	0.5437	3.79%
P 214.914†	465.7	742.18 µg/L	45.184	742.18 ppb	45.184	6.09%
Pb 220.353†	246.9	66.231 µg/L	4.6051	66.231 ppb	4.6051	6.95%
S 181.975 Axial†	57.8	180.93 µg/L	6.698	180.93 ppb	6.698	3.70%
Sb 206.836†	0.1	-0.2005 µg/L	2.20910	-0.2005 ppb	2.20910	>999.9%
Se 196.026†	-76.1	182.37 µg/L	3.828	182.37 ppb	3.828	2.10%
SiO2†	403971.3	71591 µg/L	1207.9	71591 ppb	1207.9	1.69%
Si 251.611†	491671.7	33099 µg/L	570.1	33099 ppb	570.1	1.72%
Sn 189.927†	18.0	7.4253 µg/L	1.22514	7.4253 ppb	1.22514	16.50%
Sr 421.552†	11439.2	70.126 µg/L	0.0647	70.126 ppb	0.0647	0.09%
Ti 334.940†	1462711.8	3408.4 µg/L	87.31	3408.4 ppb	87.31	2.56%
Tl 190.801†	-31.0	19.236 µg/L	3.5900	19.236 ppb	3.5900	18.66%
U 409.014†	-1858.6	-174.76 µg/L	8.904	-174.76 ppb	8.904	5.10%
V 292.402†	4225.1	47.552 µg/L	2.1805	47.552 ppb	2.1805	4.59%
Zn 213.857†	19021.8	421.92 µg/L	16.120	421.92 ppb	16.120	3.82%

Sequence No.: 21

Sample ID: 247561006|955816|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 315

Date Collected: 3/19/2010 08:18:04

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 247561006|955816|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	88686.2	88686.2	101 %		08:18:35
1	Al 396.153Radial†	74912.4	73861.9	36609 µg/L	36609 ppb	08:18:35
1	Ca 317.933Radial†	82955.2	81675.2	30709 µg/L	30709 ppb	08:18:35
1	Fe 238.204 Radial†	7937.5	7834.9	100310 µg/L	100310 ppb	08:18:55
1	K 766.490 Radial†	13503.1	13152.2	6283.5 µg/L	6283.5 ppb	08:18:35
1	Mg 279.077 IEC†	487.7	475.6	6399.0 µg/L	6399.0 ppb	08:18:55
1	Na 589.592 Radial†	4274.9	4063.8	2137.8 µg/L	2137.8 ppb	08:18:35
1	Sr 421.552†	26893.0	26431.7	162.04 µg/L	162.04 ppb	08:18:35
1	Sc 361.383	1937055.9	1937055.9	97.578 %		08:20:00
1	Y 371.029	1387007.9	1387007.9	102.15 %		08:20:00
1	Ag 328.068†	-344.5	-949.5	0.8219 µg/L	0.8219 ppb	08:20:05
1	As 188.979†	22.6	23.7	17.812 µg/L	17.812 ppb	08:20:26
1	B 249.677†	1139.6	769.7	-17.785 µg/L	-17.785 ppb	08:20:05
1	Ba 233.527†	24357.3	24957.5	532.92 µg/L	532.92 ppb	08:20:05
1	Be 313.107†	10849.6	12023.5	5.4951 µg/L	5.4951 ppb	08:20:05
1	Cd 226.502†	425.8	600.7	2.7534 µg/L	2.7534 ppb	08:20:26
1	Co 228.616†	522.6	486.1	12.514 µg/L	12.514 ppb	08:20:26
1	Cr 267.716†	1496.7	1448.9	30.835 µg/L	30.835 ppb	08:20:26
1	Cu 324.752†	8121.4	4034.7	44.606 µg/L	44.606 ppb	08:20:05
1	Mn 257.610†	893108.1	915554.6	2723.3 µg/L	2723.3 ppb	08:20:00
1	Mo 202.031†	89.9	66.7	10.251 µg/L	10.251 ppb	08:20:26
1	Ni 231.604†	896.3	550.1	31.262 µg/L	31.262 ppb	08:20:26
1	P 214.914†	510.7	508.0	801.41 µg/L	801.41 ppb	08:20:26
1	Pb 220.353†	548.6	522.7	137.75 µg/L	137.75 ppb	08:20:26
1	S 181.975 Axial†	253.5	236.4	740.30 µg/L	740.30 ppb	08:20:26
1	Sb 206.836†	31.3	5.6	4.0217 µg/L	4.0217 ppb	08:20:26
1	Se 196.026†	-75.7	-102.2	216.79 µg/L	216.79 ppb	08:20:26
1	SiO2†	467676.5	476288.8	84407 µg/L	84407 ppb	08:20:00
1	Si 251.611†	565870.5	579205.0	38992 µg/L	38992 ppb	08:20:00
1	Sn 189.927†	9.1	7.8	5.4709 µg/L	5.4709 ppb	08:20:26
1	Ti 334.940†	1579271.5	1613583.3	3760.1 µg/L	3760.1 ppb	08:20:00
1	Tl 190.801†	-51.6	-18.6	36.010 µg/L	36.010 ppb	08:20:26
1	U 409.014†	-2107.4	-2143.0	-203.69 µg/L	-203.69 ppb	08:20:05
1	V 292.402†	6432.6	6754.0	75.098 µg/L	75.098 ppb	08:20:26
1	Zn 213.857†	25917.7	25647.7	569.16 µg/L	569.16 ppb	08:20:05
2	Sc RADIAL	87772.1	87772.1	100 %		08:19:00
2	Al 396.153Radial†	74560.2	74281.5	36817 µg/L	36817 ppb	08:19:00
2	Ca 317.933Radial†	82605.2	82179.8	30899 µg/L	30899 ppb	08:19:00
2	Fe 238.204 Radial†	7958.2	7937.3	101620 µg/L	101620 ppb	08:19:21
2	K 766.490 Radial†	13468.4	13256.5	6333.4 µg/L	6333.4 ppb	08:19:00
2	Mg 279.077 IEC†	485.0	478.0	6430.0 µg/L	6430.0 ppb	08:19:21
2	Na 589.592 Radial†	4233.0	4066.0	2139.0 µg/L	2139.0 ppb	08:19:00
2	Sr 421.552†	26835.7	26651.4	163.38 µg/L	163.38 ppb	08:19:00
2	Sc 361.383	1931552.8	1931552.8	97.301 %		08:20:33
2	Y 371.029	1385475.8	1385475.8	102.03 %		08:20:33
2	Ag 328.068†	-353.5	-959.8	0.8396 µg/L	0.8396 ppb	08:20:39
2	As 188.979†	21.7	22.9	16.444 µg/L	16.444 ppb	08:20:59
2	B 249.677†	1125.0	758.1	-18.990 µg/L	-18.990 ppb	08:20:39
2	Ba 233.527†	24287.8	24957.2	532.91 µg/L	532.91 ppb	08:20:39
2	Be 313.107†	10830.2	12035.2	5.5030 µg/L	5.5030 ppb	08:20:39
2	Cd 226.502†	417.5	593.4	2.4344 µg/L	2.4344 ppb	08:20:59
2	Co 228.616†	519.9	484.8	12.467 µg/L	12.467 ppb	08:20:59
2	Cr 267.716†	1491.1	1447.5	30.807 µg/L	30.807 ppb	08:20:59
2	Cu 324.752†	8192.7	4131.7	45.472 µg/L	45.472 ppb	08:20:39
2	Mn 257.610†	889840.5	914804.0	2721.1 µg/L	2721.1 ppb	08:20:33
2	Mo 202.031†	96.1	73.3	10.941 µg/L	10.941 ppb	08:20:59
2	Ni 231.604†	893.4	549.8	31.259 µg/L	31.259 ppb	08:20:59
2	P 214.914†	508.4	507.1	798.76 µg/L	798.76 ppb	08:20:59
2	Pb 220.353†	530.1	505.3	133.35 µg/L	133.35 ppb	08:20:59

2	S 181.975 Axial†	258.5	242.2	758.68 µg/L	758.68 ppb	08:20:59
2	Sb 206.836†	27.6	1.9	0.8681 µg/L	0.8681 ppb	08:20:59
2	Se 196.026†	-80.2	-107.0	216.50 µg/L	216.50 ppb	08:20:59
2	SiO2†	465495.4	475412.8	84252 µg/L	84252 ppb	08:20:33
2	Si 251.611†	563789.0	578717.9	38959 µg/L	38959 ppb	08:20:33
2	Sn 189.927†	4.4	2.9	3.6543 µg/L	3.6543 ppb	08:20:59
2	Ti 334.940†	1573556.3	1612320.6	3757.1 µg/L	3757.1 ppb	08:20:33
2	Tl 190.801†	-60.7	-28.2	27.019 µg/L	27.019 ppb	08:20:59
2	U 409.014†	-1978.0	-2016.2	-192.76 µg/L	-192.76 ppb	08:20:39
2	V 292.402†	6366.2	6704.6	74.633 µg/L	74.633 ppb	08:20:59
2	Zn 213.857†	25826.0	25629.1	568.68 µg/L	568.68 ppb	08:20:39
3	Sc RADIAL	88488.1	88488.1	101 %		08:19:26
3	Al 396.153Radial†	74828.8	73945.0	36650 µg/L	36650 ppb	08:19:26
3	Ca 317.933Radial†	83298.7	82199.3	30906 µg/L	30906 ppb	08:19:26
3	Fe 238.204 Radial†	7974.0	7888.6	100990 µg/L	100990 ppb	08:19:47
3	K 766.490 Radial†	13600.0	13278.1	6343.7 µg/L	6343.7 ppb	08:19:26
3	Mg 279.077 IEC†	490.9	480.0	6457.2 µg/L	6457.2 ppb	08:19:47
3	Na 589.592 Radial†	4253.5	4052.1	2131.6 µg/L	2131.6 ppb	08:19:26
3	Sr 421.552†	26990.8	26588.2	163.00 µg/L	163.00 ppb	08:19:26
3	Sc 361.383	1946075.1	1946075.1	98.032 %		08:21:07
3	Y 371.029	1393181.7	1393181.7	102.60 %		08:21:07
3	Ag 328.068†	-243.4	-844.8	1.6421 µg/L	1.6421 ppb	08:21:12
3	As 188.979†	15.7	16.6	7.4789 µg/L	7.4789 ppb	08:21:33
3	B 249.677†	1163.8	789.0	-17.285 µg/L	-17.285 ppb	08:21:12
3	Ba 233.527†	23284.6	23747.6	507.08 µg/L	507.08 ppb	08:21:12
3	Be 313.107†	10248.2	11358.4	5.1629 µg/L	5.1629 ppb	08:21:12
3	Cd 226.502†	368.4	540.1	1.2538 µg/L	1.2538 ppb	08:21:33
3	Co 228.616†	485.0	445.3	11.084 µg/L	11.084 ppb	08:21:33
3	Cr 267.716†	1364.4	1306.8	27.812 µg/L	27.812 ppb	08:21:33
3	Cu 324.752†	7983.9	3855.9	43.594 µg/L	43.594 ppb	08:21:12
3	Mn 257.610†	871875.0	889653.3	2646.4 µg/L	2646.4 ppb	08:21:07
3	Mo 202.031†	78.5	54.6	9.1129 µg/L	9.1129 ppb	08:21:33
3	Ni 231.604†	841.8	490.3	28.011 µg/L	28.011 ppb	08:21:33
3	P 214.914†	465.7	459.7	717.65 µg/L	717.65 ppb	08:21:33
3	Pb 220.353†	516.0	486.8	128.60 µg/L	128.60 ppb	08:21:33
3	S 181.975 Axial†	243.4	224.9	704.35 µg/L	704.35 ppb	08:21:33
3	Sb 206.836†	37.1	11.4	8.8460 µg/L	8.8460 ppb	08:21:33
3	Se 196.026†	-68.0	-93.9	226.53 µg/L	226.53 ppb	08:21:33
3	SiO2†	457205.7	463386.6	82121 µg/L	82121 ppb	08:21:07
3	Si 251.611†	553082.3	563472.4	37933 µg/L	37933 ppb	08:21:07
3	Sn 189.927†	0.4	-1.1	2.1374 µg/L	2.1374 ppb	08:21:33
3	Ti 334.940†	1530278.0	1556105.4	3626.1 µg/L	3626.1 ppb	08:21:07
3	Tl 190.801†	-58.5	-25.4	28.135 µg/L	28.135 ppb	08:21:33
3	U 409.014†	-1841.2	-1861.4	-179.11 µg/L	-179.11 ppb	08:21:12
3	V 292.402†	5833.5	6112.3	68.309 µg/L	68.309 ppb	08:21:33
3	Zn 213.857†	24896.3	24482.7	543.05 µg/L	543.05 ppb	08:21:12

Mean Data: 247561006|955816|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Std.Dev.	RSD
Sc 361.383	1938227.9	97.637 %		0.3693			0.38%
Sc RADIAL	88315.5	101 %		0.5			0.54%
Y 371.029	1388555.1	102.26 %		0.300			0.29%
Ag 328.068†	-918.0	1.1012 µg/L		0.46853	1.1012 ppb	0.46853	42.55%
Al 396.153Radial†	74029.5	36692 µg/L		110.1	36692 ppb	110.1	0.30%
As 188.979†	21.1	13.912 µg/L		5.6127	13.912 ppb	5.6127	40.35%
B 249.677†	772.3	-18.020 µg/L		0.8765	-18.020 ppb	0.8765	4.86%
Ba 233.527†	24554.1	524.30 µg/L		14.917	524.30 ppb	14.917	2.85%
Be 313.107†	11805.7	5.3870 µg/L		0.19409	5.3870 ppb	0.19409	3.60%
Ca 317.933Radial†	82018.1	30838 µg/L		111.7	30838 ppb	111.7	0.36%
Cd 226.502†	578.1	2.1472 µg/L		0.78997	2.1472 ppb	0.78997	36.79%
Co 228.616†	472.1	12.022 µg/L		0.8125	12.022 ppb	0.8125	6.76%
Cr 267.716†	1401.1	29.818 µg/L		1.7374	29.818 ppb	1.7374	5.83%
Cu 324.752†	4007.4	44.557 µg/L		0.9398	44.557 ppb	0.9398	2.11%
Fe 238.204 Radial†	7887.0	100970 µg/L		655.9	100970 ppb	655.9	0.65%
K 766.490 Radial†	13228.9	6320.2 µg/L		32.17	6320.2 ppb	32.17	0.51%
Mg 279.077 IEC†	477.9	6428.7 µg/L		29.14	6428.7 ppb	29.14	0.45%
Mn 257.610†	906670.6	2696.9 µg/L		43.76	2696.9 ppb	43.76	1.62%
Mo 202.031†	64.9	10.102 µg/L		0.9232	10.102 ppb	0.9232	9.14%
Na 589.592 Radial†	4060.6	2136.1 µg/L		3.94	2136.1 ppb	3.94	0.18%

Ni 231.604†	530.0	30.177 µg/L	1.8761	30.177 ppb	1.8761	6.22%
P 214.914†	491.6	772.61 µg/L	47.615	772.61 ppb	47.615	6.16%
Pb 220.353†	504.9	133.23 µg/L	4.579	133.23 ppb	4.579	3.44%
S 181.975 Axial†	234.5	734.44 µg/L	27.635	734.44 ppb	27.635	3.76%
Sb 206.836†	6.3	4.5786 µg/L	4.01799	4.5786 ppb	4.01799	87.76%
Se 196.026†	-101.0	219.94 µg/L	5.706	219.94 ppb	5.706	2.59%
SiO2†	471696.1	83593 µg/L	1277.7	83593 ppb	1277.7	1.53%
Si 251.611†	573798.4	38628 µg/L	602.2	38628 ppb	602.2	1.56%
Sn 189.927†	3.2	3.7542 µg/L	1.66902	3.7542 ppb	1.66902	44.46%
Sr 421.552†	26557.1	162.81 µg/L	0.693	162.81 ppb	0.693	0.43%
Ti 334.940†	1594003.1	3714.4 µg/L	76.50	3714.4 ppb	76.50	2.06%
Tl 190.801†	-24.1	30.388 µg/L	4.9005	30.388 ppb	4.9005	16.13%
U 409.014†	-2006.9	-191.85 µg/L	12.314	-191.85 ppb	12.314	6.42%
V 292.402†	6523.6	72.680 µg/L	3.7924	72.680 ppb	3.7924	5.22%
Zn 213.857†	25253.2	560.29 µg/L	14.940	560.29 ppb	14.940	2.67%

Sequence No.: 22

Sample ID: 247561007|955816|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 316

Date Collected: 3/19/2010 08:21:43

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 247561007|955816|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	87755.6	87755.6	100 %		08:22:13
1	Al 396.153Radial†	64325.3	64068.6	31755 µg/L	31755 ppb	08:22:13
1	Ca 317.933Radial†	64381.9	63986.3	24058 µg/L	24058 ppb	08:22:13
1	Fe 238.204 Radial†	7447.9	7428.9	95108 µg/L	95108 ppb	08:22:33
1	K 766.490 Radial†	11202.9	10995.3	5253.1 µg/L	5253.1 ppb	08:22:13
1	Mg 279.077 IEC†	415.4	408.6	5487.0 µg/L	5487.0 ppb	08:22:33
1	Na 589.592 Radial†	3749.9	3584.1	1885.5 µg/L	1885.5 ppb	08:22:13
1	Sr 421.552†	21556.4	21381.3	131.08 µg/L	131.08 ppb	08:22:13
1	Sc 361.383	1940215.4	1940215.4	97.737 %		08:23:38
1	Y 371.029	1384471.3	1384471.3	101.96 %		08:23:38
1	Ag 328.068†	-238.4	-840.3	1.2537 µg/L	1.2537 ppb	08:23:44
1	As 188.979†	15.6	16.5	8.9996 µg/L	8.9996 ppb	08:24:04
1	B 249.677†	1071.2	697.9	-18.294 µg/L	-18.294 ppb	08:23:44
1	Ba 233.527†	22012.9	22518.1	480.84 µg/L	480.84 ppb	08:23:44
1	Be 313.107†	9792.0	10923.3	4.9538 µg/L	4.9538 ppb	08:23:44
1	Cd 226.502†	385.3	558.5	2.3487 µg/L	2.3487 ppb	08:24:04
1	Co 228.616†	522.2	484.8	12.968 µg/L	12.968 ppb	08:24:04
1	Cr 267.716†	1460.6	1409.5	29.997 µg/L	29.997 ppb	08:24:04
1	Cu 324.752†	8841.4	4757.9	48.244 µg/L	48.244 ppb	08:23:44
1	Mn 257.610†	894662.3	915654.3	2723.3 µg/L	2723.3 ppb	08:23:38
1	Mo 202.031†	87.1	63.7	9.7631 µg/L	9.7631 ppb	08:24:04
1	Ni 231.604†	833.9	484.8	27.633 µg/L	27.633 ppb	08:24:04
1	P 214.914†	632.1	631.4	1016.2 µg/L	1016.2 ppb	08:24:04
1	Pb 220.353†	360.6	329.3	88.014 µg/L	88.014 ppb	08:24:04
1	S 181.975 Axial†	165.7	146.1	457.74 µg/L	457.74 ppb	08:24:04
1	Sb 206.836†	26.7	0.9	0.1277 µg/L	0.1277 ppb	08:24:04
1	Se 196.026†	-60.1	-86.0	216.52 µg/L	216.52 ppb	08:24:04
1	SiO2†	416233.7	422874.4	74941 µg/L	74941 ppb	08:23:38
1	Si 251.611†	503718.9	514669.9	34647 µg/L	34647 ppb	08:23:38
1	Sn 189.927†	5.7	4.3	3.5180 µg/L	3.5180 ppb	08:24:04
1	Ti 334.940†	1479887.7	1509262.7	3516.9 µg/L	3516.9 ppb	08:23:38
1	Tl 190.801†	-62.1	-29.3	23.972 µg/L	23.972 ppb	08:24:04
1	U 409.014†	-1841.9	-1867.9	-178.44 µg/L	-178.44 ppb	08:23:38
1	V 292.402†	6232.2	6538.2	72.649 µg/L	72.649 ppb	08:23:44
1	Zn 213.857†	24687.1	24345.4	540.30 µg/L	540.30 ppb	08:23:44
2	Sc RADIAL	87770.1	87770.1	100 %		08:22:39
2	Al 396.153Radial†	63994.8	63727.8	31586 µg/L	31586 ppb	08:22:39
2	Ca 317.933Radial†	64507.6	64101.2	24102 µg/L	24102 ppb	08:22:39
2	Fe 238.204 Radial†	7470.8	7450.5	95385 µg/L	95385 ppb	08:22:59
2	K 766.490 Radial†	11334.2	11124.6	5314.9 µg/L	5314.9 ppb	08:22:39
2	Mg 279.077 IEC†	416.3	409.4	5497.4 µg/L	5497.4 ppb	08:22:59
2	Na 589.592 Radial†	3786.8	3620.3	1904.5 µg/L	1904.5 ppb	08:22:39
2	Sr 421.552†	21572.6	21393.9	131.15 µg/L	131.15 ppb	08:22:39
2	Sc 361.383	1947591.8	1947591.8	98.108 %		08:24:12
2	Y 371.029	1389799.2	1389799.2	102.35 %		08:24:12
2	Ag 328.068†	-278.8	-880.6	0.9588 µg/L	0.9588 ppb	08:24:18
2	As 188.979†	18.9	19.8	13.669 µg/L	13.669 ppb	08:24:38
2	B 249.677†	1090.8	713.7	-17.730 µg/L	-17.730 ppb	08:24:18
2	Ba 233.527†	21851.4	22268.2	475.50 µg/L	475.50 ppb	08:24:18
2	Be 313.107†	9766.6	10859.4	4.9172 µg/L	4.9172 ppb	08:24:18
2	Cd 226.502†	383.2	554.9	2.2344 µg/L	2.2344 ppb	08:24:38
2	Co 228.616†	511.3	471.7	12.420 µg/L	12.420 ppb	08:24:38
2	Cr 267.716†	1423.2	1365.6	29.065 µg/L	29.065 ppb	08:24:38
2	Cu 324.752†	8861.5	4744.1	48.208 µg/L	48.208 ppb	08:24:18
2	Mn 257.610†	899084.6	916694.9	2726.4 µg/L	2726.4 ppb	08:24:12
2	Mo 202.031†	82.5	58.6	9.2841 µg/L	9.2841 ppb	08:24:38
2	Ni 231.604†	851.7	499.7	28.451 µg/L	28.451 ppb	08:24:38
2	P 214.914†	643.1	640.2	1031.0 µg/L	1031.0 ppb	08:24:38
2	Pb 220.353†	357.9	325.3	86.978 µg/L	86.978 ppb	08:24:38

2	S 181.975 Axial†	172.5	152.4	477.33 µg/L	477.33 ppb	08:24:38
2	Sb 206.836†	28.4	2.5	1.4663 µg/L	1.4663 ppb	08:24:38
2	Se 196.026†	-75.5	-101.5	203.10 µg/L	203.10 ppb	08:24:38
2	SiO2†	417558.9	422612.2	74895 µg/L	74895 ppb	08:24:12
2	Si 251.611†	505030.8	514055.1	34606 µg/L	34606 ppb	08:24:12
2	Sn 189.927†	5.3	3.9	3.3843 µg/L	3.3843 ppb	08:24:38
2	Ti 334.940†	1485332.1	1509077.2	3516.5 µg/L	3516.5 ppb	08:24:12
2	Tl 190.801†	-60.6	-27.5	25.749 µg/L	25.749 ppb	08:24:38
2	U 409.014†	-1928.8	-1949.3	-185.62 µg/L	-185.62 ppb	08:24:12
2	V 292.402†	6201.8	6483.1	72.060 µg/L	72.060 ppb	08:24:18
2	Zn 213.857†	24568.8	24129.1	535.44 µg/L	535.44 ppb	08:24:18
3	Sc RADIAL	87249.5	87249.5	99.5 %		08:23:04
3	Al 396.153Radial†	63865.9	63979.7	31711 µg/L	31711 ppb	08:23:04
3	Ca 317.933Radial†	64288.7	64265.8	24163 µg/L	24163 ppb	08:23:04
3	Fe 238.204 Radial†	7452.7	7476.9	95723 µg/L	95723 ppb	08:23:25
3	K 766.490 Radial†	11179.3	11036.6	5272.8 µg/L	5272.8 ppb	08:23:04
3	Mg 279.077 IEC†	415.1	410.6	5514.2 µg/L	5514.2 ppb	08:23:25
3	Na 589.592 Radial†	3721.3	3577.0	1881.8 µg/L	1881.8 ppb	08:23:04
3	Sr 421.552†	21526.6	21476.3	131.66 µg/L	131.66 ppb	08:23:04
3	Sc 361.383	1948968.2	1948968.2	98.178 %		08:24:46
3	Y 371.029	1388127.2	1388127.2	102.23 %		08:24:46
3	Ag 328.068†	-243.9	-844.8	1.2333 µg/L	1.2333 ppb	08:24:52
3	As 188.979†	13.8	14.6	6.1860 µg/L	6.1860 ppb	08:25:12
3	B 249.677†	1033.9	655.0	-20.544 µg/L	-20.544 ppb	08:24:52
3	Ba 233.527†	20904.8	21288.3	454.58 µg/L	454.58 ppb	08:24:52
3	Be 313.107†	9141.4	10215.6	4.5975 µg/L	4.5975 ppb	08:24:52
3	Cd 226.502†	338.3	508.9	1.1168 µg/L	1.1168 ppb	08:25:12
3	Co 228.616†	477.7	437.0	11.249 µg/L	11.249 ppb	08:25:12
3	Cr 267.716†	1307.0	1246.3	26.526 µg/L	26.526 ppb	08:25:12
3	Cu 324.752†	8650.0	4522.3	46.856 µg/L	46.856 ppb	08:24:52
3	Mn 257.610†	869984.6	886407.7	2636.5 µg/L	2636.5 ppb	08:24:46
3	Mo 202.031†	82.4	58.5	9.2829 µg/L	9.2829 ppb	08:25:12
3	Ni 231.604†	789.9	436.1	24.991 µg/L	24.991 ppb	08:25:12
3	P 214.914†	600.9	596.7	956.15 µg/L	956.15 ppb	08:25:12
3	Pb 220.353†	332.6	299.2	80.344 µg/L	80.344 ppb	08:25:12
3	S 181.975 Axial†	155.2	134.7	421.89 µg/L	421.89 ppb	08:25:12
3	Sb 206.836†	28.3	2.4	1.4040 µg/L	1.4040 ppb	08:25:12
3	Se 196.026†	-67.5	-93.3	211.72 µg/L	211.72 ppb	08:25:12
3	SiO2†	407078.7	411637.0	72950 µg/L	72950 ppb	08:24:46
3	Si 251.611†	492626.2	501056.7	33731 µg/L	33731 ppb	08:24:46
3	Sn 189.927†	4.5	3.0	3.0620 µg/L	3.0620 ppb	08:25:12
3	Ti 334.940†	1429647.5	1451289.9	3381.8 µg/L	3381.8 ppb	08:24:46
3	Tl 190.801†	-52.0	-18.7	32.694 µg/L	32.694 ppb	08:25:12
3	U 409.014†	-1791.4	-1808.0	-173.28 µg/L	-173.28 ppb	08:24:46
3	V 292.402†	5802.7	6072.1	67.709 µg/L	67.709 ppb	08:24:52
3	Zn 213.857†	23542.9	23066.5	511.64 µg/L	511.64 ppb	08:24:52

Mean Data: 247561007|955816|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1945591.8	98.008 %	0.2371			0.24%
Sc RADIAL	87591.8	99.9 %	0.34			0.34%
Y 371.029	1387465.9	102.18 %	0.201			0.20%
Ag 328.068†	-855.3	1.1486 µg/L	0.16471	1.1486 ppb	0.16471	14.34%
Al 396.153Radial†	63925.4	31684 µg/L	87.6	31684 ppb	87.6	0.28%
As 188.979†	17.0	9.6183 µg/L	3.77990	9.6183 ppb	3.77990	39.30%
B 249.677†	688.9	-18.856 µg/L	1.4891	-18.856 ppb	1.4891	7.90%
Ba 233.527†	22024.9	470.31 µg/L	13.881	470.31 ppb	13.881	2.95%
Be 313.107†	10666.1	4.8228 µg/L	0.19598	4.8228 ppb	0.19598	4.06%
Ca 317.933Radial†	64117.8	24108 µg/L	52.8	24108 ppb	52.8	0.22%
Cd 226.502†	540.8	1.9000 µg/L	0.68065	1.9000 ppb	0.68065	35.82%
Co 228.616†	464.5	12.212 µg/L	0.8782	12.212 ppb	0.8782	7.19%
Cr 267.716†	1340.5	28.529 µg/L	1.7964	28.529 ppb	1.7964	6.30%
Cu 324.752†	4674.8	47.769 µg/L	0.7913	47.769 ppb	0.7913	1.66%
Fe 238.204 Radial†	7452.1	95405 µg/L	307.8	95405 ppb	307.8	0.32%
K 766.490 Radial†	11052.2	5280.3 µg/L	31.57	5280.3 ppb	31.57	0.60%
Mg 279.077 IEC†	409.5	5499.5 µg/L	13.73	5499.5 ppb	13.73	0.25%
Mn 257.610†	906252.3	2695.4 µg/L	51.02	2695.4 ppb	51.02	1.89%
Mo 202.031†	60.3	9.4434 µg/L	0.27692	9.4434 ppb	0.27692	2.93%
Na 589.592 Radial†	3593.8	1890.6 µg/L	12.20	1890.6 ppb	12.20	0.65%

Ni 231.604†	473.5	27.025 µg/L	1.8086	27.025 ppb	1.8086	6.69%
P 214.914†	622.8	1001.1 µg/L	39.65	1001.1 ppb	39.65	3.96%
Pb 220.353†	317.9	85.112 µg/L	4.1617	85.112 ppb	4.1617	4.89%
S 181.975 Axial†	144.4	452.32 µg/L	28.114	452.32 ppb	28.114	6.22%
Sb 206.836†	1.9	0.9993 µg/L	0.75552	0.9993 ppb	0.75552	75.60%
Se 196.026†	-93.6	210.45 µg/L	6.800	210.45 ppb	6.800	3.23%
SiO2†	419041.2	74262 µg/L	1136.6	74262 ppb	1136.6	1.53%
Si 251.611†	509927.2	34328 µg/L	517.6	34328 ppb	517.6	1.51%
Sn 189.927†	3.7	3.3214 µg/L	0.23441	3.3214 ppb	0.23441	7.06%
Sr 421.552†	21417.1	131.30 µg/L	0.316	131.30 ppb	0.316	0.24%
Ti 334.940†	1489876.6	3471.8 µg/L	77.87	3471.8 ppb	77.87	2.24%
Tl 190.801†	-25.2	27.471 µg/L	4.6090	27.471 ppb	4.6090	16.78%
U 409.014†	-1875.1	-179.11 µg/L	6.197	-179.11 ppb	6.197	3.46%
V 292.402†	6364.5	70.806 µg/L	2.6983	70.806 ppb	2.6983	3.81%
Zn 213.857†	23847.0	529.12 µg/L	15.338	529.12 ppb	15.338	2.90%

Sequence No.: 23

Sample ID: 247561008|955816|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 317

Date Collected: 3/19/2010 08:25:21

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 247561008|955816|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	86902.3	86902.3	99.1 %		08:25:52
1	Al 396.153Radial†	72130.8	72575.8	35971 µg/L	35971 ppb	08:25:52
1	Ca 317.933Radial†	169634.5	170820.4	64227 µg/L	64227 ppb	08:25:52
1	Fe 238.204 Radial†	7092.0	7142.9	91446 µg/L	91446 ppb	08:26:12
1	K 766.490 Radial†	12230.1	12141.8	5800.8 µg/L	5800.8 ppb	08:25:52
1	Mg 279.077 IEC†	477.0	474.7	6396.0 µg/L	6396.0 ppb	08:26:12
1	Na 589.592 Radial†	2938.1	2801.7	1473.9 µg/L	1473.9 ppb	08:25:52
1	Sr 421.552†	39508.2	39706.6	243.42 µg/L	243.42 ppb	08:25:52
1	Sc 361.383	1946164.6	1946164.6	98.037 %		08:27:17
1	Y 371.029	1377318.6	1377318.6	101.43 %		08:27:17
1	Ag 328.068†	-248.9	-850.4	0.9449 µg/L	0.9449 ppb	08:27:23
1	As 188.979†	23.6	24.7	16.224 µg/L	16.224 ppb	08:27:43
1	B 249.677†	1268.6	895.9	-7.4940 µg/L	-7.4940 ppb	08:27:23
1	Ba 233.527†	22293.8	22735.9	485.50 µg/L	485.50 ppb	08:27:23
1	Be 313.107†	9233.8	10323.2	4.6862 µg/L	4.6862 ppb	08:27:23
1	Cd 226.502†	391.3	563.5	2.8819 µg/L	2.8819 ppb	08:27:43
1	Co 228.616†	487.0	447.3	11.822 µg/L	11.822 ppb	08:27:43
1	Cr 267.716†	1898.3	1851.3	39.392 µg/L	39.392 ppb	08:27:43
1	Cu 324.752†	17517.7	13580.3	103.86 µg/L	103.86 ppb	08:27:23
1	Mn 257.610†	726980.4	741816.0	2207.0 µg/L	2207.0 ppb	08:27:17
1	Mo 202.031†	75.6	51.7	8.4621 µg/L	8.4621 ppb	08:27:43
1	Ni 231.604†	887.0	536.3	30.398 µg/L	30.398 ppb	08:27:43
1	P 214.914†	573.0	569.2	907.23 µg/L	907.23 ppb	08:27:43
1	Pb 220.353†	497.0	467.4	123.32 µg/L	123.32 ppb	08:27:43
1	S 181.975 Axial†	467.8	453.8	1421.3 µg/L	1421.3 ppb	08:27:43
1	Sb 206.836†	33.4	7.7	5.0818 µg/L	5.0818 ppb	08:27:43
1	Se 196.026†	-70.4	-96.3	190.56 µg/L	190.56 ppb	08:27:43
1	SiO2†	490227.8	497048.7	88086 µg/L	88086 ppb	08:27:17
1	Si 251.611†	594125.6	605311.7	40749 µg/L	40749 ppb	08:27:17
1	Sn 189.927†	-7.4	-9.1	2.3868 µg/L	2.3868 ppb	08:27:43
1	Ti 334.940†	1398094.3	1421202.5	3312.3 µg/L	3312.3 ppb	08:27:17
1	Tl 190.801†	-47.4	-14.1	26.443 µg/L	26.443 ppb	08:27:43
1	U 409.014†	-1515.8	-1529.4	-150.71 µg/L	-150.71 ppb	08:27:23
1	V 292.402†	6956.9	7257.9	80.220 µg/L	80.220 ppb	08:27:43
1	Zn 213.857†	50339.6	50434.4	1124.7 µg/L	1124.7 ppb	08:27:23
2	Sc RADIAL	87798.1	87798.1	100 %		08:26:18
2	Al 396.153Radial†	73042.2	72743.4	36055 µg/L	36055 ppb	08:26:18
2	Ca 317.933Radial†	172209.9	171646.1	64538 µg/L	64538 ppb	08:26:18
2	Fe 238.204 Radial†	7076.7	7054.6	90316 µg/L	90316 ppb	08:26:38
2	K 766.490 Radial†	12390.2	12175.7	5817.0 µg/L	5817.0 ppb	08:26:18
2	Mg 279.077 IEC†	477.0	469.9	6330.6 µg/L	6330.6 ppb	08:26:38
2	Na 589.592 Radial†	2974.2	2807.5	1476.9 µg/L	1476.9 ppb	08:26:18
2	Sr 421.552†	40024.8	39815.8	244.09 µg/L	244.09 ppb	08:26:18
2	Sc 361.383	1934252.4	1934252.4	97.436 %		08:27:50
2	Y 371.029	1372444.4	1372444.4	101.07 %		08:27:50
2	Ag 328.068†	-211.2	-813.2	1.1440 µg/L	1.1440 ppb	08:27:56
2	As 188.979†	25.6	26.9	19.458 µg/L	19.458 ppb	08:28:17
2	B 249.677†	1203.0	836.5	-9.5664 µg/L	-9.5664 ppb	08:27:56
2	Ba 233.527†	22140.4	22718.5	485.13 µg/L	485.13 ppb	08:27:56
2	Be 313.107†	9228.5	10375.8	4.7146 µg/L	4.7146 ppb	08:27:56
2	Cd 226.502†	380.0	554.3	2.7942 µg/L	2.7942 ppb	08:28:17
2	Co 228.616†	483.3	446.5	11.781 µg/L	11.781 ppb	08:28:17
2	Cr 267.716†	1873.7	1838.0	39.109 µg/L	39.109 ppb	08:28:17
2	Cu 324.752†	17504.6	13676.8	104.26 µg/L	104.26 ppb	08:27:56
2	Mn 257.610†	723721.3	743037.9	2210.6 µg/L	2210.6 ppb	08:27:50
2	Mo 202.031†	89.3	66.2	9.8263 µg/L	9.8263 ppb	08:28:17
2	Ni 231.604†	864.0	518.3	29.401 µg/L	29.401 ppb	08:28:17
2	P 214.914†	573.1	572.8	914.38 µg/L	914.38 ppb	08:28:17
2	Pb 220.353†	496.3	469.8	123.91 µg/L	123.91 ppb	08:28:17

2	S 181.975 Axial†	468.0	456.9	1431.1 µg/L	1431.1 ppb	08:28:17
2	Sb 206.836†	25.7	-0.1	-1.4063 µg/L	-1.4063 ppb	08:28:17
2	Se 196.026†	-82.6	-109.3	174.97 µg/L	174.97 ppb	08:28:17
2	SiO2†	487214.6	497035.7	88084 µg/L	88084 ppb	08:27:50
2	Si 251.611†	589849.4	604655.3	40705 µg/L	40705 ppb	08:27:50
2	Sn 189.927†	-8.6	-10.4	1.9251 µg/L	1.9251 ppb	08:28:17
2	Ti 334.940†	1391628.4	1423349.2	3317.3 µg/L	3317.3 ppb	08:27:50
2	Tl 190.801†	-53.8	-20.9	19.692 µg/L	19.692 ppb	08:28:17
2	U 409.014†	-1526.5	-1550.0	-152.37 µg/L	-152.37 ppb	08:27:56
2	V 292.402†	6885.7	7228.6	79.879 µg/L	79.879 ppb	08:28:17
2	Zn 213.857†	50159.1	50565.4	1127.7 µg/L	1127.7 ppb	08:27:56
3	Sc RADIAL	87641.9	87641.9	99.9 %		08:26:44
3	Al 396.153Radial†	72689.2	72520.2	35944 µg/L	35944 ppb	08:26:44
3	Ca 317.933Radial†	171263.1	171005.3	64297 µg/L	64297 ppb	08:26:44
3	Fe 238.204 Radial†	7105.3	7095.8	90844 µg/L	90844 ppb	08:27:04
3	K 766.490 Radial†	12330.3	12137.9	5799.0 µg/L	5799.0 ppb	08:26:44
3	Mg 279.077 IEC†	484.0	477.7	6436.8 µg/L	6436.8 ppb	08:27:04
3	Na 589.592 Radial†	2901.1	2739.7	1441.3 µg/L	1441.3 ppb	08:26:44
3	Sr 421.552†	39937.1	39799.3	243.98 µg/L	243.98 ppb	08:26:44
3	Sc 361.383	1943144.6	1943144.6	97.884 %		08:28:24
3	Y 371.029	1376805.0	1376805.0	101.40 %		08:28:24
3	Ag 328.068†	-166.5	-766.5	1.4984 µg/L	1.4984 ppb	08:28:30
3	As 188.979†	22.6	23.7	14.872 µg/L	14.872 ppb	08:28:50
3	B 249.677†	1145.3	772.0	-12.741 µg/L	-12.741 ppb	08:28:30
3	Ba 233.527†	21225.3	21679.6	462.94 µg/L	462.94 ppb	08:28:30
3	Be 313.107†	8504.1	9592.4	4.3102 µg/L	4.3102 ppb	08:28:30
3	Cd 226.502†	343.0	514.7	1.8055 µg/L	1.8055 ppb	08:28:50
3	Co 228.616†	438.4	398.3	10.022 µg/L	10.022 ppb	08:28:50
3	Cr 267.716†	1710.8	1662.8	35.380 µg/L	35.380 ppb	08:28:50
3	Cu 324.752†	16832.8	12908.3	99.456 µg/L	99.456 ppb	08:28:30
3	Mn 257.610†	703896.1	719385.3	2140.4 µg/L	2140.4 ppb	08:28:24
3	Mo 202.031†	90.7	67.2	9.9394 µg/L	9.9394 ppb	08:28:50
3	Ni 231.604†	831.8	481.3	27.395 µg/L	27.395 ppb	08:28:50
3	P 214.914†	542.0	538.4	855.05 µg/L	855.05 ppb	08:28:50
3	Pb 220.353†	464.4	434.8	115.01 µg/L	115.01 ppb	08:28:50
3	S 181.975 Axial†	448.1	434.4	1360.5 µg/L	1360.5 ppb	08:28:50
3	Sb 206.836†	40.0	14.4	10.798 µg/L	10.798 ppb	08:28:50
3	Se 196.026†	-65.4	-91.3	193.21 µg/L	193.21 ppb	08:28:50
3	SiO2†	474535.9	481794.7	85383 µg/L	85383 ppb	08:28:24
3	Si 251.611†	574809.5	586520.0	39484 µg/L	39484 ppb	08:28:24
3	Sn 189.927†	-17.7	-19.6	-1.5737 µg/L	-1.5737 ppb	08:28:50
3	Ti 334.940†	1346290.3	1370495.3	3194.1 µg/L	3194.1 ppb	08:28:24
3	Tl 190.801†	-41.7	-8.4	30.512 µg/L	30.512 ppb	08:28:50
3	U 409.014†	-1439.9	-1454.3	-144.04 µg/L	-144.04 ppb	08:28:30
3	V 292.402†	6239.4	6536.0	72.535 µg/L	72.535 ppb	08:28:50
3	Zn 213.857†	47926.2	48048.7	1071.3 µg/L	1071.3 ppb	08:28:30

Mean Data: 247561008|955816|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1941187.2	97.786 %	0.3119			0.32%
Sc RADIAL	87447.4	99.7 %	0.55			0.55%
Y 371.029	1375522.7	101.30 %	0.197			0.19%
Ag 328.068†	-810.0	1.1957 µg/L	0.28035	1.1957 ppb	0.28035	23.45%
Al 396.153Radial†	72613.1	35990 µg/L	57.6	35990 ppb	57.6	0.16%
As 188.979†	25.1	16.851 µg/L	2.3562	16.851 ppb	2.3562	13.98%
B 249.677†	834.8	-9.9337 µg/L	2.64254	-9.9337 ppb	2.64254	26.60%
Ba 233.527†	22378.0	477.86 µg/L	12.921	477.86 ppb	12.921	2.70%
Be 313.107†	10097.2	4.5703 µg/L	0.22576	4.5703 ppb	0.22576	4.94%
Ca 317.933Radial†	171157.3	64354 µg/L	162.9	64354 ppb	162.9	0.25%
Cd 226.502†	544.2	2.4939 µg/L	0.59772	2.4939 ppb	0.59772	23.97%
Co 228.616†	430.7	11.208 µg/L	1.0276	11.208 ppb	1.0276	9.17%
Cr 267.716†	1784.1	37.960 µg/L	2.2390	37.960 ppb	2.2390	5.90%
Cu 324.752†	13388.5	102.53 µg/L	2.665	102.53 ppb	2.665	2.60%
Fe 238.204 Radial†	7097.7	90868 µg/L	565.4	90868 ppb	565.4	0.62%
K 766.490 Radial†	12151.8	5805.6 µg/L	9.94	5805.6 ppb	9.94	0.17%
Mg 279.077 IEC†	474.1	6387.8 µg/L	53.59	6387.8 ppb	53.59	0.84%
Mn 257.610†	734746.4	2186.0 µg/L	39.53	2186.0 ppb	39.53	1.81%
Mo 202.031†	61.7	9.4093 µg/L	0.82222	9.4093 ppb	0.82222	8.74%
Na 589.592 Radial†	2783.0	1464.0 µg/L	19.77	1464.0 ppb	19.77	1.35%

Ni 231.604†	512.0	29.065 µg/L	1.5293	29.065 ppb	1.5293	5.26%
P 214.914†	560.1	892.22 µg/L	32.386	892.22 ppb	32.386	3.63%
Pb 220.353†	457.3	120.75 µg/L	4.979	120.75 ppb	4.979	4.12%
S 181.975 Axial†	448.3	1404.3 µg/L	38.25	1404.3 ppb	38.25	2.72%
Sb 206.836†	7.3	4.8245 µg/L	6.10627	4.8245 ppb	6.10627	126.57%
Se 196.026†	-99.0	186.25 µg/L	9.857	186.25 ppb	9.857	5.29%
SiO2†	491959.7	87185 µg/L	1560.1	87185 ppb	1560.1	1.79%
Si 251.611†	598829.0	40313 µg/L	718.0	40313 ppb	718.0	1.78%
Sn 189.927†	-13.0	0.9127 µg/L	2.16564	0.9127 ppb	2.16564	237.27%
Sr 421.552†	39773.9	243.83 µg/L	0.361	243.83 ppb	0.361	0.15%
Ti 334.940†	1405015.7	3274.6 µg/L	69.71	3274.6 ppb	69.71	2.13%
Tl 190.801†	-14.5	25.549 µg/L	5.4651	25.549 ppb	5.4651	21.39%
U 409.014†	-1511.2	-149.04 µg/L	4.407	-149.04 ppb	4.407	2.96%
V 292.402†	7007.5	77.545 µg/L	4.3421	77.545 ppb	4.3421	5.60%
Zn 213.857†	49682.8	1107.9 µg/L	31.72	1107.9 ppb	31.72	2.86%

Sequence No.: 24

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/19/2010 08:29:00

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	89001.5	89001.5	101 %		08:29:33
1	Al 396.153Radial†	10625.3	10262.3	5075.2 µg/L	5075.2 ppb	08:29:33
1	Ca 317.933Radial†	14480.2	13921.3	5234.3 µg/L	5234.3 ppb	08:29:33
1	Fe 238.204 Radial†	441.1	421.4	5406.2 µg/L	5406.2 ppb	08:29:53
1	K 766.490 Radial†	11307.6	10941.8	5227.5 µg/L	5227.5 ppb	08:29:33
1	Mg 279.077 IEC†	399.7	387.3	5300.7 µg/L	5300.7 ppb	08:29:53
1	Na 589.592 Radial†	21081.6	20607.2	10841 µg/L	10841 ppb	08:29:33
1	Sr 421.552†	88056.3	86597.1	530.87 µg/L	530.87 ppb	08:29:33
1	Sc 361.383	1955804.6	1955804.6	98.522 %		08:30:57
1	Y 371.029	1334862.1	1334862.1	98.306 %		08:30:57
1	Ag 328.068†	67012.8	67421.6	526.91 µg/L	526.91 ppb	08:31:02
1	As 188.979†	372.3	378.5	539.49 µg/L	539.49 ppb	08:31:23
1	B 249.677†	11820.7	11599.9	518.04 µg/L	518.04 ppb	08:31:02
1	Ba 233.527†	24413.9	24775.7	529.86 µg/L	529.86 ppb	08:31:02
1	Be 313.107†	910077.9	924633.6	532.55 µg/L	532.55 ppb	08:30:57
1	Cd 226.502†	22086.0	22581.6	528.36 µg/L	528.36 ppb	08:31:02
1	Co 228.616†	12538.9	12677.5	530.26 µg/L	530.26 ppb	08:31:02
1	Cr 267.716†	24916.6	25205.3	535.98 µg/L	535.98 ppb	08:31:02
1	Cu 324.752†	86332.1	83338.9	532.86 µg/L	532.86 ppb	08:31:02
1	Mn 257.610†	179095.7	182058.0	540.39 µg/L	540.39 ppb	08:30:57
1	Mo 202.031†	5600.3	5658.9	546.57 µg/L	546.57 ppb	08:31:23
1	Ni 231.604†	9994.3	9775.8	532.23 µg/L	532.23 ppb	08:31:02
1	P 214.914†	1552.1	1560.1	2635.9 µg/L	2635.9 ppb	08:31:23
1	Pb 220.353†	2126.0	2118.3	540.26 µg/L	540.26 ppb	08:31:23
1	S 181.975 Axial†	359.8	341.8	1070.5 µg/L	1070.5 ppb	08:31:23
1	Sb 206.836†	668.1	651.7	548.21 µg/L	548.21 ppb	08:31:23
1	Se 196.026†	598.4	582.9	550.42 µg/L	550.42 ppb	08:31:23
1	SiO2†	34536.7	32057.5	5681.2 µg/L	5681.2 ppb	08:31:02
1	Si 251.611†	39554.0	39434.5	2654.7 µg/L	2654.7 ppb	08:31:02
1	Sn 189.927†	1434.5	1454.5	549.62 µg/L	549.62 ppb	08:31:23
1	Ti 334.940†	228860.1	227400.7	529.57 µg/L	529.57 ppb	08:30:57
1	Tl 190.801†	511.4	553.4	536.52 µg/L	536.52 ppb	08:31:23
1	U 409.014†	5955.6	6061.6	530.33 µg/L	530.33 ppb	08:31:02
1	V 292.402†	48841.4	49735.8	534.87 µg/L	534.87 ppb	08:31:02
1	Zn 213.857†	24461.8	23915.3	531.90 µg/L	531.90 ppb	08:31:02
2	Sc RADIAL	88818.0	88818.0	101 %		08:29:58
2	Al 396.153Radial†	10658.6	10316.8	5102.3 µg/L	5102.3 ppb	08:29:58
2	Ca 317.933Radial†	14397.2	13868.9	5214.6 µg/L	5214.6 ppb	08:29:58
2	Fe 238.204 Radial†	444.9	426.0	5465.7 µg/L	5465.7 ppb	08:30:19
2	K 766.490 Radial†	11280.2	10937.7	5225.6 µg/L	5225.6 ppb	08:29:58
2	Mg 279.077 IEC†	399.6	387.9	5309.9 µg/L	5309.9 ppb	08:30:19
2	Na 589.592 Radial†	21119.7	20687.8	10883 µg/L	10883 ppb	08:29:58
2	Sr 421.552†	88103.1	86822.6	532.26 µg/L	532.26 ppb	08:29:58
2	Sc 361.383	1939425.3	1939425.3	97.697 %		08:31:30
2	Y 371.029	1322947.1	1322947.1	97.429 %		08:31:30
2	Ag 328.068†	67327.3	68317.9	533.91 µg/L	533.91 ppb	08:31:36
2	As 188.979†	366.8	376.0	535.96 µg/L	535.96 ppb	08:31:56
2	B 249.677†	11863.7	11745.2	524.53 µg/L	524.53 ppb	08:31:36
2	Ba 233.527†	24410.1	24981.1	534.26 µg/L	534.26 ppb	08:31:36
2	Be 313.107†	903242.8	925438.7	533.02 µg/L	533.02 ppb	08:31:30
2	Cd 226.502†	22087.2	22772.2	532.81 µg/L	532.81 ppb	08:31:36
2	Co 228.616†	12548.8	12795.1	535.18 µg/L	535.18 ppb	08:31:36
2	Cr 267.716†	24896.0	25397.9	540.07 µg/L	540.07 ppb	08:31:36
2	Cu 324.752†	86334.0	84080.9	537.61 µg/L	537.61 ppb	08:31:36
2	Mn 257.610†	177716.8	182181.9	540.76 µg/L	540.76 ppb	08:31:30
2	Mo 202.031†	5514.1	5618.6	542.68 µg/L	542.68 ppb	08:31:56
2	Ni 231.604†	10003.8	9871.2	537.42 µg/L	537.42 ppb	08:31:36
2	P 214.914†	1540.6	1561.6	2638.0 µg/L	2638.0 ppb	08:31:56
2	Pb 220.353†	2099.1	2109.0	537.88 µg/L	537.88 ppb	08:31:56

2	S 181.975 Axial†	358.6	343.6	1076.2 µg/L	1076.2 ppb	08:31:56
2	Sb 206.836†	661.6	650.7	547.30 µg/L	547.30 ppb	08:31:56
2	Se 196.026†	597.9	587.5	554.85 µg/L	554.85 ppb	08:31:56
2	SiO2†	34724.6	32545.9	5767.7 µg/L	5767.7 ppb	08:31:36
2	Si 251.611†	39677.5	39900.0	2686.1 µg/L	2686.1 ppb	08:31:36
2	Sn 189.927†	1406.1	1437.8	543.31 µg/L	543.31 ppb	08:31:56
2	Ti 334.940†	227113.0	227574.3	529.97 µg/L	529.97 ppb	08:31:30
2	Tl 190.801†	508.7	554.9	538.01 µg/L	538.01 ppb	08:31:56
2	U 409.014†	5942.9	6099.7	533.66 µg/L	533.66 ppb	08:31:36
2	V 292.402†	49029.9	50347.3	541.35 µg/L	541.35 ppb	08:31:36
2	Zn 213.857†	24453.2	24116.3	536.37 µg/L	536.37 ppb	08:31:36
3	Sc RADIAL	89250.9	89250.9	102 %		08:30:25
3	Al 396.153Radial†	10658.1	10265.3	5078.6 µg/L	5078.6 ppb	08:30:25
3	Ca 317.933Radial†	14450.7	13852.5	5208.4 µg/L	5208.4 ppb	08:30:25
3	Fe 238.204 Radial†	445.8	424.9	5449.8 µg/L	5449.8 ppb	08:30:45
3	K 766.490 Radial†	11261.0	10864.8	5190.8 µg/L	5190.8 ppb	08:30:25
3	Mg 279.077 IEC†	401.3	387.8	5305.9 µg/L	5305.9 ppb	08:30:45
3	Na 589.592 Radial†	21223.6	20688.7	10884 µg/L	10884 ppb	08:30:25
3	Sr 421.552†	88468.6	86759.9	531.87 µg/L	531.87 ppb	08:30:25
3	Sc 361.383	1939206.5	1939206.5	97.686 %		08:32:03
3	Y 371.029	1320379.3	1320379.3	97.240 %		08:32:03
3	Ag 328.068†	63462.4	64369.2	502.91 µg/L	502.91 ppb	08:32:09
3	As 188.979†	316.4	324.5	462.32 µg/L	462.32 ppb	08:32:30
3	B 249.677†	11144.5	11010.3	491.49 µg/L	491.49 ppb	08:32:09
3	Ba 233.527†	22259.6	22782.4	487.22 µg/L	487.22 ppb	08:32:09
3	Be 313.107†	841369.9	862204.4	496.60 µg/L	496.60 ppb	08:32:03
3	Cd 226.502†	20168.1	20810.2	486.85 µg/L	486.85 ppb	08:32:09
3	Co 228.616†	11341.6	11560.8	483.50 µg/L	483.50 ppb	08:32:09
3	Cr 267.716†	21923.4	22357.7	475.43 µg/L	475.43 ppb	08:32:09
3	Cu 324.752†	78440.0	76009.8	486.10 µg/L	486.10 ppb	08:32:09
3	Mn 257.610†	166423.7	170641.8	506.51 µg/L	506.51 ppb	08:32:03
3	Mo 202.031†	4602.2	4685.8	452.62 µg/L	452.62 ppb	08:32:30
3	Ni 231.604†	9048.8	8894.7	484.27 µg/L	484.27 ppb	08:32:09
3	P 214.914†	1317.2	1333.1	2248.3 µg/L	2248.3 ppb	08:32:30
3	Pb 220.353†	1800.8	1803.9	460.04 µg/L	460.04 ppb	08:32:30
3	S 181.975 Axial†	315.1	299.2	937.04 µg/L	937.04 ppb	08:32:30
3	Sb 206.836†	565.1	552.1	463.99 µg/L	463.99 ppb	08:32:30
3	Se 196.026†	517.1	504.8	478.56 µg/L	478.56 ppb	08:32:30
3	SiO2†	32395.3	30165.4	5345.9 µg/L	5345.9 ppb	08:32:09
3	Si 251.611†	36789.3	36948.0	2487.3 µg/L	2487.3 ppb	08:32:09
3	Sn 189.927†	1149.8	1175.5	444.31 µg/L	444.31 ppb	08:32:30
3	Ti 334.940†	210574.7	210670.4	490.58 µg/L	490.58 ppb	08:32:03
3	Tl 190.801†	452.3	497.2	482.29 µg/L	482.29 ppb	08:32:30
3	U 409.014†	5232.7	5373.3	469.99 µg/L	469.99 ppb	08:32:09
3	V 292.402†	43966.0	45169.2	485.40 µg/L	485.40 ppb	08:32:09
3	Zn 213.857†	22226.3	21839.4	485.69 µg/L	485.69 ppb	08:32:09

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1944812.1	97.968 %	0.4796			0.49%
Sc RADIAL	89023.4	102 %	0.2			0.24%
Y 371.029	1326062.8	97.658 %	0.5691			0.58%
Ag 328.068†	66702.9	521.24 µg/L	16.256	521.24 ppb	16.256	3.12%
QC value within limits for Ag 328.068 Recovery = 104.25%						
Al 396.153Radial†	10281.4	5085.4 µg/L	14.75	5085.4 ppb	14.75	0.29%
QC value within limits for Al 396.153Radial Recovery = 101.71%						
As 188.979†	359.7	512.59 µg/L	43.571	512.59 ppb	43.571	8.50%
QC value within limits for As 188.979 Recovery = 102.52%						
B 249.677†	11451.8	511.35 µg/L	17.504	511.35 ppb	17.504	3.42%
QC value within limits for B 249.677 Recovery = 102.27%						
Ba 233.527†	24179.7	517.11 µg/L	25.981	517.11 ppb	25.981	5.02%
QC value within limits for Ba 233.527 Recovery = 103.42%						
Be 313.107†	904092.2	520.72 µg/L	20.894	520.72 ppb	20.894	4.01%
QC value within limits for Be 313.107 Recovery = 104.14%						
Ca 317.933Radial†	13880.9	5219.1 µg/L	13.52	5219.1 ppb	13.52	0.26%
QC value within limits for Ca 317.933Radial Recovery = 104.38%						
Cd 226.502†	22054.7	516.01 µg/L	25.349	516.01 ppb	25.349	4.91%
QC value within limits for Cd 226.502 Recovery = 103.20%						
Co 228.616†	12344.5	516.32 µg/L	28.526	516.32 ppb	28.526	5.52%

QC value within limits for Co 228.616 Recovery = 103.26%							
Cr	267.716†	24320.3	517.16 µg/L	36.197	517.16 ppb	36.197	7.00%
QC value within limits for Cr 267.716 Recovery = 103.43%							
Cu	324.752†	81143.2	518.86 µg/L	28.469	518.86 ppb	28.469	5.49%
QC value within limits for Cu 324.752 Recovery = 103.77%							
Fe	238.204 Radial†	424.1	5440.6 µg/L	30.80	5440.6 ppb	30.80	0.57%
QC value within limits for Fe 238.204 Radial Recovery = 108.81%							
K	766.490 Radial†	10914.8	5214.6 µg/L	20.69	5214.6 ppb	20.69	0.40%
QC value within limits for K 766.490 Radial Recovery = 104.29%							
Mg	279.077 IEC†	387.6	5305.5 µg/L	4.64	5305.5 ppb	4.64	0.09%
QC value within limits for Mg 279.077 IEC Recovery = 106.11%							
Mn	257.610†	178293.9	529.22 µg/L	19.672	529.22 ppb	19.672	3.72%
QC value within limits for Mn 257.610 Recovery = 105.84%							
Mo	202.031†	5321.1	513.95 µg/L	53.154	513.95 ppb	53.154	10.34%
QC value within limits for Mo 202.031 Recovery = 102.79%							
Na	589.592 Radial†	20661.2	10869 µg/L	24.6	10869 ppb	24.6	0.23%
QC value within limits for Na 589.592 Radial Recovery = 108.69%							
Ni	231.604†	9513.9	517.97 µg/L	29.306	517.97 ppb	29.306	5.66%
QC value within limits for Ni 231.604 Recovery = 103.59%							
P	214.914†	1484.9	2507.4 µg/L	224.38	2507.4 ppb	224.38	8.95%
QC value within limits for P 214.914 Recovery = 100.30%							
Pb	220.353†	2010.4	512.73 µg/L	45.642	512.73 ppb	45.642	8.90%
QC value within limits for Pb 220.353 Recovery = 102.55%							
S	181.975 Axial†	328.2	1027.9 µg/L	78.75	1027.9 ppb	78.75	7.66%
QC value within limits for S 181.975 Axial Recovery = 102.79%							
Sb	206.836†	618.1	519.84 µg/L	48.363	519.84 ppb	48.363	9.30%
QC value within limits for Sb 206.836 Recovery = 103.97%							
Se	196.026†	558.4	527.94 µg/L	42.825	527.94 ppb	42.825	8.11%
QC value within limits for Se 196.026 Recovery = 105.59%							
SiO2†		31589.6	5598.3 µg/L	222.83	5598.3 ppb	222.83	3.98%
QC value within limits for SiO2 Recovery = 104.69%							
Si	251.611†	38760.9	2609.4 µg/L	106.84	2609.4 ppb	106.84	4.09%
QC value within limits for Si 251.611 Recovery = 104.37%							
Sn	189.927†	1355.9	512.41 µg/L	59.067	512.41 ppb	59.067	11.53%
QC value within limits for Sn 189.927 Recovery = 102.48%							
Sr	421.552†	86726.5	531.67 µg/L	0.714	531.67 ppb	0.714	0.13%
QC value within limits for Sr 421.552 Recovery = 106.33%							
Ti	334.940†	221881.8	516.71 µg/L	22.627	516.71 ppb	22.627	4.38%
QC value within limits for Ti 334.940 Recovery = 103.34%							
Tl	190.801†	535.2	518.94 µg/L	31.747	518.94 ppb	31.747	6.12%
QC value within limits for Tl 190.801 Recovery = 103.79%							
U	409.014†	5844.9	511.33 µg/L	35.840	511.33 ppb	35.840	7.01%
QC value within limits for U 409.014 Recovery = 102.27%							
V	292.402†	48417.4	520.54 µg/L	30.604	520.54 ppb	30.604	5.88%
QC value within limits for V 292.402 Recovery = 104.11%							
Zn	213.857†	23290.3	517.98 µg/L	28.060	517.98 ppb	28.060	5.42%
QC value within limits for Zn 213.857 Recovery = 103.60%							

All analyte(s) passed QC.

Sequence No.: 25

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/19/2010 08:32:40

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	87632.5	87632.5	99.9 %		08:33:10
1	Al 396.153Radial†	208.7	2.8	1.4016 µg/L	1.4016 ppb	08:33:10
1	Ca 317.933Radial†	339.0	-5.7	-2.1593 µg/L	-2.1593 ppb	08:33:31
1	Fe 238.204 Radial†	14.1	0.9	11.714 µg/L	11.714 ppb	08:33:31
1	K 766.490 Radial†	201.7	3.0	1.4513 µg/L	1.4513 ppb	08:33:10
1	Mg 279.077 IEC†	6.0	-0.5	-7.4466 µg/L	-7.4466 ppb	08:33:31
1	Na 589.592 Radial†	184.4	21.6	11.375 µg/L	11.375 ppb	08:33:10
1	Sr 421.552†	131.6	-26.4	-0.1620 µg/L	-0.1620 ppb	08:33:10
1	Sc 361.383	1941690.9	1941690.9	97.811 %		08:34:32
1	Y 371.029	1327485.8	1327485.8	97.763 %		08:34:32
1	Ag 328.068†	534.6	-49.9	-0.3875 µg/L	-0.3875 ppb	08:34:38
1	As 188.979†	-2.3	-1.8	-2.5263 µg/L	-2.5263 ppb	08:34:59
1	B 249.677†	394.8	5.5	0.2380 µg/L	0.2380 ppb	08:34:59
1	Ba 233.527†	-6.6	-11.2	-0.2391 µg/L	-0.2391 ppb	08:34:59
1	Be 313.107†	-1145.5	-266.7	-0.1490 µg/L	-0.1490 ppb	08:34:38
1	Cd 226.502†	-177.5	-17.1	-0.4022 µg/L	-0.4022 ppb	08:34:59
1	Co 228.616†	32.0	-16.8	-0.6764 µg/L	-0.6764 ppb	08:34:59
1	Cr 267.716†	75.0	-8.3	-0.1773 µg/L	-0.1773 ppb	08:34:59
1	Cu 324.752†	4211.6	17.6	0.1143 µg/L	0.1143 ppb	08:34:38
1	Mn 257.610†	-626.3	-364.4	-1.0806 µg/L	-1.0806 ppb	08:34:59
1	Mo 202.031†	21.2	-3.7	-0.3597 µg/L	-0.3597 ppb	08:34:59
1	Ni 231.604†	361.0	0.6	0.0360 µg/L	0.0360 ppb	08:34:59
1	P 214.914†	16.3	1.3	2.2830 µg/L	2.2830 ppb	08:34:59
1	Pb 220.353†	40.0	1.3	0.3405 µg/L	0.3405 ppb	08:34:59
1	S 181.975 Axial†	22.3	-0.6	-1.9643 µg/L	-1.9643 ppb	08:34:59
1	Sb 206.836†	28.8	3.0	2.5404 µg/L	2.5404 ppb	08:34:59
1	Se 196.026†	20.9	-3.1	-2.8571 µg/L	-2.8571 ppb	08:34:59
1	SiO2†	2805.7	-128.8	-22.823 µg/L	-22.823 ppb	08:34:59
1	Si 251.611†	583.9	-115.8	-7.7967 µg/L	-7.7967 ppb	08:34:59
1	Sn 189.927†	6.1	4.7	1.7673 µg/L	1.7673 ppb	08:34:59
1	Ti 334.940†	-337.6	-5237.4	-12.204 µg/L	-12.204 ppb	08:34:38
1	Tl 190.801†	-36.3	-2.9	-2.8886 µg/L	-2.8886 ppb	08:34:59
1	U 409.014†	-21.5	-5.3	-0.4703 µg/L	-0.4703 ppb	08:34:38
1	V 292.402†	-173.1	-15.3	-0.1655 µg/L	-0.1655 ppb	08:34:38
1	Zn 213.857†	939.3	46.9	1.0509 µg/L	1.0509 ppb	08:34:59
2	Sc RADIAL	86276.5	86276.5	98.4 %		08:33:36
2	Al 396.153Radial†	195.4	-7.4	-3.6861 µg/L	-3.6861 ppb	08:33:36
2	Ca 317.933Radial†	329.3	-10.3	-3.8559 µg/L	-3.8559 ppb	08:33:56
2	Fe 238.204 Radial†	14.6	1.7	21.420 µg/L	21.420 ppb	08:33:56
2	K 766.490 Radial†	167.7	-28.3	-13.524 µg/L	-13.524 ppb	08:33:36
2	Mg 279.077 IEC†	7.1	0.7	9.7062 µg/L	9.7062 ppb	08:33:56
2	Na 589.592 Radial†	151.5	-8.9	-4.6879 µg/L	-4.6879 ppb	08:33:36
2	Sr 421.552†	117.4	-38.8	-0.2381 µg/L	-0.2381 ppb	08:33:36
2	Sc 361.383	1953401.6	1953401.6	98.401 %		08:35:05
2	Y 371.029	1331914.5	1331914.5	98.089 %		08:35:05
2	Ag 328.068†	558.5	-28.8	-0.2194 µg/L	-0.2194 ppb	08:35:10
2	As 188.979†	-2.3	-1.7	-2.4310 µg/L	-2.4310 ppb	08:35:31
2	B 249.677†	393.5	1.8	0.0688 µg/L	0.0688 ppb	08:35:31
2	Ba 233.527†	-2.7	-7.2	-0.1532 µg/L	-0.1532 ppb	08:35:31
2	Be 313.107†	-1153.9	-268.2	-0.1498 µg/L	-0.1498 ppb	08:35:10
2	Cd 226.502†	-162.6	-0.9	-0.0247 µg/L	-0.0247 ppb	08:35:31
2	Co 228.616†	36.6	-12.2	-0.4871 µg/L	-0.4871 ppb	08:35:31
2	Cr 267.716†	75.5	-8.2	-0.1749 µg/L	-0.1749 ppb	08:35:31
2	Cu 324.752†	4177.3	-43.0	-0.2706 µg/L	-0.2706 ppb	08:35:10
2	Mn 257.610†	-642.3	-376.9	-1.1181 µg/L	-1.1181 ppb	08:35:31
2	Mo 202.031†	23.3	-1.8	-0.1709 µg/L	-0.1709 ppb	08:35:31
2	Ni 231.604†	359.2	-3.4	-0.1833 µg/L	-0.1833 ppb	08:35:31
2	P 214.914†	12.3	-2.9	-4.8874 µg/L	-4.8874 ppb	08:35:31
2	Pb 220.353†	46.7	7.9	1.9983 µg/L	1.9983 ppb	08:35:31

2	S 181.975 Axial†	24.5	1.4	4.5415 µg/L	4.5415 ppb	08:35:31
2	Sb 206.836†	35.7	9.9	8.2545 µg/L	8.2545 ppb	08:35:31
2	Se 196.026†	17.2	-7.0	-6.4179 µg/L	-6.4179 ppb	08:35:31
2	SiO2†	2826.0	-125.3	-22.212 µg/L	-22.212 ppb	08:35:31
2	Si 251.611†	594.6	-108.6	-7.3076 µg/L	-7.3076 ppb	08:35:31
2	Sn 189.927†	4.0	2.5	0.9586 µg/L	0.9586 ppb	08:35:31
2	Ti 334.940†	-417.8	-5316.8	-12.390 µg/L	-12.390 ppb	08:35:10
2	Tl 190.801†	-35.0	-1.3	-1.3917 µg/L	-1.3917 ppb	08:35:31
2	U 409.014†	9.1	25.9	2.2700 µg/L	2.2700 ppb	08:35:10
2	V 292.402†	-123.7	36.0	0.3844 µg/L	0.3844 ppb	08:35:10
2	Zn 213.857†	939.5	41.4	0.9270 µg/L	0.9270 ppb	08:35:31
3	Sc RADIAL	86794.0	86794.0	99.0 %		08:34:02
3	Al 396.153Radial†	196.6	-7.4	-3.6886 µg/L	-3.6886 ppb	08:34:02
3	Ca 317.933Radial†	334.7	-6.8	-2.5392 µg/L	-2.5392 ppb	08:34:22
3	Fe 238.204 Radial†	12.6	-0.4	-5.4044 µg/L	-5.4044 ppb	08:34:22
3	K 766.490 Radial†	185.5	-11.4	-5.4241 µg/L	-5.4241 ppb	08:34:02
3	Mg 279.077 IEC†	11.9	5.5	74.797 µg/L	74.797 ppb	08:34:22
3	Na 589.592 Radial†	164.8	3.6	1.9166 µg/L	1.9166 ppb	08:34:02
3	Sr 421.552†	124.8	-32.0	-0.1963 µg/L	-0.1963 ppb	08:34:02
3	Sc 361.383	1947159.8	1947159.8	98.087 %		08:35:37
3	Y 371.029	1330157.0	1330157.0	97.960 %		08:35:37
3	Ag 328.068†	561.0	-24.5	-0.1965 µg/L	-0.1965 ppb	08:35:42
3	As 188.979†	-4.2	-3.7	-5.2257 µg/L	-5.2257 ppb	08:36:03
3	B 249.677†	394.9	4.4	0.2016 µg/L	0.2016 ppb	08:36:03
3	Ba 233.527†	-10.0	-14.6	-0.3136 µg/L	-0.3136 ppb	08:36:03
3	Be 313.107†	-1043.5	-159.3	-0.0871 µg/L	-0.0871 ppb	08:35:42
3	Cd 226.502†	-166.4	-5.3	-0.1237 µg/L	-0.1237 ppb	08:36:03
3	Co 228.616†	37.5	-11.3	-0.4463 µg/L	-0.4463 ppb	08:36:03
3	Cr 267.716†	81.1	-2.3	-0.0494 µg/L	-0.0494 ppb	08:36:03
3	Cu 324.752†	4119.0	-88.9	-0.5685 µg/L	-0.5685 ppb	08:35:42
3	Mn 257.610†	-644.3	-381.0	-1.1363 µg/L	-1.1363 ppb	08:36:03
3	Mo 202.031†	29.4	4.5	0.4353 µg/L	0.4353 ppb	08:36:03
3	Ni 231.604†	370.9	9.7	0.5301 µg/L	0.5301 ppb	08:36:03
3	P 214.914†	14.1	-0.9	-1.5230 µg/L	-1.5230 ppb	08:36:03
3	Pb 220.353†	29.2	-9.8	-2.4917 µg/L	-2.4917 ppb	08:36:03
3	S 181.975 Axial†	22.9	-0.1	-0.3275 µg/L	-0.3275 ppb	08:36:03
3	Sb 206.836†	29.7	3.8	3.1787 µg/L	3.1787 ppb	08:36:03
3	Se 196.026†	27.2	3.2	2.8890 µg/L	2.8890 ppb	08:36:03
3	SiO2†	2830.1	-111.9	-19.833 µg/L	-19.833 ppb	08:36:03
3	Si 251.611†	590.8	-110.5	-7.4356 µg/L	-7.4356 ppb	08:36:03
3	Sn 189.927†	0.7	-0.8	-0.3076 µg/L	-0.3076 ppb	08:36:03
3	Ti 334.940†	-362.2	-5261.5	-12.267 µg/L	-12.267 ppb	08:35:42
3	Tl 190.801†	-39.2	-5.7	-5.5683 µg/L	-5.5683 ppb	08:36:03
3	U 409.014†	-20.4	-4.1	-0.3596 µg/L	-0.3596 ppb	08:35:42
3	V 292.402†	-240.3	-83.3	-0.8832 µg/L	-0.8832 ppb	08:35:42
3	Zn 213.857†	961.3	66.7	1.4876 µg/L	1.4876 ppb	08:36:03

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1947417.5	98.100 %	0.2952			0.30%
Sc RADIAL	86901.0	99.1 %	0.78			0.79%
Y 371.029	1329852.5	97.937 %	0.1642			0.17%
Ag 328.068†	-34.4	-0.2678 µg/L	0.10429	-0.2678 ppb	0.10429	38.94%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-4.0	-1.9910 µg/L	2.93810	-1.9910 ppb	2.93810	147.57%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-2.4	-3.3943 µg/L	1.58671	-3.3943 ppb	1.58671	46.75%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	3.9	0.1695 µg/L	0.08905	0.1695 ppb	0.08905	52.55%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-11.0	-0.2353 µg/L	0.08025	-0.2353 ppb	0.08025	34.11%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-231.4	-0.1286 µg/L	0.03595	-0.1286 ppb	0.03595	27.95%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-7.6	-2.8515 µg/L	0.89040	-2.8515 ppb	0.89040	31.23%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	-7.8	-0.1836 µg/L	0.19574	-0.1836 ppb	0.19574	106.63%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-13.4	-0.5366 µg/L	0.12280	-0.5366 ppb	0.12280	22.88%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-6.3	-0.1339 µg/L	0.07315	-0.1339 ppb	0.07315	54.64%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-38.1	-0.2416 µg/L	0.34233	-0.2416 ppb	0.34233	141.68%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	0.7	9.2430 µg/L	13.58171	9.2430 ppb	13.58171	146.94%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-12.2	-5.8322 µg/L	7.49591	-5.8322 ppb	7.49591	128.53%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	1.9	25.686 µg/L	43.3879	25.686 ppb	43.3879	168.92%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	-374.1	-1.1117 µg/L	0.02841	-1.1117 ppb	0.02841	2.56%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-0.3	-0.0318 µg/L	0.41539	-0.0318 ppb	0.41539	>999.9%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	5.5	2.8680 µg/L	8.07369	2.8680 ppb	8.07369	281.51%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	2.3	0.1276 µg/L	0.36543	0.1276 ppb	0.36543	286.37%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-0.8	-1.3758 µg/L	3.58748	-1.3758 ppb	3.58748	260.76%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-0.2	-0.0510 µg/L	2.27046	-0.0510 ppb	2.27046	>999.9%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	0.2	0.7499 µg/L	3.38408	0.7499 ppb	3.38408	451.26%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	5.6	4.6579 µg/L	3.13106	4.6579 ppb	3.13106	67.22%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-2.3	-2.1286 µg/L	4.69602	-2.1286 ppb	4.69602	220.61%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	-122.0	-21.622 µg/L	1.5799	-21.622 ppb	1.5799	7.31%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	-111.6	-7.5133 µg/L	0.25362	-7.5133 ppb	0.25362	3.38%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	2.1	0.8061 µg/L	1.04583	0.8061 ppb	1.04583	129.74%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-32.4	-0.1988 µg/L	0.03809	-0.1988 ppb	0.03809	19.16%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-5271.9	-12.287 µg/L	0.0949	-12.287 ppb	0.0949	0.77%	
QC value less than the lower limit for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-3.3	-3.2829 µg/L	2.11605	-3.2829 ppb	2.11605	64.46%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	5.5	0.4800 µg/L	1.55117	0.4800 ppb	1.55117	323.14%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-20.9	-0.2214 µg/L	0.63565	-0.2214 ppb	0.63565	287.04%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	51.7	1.1551 µg/L	0.29447	1.1551 ppb	0.29447	25.49%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
QC Failed. Continue with analysis.							

ICPMS #5 Daily Performance Report

Sample ID: Sample

Sample Date/Time: Thursday, March 18, 2010 13:32:09

Sample Description:

Method File: c:\elandata\Method\Daily2.mth

Dataset File: c:\elandata\Dataset\default\Sample.859

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	5223.8	5223.755	95.191	1.8
Mg	24.0	73610.0	73609.967	583.600	0.8
Co	58.9	110755.1	110755.084	517.527	0.5
Rh	102.9	220456.5	220456.498	1763.983	0.8
In	114.9	299028.0	299027.951	2320.120	0.8
Pb	208.0	348201.8	348201.830	2481.134	0.7
[> Ba	137.9	307265.7	307265.711	1608.255	0.5
[Ba++	69.0	4313.6	0.014	0.000	1.4
[> Ce	139.9	369035.2	369035.153	2658.374	0.7
[CeO	155.9	8816.0	0.024	0.001	2.8
Bkgd	220.0	15.7	15.700	2.080	13.2

Current Optimization File Data

Current Value	Description
0.89	Nebulizer Gas Flow
6.75	Lens Voltage
1450.00	ICP RF Power
-1812.50	Analog Stage Voltage
1300.00	Pulse Stage Voltage
200.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	15	7.3	5888.2
Co	59	15	8.0	113356.0
In	115	15	9.0	306684.3

ICPMS #5 Instrument Tuning Report

File Name: 100318c.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	588	2072	0.607
Be	9.0	9.0	2047	2088	0.590
Mg	24.0	24.0	5687	2100	0.592
Mg	25.0	25.0	5939	2100	0.551
Mg	26.0	26.0	6183	2100	0.587
Co	58.9	58.9	14169	2125	0.590
Rh	102.9	102.9	24874	2180	0.582
In	114.9	114.9	27789	2200	0.585
Ce	139.9	139.9	33872	2220	0.595
Pb	206.0	206.0	49948	2305	0.589
Pb	207.0	207.0	50171	2240	0.662
Pb	208.0	208.0	50439	2280	0.700
U	238.1	238.1	57731	2295	0.704

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Friday, March 19, 2010 04:18:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ani soil.mth
Dataset File: C:\elandata\Dataset\100318\Blank.283

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		246371	
[Ni	60		ug/L		111	
[> Ge	74		ug/L		302531	
[As	75		ug/L		-487	
[Se	77		ug/L		4374	
[Se	82		ug/L		-1	
[Kr	83		ug/L		86	
[> Lu	175		ug/L		447396	
[Tl	205		ug/L		4933	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Simple Linear	
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997

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					
[> Lu	175					
[Tl	205					

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, March 19, 2010 04:22:20

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\VanI soil.mth

Dataset File: C:\elandata\Dataset\100318\Standard 1.284

Concentration Results

	Analyte	Mass	Conc.	Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	10.000		ug/L	1.212	4150	0.016
>	Sc	45			ug/L		258039	258039.383
[	Ni	60	10.000		ug/L	1.850	10856	0.042
>	Ge	74			ug/L		319960	319960.459
|	As	75	10.000		ug/L	1.956	8262	0.027
|	Se	77			ug/L		3788	-0.003
|	Se	82	10.000		ug/L	7.884	1012	0.003
[	Kr	83			ug/L		82	-0.000
>	Lu	175			ug/L		474657	474657.373
[	Tl	205	10.000		ug/L	0.743	208473	0.428

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	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[Be	9					
[> Sc	45					
[Ni	60					
[> Ge	74					
[As	75					
[Se	77					
[Se	82					
[Kr	83					
[> Lu	175					
[Tl	205					

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, March 19, 2010 04:22:57

Page 1

ICPMS#5 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Friday, March 19, 2010 04:25:55

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\Nani soil.mth

Dataset File: C:\elandata\Dataset\100318\Standard 2.285

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	99.925	ug/L	3.684	42403	0.149
[>	Sc	45		ug/L		284877	284876.932
[	Ni	60	99.962	ug/L	2.252	114320	0.401
[>	Ge	74		ug/L		352412	352411.579
|	As	75	99.972	ug/L	1.728	93430	0.267
|	Se	77		ug/L		11270	0.018
|	Se	82	99.963	ug/L	1.395	10766	0.031
[	Kr	83		ug/L		111	0.000
[>	Lu	175		ug/L		513892	513892.001
[	Tl	205	99.834	ug/L	10.337	1888131	3.666

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	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Duplicate Rel. % Difference
[	Be	9				
[>	Sc	45				
[	Ni	60				
[>	Ge	74				
|	As	75				
|	Se	77				
|	Se	82				
[	Kr	83				
[>	Lu	175				
[	Tl	205				

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 2

Report Date/Time: Friday, March 19, 2010 04:26:33

Page 1

ICPMS#5 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Friday, March 19, 2010 04:29:30

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100318\QC Std 1.286

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	52.485	ug/L	2.530	20817	0.078
|>	Sc	45		ug/L		265895	265895.409
[	Ni	60	54.145	ug/L	0.921	57868	0.217
|>	Ge	74		ug/L		334164	334163.732
|	As	75	54.219	ug/L	2.857	47821	0.145
|	Se	77		ug/L		7039	0.007
|	Se	82	54.099	ug/L	2.315	5523	0.017
[	Kr	83		ug/L		89	-0.000
|>	Lu	175		ug/L		491633	491633.170
[	Tl	205	54.535	ug/L	0.512	990011	2.003

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	
Lu	175	Linear Thru Zero	
Tl	205	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	104.970					
|>	Sc	45		107.9				
[	Ni	60	108.290					
|>	Ge	74		110.5				
|	As	75	108.439					
|	Se	77						
|	Se	82	108.198					
[	Kr	83						
|>	Lu	175		109.9				
[	Tl	205	109.071					

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, March 19, 2010 04:30:08

Page 1

ICPMS#5 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Friday, March 19, 2010 04:33:08

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ani soil.mth

Dataset File: C:\elandata\Dataset\100318\QC Std 2.287

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.020	ug/L	93.115	22	0.000
> Sc	45		ug/L		242433	242432.648
Ni	60	0.020	ug/L	43.307	129	0.000
> Ge	74		ug/L		300987	300986.731
As	75	-0.034	ug/L	251.050	-512	-0.000
Se	77		ug/L		4042	-0.001
Se	82	0.233	ug/L	30.319	21	0.000
Kr	83		ug/L		82	-0.000
> Lu	175		ug/L		442338	442338.121
Tl	205	0.259	ug/L	13.455	9064	0.009

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	
Lu	175	Linear Thru Zero	
Tl	205	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		98.4				
Ni	60						
> Ge	74		99.5				
As	75						
Se	77						
Se	82						
Kr	83						
> Lu	175		98.9				
Tl	205						

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, March 19, 2010 04:33:48

Page 1

ICPMS#5 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Friday, March 19, 2010 04:36:46

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\Nani soil.mth

Dataset File: C:\elandata\Dataset\100318\QC Std 3.288

Concentration Results

	Analyte	Mass	Conc.	Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.588	ug/L		5.263	223	0.001
>	Sc	45		ug/L			237614	237613.714
[	Ni	60	2.589	ug/L		6.065	2573	0.010
>	Ge	74		ug/L			295062	295062.452
|	As	75	6.675	ug/L		4.974	4781	0.018
|	Se	77		ug/L			4475	0.001
|	Se	82	6.114	ug/L		0.736	551	0.002
[	Kr	83		ug/L			85	0.000
>	Lu	175		ug/L			434058	434057.743
[	Tl	205	1.354	ug/L		1.277	26361	0.050

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Be	9	117.510				
Sc	45		96.4			
Ni	60	129.445				
Ge	74		97.5			
As	75	133.494				
Se	77					
Se	82	122.283				
Kr	83					
Lu	175		97.0			
Tl	205	135.365				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 3	As	75CRDL is out of limits
QC Std 3	Tl	205CRDL is out of limits

QC Action

QC Action Line: Continue

Sample ID: QC Std 3

Report Date/Time: Friday, March 19, 2010 04:37:24

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ICPMS#5 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Friday, March 19, 2010 04:40:22

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\anal soil.mth

Dataset File: C:\elandata\Dataset\100318\QC Std 4.289

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.088	ug/L	9.826	51	0.000
[>	Sc	45		ug/L		266374	266373.925
[	Ni	60	3.389	ug/L	3.287	3741	0.014
[>	Ge	74		ug/L		344219	344219.455
[	As	75	0.268	ug/L	184.390	-302	0.001
[	Se	77		ug/L		4074	-0.003
[	Se	82	-1.058	ug/L	10.375	-112	-0.000
[	Kr	83		ug/L		267	0.000
[>	Lu	175		ug/L		500226	500225.814
[	Tl	205	-0.104	ug/L	14.009	3598	-0.004

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	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[	Be	9						
[>	Sc	45		108.1				
[	Ni	60	102.377					
[>	Ge	74		113.8				
[	As	75						
[	Se	77						
[	Se	82						
[	Kr	83						
[>	Lu	175		111.8				
[	Tl	205						

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, March 19, 2010 04:41:01

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ICPMS#5 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Friday, March 19, 2010 04:43:59

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100318\QC Std 5.290

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	20.927	ug/L	0.898	7176	0.031
[>	Sc	45		ug/L		229600	229599.584
[	Ni	60	25.817	ug/L	1.907	23877	0.104
[>	Ge	74		ug/L		300222	300222.112
[	As	75	21.910	ug/L	1.637	17066	0.058
[	Se	77		ug/L		4922	0.002
[	Se	82	19.532	ug/L	4.470	1791	0.006
[	Kr	83		ug/L		272	0.001
[>	Lu	175		ug/L		444179	444178.809
[	Tl	205	22.693	ug/L	3.041	374982	0.833

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	
Lu	175	Linear Thru Zero	
Tl	205	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	104.637					
[>	Sc	45		93.2				
[	Ni	60	110.754					
[>	Ge	74		99.2				
[	As	75	109.549					
[	Se	77						
[	Se	82	97.662					
[	Kr	83						
[>	Lu	175		99.3				
[	Tl	205	113.466					

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, March 19, 2010 04:44:38

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ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Friday, March 19, 2010 04:47:37

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\Nani soll.mth

Dataset File: C:\elandata\Dataset\100318\QC Std 6.291

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	54.904	ug/L	1.879	19972	0.082
Sc	45		ug/L		243864	243864.015
Ni	60	55.007	ug/L	1.930	53913	0.221
Ge	74		ug/L		314416	314415.854
As	75	52.241	ug/L	3.088	43312	0.139
Se	77		ug/L		6378	0.006
Se	82	51.778	ug/L	1.945	4973	0.016
Kr	83		ug/L		83	-0.000
Lu	175		ug/L		466394	466394.329
Tl	205	54.668	ug/L	1.667	941485	2.007

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
Be	9	109.808					
Sc	45		99.0				
Ni	60	110.015					
Ge	74		103.9				
As	75	104.482					
Se	77						
Se	82	103.555					
Kr	83						
Lu	175		104.2				
Tl	205	109.335					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Ni	60CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

Sample ID: QC Std 6

Report Date/Time: Friday, March 19, 2010 04:48:15

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ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Friday, March 19, 2010 04:51:15

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100318\QC Std 7.292

Concentration Results

	Analyte	Mass	Conc.	Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.015	ug/L	35.589		20	0.000
>	Sc	45		ug/L			240498	240497.635
[	Ni	60	0.033	ug/L	46.887		140	0.000
>	Ge	74		ug/L			300954	300953.671
|	As	75	0.106	ug/L	294.011		-395	0.000
|	Se	77		ug/L			4310	-0.000
|	Se	82	0.180	ug/L	59.392		16	0.000
[	Kr	83		ug/L			81	-0.000
>	Lu	175		ug/L			438963	438963.119
|	Tl	205	0.211	ug/L	7.059		8242	0.008

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	
Lu	175	Linear Thru Zero	
Tl	205	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		97.6				
[Ni	60						
[> Ge	74		99.5				
[As	75						
[Se	77						
[Se	82						
[Kr	83						
[> Lu	175		98.1				
[Tl	205						

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, March 19, 2010 04:51:55

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ICPMS#5 - Summary Report

Sample ID: 1202049284

Sample Date/Time: Friday, March 19, 2010 04:54:53

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 955818|2|skj

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100318\1202049284.293

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	-0.016	ug/L	52.930	10	-0.000
Sc	45		ug/L		256132	256131.844
Ni	60	0.237	ug/L	16.175	358	0.001
Ge	74		ug/L		315746	315745.962
As	75	0.362	ug/L	49.310	-205	0.001
Se	77		ug/L		3490	-0.003
Se	82	0.180	ug/L	42.445	17	0.000
Kr	83		ug/L		77	-0.000
Lu	175		ug/L		480284	480283.590
Tl	205	0.024	ug/L	63.625	5727	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	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		104.0			
Ni	60					
Ge	74		104.4			
As	75					
Se	77					
Se	82					
Kr	83					
Lu	175		107.4			
Tl	205					

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: 1202049284

Report Date/Time: Friday, March 19, 2010 04:55:31

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ICPMS#5 - Summary Report

Sample ID: 1202049289

Sample Date/Time: Friday, March 19, 2010 04:58:29

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 955818|40|skj

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100318\1202049289.294

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	21.330	ug/L	0.869	8329	0.032
> Sc	45		ug/L		261434	261434.485
Ni	60	39.248	ug/L	1.676	41280	0.157
> Ge	74		ug/L		322011	322010.925
As	75	28.390	ug/L	4.576	23875	0.076
Se	77		ug/L		9631	0.015
Se	82	74.459	ug/L	2.421	7326	0.023
Kr	83		ug/L		87	-0.000
> Lu	175		ug/L		471174	471174.408
Tl	205	36.369	ug/L	0.341	634459	1.336

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	
Lu	175	Linear Thru Zero	
Tl	205	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		106.1				
Ni	60						
> Ge	74		106.4				
As	75						
Se	77						
Se	82						
Kr	83						
> Lu	175		105.3				
Tl	205						

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: 1202049289

Report Date/Time: Friday, March 19, 2010 04:59:07

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ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Friday, March 19, 2010 05:12:55

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\Nani soil.mth

Dataset File: C:\elandata\Dataset\100318\QC Std 8.298

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	56.140	ug/L	0.648	19377	0.084
[>	Sc	45		ug/L		231385	231385.065
[	Ni	60	55.541	ug/L	2.884	51626	0.223
[>	Ge	74		ug/L		300362	300361.626
|	As	75	51.580	ug/L	2.527	40843	0.138
|	Se	77		ug/L		5851	0.005
|	Se	82	50.978	ug/L	5.443	4675	0.016
[	Kr	83		ug/L		80	-0.000
[>	Lu	175		ug/L		450220	450220.126
[	Tl	205	55.154	ug/L	0.402	916824	2.025

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	
Lu	175	Linear Thru Zero	
Tl	205	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	112.281				
[>	Sc	45		93.9			
[	Ni	60	111.082				
[>	Ge	74		99.3			
|	As	75	103.160				
|	Se	77					
|	Se	82	101.957				
[	Kr	83					
[>	Lu	175		100.6			
[	Tl	205	110.308				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Be	9	9CCV is out of limits (+/- 10%)
QC Std 8	Ni	60	60CCV is out of limits (+/- 10%)
QC Std 8	Tl	205	205CCV is out of limits (+/- 10%)

QC Action

Sample ID: QC Std 8

Report Date/Time: Friday, March 19, 2010 05:13:33

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QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Friday, March 19, 2010 05:16:33

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\VanI soil.mth

Dataset File: C:\elandata\Dataset\100318\QC Std 9.299

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	-0.010	ug/L	43.882	11	-0.000
[> Sc	45		ug/L		235278	235277.936
[Ni	60	0.010	ug/L	209.961	115	0.000
[> Ge	74		ug/L		294917	294917.269
[As	75	0.480	ug/L	74.389	-98	0.001
[Se	77		ug/L		3840	-0.001
[Se	82	0.212	ug/L	42.967	18	0.000
[Kr	83		ug/L		71	-0.000
[> Lu	175		ug/L		439670	439669.717
[Tl	205	0.081	ug/L	8.012	6156	0.003

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	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[Be	9						
[> Sc	45		95.5				
[Ni	60						
[> Ge	74		97.5				
[As	75						
[Se	77						
[Se	82						
[Kr	83						
[> Lu	175		98.3				
[Tl	205						

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: Friday, March 19, 2010 05:17:13

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ICPMS#5 - Summary Report

Sample ID: 247561001

Sample Date/Time: Friday, March 19, 2010 05:20:12

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955818|2|skj

Method File: c:\elandata\Method\VanI soil.mth

Dataset File: C:\elandata\Dataset\100318\247561001.300

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	2.033	ug/L	1.220	839	0.003
[> Sc	45		ug/L		271262	271261.878
[Ni	60	10.627	ug/L	1.549	11686	0.043
[> Ge	74		ug/L		288420	288419.963
[As	75	5.235	ug/L	3.068	3564	0.014
[Se	77		ug/L		2645	-0.005
[Se	82	0.147	ug/L	233.208	12	0.000
[Kr	83		ug/L		151	0.000
[> Lu	175		ug/L		463553	463552.612
[Tl	205	0.358	ug/L	3.002	11209	0.013

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	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[Be	9					
[> Sc	45		110.1			
[Ni	60					
[> Ge	74		95.3			
[As	75					
[Se	77					
[Se	82					
[Kr	83					
[> Lu	175		103.6			
[Tl	205					

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: 247561001

Report Date/Time: Friday, March 19, 2010 05:20:50

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ICPMS#5 - Summary Report

Sample ID: 1202049285

Sample Date/Time: Friday, March 19, 2010 05:23:49

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 955818|2|skj

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100318\1202049285.301

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	2.068	ug/L	1.911	854	0.003
[> Sc	45		ug/L		271670	271670.259
[Ni	60	12.504	ug/L	2.369	13744	0.050
[> Ge	74		ug/L		286599	286599.350
| As	75	5.583	ug/L	4.036	3808	0.015
| Se	77		ug/L		2290	-0.006
| Se	82	0.535	ug/L	34.283	46	0.000
[Kr	83		ug/L		123	0.000
[> Lu	175		ug/L		460775	460775.172
[Tl	205	0.348	ug/L	7.369	10966	0.013

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	
Lu	175	Linear Thru Zero	
Tl	205	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		110.3				
[Ni	60						
[> Ge	74		94.7				
| As	75						
| Se	77						
| Se	82						
[Kr	83						
[> Lu	175		103.0				
[Tl	205						

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: 1202049285

Report Date/Time: Friday, March 19, 2010 05:24:28

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ICPMS#5 - Summary Report

Sample ID: 1202049287

Sample Date/Time: Friday, March 19, 2010 05:27:26

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 955818|2|skj

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100318\1202049287.302

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	23.709	ug/L	0.862	9686	0.035
|>	Sc	45		ug/L		273603	273603.252
[	Ni	60	32.911	ug/L	1.759	36244	0.132
|>	Ge	74		ug/L		281429	281429.210
|	As	75	40.996	ug/L	1.169	30334	0.109
|	Se	77		ug/L		2757	-0.005
|	Se	82	7.482	ug/L	2.584	643	0.002
[	Kr	83		ug/L		150	0.000
|>	Lu	175		ug/L		460792	460792.456
[	Tl	205	52.692	ug/L	0.769	896653	1.935

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	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[	Be	9					
|>	Sc	45		111.1			
[	Ni	60					
|>	Ge	74		93.0			
|	As	75					
|	Se	77					
|	Se	82					
[	Kr	83					
|>	Lu	175		103.0			
[	Tl	205					

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: 1202049287

Report Date/Time: Friday, March 19, 2010 05:28:04

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ICPMS#5 - Summary Report

Sample ID: 1202049288

Sample Date/Time: Friday, March 19, 2010 05:31:03

Sample Type:

Sample Description: LANL 6020 MSD

Number of Replicates: 3

Batch ID: 955818|2|skj

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100318\1202049288.303

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	24.671	ug/L	2.603	9626	0.037
[>	Sc	45		ug/L		261312	261312.002
[	Ni	60	33.793	ug/L	1.511	35540	0.136
[>	Ge	74		ug/L		264226	264225.672
[	As	75	43.133	ug/L	2.893	29978	0.115
[	Se	77		ug/L		2580	-0.005
[	Se	82	7.990	ug/L	5.451	644	0.002
[	Kr	83		ug/L		158	0.000
[>	Lu	175		ug/L		439504	439503.708
[	Tl	205	53.684	ug/L	2.654	871202	1.971

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[	Be	9					
[>	Sc	45	106.1				
[	Ni	60					
[>	Ge	74	87.3				
[	As	75					
[	Se	77					
[	Se	82					
[	Kr	83					
[>	Lu	175	98.2				
[	Tl	205					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202049288

Report Date/Time: Friday, March 19, 2010 05:31:41

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ICPMS#5 - Summary Report

Sample ID: 1202049286

Sample Date/Time: Friday, March 19, 2010 05:34:39

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 955818|10|skj

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100318\1202049286.304

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.565	ug/L	4.679	187	0.001
[>	Sc	45		ug/L		207007	207007.346
[	Ni	60	2.622	ug/L	0.080	2271	0.011
[>	Ge	74		ug/L		252658	252657.935
|	As	75	1.315	ug/L	13.325	478	0.004
|	Se	77		ug/L		2596	-0.004
|	Se	82	0.301	ug/L	30.769	23	0.000
[	Kr	83		ug/L		80	0.000
[>	Lu	175		ug/L		386054	386053.752
[	Tl	205	0.059	ug/L	23.803	5087	0.002

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	
Lu	175	Linear Thru Zero	
Tl	205	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		84.0			
[	Ni	60					
[>	Ge	74		83.5			
|	As	75					
|	Se	77					
|	Se	82					
[	Kr	83					
[>	Lu	175		86.3			
[	Tl	205					

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: 1202049286

Report Date/Time: Friday, March 19, 2010 05:35:17

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ICPMS#5 - Summary Report

Sample ID: 247561002

Sample Date/Time: Friday, March 19, 2010 05:38:16

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955818|2|skj

Method File: c:\elandata\Method\ani soil.mth

Dataset File: C:\elandata\Dataset\100318\247561002.305

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	1.653	ug/L	0.911	658	0.002
[> Sc	45		ug/L		260282	260281.539
[Ni	60	11.154	ug/L	0.544	11762	0.045
[> Ge	74		ug/L		280000	280000.421
| As	75	4.414	ug/L	2.599	2846	0.012
| Se	77		ug/L		2236	-0.006
| Se	82	0.005	ug/L	1215.370	-0	0.000
[Kr	83		ug/L		135	0.000
[> Lu	175		ug/L		452126	452125.847
[Tl	205	0.142	ug/L	17.757	7349	0.005

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	
Lu	175	Linear Thru Zero	
Tl	205	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		105.6			
[Ni	60					
[> Ge	74		92.6			
| As	75					
| Se	77					
| Se	82					
[Kr	83					
[> Lu	175		101.1			
[Tl	205					

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: 247561002

Report Date/Time: Friday, March 19, 2010 05:38:54

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ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Friday, March 19, 2010 05:41:53

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\VanI soil.mth

Dataset File: C:\elandata\Dataset\100318\QC Std 8.306

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	56.185	ug/L	0.666	18787	0.084
Sc	45		ug/L		224162	224161.614
Ni	60	54.539	ug/L	2.489	49142	0.219
Ge	74		ug/L		287480	287480.167
As	75	51.101	ug/L	0.824	38736	0.136
Se	77		ug/L		5519	0.005
Se	82	51.772	ug/L	2.615	4548	0.016
Kr	83		ug/L		73	-0.000
Lu	175		ug/L		431294	431293.899
Tl	205	54.534	ug/L	2.520	868246	2.003

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	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
Be	9	112.371					
Sc	45		91.0				
Ni	60	109.079					
Ge	74		95.0				
As	75	102.201					
Se	77						
Se	82	103.545					
Kr	83						
Lu	175		96.4				
Tl	205	109.067					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

Sample ID: QC Std 8

Report Date/Time: Friday, March 19, 2010 05:42:31

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ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Friday, March 19, 2010 05:45:31

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ani soil.mth

Dataset File: C:\elandata\Dataset\100318\QC Std 9.307

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.008	ug/L	214.317	15	0.000
[>	Sc	45		ug/L		204999	204999.138
[	Ni	60	0.032	ug/L	42.694	119	0.000
[>	Ge	74		ug/L		258763	258762.676
[	As	75	0.483	ug/L	48.130	-82	0.001
[	Se	77		ug/L		3243	-0.002
[	Se	82	0.123	ug/L	83.679	9	0.000
[	Kr	83		ug/L		71	-0.000
[>	Lu	175		ug/L		383140	383139.850
[	Tl	205	0.114	ug/L	7.683	5826	0.004

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate	Rel. % Difference
[	Be	9						
[>	Sc	45		83.2				
[	Ni	60						
[>	Ge	74		85.5				
[	As	75						
[	Se	77						
[	Se	82						
[	Kr	83						
[>	Lu	175		85.6				
[	Tl	205						

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 9

Report Date/Time: Friday, March 19, 2010 05:46:11

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ICPMS#5 - Summary Report

Sample ID: 247561003

Sample Date/Time: Friday, March 19, 2010 05:49:10

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955818|2|skj

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100318\247561003.308

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	2.029	ug/L	7.759	845	0.003
> Sc	45		ug/L		273810	273810.448
Ni	60	18.460	ug/L	5.158	20392	0.074
> Ge	74		ug/L		281977	281976.689
As	75	5.369	ug/L	7.476	3584	0.014
Se	77		ug/L		2449	-0.006
Se	82	0.203	ug/L	101.760	17	0.000
Kr	83		ug/L		139	0.000
> Lu	175		ug/L		463001	463001.230
Tl	205	0.282	ug/L	1.880	9900	0.010

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	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
> Sc	45		111.1			
Ni	60					
> Ge	74		93.2			
As	75					
Se	77					
Se	82					
Kr	83					
> Lu	175		103.5			
Tl	205					

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: 247561003

Report Date/Time: Friday, March 19, 2010 05:49:48

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ICPMS#5 - Summary Report

Sample ID: 247561004

Sample Date/Time: Friday, March 19, 2010 05:52:46

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955818|2|skj

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100318\247561004.309

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	2.358	ug/L	1.864	947	0.004
>	Sc	45		ug/L		264850	264849.668
[	Ni	60	13.507	ug/L	2.536	14468	0.054
>	Ge	74		ug/L		278846	278846.481
|	As	75	5.649	ug/L	4.300	3755	0.015
|	Se	77		ug/L		2262	-0.006
|	Se	82	0.278	ug/L	68.627	23	0.000
[	Kr	83		ug/L		141	0.000
>	Lu	175		ug/L		460725	460724.514
[	Tl	205	0.340	ug/L	1.071	10831	0.012

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	
Lu	175	Linear Thru Zero	
Tl	205	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		107.5				
[	Ni	60						
>	Ge	74		92.2				
|	As	75						
|	Se	77						
|	Se	82						
[	Kr	83						
>	Lu	175		103.0				
[	Tl	205						

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: 247561004

Report Date/Time: Friday, March 19, 2010 05:53:25

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ICPMS#5 - Summary Report

Sample ID: 247561005

Sample Date/Time: Friday, March 19, 2010 05:56:24

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955818|2|skj

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100318\247561005.310

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	1.942	ug/L	2.822	755	0.003
Sc	45		ug/L		255271	255270.726
Ni	60	7.729	ug/L	2.939	8028	0.031
Ge	74		ug/L		280175	280174.972
As	75	3.936	ug/L	8.645	2490	0.011
Se	77		ug/L		2160	-0.007
Se	82	0.556	ug/L	50.972	47	0.000
Kr	83		ug/L		123	0.000
Lu	175		ug/L		459583	459582.883
Tl	205	0.124	ug/L	18.079	7151	0.005

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
Sc	45		103.6				
Ni	60						
Ge	74		92.6				
As	75						
Se	77						
Se	82						
Kr	83						
Lu	175		102.7				
Tl	205						

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: 247561005

Report Date/Time: Friday, March 19, 2010 05:57:03

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ICPMS#5 - Summary Report

Sample ID: 247561006

Sample Date/Time: Friday, March 19, 2010 06:00:01

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955818|2|skj

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100318\247561006.311

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	1.818	ug/L	3.853	723	0.003
[> Sc	45		ug/L		260767	260767.282
[Ni	60	12.524	ug/L	0.260	13218	0.050
[> Ge	74		ug/L		272821	272821.374
| As	75	5.080	ug/L	0.955	3259	0.014
| Se	77		ug/L		2191	-0.006
| Se	82	0.217	ug/L	65.770	17	0.000
| Kr	83		ug/L		122	0.000
[> Lu	175		ug/L		444614	444614.185
[Tl	205	0.116	ug/L	3.221	6791	0.004

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	
Lu	175	Linear Thru Zero	
Tl	205	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		105.8				
[Ni	60						
[> Ge	74		90.2				
| As	75						
| Se	77						
| Se	82						
| Kr	83						
[> Lu	175		99.4				
[Tl	205						

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: 247561006

Report Date/Time: Friday, March 19, 2010 06:00:39

Page 1

ICPMS#5 - Summary Report

Sample ID: 247561007

Sample Date/Time: Friday, March 19, 2010 06:03:38

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955818|2|skj

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100318\247561007.312

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	1.707	ug/L	5.665	658	0.003
> Sc	45		ug/L		252320	252320.412
Ni	60	10.754	ug/L	2.876	10996	0.043
> Ge	74		ug/L		269372	269371.922
As	75	4.608	ug/L	8.628	2874	0.012
Se	77		ug/L		2052	-0.007
Se	82	0.082	ug/L	210.370	6	0.000
Kr	83		ug/L		123	0.000
> Lu	175		ug/L		435248	435248.468
Tl	205	0.081	ug/L	11.247	6094	0.003

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	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
> Sc	45		102.4				
Ni	60						
> Ge	74		89.0				
As	75						
Se	77						
Se	82						
Kr	83						
> Lu	175		97.3				
Tl	205						

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: 247561007

Report Date/Time: Friday, March 19, 2010 06:04:16

Page 1

ICPMS#5 - Summary Report

Sample ID: 247561008

Sample Date/Time: Friday, March 19, 2010 06:07:15

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955818|2|skj

Method File: c:\elandata\Method\Nani soil.mth

Dataset File: C:\elandata\Dataset\100318\247561008.313

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	1.944	ug/L	4.608	789	0.003
[>	Sc	45		ug/L		266800	266799.716
[	Ni	60	14.991	ug/L	3.433	16158	0.060
[>	Ge	74		ug/L		274516	274515.911
|	As	75	5.947	ug/L	5.971	3917	0.016
|	Se	77		ug/L		2903	-0.004
|	Se	82	0.297	ug/L	44.711	24	0.000
[	Kr	83		ug/L		135	0.000
[>	Lu	175		ug/L		448571	448570.748
[	Tl	205	0.154	ug/L	4.674	7485	0.006

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	
Lu	175	Linear Thru Zero	
Tl	205	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		108.3			
[	Ni	60					
[>	Ge	74		90.7			
|	As	75					
|	Se	77					
|	Se	82					
[	Kr	83					
[>	Lu	175		100.3			
[	Tl	205					

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: 247561008

Report Date/Time: Friday, March 19, 2010 06:07:53

Page 1

ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Friday, March 19, 2010 06:10:52

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100318\QC Std 6.314

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	56.628	ug/L	1.594	18598	0.084
Sc	45		ug/L		220151	220151.206
Ni	60	55.335	ug/L	1.434	48968	0.222
Ge	74		ug/L		283837	283837.389
As	75	52.120	ug/L	0.590	39016	0.139
Se	77		ug/L		5900	0.006
Se	82	51.981	ug/L	0.879	4508	0.016
Kr	83		ug/L		72	-0.000
Lu	175		ug/L		429693	429692.736
Tl	205	55.229	ug/L	1.822	876107	2.028

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	
Lu	175	Linear Thru Zero	
Tl	205	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	113.256				
Sc	45		89.4			
Ni	60	110.669				
Ge	74		93.8			
As	75	104.240				
Se	77					
Se	82	103.962				
Kr	83					
Lu	175		96.0			
Tl	205	110.458				

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	Ni	60	CCV is out of limits (+/- 10%)
QC Std 6	Tl	205	CCV is out of limits (+/- 10%)

QC Action

Sample ID: QC Std 6

Report Date/Time: Friday, March 19, 2010 06:11:31

Page 1

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Friday, March 19, 2010 06:14:31

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100318\QC Std 7.315

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	0.012	ug/L	31.869	17	0.000
[> Sc	45		ug/L		216064	216064.018
[Ni	60	0.028	ug/L	53.870	122	0.000
[> Ge	74		ug/L		273564	273564.300
[As	75	-0.007	ug/L	1581.051	-445	-0.000
[Se	77		ug/L		3858	-0.000
[Se	82	0.147	ug/L	71.854	12	0.000
[Kr	83		ug/L		71	-0.000
[> Lu	175		ug/L		408081	408081.421
[Tl	205	0.025	ug/L	51.112	4867	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	
Lu	175	Linear Thru Zero	
Tl	205	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		87.7				
[Ni	60						
[> Ge	74		90.4				
[As	75						
[Se	77						
[Se	82						
[Kr	83						
[> Lu	175		91.2				
[Tl	205						

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, March 19, 2010 06:15:11

Page 1

ICPMS #5 Daily Performance Report

Sample ID: Sample

Sample Date/Time: Friday, March 19, 2010 12:25:36

Sample Description:

Method File: c:\elandata\Method\Daily2.mth

Dataset File: c:\elandata\Dataset\default\Sample.870

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		4041.4		4041.372		81.851		2.0
Mg	24.0		49145.2		49145.195		475.507		1.0
Co	58.9		89688.7		89688.666		431.875		0.5
Rh	102.9		173073.4		173073.356		1536.684		0.9
In	114.9		232515.0		232514.964		989.136		0.4
Pb	208.0		284730.8		284730.796		1789.725		0.6
[> Ba	137.9		226885.0		226885.033		2712.734		1.2
[Ba++	69.0		3216.2		0.014		0.000		1.4
[> Ce	139.9		274553.1		274553.116		2327.444		0.8
[CeO	155.9		6290.7		0.023		0.000		1.2
Bkgd	220.0		20.8		20.800		3.054		14.7

Current Optimization File Data

Current Value	Description
0.89	Nebulizer Gas Flow
6.75	Lens Voltage
1450.00	ICP RF Power
-1812.50	Analog Stage Voltage
1300.00	Pulse Stage Voltage
200.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	15	6.8	4773.1
Co	59	15	7.5	77698.4
In	115	15	8.5	221915.7

ICPMS #5 Instrument Tuning Report

File Name: 100319.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	0.570
Be	9.0	9.0	2050	2088	0.577
Mg	24.0	24.0	5685	2100	0.538
Mg	25.0	25.0	5937	2100	0.527
Mg	26.0	26.0	6182	2100	0.563
Co	58.9	59.0	14191	2125	0.568
Rh	102.9	102.9	24879	2180	0.563
In	114.9	114.9	27794	2200	0.564
Ce	139.9	139.9	33865	2220	0.573
Pb	206.0	206.0	49948	2305	0.549
Pb	207.0	207.0	50171	2240	0.633
Pb	208.0	208.0	50439	2280	0.676
U	238.1	238.0	57724	2295	0.667

ICPMS#5 - Summary Report

Sample ID: Blank

Sample Date/Time: Friday, March 19, 2010 17:06:15

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ani soli rerun.mth

Dataset File: C:\elandata\Dataset\100319\Blank.070

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		712936	
[	Ni	60		ug/L		54	
>	Ge	74		ug/L		401298	
|	As	75		ug/L		160	
|	Se	77		ug/L		3519	
|	Se	82		ug/L		0	
[	Kr	83		ug/L		100	
>	Lu	175		ug/L		572532	
|	Tl	205		ug/L		1120	
|	Pb	208		ug/L		420	
[	U	238		ug/L		104	

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	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	
Pb	208	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
[	Be	9					
>	Sc	45					
[	Ni	60					
>	Ge	74					
|	As	75					
|	Se	77					
|	Se	82					
[	Kr	83					
>	Lu	175					
|	Tl	205					
|	Pb	208					
[U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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Sample ID: Blank

Report Date/Time: Friday, March 19, 2010 17:07:07

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Friday, March 19, 2010 17:09:34

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil rerun.mth

Dataset File: C:\elandata\Dataset\100319\Standard 1.071

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	10.000	ug/L	2.034	4578	0.006
Sc	45		ug/L		730974	730974.155
Ni	60	10.000	ug/L	3.395	14635	0.020
Ge	74		ug/L		405973	405972.686
As	75	10.000	ug/L	3.819	10813	0.026
Se	77		ug/L		4680	0.003
Se	82	10.000	ug/L	3.766	1225	0.003
Kr	83		ug/L		93	-0.000
Lu	175		ug/L		578129	578128.836
Tl	205	10.000	ug/L	1.564	250163	0.431
Pb	208	10.000	ug/L	0.564	441403	0.763
U	238	10.000	ug/L	1.516	538048	0.930

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
Sc	45						
Ni	60						
Ge	74						
As	75						
Se	77						
Se	82						
Kr	83						
Lu	175						
Tl	205						
Pb	208						
U	238						

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: Standard 1

Report Date/Time: Friday, March 19, 2010 17:10:24

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Friday, March 19, 2010 17:12:51

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lani soil rerun.mth

Dataset File: C:\elandata\Dataset\100319\Standard 2.072

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	99.981	ug/L	0.639	45240	0.061
>	Sc	45		ug/L		738592	738591.735
[	Ni	60	99.990	ug/L	1.247	145947	0.198
>	Ge	74		ug/L		415031	415031.285
|	As	75	100.021	ug/L	1.516	111433	0.268
|	Se	77		ug/L		13189	0.023
|	Se	82	99.949	ug/L	2.007	11909	0.029
[	Kr	83		ug/L		114	0.000
>	Lu	175		ug/L		566993	566992.718
|	Tl	205	99.939	ug/L	2.346	2301369	4.057
|	Pb	208	99.964	ug/L	1.656	4171609	7.358
[	U	238	99.939	ug/L	2.158	4966515	8.761

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	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution %	Dil	Duplicate Rel. % Difference
[	Be	9						
>	Sc	45						
[	Ni	60						
>	Ge	74						
|	As	75						
|	Se	77						
|	Se	82						
[	Kr	83						
>	Lu	175						
|	Tl	205						
|	Pb	208						
[	U	238						

QC Out Of Limits

Measurement Type Analyte

Mass Out of Limits Message

Sample ID: Standard 2

Report Date/Time: Friday, March 19, 2010 17:13:41

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: Friday, March 19, 2010 17:16:09

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\Nanl soil rerun.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 1.073

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	49.143	ug/L	1.203	22587	0.030
Sc	45		ug/L		750048	750048.377
Ni	60	50.995	ug/L	1.614	75609	0.101
Ge	74		ug/L		417676	417675.698
As	75	51.020	ug/L	1.953	57279	0.137
Se	77		ug/L		8951	0.013
Se	82	50.210	ug/L	2.013	6020	0.014
Kr	83		ug/L		126	0.000
Lu	175		ug/L		583437	583437.116
Tl	205	49.349	ug/L	3.230	1169941	2.003
Pb	208	49.582	ug/L	1.488	2129557	3.649
U	238	50.519	ug/L	1.469	2583788	4.429

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9	98.286					
Sc	45		105.2				
Ni	60	101.990					
Ge	74		104.1				
As	75	102.040					
Se	77						
Se	82	100.420					
Kr	83						
Lu	175		101.9				
Tl	205						
Pb	208						
U	238	101.038					

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: QC Std 1

Report Date/Time: Friday, March 19, 2010 17:16:59

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: Friday, March 19, 2010 17:19:29

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ani soil rerun.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 2.074

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	0.012	ug/L	88.965	22	0.000
[> Sc	45		ug/L		757170	757170.156
[Ni	60	0.004	ug/L	157.276	63	0.000
[> Ge	74		ug/L		419485	419484.566
[As	75	-0.200	ug/L	48.808	-57	-0.001
[Se	77		ug/L		4157	0.001
[Se	82	0.252	ug/L	52.770	31	0.000
[Kr	83		ug/L		96	-0.000
[> Lu	175		ug/L		576749	576749.402
[Tl	205	0.194	ug/L	7.282	5681	0.008
[Pb	208	0.002	ug/L	16.342	514	0.000
[U	238	0.004	ug/L	9.432	285	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	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[Be	9					
[> Sc	45		106.2			
[Ni	60					
[> Ge	74		104.5			
[As	75					
[Se	77					
[Se	82					
[Kr	83					
[> Lu	175		100.7			
[Tl	205					
[Pb	208					
[U	238					

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: QC Std 2

Report Date/Time: Friday, March 19, 2010 17:20:21

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: Friday, March 19, 2010 17:22:49

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ani soil rerun.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 3.075

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.555	ug/L	2.718	269	0.000
> Sc	45		ug/L		744074	744074.146
Ni	60	2.270	ug/L	0.901	3393	0.004
> Ge	74		ug/L		423926	423925.904
As	75	5.537	ug/L	3.633	6460	0.015
Se	77		ug/L		4695	0.002
Se	82	5.575	ug/L	9.312	679	0.002
Kr	83		ug/L		108	0.000
> Lu	175		ug/L		584022	584022.168
Tl	205	1.209	ug/L	2.147	29813	0.049
Pb	208	2.315	ug/L	1.167	99935	0.170
U	238	0.271	ug/L	1.275	13968	0.024

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	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel.	% Difference
Be	9	111.038					
> Sc	45		104.4				
Ni	60	113.520					
> Ge	74		105.6				
As	75	110.739					
Se	77						
Se	82	111.501					
Kr	83						
> Lu	175		102.0				
Tl	205						
Pb	208						
U	238	135.372					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

Sample ID: QC Std 3

Report Date/Time: Friday, March 19, 2010 17:23:40

Page 1

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: Friday, March 19, 2010 17:26:08

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ani soil rerun.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 4.076

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.097	ug/L	22.395	58	0.000
> Sc	45		ug/L		724407	724407.468
Ni	60	3.078	ug/L	2.817	4458	0.006
> Ge	74		ug/L		397149	397149.239
As	75	-0.259	ug/L	68.529	-117	-0.001
Se	77		ug/L		6804	0.008
Se	82	-0.803	ug/L	50.218	-91	-0.000
Kr	83		ug/L		287	0.000
> Lu	175		ug/L		543181	543180.987
Tl	205	0.036	ug/L	5.268	1857	0.001
Pb	208	0.213	ug/L	0.756	8927	0.016
U	238	0.001	ug/L	21.291	170	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	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
Be	9						
> Sc	45		101.6				
Ni	60	92.983					
> Ge	74		99.0				
As	75						
Se	77						
Se	82						
Kr	83						
> Lu	175		94.9				
Tl	205						
Pb	208						
U	238						

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: QC Std 4

Report Date/Time: Friday, March 19, 2010 17:26:59

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: Friday, March 19, 2010 17:29:27

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\VanI soll rerun.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 5.077

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	19.298	ug/L	0.823	8143	0.012
Sc	45		ug/L		687812	687812.054
Ni	60	22.823	ug/L	1.476	31063	0.045
Ge	74		ug/L		383781	383780.557
As	75	21.579	ug/L	2.269	22351	0.058
Se	77		ug/L		8056	0.012
Se	82	20.779	ug/L	3.847	2289	0.006
Kr	83		ug/L		289	0.001
Lu	175		ug/L		534139	534139.443
Tl	205	19.980	ug/L	1.297	434300	0.811
Pb	208	20.161	ug/L	0.386	793019	1.484
U	238	22.310	ug/L	0.650	1044728	1.956

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	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
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
Be	9	96.488					
Sc	45		96.5				
Ni	60	97.910					
Ge	74		95.6				
As	75	107.896					
Se	77						
Se	82	103.895					
Kr	83						
Lu	175		93.3				
Tl	205						
Pb	208						
U	238	111.552					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

Sample ID: QC Std 5

Report Date/Time: Friday, March 19, 2010 17:30:18

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: Friday, March 19, 2010 17:32:47

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ani soil rerun.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 6.078

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	48.184	ug/L	0.962	21595	0.030
> Sc	45		ug/L		731350	731350.016
Ni	60	49.618	ug/L	1.216	71735	0.098
> Ge	74		ug/L		406196	406195.948
As	75	49.942	ug/L	0.397	54537	0.134
Se	77		ug/L		9836	0.015
Se	82	50.443	ug/L	0.615	5882	0.014
Kr	83		ug/L		117	0.000
> Lu	175		ug/L		567087	567087.145
Tl	205	49.068	ug/L	0.996	1130764	1.992
Pb	208	49.382	ug/L	0.719	2061536	3.635
U	238	50.522	ug/L	0.978	2511478	4.429

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	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
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
Be	9	96.369					
> Sc	45		102.6				
Ni	60	99.236					
> Ge	74		101.2				
As	75	99.885					
Se	77						
Se	82	100.886					
Kr	83						
> Lu	175		99.0				
Tl	205						
Pb	208						
U	238	101.045					

QC Out Of Limits

Measurement Type Analyte

Mass Out of Limits Message

Sample ID: QC Std 6

Report Date/Time: Friday, March 19, 2010 17:33:38

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: Friday, March 19, 2010 17:36:08

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\Nani soil rerun.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 7.079

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.010	ug/L	69.633	20	0.000
> Sc	45		ug/L		747740	747739.549
Ni	60	0.006	ug/L	76.465	65	0.000
> Ge	74		ug/L		416454	416453.540
As	75	-0.294	ug/L	25.896	-162	-0.001
Se	77		ug/L		5582	0.005
Se	82	0.116	ug/L	45.773	14	0.000
Kr	83		ug/L		110	0.000
> Lu	175		ug/L		565901	565900.943
Tl	205	0.180	ug/L	4.878	5233	0.007
Pb	208	0.002	ug/L	23.295	511	0.000
U	238	0.003	ug/L	9.958	244	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	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
Be	9						
> Sc	45		104.9				
Ni	60						
> Ge	74		103.8				
As	75						
Se	77						
Se	82						
Kr	83						
> Lu	175		98.8				
Tl	205						
Pb	208						
U	238						

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: QC Std 7

Report Date/Time: Friday, March 19, 2010 17:37:00

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Friday, March 19, 2010 17:39:29

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ani soil rerun.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 8.080

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	47.986	ug/L	1.585	21966	0.029
> Sc	45		ug/L		746918	746917.656
Ni	60	50.757	ug/L	0.571	74948	0.100
> Ge	74		ug/L		420633	420633.154
As	75	49.655	ug/L	4.082	56129	0.133
Se	77		ug/L		9938	0.015
Se	82	50.329	ug/L	4.731	6074	0.014
Kr	83		ug/L		113	0.000
> Lu	175		ug/L		579122	579122.023
Tl	205	48.394	ug/L	2.089	1138928	1.965
Pb	208	48.823	ug/L	0.794	2081487	3.594
U	238	50.462	ug/L	0.998	2561899	4.424

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9	95.973					
> Sc	45		104.8				
Ni	60	101.513					
> Ge	74		104.8				
As	75	99.310					
Se	77						
Se	82	100.657					
Kr	83						
> Lu	175		101.2				
Tl	205						
Pb	208						
U	238	100.923					

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: QC Std 8

Report Date/Time: Friday, March 19, 2010 17:40:20

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Friday, March 19, 2010 17:42:50

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil rerun.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 9.081

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.007	ug/L	69.351	19	0.000
> Sc	45		ug/L		761164	761164.092
Ni	60	0.001	ug/L	1399.331	58	0.000
> Ge	74		ug/L		421430	421429.721
As	75	-0.209	ug/L	115.299	-69	-0.001
Se	77		ug/L		5616	0.005
Se	82	0.143	ug/L	92.402	18	0.000
Kr	83		ug/L		104	-0.000
> Lu	175		ug/L		578104	578103.730
Tl	205	0.187	ug/L	9.425	5512	0.008
Pb	208	0.003	ug/L	22.386	550	0.000
U	238	0.003	ug/L	22.582	269	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	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
> Sc	45		106.8				
Ni	60						
> Ge	74		105.0				
As	75						
Se	77						
Se	82						
Kr	83						
> Lu	175		101.0				
Tl	205						
Pb	208						
U	238						

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: QC Std 9

Report Date/Time: Friday, March 19, 2010 17:43:42

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202049284

Sample Date/Time: Friday, March 19, 2010 17:49:33

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 955818|2|skj

Method File: c:\elandata\Method\Vanl soil rerun.mth

Dataset File: C:\elandata\Dataset\100319\1202049284.083

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	0.015	ug/L	60.556	20	0.000
> Sc	45		ug/L		675468	675467.616
[Ni	60	0.256	ug/L	5.507	392	0.001
> Ge	74		ug/L		380051	380050.972
[As	75	0.064	ug/L	104.385	216	0.000
[Se	77		ug/L		4199	0.002
[Se	82	0.203	ug/L	83.992	23	0.000
[Kr	83		ug/L		93	-0.000
> Lu	175		ug/L		543842	543841.770
[Tl	205	0.038	ug/L	6.805	1901	0.002
[Pb	208	0.014	ug/L	5.523	967	0.001
[U	238	0.001	ug/L	16.013	139	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	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
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
[Be	9						
> Sc	45		94.7				
[Ni	60						
> Ge	74		94.7				
[As	75						
[Se	77						
[Se	82						
[Kr	83						
> Lu	175		95.0				
[Tl	205						
[Pb	208						
[U	238						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

Sample ID: 1202049284

Report Date/Time: Friday, March 19, 2010 17:50:24

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202049289

Sample Date/Time: Friday, March 19, 2010 17:52:53

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 955818|40|skj

Method File: c:\elandata\Method\lanl soil rerun.mth

Dataset File: C:\elandata\Dataset\100319\1202049289.084

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	21.328	ug/L	0.168	9387	0.013
> Sc	45		ug/L		717509	717508.841
[Ni	60	37.338	ug/L	0.303	52978	0.074
> Ge	74		ug/L		396976	396976.351
[As	75	28.213	ug/L	2.108	30177	0.076
| Se	77		ug/L		11204	0.019
| Se	82	79.077	ug/L	1.827	9011	0.023
[Kr	83		ug/L		99	0.000
> Lu	175		ug/L		551169	551168.550
| Tl	205	33.609	ug/L	1.371	753029	1.364
| Pb	208	23.842	ug/L	1.618	967499	1.755
[U	238	0.548	ug/L	1.378	26591	0.048

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	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
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
[Be	9						
> Sc	45		100.6				
[Ni	60						
> Ge	74		98.9				
[As	75						
| Se	77						
| Se	82						
[Kr	83						
> Lu	175		96.3				
| Tl	205						
| Pb	208						
[U	238						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

Sample ID: 1202049289

Report Date/Time: Friday, March 19, 2010 17:53:44

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Friday, March 19, 2010 17:59:33

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil rerun.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 8.086

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	49.822	ug/L	0.501	21142	0.031
> Sc	45		ug/L		692436	692436.400
Ni	60	51.068	ug/L	0.263	69907	0.101
> Ge	74		ug/L		393206	393206.143
As	75	48.555	ug/L	2.027	51338	0.130
Se	77		ug/L		8894	0.014
Se	82	50.536	ug/L	0.463	5704	0.015
Kr	83		ug/L		107	0.000
> Lu	175		ug/L		546667	546666.883
Tl	205	49.848	ug/L	1.148	1107275	2.024
Pb	208	50.567	ug/L	0.094	2035030	3.722
U	238	50.867	ug/L	0.536	2437770	4.459

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel.	% Difference
Be	9	99.645					
> Sc	45		97.1				
Ni	60	102.135					
> Ge	74		98.0				
As	75	97.109					
Se	77						
Se	82	101.072					
Kr	83						
> Lu	175		95.5				
Tl	205						
Pb	208						
U	238	101.734					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: QC Std 8

Report Date/Time: Friday, March 19, 2010 18:00:24

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Friday, March 19, 2010 18:02:54

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil rerun.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 9.087

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	0.012	ug/L	96.261	19	0.000
|> Sc	45		ug/L		688545	688545.333
[Ni	60	0.001	ug/L	1168.903	53	0.000
|> Ge	74		ug/L		396002	396001.656
| As	75	0.098	ug/L	480.531	264	0.000
| Se	77		ug/L		4802	0.003
| Se	82	0.108	ug/L	55.103	13	0.000
[Kr	83		ug/L		103	0.000
|> Lu	175		ug/L		556362	556361.831
| Tl	205	0.176	ug/L	5.371	5059	0.007
| Pb	208	0.002	ug/L	36.008	500	0.000
[U	238	0.003	ug/L	12.486	263	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	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
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
[Be	9						
|> Sc	45		96.6				
[Ni	60						
|> Ge	74		98.7				
| As	75						
| Se	77						
| Se	82						
[Kr	83						
|> Lu	175		97.2				
| Tl	205						
| Pb	208						
[U	238						

QC Out Of Limits

Measurement Type Analyte

Mass Out of Limits Message

Sample ID: QC Std 9

Report Date/Time: Friday, March 19, 2010 18:03:46

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 247561001

Sample Date/Time: Friday, March 19, 2010 18:12:55

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955818|2|skj

Method File: c:\elandata\Method\lanl soil rerun.mth

Dataset File: C:\elandata\Dataset\100319\247561001.090

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	2.189	ug/L	4.186	952	0.001
> Sc	45		ug/L		699396	699396.367
Ni	60	11.320	ug/L	2.092	15689	0.022
> Ge	74		ug/L		372744	372744.006
As	75	4.610	ug/L	7.456	4756	0.012
Se	77		ug/L		2691	-0.002
Se	82	0.635	ug/L	66.012	69	0.000
Kr	83		ug/L		166	0.000
> Lu	175		ug/L		576026	576026.444
Tl	205	0.399	ug/L	0.436	10458	0.016
Pb	208	23.930	ug/L	1.254	1014882	1.761
U	238	6.708	ug/L	1.106	338775	0.588

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	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
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
Be	9						
> Sc	45		98.1				
Ni	60						
> Ge	74		92.9				
As	75						
Se	77						
Se	82						
Kr	83						
> Lu	175		100.6				
Tl	205						
Pb	208						
U	238						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

Sample ID: 247561001

Report Date/Time: Friday, March 19, 2010 18:13:46

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202049285

Sample Date/Time: Friday, March 19, 2010 18:16:15

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 955818|2|skj

Method File: c:\elandata\Method\lanl soil rerun.mth

Dataset File: C:\elandata\Dataset\100319\1202049285.091

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	2.355	ug/L	10.038	1022	0.001
[>	Sc	45		ug/L		699355	699354.544
[	Ni	60	13.552	ug/L	0.567	18776	0.027
[>	Ge	74		ug/L		352910	352909.911
|	As	75	5.706	ug/L	1.135	5538	0.015
|	Se	77		ug/L		2583	-0.001
|	Se	82	0.449	ug/L	68.180	46	0.000
[	Kr	83		ug/L		186	0.000
[>	Lu	175		ug/L		566092	566092.297
|	Tl	205	0.495	ug/L	3.625	12472	0.020
|	Pb	208	27.131	ug/L	1.838	1130821	1.997
[	U	238	3.308	ug/L	0.050	164271	0.290

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	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
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
[	Be	9				
[>	Sc	45		98.1		
[	Ni	60				
[>	Ge	74		87.9		
|	As	75				
|	Se	77				
|	Se	82				
[	Kr	83				
[>	Lu	175		98.9		
|	Tl	205				
|	Pb	208				
[	U	238				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

Sample ID: 1202049285

Report Date/Time: Friday, March 19, 2010 18:17:06

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202049287

Sample Date/Time: Friday, March 19, 2010 18:19:35

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 955818|2|skj

Method File: c:\elandata\Method\ani soil rerun.mth

Dataset File: C:\elandata\Dataset\100319\1202049287.092

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	26.727	ug/L	1.353	11506	0.016
Sc	45		ug/L		702085	702085.062
Ni	60	36.374	ug/L	2.681	50488	0.072
Ge	74		ug/L		358568	358568.052
As	75	43.474	ug/L	3.485	41913	0.117
Se	77		ug/L		3207	0.000
Se	82	9.163	ug/L	5.011	943	0.003
Kr	83		ug/L		193	0.000
Lu	175		ug/L		566202	566202.434
Tl	205	49.265	ug/L	1.978	1133287	2.000
Pb	208	123.498	ug/L	0.782	5146667	9.090
U	238	30.346	ug/L	1.908	1505957	2.660

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
Sc	45		98.5				
Ni	60						
Ge	74		89.4				
As	75						
Se	77						
Se	82						
Kr	83						
Lu	175		98.9				
Tl	205						
Pb	208						
U	238						

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: 1202049287

Report Date/Time: Friday, March 19, 2010 18:20:26

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202049288

Sample Date/Time: Friday, March 19, 2010 18:22:55

Sample Type:

Sample Description: LANL 6020 MSD

Number of Replicates: 3

Batch ID: 955818|2|skj

Method File: c:\elandata\Method\ani soil rerun.mth

Dataset File: C:\elandata\Dataset\100319\1202049288.093

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	26.076	ug/L	2.992	11346	0.016
> Sc	45		ug/L		709738	709737.710
Ni	60	35.604	ug/L	1.606	49971	0.070
> Ge	74		ug/L		360237	360237.152
As	75	42.135	ug/L	1.046	40826	0.113
Se	77		ug/L		3147	-0.000
Se	82	9.186	ug/L	2.769	950	0.003
Kr	83		ug/L		194	0.000
> Lu	175		ug/L		569289	569288.917
Tl	205	48.576	ug/L	1.224	1123768	1.972
Pb	208	120.824	ug/L	1.085	5063077	8.893
U	238	31.634	ug/L	1.383	1578710	2.773

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	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
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
Be	9					
> Sc	45		99.6			
Ni	60					
> Ge	74		89.8			
As	75					
Se	77					
Se	82					
Kr	83					
> Lu	175		99.4			
Tl	205					
Pb	208					
U	238					

QC Out Of Limits

Measurement Type Analyte

Mass Out of Limits Message

Sample ID: 1202049288

Report Date/Time: Friday, March 19, 2010 18:23:46

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202049286

Sample Date/Time: Friday, March 19, 2010 18:26:16

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 955818|10|skj

Method File: c:\elandata\Method\lanl soli rerun.mth

Dataset File: C:\elandata\Dataset\100319\1202049286.094

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.456	ug/L	4.998	195	0.000
Sc	45		ug/L		649105	649105.033
Ni	60	2.332	ug/L	3.521	3039	0.005
Ge	74		ug/L		354546	354545.567
As	75	1.019	ug/L	19.443	1110	0.003
Se	77		ug/L		2978	-0.000
Se	82	0.141	ug/L	81.397	15	0.000
Kr	83		ug/L		107	0.000
Lu	175		ug/L		537112	537112.279
Tl	205	0.272	ug/L	1.524	6983	0.011
Pb	208	4.885	ug/L	0.338	193502	0.360
U	238	1.378	ug/L	1.064	64987	0.121

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
Sc	45		91.0				
Ni	60						
Ge	74		88.3				
As	75						
Se	77						
Se	82						
Kr	83						
Lu	175		93.8				
Tl	205						
Pb	208						
U	238						

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: 1202049286

Report Date/Time: Friday, March 19, 2010 18:27:07

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Friday, March 19, 2010 18:29:36

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil rerun.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 8.095

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	51.729	ug/L	0.872	20433	0.032
> Sc	45		ug/L		644602	644601.795
Ni	60	49.741	ug/L	1.847	63377	0.098
> Ge	74		ug/L		365420	365419.673
As	75	49.286	ug/L	1.002	48420	0.132
Se	77		ug/L		7543	0.012
Se	82	51.029	ug/L	1.920	5354	0.015
Kr	83		ug/L		99	0.000
> Lu	175		ug/L		535276	535276.204
Tl	205	50.057	ug/L	1.498	1088875	2.032
Pb	208	50.202	ug/L	0.739	1978251	3.695
U	238	51.781	ug/L	1.436	2429742	4.539

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel.	% Difference
Be	9	103.459					
> Sc	45		90.4				
Ni	60	99.482					
> Ge	74		91.1				
As	75	98.573					
Se	77						
Se	82	102.059					
Kr	83						
> Lu	175		93.5				
Tl	205						
Pb	208						
U	238	103.562					

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: QC Std 8

Report Date/Time: Friday, March 19, 2010 18:30:27

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Friday, March 19, 2010 18:32:57

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil rerun.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 9.096

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	0.009	ug/L	152.150	17	0.000
[> Sc	45		ug/L		648647	648647.184
[Ni	60	0.004	ug/L	261.109	54	0.000
[> Ge	74		ug/L		375758	375758.413
[As	75	-0.081	ug/L	440.112	66	-0.000
[Se	77		ug/L		3679	0.001
[Se	82	-0.028	ug/L	779.098	-3	-0.000
[Kr	83		ug/L		106	0.000
[> Lu	175		ug/L		531573	531572.666
[Tl	205	0.187	ug/L	4.319	5080	0.008
[Pb	208	0.004	ug/L	14.878	541	0.000
[U	238	0.004	ug/L	18.945	276	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	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
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
[Be	9					
[> Sc	45		91.0			
[Ni	60					
[> Ge	74		93.6			
[As	75					
[Se	77					
[Se	82					
[Kr	83					
[> Lu	175		92.8			
[Tl	205					
[Pb	208					
[U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

Sample ID: QC Std 9

Report Date/Time: Friday, March 19, 2010 18:33:49

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 247561002

Sample Date/Time: Friday, March 19, 2010 18:36:18

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955818|2|skj

Method File: c:\elandata\Method\lanl soil rerun.mth

Dataset File: C:\elandata\Dataset\100319\247561002.097

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	1.781	ug/L	2.491	759	0.001
Sc	45		ug/L		682464	682463.982
Ni	60	11.797	ug/L	1.981	15954	0.023
Ge	74		ug/L		357867	357866.972
As	75	4.341	ug/L	4.610	4306	0.012
Se	77		ug/L		2803	-0.001
Se	82	0.370	ug/L	52.785	38	0.000
Kr	83		ug/L		156	0.000
Lu	175		ug/L		563724	563723.999
Tl	205	0.319	ug/L	2.891	8400	0.013
Pb	208	50.971	ug/L	1.855	2115019	3.752
U	238	22.759	ug/L	0.879	1124702	1.995

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	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
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
Be	9					
Sc	45		95.7			
Ni	60					
Ge	74		89.2			
As	75					
Se	77					
Se	82					
Kr	83					
Lu	175		98.5			
Tl	205					
Pb	208					
U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

Sample ID: 247561002

Report Date/Time: Friday, March 19, 2010 18:37:09

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 247561003

Sample Date/Time: Friday, March 19, 2010 18:39:38

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955818|2|skj

Method File: c:\elandata\Method\lanl soil rerun.mth

Dataset File: C:\elandata\Dataset\100319\247561003.098

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	2.272	ug/L	5.722	967	0.001
> Sc	45		ug/L		684241	684241.248
Ni	60	20.217	ug/L	0.944	27377	0.040
> Ge	74		ug/L		354570	354570.153
As	75	5.153	ug/L	2.034	5038	0.014
Se	77		ug/L		2639	-0.001
Se	82	0.345	ug/L	7.308	35	0.000
Kr	83		ug/L		174	0.000
> Lu	175		ug/L		564542	564541.556
Tl	205	0.385	ug/L	1.932	9935	0.016
Pb	208	51.586	ug/L	0.888	2143732	3.797
U	238	12.463	ug/L	2.030	616774	1.093

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	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
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
Be	9					
> Sc	45		96.0			
Ni	60					
> Ge	74		88.4			
As	75					
Se	77					
Se	82					
Kr	83					
> Lu	175		98.6			
Tl	205					
Pb	208					
U	238					

QC Out Of Limits

Measurement Type Analyte

Mass Out of Limits Message

Sample ID: 247561003

Report Date/Time: Friday, March 19, 2010 18:40:30

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 247561004

Sample Date/Time: Friday, March 19, 2010 18:42:59

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955818|2|skj

Method File: c:\elandata\Method\lanl soil rerun.mth

Dataset File: C:\elandata\Dataset\100319\247561004.099

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	2.576	ug/L	1.127	1099	0.002
> Sc	45		ug/L		687701	687701.479
Ni	60	14.466	ug/L	1.833	19701	0.029
> Ge	74		ug/L		363049	363048.730
As	75	5.612	ug/L	1.142	5606	0.015
Se	77		ug/L		2513	-0.002
Se	82	0.408	ug/L	73.598	43	0.000
Kr	83		ug/L		190	0.000
> Lu	175		ug/L		578942	578941.960
Tl	205	0.480	ug/L	2.160	12414	0.019
Pb	208	56.707	ug/L	0.720	2416709	4.174
U	238	5.366	ug/L	1.061	272463	0.470

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	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
> Sc	45		96.5			
Ni	60					
> Ge	74		90.5			
As	75					
Se	77					
Se	82					
Kr	83					
> Lu	175		101.1			
Tl	205					
Pb	208					
U	238					

QC Out Of Limits

Measurement Type Analyte

Mass Out of Limits Message

Sample ID: 247561004

Report Date/Time: Friday, March 19, 2010 18:43:50

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 247561005

Sample Date/Time: Friday, March 19, 2010 18:46:19

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955818|2|sk|

Method File: c:\elandata\Method\lanl soil rerun.mth

Dataset File: C:\elandata\Dataset\100319\247561005.100

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	1.999	ug/L	4.548	843	0.001
> Sc	45		ug/L		677266	677265.682
Ni	60	8.213	ug/L	1.950	11038	0.016
> Ge	74		ug/L		363018	363017.703
As	75	3.573	ug/L	6.029	3619	0.010
Se	77		ug/L		2471	-0.002
Se	82	0.437	ug/L	79.308	46	0.000
Kr	83		ug/L		169	0.000
> Lu	175		ug/L		577065	577064.723
Tl	205	0.283	ug/L	1.372	7771	0.012
Pb	208	25.514	ug/L	1.837	1083816	1.878
U	238	6.025	ug/L	0.606	304887	0.528

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
> Sc	45		95.0			
Ni	60					
> Ge	74		90.5			
As	75					
Se	77					
Se	82					
Kr	83					
> Lu	175		100.8			
Tl	205					
Pb	208					
U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: 247561005

Report Date/Time: Friday, March 19, 2010 18:47:10

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 247561006

Sample Date/Time: Friday, March 19, 2010 18:49:40

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955818|2|skj

Method File: c:\elandata\Method\lanl soil rerun.mth

Dataset File: C:\elandata\Dataset\100319\247561006.101

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	1.882	ug/L	7.264	812	0.001
> Sc	45		ug/L		692054	692054.232
Ni	60	12.889	ug/L	1.563	17673	0.025
> Ge	74		ug/L		358687	358687.378
As	75	4.956	ug/L	4.169	4907	0.013
Se	77		ug/L		2652	-0.001
Se	82	0.585	ug/L	24.590	61	0.000
Kr	83		ug/L		157	0.000
> Lu	175		ug/L		568391	568391.407
Tl	205	0.296	ug/L	2.721	7948	0.012
Pb	208	38.062	ug/L	1.868	1592582	2.801
U	238	11.324	ug/L	2.243	564283	0.993

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	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
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
Be	9					
> Sc	45		97.1			
Ni	60					
> Ge	74		89.4			
As	75					
Se	77					
Se	82					
Kr	83					
> Lu	175		99.3			
Tl	205					
Pb	208					
U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

Sample ID: 247561006

Report Date/Time: Friday, March 19, 2010 18:50:31

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 247561007

Sample Date/Time: Friday, March 19, 2010 18:53:00

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955818|2|skj

Method File: c:\elandata\Method\lanl soil rerun.mth

Dataset File: C:\elandata\Dataset\100319\247561007.102

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	1.909	ug/L	3.296	787	0.001
> Sc	45		ug/L		660944	660944.288
[Ni	60	11.758	ug/L	1.382	15400	0.023
> Ge	74		ug/L		343335	343335.347
[As	75	4.032	ug/L	9.059	3846	0.011
[Se	77		ug/L		2474	-0.002
[Se	82	0.154	ug/L	166.397	15	0.000
[Kr	83		ug/L		179	0.000
> Lu	175		ug/L		537771	537770.613
[Tl	205	0.277	ug/L	0.681	7094	0.011
[Pb	208	34.901	ug/L	0.385	1381820	2.569
[U	238	9.193	ug/L	0.180	433476	0.806

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	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
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
[Be	9					
> Sc	45		92.7			
[Ni	60					
> Ge	74		85.6			
[As	75					
[Se	77					
[Se	82					
[Kr	83					
> Lu	175		93.9			
[Tl	205					
[Pb	208					
[U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

Sample ID: 247561007

Report Date/Time: Friday, March 19, 2010 18:53:52

Page 1

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 247561008

Sample Date/Time: Friday, March 19, 2010 18:56:21

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955818|2|skj

Method File: c:\elandata\Method\lanl soil rerun.mth

Dataset File: C:\elandata\Dataset\100319\247561008.103

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	2.138	ug/L	3.697	926	0.001
> Sc	45		ug/L		695983	695982.763
Ni	60	16.317	ug/L	1.053	22488	0.032
> Ge	74		ug/L		366597	366596.544
As	75	5.369	ug/L	3.509	5424	0.014
Se	77		ug/L		3286	0.000
Se	82	0.504	ug/L	50.038	53	0.000
Kr	83		ug/L		170	0.000
> Lu	175		ug/L		564256	564256.358
Tl	205	0.337	ug/L	1.268	8830	0.014
Pb	208	100.419	ug/L	0.510	4171013	7.391
U	238	9.601	ug/L	0.840	475015	0.842

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	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
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
Be	9						
> Sc	45		97.6				
Ni	60						
> Ge	74		91.4				
As	75						
Se	77						
Se	82						
Kr	83						
> Lu	175		98.6				
Tl	205						
Pb	208						
U	238						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

Sample ID: 247561008

Report Date/Time: Friday, March 19, 2010 18:57:13

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: Friday, March 19, 2010 18:59:42

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ani soil rerun.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 6.104

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	50.682	ug/L	1.536	20437	0.031
Sc	45		ug/L		658079	658079.434
Ni	60	51.460	ug/L	2.127	66934	0.102
Ge	74		ug/L		380534	380534.133
As	75	49.306	ug/L	0.521	50440	0.132
Se	77		ug/L		8120	0.013
Se	82	51.066	ug/L	1.166	5579	0.015
Kr	83		ug/L		108	0.000
Lu	175		ug/L		537847	537847.373
Tl	205	49.762	ug/L	1.895	1087657	2.020
Pb	208	51.343	ug/L	0.815	2032991	3.779
U	238	52.188	ug/L	1.312	2460579	4.575

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	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
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
Be	9	101.364					
Sc	45		92.3				
Ni	60	102.920					
Ge	74		94.8				
As	75	98.611					
Se	77						
Se	82	102.131					
Kr	83						
Lu	175		93.9				
Tl	205						
Pb	208						
U	238	104.376					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

Sample ID: QC Std 6

Report Date/Time: Friday, March 19, 2010 19:00:33

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: Friday, March 19, 2010 19:03:03

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\Nanl soil rerun.mth

Dataset File: C:\elandata\Dataset\100319\QC Std 7.105

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.021	ug/L	59.631	22	0.000
> Sc	45		ug/L		653798	653798.389
[Ni	60	0.004	ug/L	93.342	54	0.000
> Ge	74		ug/L		373457	373457.074
[As	75	-0.018	ug/L	1631.755	130	-0.000
[Se	77		ug/L		4125	0.002
[Se	82	0.122	ug/L	104.741	13	0.000
[Kr	83		ug/L		102	0.000
> Lu	175		ug/L		540832	540831.650
[Tl	205	0.143	ug/L	4.682	4196	0.006
[Pb	208	0.005	ug/L	22.149	588	0.000
[U	238	0.004	ug/L	7.275	311	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	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
> Sc	45		91.7				
[Ni	60						
> Ge	74		93.1				
[As	75						
[Se	77						
[Se	82						
[Kr	83						
> Lu	175		94.5				
[Tl	205						
[Pb	208						
[U	238						

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

Sample ID: QC Std 7

Report Date/Time: Friday, March 19, 2010 19:03:55

Page 1

QC Action

QC Action Line: No QC out of limits detected

Method Name: SOIL
 Method Description: 7471A, ILM04 ANALYST JXL1
 Element: Hg

Date: 03/02/2010
 Technique: FI-MHS
 Calibration Type:
 Hg, Calc. Intercept : Linear
 Wavelength: 253.7 nm
 Sample Info Name: 030210S1.SIF Results Data Set Name: 030210S1

Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 03/02/2010
 Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1			0.0050	0.0050	08:34:11	No
2			0.0049	0.0049	08:34:46	No
Mean:			0.0050			
SD :			0.0001			
%RSD:			2.2999			

Auto-zero performed.

Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 03/02/2010
 Sample ID: S0.2

Repl #	SampleConc µg/L	StndConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1			0.0026	0.0076	08:36:09	No
2			0.0026	0.0076	08:36:45	No
Mean:			0.0026			
SD :			0.0000			
%RSD:			0.4799			

[Hg] Standard number 1 applied. [0.200]
 Correlation Coefficient: 1.00000 Slope: 0.01318
 Intercept : 0.00000

Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 03/02/2010
 Sample ID: S0.5

Repl #	SampleConc µg/L	StndConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1			0.0054	0.0104	08:38:07	No
2			0.0054	0.0104	08:38:43	No
Mean:			0.0054			
SD :			0.0000			
%RSD:			0.7607			

[Hg] Standard number 2 applied. [0.500]
 Correlation Coefficient: 0.99502 Slope: 0.01071
 Intercept : 0.00019

Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 03/02/2010
 Sample ID: S2.0

Repl #	SampleConc µg/L	StndConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1			0.0211	0.0261	08:40:07	No
2			0.0213	0.0262	08:40:42	No
Mean:			0.0212			
SD :			0.0001			
%RSD:			0.4540			

[Hg] Standard number 3 applied. [2.000]

Correlation Coefficient: 0.99972
Intercept : 0.00023

Slope: 0.01049

=====

Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 03/02/2010
Sample ID: S5.0

Repl #	SampleConc µg/L	StndConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1			0.0517	0.0567	08:42:07	No
2			0.0520	0.0569	08:42:42	No
Mean:			0.0519			
SD :			0.0002			
%RSD:			0.3292			

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99994 Slope: 0.01033
Intercept : 0.00032

=====

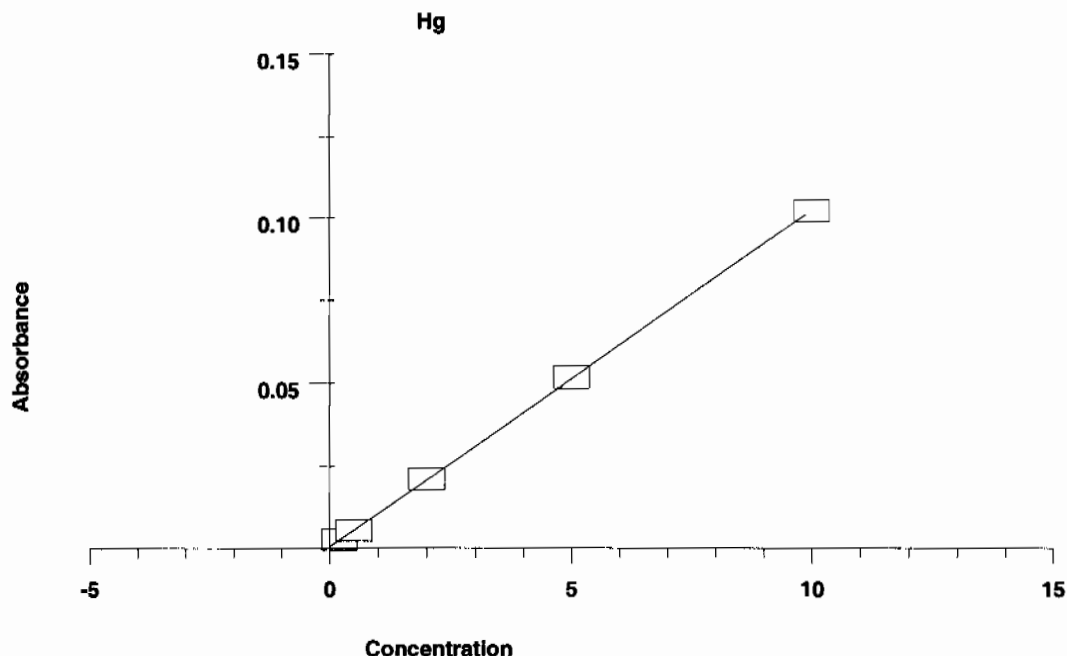
Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 03/02/2010
Sample ID: S10

Repl #	SampleConc µg/L	StndConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1			0.1011	0.1060	08:44:08	No
2			0.1030	0.1080	08:44:42	No
Mean:			0.1020			
SD :			0.0014			
%RSD:			1.3403			

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99996 Slope: 0.01018
Intercept : 0.00048

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0050	---	---	---	---
S0.2	0.0026	0.200	0.212	0.0000	0.5
S0.5	0.0054	0.500	0.485	0.0000	0.8
S2.0	0.0212	2.000	2.035	0.0001	0.5
S5.0	0.0519	5.000	5.045	0.0002	0.3
S10	0.1020	10.000	9.971	0.0014	1.3
Correlation Coefficient: 0.99996		Slope:	0.01018	Intercept:	0.0005



=====
 Element: Hg Seq. No.: 7 AS Loc.: 9 Date: 03/02/2010
 Sample ID: ICV

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	5.166	5.166	0.0531	0.0581	08:46:11	No
2	5.156	5.156	0.0530	0.0580	08:46:45	No
Mean:	5.161	5.161	0.0530			
SD :	0.0074	0.0074	0.0001			
%RSD:	0.1	0.1	0.1419			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 8 AS Loc.: 10 Date: 03/02/2010
 Sample ID: ICB

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.109	-0.109	-0.0006	0.0043	08:48:08	No
2	-0.114	-0.114	-0.0007	0.0043	08:48:43	No
Mean:	-0.112	-0.112	-0.0007			
SD :	0.0037	0.0037	0.0000			
%RSD:	3.3	3.3	5.6706			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 9 AS Loc.: 11 Date: 03/02/2010
 Sample ID: CRDL

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.158	0.158	0.0021	0.0071	08:50:04	No
2	0.156	0.156	0.0021	0.0070	08:50:39	No
Mean:	0.157	0.157	0.0021			
SD :	0.0015	0.0015	0.0000			
%RSD:	0.9	0.9	0.7131			

QC value within specified limits.

=====

Element: Hg Seq. No.: 10 AS Loc.: 7 Date: 03/02/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	4.999	4.999	0.0514	0.0564	08:52:04	No
2	5.030	5.030	0.0517	0.0567	08:52:39	No
Mean:	5.014	5.014	0.0515			
SD :	0.0216	0.0216	0.0002			
%RSD:	0.4	0.4	0.4272			

QC value within specified limits.

=====

Element: Hg Seq. No.: 11 AS Loc.: 8 Date: 03/02/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.027	-0.027	0.0002	0.0052	08:54:07	No
2	-0.033	-0.033	0.0001	0.0051	08:54:42	No
Mean:	-0.030	-0.030	0.0002			
SD :	0.0037	0.0037	0.0000			
%RSD:	12.4	12.4	22.0391			

QC value within specified limits.

=====

Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 03/02/2010
Sample ID: 1202055865|i||958596|MB

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.084	-0.084	-0.0004	0.0046	08:56:08	No
2	-0.090	-0.090	-0.0004	0.0045	08:56:43	No
Mean:	-0.087	-0.087	-0.0004			
SD :	0.0041	0.0041	0.0000			
%RSD:	4.8	4.8	10.4650			

=====

Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 03/02/2010
Sample ID: 1202055866|i|10||LCS

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	3.382	3.382	0.0349	0.0399	08:58:10	No
2	3.354	3.354	0.0346	0.0396	08:58:45	No
Mean:	3.368	3.368	0.0348			
SD :	0.0204	0.0204	0.0002			
%RSD:	0.6	0.6	0.5984			

=====

Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 03/02/2010
Sample ID: 246974001|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.150	0.150	0.0020	0.0070	09:00:11	No
2	0.138	0.138	0.0019	0.0069	09:00:47	No
Mean:	0.144	0.144	0.0019			
SD :	0.0080	0.0080	0.0001			
%RSD:	5.6	5.6	4.2068			

=====

Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 03/02/2010
Sample ID: 1202055867|i|||DUP

%RSD: 8.6 8.6 6.9133

=====
 Element: Hg Seq. No.: 21 AS Loc.: 21 Date: 03/02/2010
 Sample ID: 246974004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.061	0.061	0.0011	0.0061	09:14:03	No
2	0.047	0.047	0.0010	0.0059	09:14:38	No
Mean:	0.054	0.054	0.0010			
SD :	0.0102	0.0102	0.0001			
%RSD:	18.9	18.9	10.1144			

=====
 Element: Hg Seq. No.: 22 AS Loc.: 7 Date: 03/02/2010
 Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.108	5.108	0.0525	0.0575	09:16:03	No
2	5.176	5.176	0.0532	0.0582	09:16:38	No
Mean:	5.142	5.142	0.0528			
SD :	0.0487	0.0487	0.0005			
%RSD:	0.9	0.9	0.9381			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 23 AS Loc.: 8 Date: 03/02/2010
 Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.058	-0.058	-0.0001	0.0049	09:18:06	No
2	-0.062	-0.062	-0.0001	0.0048	09:18:41	No
Mean:	-0.060	-0.060	-0.0001			
SD :	0.0030	0.0030	0.0000			
%RSD:	5.0	5.0	23.6596			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 24 AS Loc.: 22 Date: 03/02/2010
 Sample ID: 246974005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.105	0.105	0.0015	0.0065	09:20:07	No
2	0.112	0.112	0.0016	0.0066	09:20:41	No
Mean:	0.108	0.108	0.0016			
SD :	0.0050	0.0050	0.0001			
%RSD:	4.7	4.7	3.2436			

=====
 Element: Hg Seq. No.: 25 AS Loc.: 23 Date: 03/02/2010
 Sample ID: 246974006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0005	0.0055	09:22:04	No
2	-0.012	-0.012	0.0004	0.0053	09:22:39	No
Mean:	-0.005	-0.005	0.0004			
SD :	0.0097	0.0097	0.0001			
%RSD:	191.4	191.4	23.1013			

=====
 Element: Hg Seq. No.: 26 AS Loc.: 24 Date: 03/02/2010
 Sample ID: 246974007|i|||

%RSD: 5.5 5.5 4.3407

=====
 Element: Hg Seq. No.: 32 AS Loc.: 30 Date: 03/02/2010
 Sample ID: 246974013|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	0.238	0.238	0.0029	0.0079	09:36:05	No
2	0.220	0.220	0.0027	0.0077	09:36:41	No
Mean:	0.229	0.229	0.0028			
SD :	0.0127	0.0127	0.0001			
%RSD:	5.6	5.6	4.6159			

=====
 Element: Hg Seq. No.: 33 AS Loc.: 31 Date: 03/02/2010
 Sample ID: 246974014|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	0.299	0.299	0.0035	0.0085	09:38:09	No
2	0.281	0.281	0.0033	0.0083	09:38:44	No
Mean:	0.290	0.290	0.0034			
SD :	0.0123	0.0123	0.0001			
%RSD:	4.2	4.2	3.6474			

=====
 Element: Hg Seq. No.: 34 AS Loc.: 7 Date: 03/02/2010
 Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	5.207	5.207	0.0535	0.0585	09:40:11	No
2	5.207	5.207	0.0535	0.0585	09:40:46	No
Mean:	5.207	5.207	0.0535			
SD :	0.0001	0.0001	0.0000			
%RSD:						

QC value within specified limits.

=====
 Element: Hg Seq. No.: 35 AS Loc.: 8 Date: 03/02/2010
 Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	-0.060	-0.060	-0.0001	0.0048	09:42:14	No
2	-0.068	-0.068	-0.0002	0.0048	09:42:49	No
Mean:	-0.064	-0.064	-0.0002			
SD :	0.0055	0.0055	0.0001			
%RSD:	8.6	8.6	32.2218			

=====
 Element: Hg Seq. No.: 36 AS Loc.: 32 Date: 03/02/2010
 Sample ID: 246974015|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	0.625	0.625	0.0068	0.0118	09:48:33	No
2	0.615	0.615	0.0067	0.0117	09:49:08	No
Mean:	0.620	0.620	0.0068			
SD :	0.0072	0.0072	0.0001			
%RSD:	1.2	1.2	1.0753			

=====
 Element: Hg Seq. No.: 37 AS Loc.: 33 Date: 03/02/2010
 Sample ID: 246974016|i|||

=====
 Element: Hg Seq. No.: 43 AS Loc.: 39 Date: 03/02/2010
 Sample ID: 1202055874|i||MS

Repl #	SampleConc µg/L	StdndConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	2.492	2.492	0.0259	0.0308	10:02:10	No
2	2.510	2.510	0.0260	0.0310	10:02:45	No
Mean:	2.501	2.501	0.0260			
SD :	0.0128	0.0128	0.0001			
%RSD:	0.5	0.5	0.5042			

=====
 Element: Hg Seq. No.: 44 AS Loc.: 40 Date: 03/02/2010
 Sample ID: 1202055876|i||MSD

Repl #	SampleConc µg/L	StdndConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	2.497	2.497	0.0259	0.0309	10:04:09	No
2	2.458	2.458	0.0255	0.0305	10:04:44	No
Mean:	2.478	2.478	0.0257			
SD :	0.0277	0.0277	0.0003			
%RSD:	1.1	1.1	1.0962			

=====
 Element: Hg Seq. No.: 45 AS Loc.: 41 Date: 03/02/2010
 Sample ID: 1202055875|i|5|SDILT

Repl #	SampleConc µg/L	StdndConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.158	-0.158	-0.0011	0.0038	10:06:08	No
2	-0.174	-0.174	-0.0013	0.0037	10:06:43	No
Mean:	-0.166	-0.166	-0.0012			
SD :	0.0114	0.0114	0.0001			
%RSD:	6.9	6.9	9.5625			

=====
 Element: Hg Seq. No.: 46 AS Loc.: 7 Date: 03/02/2010
 Sample ID: CCV

Repl #	SampleConc µg/L	StdndConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	4.937	4.937	0.0508	0.0557	10:08:08	No
2	5.072	5.072	0.0521	0.0571	10:08:43	No
Mean:	5.005	5.005	0.0514			
SD :	0.0956	0.0956	0.0010			
%RSD:	1.9	1.9	1.8929			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 47 AS Loc.: 8 Date: 03/02/2010
 Sample ID: CCB

Repl #	SampleConc µg/L	StdndConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.061	-0.061	-0.0001	0.0048	10:10:11	No
2	-0.058	-0.058	-0.0001	0.0049	10:10:46	No
Mean:	-0.060	-0.060	-0.0001			
SD :	0.0021	0.0021	0.0000			
%RSD:	3.5	3.5	16.4149			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 48 AS Loc.: 42 Date: 03/02/2010
 Sample ID: 246982002|i||

Repl #	SampleConc µg/L	StdndConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.256	0.256	0.0031	0.0081	10:12:12	No

Sample ID: 247097001|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.026	-0.026	0.0002	0.0052	10:24:15	No
2	-0.022	-0.022	0.0003	0.0052	10:24:50	No
Mean:	-0.024	-0.024	0.0002			
SD :	0.0030	0.0030	0.0000			
%RSD:	12.8	12.8	13.0146			

=====
 Element: Hg Seq. No.: 55 AS Loc.: 49 Date: 03/02/2010
 Sample ID: 247097002|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.602	0.602	0.0066	0.0116	10:26:10	No
2	0.576	0.576	0.0063	0.0113	10:26:45	No
Mean:	0.589	0.589	0.0065			
SD :	0.0189	0.0189	0.0002			
%RSD:	3.2	3.2	2.9714			

=====
 Element: Hg Seq. No.: 56 AS Loc.: 50 Date: 03/02/2010
 Sample ID: 247097003|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.167	0.167	0.0022	0.0071	10:28:05	No
2	0.152	0.152	0.0020	0.0070	10:28:40	No
Mean:	0.159	0.159	0.0021			
SD :	0.0107	0.0107	0.0001			
%RSD:	6.7	6.7	5.1973			

=====
 Element: Hg Seq. No.: 57 AS Loc.: 51 Date: 03/02/2010
 Sample ID: 247097004|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.003	0.003	0.0005	0.0055	10:30:01	No
2	-0.017	-0.017	0.0003	0.0053	10:30:36	No
Mean:	-0.007	-0.007	0.0004			
SD :	0.0145	0.0145	0.0001			
%RSD:	213.5	213.5	36.0254			

=====
 Element: Hg Seq. No.: 58 AS Loc.: 7 Date: 03/02/2010
 Sample ID: CCV

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	5.059	5.059	0.0520	0.0570	10:32:00	No
2	5.110	5.110	0.0525	0.0575	10:32:34	No
Mean:	5.084	5.084	0.0523			
SD :	0.0358	0.0358	0.0004			
%RSD:	0.7	0.7	0.6977			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 59 AS Loc.: 8 Date: 03/02/2010
 Sample ID: CCB

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.063	-0.063	-0.0002	0.0048	10:34:02	No
2	-0.081	-0.081	-0.0003	0.0046	10:34:37	No

Mean: -0.072 -0.072 -0.0003
 SD : 0.0124 0.0124 0.0001
 %RSD: 17.2 17.2 49.2422
 QC value within specified limits.

=====
 Element: Hg Seq. No.: 60 AS Loc.: 52 Date: 03/02/2010
 Sample ID: 247097005|i|

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	1.705	1.705	0.0178	0.0228	10:36:02	No
2	1.692	1.692	0.0177	0.0227	10:36:37	No
Mean:	1.699	1.699	0.0178			
SD :	0.0091	0.0091	0.0001			
%RSD:	0.5	0.5	0.5195			

=====
 Element: Hg Seq. No.: 61 AS Loc.: 53 Date: 03/02/2010
 Sample ID: 247097006|i|

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.023	-0.023	0.0002	0.0052	10:37:59	No
2	-0.029	-0.029	0.0002	0.0051	10:38:34	No
Mean:	-0.026	-0.026	0.0002			
SD :	0.0047	0.0047	0.0000			
%RSD:	18.1	18.1	22.2486			

=====
 Element: Hg Seq. No.: 62 AS Loc.: 54 Date: 03/02/2010
 Sample ID: 247097007|i|

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.405	0.405	0.0046	0.0096	10:39:56	No
2	0.416	0.416	0.0047	0.0097	10:40:31	No
Mean:	0.411	0.411	0.0047			
SD :	0.0073	0.0073	0.0001			
%RSD:	1.8	1.8	1.5981			

=====
 Element: Hg Seq. No.: 63 AS Loc.: 55 Date: 03/02/2010
 Sample ID: 247097008|i|

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.676	0.676	0.0074	0.0123	10:41:54	No
2	0.647	0.647	0.0071	0.0120	10:42:29	No
Mean:	0.661	0.661	0.0072			
SD :	0.0205	0.0205	0.0002			
%RSD:	3.1	3.1	2.8985			

=====
 Element: Hg Seq. No.: 64 AS Loc.: 56 Date: 03/02/2010
 Sample ID: 247097009|i|

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.546	0.546	0.0060	0.0110	10:43:52	No
2	0.568	0.568	0.0063	0.0112	10:44:28	No
Mean:	0.557	0.557	0.0062			
SD :	0.0156	0.0156	0.0002			
%RSD:	2.8	2.8	2.5883			

=====
 Element: Hg Seq. No.: 65 AS Loc.: 57 Date: 03/02/2010

Sample ID: 1202055890|i||958612|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.082	-0.082	-0.0004	0.0046	10:45:52	No
2	-0.096	-0.096	-0.0005	0.0045	10:46:27	No
Mean:	-0.089	-0.089	-0.0004			
SD :	0.0094	0.0094	0.0001			
%RSD:	10.6	10.6	22.3827			

Element: Hg Seq. No.: 66 AS Loc.: 58 Date: 03/02/2010

Sample ID: 1202055891|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	4.226	4.226	0.0435	0.0485	10:47:51	No
2	4.168	4.168	0.0429	0.0479	10:48:26	No
Mean:	4.197	4.197	0.0432			
SD :	0.0409	0.0409	0.0004			
%RSD:	1.0	1.0	0.9648			

Element: Hg Seq. No.: 67 AS Loc.: 59 Date: 03/02/2010

Sample ID: 247094002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.179	0.179	0.0023	0.0073	10:49:50	No
2	0.148	0.148	0.0020	0.0070	10:50:24	No
Mean:	0.163	0.163	0.0021			
SD :	0.0216	0.0216	0.0002			
%RSD:	13.2	13.2	10.2726			

Element: Hg Seq. No.: 68 AS Loc.: 60 Date: 03/02/2010

Sample ID: 247103001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.689	0.689	0.0075	0.0125	10:51:49	No
2	0.688	0.688	0.0075	0.0125	10:52:24	No
Mean:	0.689	0.689	0.0075			
SD :	0.0005	0.0005	0.0000			
%RSD:						

Element: Hg Seq. No.: 69 AS Loc.: 61 Date: 03/02/2010

Sample ID: 1202055892|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.686	0.686	0.0075	0.0124	10:53:50	No
2	0.646	0.646	0.0071	0.0120	10:54:24	No
Mean:	0.666	0.666	0.0073			
SD :	0.0283	0.0283	0.0003			
%RSD:	4.3	4.3	3.9750			

Element: Hg Seq. No.: 70 AS Loc.: 7 Date: 03/02/2010

Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	5.248	5.248	0.0539	0.0589	10:55:50	No
2	5.183	5.183	0.0533	0.0582	10:56:26	No
Mean:	5.216	5.216	0.0536			

SD : 0.0466 0.0466 0.0005
 %RSD: 0.9 0.9 0.8863
 QC value within specified limits.

=====
 Element: Hg Seq. No.: 71 AS Loc.: 8 Date: 03/02/2010
 Sample ID: CCB

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.070	-0.070	-0.0002	0.0047	10:57:54	No
2	-0.077	-0.077	-0.0003	0.0047	10:58:29	No
Mean:	-0.073	-0.073	-0.0003			
SD :	0.0053	0.0053	0.0001			
%RSD:	7.2	7.2	20.0130			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 72 AS Loc.: 62 Date: 03/02/2010
 Sample ID: 1202055893|i|||MS

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	3.319	3.319	0.0343	0.0392	10:59:56	No
2	3.304	3.304	0.0341	0.0391	11:00:31	No
Mean:	3.311	3.311	0.0342			
SD :	0.0109	0.0109	0.0001			
%RSD:	0.3	0.3	0.3250			

=====
 Element: Hg Seq. No.: 73 AS Loc.: 63 Date: 03/02/2010
 Sample ID: 1202055895|i|||MSD

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	2.919	2.919	0.0302	0.0352	11:01:54	No
2	2.929	2.929	0.0303	0.0353	11:02:29	No
Mean:	2.924	2.924	0.0303			
SD :	0.0070	0.0070	0.0001			
%RSD:	0.2	0.2	0.2360			

=====
 Element: Hg Seq. No.: 74 AS Loc.: 64 Date: 03/02/2010
 Sample ID: 1202055894|i|5||SDILT

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.068	-0.068	-0.0002	0.0048	11:03:49	No
2	-0.085	-0.085	-0.0004	0.0046	11:04:23	No
Mean:	-0.076	-0.076	-0.0003			
SD :	0.0125	0.0125	0.0001			
%RSD:	16.3	16.3	42.5035			

=====
 Element: Hg Seq. No.: 75 AS Loc.: 65 Date: 03/02/2010
 Sample ID: 247103002|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	2.985	2.985	0.0309	0.0358	11:05:42	No
2	2.978	2.978	0.0308	0.0358	11:06:17	No
Mean:	2.982	2.982	0.0308			
SD :	0.0046	0.0046	0.0000			
%RSD:	0.2	0.2	0.1521			

=====
 Element: Hg Seq. No.: 76 AS Loc.: 66 Date: 03/02/2010

1	0.244	0.244	0.0030	0.0079	11:17:22	No
2	0.243	0.243	0.0030	0.0079	11:17:57	No
Mean:	0.243	0.243	0.0030			
SD :	0.0003	0.0003	0.0000			
%RSD:	0.1	0.1	0.1092			

=====
 Element: Hg Seq. No.: 82 AS Loc.: 7 Date: 03/02/2010
 Sample ID: CCV

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	5.194	5.194	0.0534	0.0583	11:19:23	No
2	5.124	5.124	0.0527	0.0576	11:19:58	No
Mean:	5.159	5.159	0.0530			
SD :	0.0493	0.0493	0.0005			
%RSD:	1.0	1.0	0.9475			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 83 AS Loc.: 8 Date: 03/02/2010
 Sample ID: CCB

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.094	-0.094	-0.0005	0.0045	11:21:25	No
2	-0.091	-0.091	-0.0005	0.0045	11:22:00	No
Mean:	-0.093	-0.093	-0.0005			
SD :	0.0020	0.0020	0.0000			
%RSD:	2.1	2.1	4.3424			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 84 AS Loc.: 72 Date: 03/02/2010
 Sample ID: 247103009|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.094	0.094	0.0014	0.0064	11:23:26	No
2	0.084	0.084	0.0013	0.0063	11:24:01	No
Mean:	0.089	0.089	0.0014			
SD :	0.0069	0.0069	0.0001			
%RSD:	7.7	7.7	5.0487			

=====
 Element: Hg Seq. No.: 85 AS Loc.: 73 Date: 03/02/2010
 Sample ID: 247103010|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	2.606	2.606	0.0270	0.0320	11:25:25	No
2	2.539	2.539	0.0263	0.0313	11:25:59	No
Mean:	2.573	2.573	0.0267			
SD :	0.0473	0.0473	0.0005			
%RSD:	1.8	1.8	1.8069			

=====
 Element: Hg Seq. No.: 86 AS Loc.: 74 Date: 03/02/2010
 Sample ID: 247103011|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.315	0.315	0.0037	0.0087	11:27:23	No
2	0.312	0.312	0.0037	0.0086	11:27:58	No
Mean:	0.314	0.314	0.0037			
SD :	0.0020	0.0020	0.0000			
%RSD:	0.6	0.6	0.5478			

SD : 0.0284 0.0284 0.0003
 %RSD: 0.7 0.7 0.6860

=====
 Element: Hg Seq. No.: 93 AS Loc.: 81 Date: 03/02/2010
 Sample ID: 247040001|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.314	0.314	0.0037	0.0086	11:41:05	No
2	0.301	0.301	0.0035	0.0085	11:41:40	No
Mean:	0.308	0.308	0.0036			
SD :	0.0097	0.0097	0.0001			
%RSD:	3.2	3.2	2.7324			

=====
 Element: Hg Seq. No.: 94 AS Loc.: 7 Date: 03/02/2010
 Sample ID: CCV

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	5.271	5.271	0.0542	0.0591	11:43:05	No
2	5.193	5.193	0.0534	0.0583	11:43:40	No
Mean:	5.232	5.232	0.0538			
SD :	0.0554	0.0554	0.0006			
%RSD:	1.1	1.1	1.0491			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 95 AS Loc.: 8 Date: 03/02/2010
 Sample ID: CCB

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.113	-0.113	-0.0007	0.0043	11:45:08	No
2	-0.114	-0.114	-0.0007	0.0043	11:45:43	No
Mean:	-0.114	-0.114	-0.0007			
SD :	0.0003	0.0003	0.0000			
%RSD:	0.2	0.2	0.4007			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 96 AS Loc.: 82 Date: 03/02/2010
 Sample ID: 1202055883|i|||DUP

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	0.144	0.144	0.0019	0.0069	11:47:07	No
2	0.150	0.150	0.0020	0.0070	11:47:42	No
Mean:	0.147	0.147	0.0020			
SD :	0.0040	0.0040	0.0000			
%RSD:	2.7	2.7	2.0372			

=====
 Element: Hg Seq. No.: 97 AS Loc.: 83 Date: 03/02/2010
 Sample ID: 1202055884|i|||MS

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	2.505	2.505	0.0260	0.0310	11:49:03	No
2	2.495	2.495	0.0259	0.0309	11:49:38	No
Mean:	2.500	2.500	0.0259			
SD :	0.0073	0.0073	0.0001			
%RSD:	0.3	0.3	0.2850			

=====
 Element: Hg Seq. No.: 98 AS Loc.: 84 Date: 03/02/2010

SD : 0.0797 0.0797 0.0008
 %RSD: 1.5 1.5 1.4431

=====
 Element: Hg Seq. No.: 104 AS Loc.: 90 Date: 03/02/2010
 Sample ID: 247040006|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	24.73	24.73	0.2523	0.2573	12:02:50	No
Sample absorbance is greater than that of the highest standard.						
2	23.90	23.90	0.2439	0.2489	12:03:25	No
Sample absorbance is greater than that of the highest standard.						
Mean:	24.32	24.32	0.2481			
SD :	0.5874	0.5874	0.0060			
%RSD:	2.4	2.4	2.4109			

Sample absorbance is greater than that of the highest standard.

=====
 Element: Hg Seq. No.: 105 AS Loc.: 91 Date: 03/02/2010
 Sample ID: 247040007|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.021	0.021	0.0007	0.0057	12:04:50	No
2	0.019	0.019	0.0007	0.0056	12:05:25	No
Mean:	0.020	0.020	0.0007			
SD :	0.0020	0.0020	0.0000			
%RSD:	10.0	10.0	2.9704			

=====
 Element: Hg Seq. No.: 106 AS Loc.: 7 Date: 03/02/2010
 Sample ID: CCV

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	3.121	3.121	0.0323	0.0372	12:06:52	No
2	3.211	3.211	0.0332	0.0381	12:07:27	No
Mean:	3.166	3.166	0.0327			
SD :	0.0635	0.0635	0.0006			
%RSD:	2.0	2.0	1.9764			

QC failed, value less than lower limit for Hg.
 Current analysis method being continued.

=====
 Element: Hg Seq. No.: 107 AS Loc.: 8 Date: 03/02/2010
 Sample ID: CCB

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.077	-0.077	-0.0003	0.0047	12:08:55	No
2	-0.079	-0.079	-0.0003	0.0046	12:09:29	No
Mean:	-0.078	-0.078	-0.0003			
SD :	0.0009	0.0009	0.0000			
%RSD:	1.1	1.1	2.8257			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 108 AS Loc.: 92 Date: 03/02/2010
 Sample ID: 247040008|i|||

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	31.34	31.34	0.3196	0.3246	12:10:52	No
Sample absorbance is greater than that of the highest standard.						
2	30.05	30.05	0.3065	0.3115	12:11:27	No
Sample absorbance is greater than that of the highest standard.						

Mean: 30.69 30.69 0.3131
 SD : 0.9113 0.9113 0.0093
 %RSD: 3.0 3.0 2.9646

Sample absorbance is greater than that of the highest standard.

=====
 Element: Hg Seq. No.: 109 AS Loc.: 93 Date: 03/02/2010
 Sample ID: 247040009|i|||

Repl #	SampleConc µg/L	StndConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.090	-0.090	-0.0004	0.0045	12:12:46	No
2	-0.091	-0.091	-0.0004	0.0045	12:13:20	No
Mean:	-0.090	-0.090	-0.0004			
SD :	0.0009	0.0009	0.0000			
%RSD:	1.0	1.0	2.0063			

=====
 Element: Hg Seq. No.: 110 AS Loc.: 94 Date: 03/02/2010
 Sample ID: 247040010|i|||

Repl #	SampleConc µg/L	StndConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	67.21	67.21	0.6849	0.6899	12:14:40	No
2	63.17	63.17	0.6438	0.6488	12:15:15	No
Mean:	65.19	65.19	0.6644			
SD :	2.856	2.856	0.0291			
%RSD:	4.4	4.4	4.3778			

Sample absorbance is greater than that of the highest standard.
 Sample absorbance is greater than that of the highest standard.

=====
 Element: Hg Seq. No.: 111 AS Loc.: 95 Date: 03/02/2010
 Sample ID: 247040011|i|||

Repl #	SampleConc µg/L	StndConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.161	-0.161	-0.0012	0.0038	12:16:36	No
2	-0.137	-0.137	-0.0009	0.0041	12:17:11	No
Mean:	-0.149	-0.149	-0.0010			
SD :	0.0168	0.0168	0.0002			
%RSD:	11.3	11.3	16.4844			

=====
 Element: Hg Seq. No.: 112 AS Loc.: 96 Date: 03/02/2010
 Sample ID: 247040012|i|||

Repl #	SampleConc µg/L	StndConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.161	-0.161	-0.0012	0.0038	12:16:36	No
2	-0.137	-0.137	-0.0009	0.0041	12:17:11	No

=====
 Element: Hg Seq. No.: 112 AS Loc.: 7 Date: 03/02/2010
 Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	3.884	3.884	0.0400	0.0450	12:26:15	No
2	3.875	3.875	0.0399	0.0449	12:26:49	No
Mean:	3.880	3.880	0.0400			
SD :	0.0065	0.0065	0.0001			
%RSD:	0.2	0.2	0.1658			

QC failed, value less than lower limit for Hg.
 Current analysis method being continued.

=====
 Element: Hg Seq. No.: 113 AS Loc.: 8 Date: 03/02/2010

Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	0.026	0.026	0.0007	0.0057	12:28:17	No
2	0.009	0.009	0.0006	0.0055	12:28:53	No
Mean:	0.018	0.018	0.0007			
SD :	0.0118	0.0118	0.0001			
%RSD:	66.4	66.4	18.2467			

=====

Element: Hg Seq. No.: 114 AS Loc.: 7 Date: 03/02/2010

Sample ID: Sample007

=====

Repl #	SampleConc µg/L	StndConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	4.326	4.326	0.0445	0.0495	12:30:50	No
2	4.268	4.268	0.0440	0.0489	12:31:24	No
Mean:	4.297	4.297	0.0442			
SD :	0.0405	0.0405	0.0004			
%RSD:	0.9	0.9	0.9322			

=====
Element: Hg Seq. No.: 115 AS Loc.: 7 Date: 03/02/2010
Sample ID: CCV
=====

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	4.297	4.297	0.0442	0.0492	12:33:18	No
2	4.260	4.260	0.0439	0.0488	12:33:53	No
Mean:	4.279	4.279	0.0441			
SD :	0.0259	0.0259	0.0003			
%RSD:	0.6	0.6	0.5976			

QC value within specified limits.

=====
Element: Hg Seq. No.: 116 AS Loc.: 8 Date: 03/02/2010
Sample ID: CCB
=====

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	0.025	0.025	0.0007	0.0057	12:35:21	No
2	0.021	0.021	0.0007	0.0057	12:35:55	No
Mean:	0.023	0.023	0.0007			
SD :	0.0031	0.0031	0.0000			
%RSD:	13.2	13.2	4.3654			

QC value within specified limits.

=====
Element: Hg Seq. No.: 117 AS Loc.: 66 Date: 03/02/2010
Sample ID: 247103003|i|20|958612|
=====

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	1.432	1.432	0.0151	0.0200	12:37:19	No
2	1.392	1.392	0.0147	0.0196	12:37:54	No
Mean:	1.412	1.412	0.0149			
SD :	0.0279	0.0279	0.0003			
%RSD:	2.0	2.0	1.9125			

=====
Element: Hg Seq. No.: 118 AS Loc.: 82 Date: 03/02/2010
Sample ID: 1202055883|i||958606|
=====

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	0.007	0.007	0.0005	0.0055	12:39:16	No
2	-0.008	-0.008	0.0004	0.0054	12:39:51	No
Mean:	-0.001	-0.001	0.0005			
SD :	0.0105	0.0105	0.0001			
%RSD:	1166	1166	22.7192			

=====
Element: Hg Seq. No.: 119 AS Loc.: 83 Date: 03/02/2010
Sample ID: 1202055884|i|||MS
=====

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	1.853	1.853	0.0194	0.0243	12:41:12	No
2	1.817	1.817	0.0190	0.0239	12:41:47	No
Mean:	1.835	1.835	0.0192			
SD :	0.0257	0.0257	0.0003			
%RSD:	1.4	1.4	1.3668			

=====
Element: Hg Seq. No.: 120 AS Loc.: 84 Date: 03/02/2010
Sample ID: 1202055886|i|||MSD
=====

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	1.922	1.922	0.0201	0.0250	12:43:09	No

Sample ID: 247040006|i|10||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.459	3.459	0.0357	0.0407	12:54:59	No
2	3.400	3.400	0.0351	0.0401	12:55:34	No
Mean:	3.430	3.430	0.0354			
SD :	0.0419	0.0419	0.0004			
%RSD:	1.2	1.2	1.2063			

=====

Element: Hg Seq. No.: 127 AS Loc.: 7 Date: 03/02/2010

Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.617	4.617	0.0475	0.0525	12:57:00	No
2	4.558	4.558	0.0469	0.0519	12:57:35	No
Mean:	4.587	4.587	0.0472			
SD :	0.0415	0.0415	0.0004			
%RSD:	0.9	0.9	0.8963			

QC value within specified limits.

=====

Element: Hg Seq. No.: 128 AS Loc.: 8 Date: 03/02/2010

Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.014	-0.014	0.0003	0.0053	12:59:03	No
2	-0.003	-0.003	0.0005	0.0054	12:59:38	No
Mean:	-0.008	-0.008	0.0004			
SD :	0.0083	0.0083	0.0001			
%RSD:	98.0	98.0	21.5451			

QC value within specified limits.

=====

Element: Hg Seq. No.: 129 AS Loc.: 91 Date: 03/02/2010

Sample ID: 247040007|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.116	0.116	0.0017	0.0066	13:01:04	No
2	0.091	0.091	0.0014	0.0064	13:01:39	No
Mean:	0.103	0.103	0.0015			
SD :	0.0179	0.0179	0.0002			
%RSD:	17.3	17.3	11.8762			

=====

Element: Hg Seq. No.: 130 AS Loc.: 92 Date: 03/02/2010

Sample ID: 247040008|i|10||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.065	4.065	0.0419	0.0468	13:03:02	No
2	4.079	4.079	0.0420	0.0470	13:03:36	No
Mean:	4.072	4.072	0.0419			
SD :	0.0095	0.0095	0.0001			
%RSD:	0.2	0.2	0.2299			

=====

Element: Hg Seq. No.: 131 AS Loc.: 93 Date: 03/02/2010

Sample ID: 247040009|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0005	0.0055	13:04:57	No

=====
Element: Hg Seq. No.: 137 AS Loc.: 99 Date: 03/02/2010
Sample ID: 247040015|i|||
=====

Repl #	SampleConc µg/L	StdConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	-0.169	-0.169	-0.0012	0.0037	13:16:33	No
2	-0.158	-0.158	-0.0011	0.0038	13:17:07	No
Mean:	-0.164	-0.164	-0.0012			
SD :	0.0079	0.0079	0.0001			
%RSD:	4.8	4.8	6.7951			

=====
Element: Hg Seq. No.: 138 AS Loc.: 100 Date: 03/02/2010
Sample ID: 247040016|i|||
=====

Repl #	SampleConc µg/L	StdConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	-0.182	-0.182	-0.0014	0.0036	13:18:29	No
2	-0.192	-0.192	-0.0015	0.0035	13:19:03	No
Mean:	-0.187	-0.187	-0.0014			
SD :	0.0070	0.0070	0.0001			
%RSD:	3.8	3.8	5.0299			

=====
Element: Hg Seq. No.: 139 AS Loc.: 7 Date: 03/02/2010
Sample ID: CCV
=====

Repl #	SampleConc µg/L	StdConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	4.558	4.558	0.0469	0.0519	13:20:27	No
2	4.451	4.451	0.0458	0.0508	13:21:02	No
Mean:	4.504	4.504	0.0464			
SD :	0.0754	0.0754	0.0008			
%RSD:	1.7	1.7	1.6559			

QC value within specified limits.

=====
Element: Hg Seq. No.: 140 AS Loc.: 8 Date: 03/02/2010
Sample ID: CCB
=====

Repl #	SampleConc µg/L	StdConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	-0.017	-0.017	0.0003	0.0053	13:22:30	No
2	-0.022	-0.022	0.0003	0.0052	13:23:05	No
Mean:	-0.019	-0.019	0.0003			
SD :	0.0041	0.0041	0.0000			
%RSD:	21.1	21.1	14.8483			

QC value within specified limits.

=====

Element: Hg Seq. No.: 141 AS Loc.: 97 Date: 03/02/2010
Sample ID: 247040013|i|100||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.833	0.833	0.0090	0.0139	13:25:25	No
2	0.827	0.827	0.0089	0.0139	13:26:00	No
Mean:	0.830	0.830	0.0089			
SD :	0.0040	0.0040	0.0000			
%RSD:	0.5	0.5	0.4600			

=====

Element: Hg Seq. No.: 142 AS Loc.: 7 Date: 03/02/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.802	4.802	0.0494	0.0544	13:27:25	No
2	4.671	4.671	0.0480	0.0530	13:28:00	No
Mean:	4.737	4.737	0.0487			
SD :	0.0932	0.0932	0.0009			
%RSD:	2.0	2.0	1.9485			

QC value within specified limits.

=====

Element: Hg Seq. No.: 143 AS Loc.: 8 Date: 03/02/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.006	-0.006	0.0004	0.0054	13:29:28	No
2	0.006	0.006	0.0005	0.0055	13:30:03	No
Mean:	0.000	0.000	0.0005			
SD :	0.0087	0.0087	0.0001			
%RSD:	3573	3573	18.5720			

QC value within specified limits.

SD : 0.0035 0.0035 0.0000
 %RSD: 0.2 0.2 0.1784

=====
 Element: Hg Seq. No.: 150 AS Loc.: 18 Date: 03/02/2010
 Sample ID: 1202055906|i|5|SDILT

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	-0.244	-0.244	-0.0020	0.0030	13:46:40	No
2	-0.251	-0.251	-0.0021	0.0029	13:47:15	No
Mean:	-0.248	-0.248	-0.0020			
SD :	0.0048	0.0048	0.0000			
%RSD:	1.9	1.9	2.3962			

=====
 Element: Hg Seq. No.: 151 AS Loc.: 19 Date: 03/02/2010
 Sample ID: 247188002|i|||

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	-0.113	-0.113	-0.0007	0.0043	13:48:37	No
2	-0.131	-0.131	-0.0009	0.0041	13:49:12	No
Mean:	-0.122	-0.122	-0.0008			
SD :	0.0126	0.0126	0.0001			
%RSD:	10.3	10.3	16.7515			

=====
 Element: Hg Seq. No.: 152 AS Loc.: 20 Date: 03/02/2010
 Sample ID: 247188003|i|||

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	-0.200	-0.200	-0.0016	0.0034	13:50:35	No
2	-0.192	-0.192	-0.0015	0.0035	13:51:10	No
Mean:	-0.196	-0.196	-0.0015			
SD :	0.0058	0.0058	0.0001			
%RSD:	3.0	3.0	3.9102			

=====
 Element: Hg Seq. No.: 153 AS Loc.: 21 Date: 03/02/2010
 Sample ID: 247188004|i|||

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	-0.118	-0.118	-0.0007	0.0042	13:52:32	No
2	-0.140	-0.140	-0.0009	0.0040	13:53:06	No
Mean:	-0.129	-0.129	-0.0008			
SD :	0.0154	0.0154	0.0002			
%RSD:	12.0	12.0	18.8977			

=====
 Element: Hg Seq. No.: 154 AS Loc.: 7 Date: 03/02/2010
 Sample ID: CCV

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	5.269	5.269	0.0541	0.0591	13:54:31	No
2	5.257	5.257	0.0540	0.0590	13:55:06	No
Mean:	5.263	5.263	0.0541			
SD :	0.0085	0.0085	0.0001			
%RSD:	0.2	0.2	0.1602			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 155 AS Loc.: 8 Date: 03/02/2010
 Sample ID: CCB


```

-----
Repl  SampleConc  StndConc  BlnkCorr  Peak      Time      Peak
#      µg/L      µg/L      Signal    Height    No        Stored
1      0.036      0.036      0.0008    0.0058    13:56:34  No
2      0.031      0.031      0.0008    0.0058    13:57:08  No
Mean:   0.033      0.033      0.0008
SD :    0.0035      0.0035      0.0000
%RSD:   10.4       10.4       4.3417
QC value within specified limits.

```

```

=====
Element: Hg      Seq. No.: 156      AS Loc.: 22      Date: 03/02/2010
Sample ID: 247188005|i|||

```

```

-----
Repl  SampleConc  StndConc  BlnkCorr  Peak      Time      Peak
#      µg/L      µg/L      Signal    Height    No        Stored
1      -0.150     -0.150    -0.0010    0.0039    13:58:33  No
2      -0.152     -0.152    -0.0011    0.0039    13:59:08  No
Mean:   -0.151     -0.151    -0.0011
SD :    0.0018      0.0018      0.0000
%RSD:    1.2       1.2       1.6962

```

```

=====
Element: Hg      Seq. No.: 157      AS Loc.: 23      Date: 03/02/2010
Sample ID: 247188006|i|||

```

```

-----
Repl  SampleConc  StndConc  BlnkCorr  Peak      Time      Peak
#      µg/L      µg/L      Signal    Height    No        Stored
1      -0.175     -0.175    -0.0013    0.0037    14:00:31  No
2      -0.174     -0.174    -0.0013    0.0037    14:01:07  No
Mean:   -0.175     -0.175    -0.0013
SD :    0.0006      0.0006      0.0000
%RSD:    0.4       0.4       0.5001

```

```

=====
Element: Hg      Seq. No.: 158      AS Loc.: 24      Date: 03/02/2010
Sample ID: 247188007|i|||

```

```

-----
Repl  SampleConc  StndConc  BlnkCorr  Peak      Time      Peak
#      µg/L      µg/L      Signal    Height    No        Stored
1      -0.092     -0.092    -0.0005    0.0045    14:02:31  No
2      -0.107     -0.107    -0.0006    0.0044    14:03:06  No
Mean:   -0.099     -0.099    -0.0005
SD :    0.0106      0.0106      0.0001
%RSD:   10.7       10.7     20.4251

```

```

=====
Element: Hg      Seq. No.: 159      AS Loc.: 25      Date: 03/02/2010
Sample ID: 247188008|i|||

```

```

-----
Repl  SampleConc  StndConc  BlnkCorr  Peak      Time      Peak
#      µg/L      µg/L      Signal    Height    No        Stored
1      -0.088     -0.088    -0.0004    0.0046    14:04:30  No
2      -0.089     -0.089    -0.0004    0.0045    14:05:05  No
Mean:   -0.089     -0.089    -0.0004
SD :    0.0011      0.0011      0.0000
%RSD:    1.2       1.2       2.6041

```

```

=====
Element: Hg      Seq. No.: 160      AS Loc.: 26      Date: 03/02/2010
Sample ID: 247188009|i|||

```

```

-----
Repl  SampleConc  StndConc  BlnkCorr  Peak      Time      Peak
#      µg/L      µg/L      Signal    Height    No        Stored
1      -0.063     -0.063    -0.0002    0.0048    14:06:30  No
2      -0.065     -0.065    -0.0002    0.0048    14:07:05  No
Mean:   -0.064     -0.064    -0.0002

```


SD : 0.0013 0.0013 0.0000
 %RSD: 2.1 2.1 7.8918

=====
 Element: Hg Seq. No.: 161 AS Loc.: 27 Date: 03/02/2010
 Sample ID: 247188010|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.089	-0.089	-0.0004	0.0045	14:08:31	No
2	-0.086	-0.086	-0.0004	0.0046	14:09:05	No
Mean:	-0.087	-0.087	-0.0004			
SD :	0.0021	0.0021	0.0000			
%RSD:	2.5	2.5	5.3347			

=====
 Element: Hg Seq. No.: 162 AS Loc.: 28 Date: 03/02/2010
 Sample ID: 247188011|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.131	-0.131	-0.0009	0.0041	14:10:31	No
2	-0.130	-0.130	-0.0008	0.0041	14:11:07	No
Mean:	-0.130	-0.130	-0.0008			
SD :	0.0009	0.0009	0.0000			
%RSD:	0.7	0.7	1.1095			

=====
 Element: Hg Seq. No.: 163 AS Loc.: 29 Date: 03/02/2010
 Sample ID: 247188012|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.145	-0.145	-0.0010	0.0040	14:12:33	No
2	-0.146	-0.146	-0.0010	0.0040	14:13:08	No
Mean:	-0.145	-0.145	-0.0010			
SD :	0.0011	0.0011	0.0000			
%RSD:	0.8	0.8	1.1577			

=====
 Element: Hg Seq. No.: 164 AS Loc.: 30 Date: 03/02/2010
 Sample ID: 247188013|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.105	-0.105	-0.0006	0.0044	14:14:34	No
2	-0.117	-0.117	-0.0007	0.0043	14:15:09	No
Mean:	-0.111	-0.111	-0.0007			
SD :	0.0079	0.0079	0.0001			
%RSD:	7.1	7.1	12.2764			

=====
 Element: Hg Seq. No.: 165 AS Loc.: 31 Date: 03/02/2010
 Sample ID: 247188014|i|||

Repl #	SampleConc µg/L	StdConc µg/L	Blncorr Signal	Peak Height	Time	Peak Stored
1	-0.132	-0.132	-0.0009	0.0041	14:16:37	No
2	-0.142	-0.142	-0.0010	0.0040	14:17:12	No
Mean:	-0.137	-0.137	-0.0009			
SD :	0.0069	0.0069	0.0001			
%RSD:	5.0	5.0	7.6508			

=====
 Element: Hg Seq. No.: 166 AS Loc.: 7 Date: 03/02/2010
 Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	5.298	5.298	0.0544	0.0594	14:18:39	No
2	5.401	5.401	0.0555	0.0604	14:19:14	No
Mean:	5.349	5.349	0.0550			
SD :	0.0723	0.0723	0.0007			
%RSD:	1.4	1.4	1.3393			

QC value within specified limits.

=====

Element: Hg Seq. No.: 167 AS Loc.: 8 Date: 03/02/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	0.011	0.011	0.0006	0.0056	14:20:42	No
2	0.016	0.016	0.0006	0.0056	14:21:17	No
Mean:	0.013	0.013	0.0006			
SD :	0.0034	0.0034	0.0000			
%RSD:	25.5	25.5	5.5975			

QC value within specified limits.

=====

Element: Hg Seq. No.: 168 AS Loc.: 32 Date: 03/02/2010
Sample ID: 1202055973|i||958657|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	0.410	0.410	0.0047	0.0096	14:22:42	No
2	0.407	0.407	0.0046	0.0096	14:23:17	No
Mean:	0.408	0.408	0.0046			
SD :	0.0017	0.0017	0.0000			
%RSD:	0.4	0.4	0.3768			

=====

Element: Hg Seq. No.: 169 AS Loc.: 33 Date: 03/02/2010
Sample ID: 1202055974|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	3.523	3.523	0.0364	0.0413	14:24:36	No
2	3.444	3.444	0.0356	0.0405	14:25:11	No
Mean:	3.483	3.483	0.0360			
SD :	0.0558	0.0558	0.0006			
%RSD:	1.6	1.6	1.5817			

=====

Element: Hg Seq. No.: 170 AS Loc.: 34 Date: 03/02/2010
Sample ID: 247558001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	-0.041	-0.041	0.0001	0.0050	14:26:32	No
2	-0.043	-0.043	0.0000	0.0050	14:27:07	No
Mean:	-0.042	-0.042	0.0001			
SD :	0.0019	0.0019	0.0000			
%RSD:	4.5	4.5	36.7291			

=====

Element: Hg Seq. No.: 171 AS Loc.: 35 Date: 03/02/2010
Sample ID: 1202055975|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlncCorr Signal	Peak Height	Time	Peak Stored
1	-0.088	-0.088	-0.0004	0.0046	14:28:29	No
2	-0.088	-0.088	-0.0004	0.0045	14:29:03	No
Mean:	-0.088	-0.088	-0.0004			

SD : 0.0003 0.0003 0.0000
 %RSD: 0.4 0.4 0.7571

=====
 Element: Hg Seq. No.: 172 AS Loc.: 36 Date: 03/02/2010
 Sample ID: 1202055976|i||MS

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	2.180	2.180	0.0227	0.0276	14:30:25	No
2	2.157	2.157	0.0224	0.0274	14:31:00	No
Mean:	2.168	2.168	0.0226			
SD :	0.0166	0.0166	0.0002			
%RSD:	0.8	0.8	0.7475			

=====
 Element: Hg Seq. No.: 173 AS Loc.: 37 Date: 03/02/2010
 Sample ID: 1202055978|i||MSD

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	2.167	2.167	0.0225	0.0275	14:32:22	No
2	2.070	2.070	0.0216	0.0265	14:32:57	No
Mean:	2.118	2.118	0.0221			
SD :	0.0682	0.0682	0.0007			
%RSD:	3.2	3.2	3.1481			

=====
 Element: Hg Seq. No.: 174 AS Loc.: 38 Date: 03/02/2010
 Sample ID: 1202055977|i|5|SDILT

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
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=====
 Element: Hg Seq. No.: 174 AS Loc.: 7 Date: 03/02/2010
 Sample ID: CCV

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	5.189	5.189	0.0533	0.0583	14:35:20	No
2	5.167	5.167	0.0531	0.0581	14:35:55	No
Mean:	5.178	5.178	0.0532			
SD :	0.0156	0.0156	0.0002			
%RSD:	0.3	0.3	0.2991			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 175 AS Loc.: 8 Date: 03/02/2010
 Sample ID: CCB

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.009	-0.009	0.0004	0.0054	14:37:23	No
2	-0.021	-0.021	0.0003	0.0052	14:37:58	No
Mean:	-0.015	-0.015	0.0003			
SD :	0.0083	0.0083	0.0001			
%RSD:	56.2	56.2	25.6776			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 176 AS Loc.: 32 Date: 03/02/2010
 Sample ID: 1202055973|i||958657|MB

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.122	-0.122	-0.0008	0.0042	14:39:22	No


```

2      -0.116   -0.116   -0.0007   0.0043   14:39:57   No
Mean:   -0.119   -0.119   -0.0007
SD :    0.0042   0.0042   0.0000
%RSD:    3.5     3.5     5.8168

```

```

=====
Element: Hg      Seq. No.: 177      AS Loc.: 33      Date: 03/02/2010
Sample ID: 1202055974|i|10||LCS

```

```

-----
Repl  SampleConc  StndConc  BlnkCorr  Peak      Time      Peak
#      µg/L       µg/L       Signal    Height    Stored
1      3.519      3.519     0.0363    0.0413    14:41:17   No
2      3.499      3.499     0.0361    0.0411    14:41:52   No
Mean:   3.509      3.509     0.0362
SD :    0.0140     0.0140    0.0001
%RSD:    0.4       0.4       0.3947

```

```

=====
Element: Hg      Seq. No.: 178      AS Loc.: 34      Date: 03/02/2010
Sample ID: 247558001|i|||

```

```

-----
Repl  SampleConc  StndConc  BlnkCorr  Peak      Time      Peak
#      µg/L       µg/L       Signal    Height    Stored
1     -0.071     -0.071    -0.0002    0.0047    14:43:12   No
2     -0.066     -0.066    -0.0002    0.0048    14:43:47   No
Mean:  -0.068     -0.068    -0.0002
SD :    0.0033     0.0033    0.0000
%RSD:    4.8       4.8      15.4628

```

```

=====
Element: Hg      Seq. No.: 179      AS Loc.: 35      Date: 03/02/2010
Sample ID: 1202055975|i|||DUP

```

```

-----
Repl  SampleConc  StndConc  BlnkCorr  Peak      Time      Peak
#      µg/L       µg/L       Signal    Height    Stored
1     -0.093     -0.093    -0.0005    0.0045    14:45:08   No
2     -0.107     -0.107    -0.0006    0.0044    14:45:44   No
Mean:  -0.100     -0.100    -0.0005
SD :    0.0095     0.0095    0.0001
%RSD:    9.5       9.5      18.0348

```

```

=====
Element: Hg      Seq. No.: 180      AS Loc.: 36      Date: 03/02/2010
Sample ID: 1202055976|i|||MS

```

```

-----
Repl  SampleConc  StndConc  BlnkCorr  Peak      Time      Peak
#      µg/L       µg/L       Signal    Height    Stored
1      2.170      2.170     0.0226    0.0275    14:47:05   No
2      2.104      2.104     0.0219    0.0269    14:47:40   No
Mean:   2.137      2.137     0.0222
SD :    0.0466     0.0466    0.0005
%RSD:    2.2       2.2      2.1314

```

```

=====
Element: Hg      Seq. No.: 181      AS Loc.: 37      Date: 03/02/2010
Sample ID: 1202055978|i|||MSD

```

```

-----
Repl  SampleConc  StndConc  BlnkCorr  Peak      Time      Peak
#      µg/L       µg/L       Signal    Height    Stored
1      2.072      2.072     0.0216    0.0265    14:49:02   No
2      2.053      2.053     0.0214    0.0264    14:49:36   No
Mean:   2.063      2.063     0.0215
SD :    0.0128     0.0128    0.0001
%RSD:    0.6       0.6      0.6049

```

```

=====
Element: Hg      Seq. No.: 182      AS Loc.: 38      Date: 03/02/2010

```


Sample ID: 1202055977|i|5|SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.205	-0.205	-0.0016	0.0034	14:50:58	No
2	-0.206	-0.206	-0.0016	0.0033	14:51:33	No
Mean:	-0.205	-0.205	-0.0016			
SD :	0.0014	0.0014	0.0000			
%RSD:	0.7	0.7	0.8558			

=====

Element: Hg Seq. No.: 183 AS Loc.: 39 Date: 03/02/2010

Sample ID: 247558002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.017	-0.017	0.0003	0.0053	14:52:56	No
2	-0.013	-0.013	0.0003	0.0053	14:53:30	No
Mean:	-0.015	-0.015	0.0003			
SD :	0.0028	0.0028	0.0000			
%RSD:	18.3	18.3	8.7703			

=====

Element: Hg Seq. No.: 184 AS Loc.: 40 Date: 03/02/2010

Sample ID: 247558003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.294	0.294	0.0035	0.0084	14:54:53	No
2	0.291	0.291	0.0034	0.0084	14:55:28	No
Mean:	0.292	0.292	0.0035			
SD :	0.0018	0.0018	0.0000			
%RSD:	0.6	0.6	0.5411			

=====

Element: Hg Seq. No.: 185 AS Loc.: 41 Date: 03/02/2010

Sample ID: 247558004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.178	0.178	0.0023	0.0073	14:56:53	No
2	0.173	0.173	0.0022	0.0072	14:57:28	No
Mean:	0.176	0.176	0.0023			
SD :	0.0035	0.0035	0.0000			
%RSD:	2.0	2.0	1.5693			

=====

Element: Hg Seq. No.: 186 AS Loc.: 7 Date: 03/02/2010

Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	5.158	5.158	0.0530	0.0580	14:58:53	No
2	5.180	5.180	0.0532	0.0582	14:59:28	No
Mean:	5.169	5.169	0.0531			
SD :	0.0151	0.0151	0.0002			
%RSD:	0.3	0.3	0.2887			

QC value within specified limits.

=====

Element: Hg Seq. No.: 187 AS Loc.: 8 Date: 03/02/2010

Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	0.001	0.001	0.0005	0.0055	15:00:56	No
2	-0.018	-0.018	0.0003	0.0053	15:01:31	No

Mean: -0.009 -0.009 0.0004
 SD : 0.0131 0.0131 0.0001
 %RSD: 151.7 151.7 34.1428
 QC value within specified limits.

=====
 Element: Hg Seq. No.: 188 AS Loc.: 42 Date: 03/02/2010
 Sample ID: 247558005|i|||

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	0.271	0.271	0.0032	0.0082	15:02:58	No
2	0.259	0.259	0.0031	0.0081	15:03:33	No
Mean:	0.265	0.265	0.0032			
SD :	0.0084	0.0084	0.0001			
%RSD:	3.2	3.2	2.6956			

=====
 Element: Hg Seq. No.: 189 AS Loc.: 43 Date: 03/02/2010
 Sample ID: 247561001|i|||

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	0.008	0.008	0.0006	0.0055	15:04:58	No
2	0.006	0.006	0.0005	0.0055	15:05:33	No
Mean:	0.007	0.007	0.0005			
SD :	0.0013	0.0013	0.0000			
%RSD:	19.1	19.1	2.4327			

=====
 Element: Hg Seq. No.: 190 AS Loc.: 44 Date: 03/02/2010
 Sample ID: 247561002|i|||

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	0.082	0.082	0.0013	0.0063	15:06:59	No
2	0.063	0.063	0.0011	0.0061	15:07:34	No
Mean:	0.073	0.073	0.0012			
SD :	0.0137	0.0137	0.0001			
%RSD:	18.9	18.9	11.4574			

=====
 Element: Hg Seq. No.: 191 AS Loc.: 45 Date: 03/02/2010
 Sample ID: 247561003|i|||

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	-0.046	-0.046	0.0000	0.0050	15:09:00	No
2	-0.060	-0.060	-0.0001	0.0048	15:09:36	No
Mean:	-0.053	-0.053	-0.0001			
SD :	0.0098	0.0098	0.0001			
%RSD:	18.3	18.3	158.2439			

=====
 Element: Hg Seq. No.: 192 AS Loc.: 46 Date: 03/02/2010
 Sample ID: 247561004|i|||

Repl #	SampleConc µg/L	StdndConc µg/L	BlndCorr Signal	Peak Height	Time	Peak Stored
1	-0.069	-0.069	-0.0002	0.0047	15:11:02	No
2	-0.089	-0.089	-0.0004	0.0045	15:11:37	No
Mean:	-0.079	-0.079	-0.0003			
SD :	0.0142	0.0142	0.0001			
%RSD:	18.0	18.0	44.5968			

=====
 Element: Hg Seq. No.: 193 AS Loc.: 47 Date: 03/02/2010

Sample ID: 247561005|i|||

Repl #	SampleConc µg/L	StdndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.127	-0.127	-0.0008	0.0041	15:13:04	No
2	-0.147	-0.147	-0.0010	0.0039	15:13:39	No
Mean:	-0.137	-0.137	-0.0009			
SD :	0.0140	0.0140	0.0001			
%RSD:	10.2	10.2	15.5405			

Element: Hg Seq. No.: 194 AS Loc.: 48 Date: 03/02/2010

Sample ID: 247561006|i|||

Repl #	SampleConc µg/L	StdndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.063	-0.063	-0.0002	0.0048	15:15:03	No
2	-0.074	-0.074	-0.0003	0.0047	15:15:38	No
Mean:	-0.068	-0.068	-0.0002			
SD :	0.0074	0.0074	0.0001			
%RSD:	10.8	10.8	34.6638			

Element: Hg Seq. No.: 195 AS Loc.: 49 Date: 03/02/2010

Sample ID: 247561007|i|||

Repl #	SampleConc µg/L	StdndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.028	-0.028	0.0002	0.0052	15:16:58	No
2	-0.034	-0.034	0.0001	0.0051	15:17:33	No
Mean:	-0.031	-0.031	0.0002			
SD :	0.0040	0.0040	0.0000			
%RSD:	12.9	12.9	24.4346			

Element: Hg Seq. No.: 196 AS Loc.: 50 Date: 03/02/2010

Sample ID: 247561008|i|||

Repl #	SampleConc µg/L	StdndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.029	-0.029	0.0002	0.0051	15:18:53	No
2	-0.027	-0.027	0.0002	0.0052	15:19:28	No
Mean:	-0.028	-0.028	0.0002			
SD :	0.0015	0.0015	0.0000			
%RSD:	5.3	5.3	7.9074			

Element: Hg Seq. No.: 197 AS Loc.: 51 Date: 03/02/2010

Sample ID: 1202056063|i||958698|MB

Repl #	SampleConc µg/L	StdndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.185	-0.185	-0.0014	0.0036	15:20:49	No
2	-0.211	-0.211	-0.0017	0.0033	15:21:23	No
Mean:	-0.198	-0.198	-0.0015			
SD :	0.0186	0.0186	0.0002			
%RSD:	9.4	9.4	12.3217			

Element: Hg Seq. No.: 198 AS Loc.: 7 Date: 03/02/2010

Sample ID: CCV

Repl #	SampleConc µg/L	StdndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.118	5.118	0.0526	0.0576	15:22:48	No
2	5.177	5.177	0.0532	0.0582	15:23:23	No
Mean:	5.147	5.147	0.0529			

SD : 0.0422 0.0422 0.0004
 %RSD: 0.8 0.8 0.8124
 QC value within specified limits.

=====
 Element: Hg Seq. No.: 199 AS Loc.: 8 Date: 03/02/2010
 Sample ID: CCB
 =====

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.054	-0.054	-0.0001	0.0049	15:24:51	No
2	-0.064	-0.064	-0.0002	0.0048	15:25:26	No
Mean:	-0.059	-0.059	-0.0001			
SD :	0.0067	0.0067	0.0001			
%RSD:	11.3	11.3	55.1886			

QC value within specified limits.

=====
 Element: Hg Seq. No.: 200 AS Loc.: 52 Date: 03/02/2010
 Sample ID: 1202056064|i|10||LCS
 =====

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	3.972	3.972	0.0409	0.0459	15:26:50	No
2	3.975	3.975	0.0410	0.0459	15:27:24	No
Mean:	3.973	3.973	0.0409			
SD :	0.0021	0.0021	0.0000			
%RSD:						

=====
 Element: Hg Seq. No.: 201 AS Loc.: 53 Date: 03/02/2010
 Sample ID: 247781001|i|||
 =====

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.050	-0.050	0.0000	0.0049	15:28:46	No
2	-0.062	-0.062	-0.0002	0.0048	15:29:21	No
Mean:	-0.056	-0.056	-0.0001			
SD :	0.0087	0.0087	0.0001			
%RSD:	15.5	15.5	94.9723			

=====
 Element: Hg Seq. No.: 202 AS Loc.: 54 Date: 03/02/2010
 Sample ID: 1202056065|i|||DUP
 =====

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	-0.058	-0.058	-0.0001	0.0049	15:30:43	No
2	-0.046	-0.046	0.0000	0.0050	15:31:18	No
Mean:	-0.052	-0.052	0.0000			
SD :	0.0084	0.0084	0.0001			
%RSD:	16.2	16.2	181.7535			

=====
 Element: Hg Seq. No.: 203 AS Loc.: 55 Date: 03/02/2010
 Sample ID: 1202056066|i|||MS
 =====

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Height	Time	Peak Stored
1	2.195	2.195	0.0228	0.0278	15:32:42	No
2	2.166	2.166	0.0225	0.0275	15:33:17	No
Mean:	2.181	2.181	0.0227			
SD :	0.0202	0.0202	0.0002			
%RSD:	0.9	0.9	0.9068			

=====
 Element: Hg Seq. No.: 204 AS Loc.: 56 Date: 03/02/2010
 =====

Miscellaneous

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 955817.0 Verified by: _____ Lab SOP: GL-MA-E-009 REV# 19
Analyst: Anthony Green Instrument: BAL-001
Method: SW846 3050B

Sample ID	Run Date	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check
1202049284 MB	25-FEB-2010 07:00:00	0.545	50	91.74312	1
1202049289 LCS	25-FEB-2010 07:00:00	0.521	50	95.96929	
247550001	25-FEB-2010 07:00:00	0.536	50	93.28358	
247551001	25-FEB-2010 07:00:00	0.512	50	97.65625	
247551002	25-FEB-2010 07:00:00	0.549	50	91.07468	
247561001	25-FEB-2010 07:00:00	0.503	50	99.40358	
1202049285 DUP (247561001)	25-FEB-2010 07:00:00	0.512	50	97.65625	
1202049286 SDILT (247561001)	25-FEB-2010 07:00:00	0.503	50	99.40358	
1202049287 MS (247561001)	25-FEB-2010 07:00:00	0.507	50	98.61933	
1202049288 MSD (247561001)	25-FEB-2010 07:00:00	0.505	50	99.0099	
247561002	25-FEB-2010 07:00:00	0.502	50	99.60159	
247561003	25-FEB-2010 07:00:00	0.53	50	94.33962	
247561004	25-FEB-2010 07:00:00	0.507	50	98.61933	
247561005	25-FEB-2010 07:00:00	0.521	50	95.96929	
247561006	25-FEB-2010 07:00:00	0.506	50	98.81423	
247561007	25-FEB-2010 07:00:00	0.546	50	91.57509	
247561008	25-FEB-2010 07:00:00	0.518	50	96.5251	

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1202049289	Metals Soil LCS SRM ICPMS	U1062540-MS	.521	g	
MS	1202049287	ICP-MS Spike for soil products.	U1090827-A	.5	mL	
MS	1202049287	ICP-MS Spike for Soil Products	U1090827-B	.5	mL	
MSD	1202049288	ICP-MS Spike for soil products.	U1090827-A	.5	mL	
MSD	1202049288	ICP-MS Spike for Soil Products	U1090827-B	.5	mL	
REGNT	All	Hydrogen Peroxide 30%	1250038-02	1.5	mL	
REGNT	All	Nitric Acid CONC.	1274969	.5	mL	

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Verified by:

Batch ID: 955815.0
Analyst: Anthony Green
Method: SW846 3050B
Lab SOP: GL-MA-E-009 REV# 19
Instrument: BAL-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202049283	Metals Soil LCS SRM ICP/Hg	U1062540-1	.509	g
MS	1202049281	Metals Spike Mix I	U1100205-01	.25	mL
MS	1202049281	Metals Spike Mix II	U1100205-06	.25	mL
MSD	1202049282	Metals Spike Mix I	U1100205-01	.25	mL
MSD	1202049282	Metals Spike Mix II	U1100205-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202049278 MB	25-FEB-2010 08:00:00	Soil	0.502	50	99.60159	
1202049283 LCS	25-FEB-2010 08:00:00	Soil	0.509	50	98.23183	
247550001	25-FEB-2010 08:00:00	Soil	0.54	50	92.59259	
247551001	25-FEB-2010 08:00:00	Soil	0.508	50	98.4252	
247551002	25-FEB-2010 08:00:00	Soil	0.513	50	97.46589	
247561001	25-FEB-2010 08:00:00	Soil	0.524	50	95.41985	
1202049279 DUP (247561001)	25-FEB-2010 08:00:00	Soil	0.533	50	93.80863	
1202049280 SDILT (247561001)	25-FEB-2010 08:00:00	Soil	0.524	50	95.41985	
1202049281 MS (247561001)	25-FEB-2010 08:00:00	Soil	0.517	50	96.7118	
1202049282 MSD (247561001)	25-FEB-2010 08:00:00	Soil	0.513	50	97.46589	
247561002	25-FEB-2010 08:00:00	Soil	0.535	50	93.45794	
247561003	25-FEB-2010 08:00:00	Soil	0.509	50	98.23183	
247561004	25-FEB-2010 08:00:00	Soil	0.532	50	93.98496	
247561005	25-FEB-2010 08:00:00	Soil	0.522	50	95.78544	
247561006	25-FEB-2010 08:00:00	Soil	0.534	50	93.63296	
247561007	25-FEB-2010 08:00:00	Soil	0.515	50	97.08738	
247561008	25-FEB-2010 08:00:00	Soil	0.511	50	97.84736	

Reagent/Solvent Lot ID	Description	Amount	Comments:
1265209	HYDROCHLORIC ACID	10 mL	Sample 247561001 consist of gray, rocky soil.
1274969	Nitric Acid CONC.	1.25 mL	

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Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID:	958644.0	Verified by:	
Analyst:	Tara Griffin	Type	LCS
Method:	SW846 7471A Prep	Sample Id	1202055974
Lab SOP:	GL-MA-E-010 REV# 23	Description	Metals LCS Soil SRM
Instrument:	BAL-002	Serial Number	U1031809A
		Spike Amount	.208 g
		Spike Units	
		Type	MS
		Sample Id	1202055976
		Description	Mercury soil working intermediate standard for MS
		Serial Number	WHG100301-14
		Spike Amount	.3 mL
		Spike Units	
		Type	MSD
		Sample Id	1202055978
		Description	Mercury soil working intermediate standard for MS
		Serial Number	WHG100301-14
		Spike Amount	.3 mL
		Spike Units	

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202055973 MB	01-MAR-2010 18:30:00	Soil	0.6	30	50	
1202055974 LCS	01-MAR-2010 18:30:00	Soil	0.208	30	144.23077	
247558001	01-MAR-2010 18:30:00	Soil	0.552	30	54.34783	
1202055975 DUP (247558001)	01-MAR-2010 18:30:00	Soil	0.518	30	57.91506	
1202055976 MS (247558001)	01-MAR-2010 18:30:00	Soil	0.565	30	53.09735	
1202055978 MSD (247558001)	01-MAR-2010 18:30:00	Soil	0.508	30	59.05512	
1202055977 SDILT (247558001)	01-MAR-2010 18:30:00	Soil	0.552	30	54.34783	
247558002	01-MAR-2010 18:30:00	Soil	0.524	30	57.25191	
247558003	01-MAR-2010 18:30:00	Soil	0.506	30	59.28854	
247558004	01-MAR-2010 18:30:00	Soil	0.546	30	54.94505	
247558005	01-MAR-2010 18:30:00	Soil	0.529	30	56.71078	
247561001	01-MAR-2010 18:30:00	Soil	0.571	30	52.5394	
247561002	01-MAR-2010 18:30:00	Soil	0.535	30	56.07477	
247561003	01-MAR-2010 18:30:00	Soil	0.539	30	55.65863	
247561004	01-MAR-2010 18:30:00	Soil	0.53	30	56.60377	
247561005	01-MAR-2010 18:30:00	Soil	0.515	30	58.25243	
247561006	01-MAR-2010 18:30:00	Soil	0.559	30	53.66726	
247561007	01-MAR-2010 18:30:00	Soil	0.517	30	58.02708	
247561008	01-MAR-2010 18:30:00	Soil	0.535	30	56.07477	

Reagent/Solvent Lot ID	Description	Amount	Comments:
1255532-C	Hg reducing agent	2 mL	Sample 247558001 is a rocky brown soil.
1274391-1	NITRIC ACID	.375 mL	Digestion Start Date: 01-MAR-10 18:30
1274394-A	Hydrochloric Acid Conc.	1.125 mL	Digestion End Date: 01-MAR-10 19:00
1274397-C	5% KMnO4 solution	7.5 mL	
WHG100301-07	Mercury Working Standard 1st Source CAL S 0.2/CRA	30 uL	

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DATA EXCEPTION REPORT

Mo. Day Yr. 19-MAR-10	Division: Industrial	Quality Criteria: Specifications	Type: Process
Instrument Type: ICP	Test / Method: SW846 3050B/6010B	Matrix Type: Solid	Client Code: LANL
Batch ID: 955816	Sample Numbers: See Below		

Potentially affected work order(s)(SDG): 247550(10-1967),247551(10-1969),247561(10-1951-1)

Application Issues:

Failed Recovery for MS/PS
Failed RPD for MS/MSD, or PS/PSD
Failed RPD for DUP
Failed Recovery for MSD/PSD

**Specification and Requirements
Exception Description:**

1. Failed Recovery for MS/PS:
QC 1202049281MS
2. Failed RPD for DUP:
QC 1202049279DUP
3. Failed RPD for MS/MSD, or PS/PSD:
QC 1202049282MSD
4. Failed Recovery for MSD/PSD:
QC 1202049282MSD

DER Disposition:

1. The matrix spike recovery failed outside of the control limits for calcium, magnesium, potassium, and sodium 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 calcium, iron, and zinc due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.
3. The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for calcium due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.
4. The matrix spike duplicate recovery failed outside of the control limits for calcium, magnesium, and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Christopher Louviere 19-MAR-10

Data Validator/Group Leader:

Louise Smith 19-MAR-10

DATA EXCEPTION REPORT

Mo.Day Yr. 20-MAR-10	Division: Industrial	Quality Criteria: Specifications	Type: Process
Instrument Type: ICP/MS	Test / Method: SW846 3050B/6020	Matrix Type: Solid	Client Code: LANL
Batch ID: 955818	Sample Numbers: See Below		
Potentially affected work order(s)(SDG): 247550(10-1967),247551(10-1969),247561(10-1951-1)			
Application Issues: Failed Recovery for MS/PS Failed RPD for DUP			
Specification and Requirements Exception Description:		DER Disposition:	
1. Failed Recovery for MS/PS: QC 1202049287MS 2. Failed RPD for DUP: QC 1202049285DUP		The matrix spike recovery failed outside of the control limits for Se 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. 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:
Samantha Jacobs 22-MAR-10

Data Validator/Group Leader:
Jamie Johnson 22-MAR-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: UI090421-40 **Opened:** 09-OCT-09 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 21-APR-09 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 09-OCT-10 **Lot Number :** 0830227
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

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		

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
Iron	25 mg/L	Lead	2 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
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
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

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090827-A **Opened:** 27-AUG-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 27-AUG-09 **Lot Number :** 1015749
Type: Source Material **Expires:** 27-AUG-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

Serial ID: UI090827-B **Opened:** 27-AUG-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 27-AUG-09 **Lot Number :** 1015749
Type: Source Material **Expires:** 27-AUG-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

Standard Logbook

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
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

Standard Logbook

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
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

Standard Logbook

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100205-01 **Opened:** 05-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 05-FEB-10
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI100205-06 **Opened:** 05-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 05-FEB-10
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: 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

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Standard Logbook

Serial ID: UI100312-40 **Opened:** 14-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 12-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 14-MAR-11 **Lot Number :** 1018981
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: UI100312-41 **Opened:** 14-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 12-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 14-MAR-11 **Lot Number :** 1018981
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
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100317-06 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-MAR-10 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019161
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

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI100317-07 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-MAR-10 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019162
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: Q2SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI100317-08 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-MAR-10 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019163
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: Q2SI
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: UI100318-11 **Opened:** 18-MAR-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 18-MAR-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 18-MAR-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: Q2SI
Description: ICP-MS ICSA Master A

Standard Logbook

Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: 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: ICPMSCaSPIKEC **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: IHG100301-01 **Opened:** 01-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 01-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 02-MAR-10 **Solvent :** 1mL HNO3 + Type1 H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100301-02 **Opened:** 01-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 02-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100315-02 **Opened:** 15-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 15-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 16-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Standard Logbook

Serial ID: WHG100301-07 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-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.
IHG100301-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100301-08 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-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.
IHG100301-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100301-09 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100301-10 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-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.
IHG100301-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Standard Logbook

Serial ID: WHG100301-11 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100301-12 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-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.	Allquot	Final Vol.	Final Conc.
IHG100301-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100301-14 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100315-12 **Opened:** 15-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 15-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 22-MAR-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.	Allquot	Final Vol.	Final Conc.
IHG100315-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Standard Logbook

Serial ID: W1100319-43 **Opened:** 19-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-MAR-10 **Solvent :** 3%HCL and 1%HNO3 --1285629
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.
UI090421-40	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: WI100319-46 **Opened:** 19-MAR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-MAR-10 **Solvent :** 3%HCL AND 1%HNO3-1285629
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
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

Standard Logbook

Serial ID: WI100319-47 **Opened:** 19-MAR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-MAR-10 **Solvent :** 3%HCL &1%HNO3-1285629
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Allquot	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
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: WMS100318-04 **Opened:** 18-MAR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 18-MAR-10 **Balance Id :** 4025216
Type: Working **Expires:** 19-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCL-1285348
Supplier: GEL

Standard Logbook

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
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: WMS100318-04A **Opened:** 18-MAR-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 18-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 19-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1285348
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Alliquot	Final Vol.	Final Conc.
WMS100318-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100318-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100318-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100318-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100318-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100318-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100318-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100318-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100318-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100318-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100318-05 **Opened:** 18-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 18-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 19-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1285348
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Alliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100318-06 **Opened:** 18-MAR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 18-MAR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 19-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1285348
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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

Serial ID: WMS100318-07 **Opened:** 18-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 18-MAR-10 **Lot Number :** 1010773
Type: Working **Expires:** 19-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1285348
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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: WMS100318-08 **Opened:** 18-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 18-MAR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 19-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1285348
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
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: WMS100319-04 **Opened:** 19-MAR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 19-MAR-10 **Balance Id :** 4025216
Type: Working **Expires:** 20-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1285348
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Allquot	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
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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: WMS100319-04A **Opened:** 19-MAR-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 19-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 20-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1285348
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100319-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100319-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100319-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100319-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100319-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100319-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100319-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100319-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100319-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100319-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100319-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: <u>WMS100319-05</u>	Opened: <u>19-MAR-10</u>	Balance Id : <u>40245216</u>
Name: <u>ICPMS ICV</u>	Received: <u>19-MAR-10</u>	Pipet Id : <u>3541598</u>
Type: <u>Working</u>	Expires: <u>20-MAR-10</u>	Solvent : <u>2%HNO3/1%HCl - 1285348</u>
Employee: <u>Paul Boyd</u>		
Supplier: <u>GEL</u>		
Description: <u>ICPMS ICV</u>		
Comments: <u>None</u>		

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100319-06 **Opened:** 19-MAR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 19-MAR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 20-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1285348
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: WMS100319-07 **Opened:** 19-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 19-MAR-10 **Lot Number :** 1010773
Type: Working **Expires:** 20-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1285348
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100318-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100318-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100318-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100319-08 **Opened:** 19-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 19-MAR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 20-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1285348
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
UI100318-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100318-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100318-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201
Name: I-HCL **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 02-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Standard Logbook

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH₂OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxylamine Hydrochloride
Comments: None

Serial ID: 1250038-02 **Opened:** 04-JAN-10 **Lot Number :** ZU74081198 mL
Name: B-H₂O₂ **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 04-JAN-11
Employee: Bryan Davis
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH₂OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
1228372-A	B-NH ₂ OH.HCl-MER	N/A	120 g	1000 mL	N/A

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: 1274391-1 **Opened:** 24-FEB-10 **Instrument Id :** MERCURY
Name: B-HNO₃-MER **Received:** 24-FEB-10 **Lot Number :** H44025
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Standard Logbook

Serial ID: 1274394-A **Opened:** 24-FEB-10 **Lot Number :** J02039
Name: B-HCl-MER **Received:** 24-FEB-10
Type: Reagent/Solvent **Expires:** 01-MAR-10
Employee: Tara Griffin
Supplier: J T Baker
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1274397-C **Opened:** 24-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 24-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: 1274969 **Opened:** 24-FEB-10 **Lot Number :** J 04043 L
Name: I-HNO3 **Received:** 24-FEB-10
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1285348 **Opened:** 15-MAR-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 15-MAR-10
Type: Reagent/Solvent **Expires:** 22-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 10-1951**

Method/Analysis Information

Product: Cyanide, Total

Analytical Batch: 955981 **Method:** SW9012A Cyanide and Total

Prep Batch : 955979 **Method:** SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
247560001	RE15-10-8329
1202049704	Method Blank (MB)
1202049706	247203001(RE16-10-11741) Sample Duplicate (DUP)
1202049708	247203001(RE16-10-11741) Matrix Spike (MS)
1202049710	247203001(RE16-10-11741) Matrix Spike Duplicate (MSD)
1202049711	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 sample was selected for QC analysis: 247203001 (RE16-10-11741).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The MS/PS recovery for this sample set was within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement

The MSD recovery for this sample set was within the required acceptance limits.

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 values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202049706 (RE16-10-11741).

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.

Method/Analysis Information

Product: Nitrate Nitrite by Cadmium Reduction

Analytical Batch: 956483

Method: EPA 353.2 Nitrogen and Nitrate/Nitrite

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 353.2:

Sample ID	Client ID
247560001	RE15-10-8329
1202050857	Method Blank (MB)
1202050858	247335001(RE15-10-8379) Sample Duplicate (DUP)
1202050859	247335001(RE15-10-8379) Post Spike (PS)
1202050860	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-128 REV# 5.

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 Nutrient analysis was performed on a Lachat QuickChem FIA+ 8500 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) 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: 247335001 (RE15-10-8379).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The spike recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202050859 (RE15-10-8379).

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 Preservation/Integrity

All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions

The following samples in this sample group were diluted due to matrix interference: 1202050858 (RE15-10-8379), 1202050859 (RE15-10-8379) and 247560001 (RE15-10-8329).

Sample Re-analysis

The following samples were re-analyzed due to CCV failure: 1202050857 (MB), 1202050858 (RE15-10-8379), 1202050859 (RE15-10-8379) and 1202050860 (LCS). The following samples were reanalyzed due to PS failure: 1202050858 (RE15-10-8379) and 1202050859 (RE15-10-8379).

Miscellaneous Information**Data Exception (DER) Documentation**

The following DER was generated for this SDG: 795917 1202050859 (RE15-10-8379).

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

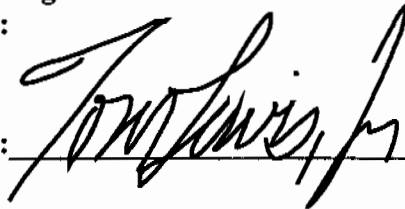
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

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: _____

18Mar10

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: 10-1951 GEL Work Order: 247560

The Qualifiers in this report are defined as follows:

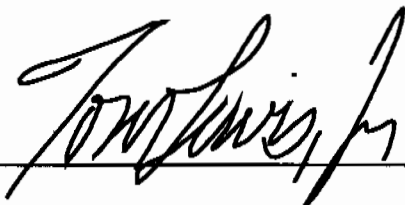
- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.

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 12, 2010

Client SDG: 10-1951

Client Sample ID: RE15-10-8329
Sample ID: 247560001
Matrix: W
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "As Received"</i>											
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2	02/23/10	1355	955981	1
Nutrient Analysis											
<i>EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"</i>											
Nitrogen, Nitrate/Nitrite	J	0.248	0.050	0.250	mg/L	5	AXH3	02/25/10	1407	956483	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/23/10	1200	955979

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	
2	EPA 353.2	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: March 12, 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: 247560

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Flow Injection Analysis											
Batch	955981										
QC1202049706	247203001	DUP									
Cyanide, Total		U	ND	U	ND	ug/L	N/A		AXC2	02/23/10	13:30
QC1202049711	LCS										
Cyanide, Total	50.0				54.3	ug/L	109	(90%-110%)		02/23/10	13:25
QC1202049704	MB										
Cyanide, Total			U		5.00	ug/L				02/23/10	13:24
QC1202049708	247203001	MS									
Cyanide, Total	100	U	ND		109	ug/L	109	(60%-144%)		02/23/10	13:31
QC1202049710	247203001	MSD									
Cyanide, Total	100	U	ND		102	ug/L	6.64	102	(0%-20%)	02/23/10	13:32
Nutrient Analysis											
Batch	956483										
QC1202050858	247335001	DUP									
Nitrogen, Nitrate/Nitrite		U	ND	U	ND	mg/L	N/A		AXH3	02/25/10	14:05
QC1202050860	LCS										
Nitrogen, Nitrate/Nitrite	1.00				0.962	mg/L	96.2	(90%-110%)		02/25/10	13:51
QC1202050857	MB										
Nitrogen, Nitrate/Nitrite			U		0.050	mg/L				02/25/10	13:49
QC1202050859	247335001	PS									
Nitrogen, Nitrate/Nitrite	1.00	U	ND		0.825	mg/L	81.9*	(90%-110%)		02/25/10	14:06

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

GEL LABORATORIES LLC

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QC Summary

Workorder: 247560

Page 2 of 2

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor										
N/A	RPD or %Recovery limits do not apply.										
ND	Analyte concentration is not detected above the detection limit										
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%										
R	Sample results are rejected										
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.										
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
Y	QC Samples were not spiked with this compound										
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.										
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.										
d	5-day BOD--The 2:1 depletion requirement was not met for this sample										
h	Preparation or preservation holding time was exceeded										

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 12-MAR-2010 18:13

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-1951

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
ICV	23-FEB-2010 10:14:06	OM_2-23-2010_10-03-36	149	150	99.3	(90%-110%)	Yes
CCV	23-FEB-2010 13:20:35	OM_2-23-2010_11-19-05	104	100	104	(90%-110%)	Yes
CCV	23-FEB-2010 13:33:13	OM_2-23-2010_11-19-05	104	100	104	(90%-110%)	Yes
CCV	23-FEB-2010 13:45:56	OM_2-23-2010_11-19-05	105	100	105	(90%-110%)	Yes
CCV	23-FEB-2010 13:57:43	OM_2-23-2010_11-19-05	105	100	105	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	23-FEB-2010 10:15:57	OM_2-23-2010_10-03-36	-1.34	10	Yes
CCB	23-FEB-2010 13:22:26	OM_2-23-2010_11-19-05	-1.39	10	Yes
CCB	23-FEB-2010 13:35:03	OM_2-23-2010_11-19-05	-1.25	10	Yes
CCB	23-FEB-2010 13:47:47	OM_2-23-2010_11-19-05	-1.55	10	Yes
CCB	23-FEB-2010 13:59:33	OM_2-23-2010_11-19-05	-1.21	10	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 12-MAR-2010 18:13

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-1951

Nutrient Analysis

Method: EPA 353.2

Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8500 Series

Parmname: Nitrogen, Nitrate/Nitrite

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	25-FEB-2010 10:18:53	OM_2-25-2010_10-08-41	0.978	1	97.8	(90%-110%)	Yes
CCV	25-FEB-2010 13:41:38	OM_2-25-2010_13-40-36	1	1	100	(90%-110%)	Yes
CCV	25-FEB-2010 13:58:24	OM_2-25-2010_13-40-36	0.939	1	93.9	(90%-110%)	Yes
CCV	25-FEB-2010 14:15:11	OM_2-25-2010_13-40-36	0.951	1	95.1	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	25-FEB-2010 10:21:15	OM_2-25-2010_10-08-41	-0.00122	0.05	Yes
CCB	25-FEB-2010 13:44:00	OM_2-25-2010_13-40-36	0.00223	0.05	Yes
CCB	25-FEB-2010 14:00:46	OM_2-25-2010_13-40-36	-0.0013	0.05	Yes
CCB	25-FEB-2010 14:17:33	OM_2-25-2010_13-40-36	-0.0016	0.05	Yes

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: 955979.0
Analyst: Alan Stanley
Method: SW846 9010C Distillation SW846 9010B Prep E

Verified by:

Lab SOP: EPA 335.4
Instrument: GL-GC-E-067 REV# 13
 Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202049711	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
MS	1202049707	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202049708	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202049709	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202049710	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202049704 MB	23-FEB-2010 12:00:00	Water	25	25	1	>12
1202049711 LCS	23-FEB-2010 12:00:00	Water	25	25	1	>12
246941002	23-FEB-2010 12:00:00	Water	25	25	1	>12
1202049705 DUP (246941002)	23-FEB-2010 12:00:00	Water	25	25	1	>12
1202049707 MS (246941002)	23-FEB-2010 12:00:00	Water	25	25	1	>12
1202049709 MSD (246941002)	23-FEB-2010 12:00:00	Water	25	25	1	>12
247203001	23-FEB-2010 12:00:00	Water	25	25	1	>12
1202049706 DUP (247203001)	23-FEB-2010 12:00:00	Water	25	25	1	>12
1202049708 MS (247203001)	23-FEB-2010 12:00:00	Water	25	25	1	>12
1202049710 MSD (247203001)	23-FEB-2010 12:00:00	Water	25	25	1	>12
247204001	23-FEB-2010 12:00:00	Waste Water	25	25	1	>12
247244001	23-FEB-2010 12:00:00	Waste Water	25	25	1	>12
247250001	23-FEB-2010 12:00:00	Water	25	25	1	>12
247250002	23-FEB-2010 12:00:00	Water	25	25	1	>12
247256001	23-FEB-2010 12:00:00	Water	25	25	1	>12
247256002	23-FEB-2010 12:00:00	Water	25	25	1	>12
247273001	23-FEB-2010 12:00:00	Waste Water	25	25	1	>12
247322001	23-FEB-2010 12:00:00	Water	25	25	1	>12
247322002	23-FEB-2010 12:00:00	Water	25	25	1	>12
247335001	23-FEB-2010 12:00:00	Water	25	25	1	>12

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC

Prep Logbook

Batch ID: 955979.0

Analyst: Alan Stanley

Method: SW846 9010C Distillation SW846 9010B Prep

EPA 335.4

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-001

Verified by:

E

P

A

33

5.

3

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202049711	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
MS	1202049707	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202049708	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202049709	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202049710	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
247339001	23-FEB-2010 12:00:00	Water	25	25	1	>12
247339002	23-FEB-2010 12:00:00	Water	25	25	1	>12
247350001	23-FEB-2010 12:00:00	Water	25	25	1	>12
247434001	23-FEB-2010 12:00:00	Water	25	25	1	>12
247434002	23-FEB-2010 12:00:00	Water	25	25	1	>12
247559001	23-FEB-2010 12:00:00	Water	25	25	1	>12
247560001	23-FEB-2010 12:00:00	Water	25	25	1	>12
247567001	23-FEB-2010 12:00:00	Water	25	25	1	>12

Comments:

Reagent/Solvent Lot ID	Description	Amount
1260189-C	50% H2SO4 CN Prep	2.5 mL
1270661-C	Bismuth Nitrate Solution	1.25 mL
1270663-C	0.8N H3NO3S	1.25 mL
1270669-C	51% MgCl2 Soln	1 mL
1273851-C	0.25N Sodium Hydroxide Solution	25 mL
WCN100223-07	150 ppb CN Distilled ICV Standard	.0375 mL

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/23/2010 10:06:57	OM_2-23-2010_10-03-36
150 ppb		1	axc2	2/23/2010 10:07:49	OM_2-23-2010_10-03-36
100 ppb		1	axc2	2/23/2010 10:08:41	OM_2-23-2010_10-03-36
50 ppb		1	axc2	2/23/2010 10:09:34	OM_2-23-2010_10-03-36
10 ppb		1	axc2	2/23/2010 10:10:28	OM_2-23-2010_10-03-36
CRDL 5.0 ppb		1	axc2	2/23/2010 10:11:21	OM_2-23-2010_10-03-36
ICAL-00		1	axc2	2/23/2010 10:12:16	OM_2-23-2010_10-03-36
ICV		1	axc2	2/23/2010 10:14:06	OM_2-23-2010_10-03-36
ICB		1	axc2	2/23/2010 10:15:57	OM_2-23-2010_10-03-36
CRDL		1	axc2	2/23/2010 10:17:46	OM_2-23-2010_10-03-36
1202046146	954516	1	axc2	2/23/2010 10:19:36	OM_2-23-2010_10-03-36
1202046153	954516	25	axc2	2/23/2010 10:20:29	OM_2-23-2010_10-03-36
247172001	954516	1	axc2	2/23/2010 10:21:22	OM_2-23-2010_10-03-36
1202046147	954516	1	axc2	2/23/2010 10:22:15	OM_2-23-2010_10-03-36
1202046149	954516	1	axc2	2/23/2010 10:23:08	OM_2-23-2010_10-03-36
1202046151	954516	1	axc2	2/23/2010 10:24:01	OM_2-23-2010_10-03-36
247172002	954516	1	axc2	2/23/2010 10:24:54	OM_2-23-2010_10-03-36
1202046148	954516	1	axc2	2/23/2010 10:25:46	OM_2-23-2010_10-03-36
1202046150	954516	1	axc2	2/23/2010 10:26:38	OM_2-23-2010_10-03-36
1202046152*	954516	1	axc2	2/23/2010 10:27:31	OM_2-23-2010_10-03-36
CCV		1	axc2	2/23/2010 10:28:23	OM_2-23-2010_10-03-36
CCB		1	axc2	2/23/2010 10:30:13	OM_2-23-2010_10-03-36
247178001	954516	1	axc2	2/23/2010 10:32:01	OM_2-23-2010_10-03-36
247178002	954516	1	axc2	2/23/2010 10:32:53	OM_2-23-2010_10-03-36
247178003	954516	1	axc2	2/23/2010 10:33:45	OM_2-23-2010_10-03-36
247178004	954516	1	axc2	2/23/2010 10:34:37	OM_2-23-2010_10-03-36
247178005	954516	1	axc2	2/23/2010 10:35:28	OM_2-23-2010_10-03-36
247178006	954516	1	axc2	2/23/2010 10:36:22	OM_2-23-2010_10-03-36
247178007	954516	1	axc2	2/23/2010 10:37:16	OM_2-23-2010_10-03-36
247178008	954516	1	axc2	2/23/2010 10:38:10	OM_2-23-2010_10-03-36
247178009	954516	1	axc2	2/23/2010 10:39:03	OM_2-23-2010_10-03-36
247178010	954516	1	axc2	2/23/2010 10:39:56	OM_2-23-2010_10-03-36
CCV		1	axc2	2/23/2010 10:40:48	OM_2-23-2010_10-03-36
CCB		1	axc2	2/23/2010 10:42:39	OM_2-23-2010_10-03-36
247178011	954516	1	axc2	2/23/2010 10:44:28	OM_2-23-2010_10-03-36
247181001	954516	1	axc2	2/23/2010 10:45:20	OM_2-23-2010_10-03-36
247181002	954516	1	axc2	2/23/2010 10:46:14	OM_2-23-2010_10-03-36
247187001	954516	1	axc2	2/23/2010 10:47:06	OM_2-23-2010_10-03-36
247187002	954516	1	axc2	2/23/2010 10:47:58	OM_2-23-2010_10-03-36
247187003	954516	1	axc2	2/23/2010 10:48:51	OM_2-23-2010_10-03-36
247197001	954516	1	axc2	2/23/2010 10:49:43	OM_2-23-2010_10-03-36
247197002	954516	1	axc2	2/23/2010 10:50:35	OM_2-23-2010_10-03-36
1202046124	954512	1	axc2	2/23/2010 10:51:27	OM_2-23-2010_10-03-36
1202046131	954512	25	axc2	2/23/2010 10:52:19	OM_2-23-2010_10-03-36
CCV		1	axc2	2/23/2010 10:53:12	OM_2-23-2010_10-03-36
CCB		1	axc2	2/23/2010 10:55:01	OM_2-23-2010_10-03-36
247108001	954512	1	axc2	2/23/2010 10:56:52	OM_2-23-2010_10-03-36
1202046125	954512	1	axc2	2/23/2010 10:57:45	OM_2-23-2010_10-03-36
1202046127	954512	1	axc2	2/23/2010 10:58:39	OM_2-23-2010_10-03-36
1202046129	954512	1	axc2	2/23/2010 10:59:32	OM_2-23-2010_10-03-36
247108002	954512	1	axc2	2/23/2010 11:00:25	OM_2-23-2010_10-03-36
1202046126	954512	1	axc2	2/23/2010 11:01:19	OM_2-23-2010_10-03-36
1202046128	954512	1	axc2	2/23/2010 11:02:11	OM_2-23-2010_10-03-36
1202046130	954512	1	axc2	2/23/2010 11:03:05	OM_2-23-2010_10-03-36
247108003	954512	1	axc2	2/23/2010 11:03:58	OM_2-23-2010_10-03-36
247108004	954512	1	axc2	2/23/2010 11:04:50	OM_2-23-2010_10-03-36
CCV		1	axc2	2/23/2010 11:05:42	OM_2-23-2010_10-03-36
CCB		1	axc2	2/23/2010 11:07:33	OM_2-23-2010_10-03-36

247108005*	954512	1	axc2	2/23/2010	11:09:22	OM_2-23-2010_10-03-36
247195001*	954512	1	axc2	2/23/2010	11:10:14	OM_2-23-2010_10-03-36
247195002*	954512	1	axc2	2/23/2010	11:11:05	OM_2-23-2010_10-03-36

Original Run Filename: OM_2-23-2010_10-03-36.OMN created 2/23/2010 10:03:36
 Original Run Author's Signature: [axc2]
 Current Run Filename: OM_2-23-2010_10-03-36.OMN last modified 2/23/2010 11:12:14
 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)				
WCN100223-01	1	S1	200	9.53	2/23/2010@10:06:57			200 ppb
WCN100223-02	1	S2	150	7.13	2/23/2010@10:07:49			150 ppb
WCN100223-03	1	S3	100	4.60	2/23/2010@10:08:41			100 ppb
WCN100223-04	1	S4	50.0	2.53	2/23/2010@10:09:34			50 ppb
WCN100223-05	1	S5	10.0	0.617	2/23/2010@10:10:28			10 ppb
WCN100223-06	1	S6	5.00	0.385	2/23/2010@10:11:21			CRDL 5.0 ppb
WCN100223-08	1	S7	0.00	0.0245	2/23/2010@10:12:16			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
Result:			0.99966 > 0.99500					
Message			Pass					
Action			Continue					
WCN100223-07	1	S8	149	7.09	2/23/2010@10:14:06			ICV
Known Conc:			150					
DQM Test: > + Percent Relative Difference								
Result:			-0.5 < 10.0					
Message			ICV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-0.5 < 10.0					
Message			ICV Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
WCN100223-08	1	S7	-1.34	0.0341	2/23/2010@10:15:57			ICB/CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.34 < 5.01					
Message			ICB/CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.34 > -5.01					
Message			ICB/CCB Passed					
Action			Continue					
WCN100223-06	1	S6	6.77	0.414	2/23/2010@10:17:46			CRDL
Known Conc:			5.00					
DQM Test: > + Concentration Limit								
Result:			6.77 < 7.50					
Message			CRDL Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			6.77 > 2.50					
Message			Pass					
Action			None					
1202046146|954516|MB	1	1	-1.30	0.0360	2/23/2010@10:19:36			
1202046153|LCS	1	2	20.1	1.04	2/23/2010@10:20:29		25.00	
247172001	1	3	-1.33	0.0345	2/23/2010@10:21:22			
1202046147|DUP	1	4	-1.25	0.0384	2/23/2010@10:22:15			
1202046149|MS	1	5	98.6	4.72	2/23/2010@10:23:08			
1202046151|MSD	1	6	101	4.82	2/23/2010@10:24:01			
247172002	1	7	-0.836	0.0578	2/23/2010@10:24:54			
1202046148|DUP	1	8	-1.14	0.0437	2/23/2010@10:25:46			
1202046150|MS	1	9	107	5.10	2/23/2010@10:26:38			
1202046152|MSD	1	10	69.8	3.37	2/23/2010@10:27:31			
WCN100223-03	1	S3	103	4.93	2/23/2010@10:28:23			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			3.0 < 10.0					

		Message		CCV Passed					
		Action		Continue					
DQM Test: < - Percent Relative Difference									
		Result:		3.0 < 10.0					
		Message		CCV Passed					
		Action		Continue					
WCN100223-08	1	S7	-1.28	0.0369	2/23/2010@10:30:13				CCB
		Known Conc:		0.00					
DQM Test: > + Concentration Limit									
		Result:		-1.28 < 5.00					
		Message		CCB Passed					
		Action		Continue					
DQM Test: < - Concentration Limit									
		Result:		-1.28 > -5.00					
		Message		CCB Passed					
		Action		Continue					
247178001	1	11	-1.02	0.0494	2/23/2010@10:32:01				
247178002	1	12	-1.24	0.0391	2/23/2010@10:32:53				
247178003	1	13	-0.195	0.0879	2/23/2010@10:33:45				
247178004	1	14	-1.18	0.0420	2/23/2010@10:34:37				
247178005	1	15	-1.20	0.0409	2/23/2010@10:35:28				
247178006	1	16	-0.310	0.0825	2/23/2010@10:36:22				
247178007	1	17	-0.592	0.0693	2/23/2010@10:37:16				
247178008	1	18	1.40	0.162	2/23/2010@10:38:10				
247178009	1	19	0.677	0.129	2/23/2010@10:39:03				
247178010	1	20	-0.578	0.0699	2/23/2010@10:39:56				
WCN100223-03	1	S3	104	4.96	2/23/2010@10:40:48				CCV
		Known Conc:		100					
DQM Test: > + Percent Relative Difference									
		Result:		3.7 < 10.0					
		Message		CCV Passed					
		Action		Continue					
DQM Test: < - Percent Relative Difference									
		Result:		3.7 < 10.0					
		Message		CCV Passed					
		Action		Continue					
WCN100223-08	1	S7	-1.27	0.0375	2/23/2010@10:42:39				CCB
		Known Conc:		0.00					
DQM Test: > + Concentration Limit									
		Result:		-1.27 < 5.00					
		Message		CCB Passed					
		Action		Continue					
DQM Test: < - Concentration Limit									
		Result:		-1.27 > -5.00					
		Message		CCB Passed					
		Action		Continue					
247178011	1	21	-1.34	0.0342	2/23/2010@10:44:28				
247181001	1	22	-1.33	0.0348	2/23/2010@10:45:20				
247181002	1	23	-0.741	0.0623	2/23/2010@10:46:14				
247187001	1	24	-1.57	0.0236	2/23/2010@10:47:06				
247187002	1	25	-1.22	0.0399	2/23/2010@10:47:58				
247187003	1	26	-1.40	0.0315	2/23/2010@10:48:51				
247197001	1	27	-1.38	0.0323	2/23/2010@10:49:43				
247197002	1	28	-1.11	0.0450	2/23/2010@10:50:35				
1202046124|954512|MB	1	29	-1.30	0.0361	2/23/2010@10:51:27				
1202046131|LCS	1	30	16.8	0.885	2/23/2010@10:52:19			25.00	
WCN100223-03	1	S3	104	4.98	2/23/2010@10:53:12				CCV
		Known Conc:		100					
DQM Test: > + Percent Relative Difference									
		Result:		4.3 < 10.0					
		Message		CCV Passed					
		Action		Continue					
DQM Test: < - Percent Relative Difference									
		Result:		4.3 < 10.0					
		Message		CCV Passed					
		Action		Continue					
WCN100223-08	1	S7	-1.30	0.0362	2/23/2010@10:55:01				CCB
		Known Conc:		0.00					

DQM Test: > + Concentration Limit						
Result:		-1.30 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-1.30 > -5.00				
Message		CCB Passed				
Action		Continue				
247108001	1	31	-1.09	0.0462	2/23/2010@10:56:52	
1202046125|DUP	1	32	-1.54	0.0247	2/23/2010@10:57:45	
1202046127|MS	1	33	81.1	3.90	2/23/2010@10:58:39	
1202046129|MSD	1	34	98.3	4.70	2/23/2010@10:59:32	
247108002	1	35	-1.05	0.0481	2/23/2010@11:00:25	
1202046126|DUP	1	36	-0.928	0.0536	2/23/2010@11:01:19	
1202046128|MS	1	37	95.0	4.55	2/23/2010@11:02:11	
1202046130|MSD	1	38	88.6	4.25	2/23/2010@11:03:05	
247108003	1	39	-1.15	0.0430	2/23/2010@11:03:58	
247108004	1	40	-1.94	0.00601	2/23/2010@11:04:50	
WCN100223-03	1	S3	104	4.96	2/23/2010@11:05:42	CCV
Known Conc:		100				
DQM Test: > + Percent Relative Difference						
Result:		3.8 < 10.0				
Message		CCV Passed				
Action		Continue				
DQM Test: < - Percent Relative Difference						
Result:		3.8 < 10.0				
Message		CCV Passed				
Action		Continue				
WCN100223-08	1	S7	-1.19	0.0415	2/23/2010@11:07:33	CCB
Known Conc:		0.00				
DQM Test: > + Concentration Limit						
Result:		-1.19 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-1.19 > -5.00				
Message		CCB Passed				
Action		Continue				
247108005	1	41	-2.02	0.00232	2/23/2010@11:09:22	
247195001	1	42	-1.60	0.0222	2/23/2010@11:10:14	
247195002	1	43	-1.50	0.0270	2/23/2010@11:11:05	

Analyte Properties Table for OM_2-23-2010_10-03-36.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

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.53	0.622	-0.6	2/23/2010	10:08:00
2	150	1	7.13	0.468	-0.1	2/23/2010	10:08:52
3	100	1	4.60	0.301	3.8	2/23/2010	10:09:44
4	50.0	1	2.53	0.167	-3.7	2/23/2010	10:10:37
5	10.0	1	0.617	0.0399	-8.7	2/23/2010	10:11:31
6	5.00	1	0.385	0.0238	-15.5	2/23/2010	10:12:24
7	0.00	1	0.0245	0.00128		2/23/2010	10:13:19

Figure 1 is a linear calibration plot. The y-axis is labeled 'Peak Area(V.s)' and has a major tick at 9.53. The x-axis is labeled 'TCYANIDE concentration, ug/L' and has major ticks at 0.00 and 200. There are six data points plotted as solid black circles. A solid black line represents the linear regression fit. The following text is displayed in the upper right area of the plot:

- Area = 0.0468 * Conc + 0.0994
- Conc = 21.3 * Area - 2.07
- Correlation Coefficient (r) = 0.99966
- No Weighting

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	2/23/2010 11:22:28	OM_2-23-2010_11-19-05
CCB		1	axc2	2/23/2010 11:24:18	OM_2-23-2010_11-19-05
247108005	954512	1	axc2	2/23/2010 11:26:07	OM_2-23-2010_11-19-05
247195001	954512	1	axc2	2/23/2010 11:26:59	OM_2-23-2010_11-19-05
247195002	954512	1	axc2	2/23/2010 11:27:51	OM_2-23-2010_11-19-05
247195003	954512	1	axc2	2/23/2010 11:28:44	OM_2-23-2010_11-19-05
247195004	954512	1	axc2	2/23/2010 11:29:35	OM_2-23-2010_11-19-05
247195005	954512	1	axc2	2/23/2010 11:30:30	OM_2-23-2010_11-19-05
247195006	954512	1	axc2	2/23/2010 11:31:24	OM_2-23-2010_11-19-05
247195007	954512	1	axc2	2/23/2010 11:32:17	OM_2-23-2010_11-19-05
247195008	954512	1	axc2	2/23/2010 11:33:11	OM_2-23-2010_11-19-05
247195009	954512	1	axc2	2/23/2010 11:34:05	OM_2-23-2010_11-19-05
CCV		1	axc2	2/23/2010 11:34:57	OM_2-23-2010_11-19-05
CCB		1	axc2	2/23/2010 11:36:48	OM_2-23-2010_11-19-05
247195010	954512	1	axc2	2/23/2010 11:38:37	OM_2-23-2010_11-19-05
247195011	954512	1	axc2	2/23/2010 11:39:30	OM_2-23-2010_11-19-05
247195012	954512	1	axc2	2/23/2010 11:40:23	OM_2-23-2010_11-19-05
247195013	954512	1	axc2	2/23/2010 11:41:16	OM_2-23-2010_11-19-05
247195014	954512	1	axc2	2/23/2010 11:42:09	OM_2-23-2010_11-19-05
247195015	954512	1	axc2	2/23/2010 11:43:02	OM_2-23-2010_11-19-05
1202042913	953106	1	axc2	2/23/2010 11:43:55	OM_2-23-2010_11-19-05
1202042920	953106	25	axc2	2/23/2010 11:44:47	OM_2-23-2010_11-19-05
246870010	953106	1	axc2	2/23/2010 11:45:39	OM_2-23-2010_11-19-05
1202042914	953106	1	axc2	2/23/2010 11:46:31	OM_2-23-2010_11-19-05
CCV		1	axc2	2/23/2010 11:47:23	OM_2-23-2010_11-19-05
CCB		1	axc2	2/23/2010 11:49:13	OM_2-23-2010_11-19-05
1202042916	953106	1	axc2	2/23/2010 11:51:03	OM_2-23-2010_11-19-05
1202042918	953106	1	axc2	2/23/2010 11:51:57	OM_2-23-2010_11-19-05
246872001	953106	1	axc2	2/23/2010 11:52:52	OM_2-23-2010_11-19-05
1202042915	953106	1	axc2	2/23/2010 11:53:45	OM_2-23-2010_11-19-05
1202042917	953106	1	axc2	2/23/2010 11:54:39	OM_2-23-2010_11-19-05
1202042919	953106	1	axc2	2/23/2010 11:55:33	OM_2-23-2010_11-19-05
246872002	953106	1	axc2	2/23/2010 11:56:26	OM_2-23-2010_11-19-05
246872003	953106	1	axc2	2/23/2010 11:57:19	OM_2-23-2010_11-19-05
246872004	953106	1	axc2	2/23/2010 11:58:12	OM_2-23-2010_11-19-05
246872005	953106	1	axc2	2/23/2010 11:59:05	OM_2-23-2010_11-19-05
CCV		1	axc2	2/23/2010 11:59:57	OM_2-23-2010_11-19-05
CCB		1	axc2	2/23/2010 12:01:48	OM_2-23-2010_11-19-05
246872006	953106	1	axc2	2/23/2010 12:03:37	OM_2-23-2010_11-19-05
246872007	953106	1	axc2	2/23/2010 12:04:30	OM_2-23-2010_11-19-05
246872008	953106	1	axc2	2/23/2010 12:05:22	OM_2-23-2010_11-19-05
246881001	953106	1	axc2	2/23/2010 12:06:14	OM_2-23-2010_11-19-05
246881002	953106	1	axc2	2/23/2010 12:07:07	OM_2-23-2010_11-19-05
246881003	953106	1	axc2	2/23/2010 12:08:01	OM_2-23-2010_11-19-05
246881004	953106	1	axc2	2/23/2010 12:08:55	OM_2-23-2010_11-19-05
246881005	953106	1	axc2	2/23/2010 12:09:49	OM_2-23-2010_11-19-05
246881006	953106	1	axc2	2/23/2010 12:10:43	OM_2-23-2010_11-19-05
246881007	953106	1	axc2	2/23/2010 12:11:37	OM_2-23-2010_11-19-05
CCV		1	axc2	2/23/2010 12:12:29	OM_2-23-2010_11-19-05
CCB		1	axc2	2/23/2010 12:14:20	OM_2-23-2010_11-19-05
246881008	953106	1	axc2	2/23/2010 12:16:10	OM_2-23-2010_11-19-05
246881009	953106	1	axc2	2/23/2010 12:17:03	OM_2-23-2010_11-19-05
246881010	953106	1	axc2	2/23/2010 12:17:56	OM_2-23-2010_11-19-05
246881011	953106	1	axc2	2/23/2010 12:18:49	OM_2-23-2010_11-19-05
1202046152	954516	1	axc2	2/23/2010 12:19:42	OM_2-23-2010_11-19-05
1202046158	954519	1	axc2	2/23/2010 12:20:35	OM_2-23-2010_11-19-05
1202046165	954519	25	axc2	2/23/2010 12:21:28	OM_2-23-2010_11-19-05
247084001	954519	1	axc2	2/23/2010 12:22:20	OM_2-23-2010_11-19-05

247084002	954519	1	axc2	2/23/2010	12:23:13	OM_2-23-2010_11-19-05
247126001	954519	1	axc2	2/23/2010	12:24:06	OM_2-23-2010_11-19-05
CCV		1	axc2	2/23/2010	12:24:58	OM_2-23-2010_11-19-05
CCB		1	axc2	2/23/2010	12:26:48	OM_2-23-2010_11-19-05
247126002	954519	1	axc2	2/23/2010	12:28:37	OM_2-23-2010_11-19-05
247126003	954519	1	axc2	2/23/2010	12:29:32	OM_2-23-2010_11-19-05
247136001	954519	1	axc2	2/23/2010	12:30:26	OM_2-23-2010_11-19-05
247136002	954519	1	axc2	2/23/2010	12:31:21	OM_2-23-2010_11-19-05
247141001	954519	1	axc2	2/23/2010	12:32:16	OM_2-23-2010_11-19-05
247141002	954519	1	axc2	2/23/2010	12:33:09	OM_2-23-2010_11-19-05
247141003	954519	1	axc2	2/23/2010	12:34:03	OM_2-23-2010_11-19-05
247186001	954519	1	axc2	2/23/2010	12:34:58	OM_2-23-2010_11-19-05
1202046159	954519	1	axc2	2/23/2010	12:35:51	OM_2-23-2010_11-19-05
1202046161	954519	1	axc2	2/23/2010	12:36:44	OM_2-23-2010_11-19-05
CCV		1	axc2	2/23/2010	12:37:37	OM_2-23-2010_11-19-05
CCB		1	axc2	2/23/2010	12:38:31	OM_2-23-2010_11-19-05
1202046163	954519	1	axc2	2/23/2010	12:39:24	OM_2-23-2010_11-19-05
247186002	954519	1	axc2	2/23/2010	12:40:17	OM_2-23-2010_11-19-05
1202046160	954519	1	axc2	2/23/2010	12:41:10	OM_2-23-2010_11-19-05
1202046162	954519	1	axc2	2/23/2010	12:42:03	OM_2-23-2010_11-19-05
1202046164	954519	1	axc2	2/23/2010	12:42:55	OM_2-23-2010_11-19-05
247186003	954519	1	axc2	2/23/2010	12:43:49	OM_2-23-2010_11-19-05
247186004	954519	1	axc2	2/23/2010	12:44:43	OM_2-23-2010_11-19-05
247186005	954519	1	axc2	2/23/2010	12:45:38	OM_2-23-2010_11-19-05
247186006	954519	1	axc2	2/23/2010	12:46:32	OM_2-23-2010_11-19-05
247186007	954519	1	axc2	2/23/2010	12:47:26	OM_2-23-2010_11-19-05
CCV		1	axc2	2/23/2010	12:48:19	OM_2-23-2010_11-19-05
CCB		1	axc2	2/23/2010	12:49:13	OM_2-23-2010_11-19-05
247186008	954519	1	axc2	2/23/2010	12:50:07	OM_2-23-2010_11-19-05
247186009	954519	1	axc2	2/23/2010	12:51:01	OM_2-23-2010_11-19-05
247186010	954519	1	axc2	2/23/2010	12:51:56	OM_2-23-2010_11-19-05
1202046185	954529	1	axc2	2/23/2010	12:52:50	OM_2-23-2010_11-19-05
1202046192	954529	1	axc2	2/23/2010	12:53:43	OM_2-23-2010_11-19-05
246983002	954529	1	axc2	2/23/2010	12:54:37	OM_2-23-2010_11-19-05
247036005	954529	1	axc2	2/23/2010	12:55:30	OM_2-23-2010_11-19-05
1202046186	954529	1	axc2	2/23/2010	12:56:23	OM_2-23-2010_11-19-05
1202046188	954529	1	axc2	2/23/2010	12:57:17	OM_2-23-2010_11-19-05
1202046190	954529	1	axc2	2/23/2010	12:58:09	OM_2-23-2010_11-19-05
CCV		1	axc2	2/23/2010	12:59:01	OM_2-23-2010_11-19-05
CCB		1	axc2	2/23/2010	12:59:56	OM_2-23-2010_11-19-05
247039001	954529	1	axc2	2/23/2010	13:00:48	OM_2-23-2010_11-19-05
247039002	954529	1	axc2	2/23/2010	13:01:43	OM_2-23-2010_11-19-05
247039003	954529	1	axc2	2/23/2010	13:02:39	OM_2-23-2010_11-19-05
247039004	954529	1	axc2	2/23/2010	13:03:33	OM_2-23-2010_11-19-05
247092001	954529	1	axc2	2/23/2010	13:04:27	OM_2-23-2010_11-19-05
247098001	954529	1	axc2	2/23/2010	13:05:21	OM_2-23-2010_11-19-05
247098002	954529	1	axc2	2/23/2010	13:06:15	OM_2-23-2010_11-19-05
247098003	954529	1	axc2	2/23/2010	13:07:10	OM_2-23-2010_11-19-05
247098004	954529	1	axc2	2/23/2010	13:08:04	OM_2-23-2010_11-19-05
247109001	954529	1	axc2	2/23/2010	13:08:58	OM_2-23-2010_11-19-05
CCV		1	axc2	2/23/2010	13:09:50	OM_2-23-2010_11-19-05
CCB		1	axc2	2/23/2010	13:10:44	OM_2-23-2010_11-19-05
247109002	954529	1	axc2	2/23/2010	13:11:38	OM_2-23-2010_11-19-05
1202046187	954529	1	axc2	2/23/2010	13:12:31	OM_2-23-2010_11-19-05
1202046189	954529	1	axc2	2/23/2010	13:13:25	OM_2-23-2010_11-19-05
1202046191	954529	1	axc2	2/23/2010	13:14:18	OM_2-23-2010_11-19-05
247127001	954529	1	axc2	2/23/2010	13:15:11	OM_2-23-2010_11-19-05
247139001	954529	1	axc2	2/23/2010	13:16:04	OM_2-23-2010_11-19-05
247179001	954529	1	axc2	2/23/2010	13:16:59	OM_2-23-2010_11-19-05
247182001	954529	1	axc2	2/23/2010	13:17:54	OM_2-23-2010_11-19-05

247183001	954529	1	axc2	2/23/2010	13:18:48	OM_2-23-2010_11-19-05
247192001	954529	1	axc2	2/23/2010	13:19:43	OM_2-23-2010_11-19-05
CCV		1	axc2	2/23/2010	13:20:35	OM_2-23-2010_11-19-05
CCB		1	axc2	2/23/2010	13:22:26	OM_2-23-2010_11-19-05
1202049704	955981	1	axc2	2/23/2010	13:24:16	OM_2-23-2010_11-19-05
1202049711	955981	1	axc2	2/23/2010	13:25:10	OM_2-23-2010_11-19-05
246941002	955981	1	axc2	2/23/2010	13:26:05	OM_2-23-2010_11-19-05
1202049705	955981	1	axc2	2/23/2010	13:26:59	OM_2-23-2010_11-19-05
1202049707	955981	1	axc2	2/23/2010	13:27:53	OM_2-23-2010_11-19-05
1202049709	955981	1	axc2	2/23/2010	13:28:47	OM_2-23-2010_11-19-05
247203001	955981	1	axc2	2/23/2010	13:29:41	OM_2-23-2010_11-19-05
1202049706	955981	1	axc2	2/23/2010	13:30:34	OM_2-23-2010_11-19-05
1202049708	955981	1	axc2	2/23/2010	13:31:28	OM_2-23-2010_11-19-05
1202049710	955981	1	axc2	2/23/2010	13:32:21	OM_2-23-2010_11-19-05
CCV		1	axc2	2/23/2010	13:33:13	OM_2-23-2010_11-19-05
CCB		1	axc2	2/23/2010	13:35:03	OM_2-23-2010_11-19-05
247204001	955981	1	axc2	2/23/2010	13:36:52	OM_2-23-2010_11-19-05
247244001	955981	1	axc2	2/23/2010	13:37:47	OM_2-23-2010_11-19-05
247250001	955981	1	axc2	2/23/2010	13:38:42	OM_2-23-2010_11-19-05
247250002	955981	1	axc2	2/23/2010	13:39:37	OM_2-23-2010_11-19-05
247256001	955981	1	axc2	2/23/2010	13:40:32	OM_2-23-2010_11-19-05
247256002	955981	1	axc2	2/23/2010	13:41:27	OM_2-23-2010_11-19-05
247273001	955981	1	axc2	2/23/2010	13:42:22	OM_2-23-2010_11-19-05
247322001	955981	1	axc2	2/23/2010	13:43:15	OM_2-23-2010_11-19-05
247322002	955981	1	axc2	2/23/2010	13:44:09	OM_2-23-2010_11-19-05
247335001	955981	1	axc2	2/23/2010	13:45:04	OM_2-23-2010_11-19-05
CCV		1	axc2	2/23/2010	13:45:56	OM_2-23-2010_11-19-05
CCB		1	axc2	2/23/2010	13:47:47	OM_2-23-2010_11-19-05
247339001	955981	1	axc2	2/23/2010	13:49:37	OM_2-23-2010_11-19-05
247339002	955981	1	axc2	2/23/2010	13:50:31	OM_2-23-2010_11-19-05
247350001	955981	1	axc2	2/23/2010	13:51:25	OM_2-23-2010_11-19-05
247434001	955981	1	axc2	2/23/2010	13:52:18	OM_2-23-2010_11-19-05
247434002	955981	1	axc2	2/23/2010	13:53:12	OM_2-23-2010_11-19-05
247559001	955981	1	axc2	2/23/2010	13:54:05	OM_2-23-2010_11-19-05
247560001	955981	1	axc2	2/23/2010	13:55:00	OM_2-23-2010_11-19-05
247567001	955981	1	axc2	2/23/2010	13:55:56	OM_2-23-2010_11-19-05
247273001	955981	2	axc2	2/23/2010	13:56:50	OM_2-23-2010_11-19-05
CCV		1	axc2	2/23/2010	13:57:43	OM_2-23-2010_11-19-05
CCB		1	axc2	2/23/2010	13:59:33	OM_2-23-2010_11-19-05

Original Run Filename: OM_2-23-2010_11-19-05.OMN created 2/23/2010 11:19:05
 Original Run Author's Signature: [axc2]
 Current Run Filename: OM_2-23-2010_11-19-05.OMN last modified 2/23/2010 14:00:39
 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	Area (Vs)				
WCN100223-03	1	S3	103	4.91	2/23/2010@11:22:28			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					
Calibration:			Table/Fig. 1					
WCN100223-08	1	S7	-1.61	0.0215	2/23/2010@11:24:18			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.61 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.61 > -5.00					
Message			CCB Passed					
Action			Continue					
247108005[954512]	1	41	-2.38	-0.0147	2/23/2010@11:26:07			
247195001	1	42	-1.98	0.00432	2/23/2010@11:26:59			
247195002	1	43	-1.72	0.0166	2/23/2010@11:27:51			
247195003	1	44	-1.17	0.0424	2/23/2010@11:28:44			
247195004	1	45	-0.745	0.0621	2/23/2010@11:29:35			
247195005	1	46	-1.28	0.0369	2/23/2010@11:30:30			
247195006	1	47	-1.56	0.0240	2/23/2010@11:31:24			
247195007	1	48	-1.45	0.0293	2/23/2010@11:32:17			
247195008	1	49	-3.33	-0.0592	2/23/2010@11:33:11			
247195009	1	50	-1.19	0.0412	2/23/2010@11:34:05			
WCN100223-03	1	S3	102	4.89	2/23/2010@11:34:57			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			2.4 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			2.4 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100223-08	1	S7	-1.39	0.0321	2/23/2010@11:36:48			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.39 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.39 > -5.00					
Message			CCB Passed					
Action			Continue					
247195010	1	51	-0.780	0.0605	2/23/2010@11:38:37			
247195011	1	52	-1.91	0.00734	2/23/2010@11:39:30			
247195012	1	53	-1.44	0.0298	2/23/2010@11:40:23			
247195013	1	54	-1.29	0.0368	2/23/2010@11:41:16			
247195014	1	55	-1.40	0.0315	2/23/2010@11:42:09			

247195015	1	56	-1.32	0.0351	2/23/2010@11:43:02			
1202042913|953106|MB	1	57	-1.34	0.0343	2/23/2010@11:43:55			
1202042920|LCS	1	58	20.7	1.07	2/23/2010@11:44:47	25.00		
246870010	1	59	-1.12	0.0447	2/23/2010@11:45:39			
1202042914|DUP	1	60	-1.41	0.0309	2/23/2010@11:46:31			
WCN100223-03	1	S3	103	4.94	2/23/2010@11:47:23			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			3.4 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			3.4 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100223-08	1	S7	-1.29	0.0368	2/23/2010@11:49:13			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.29 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.29 > -5.00					
Message			CCB Passed					
Action			Continue					
1202042916|MS	1	61	100	4.81	2/23/2010@11:51:03			
1202042918|MSD	1	62	99.6	4.76	2/23/2010@11:51:57			
246872001	1	63	-0.922	0.0539	2/23/2010@11:52:52			
1202042915|DUP	1	64	-0.752	0.0618	2/23/2010@11:53:45			
1202042917|MS	1	65	87.7	4.21	2/23/2010@11:54:39			
1202042919|MSD	1	66	97.7	4.67	2/23/2010@11:55:33			
246872002	1	67	-0.703	0.0641	2/23/2010@11:56:26			
246872003	1	68	-0.152	0.0899	2/23/2010@11:57:19			
246872004	1	69	-2.08	-2.27e-4	2/23/2010@11:58:12			
246872005	1	70	-0.139	0.0905	2/23/2010@11:59:05			
WCN100223-03	1	S3	104	4.98	2/23/2010@11:59:57			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			4.3 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			4.3 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100223-08	1	S7	-1.19	0.0412	2/23/2010@12:01:48			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.19 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.19 > -5.00					
Message			CCB Passed					
Action			Continue					
246872006	1	71	-1.15	0.0433	2/23/2010@12:03:37			
246872007	1	72	-1.05	0.0479	2/23/2010@12:04:30			
246872008	1	73	0.643	0.127	2/23/2010@12:05:22			
246881001	1	74	-2.08	-1.94e-4	2/23/2010@12:06:14			
246881002	1	75	-0.602	0.0689	2/23/2010@12:07:07			
246881003	1	76	-0.887	0.0555	2/23/2010@12:08:01			
246881004	1	77	-0.0611	0.0942	2/23/2010@12:08:55			
246881005	1	78	0.768	0.133	2/23/2010@12:09:49			
246881006	1	79	-0.774	0.0608	2/23/2010@12:10:43			
246881007	1	80	-0.623	0.0678	2/23/2010@12:11:37			
WCN100223-03	1	S3	105	5.00	2/23/2010@12:12:29			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								

Result:			4.7 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			4.7 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100223-08	1	S7	-1.05	0.0478	2/23/2010@12:14:20		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-1.05 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-1.05 > -5.00				
Message			CCB Passed				
Action			Continue				
246881008	1	81	-0.812	0.0590	2/23/2010@12:16:10		
246881009	1	82	-0.213	0.0871	2/23/2010@12:17:03		
246881010	1	83	1.65	0.174	2/23/2010@12:17:56		
246881011	1	84	-1.44	0.0294	2/23/2010@12:18:49		
1202046152|954516|MSD	1	10	82.2	3.95	2/23/2010@12:19:42		
1202046158|954519|MB	1	85	-1.23	0.0392	2/23/2010@12:20:35		
1202046165|LCS	1	86	27.6	1.39	2/23/2010@12:21:28	25.00	
247084001	1	87	-0.732	0.0627	2/23/2010@12:22:20		
247084002	1	88	-1.03	0.0489	2/23/2010@12:23:13		
247126001	1	89	-1.40	0.0313	2/23/2010@12:24:06		
WCN100223-03	1	S3	105	5.02	2/23/2010@12:24:58		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			5.1 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			5.1 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100223-08	1	S7	-1.23	0.0392	2/23/2010@12:26:48		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-1.23 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-1.23 > -5.00				
Message			CCB Passed				
Action			Continue				
247126002	1	90	-1.37	0.0329	2/23/2010@12:28:37		
247126003	1	91	-0.806	0.0593	2/23/2010@12:29:32		
247136001	1	92	-0.846	0.0574	2/23/2010@12:30:26		
247136002	1	93	-1.49	0.0274	2/23/2010@12:31:21		
247141001	1	94	-1.44	0.0296	2/23/2010@12:32:16		
247141002	1	95	-1.10	0.0454	2/23/2010@12:33:09		
247141003	1	96	1.05	0.146	2/23/2010@12:34:03		
247186001	1	97	-1.11	0.0450	2/23/2010@12:34:58		
1202046159|DUP	1	98	-0.879	0.0558	2/23/2010@12:35:51		
1202046161|MS	1	99	99.4	4.76	2/23/2010@12:36:44		
WCN100223-03	1	S3	104	4.98	2/23/2010@12:37:37		CCV
Known Conc:			0.00				
WCN100223-08	1	S7	-1.26	0.0382	2/23/2010@12:38:31		CCB
Known Conc:			0.00				
1202046163|MSD	1	100	82.4	3.96	2/23/2010@12:39:24		
247186002	1	101	-0.608	0.0685	2/23/2010@12:40:17		
1202046160|DUP	1	102	-1.18	0.0415	2/23/2010@12:41:10		
1202046162|MS	1	103	99.3	4.75	2/23/2010@12:42:03		
1202046164|MSD	1	104	99.5	4.76	2/23/2010@12:42:55		
247186003	1	105	-0.780	0.0605	2/23/2010@12:43:49		
247186004	1	106	0.0465	0.0992	2/23/2010@12:44:43		

247186005	1	107	-0.959	0.0521	2/23/2010@12:45:38		
247186006	1	108	-0.485	0.0743	2/23/2010@12:46:32		
247186007	1	109	-1.06	0.0473	2/23/2010@12:47:26		
WCN100223-03	1	S3	103	4.95	2/23/2010@12:48:19		CCV
Known Conc:			0.00				
WCN100223-08	1	S7	-1.16	0.0425	2/23/2010@12:49:13		CCB
Known Conc:			0.00				
247186008	1	110	-1.30	0.0360	2/23/2010@12:50:07		
247186009	1	111	-0.542	0.0716	2/23/2010@12:51:01		
247186010	1	112	-0.994	0.0504	2/23/2010@12:51:56		
1202046185|954529|MB	1	113	-1.55	0.0242	2/23/2010@12:52:50		
1202046192|LCS	1	114	52.8	2.57	2/23/2010@12:53:43		
246983002	1	115	-1.39	0.0319	2/23/2010@12:54:37		
247036005	1	116	0.513	0.121	2/23/2010@12:55:30		
1202046186|DUP	1	117	-1.91	0.00766	2/23/2010@12:56:23		
1202046188|MS	1	118	93.0	4.45	2/23/2010@12:57:17		
1202046190|MSD	1	119	105	5.03	2/23/2010@12:58:09		
WCN100223-03	1	S3	104	4.96	2/23/2010@12:59:01		CCV
Known Conc:			0.00				
WCN100223-08	1	S7	-1.46	0.0288	2/23/2010@12:59:56		CCB
Known Conc:			0.00				
247039001	1	120	-1.15	0.0433	2/23/2010@13:00:48		
247039002	1	121	-1.35	0.0338	2/23/2010@13:01:43		
247039003	1	122	-1.24	0.0391	2/23/2010@13:02:39		
247039004	1	123	-1.49	0.0273	2/23/2010@13:03:33		
247092001	1	124	-2.07	2.59e-4	2/23/2010@13:04:27		
247098001	1	125	-2.08	-2.07e-4	2/23/2010@13:05:21		
247098002	1	126	-1.26	0.0378	2/23/2010@13:06:15		
247098003	1	127	-1.54	0.0247	2/23/2010@13:07:10		
247098004	1	128	-1.58	0.0230	2/23/2010@13:08:04		
247109001	1	129	-1.47	0.0281	2/23/2010@13:08:58		
WCN100223-03	1	S3	103	4.94	2/23/2010@13:09:50		CCV
Known Conc:			0.00				
WCN100223-08	1	S7	-0.806	0.0593	2/23/2010@13:10:44		CCB
Known Conc:			0.00				
247109002	1	130	-1.40	0.0315	2/23/2010@13:11:38		
1202046187|DUP	1	131	-1.64	0.0200	2/23/2010@13:12:31		
1202046189|MS	1	132	108	5.17	2/23/2010@13:13:25		
1202046191|MSD	1	133	86.4	4.14	2/23/2010@13:14:18		
247127001	1	134	-1.37	0.0327	2/23/2010@13:15:11		
247139001	1	135	-1.34	0.0342	2/23/2010@13:16:04		
247179001	1	136	-2.08	-2.07e-4	2/23/2010@13:16:59		
247182001	1	137	-1.43	0.0303	2/23/2010@13:17:54		
247183001	1	138	-1.38	0.0326	2/23/2010@13:18:48		
247192001	1	139	-1.93	0.00645	2/23/2010@13:19:43		
WCN100223-03	1	S3	104	4.98	2/23/2010@13:20:35		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			4.2 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			4.2 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100223-08	1	S7	-1.39	0.0321	2/23/2010@13:22:26		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-1.39 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-1.39 > -5.00				
Message			CCB Passed				
Action			Continue				
1202049704|955981|MB	1	140	-2.06	4.71e-4	2/23/2010@13:24:16		
1202049711|LCS	1	141	54.3	2.64	2/23/2010@13:25:10		
246941002	1	142	-1.47	0.0283	2/23/2010@13:26:05		

1202049705	DUP	1	143	-2.02	0.00224	2/23/2010@13:26:59			
1202049707	MS	1	144	108	5.14	2/23/2010@13:27:53			
1202049709	MSD	1	145	115	5.47	2/23/2010@13:28:47			
247203001		1	146	-1.26	0.0380	2/23/2010@13:29:41			
1202049706	DUP	1	147	-2.03	0.00182	2/23/2010@13:30:34			
1202049708	MS	1	148	109	5.22	2/23/2010@13:31:28			
1202049710	MSD	1	149	102	4.89	2/23/2010@13:32:21			
WCN100223-03		1	S3	104	4.99	2/23/2010@13:33:13			CCV
			Known Conc:	100					
DQM Test: > + Percent Relative Difference									
			Result:	4.3 < 10.0					
			Message	CCV Passed					
			Action	Continue					
DQM Test: < - Percent Relative Difference									
			Result:	4.3 < 10.0					
			Message	CCV Passed					
			Action	Continue					
WCN100223-08		1	S7	-1.25	0.0385	2/23/2010@13:35:03			CCB
			Known Conc:	0.00					
DQM Test: > + Concentration Limit									
			Result:	-1.25 < 5.00					
			Message	CCB Passed					
			Action	Continue					
DQM Test: < - Concentration Limit									
			Result:	-1.25 > -5.00					
			Message	CCB Passed					
			Action	Continue					
247204001		1	150	3.39	0.256	2/23/2010@13:36:52			
247244001		1	151	2.20	0.200	2/23/2010@13:37:47			
247250001		1	152	-1.65	0.0198	2/23/2010@13:38:42			
247250002		1	153	-1.43	0.0302	2/23/2010@13:39:37			
247256001		1	154	-1.39	0.0317	2/23/2010@13:40:32			
247256002		1	155	-1.28	0.0369	2/23/2010@13:41:27			
247273001		1	156	247	11.7	2/23/2010@13:42:22			
247322001		1	157	-1.24	0.0389	2/23/2010@13:43:15			
247322002		1	158	-1.40	0.0314	2/23/2010@13:44:09			
247335001		1	159	-1.39	0.0318	2/23/2010@13:45:04			
WCN100223-03		1	S3	105	5.01	2/23/2010@13:45:56			CCV
			Known Conc:	100					
DQM Test: > + Percent Relative Difference									
			Result:	4.9 < 10.0					
			Message	CCV Passed					
			Action	Continue					
DQM Test: < - Percent Relative Difference									
			Result:	4.9 < 10.0					
			Message	CCV Passed					
			Action	Continue					
WCN100223-08		1	S7	-1.55	0.0242	2/23/2010@13:47:47			CCB
			Known Conc:	0.00					
DQM Test: > + Concentration Limit									
			Result:	-1.55 < 5.00					
			Message	CCB Passed					
			Action	Continue					
DQM Test: < - Concentration Limit									
			Result:	-1.55 > -5.00					
			Message	CCB Passed					
			Action	Continue					
247339001		1	160	-1.25	0.0386	2/23/2010@13:49:37			
247339002		1	161	-2.07	1.64e-4	2/23/2010@13:50:31			
247350001		1	162	1.51	0.168	2/23/2010@13:51:25			
247434001		1	163	-1.33	0.0346	2/23/2010@13:52:18			
247434002		1	164	-0.955	0.0523	2/23/2010@13:53:12			
247559001		1	165	-1.30	0.0363	2/23/2010@13:54:05			
247560001		1	166	-1.67	0.0188	2/23/2010@13:55:00			
247567001		1	167	-1.26	0.0379	2/23/2010@13:55:56			
247273001		1	156	131	6.22	2/23/2010@13:56:50		2.00	
WCN100223-03		1	S3	105	5.02	2/23/2010@13:57:43			CCV
			Known Conc:	100					

DQM Test: > + Percent Relative Difference						
Result:		5.1 < 10.0				
Message		CCV Passed				
Action		Continue				
DQM Test: < - Percent Relative Difference						
Result:		5.1 < 10.0				
Message		CCV Passed				
Action		Continue				
WCN100223-08	1	S7	-1.21	0.0401	2/23/2010@13:59:33	CCB
Known Conc:		0.00				
DQM Test: > + Concentration Limit						
Result:		-1.21 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-1.21 > -5.00				
Message		CCB Passed				
Action		Continue				

Analyte Properties Table for OM_2-23-2010_11-19-05.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Calibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

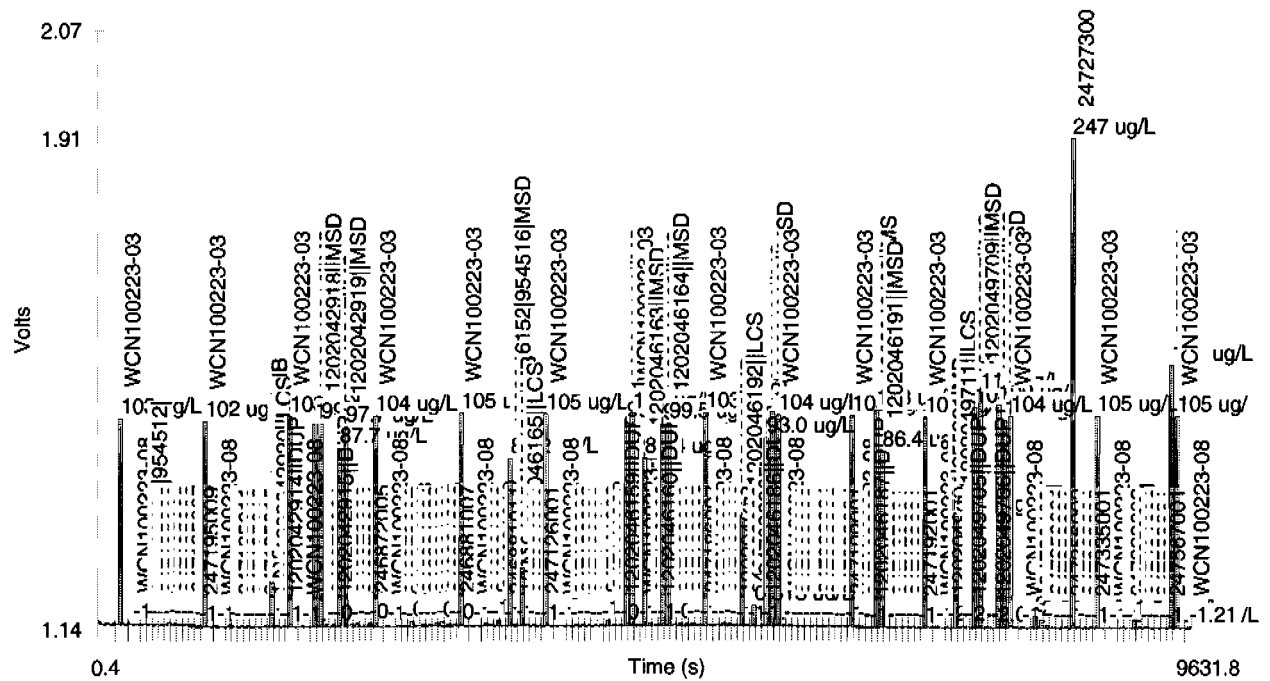
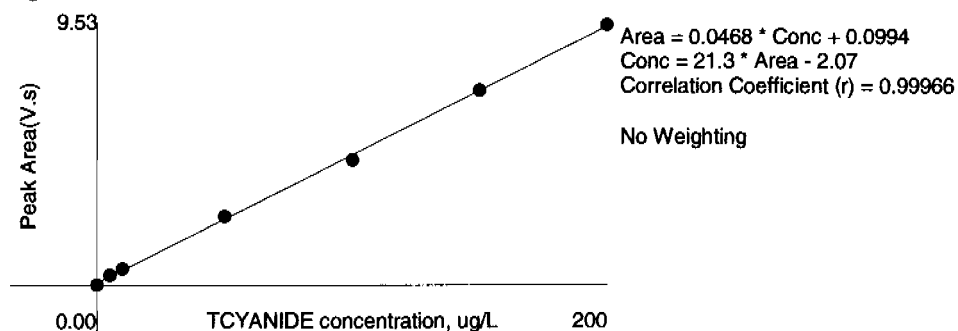


Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.53	0.622	-0.6	2/23/2010	10:08:00
2	150	1	7.13	0.468	-0.1	2/23/2010	10:08:52
3	100	1	4.60	0.301	3.8	2/23/2010	10:09:44
4	50.0	1	2.53	0.167	-3.7	2/23/2010	10:10:37
5	10.0	1	0.617	0.0399	-8.7	2/23/2010	10:11:31
6	5.00	1	0.385	0.0238	-15.5	2/23/2010	10:12:24
7	0.00	1	0.0245	0.00128		2/23/2010	10:13:19

Figure 1: TCYANIDE



Nitrate Nitrite by Cadmium Reduction

This is runlog lachat3

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
1.5 PPM		1	axh3	2/25/2010 10:10:26	OM_2-25-2010_10-08-41
1.0 PPM		1	axh3	2/25/2010 10:11:38	OM_2-25-2010_10-08-41
0.5 ppm		1	axh3	2/25/2010 10:12:50	OM_2-25-2010_10-08-41
0.1 ppm		1	axh3	2/25/2010 10:14:04	OM_2-25-2010_10-08-41
0.05 ppm		1	axh3	2/25/2010 10:15:17	OM_2-25-2010_10-08-41
ICAL-00		1	axh3	2/25/2010 10:16:31	OM_2-25-2010_10-08-41
1.0 ppm ICV		1	axh3	2/25/2010 10:18:53	OM_2-25-2010_10-08-41
ICB		1	axh3	2/25/2010 10:21:15	OM_2-25-2010_10-08-41
Nitrate 1.0 ppm		1	axh3	2/25/2010 10:23:34	OM_2-25-2010_10-08-41
Nitrite 1.0 ppm		1	axh3	2/25/2010 10:25:54	OM_2-25-2010_10-08-41
1202051741	956913	1	axh3	2/25/2010 10:28:15	OM_2-25-2010_10-08-41
1202051746	956913	1	axh3	2/25/2010 10:29:29	OM_2-25-2010_10-08-41
247772001	956913	250	axh3	2/25/2010 10:30:42	OM_2-25-2010_10-08-41
247772002	956913	250	axh3	2/25/2010 10:31:55	OM_2-25-2010_10-08-41
247772003	956913	100	axh3	2/25/2010 10:33:07	OM_2-25-2010_10-08-41
247772004	956913	250	axh3	2/25/2010 10:34:20	OM_2-25-2010_10-08-41
1202051743	956913	250	axh3	2/25/2010 10:35:33	OM_2-25-2010_10-08-41
1202051745	956913	250	axh3	2/25/2010 10:36:45	OM_2-25-2010_10-08-41
247772006	956913	250	axh3	2/25/2010 10:37:57	OM_2-25-2010_10-08-41
247844003	956913	10	axh3	2/25/2010 10:39:09	OM_2-25-2010_10-08-41
1.0 ppm CCV		1	axh3	2/25/2010 10:40:22	OM_2-25-2010_10-08-41
CCB		1	axh3	2/25/2010 10:42:44	OM_2-25-2010_10-08-41
1202051742	956913	10	axh3	2/25/2010 10:45:04	OM_2-25-2010_10-08-41
1202051744	956913	10	axh3	2/25/2010 10:46:16	OM_2-25-2010_10-08-41
247772004	956913	250	axh3	2/25/2010 10:47:29	OM_2-25-2010_10-08-41
1202051743	956913	250	axh3	2/25/2010 10:48:41	OM_2-25-2010_10-08-41
1202051745	956913	250	axh3	2/25/2010 10:49:54	OM_2-25-2010_10-08-41
247844006	956913	25	axh3	2/25/2010 10:51:06	OM_2-25-2010_10-08-41
247844009	956913	25	axh3	2/25/2010 10:52:18	OM_2-25-2010_10-08-41
247844012	956913	25	axh3	2/25/2010 10:53:29	OM_2-25-2010_10-08-41
247844015	956913	10	axh3	2/25/2010 10:54:42	OM_2-25-2010_10-08-41
247844018	956913	10	axh3	2/25/2010 10:55:55	OM_2-25-2010_10-08-41
1.0 ppm CCV		1	axh3	2/25/2010 10:57:08	OM_2-25-2010_10-08-41
CCB		1	axh3	2/25/2010 10:59:29	OM_2-25-2010_10-08-41
247844022	956913	50	axh3	2/25/2010 11:01:51	OM_2-25-2010_10-08-41
247844025	956913	50	axh3	2/25/2010 11:03:03	OM_2-25-2010_10-08-41
247844029	956913	10	axh3	2/25/2010 11:04:15	OM_2-25-2010_10-08-41
247844032	956913	5	axh3	2/25/2010 11:05:28	OM_2-25-2010_10-08-41
247844035	956913	10	axh3	2/25/2010 11:06:41	OM_2-25-2010_10-08-41
247844038	956913	5	axh3	2/25/2010 11:07:54	OM_2-25-2010_10-08-41
247852001	956913	5	axh3	2/25/2010 11:09:06	OM_2-25-2010_10-08-41
1202050852	956481	1	axh3	2/25/2010 11:10:18	OM_2-25-2010_10-08-41
1202050856	956481	1	axh3	2/25/2010 11:11:30	OM_2-25-2010_10-08-41
247762001	956481	1	axh3	2/25/2010 11:12:42	OM_2-25-2010_10-08-41
1.0 ppm CCV		1	axh3	2/25/2010 11:13:54	OM_2-25-2010_10-08-41
CCB		1	axh3	2/25/2010 11:16:16	OM_2-25-2010_10-08-41
1202050853*	956481	1	axh3	2/25/2010 11:18:36	OM_2-25-2010_10-08-41
1202050854*	956481	1	axh3	2/25/2010 11:19:47	OM_2-25-2010_10-08-41
1202050855*	956481	1	axh3	2/25/2010 11:20:59	OM_2-25-2010_10-08-41
1202050857*	956483	1	axh3	2/25/2010 11:22:12	OM_2-25-2010_10-08-41
1202050860*	956483	1	axh3	2/25/2010 11:23:25	OM_2-25-2010_10-08-41
247335001*	956483	5	axh3	2/25/2010 11:24:38	OM_2-25-2010_10-08-41
1202050858*	956483	5	axh3	2/25/2010 11:25:51	OM_2-25-2010_10-08-41
1202050859*	956483	5	axh3	2/25/2010 11:27:04	OM_2-25-2010_10-08-41
247768002*	956483	25	axh3	2/25/2010 11:28:16	OM_2-25-2010_10-08-41
1202051739*	956483	25	axh3	2/25/2010 11:29:28	OM_2-25-2010_10-08-41
1.0 ppm CCV		1	axh3	2/25/2010 11:30:40	OM_2-25-2010_10-08-41

Original Run Filename: OM_2-25-2010_10-08-41.OMN created 2/25/2010 10:08:41
 Original Run Author's Signature: [lachat]
 Current Run Filename: OM_2-25-2010_10-08-41.OMN last modified 2/25/2010 11:32:02
 Current Run Author's Signature: [lachat]
 Description: EPA 353.2
 Cadmium Column 9056CAJ
 LCS nominal 1.0 mg/L

Sample	Rep.	Cup No.	Channel 1		Detection Time	ADF	MDF	Description
			NO3 + NO2 Conc. (mg/L)	Area (Vs)				
WTR100225-26	1	S9	1.50	15.7	2/25/2010@10:10:26			1.5 PPM
WTR100225-25	1	S10	1.00	10.3	2/25/2010@10:11:38			1.0 PPM
WTR100225-24	1	S11	0.500	5.18	2/25/2010@10:12:50			0.5 ppm
WTR100225-23	1	S12	0.100	1.07	2/25/2010@10:14:04			0.1 ppm
WTR100225-21	1	S13	0.0500	0.530	2/25/2010@10:15:17			0.05 ppm
0.0ppm	1	S15	0.00	-0.0208	2/25/2010@10:16:31			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
Result:			0.99996 > 0.99500					
Message			Calibration Passed					
Action			Continue					
WTR100225-27 ICV	1	S16	0.978	10.2	2/25/2010@10:18:53			1.0 ppm ICV
Known Conc:			1.00					
DQM Test: > + Concentration Limit								
Result:			0.978 < 1.10					
Message			ICV Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.978 > 0.894					
Message			ICV Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
ICB	1	S15	-0.00122	-0.0225	2/25/2010@10:21:15			ICB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-0.00122 < 0.0500					
Message			ICB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.00122 > -0.0500					
Message			ICB Passed					
Action			Continue					
WTR100225-22	1	S1	0.955	9.92	2/25/2010@10:23:34			Nitrate 1.0 ppm
Known Conc:			1.00					
DQM Test: > + Concentration Limit								
Result:			0.955 < 1.10					
Message			Nitrate Standard Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.955 > 0.894					
Message			Nitrate Standard Passed					
Action			Continue					
WTR100225-28	1	S2	0.945	9.82	2/25/2010@10:25:54			Nitrite 1.0 ppm
Known Conc:			1.00					
DQM Test: > + Concentration Limit								
Result:			0.945 < 1.10					
Message			Nitrite Standard Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.945 > 0.894					
Message			Nitrite Standard Passed					
Action			Continue					
1202051741|956913|MB	1	1	0.00449	0.0370	2/25/2010@10:28:15			
1202051746|LCS	1	2	0.986	10.2	2/25/2010@10:29:29			
247772001	1	3	0.541	5.61	2/25/2010@10:30:42		250.00	
247772002	1	4	0.508	5.27	2/25/2010@10:31:55		250.00	
247772003	1	5	0.122	1.26	2/25/2010@10:33:07		100.00	

247772004	1	6	0.469	4.87	2/25/2010@10:34:20	250.00	
1202051743||DUP	1	7	0.461	4.79	2/25/2010@10:35:33	250.00	
1202051745||PS	1	8	1.34	13.9	2/25/2010@10:36:45	250.00	
247772006	1	9	0.493	5.12	2/25/2010@10:37:57	250.00	
247844003	1	10	0.201	2.08	2/25/2010@10:39:09	10.00	
WTR100225-25 CCV	1	S10	0.992	10.3	2/25/2010@10:40:22		1.0 ppm CCV
Known Conc:			1.00				
DQM Test: > + Concentration Limit							
Result:			0.992 < 1.10				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			0.992 > 0.894				
Message			CCV Passed				
Action			Continue				
CCB	1	S15	-0.00189	-0.0294	2/25/2010@10:42:44		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-0.00189 < 0.0500				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-0.00189 > -0.0500				
Message			CCB Passed				
Action			Continue				
1202051742||DUP	1	11	0.197	2.04	2/25/2010@10:45:04	10.00	
1202051744||PS	1	12	1.20	12.5	2/25/2010@10:46:16	10.00	
247772004	1	6	0.437	4.53	2/25/2010@10:47:29	250.00	
1202051743||DUP	1	7	0.461	4.79	2/25/2010@10:48:41	250.00	
1202051745||PS	1	8	1.44	14.9	2/25/2010@10:49:54	250.00	
247844006	1	13	0.0858	0.882	2/25/2010@10:51:06	25.00	
247844009	1	14	0.0942	0.970	2/25/2010@10:52:18	25.00	
247844012	1	15	0.0916	0.942	2/25/2010@10:53:29	25.00	
247844015	1	16	0.217	2.24	2/25/2010@10:54:42	10.00	
247844018	1	17	0.153	1.59	2/25/2010@10:55:55	10.00	
WTR100225-25 CCV	1	S10	0.978	10.2	2/25/2010@10:57:08		1.0 ppm CCV
Known Conc:			1.00				
DQM Test: > + Concentration Limit							
Result:			0.978 < 1.10				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			0.978 > 0.894				
Message			CCV Passed				
Action			Continue				
CCB	1	S15	-0.00126	-0.0228	2/25/2010@10:59:29		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-0.00126 < 0.0500				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-0.00126 > -0.0500				
Message			CCB Passed				
Action			Continue				
247844022	1	18	0.199	2.05	2/25/2010@11:01:51	50.00	
247844025	1	19	0.148	1.53	2/25/2010@11:03:03	50.00	
247844029	1	20	0.240	2.49	2/25/2010@11:04:15	10.00	
247844032	1	21	0.433	4.50	2/25/2010@11:05:28	5.00	
247844035	1	22	0.216	2.23	2/25/2010@11:06:41	10.00	
247844038	1	23	0.411	4.27	2/25/2010@11:07:54	5.00	
247852001	1	24	0.0657	0.674	2/25/2010@11:09:06	5.00	
1202050852|956481|MB	1	25	0.00844	0.0780	2/25/2010@11:10:18		
1202050856||LCS	1	26	0.974	10.1	2/25/2010@11:11:30		
247762001	1	27	0.0340	0.344	2/25/2010@11:12:42		
WTR100225-25 CCV	1	S10	0.965	10.0	2/25/2010@11:13:54		1.0 ppm CCV
Known Conc:			1.00				
DQM Test: > + Concentration Limit							

Result:			0.965 < 1.10					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.965 > 0.894					
Message			CCV Passed					
Action			Continue					
CCB	1	S15	-0.0111	-0.125	2/25/2010@11:16:16			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-0.0111 < 0.0500					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.0111 > -0.0500					
Message			CCB Passed					
Action			Continue					
1202050853	DUP	1	28	0.0380	0.386	2/25/2010@11:18:36		
1202050854	MS	1	29	1.02	10.6	2/25/2010@11:19:47		
1202050855	MSD	1	30	1.11	11.5	2/25/2010@11:20:59		
1202050857	956483|MB	1	31	0.0156	0.153	2/25/2010@11:22:12		
1202050860	LCS	1	32	1.02	10.6	2/25/2010@11:23:25		
247335001		1	33	0.211	2.18	2/25/2010@11:24:38		5.00
1202050858	DUP	1	34	-0.0352	-0.375	2/25/2010@11:25:51		5.00
1202050859	PS	1	35	0.196	2.03	2/25/2010@11:27:04		5.00
247768002		1	39	0.480	4.98	2/25/2010@11:28:16		25.00
1202051739	DUP	1	40	0.492	5.11	2/25/2010@11:29:28		25.00
WTR100225-25 CCV		1	S10	1.12	11.6	2/25/2010@11:30:40		1.0 ppm CCV
Known Conc:			1.00					
DQM Test: > + Concentration Limit								
Result:			1.12 > 1.10					
Message			CCV Failed					
Action			Stop Run					
DQM Test: < - Concentration Limit								
Result:			1.12 > 0.894					
Message			CCV Passed					
Action			Continue					

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	1.50	1	15.7	1.21	-0.4	2/25/2010	10:11:46
2	1.00	1	10.3	0.799	0.9	2/25/2010	10:12:57
3	0.500	1	5.18	0.398	0.2	2/25/2010	10:14:10
4	0.100	1	1.07	0.0824	-3.4	2/25/2010	10:15:23
5	0.0500	1	0.530	0.0397	-3.9	2/25/2010	10:16:37
6	0.00	1	-0.0208	-8.52e-4		2/25/2010	10:17:50

Area = $10.4 * \text{Conc} - 0.00931$
 Conc = $0.0962 * \text{Area} + 9.36\text{e-}4$
 Correlation Coefficient (r) = 0.99996

No Weighting

NO ₃ + NO ₂ concentration (mg/L)	Peak Area (V.s)
0.00	0.00
0.10	0.50
0.20	1.00
0.80	4.00
1.50	15.70

This is runlog lachat3

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
1.0 ppm CCV		1	axh3	2/25/2010 13:41:38	OM_2-25-2010_13-40-36
CCB		1	axh3	2/25/2010 13:44:00	OM_2-25-2010_13-40-36
1202050853	956481	1	axh3	2/25/2010 13:46:20	OM_2-25-2010_13-40-36
1202050854	956481	1	axh3	2/25/2010 13:47:31	OM_2-25-2010_13-40-36
1202050855	956481	1	axh3	2/25/2010 13:48:43	OM_2-25-2010_13-40-36
1202050857	956483	1	axh3	2/25/2010 13:49:56	OM_2-25-2010_13-40-36
1202050860	956483	1	axh3	2/25/2010 13:51:09	OM_2-25-2010_13-40-36
247335001	956483	10	axh3	2/25/2010 13:52:23	OM_2-25-2010_13-40-36
1202050858	956483	10	axh3	2/25/2010 13:53:35	OM_2-25-2010_13-40-36
1202050859	956483	10	axh3	2/25/2010 13:54:48	OM_2-25-2010_13-40-36
247768002	956483	25	axh3	2/25/2010 13:56:00	OM_2-25-2010_13-40-36
1202051739	956483	25	axh3	2/25/2010 13:57:12	OM_2-25-2010_13-40-36
1.0 ppm CCV		1	axh3	2/25/2010 13:58:24	OM_2-25-2010_13-40-36
CCB		1	axh3	2/25/2010 14:00:46	OM_2-25-2010_13-40-36
1202051740	956483	25	axh3	2/25/2010 14:03:06	OM_2-25-2010_13-40-36
247335001	956483	10	axh3	2/25/2010 14:04:20	OM_2-25-2010_13-40-36
1202050858	956483	10	axh3	2/25/2010 14:05:32	OM_2-25-2010_13-40-36
1202050859	956483	10	axh3	2/25/2010 14:06:45	OM_2-25-2010_13-40-36
247560001	956483	5	axh3	2/25/2010 14:07:57	OM_2-25-2010_13-40-36
247763001	956483	5	axh3	2/25/2010 14:09:10	OM_2-25-2010_13-40-36
247763002	956483	5	axh3	2/25/2010 14:10:23	OM_2-25-2010_13-40-36
247768004	956483	10	axh3	2/25/2010 14:11:35	OM_2-25-2010_13-40-36
247768006	956483	10	axh3	2/25/2010 14:12:47	OM_2-25-2010_13-40-36
247768008	956483	10	axh3	2/25/2010 14:13:58	OM_2-25-2010_13-40-36
1.0 ppm CCV		1	axh3	2/25/2010 14:15:11	OM_2-25-2010_13-40-36
CCB		1	axh3	2/25/2010 14:17:33	OM_2-25-2010_13-40-36
247768010	956483	5	axh3	2/25/2010 14:19:53	OM_2-25-2010_13-40-36
247852002	956483	5	axh3	2/25/2010 14:21:05	OM_2-25-2010_13-40-36
247852003	956483	5	axh3	2/25/2010 14:22:19	OM_2-25-2010_13-40-36
247852004	956483	5	axh3	2/25/2010 14:23:32	OM_2-25-2010_13-40-36
247852005	956483	5	axh3	2/25/2010 14:24:44	OM_2-25-2010_13-40-36
247852006	956483	5	axh3	2/25/2010 14:25:58	OM_2-25-2010_13-40-36
247852007	956483	5	axh3	2/25/2010 14:27:10	OM_2-25-2010_13-40-36
247852008	956483	5	axh3	2/25/2010 14:28:22	OM_2-25-2010_13-40-36
247852009	956483	5	axh3	2/25/2010 14:29:35	OM_2-25-2010_13-40-36
247852010	956483	5	axh3	2/25/2010 14:30:48	OM_2-25-2010_13-40-36
1.0 ppm CCV		1	axh3	2/25/2010 14:32:00	OM_2-25-2010_13-40-36
CCB		1	axh3	2/25/2010 14:34:22	OM_2-25-2010_13-40-36
247852013	956483	5	axh3	2/25/2010 14:36:41	OM_2-25-2010_13-40-36
247852014	956483	5	axh3	2/25/2010 14:37:54	OM_2-25-2010_13-40-36
1202053242	957559	1	axh3	2/25/2010 14:39:06	OM_2-25-2010_13-40-36
1202053247	957559	1	axh3	2/25/2010 14:40:18	OM_2-25-2010_13-40-36
247780001	957559	5	axh3	2/25/2010 14:41:29	OM_2-25-2010_13-40-36
1202053243	957559	5	axh3	2/25/2010 14:42:42	OM_2-25-2010_13-40-36
1202053245	957559	5	axh3	2/25/2010 14:43:54	OM_2-25-2010_13-40-36
247817001	957559	5	axh3	2/25/2010 14:45:09	OM_2-25-2010_13-40-36
1202053246	957559	5	axh3	2/25/2010 14:46:20	OM_2-25-2010_13-40-36
1202053244	957559	5	axh3	2/25/2010 14:47:33	OM_2-25-2010_13-40-36
1.0 ppm CCV		1	axh3	2/25/2010 14:48:45	OM_2-25-2010_13-40-36
CCB		1	axh3	2/25/2010 14:51:07	OM_2-25-2010_13-40-36
247913001	957559	10	axh3	2/25/2010 14:53:28	OM_2-25-2010_13-40-36
1202053328	957559	10	axh3	2/25/2010 14:54:41	OM_2-25-2010_13-40-36
1202053327	957559	10	axh3	2/25/2010 14:55:53	OM_2-25-2010_13-40-36
247829001	957559	5	axh3	2/25/2010 14:57:05	OM_2-25-2010_13-40-36
247913002	957559	10	axh3	2/25/2010 14:58:18	OM_2-25-2010_13-40-36
247949001	957559	5	axh3	2/25/2010 14:59:30	OM_2-25-2010_13-40-36
1.0 ppm CCV		1	axh3	2/25/2010 15:01:49	OM_2-25-2010_13-40-36
CCB		1	axh3	2/25/2010 15:04:11	OM_2-25-2010_13-40-36

Original Run Filename: OM_2-25-2010_13-40-36.OMN created 2/25/2010 13:40:36
 Original Run Author's Signature: [lachat]
 Current Run Filename: OM_2-25-2010_13-40-36.OMN last modified 2/25/2010 15:05:33
 Current Run Author's Signature: [lachat]
 Description: EPA 353.2
 Cadmium Culum 9056CAJ
 LCS nominal 1.0 mg/L

Sample	Rep.	Cup No.	Channel 1		Detection Time	ADF	MDF	Description
			NO3 + NO2 Conc. (mg/L)	Area (Vs)				
WTR100225-25 CCV	1	S10	1.00	10.4	2/25/2010@13:41:38			1.0 ppm CCV
Known Conc:			1.00					
DQM Test: > + Concentration Limit								
Result:			1.00 < 1.10					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			1.00 > 0.894					
Message			CCV Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
CCB	1	S15	0.00223	0.0134	2/25/2010@13:44:00			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			0.00223 < 0.0500					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.00223 > -0.0500					
Message			CCB Passed					
Action			Continue					
1202050853|956481|DUP	1	28	0.0289	0.291	2/25/2010@13:46:20			
1202050854|MS	1	29	0.901	9.36	2/25/2010@13:47:31			
1202050855|MSD	1	30	0.947	9.84	2/25/2010@13:48:43			
1202050857|956483|MB	1	31	0.00299	0.0213	2/25/2010@13:49:56			
1202050860|LCS	1	32	0.962	9.99	2/25/2010@13:51:09			
247335001	1	33	-0.0102	-0.116	2/25/2010@13:52:23		10.00	
1202050858|DUP	1	34	-0.00794	-0.0923	2/25/2010@13:53:35		10.00	
1202050859|PS	1	35	0.601	6.24	2/25/2010@13:54:48		10.00	
247768002	1	39	0.401	4.16	2/25/2010@13:56:00		25.00	
1202051739|DUP	1	40	0.382	3.96	2/25/2010@13:57:12		25.00	
WTR100225-25 CCV	1	S10	0.939	9.76	2/25/2010@13:58:24			1.0 ppm CCV
Known Conc:			1.00					
DQM Test: > + Concentration Limit								
Result:			0.939 < 1.10					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.939 > 0.894					
Message			CCV Passed					
Action			Continue					
CCB	1	S15	-0.00130	-0.0233	2/25/2010@14:00:46			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-0.00130 < 0.0500					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.00130 > -0.0500					
Message			CCB Passed					
Action			Continue					
1202051740|PS	1	41	1.35	14.0	2/25/2010@14:03:06		25.00	
247335001	1	33	0.00583	0.0509	2/25/2010@14:04:20		10.00	
1202050858|DUP	1	34	0.00661	0.0590	2/25/2010@14:05:32		10.00	
1202050859|PS	1	35	0.825	8.57	2/25/2010@14:06:45		10.00	
247560001	1	36	0.0495	0.505	2/25/2010@14:07:57		5.00	

247763001	1	37	0.0950	0.978	2/25/2010@14:09:10	5.00	
247763002	1	38	0.194	2.00	2/25/2010@14:10:23	5.00	
247768004	1	42	0.399	4.14	2/25/2010@14:11:35	10.00	
247768006	1	43	0.740	7.68	2/25/2010@14:12:47	10.00	
247768008	1	44	0.560	5.82	2/25/2010@14:13:58	10.00	
WTR100225-25 CCV	1	S10	0.951	9.88	2/25/2010@14:15:11		1.0 ppm CCV
Known Conc:			1.00				
DQM Test: > + Concentration Limit							
Result:			0.951 < 1.10				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			0.951 > 0.894				
Message			CCV Passed				
Action			Continue				
CCB	1	S15	-0.00160	-0.0264	2/25/2010@14:17:33		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-0.00160 < 0.0500				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-0.00160 > -0.0500				
Message			CCB Passed				
Action			Continue				
247768010	1	45	0.00904	0.0843	2/25/2010@14:19:53	5.00	
247852002	1	46	0.0217	0.216	2/25/2010@14:21:05	5.00	
247852003	1	47	0.0937	0.965	2/25/2010@14:22:19	5.00	
247852004	1	48	0.0848	0.872	2/25/2010@14:23:32	5.00	
247852005	1	49	0.0142	0.138	2/25/2010@14:24:44	5.00	
247852006	1	50	0.0145	0.141	2/25/2010@14:25:58	5.00	
247852007	1	51	0.0486	0.495	2/25/2010@14:27:10	5.00	
247852008	1	52	0.0402	0.408	2/25/2010@14:28:22	5.00	
247852009	1	53	0.0389	0.395	2/25/2010@14:29:35	5.00	
247852010	1	54	0.0411	0.418	2/25/2010@14:30:48	5.00	
WTR100225-25 CCV	1	S10	0.912	9.47	2/25/2010@14:32:00		1.0 ppm CCV
Known Conc:			1.00				
DQM Test: > + Concentration Limit							
Result:			0.912 < 1.10				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			0.912 > 0.894				
Message			CCV Passed				
Action			Continue				
CCB	1	S15	-0.00146	-0.0250	2/25/2010@14:34:22		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-0.00146 < 0.0500				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-0.00146 > -0.0500				
Message			CCB Passed				
Action			Continue				
247852013	1	55	0.0828	0.851	2/25/2010@14:36:41	5.00	
247852014	1	56	0.0106	0.100	2/25/2010@14:37:54	5.00	
1202053242|957559|MB	1	57	0.00733	0.0665	2/25/2010@14:39:06		
1202053247|LCS	1	58	0.928	9.64	2/25/2010@14:40:18		
247780001	1	59	0.0147	0.143	2/25/2010@14:41:29	5.00	
1202053243|DUP	1	60	0.0121	0.116	2/25/2010@14:42:42	5.00	
1202053245|PS	1	61	0.913	9.48	2/25/2010@14:43:54	5.00	
247817001	1	63	0.0779	0.800	2/25/2010@14:45:09	5.00	
1202053246|PS	1	64	0.994	10.3	2/25/2010@14:46:20	5.00	
1202053244|DUP	1	65	0.0627	0.642	2/25/2010@14:47:33	5.00	
WTR100225-25 CCV	1	S10	0.901	9.36	2/25/2010@14:48:45		1.0 ppm CCV
Known Conc:			1.00				
DQM Test: > + Concentration Limit							

		Result:	0.901 < 1.10				
		Message	CCV Passed				
		Action	Continue				
DQM Test: < - Concentration Limit							
		Result:	0.901 > 0.894				
		Message	CCV Passed				
		Action	Continue				
CCB	1	S15	-1.44e-4	-0.0112	2/25/2010@14:51:07		CCB
		Known Conc:	0.00				
DQM Test: > + Concentration Limit							
		Result:	-1.44e-4 < 0.0500				
		Message	CCB Passed				
		Action	Continue				
DQM Test: < - Concentration Limit							
		Result:	-1.44e-4 > -0.0500				
		Message	CCB Passed				
		Action	Continue				
247913001	1	67	0.184	1.90	2/25/2010@14:53:28		10.00
1202053328	PS	1	68	1.16	12.1	2/25/2010@14:54:41	10.00
1202053327	DUP	1	69	0.174	1.80	2/25/2010@14:55:53	10.00
247829001	1	66	0.191	1.97	2/25/2010@14:57:05		5.00
247913002	1	70	-0.0138	-0.153	2/25/2010@14:58:18		10.00
247949001	1	71	0.154	1.59	2/25/2010@14:59:30		5.00
WTR100225-25 CCV	1	S10	0.936	9.73	2/25/2010@15:01:49		1.0 ppm CCV
		Known Conc:	1.00				
DQM Test: > + Concentration Limit							
		Result:	0.936 < 1.10				
		Message	CCV Passed				
		Action	Continue				
DQM Test: < - Concentration Limit							
		Result:	0.936 > 0.894				
		Message	CCV Passed				
		Action	Continue				
CCB	1	S15	-0.00147	-0.0250	2/25/2010@15:04:11		CCB
		Known Conc:	0.00				
DQM Test: > + Concentration Limit							
		Result:	-0.00147 < 0.0500				
		Message	CCB Passed				
		Action	Continue				
DQM Test: < - Concentration Limit							
		Result:	-0.00147 > -0.0500				
		Message	CCB Passed				
		Action	Continue				

Channel 1 (NO3 + NO2) : Current View

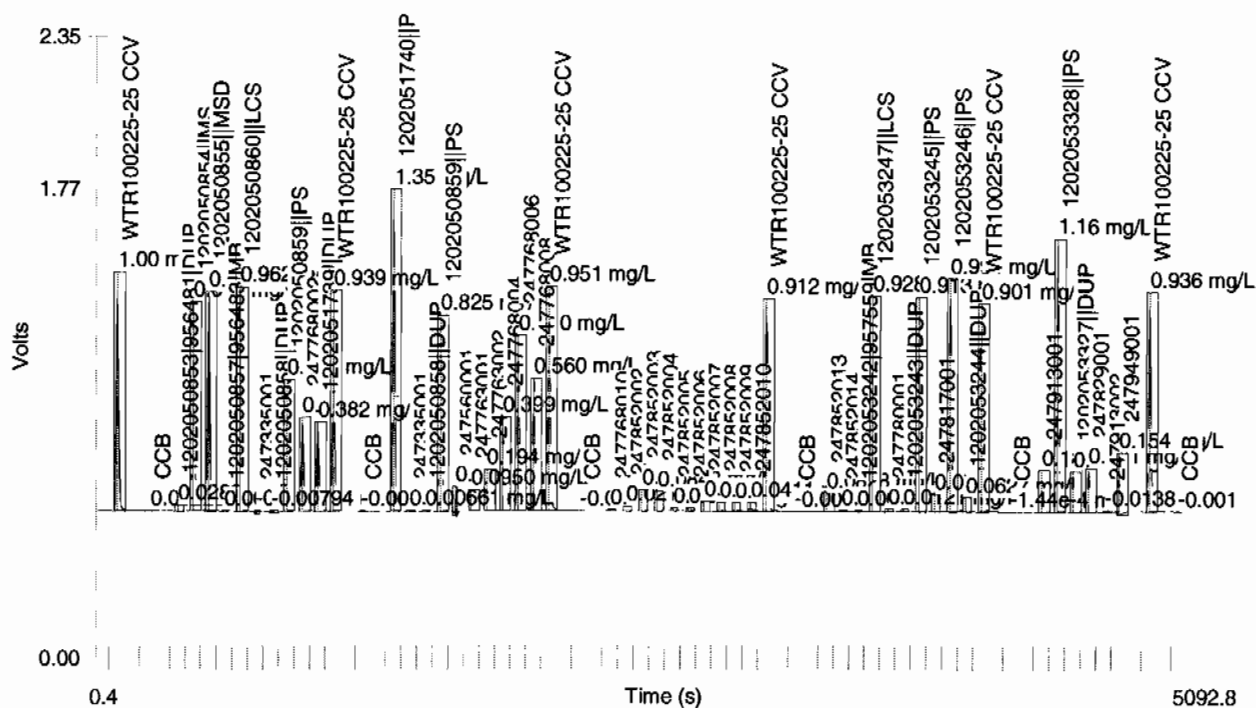
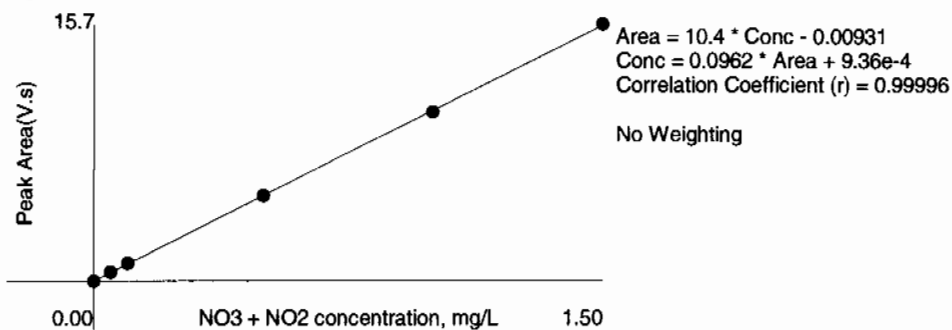


Table 1: NO3 + NO2

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	1.50	1	15.7	1.21	-0.4	2/25/2010	10:11:46
2	1.00	1	10.3	0.799	0.9	2/25/2010	10:12:57
3	0.500	1	5.18	0.398	0.2	2/25/2010	10:14:10
4	0.100	1	1.07	0.0824	-3.4	2/25/2010	10:15:23
5	0.0500	1	0.530	0.0397	-3.9	2/25/2010	10:16:37
6	0.00	1	-0.0208	-8.52e-4		2/25/2010	10:17:50

Figure 1: NO3 + NO2



Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr. 25-FEB-10	Division: Industrial	Quality Criteria: Specifications	Type: Process			
Instrument Type: LACHAT Flow Injection Analyzer	Test / Method: EPA 353.2	Matrix Type: Liquid	Client Code: LANL			
Batch ID: 956483	Sample Numbers: See Below					
Potentially affected work order(s)(SDG): 247335(10-1906),247560(10-1951),247763,247768,247852						
Application Issues: Failed Recovery for MS/PS						
Specification and Requirements Exception Description:		DER Disposition:				
1. Failed Recovery for PS: QC 1202050859PS		1. The spike recovery falls outside of the GEL acceptance limits but within the client specified limits.				

Originator's Name:

Aubrey Kingsbury 25-FEB-10

Data Validator/Group Leader:

Julia Hamilton 05-MAR-10

General Chemistry

Analysis

Case Narrative

**General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1951-1**

Method/Analysis Information

Product: pH
Analytical Batch: 956097 **Method:** SW9045C pH

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9045C/9045D:

Sample ID	Client ID
247561001	RE15-10-8314
247561002	RE15-10-8313
247561003	RE15-10-8312
247561004	RE15-10-8315
247561005	RE15-10-8311
247561006	RE15-10-8310
247561007	RE15-10-8303
247561008	RE15-10-8302
1202050075	247561001(RE15-10-8314) Sample Duplicate (DUP)
1202050076	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 sample was selected for QC analysis: 247561001 (RE15-10-8314).

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: 1202050075 (RE15-10-8314), 247561001 (RE15-10-8314), 247561002 (RE15-10-8313), 247561003 (RE15-10-8312), 247561004 (RE15-10-8315), 247561005 (RE15-10-8311), 247561006 (RE15-10-8310), 247561007 (RE15-10-8303) and 247561008 (RE15-10-8302).

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: 955989 **Method:** SW9012A Cyanide and Total
Prep Batch : 955988 **Method:** SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
247561001	RE15-10-8314
247561002	RE15-10-8313
247561003	RE15-10-8312
247561004	RE15-10-8315
247561005	RE15-10-8311
247561006	RE15-10-8310
247561007	RE15-10-8303
247561008	RE15-10-8302
1202049747	Method Blank (MB)
1202049748	247249003(RE46-10-12665) Sample Duplicate (DUP)
1202049749	247249004(RE46-10-12663) Sample Duplicate (DUP)
1202049750	247249003(RE46-10-12665) Matrix Spike (MS)
1202049751	247249004(RE46-10-12663) Matrix Spike (MS)
1202049752	247249003(RE46-10-12665) Matrix Spike Duplicate (MSD)
1202049753	247249004(RE46-10-12663) Matrix Spike Duplicate (MSD)
1202049754	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: 247249003 (RE46-10-12665) and 247249004 (RE46-10-12663).

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 spike duplicate recovery for the following sample was outside of the required acceptance limits due to sample non-homogeneity. 1202049753 (RE46-10-12663). The spike duplicate recovery falls outside of the client specified acceptance limits. Since both the spike recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported. 1202049752 (RE46-10-12665).

MS/MSD Relative Percent Difference (RPD) Statement

The relative percent difference (RPD) between the Spike and Spike Duplicate was outside of the required acceptance limits due to the heterogeneous matrix of the sample. 1202049751 (RE46-10-12663) and 1202049753 (RE46-10-12663).

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 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: 1202049754 (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: 799166 1202049751 (RE46-10-12663), 1202049752 (RE46-10-12665) and 1202049753 (RE46-10-12663).

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: 957722 **Method:** EPA 300.0 Nitrate in Soil
Prep Batch : 957719 **Method:** EPA 300.0 PREP

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
247561001	RE15-10-8314
247561002	RE15-10-8313
247561003	RE15-10-8312
247561004	RE15-10-8315
247561005	RE15-10-8311
247561006	RE15-10-8310
247561007	RE15-10-8303
247561008	RE15-10-8302
1202053690	Method Blank (MB)
1202053691	247469001(RE46-10-13381) Sample Duplicate (DUP)
1202053692	247561008(RE15-10-8302) Sample Duplicate (DUP)
1202053693	247469001(RE46-10-13381) Matrix Spike (MS)
1202053694	247561008(RE15-10-8302) Matrix Spike (MS)
1202053695	247469001(RE46-10-13381) Matrix Spike Duplicate (MSD)
1202053696	247561008(RE15-10-8302) Matrix Spike Duplicate (MSD)
1202053697	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 samples were selected for QC analysis: 247469001 (RE46-10-13381) and 247561008 (RE15-10-8302).

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 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

A DER was not required for this SDG.

Manual Integrations

The following samples from this sample group had to be manually integrated due to errors in the instrument software peak integration: 1202053691 (RE46-10-13381), 247561003 (RE15-10-8312), 247561004 (RE15-10-8315) and 247561005 (RE15-10-8311).

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

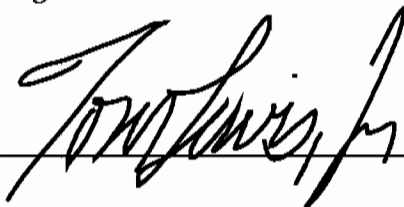
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

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: _____

19Mar10

Sample Data Summary

GEL LABORATORIES LLC

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Certificate of Analysis Report for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1951-1 GEL Work Order: 247561

The Qualifiers in this report are defined as follows:

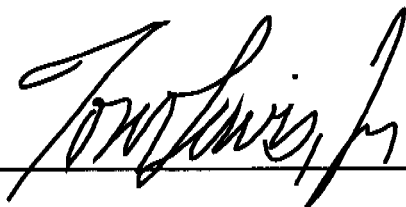
- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.

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

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Certificate of Analysis

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

Report Date: March 18, 2010

Client SDG: 10-1951-1

Client Sample ID: RE15-10-8314
Sample ID: 247561001
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 2.74%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.5C	H	8.58	0.010	0.100	SU	1	TXT1	02/22/10	1501	956097	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	67.2	247	ug/kg	1	AXC2	03/01/10	1534	955989	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	0.308	1.03	mg/kg	1	MAR1	03/09/10	0915	957722	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	03/08/10	1300	957719
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/26/10	1540	955988

The following Analytical Methods were performed

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

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

Report Date: March 18, 2010

Client SDG: 10-1951-1

Client Sample ID: RE15-10-8313
Sample ID: 247561002
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 3.59%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.1C	H	9.54	0.010	0.100	SU	1	TXT1	02/22/10	1504	956097	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	69.1	254	ug/kg	1	AXC2	03/01/10	1535	955989	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		1.22	0.311	1.04	mg/kg	1	MAR1	03/09/10	0944	957722	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	03/08/10	1300	957719
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/26/10	1540	955988

The following Analytical Methods were performed

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

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Project: LANL ER Project

Report Date: March 18, 2010

Client SDG: 10-1951-1

Client Sample ID: RE15-10-8312
Sample ID: 247561003
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 5.16%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.1C	H	10.2	0.010	0.100	SU	1	TXT1	02/22/10	1505	956097	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	68.9	253	ug/kg	1	AXC2	03/01/10	1539	955989	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	J	1.05	0.316	1.05	mg/kg	1	MAR103/09/10	1110	957722		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	03/08/10	1300	957719
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/26/10	1540	955988

The following Analytical Methods were performed

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

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Project: LANL ER Project

Report Date: March 18, 2010

Client SDG: 10-1951-1

Client Sample ID: RE15-10-8315
Sample ID: 247561004
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 3.35%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.1C	H	9.69	0.010	0.100	SU	1	TXT1	02/22/10	1509	956097	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	67.7	249	ug/kg	1	AXC2	03/01/10	1540	955989	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	J	1.02	0.310	1.03	mg/kg	1	MAR103/09/10	1139	957722	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	03/08/10	1300	957719
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/26/10	1540	955988

The following Analytical Methods were performed

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

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Project: LANL ER Project

Report Date: March 18, 2010

Client SDG: 10-1951-1

Client Sample ID: RE15-10-8311
Sample ID: 247561005
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 3.68%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.4C	H	9.14	0.010	0.100	SU	1	TXT1	02/22/10	1510	956097	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	65.4	240	ug/kg	1	AXC2	03/01/10	1541	955989	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	J	0.992	0.311	1.04	mg/kg	1	MAR1	03/09/10	1208	957722	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	03/08/10	1300	957719
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/26/10	1540	955988

The following Analytical Methods were performed

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

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 18, 2010

Client SDG: 10-1951-1

Client Sample ID: RE15-10-8310
Sample ID: 247561006
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 3.65%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.3C	H	10.3	0.010	0.100	SU	1	TXT1	02/22/10	1511	956097	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	61.9	228	ug/kg	1	AXC2	03/01/10	1542	955989	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		1.25	0.311	1.04	mg/kg	1	MAR103/09/10	1237	957722		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	03/08/10	1300	957719
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/26/10	1540	955988

The following Analytical Methods were performed

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

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Project: LANL ER Project

Report Date: March 18, 2010

Client SDG: 10-1951-1

Client Sample ID: RE15-10-8303
Sample ID: 247561007
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 3.17%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.2C	H	9.16	0.010	0.100	SU	1	TXT1	02/22/10	1512	956097	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	61.6	226	ug/kg	1	AXC2	03/01/10	1543	955989	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	0.310	1.03	mg/kg	1	MAR1	03/09/10	1306	957722	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	03/08/10	1300	957719
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/26/10	1540	955988

The following Analytical Methods were performed

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

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Certificate of Analysis

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

Report Date: March 18, 2010

Client SDG: 10-1951-1

Client Sample ID: RE15-10-8302
Sample ID: 247561008
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 5.18%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.3C	H	10.3	0.010	0.100	SU	1	TXT1	02/22/10	1514	956097	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	65.2	240	ug/kg	1	AXC2	03/01/10	1544	955989	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		1.27	0.316	1.05	mg/kg	1	MAR103/09/10	1334	957722		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	03/08/10	1300	957719
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/26/10	1540	955988

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

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QC Summary

Report Date: March 18, 2010

Page 1 of 3

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

Contact: Ms. Joylene Valdez

Workorder: 247561

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Electrode Analysis											
Batch	956097										
QC1202050075	247561001	DUP									
pH		H	8.58	H	8.63	SU	0.581	(0%-10%)	TXT1	02/22/10	15:03
QC1202050076	LCS										
pH	7.00				6.98	SU	99.7	(95%-105%)		02/22/10	15:00
Flow Injection Analysis											
Batch	955989										
QC1202049748	247249003	DUP									
Cyanide, Total		U	ND	U	ND	ug/kg	N/A		AXC2	03/01/10	15:17
QC1202049749	247249004	DUP									
Cyanide, Total		U	ND	U	ND	ug/kg	N/A			03/01/10	15:29
QC1202049754	LCS										
Cyanide, Total	67900				43300	ug/kg	63.7	(32%-157%)		03/01/10	15:15
QC1202049747	MB										
Cyanide, Total				U	250	ug/kg				03/01/10	15:14
QC1202049750	247249003	MS									
Cyanide, Total	5860	U	ND		4500	ug/kg	76.8	(26%-158%)		03/01/10	15:18
QC1202049751	247249004	MS									
Cyanide, Total	5160	U	ND		4530	ug/kg	87.8	(26%-158%)		03/01/10	15:30
QC1202049752	247249003	MSD									
Cyanide, Total	5050	U	ND		3460	ug/kg	26.0	68.6	(0%-30%)	03/01/10	15:28
QC1202049753	247249004	MSD									
Cyanide, Total	4720	U	ND		3340	ug/kg	30.3*	70.8	(0%-30%)	03/01/10	15:31
Ion Chromatography											
Batch	957722										
QC1202053691	247469001	DUP									
Nitrate-N			1.25		1.26	mg/kg	0.778 ^	(+/-1.22)	MAR1	03/09/10	06:50
QC1202053692	247561008	DUP									
Nitrate-N			1.27		1.29	mg/kg	1.40 ^	(+/-1.05)		03/09/10	14:03
QC1202053697	LCS										
Nitrate-N	50.0				51.8	mg/kg	104	(90%-110%)		03/09/10	05:52
QC1202053690	MB										
Nitrate-N				U	1.00	mg/kg				03/09/10	05:23
QC1202053693	247469001	MS									
Nitrate-N	61.2		1.25		62.9	mg/kg	101	(90%-110%)		03/09/10	07:19
QC1202053694	247561008	MS									
Nitrate-N	52.7		1.27		53.7	mg/kg	99.3	(90%-110%)		03/09/10	14:32
QC1202053695	247469001	MSD									
Nitrate-N	61.2		1.25		62.6	mg/kg	0.437	100	(0%-20%)	03/09/10	07:48
QC1202053696	247561008	MSD									
Nitrate-N	52.7		1.27		53.8	mg/kg	0.316	99.7	(0%-20%)	03/09/10	15:01

Notes:

RER is calculated at the 95% confidence level (2-sigma).

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QC Summary

Workorder: 247561

Page 2 of 3

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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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.
- 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
- UJ 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

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QC Summary

Workorder: 247561

Page 3 of 3

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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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-MAR-2010 15:36

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-1951-1

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
ICV	01-MAR-2010 15:09:23	OM_3-1-2010_15-01-18	141	150	94	(90%-110%)	Yes
CCV	01-MAR-2010 15:23:41	OM_3-1-2010_15-01-18	99.6	100	99.6	(90%-110%)	Yes
CCV	01-MAR-2010 15:36:07	OM_3-1-2010_15-01-18	100	100	100	(90%-110%)	Yes
CCV	01-MAR-2010 15:48:29	OM_3-1-2010_15-01-18	100	100	100	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	01-MAR-2010 15:11:14	OM_3-1-2010_15-01-18	-2.43	10	Yes
CCB	01-MAR-2010 15:25:32	OM_3-1-2010_15-01-18	-2.55	10	Yes
CCB	01-MAR-2010 15:37:57	OM_3-1-2010_15-01-18	-2.04	10	Yes
CCB	01-MAR-2010 15:50:19	OM_3-1-2010_15-01-18	-2.29	10	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 18-MAR-2010 15:36

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-1951-1

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
ICV	08-MAR-2010 14:38:00	100308	5.1154	5	102	(90%-110%)	Yes
CCV	09-MAR-2010 04:26:00	100308	7.8377	7.5	105	(90%-110%)	Yes
CCV	09-MAR-2010 10:13:00	100308	5.1919	5	104	(90%-110%)	Yes
CCV	09-MAR-2010 15:30:00	100308	7.8577	7.5	105	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	08-MAR-2010 15:07:00	100308	0	0.1	Yes
CCB	09-MAR-2010 04:54:00	100308	0.1851	0.1	No
CCB	09-MAR-2010 10:41:00	100308	0	0.1	Yes
CCB	09-MAR-2010 15:59:00	100308	0	0.1	Yes

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: 955988.0		Verified by:			
Analyst:	Alan Stanley				
Method:	SW846 9010B Prep				
Lab SOP:	GL-GC-E-067 REV# 13				
Instrument:	Sartorius Balance B-001				
Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202049754	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202049750	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202049751	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202049752	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202049753	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202049747 MB	26-FEB-2010 15:40:00	Soil	0.5	25	50	>12
1202049754 LCS	26-FEB-2010 15:40:00	Soil	0.25	25	100	>12
247249003	26-FEB-2010 15:40:00	Soil	0.51	25	49.01961	>12
1202049748 DUP (247249003)	26-FEB-2010 15:40:00	Soil	0.56	25	44.64286	>12
1202049750 MS (247249003)	26-FEB-2010 15:40:00	Soil	0.5	25	50	>12
1202049752 MSD (247249003)	26-FEB-2010 15:40:00	Soil	0.58	25	43.10345	>12
247249004	26-FEB-2010 15:40:00	Soil	0.51	25	49.01961	>12
1202049749 DUP (247249004)	26-FEB-2010 15:40:00	Soil	0.51	25	49.01961	>12
1202049751 MS (247249004)	26-FEB-2010 15:40:00	Soil	0.53	25	47.16981	>12
1202049753 MSD (247249004)	26-FEB-2010 15:40:00	Soil	0.58	25	43.10345	>12
247249005	26-FEB-2010 15:40:00	Soil	0.51	25	49.01961	>12
247255001	26-FEB-2010 15:40:00	Soil	0.53	25	47.16981	>12
247255002	26-FEB-2010 15:40:00	Soil	0.51	25	49.01961	>12
247255003	26-FEB-2010 15:40:00	Soil	0.51	25	49.01961	>12
247255004	26-FEB-2010 15:40:00	Soil	0.58	25	43.10345	>12
247255005	26-FEB-2010 15:40:00	Soil	0.52	25	48.07692	>12
247551001	26-FEB-2010 15:40:00	Soil	0.5	25	50	>12
247551002	26-FEB-2010 15:40:00	Soil	0.53	25	47.16981	>12
247561001	26-FEB-2010 15:40:00	Soil	0.52	25	48.07692	>12
247561002	26-FEB-2010 15:40:00	Soil	0.51	25	49.01961	>12
247561003	26-FEB-2010 15:40:00	Soil	0.52	25	48.07692	>12

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC

Prep Logbook

Batch ID: 955988.0
Analyst: Alan Stanley
Method: SW846 9010B Prep
Lab SOP: GL-GC-E-067 REV# 13
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202049754	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202049750	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202049751	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202049752	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202049753	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Verified by:

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
247561004	26-FEB-2010 15:40:00	Soil	0.52	25	48.07692	>12
247561005	26-FEB-2010 15:40:00	Soil	0.54	25	46.2963	>12
247561006	26-FEB-2010 15:40:00	Soil	0.57	25	43.85965	>12
247561007	26-FEB-2010 15:40:00	Soil	0.57	25	43.85965	>12
247561008	26-FEB-2010 15:40:00	Soil	0.55	25	45.45455	>12
247566001	26-FEB-2010 15:40:00	Soil	0.53	25	47.16981	>12
247566002	26-FEB-2010 15:40:00	Soil	0.54	25	46.2963	>12

Reagent/Solvent Lot ID	Description	Amount	Comments:
1260189-C	50% H2SO4 CN Prep	2.5 mL	
1270661-C	Bismuth Nitrate Solution	1.25 mL	
1270663-C	0.8N H3NO3S	1.25 mL	
1270669-C	51% MgCl2 Soln	1 mL	
1273851-C	0.25N Sodium Hydroxide Solution	25 mL	
WCN100226-07	150 ppb CN Distilled ICV Standard	.0375 mL	

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/1/2010 15:02:14	OM_3-1-2010_15-01-18
150 ppb		1	axc2	3/1/2010 15:03:06	OM_3-1-2010_15-01-18
100 ppb		1	axc2	3/1/2010 15:03:59	OM_3-1-2010_15-01-18
50 ppb		1	axc2	3/1/2010 15:04:51	OM_3-1-2010_15-01-18
10 ppb		1	axc2	3/1/2010 15:05:45	OM_3-1-2010_15-01-18
CRDL 5.0 ppb		1	axc2	3/1/2010 15:06:39	OM_3-1-2010_15-01-18
ICAL-00		1	axc2	3/1/2010 15:07:33	OM_3-1-2010_15-01-18
ICV		1	axc2	3/1/2010 15:09:23	OM_3-1-2010_15-01-18
ICB		1	axc2	3/1/2010 15:11:14	OM_3-1-2010_15-01-18
CRDL		1	axc2	3/1/2010 15:13:04	OM_3-1-2010_15-01-18
1202049747	955989	1	axc2	3/1/2010 15:14:53	OM_3-1-2010_15-01-18
1202049754	955989	25	axc2	3/1/2010 15:15:47	OM_3-1-2010_15-01-18
247249003	955989	1	axc2	3/1/2010 15:16:40	OM_3-1-2010_15-01-18
1202049748	955989	1	axc2	3/1/2010 15:17:33	OM_3-1-2010_15-01-18
1202049750	955989	1	axc2	3/1/2010 15:18:26	OM_3-1-2010_15-01-18
247249005	955989	1	axc2	3/1/2010 15:19:19	OM_3-1-2010_15-01-18
247255001	955989	1	axc2	3/1/2010 15:20:12	OM_3-1-2010_15-01-18
247255002	955989	1	axc2	3/1/2010 15:21:04	OM_3-1-2010_15-01-18
247255003	955989	1	axc2	3/1/2010 15:21:57	OM_3-1-2010_15-01-18
247255004	955989	1	axc2	3/1/2010 15:22:48	OM_3-1-2010_15-01-18
CCV		1	axc2	3/1/2010 15:23:41	OM_3-1-2010_15-01-18
CCB		1	axc2	3/1/2010 15:25:32	OM_3-1-2010_15-01-18
247255005	955989	1	axc2	3/1/2010 15:27:20	OM_3-1-2010_15-01-18
1202049752	955989	1	axc2	3/1/2010 15:28:12	OM_3-1-2010_15-01-18
247249004	955989	1	axc2	3/1/2010 15:29:04	OM_3-1-2010_15-01-18
1202049749	955989	1	axc2	3/1/2010 15:29:56	OM_3-1-2010_15-01-18
1202049751	955989	1	axc2	3/1/2010 15:30:47	OM_3-1-2010_15-01-18
1202049753	955989	1	axc2	3/1/2010 15:31:41	OM_3-1-2010_15-01-18
247551001	955989	1	axc2	3/1/2010 15:32:34	OM_3-1-2010_15-01-18
247551002	955989	1	axc2	3/1/2010 15:33:28	OM_3-1-2010_15-01-18
247561001	955989	1	axc2	3/1/2010 15:34:21	OM_3-1-2010_15-01-18
247561002	955989	1	axc2	3/1/2010 15:35:14	OM_3-1-2010_15-01-18
CCV		1	axc2	3/1/2010 15:36:07	OM_3-1-2010_15-01-18
CCB		1	axc2	3/1/2010 15:37:57	OM_3-1-2010_15-01-18
247561003	955989	1	axc2	3/1/2010 15:39:45	OM_3-1-2010_15-01-18
247561004	955989	1	axc2	3/1/2010 15:40:38	OM_3-1-2010_15-01-18
247561005	955989	1	axc2	3/1/2010 15:41:31	OM_3-1-2010_15-01-18
247561006	955989	1	axc2	3/1/2010 15:42:24	OM_3-1-2010_15-01-18
247561007	955989	1	axc2	3/1/2010 15:43:16	OM_3-1-2010_15-01-18
247561008	955989	1	axc2	3/1/2010 15:44:09	OM_3-1-2010_15-01-18
247566001	955989	1	axc2	3/1/2010 15:45:01	OM_3-1-2010_15-01-18
247566002	955989	1	axc2	3/1/2010 15:45:53	OM_3-1-2010_15-01-18
1202053271*	957571	1	axc2	3/1/2010 15:46:45	OM_3-1-2010_15-01-18
1202053278*	957571	25	axc2	3/1/2010 15:47:36	OM_3-1-2010_15-01-18
CCV		1	axc2	3/1/2010 15:48:29	OM_3-1-2010_15-01-18
CCB		1	axc2	3/1/2010 15:50:19	OM_3-1-2010_15-01-18

Original Run Filename: OM_3-1-2010_15-01-18.OMN created 3/1/2010 15:01:18
 Original Run Author's Signature: [axc2]
 Current Run Filename: OM_3-1-2010_15-01-18.OMN last modified 3/1/2010 15:51:23
 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)				
WCN100301-01	1	S1	200	9.76	3/1/2010@15:02:14			200 ppb
WCN100301-02	1	S2	150	7.39	3/1/2010@15:03:06			150 ppb
WCN100301-03	1	S3	100	5.05	3/1/2010@15:03:59			100 ppb
WCN100301-04	1	S4	50.0	2.61	3/1/2010@15:04:51			50 ppb
WCN100301-05	1	S5	10.0	0.590	3/1/2010@15:05:45			10 ppb
WCN100301-06	1	S6	5.00	0.355	3/1/2010@15:06:39			CRDL 5.0 ppb
WCN100301-08	1	S7	0.00	0.0241	3/1/2010@15:07:33			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
Result:			0.99987 > 0.99500					
Message			Pass					
Action			Continue					
WCN100301-07	1	S8	141	6.98	3/1/2010@15:09:23			ICV
Known Conc:			150					
DQM Test: > + Percent Relative Difference								
Result:			-5.8 < 10.0					
Message			ICV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-5.8 < 10.0					
Message			ICV Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
WCN100301-08	1	S7	-2.43	-0.00669	3/1/2010@15:11:14			ICB/CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-2.43 < 5.01					
Message			ICB/CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-2.43 > -5.01					
Message			ICB/CCB Passed					
Action			Continue					
WCN100301-06	1	S6	4.96	0.352	3/1/2010@15:13:04			CRDL
Known Conc:			5.00					
DQM Test: > + Concentration Limit								
Result:			4.96 < 7.50					
Message			CRDL Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			4.96 > 2.50					
Message			Pass					
Action			None					
1202049747|955989|MB	1	1	-2.01	0.0137	3/1/2010@15:14:53			
1202049754|LCS	1	2	17.3	0.951	3/1/2010@15:15:47		25.00	
247249003	1	3	-0.926	0.0663	3/1/2010@15:16:40			
1202049748|DUP	1	4	-0.937	0.0658	3/1/2010@15:17:33			
1202049750|MS	1	5	76.8	3.84	3/1/2010@15:18:26			
247249005	1	6	-1.75	0.0263	3/1/2010@15:19:19			
247255001	1	7	-2.29	2.58e-4	3/1/2010@15:20:12			
247255002	1	8	-1.30	0.0480	3/1/2010@15:21:04			
247255003	1	9	-2.17	0.00566	3/1/2010@15:21:57			
247255004	1	10	-2.23	0.00274	3/1/2010@15:22:48			
WCN100301-03	1	S3	99.6	4.95	3/1/2010@15:23:41			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			-0.4 < 10.0					

Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-0.4 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100301-08	1	S7	-2.55	-0.0127	3/1/2010@15:25:32			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-2.55 > 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-2.55 > -5.00					
Message			CCB Passed					
Action			Continue					
247249005	1	11	-1.76	0.0257	3/1/2010@15:27:20			
1202049752||MSD	1	12	68.6	3.44	3/1/2010@15:28:12			
247249004	1	13	-1.51	0.0380	3/1/2010@15:29:04			
1202049749||DUP	1	14	-1.76	0.0258	3/1/2010@15:29:56			
1202049751||MS	1	15	87.8	4.37	3/1/2010@15:30:47			
1202049753||MSD	1	16	70.8	3.55	3/1/2010@15:31:41			
247551001	1	17	0.630	0.142	3/1/2010@15:32:34			
247551002	1	18	-0.415	0.0911	3/1/2010@15:33:28			
247561001	1	19	-2.62	-0.0162	3/1/2010@15:34:21			
247561002	1	20	-1.62	0.0327	3/1/2010@15:35:14			
WCN100301-03	1	S3	100	4.97	3/1/2010@15:36:07			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			0.1 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			0.1 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100301-08	1	S7	-2.04	0.0123	3/1/2010@15:37:57			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-2.04 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-2.04 > -5.00					
Message			CCB Passed					
Action			Continue					
247561003	1	21	-1.50	0.0386	3/1/2010@15:39:45			
247561004	1	22	-1.60	0.0335	3/1/2010@15:40:38			
247561005	1	23	-0.892	0.0680	3/1/2010@15:41:31			
247561006	1	24	-1.54	0.0364	3/1/2010@15:42:24			
247561007	1	25	-1.61	0.0329	3/1/2010@15:43:16			
247561008	1	26	-2.31	-9.36e-4	3/1/2010@15:44:09			
247566001	1	27	-2.29	-3.83e-6	3/1/2010@15:45:01			
247566002	1	28	-1.64	0.0316	3/1/2010@15:45:53			
1202053271|957571|MB	1	29	-2.29	1.95e-4	3/1/2010@15:46:45			
1202053278||LCS	1	30	12.8	0.732	3/1/2010@15:47:36		25.00	
WCN100301-03	1	S3	100	4.97	3/1/2010@15:48:29			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			0.0 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			0.0 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100301-08	1	S7	-2.29	2.06e-4	3/1/2010@15:50:19			CCB
Known Conc:			0.00					

DQM Test: > + Concentration Limit					
Result:	-2.29 < 5.00				
Message	CCB Passed				
Action	Continue				
DQM Test: < - Concentration Limit					
Result:	-2.29 > -5.00				
Message	CCB Passed				
Action	Continue				

Analyte Properties Table for OM_3-1-2010_15-01-18.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Calibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

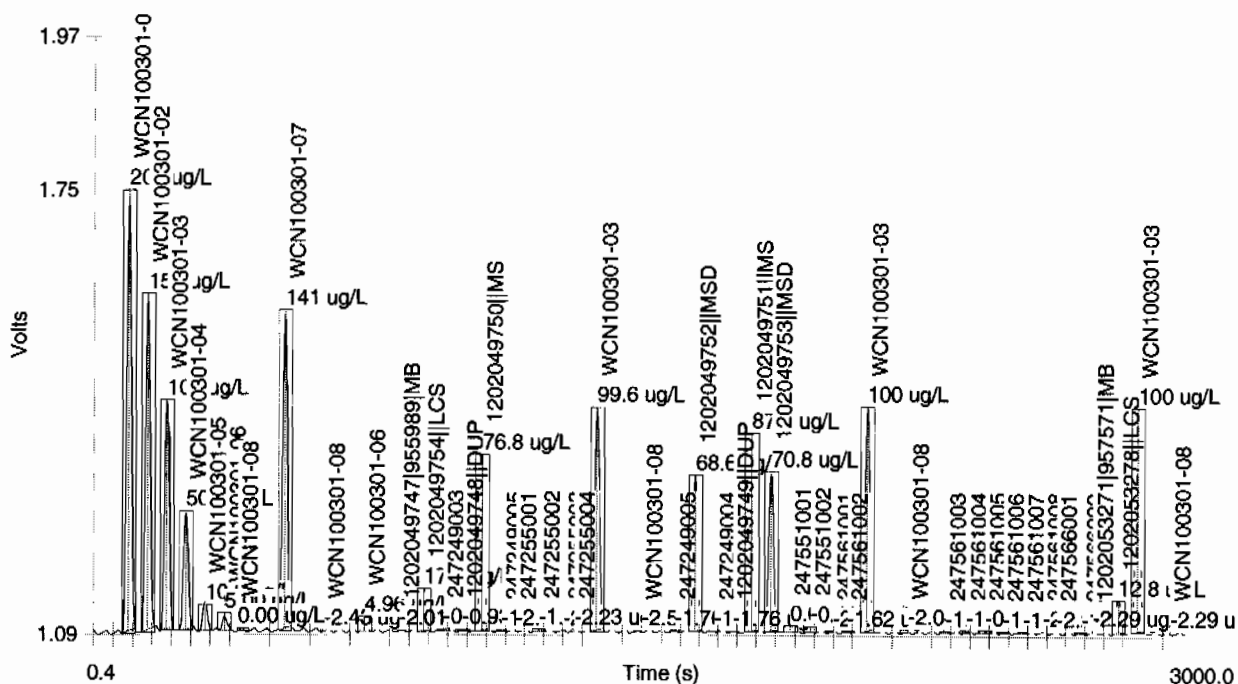
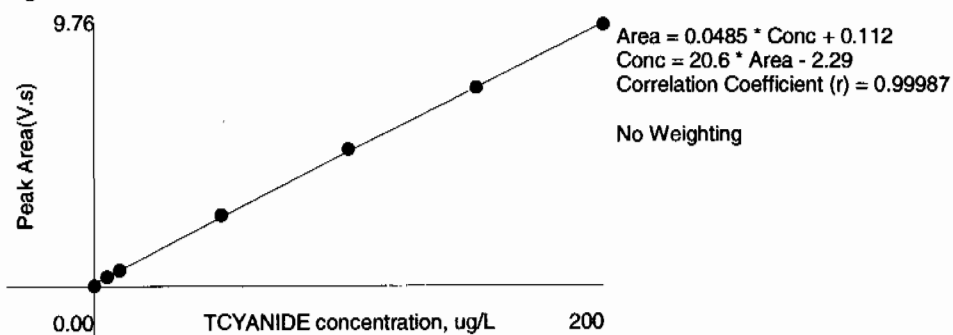


Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.76	0.656	0.6	3/1/2010	15:03:17
2	150	1	7.39	0.500	0.0	3/1/2010	15:04:09
3	100	1	5.05	0.339	-1.7	3/1/2010	15:05:02
4	50.0	1	2.61	0.176	-2.9	3/1/2010	15:05:55
5	10.0	1	0.590	0.0382	1.4	3/1/2010	15:06:48
6	5.00	1	0.355	0.0255	0.1	3/1/2010	15:07:42
7	0.00	1	0.0241	0.00423		3/1/2010	15:08:36

Figure 1: TCYANIDE



Ion Chromatography

Prep Logbook

Ion Chromatography (IC)

Batch ID: 957719.0		Verified by:			
Analyst: Mary Sherwood					
Method: EPA 300.0 PREP					
Lab SOP: GL-GC-E-086 REV# 17					
Instrument: Sartorius Balance B-001					
Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202053697	GEL-ANION-4C Spiking Solution	UIC100224SPK	.8	mL
MS	1202053693	GEL-ANION-4C Spiking Solution	UIC100224SPK	.8	mL
MS	1202053694	GEL-ANION-4C Spiking Solution	UIC100224SPK	.8	mL
MSD	1202053695	GEL-ANION-4C Spiking Solution	UIC100224SPK	.8	mL
MSD	1202053696	GEL-ANION-4C Spiking Solution	UIC100224SPK	.8	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202053690 MB	08-MAR-2010 13:00:00	Soil	4	40	10	
1202053697 LCS	08-MAR-2010 13:00:00	Soil	4	40	10	
247469001	08-MAR-2010 13:00:00	Soil	4	40	10	
1202053691 DUP (247469001)	08-MAR-2010 13:00:00	Soil	4	40	10	
1202053693 MS (247469001)	08-MAR-2010 13:00:00	Soil	4	40	10	
1202053695 MSD (247469001)	08-MAR-2010 13:00:00	Soil	4	40	10	
247469002	08-MAR-2010 13:00:00	Soil	4	40	10	
247469003	08-MAR-2010 13:00:00	Soil	4	40	10	
247561001	08-MAR-2010 13:00:00	Soil	4	40	10	
247561002	08-MAR-2010 13:00:00	Soil	4	40	10	
247561003	08-MAR-2010 13:00:00	Soil	4	40	10	
247561004	08-MAR-2010 13:00:00	Soil	4	40	10	
247561005	08-MAR-2010 13:00:00	Soil	4	40	10	
247561006	08-MAR-2010 13:00:00	Soil	4	40	10	
247561007	08-MAR-2010 13:00:00	Soil	4	40	10	
247561008	08-MAR-2010 13:00:00	Soil	4	40	10	
1202053692 DUP (247561008)	08-MAR-2010 13:00:00	Soil	4	40	10	
1202053694 MS (247561008)	08-MAR-2010 13:00:00	Soil	4	40	10	
1202053696 MSD (247561008)	08-MAR-2010 13:00:00	Soil	4	40	10	

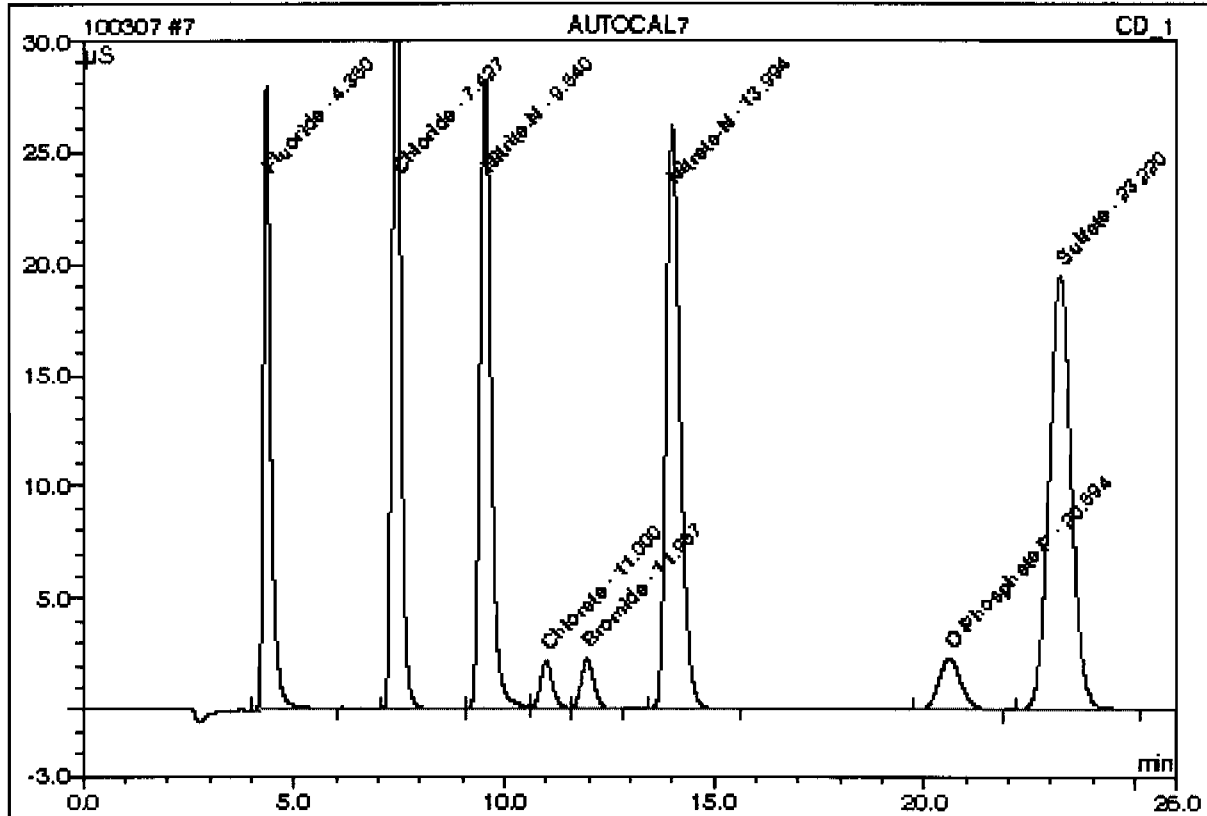
Reagent/Solvent Lot ID	Description	Amount	Comments:
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This is runlog for Sequence 100308.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
ICAL-07	02/26/10 14:11		1	100308	MAR1
ICAL-06	02/26/10 14:40		1	100308	MAR1
ICAL-05	02/26/10 15:09		1	100308	MAR1
ICAL-04	02/26/10 15:38		1	100308	MAR1
ICAL-03	02/26/10 16:07		1	100308	MAR1
ICAL-02	02/26/10 16:36		1	100308	MAR1
ICAL-01	02/26/10 17:04		1	100308	MAR1

7 AUTOCAL7

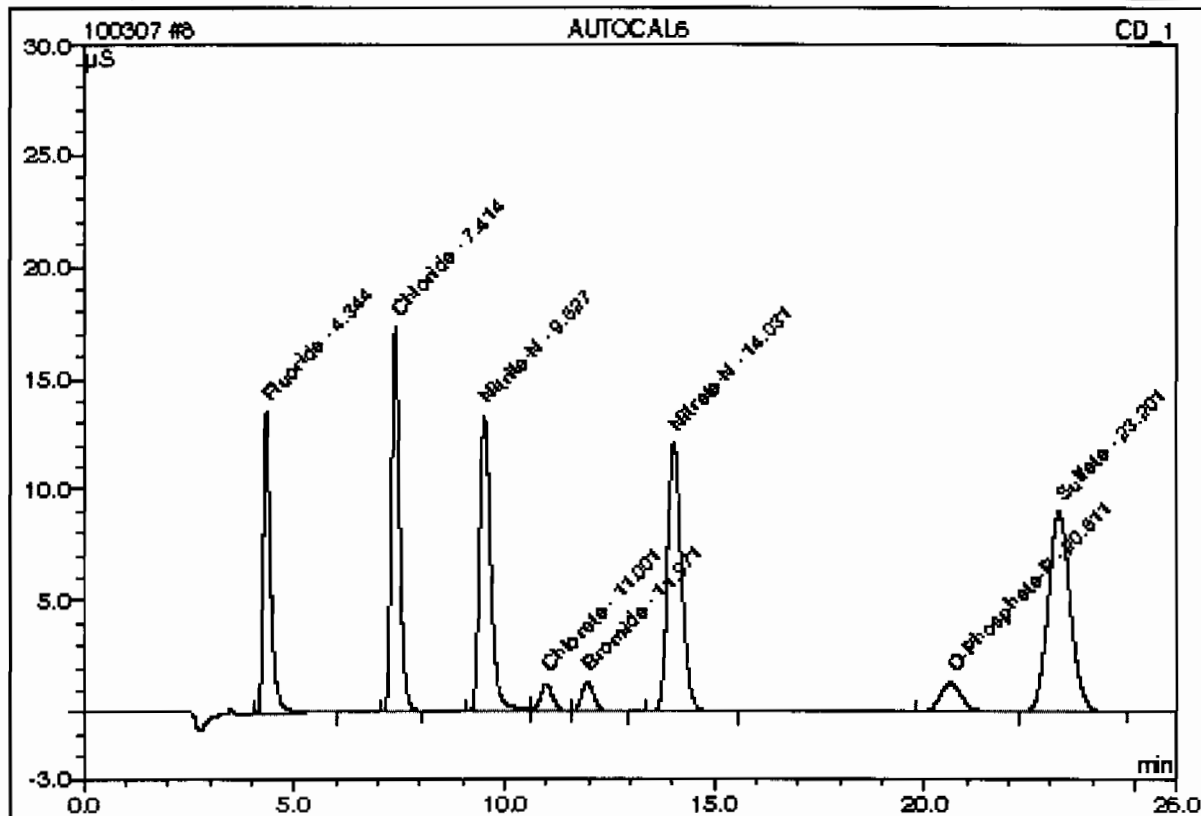
Sample Name:	AUTOCAL7	Injection Volume:	1.0
Vial Number:	3	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	2/26/2010 14:11	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086,300,9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.35	Fluoride	10.0000	10.0855		5.77442	12.08
2	7.43	Chloride	20.0000	20.3596		8.66452	18.13
3	9.54	Nitrate-N	10.0000	10.0634		8.38569	17.54
4	11.00	Chlorate	5.0000	5.0096		0.72891	1.52
5	11.97	Bromide	5.0000	4.9733		0.76589	1.60
6	13.99	Nitrate-N	10.0000	10.1518		10.17864	21.30
7	20.59	O-Phosphate-P	5.0000	5.0713		1.40399	2.94
8	23.22	Sulfate	40.0000	40.4933		11.89615	24.89
Total:				106.2078	0.000	47.798	100.00

8 AUTOCAL6

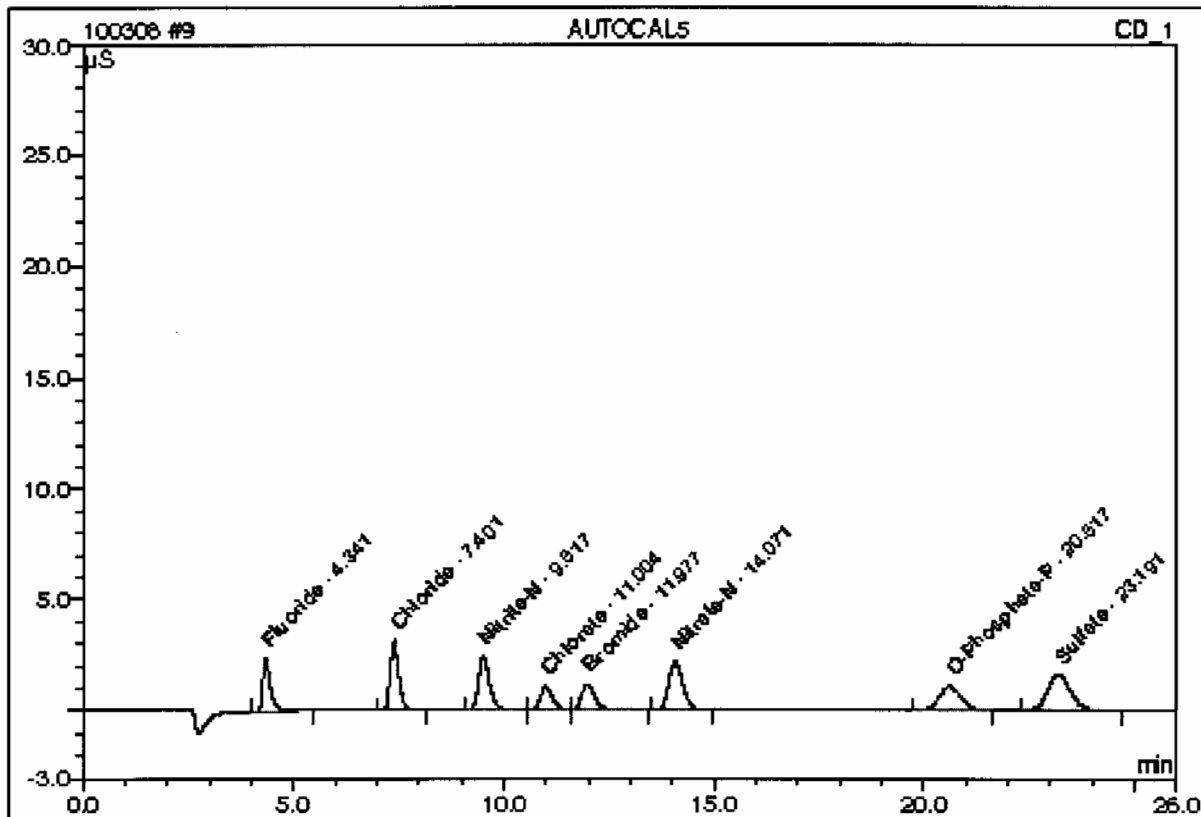
Sample Name:	AUTOCAL6	Injection Volume:	1.0
Vial Number:	4	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	2/26/2010 14:40	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	5.0000	4.8384		2.75186	12.16
2	7.41	Chloride	10.0000	9.2955		3.91334	17.29
3	9.53	Nitrite-N	5.0000	4.8861		4.04396	17.86
4	11.00	Chlorate	3.0000	3.0997		0.44848	1.98
5	11.97	Bromide	3.0000	2.9841		0.45913	2.03
6	14.03	Nitrate-N	5.0000	4.7080		4.87150	20.63
7	20.61	O-Phosphate-P	3.0000	2.9561		0.80102	3.54
8	23.20	Sulfate	20.0000	19.0431		5.55000	24.51
Total:				51.8110	0.000	22.639	100.00

9 AUTOCAL5

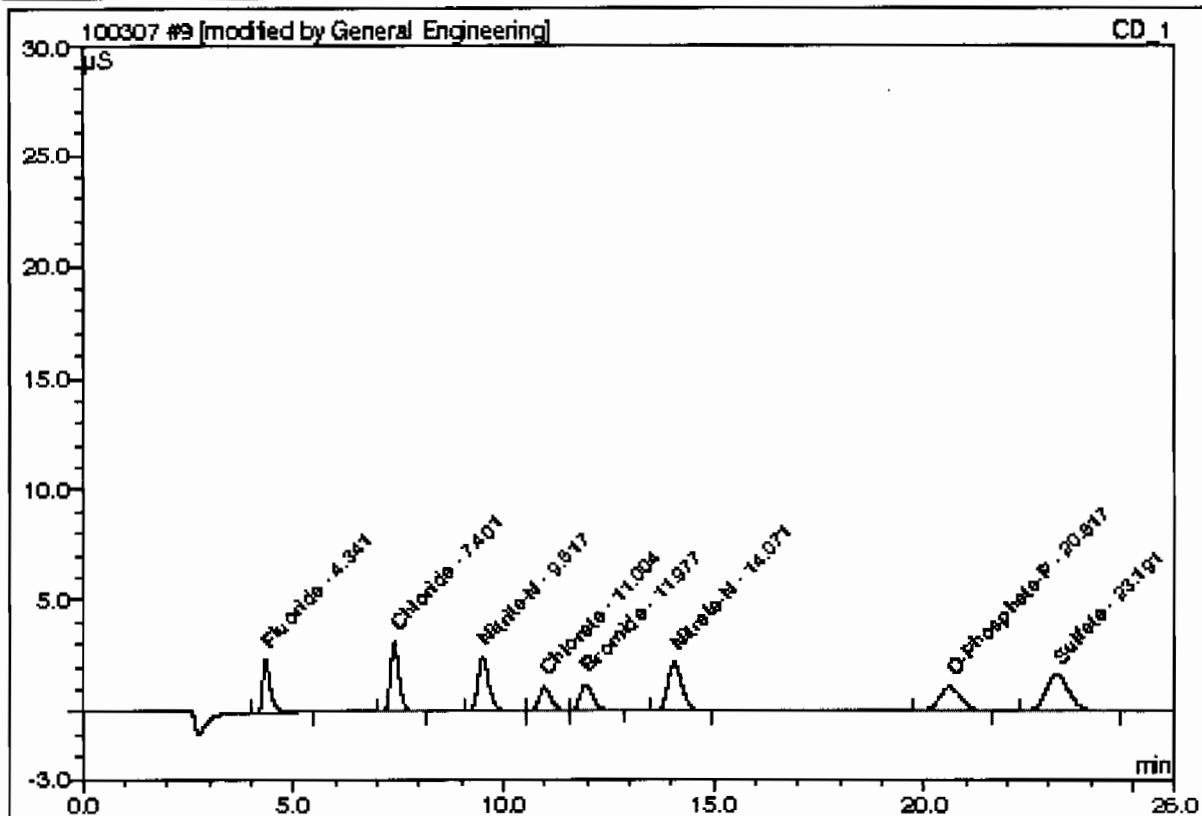
Sample Name:	AUTOCAL5	Injection Volume:	1.0
Vial Number:	5	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	2/26/2010 15:09	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC E086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area μS*min	Rel. Area %
1	4.34	Fluoride	1.0000	0.9456		0.50946	9.66
2	7.40	Chloride	2.0000	1.8831		0.73030	13.85
3	9.52	Nitrate-N	1.0000	0.9352		0.73136	13.87
4	11.00	Chlorate	2.5000	2.4073		0.34799	6.60
5	11.98	Bromide	2.5000	2.6793		0.41530	7.88
6	14.07	Nitrate-N	1.0000	0.9238		0.84323	15.99
7	20.62	O-Phosphate-P	2.5000	2.4571		0.65802	12.48
8	23.19	Sulfate	4.0000	3.7265		1.03648	19.66
Total:				15.9578	0.000	5.272	100.00

9 AUTOCAL5

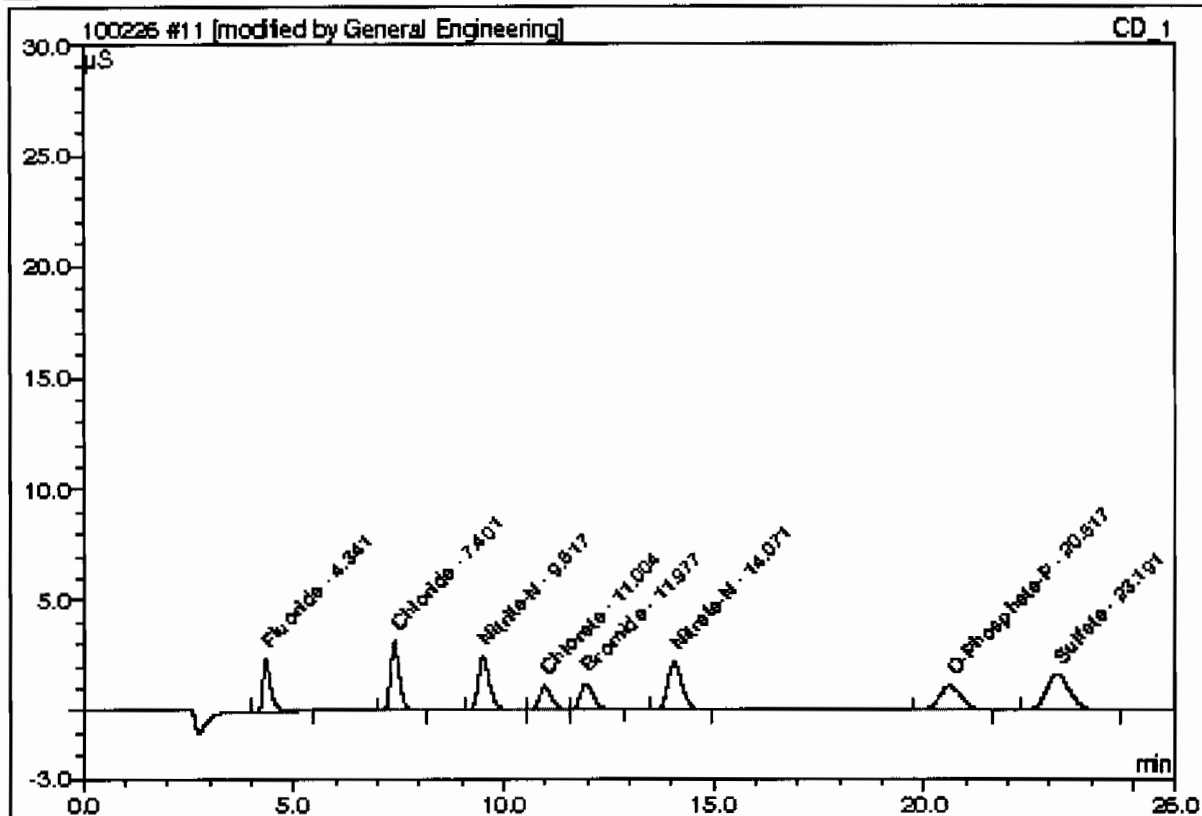
Sample Name:	AUTOCAL5	Injection Volume:	1.0
Vial Number:	5	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	2/26/2010 15:09	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC ED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.34	Fluoride	1.0000	0.9456		0.50946	9.72
2	7.40	Chloride	2.0000	1.8831		0.73030	13.93
3	9.52	Nitrite-N	1.0000	0.9315		0.72762	13.88
4	11.00	Chlorate	2.5000	2.3673		0.34093	6.50
5	11.98	Bromide	2.5000	2.5838		0.39739	7.58
6	14.07	Nitrate-N	1.0000	0.9238		0.84323	16.08
7	20.62	O-Phosphate-P	2.5000	2.4544		0.65802	12.55
8	23.19	Sulfate	4.0000	3.7873		1.03648	19.77
Total:				15.8767	0.000	5.243	100.00

11 AUTOCAL5

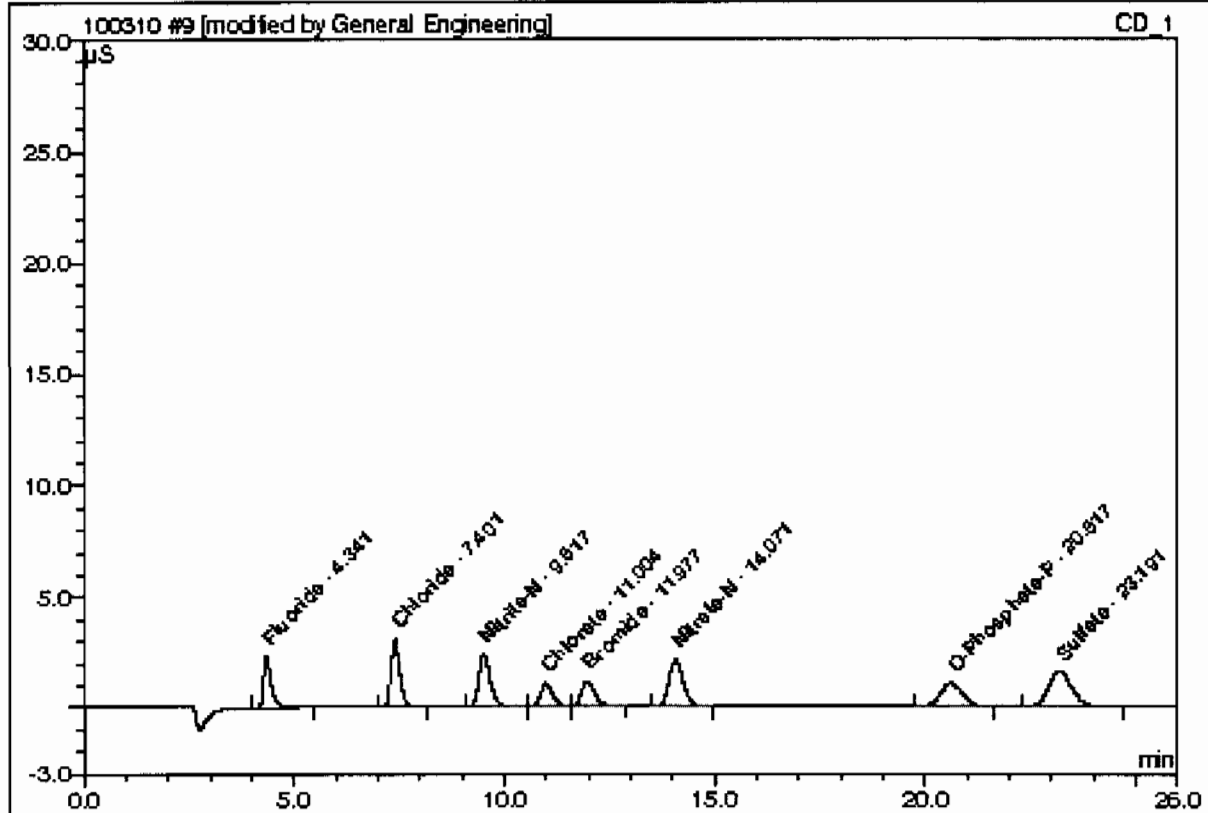
Sample Name:	AUTOCAL5	Injection Volume:	1.0
Vial Number:	5	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	2/26/2010 15:09	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GLGCED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.34	Fluoride	1.0000	0.9456		0.50946	9.72
2	7.40	Chloride	2.0000	1.8831		0.73030	13.93
3	9.52	Nitrite-N	1.0000	0.9315		0.72762	13.88
4	11.00	Chlorate	2.5000	2.3673		0.34093	6.50
5	11.98	Bromide	2.5000	2.5838		0.39739	7.58
6	14.07	Nitrate-N	1.0000	0.9238		0.84323	16.08
7	20.62	O-Phosphate-P	2.5000	2.4544		0.65802	12.55
8	23.19	Sulfate	4.0000	3.7873		1.03648	19.77
Total:				15.8767	0.000	5.243	100.00

9 AUTOCAL5

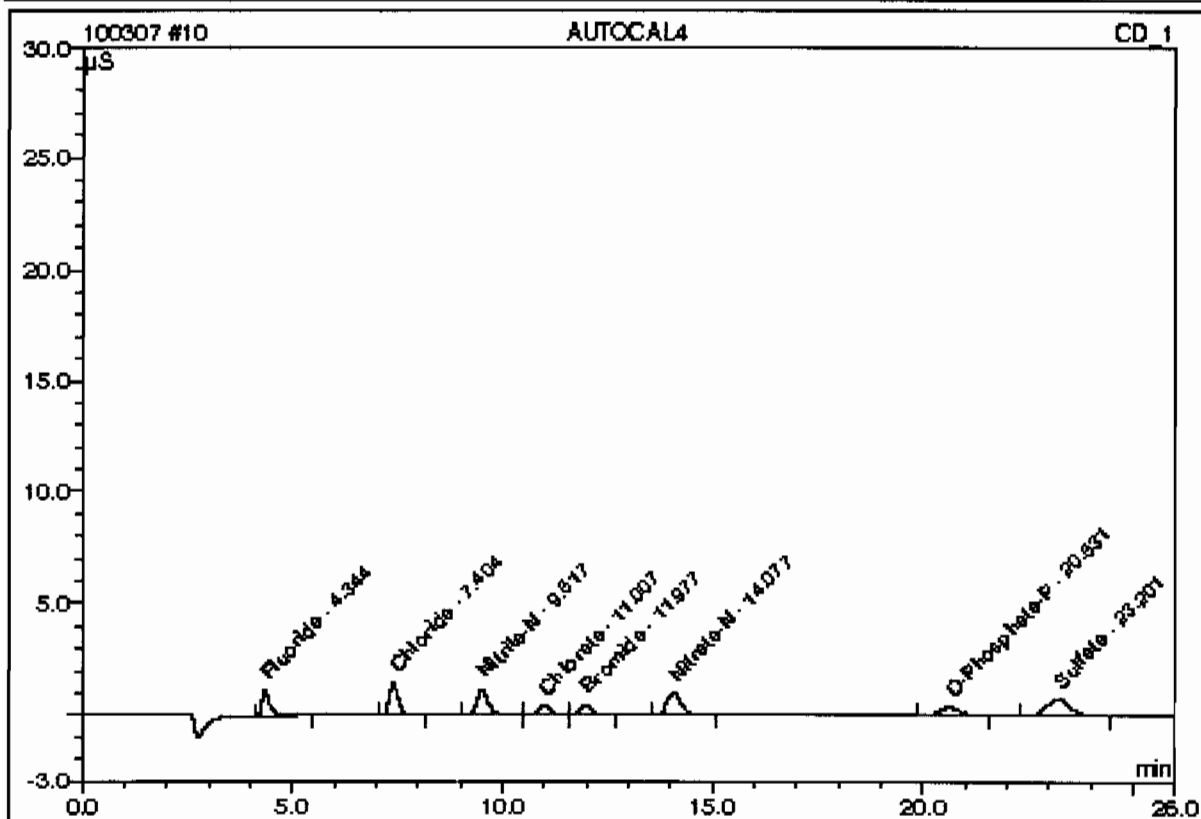
Sample Name:	AUTOCAL5	Injection Volume:	1.0
Vial Number:	5	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	2/26/2010 15:09	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;0056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area μS*min	Rel. Area %
1	4.34	Fluoride	1.0000	0.9456		0.50946	9.72
2	7.40	Chloride	2.0000	1.8831		0.73030	13.93
3	9.52	Nitrate-N	1.0000	0.9315		0.72762	13.88
4	11.00	Chlorate	2.5000	2.3673		0.34093	6.50
5	11.98	Bromide	2.5000	2.5838		0.39739	7.58
6	14.07	Nitrate-N	1.0000	0.9238		0.84323	16.08
7	20.62	O-Phosphate-P	2.5000	2.4544		0.65802	12.55
8	23.19	Sulfate	4.0000	3.7873		1.03648	19.77
Total:				15.8767	0.000	5.243	100.00

10 AUTOCAL4

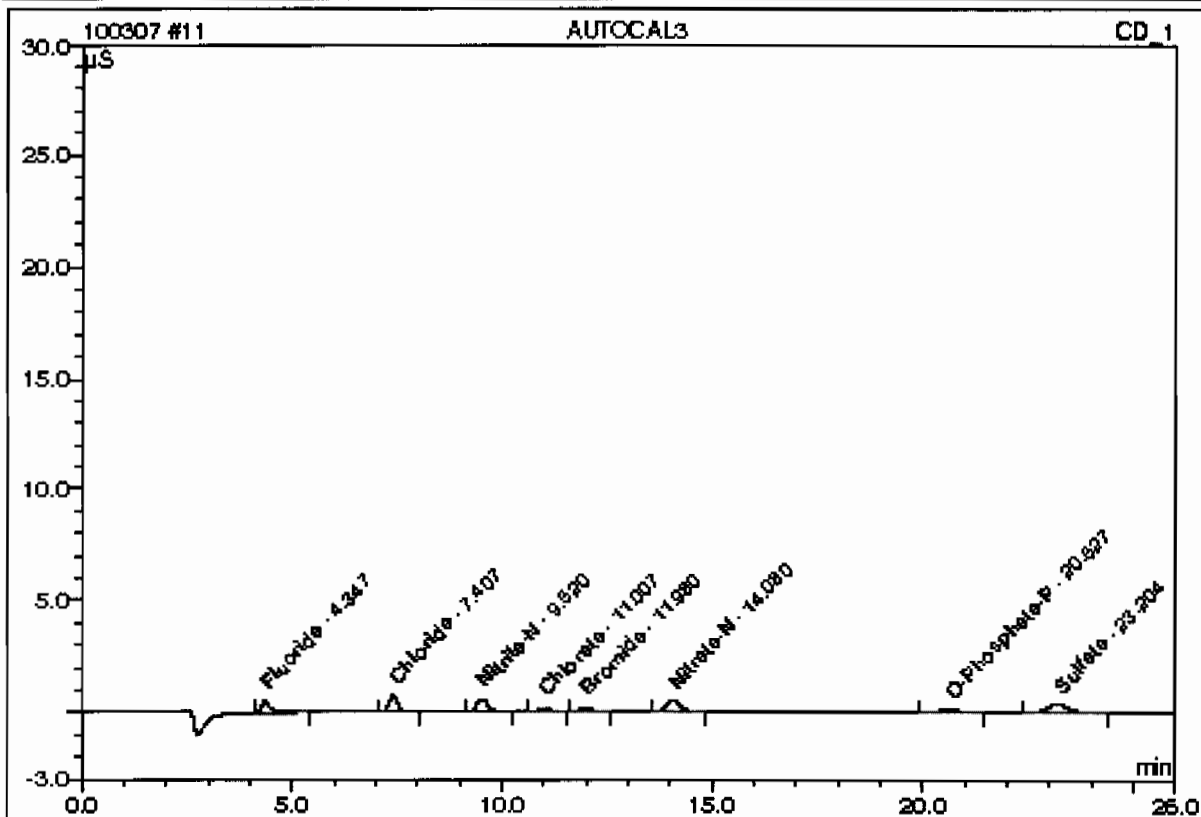
Sample Name:	AUTOCAL4	Injection Volume:	1.0
Vial Number:	6	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	2/26/2010 15:38	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.34	Fluoride	0.5000	0.4893		0.24663	10.36
2	7.40	Chloride	1.0000	0.9971		0.34985	14.69
3	9.52	Nitrite-N	0.5000	0.4896		0.35700	14.99
4	11.01	Chlorate	1.0000	0.9843		0.13787	5.79
5	11.98	Bromide	1.0000	0.9852		0.15086	6.34
6	14.08	Nitrate-N	0.5000	0.4953		0.40975	17.21
7	20.63	O-Phosphate-P	1.0000	0.9197		0.22053	9.26
8	23.20	Sulfate	2.0000	2.0029		0.50858	21.36
Total:				7.3634	0.000	2.381	100.00

11 AUTOCAL3

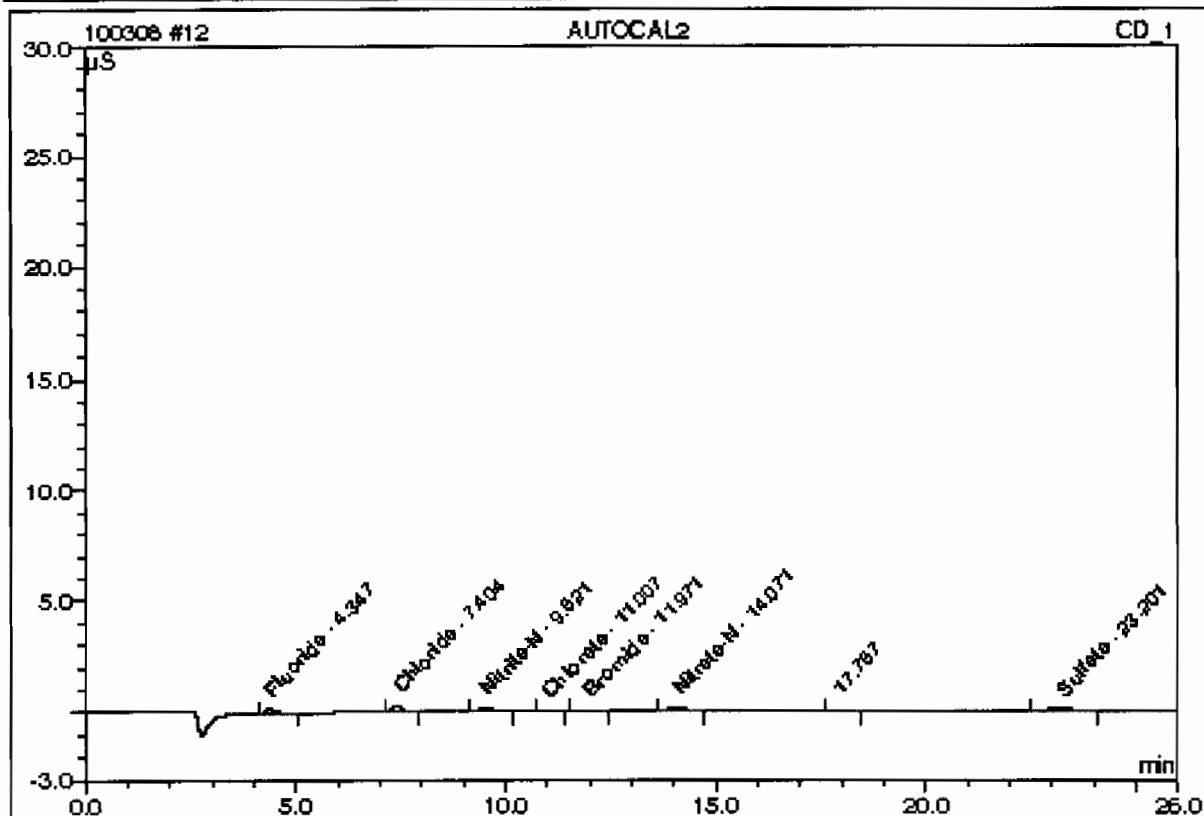
Sample Name:	AUTOCAL3	Injection Volume:	1.0
Vial Number:	7	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	2/26/2010 16:07	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.35	Fluoride	0.2500	0.2826		0.12755	10.66
2	7.41	Chloride	0.5000	0.6142		0.18541	15.79
3	9.52	Nitrite-N	0.2500	0.2703		0.17315	14.75
4	11.01	Chlorate	0.5000	0.5046		0.06743	5.74
5	11.98	Bromide	0.5000	0.4768		0.07246	6.17
6	14.08	Nitrate-N	0.2500	0.2969		0.20912	17.81
7	20.63	O-Phosphate-P	0.5000	0.4301		0.08097	6.90
8	23.20	Sulfate	1.0000	1.1562		0.25806	21.98
Total:				4.0318	0.000	1.174	100.00

12 AUTOCAL2

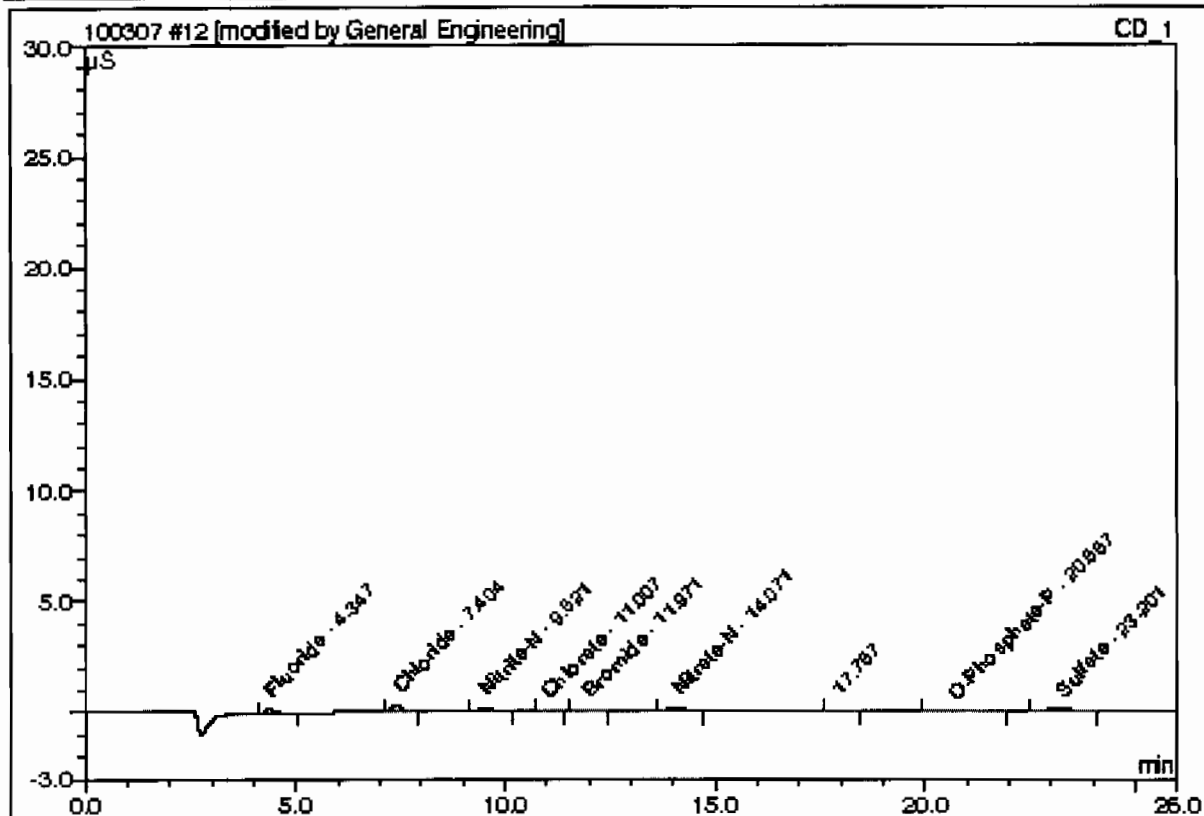
Sample Name:	AUTOCAL2	Injection Volume:	1.0
Vial Number:	8	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	2/26/2010 16:36	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC ED86;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.35	Fluoride	0.1000	0.1475		0.04972	10.74
2	7.40	Chloride	0.2000	0.3681		0.07973	17.22
3	9.52	Nitrite-N	0.1000	0.1444		0.06824	14.74
4	11.01	Chlorate	0.2000	0.1849		0.02108	4.55
5	11.97	Bromide	0.2000	0.1801		0.02821	6.10
6	14.07	Nitrate-N	0.1000	0.1840		0.09485	20.49
n.a.	n.a.	O-Phosphate-P	0.2000	n.a.	n.a.	n.a.	n.a.
8	23.20	Sulfate	0.4000	0.5652		0.10336	22.33
Total:				1.7742	0.000	0.445	96.18

12 AUTOCAL2

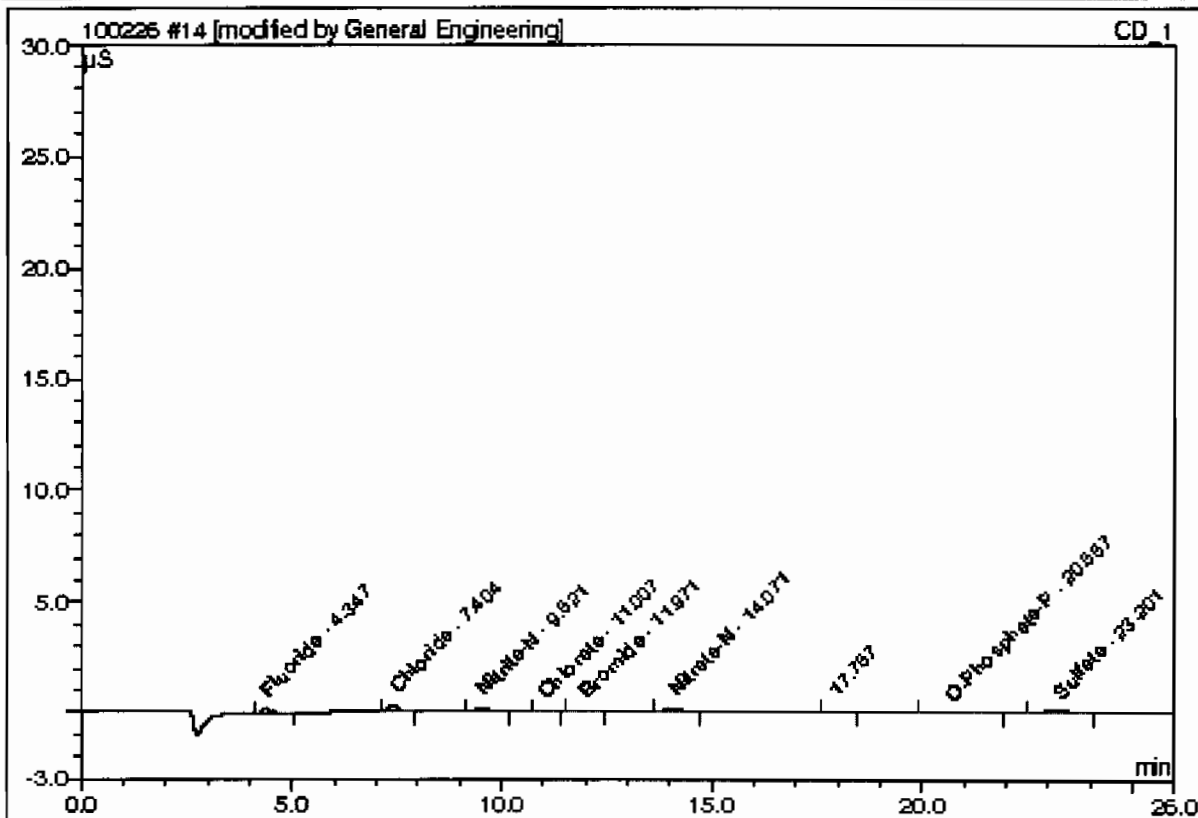
Sample Name:	AUTOCAL2	Injection Volume:	1.0
Vial Number:	8	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	2/26/2010 18:36	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.35	Fluoride	0.1000	0.1475		0.04972	10.26
2	7.40	Chloride	0.2000	0.3681		0.07973	16.45
3	9.52	Nitrite-N	0.1000	0.1452		0.06824	14.08
4	11.01	Chlorate	0.2000	0.1890		0.02108	4.35
5	11.97	Bromide	0.2000	0.1899		0.02821	5.82
6	14.07	Nitrate-N	0.1000	0.1840		0.09485	19.57
8	20.66	O-Phosphate-P	0.2000	0.2223		0.02173	4.46
9	23.20	Sulfate	0.4000	0.6333		0.10336	21.33
Total:				2.0793	0.000	0.467	96.35

14 AUTOCAL2

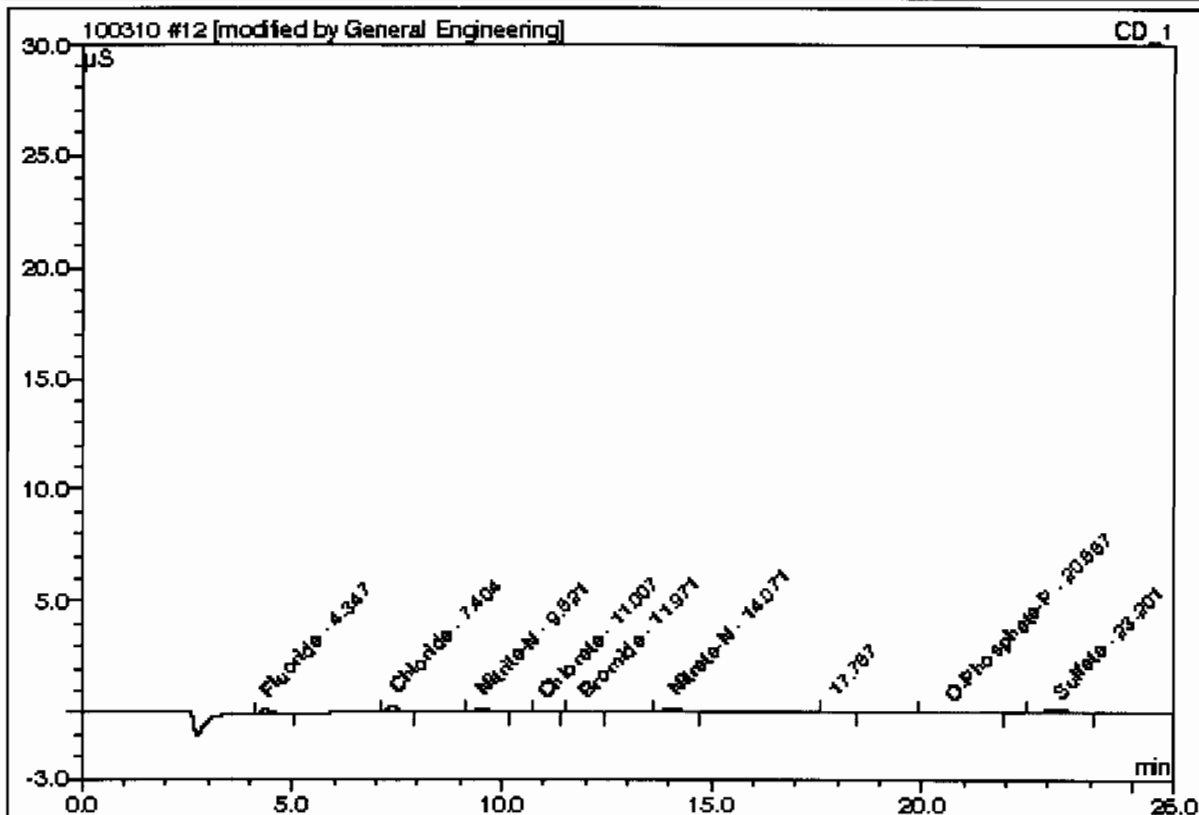
Sample Name:	AUTOCAL2	Injection Volume:	1.0
Vial Number:	8	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	2/26/2010 16:36	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC ED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.35	Fluoride	0.1000	0.1475		0.04972	10.26
2	7.40	Chloride	0.2000	0.3681		0.07973	16.45
3	9.52	Nitrite-N	0.1000	0.1452		0.06824	14.08
4	11.01	Chlorate	0.2000	0.1890		0.02108	4.35
5	11.97	Bromide	0.2000	0.1899		0.02821	5.82
6	14.07	Nitrate-N	0.1000	0.1840		0.09485	19.57
8	20.66	O-Phosphate-P	0.2000	0.2223		0.02173	4.48
9	23.20	Sulfate	0.4000	0.6333		0.10336	21.33
Total:				2.0793	0.000	0.467	96.35

12 AUTOCAL2

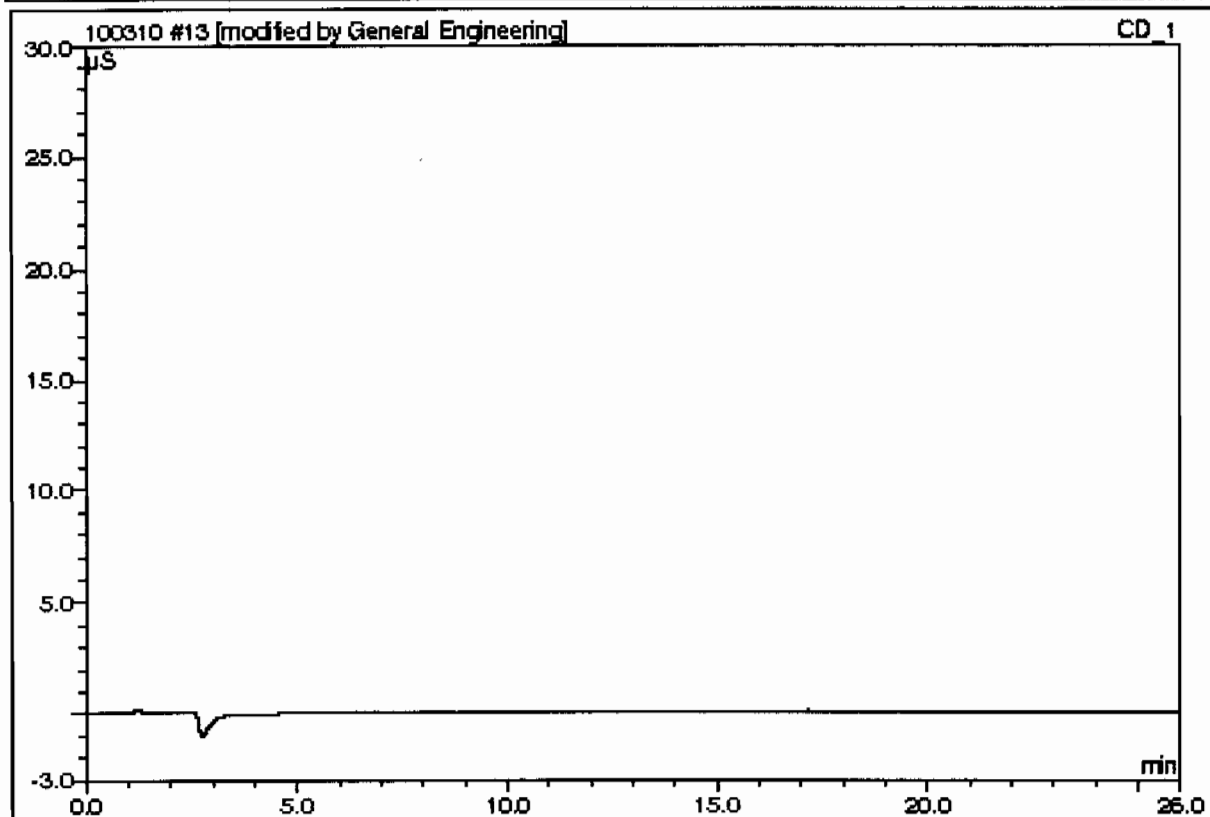
Sample Name:	AUTOCAL2	Injection Volume:	1.0
Vial Number:	8	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	2/26/2010 16:36	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GLGCED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area $\mu\text{S} \cdot \text{min}$	Rel. Area %
1	4.35	Fluoride	0.1000	0.1475		0.04972	10.26
2	7.40	Chloride	0.2000	0.3681		0.07973	16.45
3	9.52	Nitrate-N	0.1000	0.1452		0.06824	14.08
4	11.01	Chlorate	0.2000	0.1890		0.02108	4.35
5	11.97	Bromide	0.2000	0.1899		0.02821	5.82
6	14.07	Nitrate-N	0.1000	0.1840		0.09485	19.57
8	20.66	O-Phosphate-P	0.2000	0.2223		0.02173	4.48
9	23.20	Sulfate	0.4000	0.6333		0.10336	21.33
Total:				2.0793	0.000	0.467	96.35

13 AUTOCAL1

Sample Name:	AUTOCAL 1	Injection Volume:	1.0
Vial Number:	9	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	2/26/2010 17:04	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: 9

Sample Type: standard

Control Program: AS23

Quantif. Method: 100225an

Recording Time: 2/26/2010 17:04

Run Time (min): 26.00

Injection Volume: 1.0

Channel: CD_1

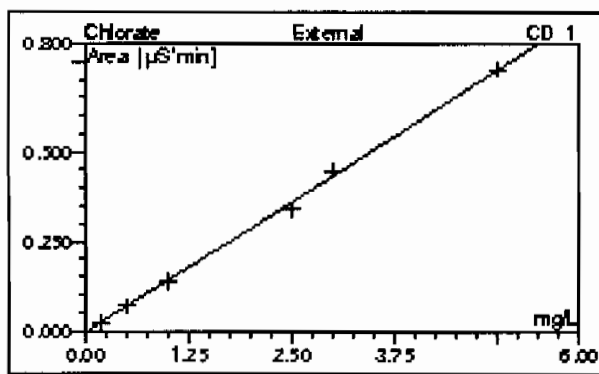
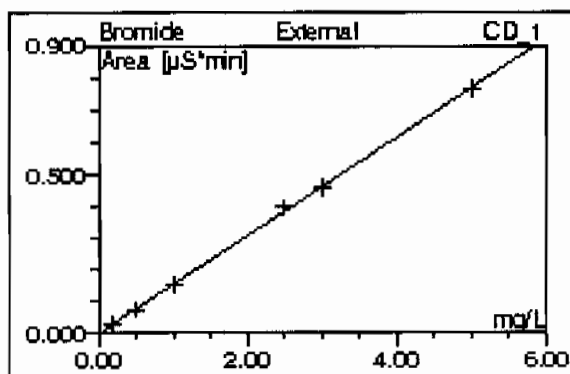
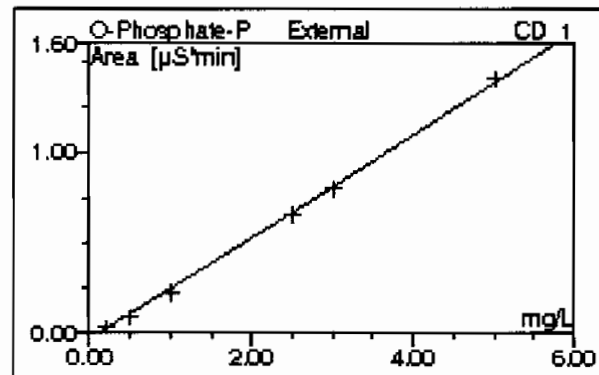
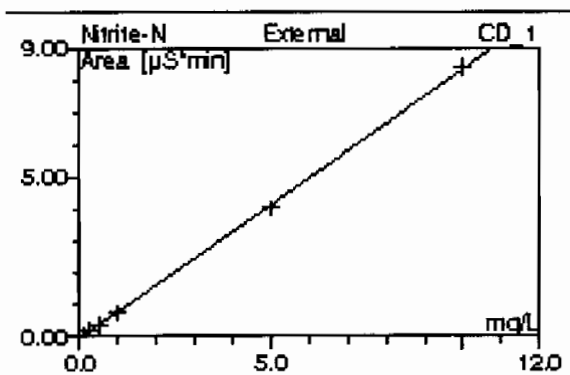
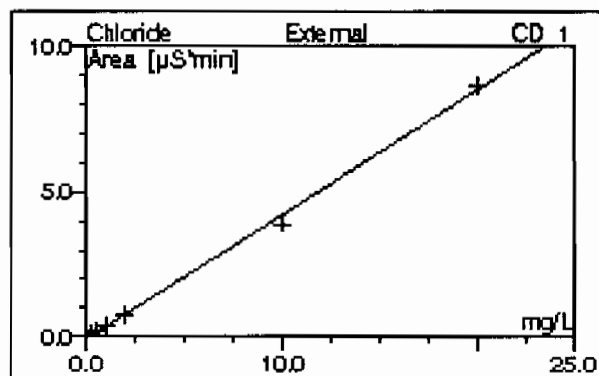
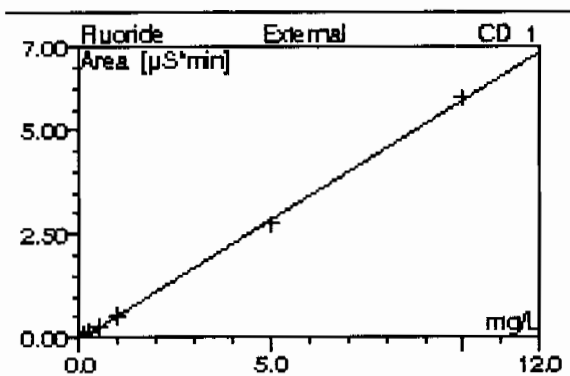
Dilution Factor: 1.0000

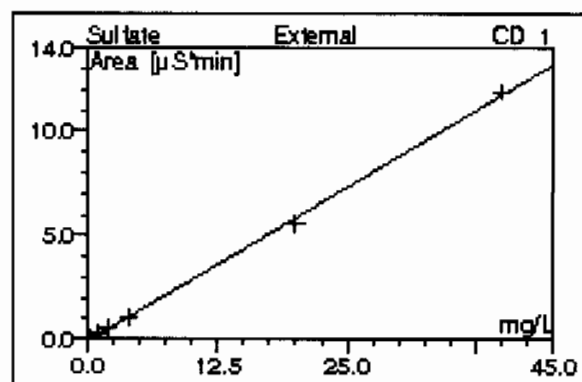
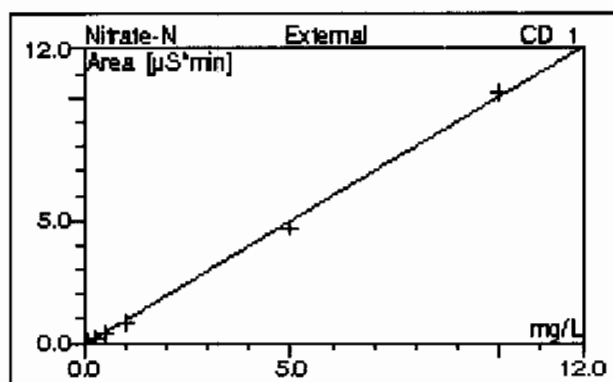
Sample Weight: 1.0000

Sample Amount: 1.0000

Analyst: MAR1

Column: AS23-002712; GL GCED86;300;9056

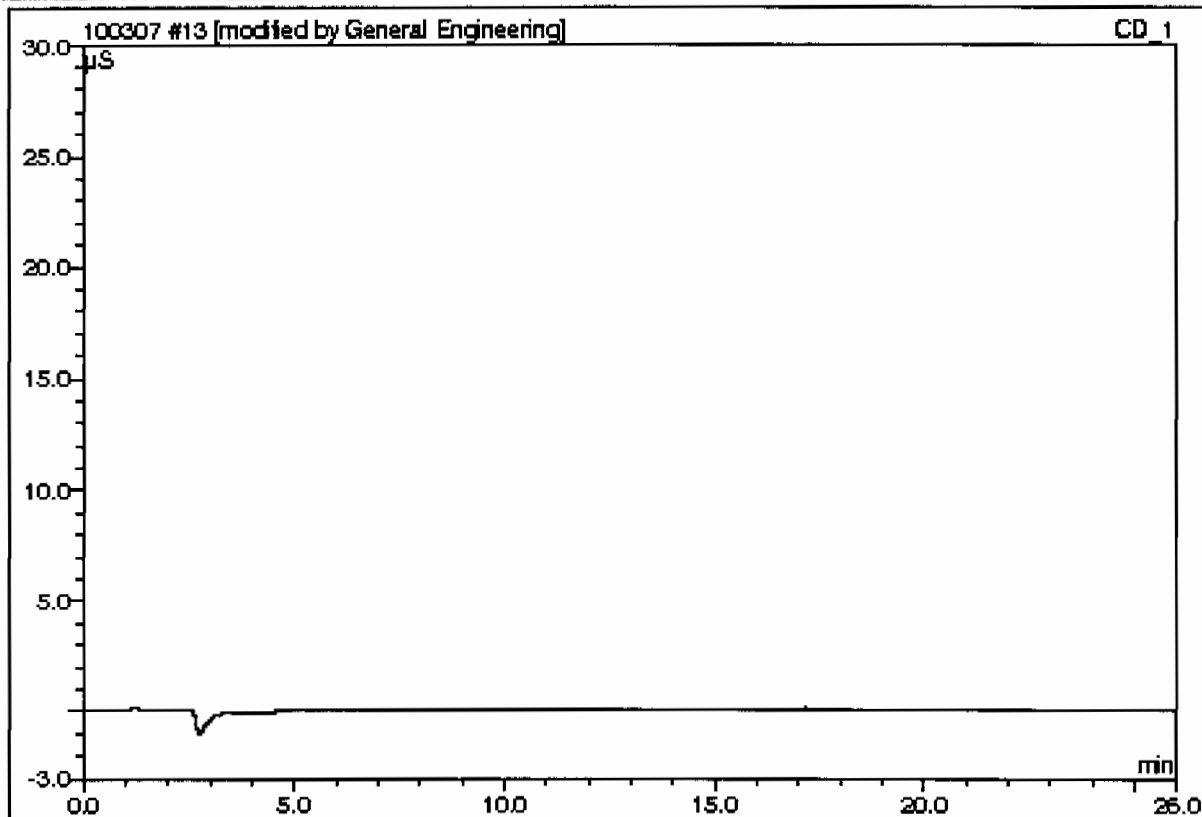




No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
n.a.	n.a.	Fluoride	OLO#	99.9498	-0.0352	0.5760	0.0000
n.a.	n.a.	Chloride	OLO#	99.7865	-0.0783	0.4294	0.0000
n.a.	n.a.	Nitrite-N	OLO#	99.9694	-0.0536	0.8386	0.0000
n.a.	n.a.	Chlorate	OLO#	99.8345	-0.0067	0.1468	0.0000
n.a.	n.a.	Bromide	OLO#	99.9472	-0.0011	0.1542	0.0000
n.a.	n.a.	Nitrate-N	OLO#	99.8450	-0.0913	1.0116	0.0000
n.a.	n.a.	O-Phosphate-P	OLO#	99.8794	-0.0416	0.2851	0.0000
n.a.	n.a.	Sulfate	OLO#	99.8991	-0.0840	0.2959	0.0000
Average:				99.8889	-0.0490	0.4672	0.0000

13 AUTOCAL1

Sample Name:	AUTOCAL1	Injection Volume:	1.0
Vial Number:	9	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	2/26/2010 17:04	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC ED86;300;9056



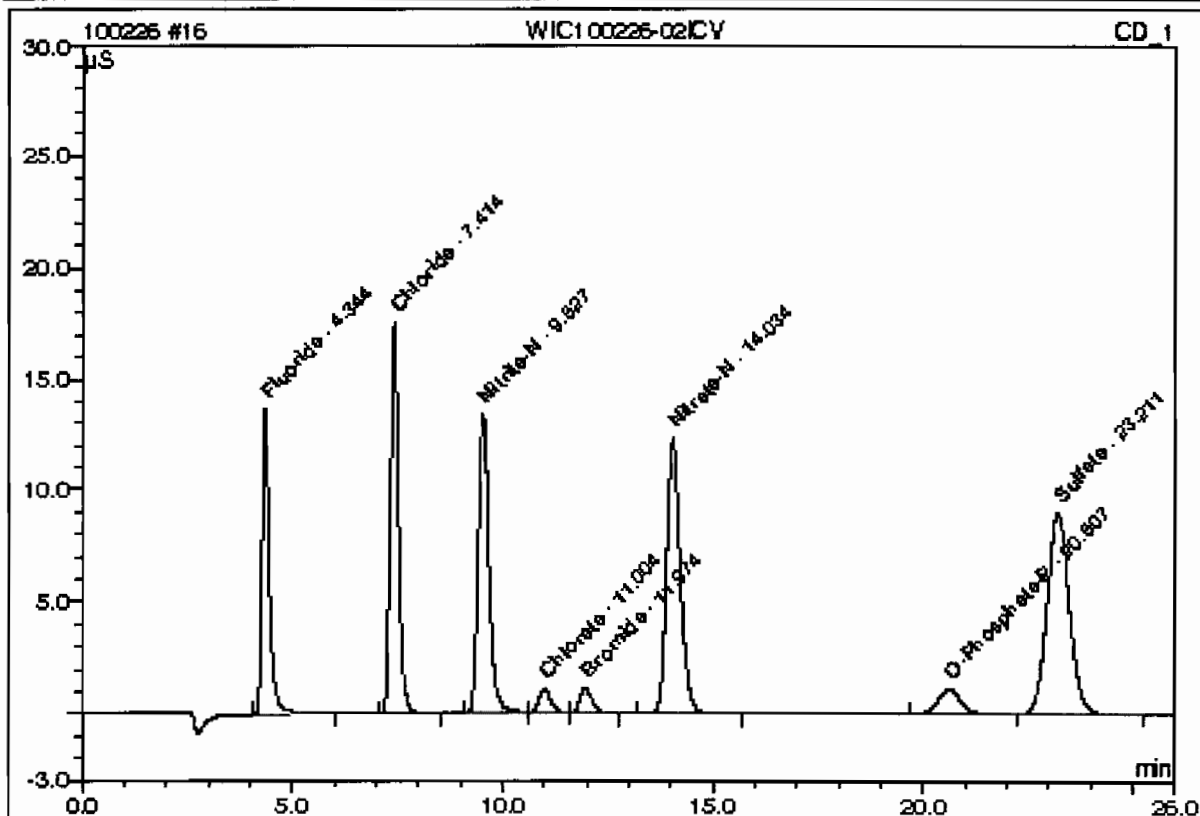
No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area $\mu\text{S} \cdot \text{min}$	Rel. Area %
n.a.	n.a.	Fluoride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.0000	n.a.	n.a.	n.a.	n.a.
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

This is runlog for Sequence 100226.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	02/26/10 13:14		1	100226	MAR1
BLK	02/26/10 13:42		1	100226	MAR1
ICAL-07	02/26/10 14:11		1	100226	MAR1
ICAL-06	02/26/10 14:40		1	100226	MAR1
ICAL-05	02/26/10 15:09		1	100226	MAR1
ICAL-04	02/26/10 15:38		1	100226	MAR1
ICAL-03	02/26/10 16:07		1	100226	MAR1
ICAL-02	02/26/10 16:36		1	100226	MAR1
ICAL-01	02/26/10 17:04		1	100226	MAR1
ICV	02/26/10 17:33		1	100226	MAR1
ICB	02/26/10 18:02		1	100226	MAR1
1202055176	02/26/10 18:31	958323	1	100226	MAR1
1202055181	02/26/10 18:59	958323	1	100226	MAR1
248133001	02/26/10 19:28	958323	1	100226	MAR1
1202055177	02/26/10 19:57	958323	1	100226	MAR1
1202055179	02/26/10 20:26	958323	1	100226	MAR1
248133002	02/26/10 20:55	958323	1	100226	MAR1
248133003	02/26/10 21:24	958323	1	100226	MAR1
248133005	02/26/10 21:53	958323	1	100226	MAR1
248133006	02/26/10 22:22	958323	1	100226	MAR1
248133007	02/26/10 22:50	958323	1	100226	MAR1
CVH	02/26/10 23:19		1	100226	MAR1
CCB	02/26/10 23:48		1	100226	MAR1

16 WIC100226-02ICV

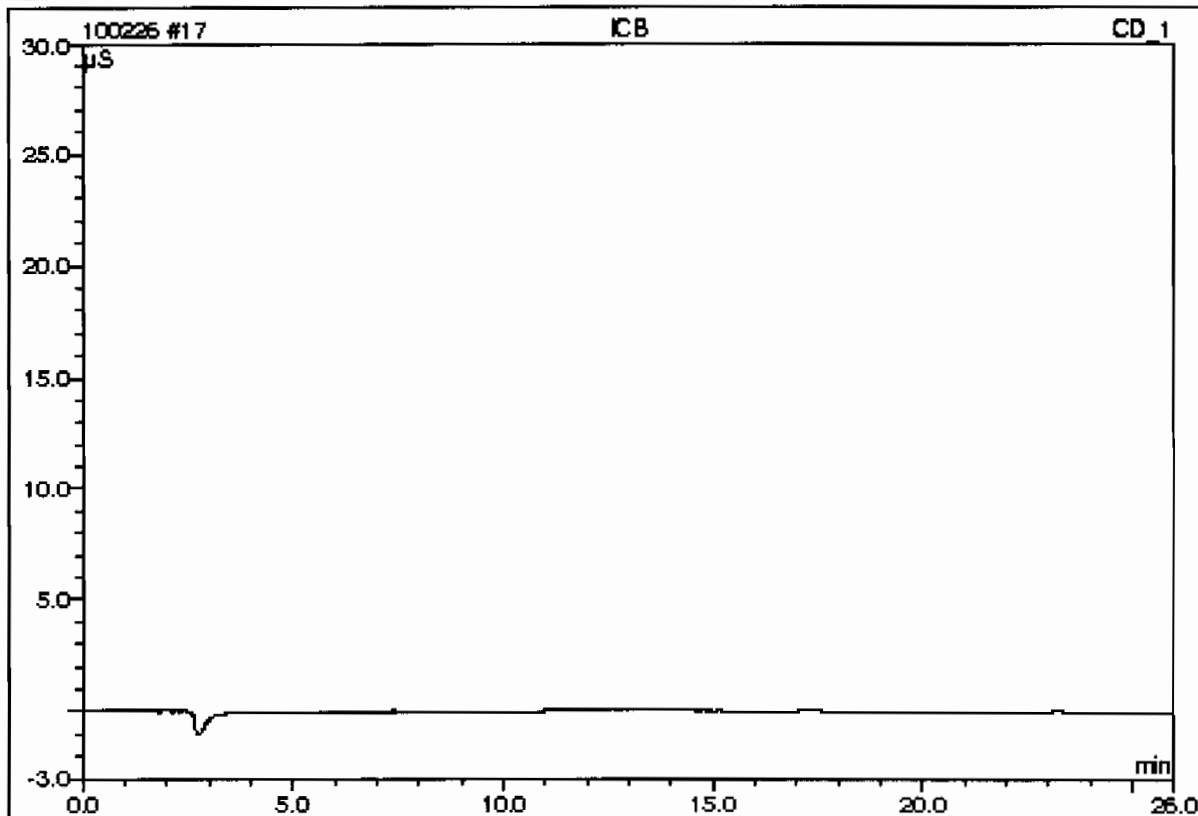
Sample Name:	WIC100226-02ICV	Injection Volume:	1.0
Vial Number:	10	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	2/26/2010 17:33	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area μS*min	Rel. Area %
1	4.34	Fluoride	n.a.	4.8533		2.76044	12.27
2	7.41	Chloride	n.a.	9.4181		3.96602	17.63
3	9.53	Nitrate-N	n.a.	4.8245		3.99229	17.75
4	11.00	Chlorate	n.a.	2.4815		0.35771	1.59
5	11.97	Bromide	n.a.	2.4889		0.38276	1.70
6	14.03	Nitrate-N	n.a.	4.7766		4.74087	21.07
7	20.61	O-Phosphate-P	n.a.	2.7182		0.73321	3.26
8	23.21	Sulfate	n.a.	19.0842		5.56215	24.73
Total:				50.6453	0.000	22.495	100.00

17 ICB

Sample Name:	ICB	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:	100225an	Sample Amount:	1.0000
Recording Time:	2/26/2010 18:02	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC E086;300;9056



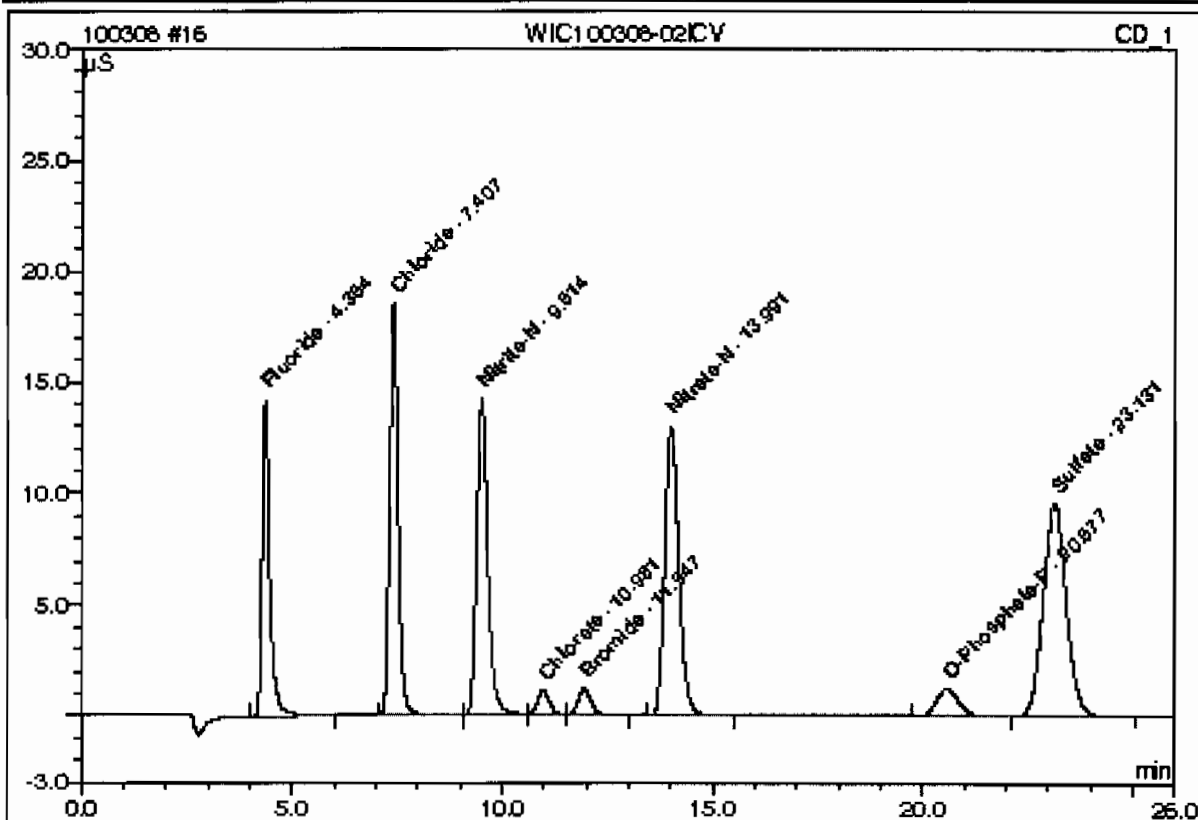
No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	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 100308.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/08/10 13:41		1	100308	MAR1
BLK	03/08/10 14:09		1	100308	MAR1
ICV	03/08/10 14:38		1	100308	MAR1
ICB	03/08/10 15:07		1	100308	MAR1
247136002	03/08/10 15:36	959540	5	100308	MAR1
CVH	03/08/10 16:04		1	100308	MAR1
CCB	03/08/10 17:21		1	100308	MAR1
1202053710	03/08/10 17:50	957728	1	100308	MAR1
1202053717	03/08/10 18:18	957728	1	100308	MAR1
247539001	03/08/10 18:47	957728	1	100308	MAR1
1202053711	03/08/10 19:16	957728	1	100308	MAR1
1202053713	03/08/10 19:45	957728	1	100308	MAR1
1202053715	03/08/10 20:14	957728	1	100308	MAR1
247539002	03/08/10 20:43	957728	1	100308	MAR1
247539003	03/08/10 21:12	957728	1	100308	MAR1
247539004	03/08/10 21:41	957728	1	100308	MAR1
247539005	03/08/10 22:10	957728	1	100308	MAR1
CCV	03/08/10 22:39		1	100308	MAR1
CCB	03/08/10 23:08		1	100308	MAR1
247539006	03/08/10 23:36	957728	1	100308	MAR1

16 WIC100308-02ICV

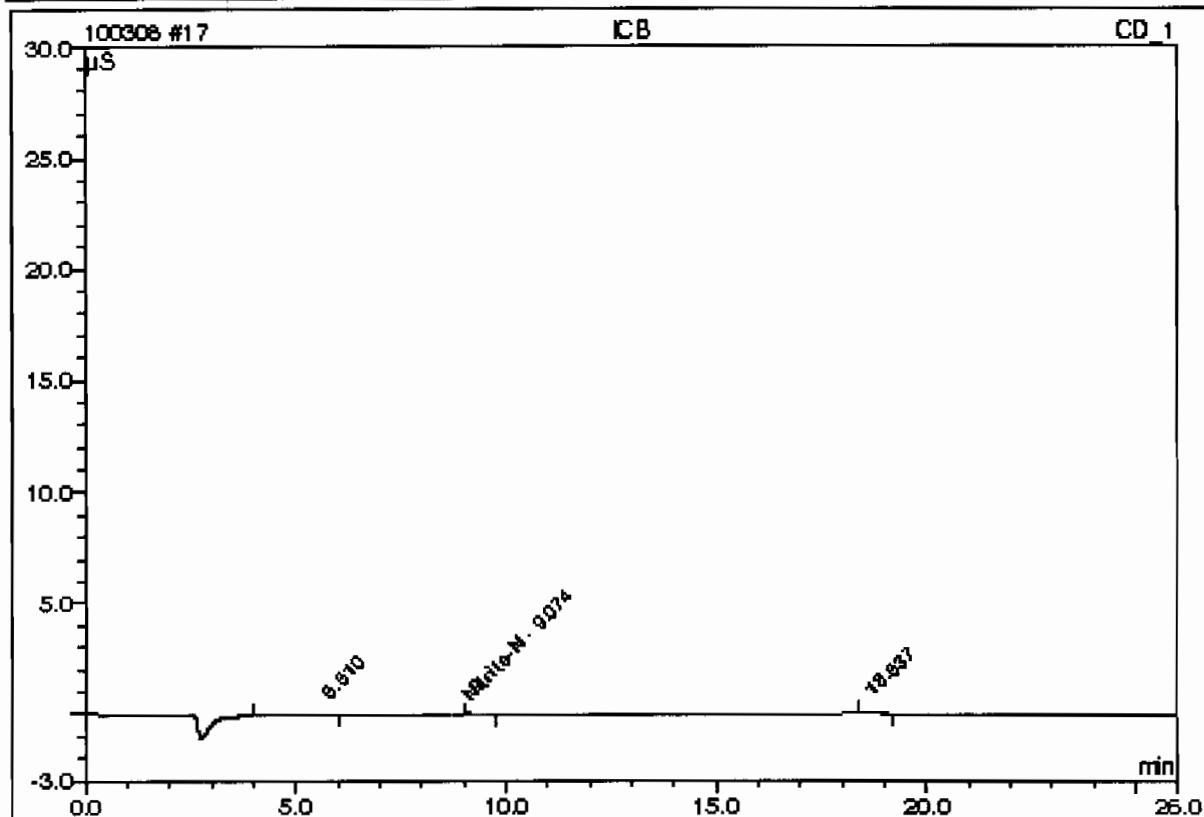
Sample Name:	WIC100308-02ICV	Injection Volume:	1.0
Vial Number:	3	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	3/8/2010 14:38	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC E086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.35	Fluoride	n.a.	5.2130		2.96767	12.20
2	7.41	Chloride	n.a.	10.2033		4.30317	17.69
3	9.51	Nitrite-N	n.a.	5.2190		4.32348	17.77
4	10.98	Chlorate	n.a.	2.7757		0.40218	1.65
5	11.95	Bromide	n.a.	2.6893		0.41685	1.71
6	13.99	Nitrate-N	n.a.	5.1154		5.08363	20.90
7	20.58	O-Phosphate-P	n.a.	2.8716		0.77644	3.19
8	23.13	Sulfate	n.a.	20.7288		6.05507	24.89
Total:				54.8161	0.000	24.328	100.00

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:	100225an	Sample Amount:	1.0000
Recording Time:	3/8/2010 15:07	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCED86;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.
2	9.07	Nitrite-N	n.a.	0.0813		0.01530	26.19
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:				0.0813	0.000	0.015	26.19

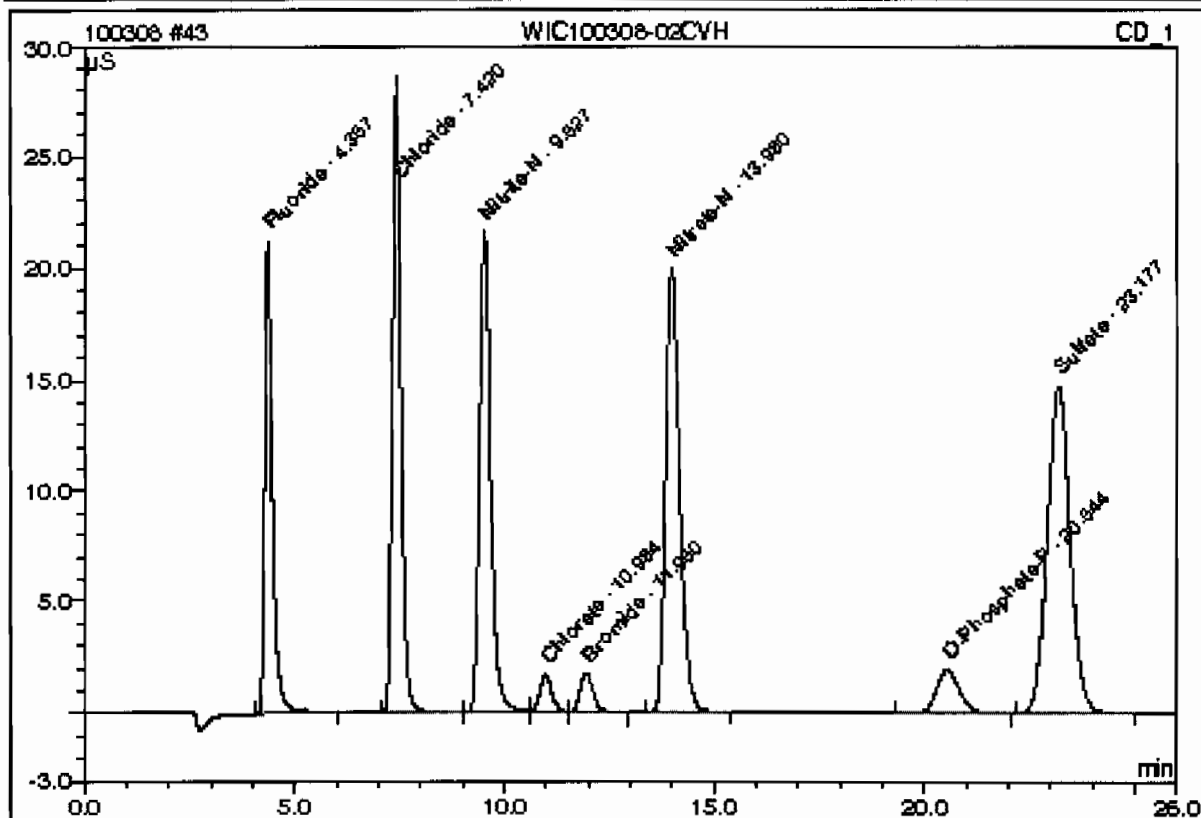
This is runlog for Sequence 100308.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
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247539008	03/09/10 00:34	957728	1	100308	MAR1
247539009	03/09/10 01:03	957728	1	100308	MAR1
247539010	03/09/10 01:32	957728	1	100308	MAR1
247539011	03/09/10 02:01	957728	1	100308	MAR1
1202053712	03/09/10 02:30	957728	1	100308	MAR1
1202053714	03/09/10 02:59	957728	1	100308	MAR1
1202053716	03/09/10 03:28	957728	1	100308	MAR1
247920002	03/09/10 03:57	957728	1	100308	MAR1
CVH	03/09/10 04:26		1	100308	MAR1
CCB	03/09/10 04:54		1	100308	MAR1
1202053690	03/09/10 05:23	957722	1	100308	MAR1
1202053697	03/09/10 05:52	957722	1	100308	MAR1
247469001	03/09/10 06:21	957722	1	100308	MAR1
1202053691	03/09/10 06:50	957722	1	100308	MAR1
1202053693	03/09/10 07:19	957722	1	100308	MAR1
1202053695	03/09/10 07:48	957722	1	100308	MAR1
247469002	03/09/10 08:17	957722	1	100308	MAR1
247469003	03/09/10 08:46	957722	1	100308	MAR1
247561001	03/09/10 09:15	957722	1	100308	MAR1
247561002	03/09/10 09:44	957722	1	100308	MAR1
CCV	03/09/10 10:13		1	100308	MAR1
CCB	03/09/10 10:41		1	100308	MAR1
247561003	03/09/10 11:10	957722	1	100308	MAR1
247561004	03/09/10 11:39	957722	1	100308	MAR1
247561005	03/09/10 12:08	957722	1	100308	MAR1
247561006	03/09/10 12:37	957722	1	100308	MAR1
247561007	03/09/10 13:06	957722	1	100308	MAR1

247561008	03/09/10 13:34 957722 1	100308	MAR1
1202053692	03/09/10 14:03 957722 1	100308	MAR1
1202053694	03/09/10 14:32 957722 1	100308	MAR1
1202053696	03/09/10 15:01 957722 1	100308	MAR1
CVH	03/09/10 15:30 1	100308	MAR1
CCB	03/09/10 15:59 1	100308	MAR1
1202063651	03/09/10 16:28 962088 1	100308	MAR1
1202063658	03/09/10 16:57 962088 1	100308	MAR1
248054001	03/09/10 17:26 962088 1	100308	MAR1
1202063652	03/09/10 17:55 962088 1	100308	MAR1
1202063654	03/09/10 18:24 962088 1	100308	MAR1
1202063656	03/09/10 18:52 962088 1	100308	MAR1
248054002	03/09/10 19:21 962088 1	100308	MAR1
248054003	03/09/10 19:50 962088 1	100308	MAR1
248054004	03/09/10 20:19 962088 1	100308	MAR1
248058001	03/09/10 20:48 962088 1	100308	MAR1
CCV	03/09/10 21:17 1	100308	MAR1
CCB	03/09/10 21:46 1	100308	MAR1
248058002	03/09/10 22:15 962088 1	100308	MAR1
248058003	03/09/10 22:44 962088 1	100308	MAR1
248058004	03/09/10 23:13 962088 1	100308	MAR1
248058005	03/09/10 23:42 962088 1	100308	MAR1

43 WIC100308-02CVH

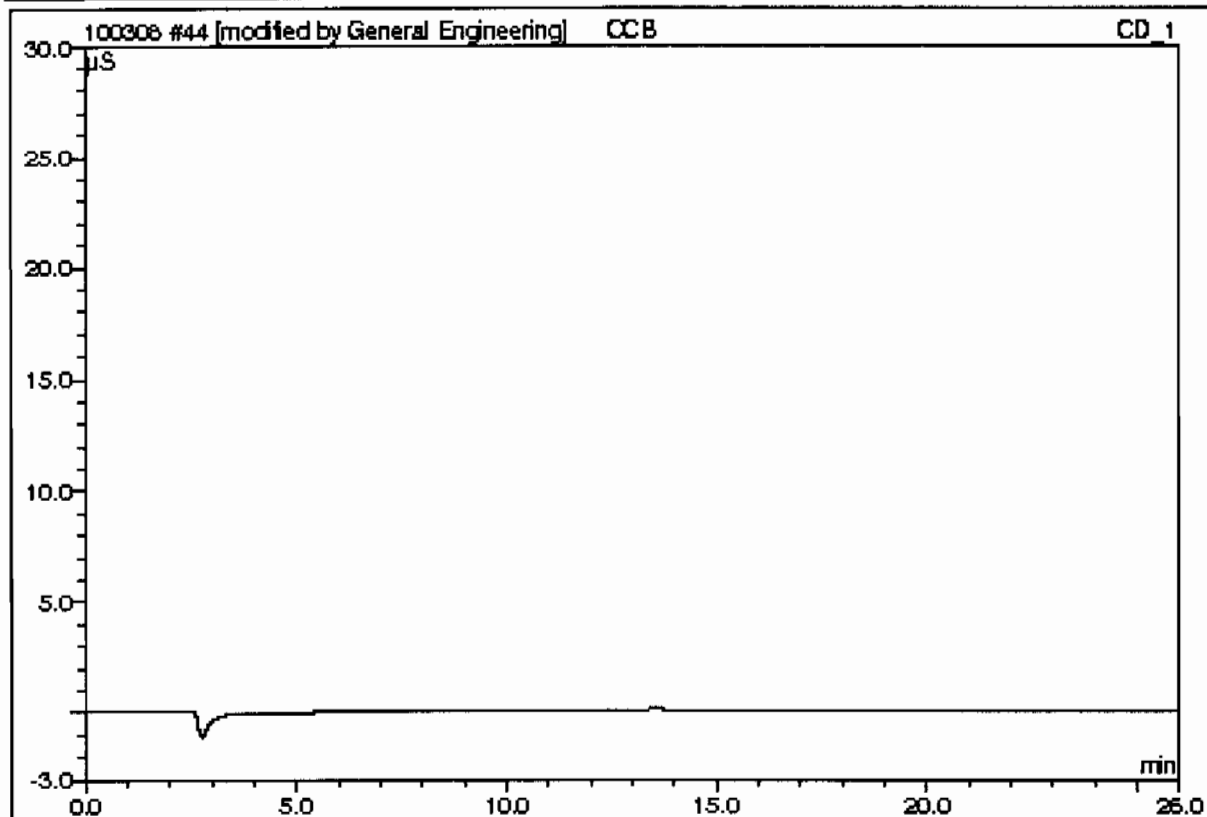
Sample Name:	WIC100308-02CVH	Injection Volume:	1.0
Vial Number:	30	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	3/9/2010 4:26	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GLGCED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.36	Fluoride	n.a.	7.7816		4.44726	11.97
2	7.42	Chloride	n.a.	15.6921		6.66021	17.92
3	9.53	Nitrite-N	n.a.	7.9309		6.59754	17.75
4	10.98	Chlorate	n.a.	3.9482		0.57465	1.55
5	11.95	Bromide	n.a.	3.9618		0.61394	1.65
6	13.98	Nitrate-N	n.a.	7.8377		7.83756	21.09
7	20.54	O-Phosphate-P	n.a.	4.3868		1.20936	3.25
8	23.18	Sulfate	n.a.	31.4455		9.21831	24.81
Total:				82.9844	0.000	37.159	100.00

44 CCB

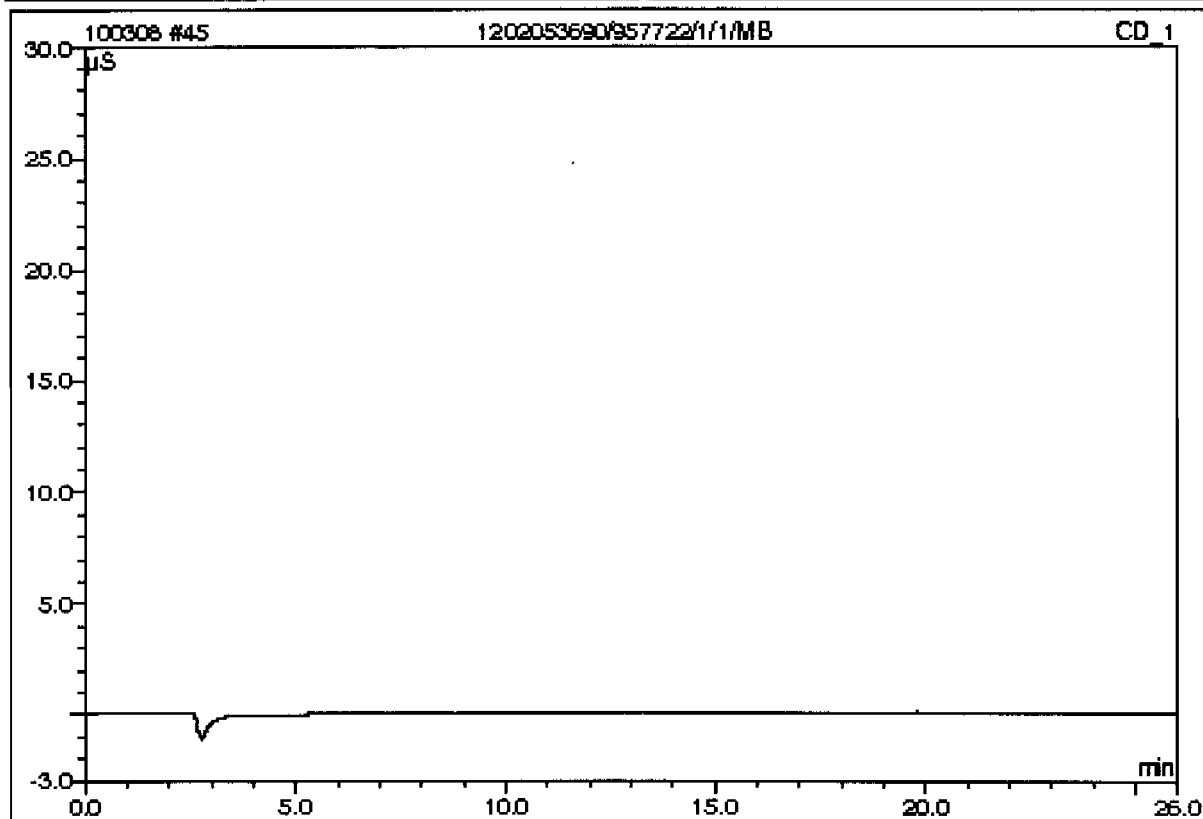
Sample Name:	CCB	Injection Volume:	1.0
Vial Number:	31	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	3/9/2010 4:54	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC E086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area μS*min	Rel. Area %
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

45 1202053690/957722/1/1/MB

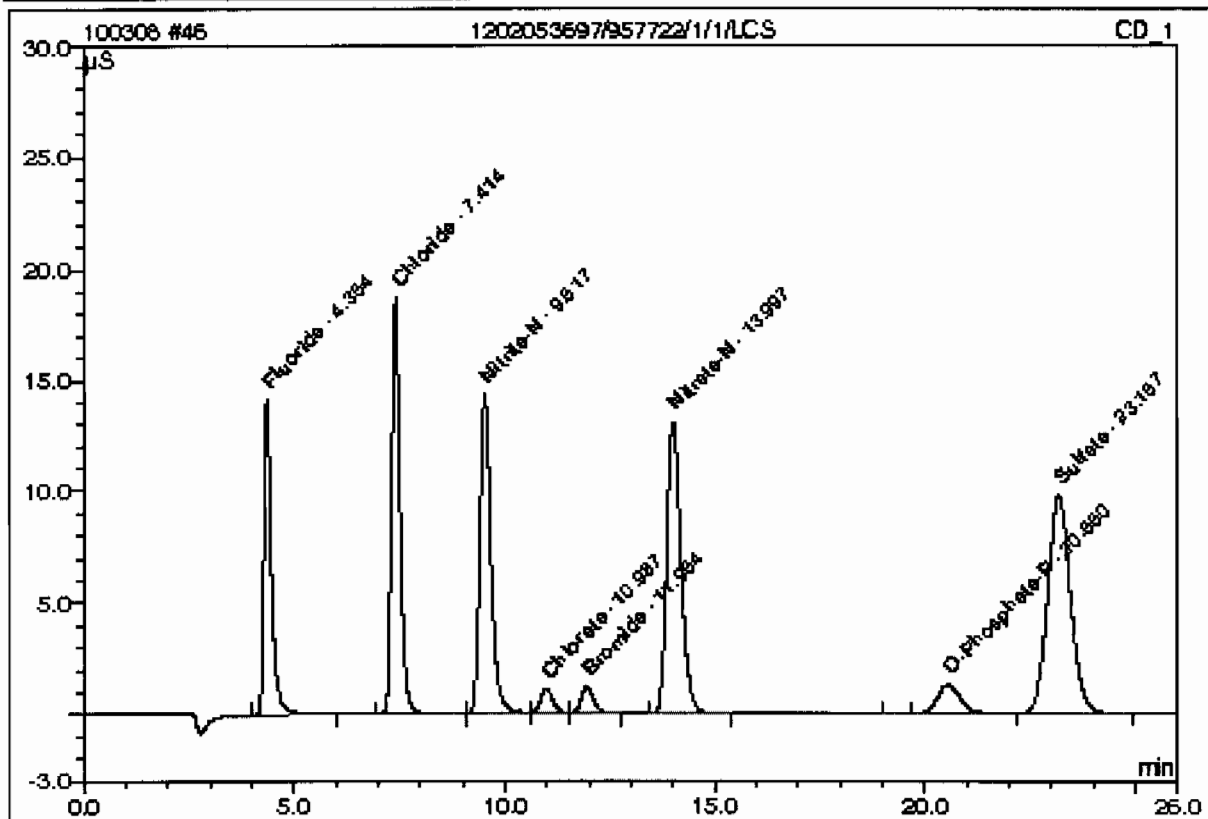
Sample Name:	1202053690/957722/1/1/MB	Injection Volume:	1.0
Vial Number:	32	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	3/9/2010 5:23	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area uS*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.	Nitrile-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

46 1202053697/957722/1/1/LCS

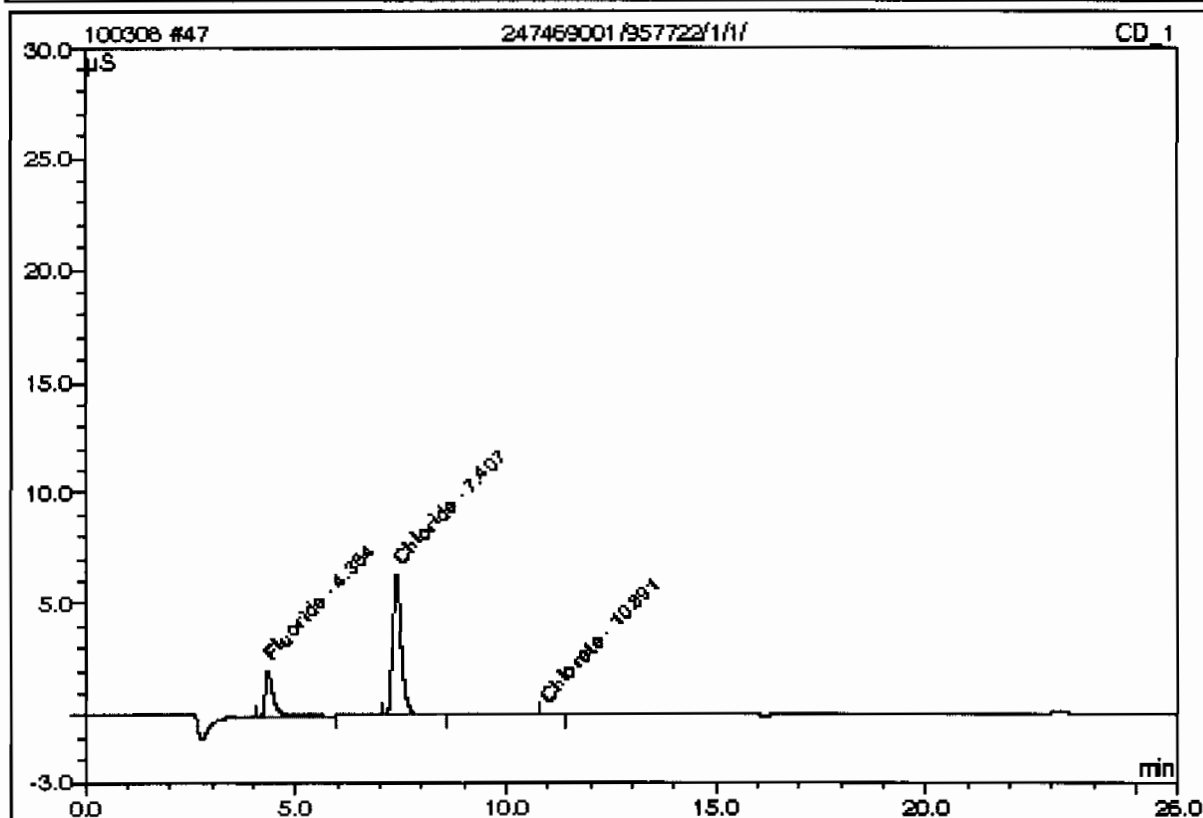
Sample Name:	1202053697/957722/1/1/LCS	Injection Volume:	1.0
Vial Number:	33	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	3/9/2010 5:52	Analyst:	MAR1
Run Time (min):	26.00	Column:	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	4.35	Fluoride	n.a.	5.2299		2.97742	12.04
2	7.41	Chloride	n.a.	10.3565		4.36698	17.67
3	9.52	Nitrite-N	n.a.	5.2946		4.38687	17.74
4	10.99	Chlorate	n.a.	2.6676		0.38629	1.56
5	11.95	Bromide	n.a.	2.6764		0.41485	1.68
6	14.00	Nitrate-N	n.a.	5.1838		5.15284	20.84
7	20.55	O-Phosphate-P	n.a.	2.9525		0.79956	3.23
8	23.17	Sulfate	n.a.	21.3634		6.24237	25.24
Total:				55.7247	0.000	24.729	100.00

47 247469001/957722/1/1/

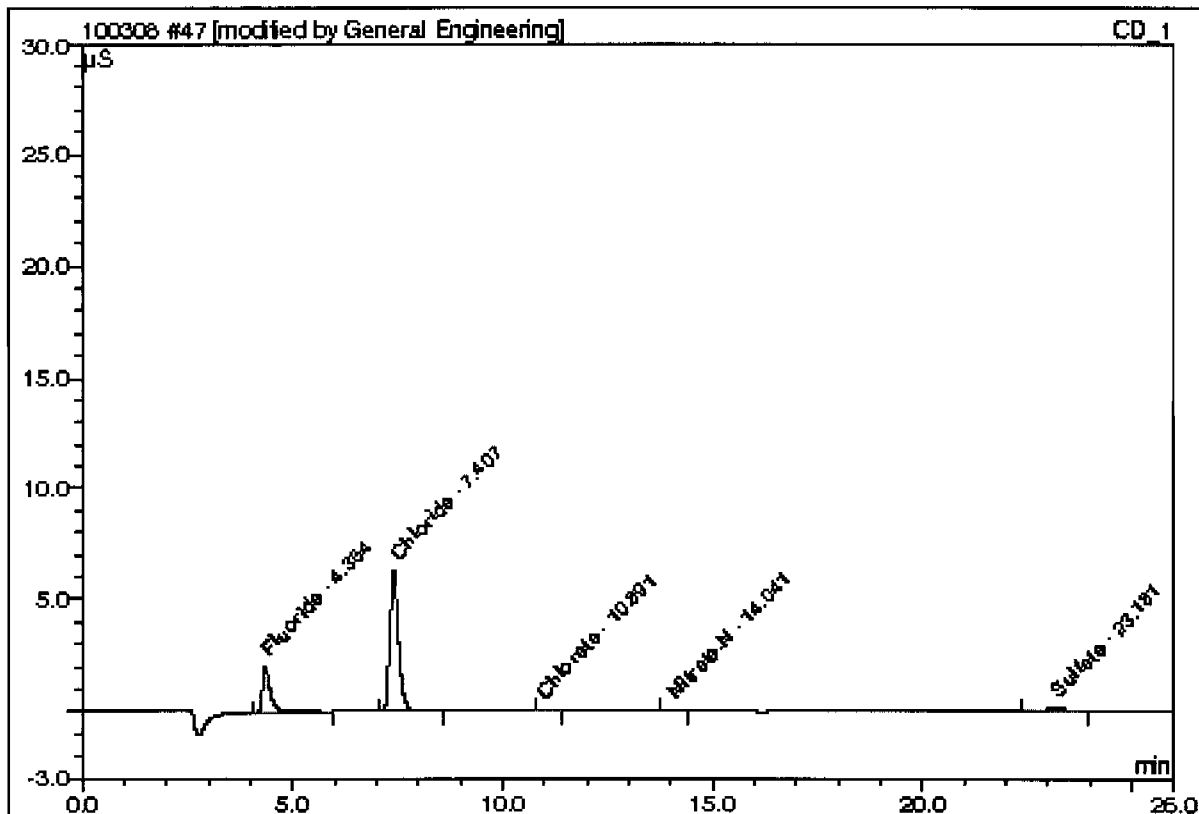
Sample Name:	247469001/957722/1/1/	Injection Volume:	1.0
Vial Number:	34	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	3/9/2010 6:21	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;0056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area μS*min	Rel. Area %
1	4.35	Fluoride	n.a.	0.8659		0.46357	23.42
2	7.41	Chloride	n.a.	3.6752		1.49986	75.78
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
3	10.89	Chlorate	n.a.	0.1525		0.01572	0.79
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:				4.6936	0.000	1.979	100.00

47 247469001/957722/1/1/

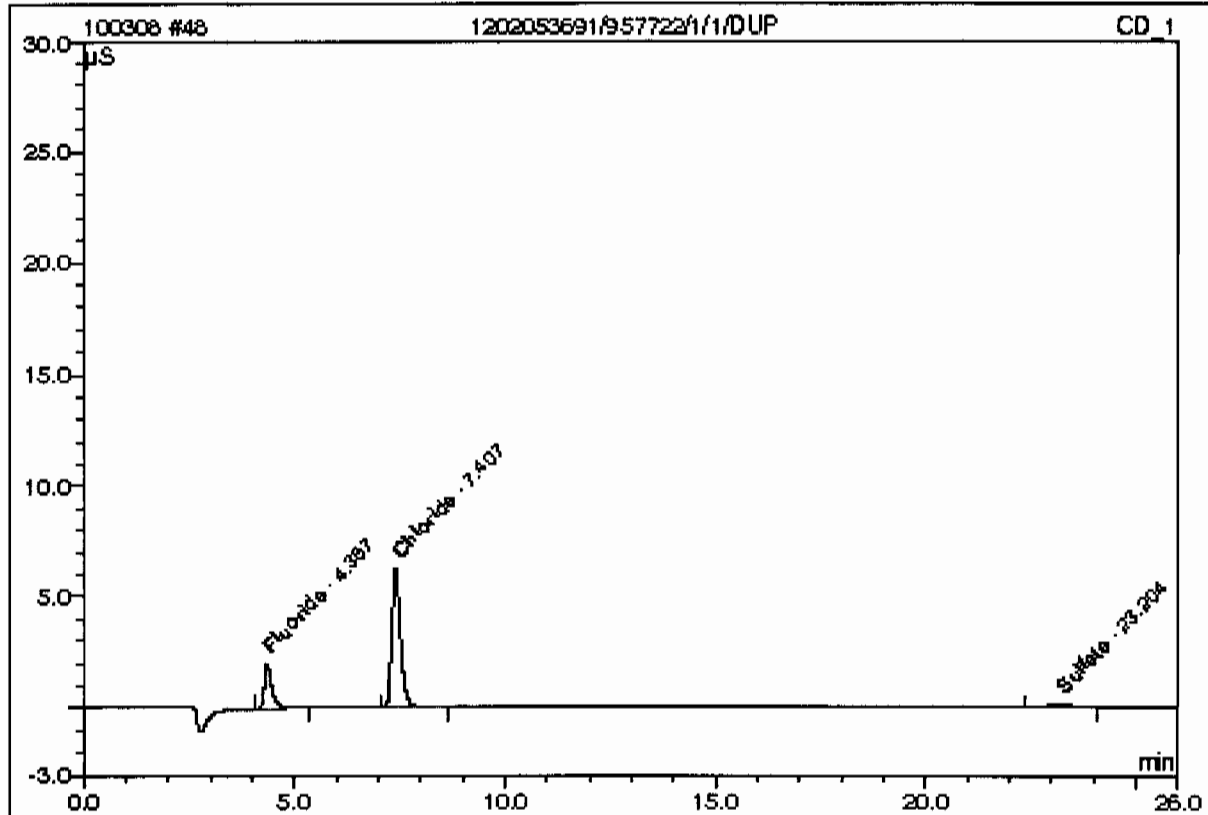
Sample Name:	247469001/957722/1/1/	Injection Volume:	1.0
Vial Number:	34	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	3/9/2010 6:21	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.35	Fluoride	n.a.	0.8659		0.46357	22.30
2	7.41	Chloride	n.a.	3.6752		1.49986	72.17
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
3	10.89	Chlorate	n.a.	0.1485		0.01572	0.76
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
4	14.04	Nitrate-N	n.a.	0.1024		0.01234	0.59
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	23.18	Sulfate	n.a.	0.5093		0.08688	4.18
Total:				5.3013	0.000	2.078	100.00

48 1202053691/957722/1/1/DUP

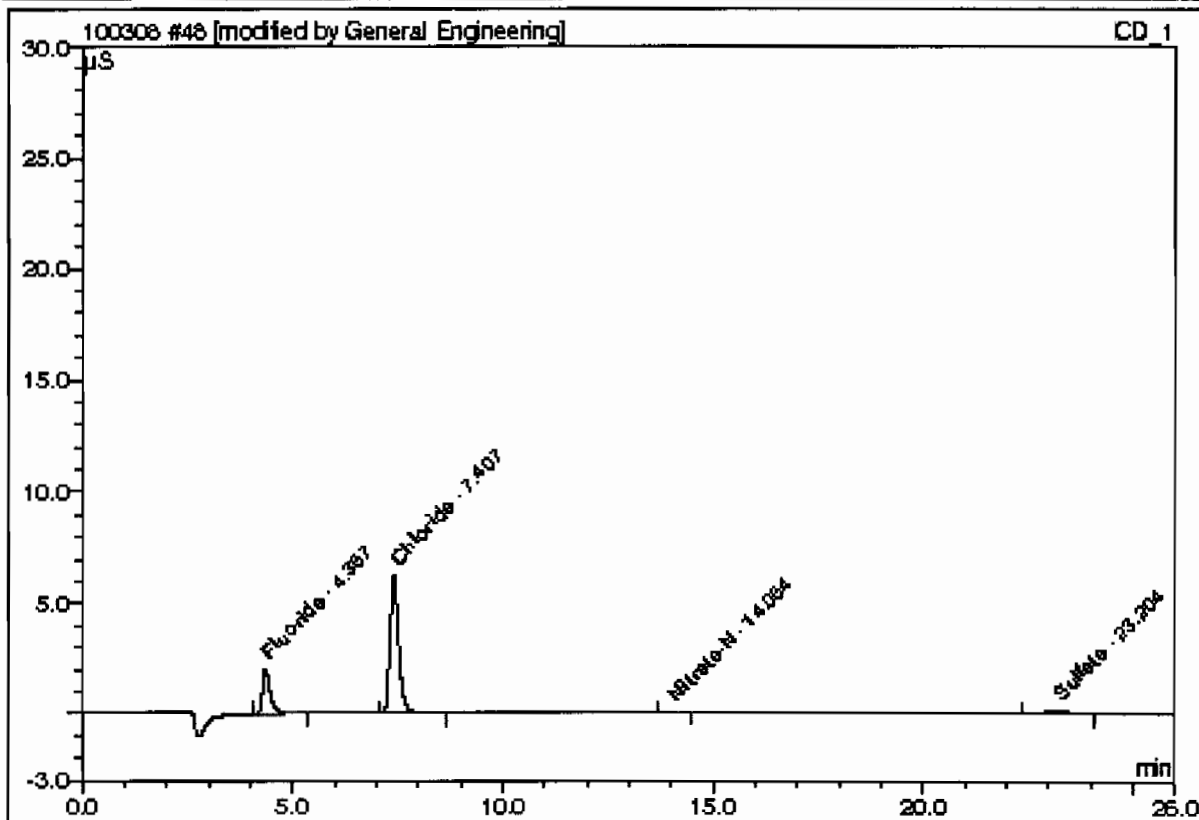
Sample Name:	1202053691/957722/1/1/DUP	Injection Volume:	1.0
Vial Number:	35	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	3/9/2010 6:50	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086,300;0056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area $\mu\text{S} \cdot \text{min}$	Rel. Area %
1	4.36	Fluoride	n.a.	0.6333		0.44480	21.84
2	7.41	Chloride	n.a.	3.6733		1.49905	73.59
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	23.20	Sulfate	n.a.	0.5990		0.09321	4.58
Total:				5.1056	0.000	2.037	100.00

48 1202053691/957722/1/1/DUP

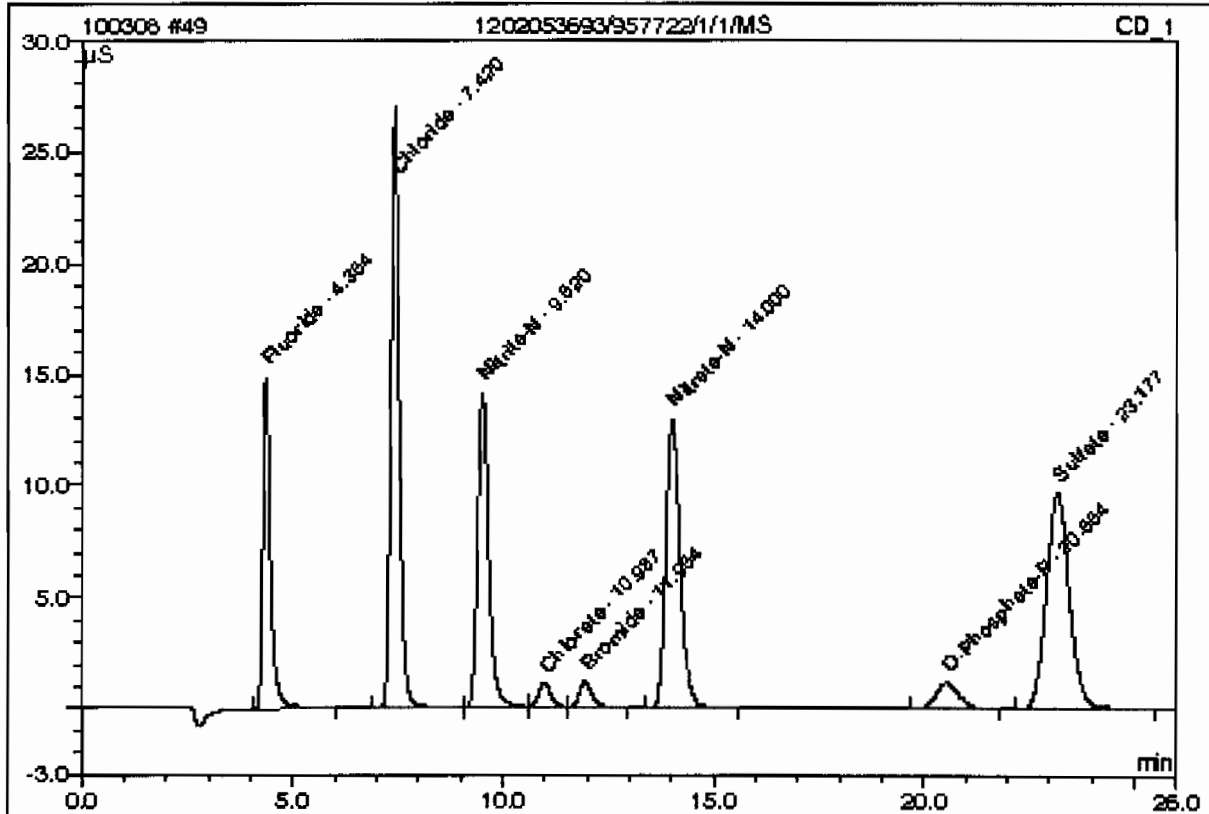
Sample Name:	1202053691/957722/1/1/DUP	Injection Volume:	1.0
Vial Number:	35	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	3/9/2010 6:50	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC E086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area $\mu\text{S} \cdot \text{min}$	Rel.Area %
1	4.36	Fluoride	n.a.	0.8333		0.44480	21.70
2	7.41	Chloride	n.a.	3.6733		1.49905	73.12
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	14.05	Nitrate-N	n.a.	0.1032		0.01310	0.64
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.20	Sulfate	n.a.	0.5308		0.09321	4.55
Total:				5.1406	0.000	2.050	100.00

49 1202053693/957722/1/1/MS

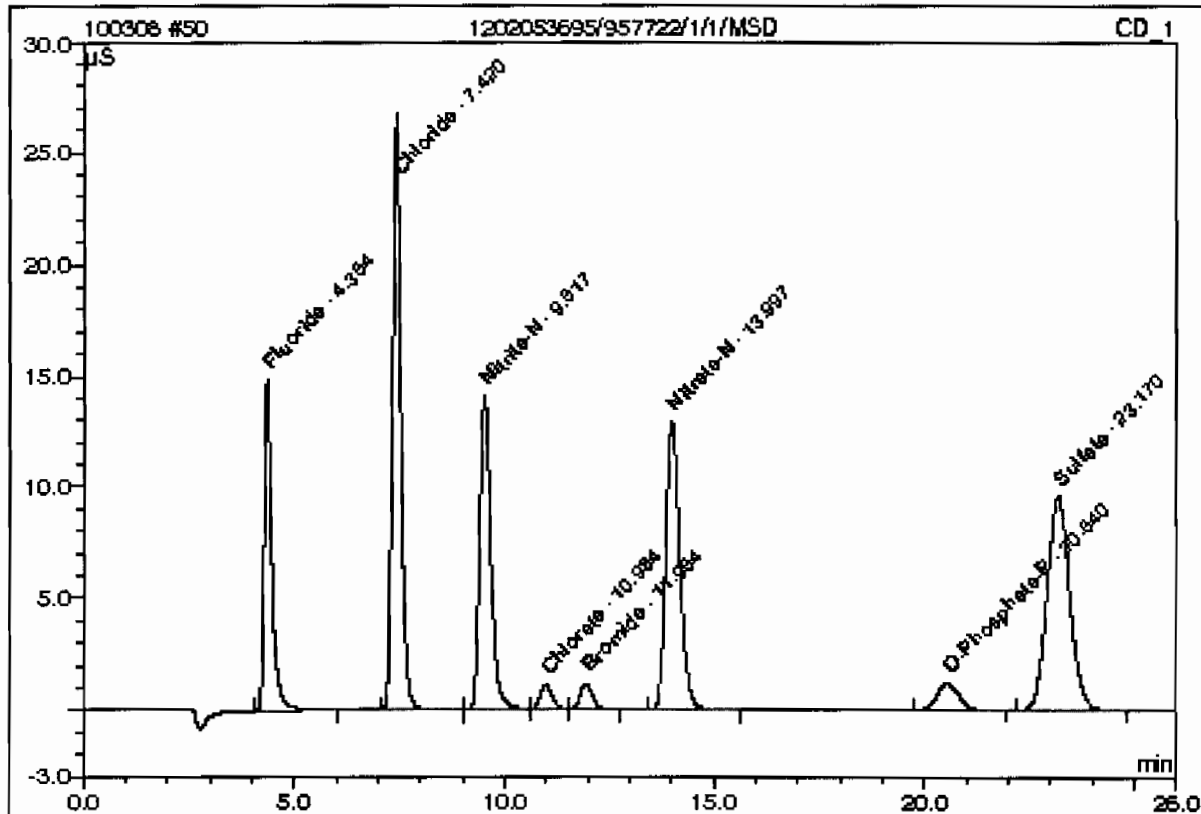
Sample Name:	1202053693/957722/1/1/MS	Injection Volume:	1.0
Vial Number:	36	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	3/9/2010 7:19	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area $\mu\text{S} \cdot \text{min}$	Rel. Area %
1	4.35	Fluoride	n.a.	5.5221		3.14574	11.84
2	7.42	Chloride	n.a.	14.7977		6.27611	23.62
3	9.52	Nitrite-N	n.a.	5.2558		4.35434	16.39
4	10.99	Chlorate	n.a.	2.7025		0.39141	1.47
5	11.95	Bromide	n.a.	2.7040		0.41913	1.58
6	14.00	Nitrate-N	n.a.	5.1402		5.10868	19.23
7	20.55	O-Phosphate-P	n.a.	2.7522		0.74235	2.79
8	23.18	Sulfate	n.a.	20.9905		6.13231	23.08
Total:				59.8650	0.000	26.570	100.00

50 1202053695/957722/1/1/MSD

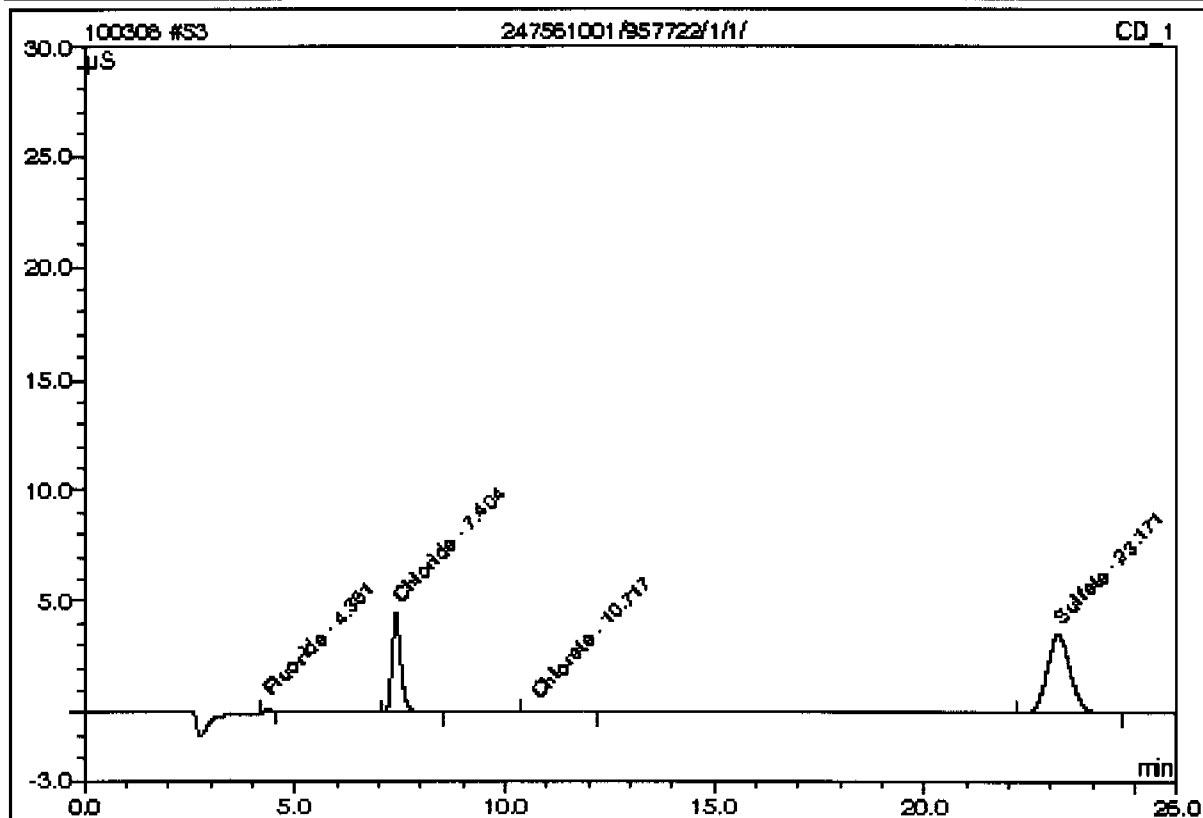
Sample Name:	1202053695/957722/1/1/MSD	Injection Volume:	1.0
Vial Number:	37	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	3/9/2010 7:48	Analyst:	MAR1
Run Time (min):	26.00	Column:	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	4.35	Fluoride	n.a.	5.4878		3.12597	11.93
2	7.42	Chloride	n.a.	14.5457		6.16792	23.53
3	9.52	Nitrate-N	n.a.	5.1761		4.28750	16.36
4	10.98	Chlorate	n.a.	2.6171		0.37885	1.45
5	11.95	Bromide	n.a.	2.6239		0.40672	1.55
6	14.00	Nitrate-N	n.a.	5.1178		5.08603	19.40
7	20.54	O-Phosphate-P	n.a.	2.7052		0.72890	2.78
8	23.17	Sulfate	n.a.	20.6425		6.02957	23.00
Total:				58.9160	0.000	26.211	100.00

53 247561001/957722/1/1/

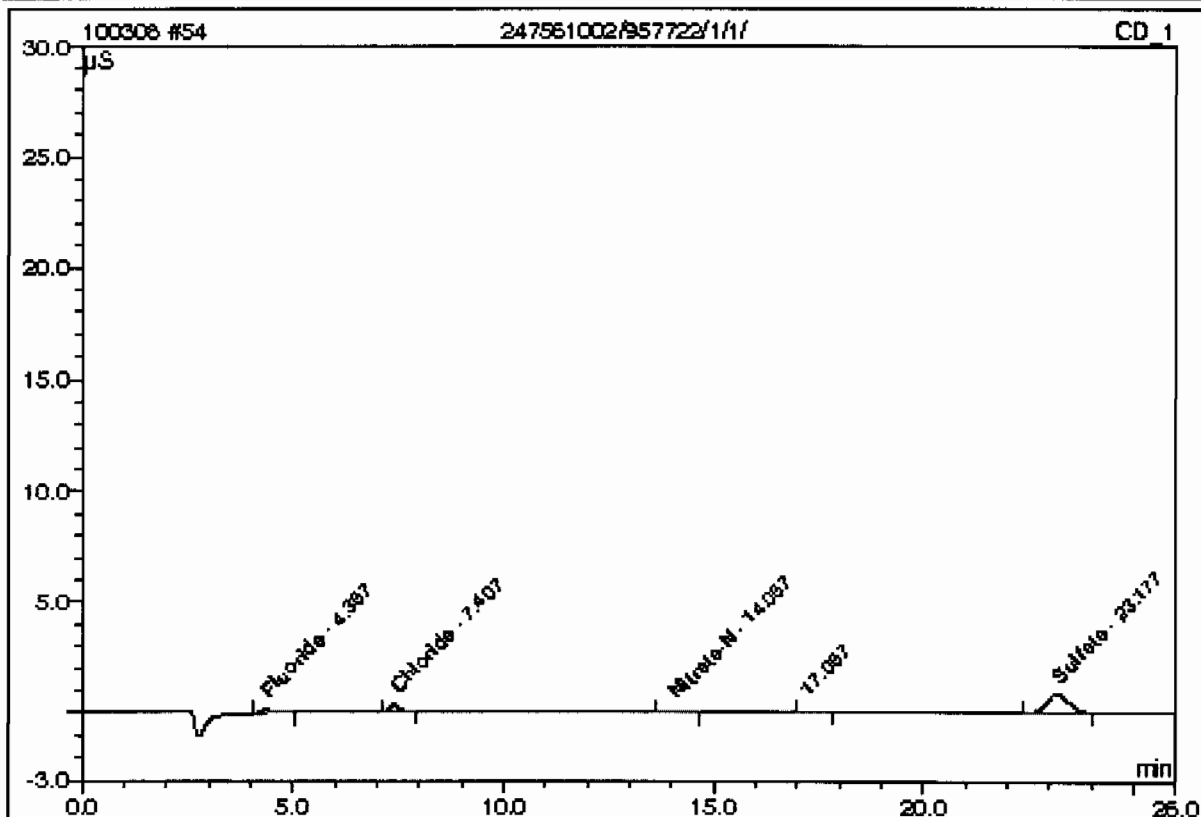
Sample Name:	247561001/957722/1/1/	Injection Volume:	1.0
Vial Number:	40	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	3/9/2010 9:15	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; 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.	0.1212		0.03459	1.01
2	7.40	Chloride	n.a.	2.6884		1.07613	31.41
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
3	10.72	Chlorate	n.a.	0.4050		0.05345	1.58
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	23.17	Sulfate	n.a.	7.8763		2.26137	66.02
Total:				11.0908	0.000	3.426	100.00

54 247561002/957722/1/1/

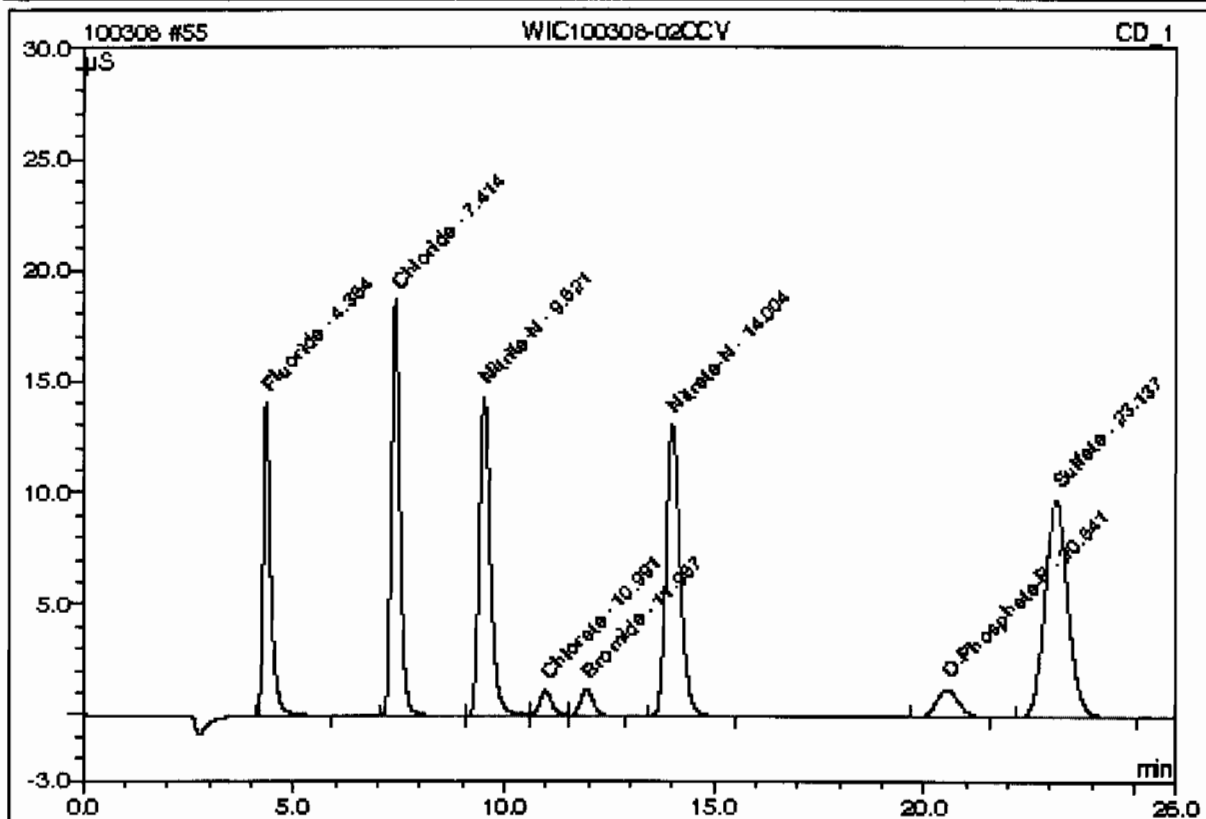
Sample Name:	247561002/957722/1/1/	Injection Volume:	1.0
Vial Number:	41	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	3/9/2010 9:44	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; 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.	0.1461		0.04890	6.63
2	7.41	Chloride	n.a.	0.3901		0.08916	12.09
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	14.06	Nitrate-N	n.a.	0.1172		0.02730	3.70
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	23.18	Sulfate	n.a.	2.0996		0.55627	75.41
Total:				2.7528	0.000	0.722	97.82

55 WIC100308-02CCV

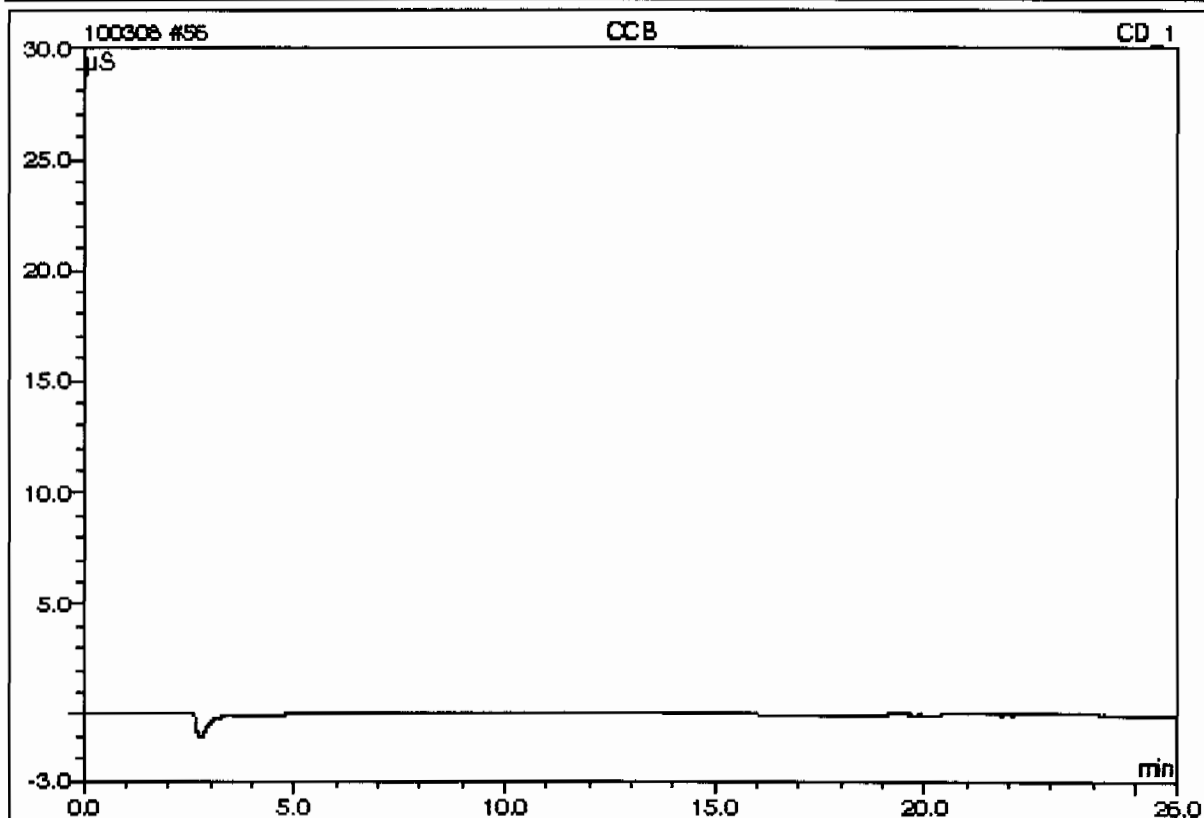
Sample Name:	WIC100308-02CCV	Injection Volume:	1.0
Vial Number:	42	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	3/9/2010 10:13	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area μS*min	Rel.Area %
1	4.35	Fluoride	n.a.	5.1765		2.94664	11.98
2	7.41	Chloride	n.a.	10.3573		4.36932	17.74
3	9.52	Nitrite-N	n.a.	5.3002		4.39159	17.83
4	10.99	Chlorate	n.a.	2.7151		0.39327	1.60
5	11.96	Bromide	n.a.	2.6951		0.41775	1.70
6	14.00	Nitrate-N	n.a.	5.1919		5.16101	20.95
7	20.54	O-Phosphate-P	n.a.	2.9020		0.78513	3.19
8	23.14	Sulfate	n.a.	21.1019		6.16518	25.03
Total:				55.4399	0.000	24.630	100.00

56 CCB

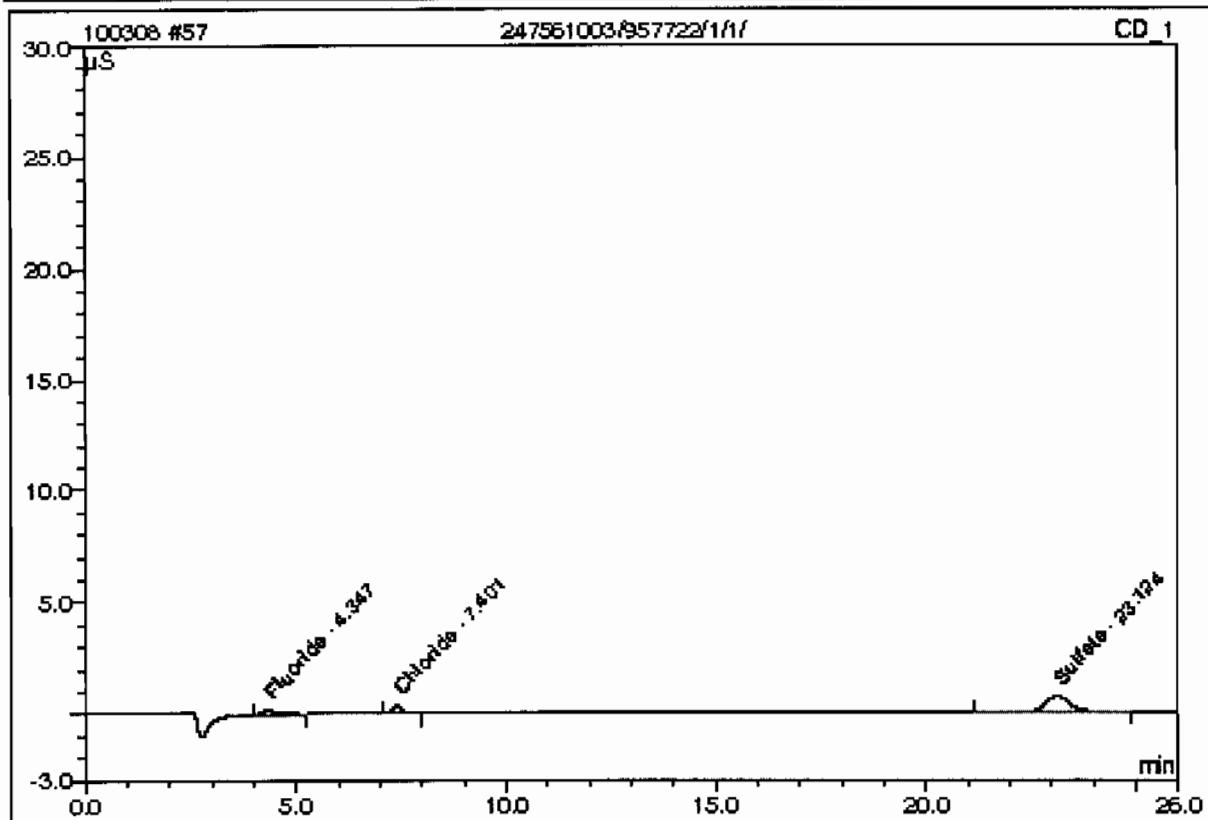
Sample Name:	CCB	Injection Volume:	1.0
Vial Number:	43	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	3/9/2010 10:41	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
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

57 247561003/957722/1/1/

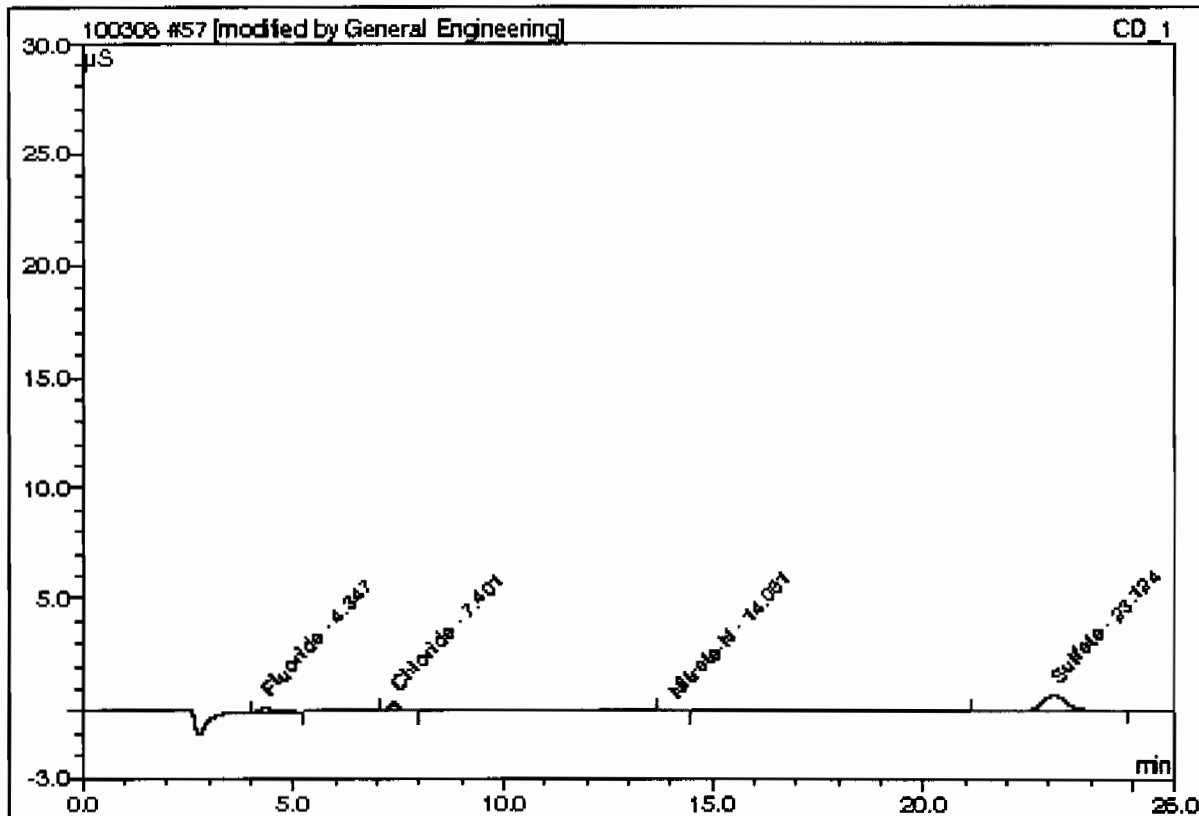
Sample Name:	247561003/957722/1/1/	Injection Volume:	1.0
Vial Number:	44	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	3/9/2010 11:10	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area $\mu\text{S} \cdot \text{min}$	Rel. Area %
1	4.35	Fluoride	n.a.	0.1844		0.07100	9.99
2	7.40	Chloride	n.a.	0.4080		0.09600	13.51
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	23.12	Sulfate	n.a.	2.1215		0.54365	76.50
Total:				2.7119	0.000	0.711	100.00

57 247561003/957722/1/1/

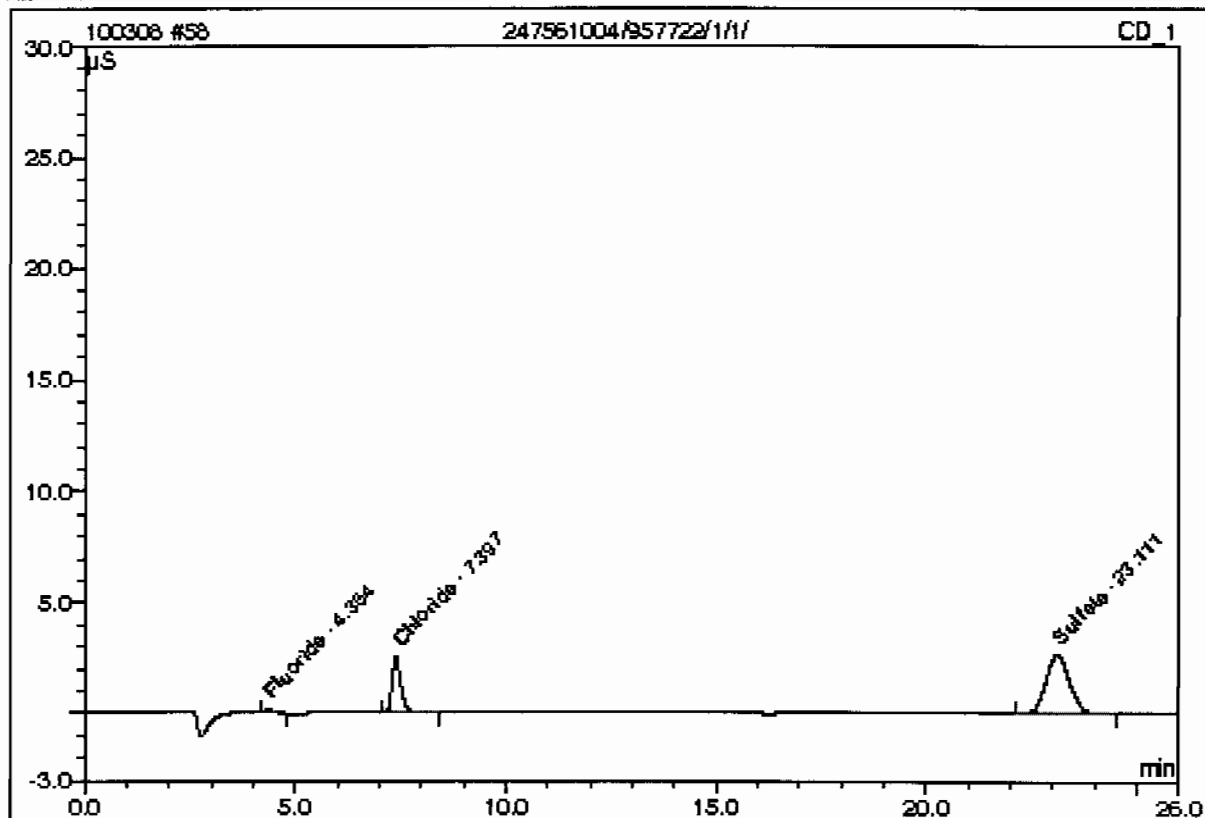
Sample Name:	247561003/957722/1/1/	Injection Volume:	1.0
Vial Number:	44	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	3/9/2010 11:10	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC E086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area uS*min	Rel. Area %
1	4.35	Fluoride	n.a.	0.1844		0.07100	9.86
2	7.40	Chloride	n.a.	0.4060		0.09600	13.33
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	14.06	Nitrate-N	n.a.	0.0997		0.00957	1.33
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.12	Sulfate	n.a.	2.0568		0.54385	75.48
Total:				2.7469	0.000	0.720	100.00

58 247561004/957722/1/1/

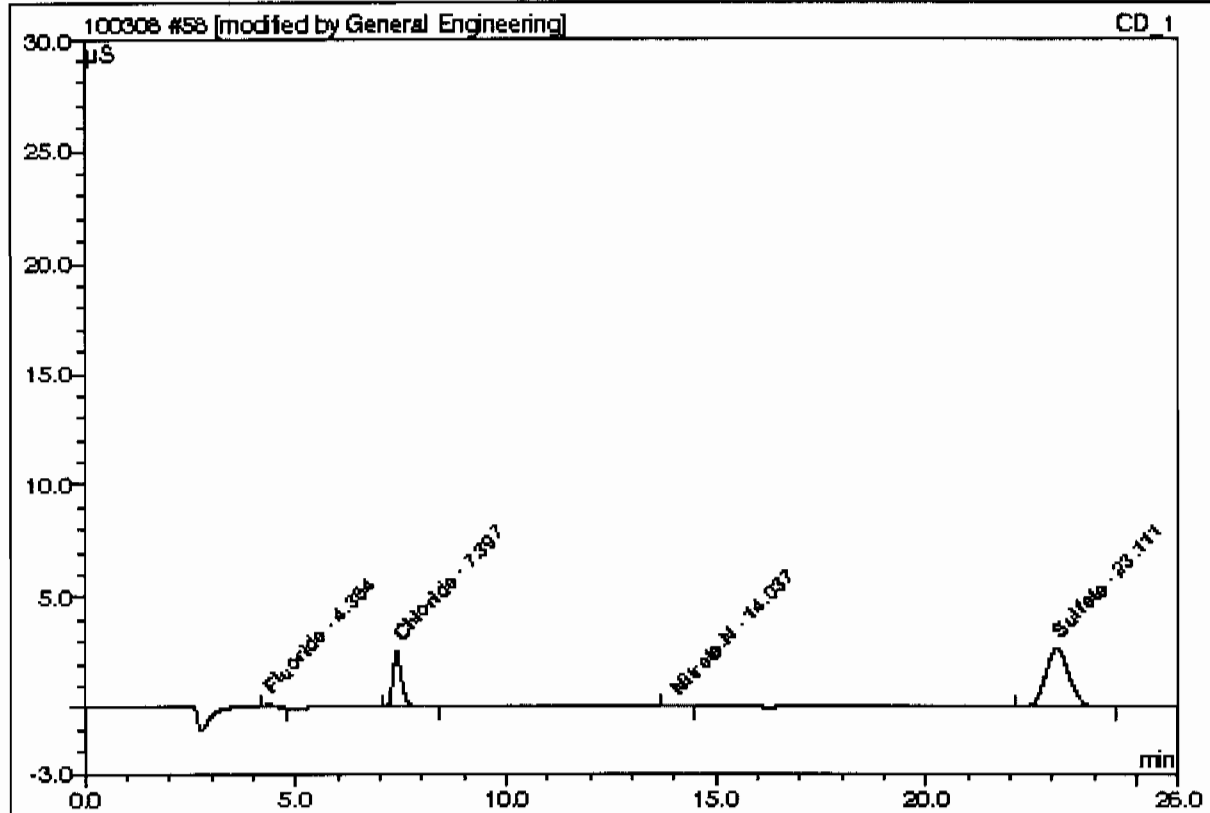
Sample Name:	247561004/957722/1/1/	Injection Volume:	1.0
Vial Number:	45	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	3/9/2010 11:39	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GLGCED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area $\mu\text{S} \cdot \text{min}$	Rel. Area %
1	4.35	Fluoride	n.a.	0.1371		0.04374	1.82
2	7.40	Chloride	n.a.	1.6104		0.61319	25.50
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	23.11	Sulfate	n.a.	6.1909		1.74761	72.68
Total:				7.9384	0.000	2.405	100.00

58 247561004/957722/1/1/

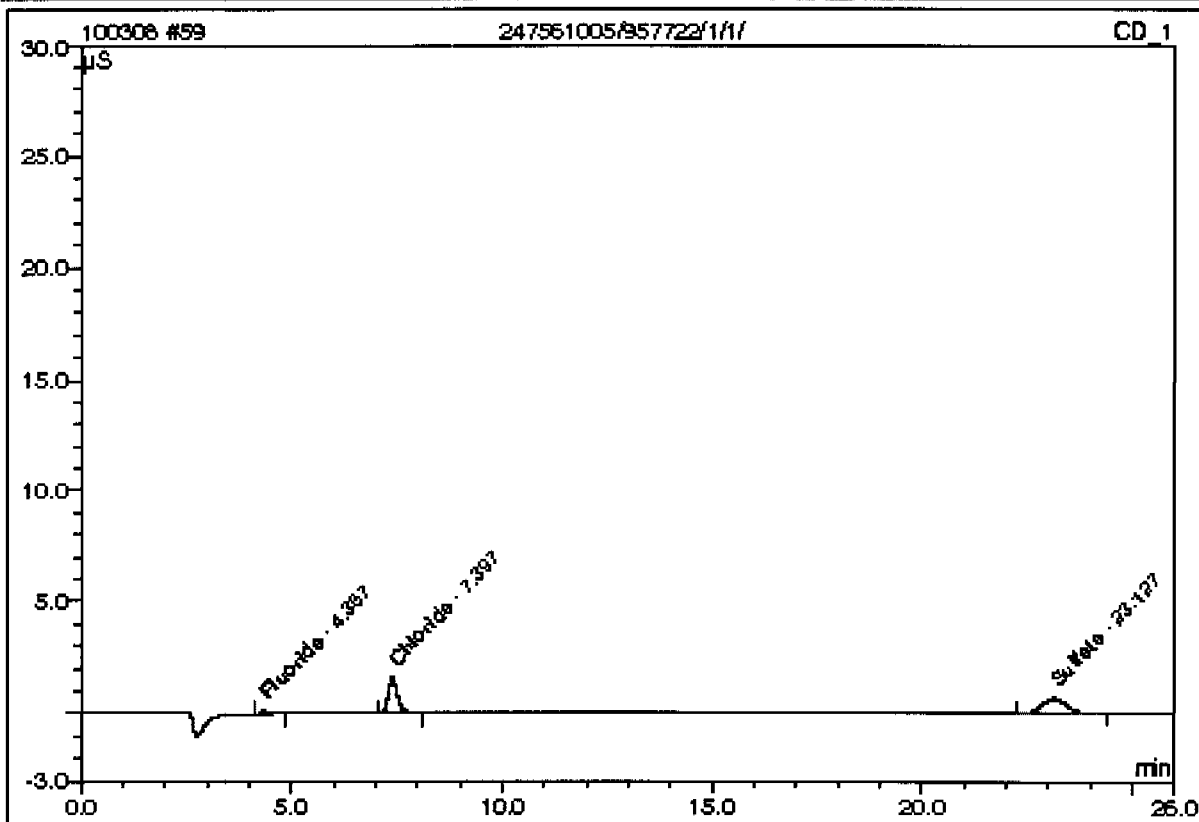
Sample Name:	247561004/957722/1/1/	Injection Volume:	1.0
Vial Number:	45	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	3/9/2010 11:39	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC E086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.35	Fluoride	n.a.	0.1371		0.04374	1.81
2	7.40	Chloride	n.a.	1.6104		0.61319	25.41
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	14.04	Nitrate-N	n.a.	0.0988		0.00871	0.36
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.11	Sulfate	n.a.	6.1357		1.74761	72.42
Total:				7.9820	0.000	2.413	100.00

59 247561005/957722/1/1/

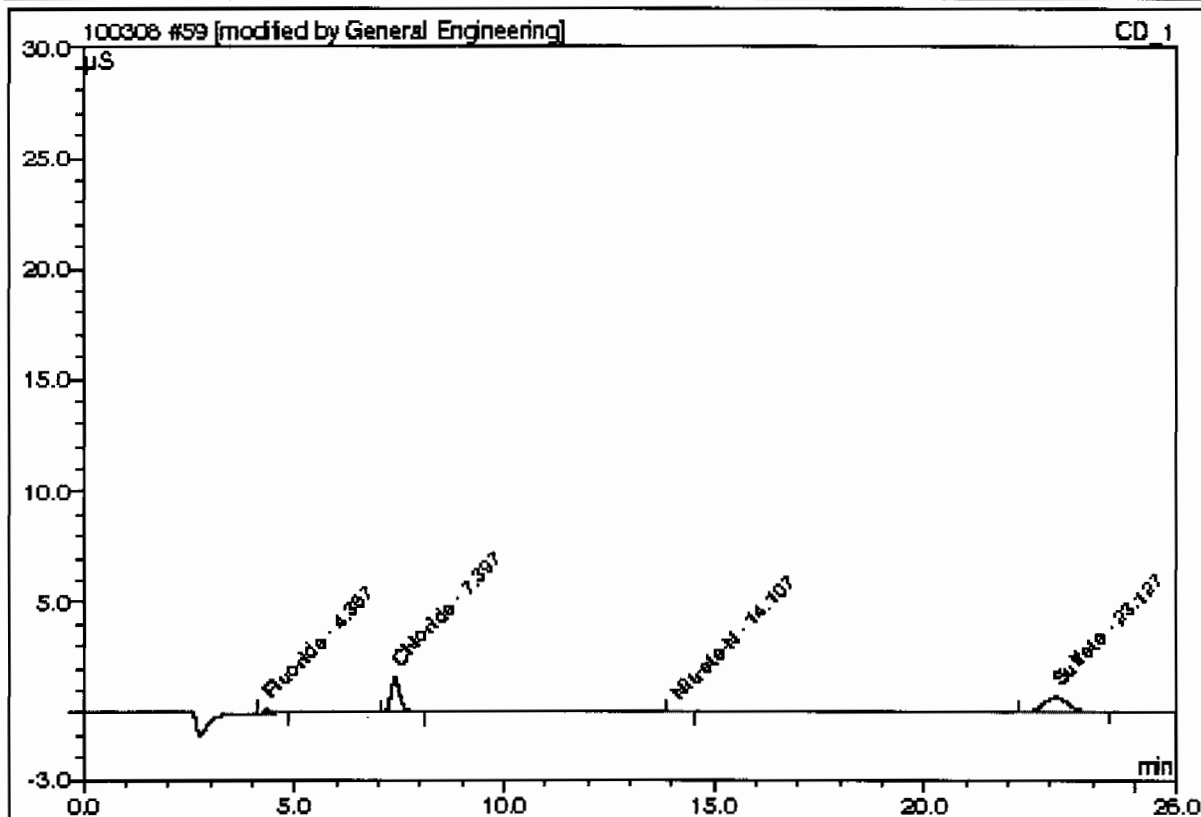
Sample Name:	247561005/957722/1/1/	Injection Volume:	1.0
Vial Number:	46	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	3/9/2010 12:08	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; 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.	0.1112		0.02881	3.32
2	7.40	Chloride	n.a.	1.0782		0.38467	44.35
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	23.13	Sulfate	n.a.	1.8182		0.45994	52.33
Total:				3.0076	0.000	0.867	100.00

59 247561005/957722/1/1/

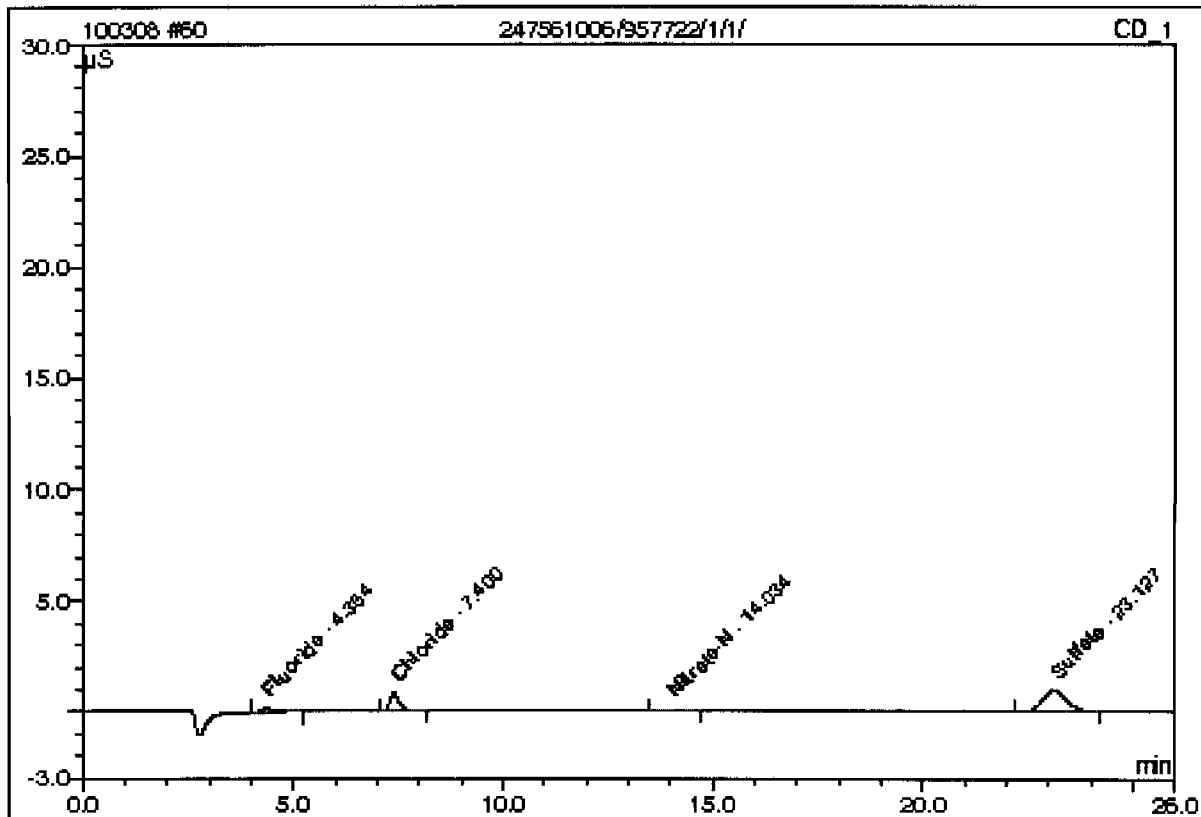
Sample Name:	247561005/957722/1/1/	Injection Volume:	1.0
Vial Number:	46	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	3/9/2010 12:08	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; 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.	0.1112		0.02881	3.30
2	7.40	Chloride	n.a.	1.0782		0.38467	44.07
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	14.11	Nitrate-N	n.a.	0.0956		0.00540	0.62
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.13	Sulfate	n.a.	1.7529		0.45394	52.01
Total:				3.0379	0.000	0.873	100.00

60 247561006/957722/1/1/

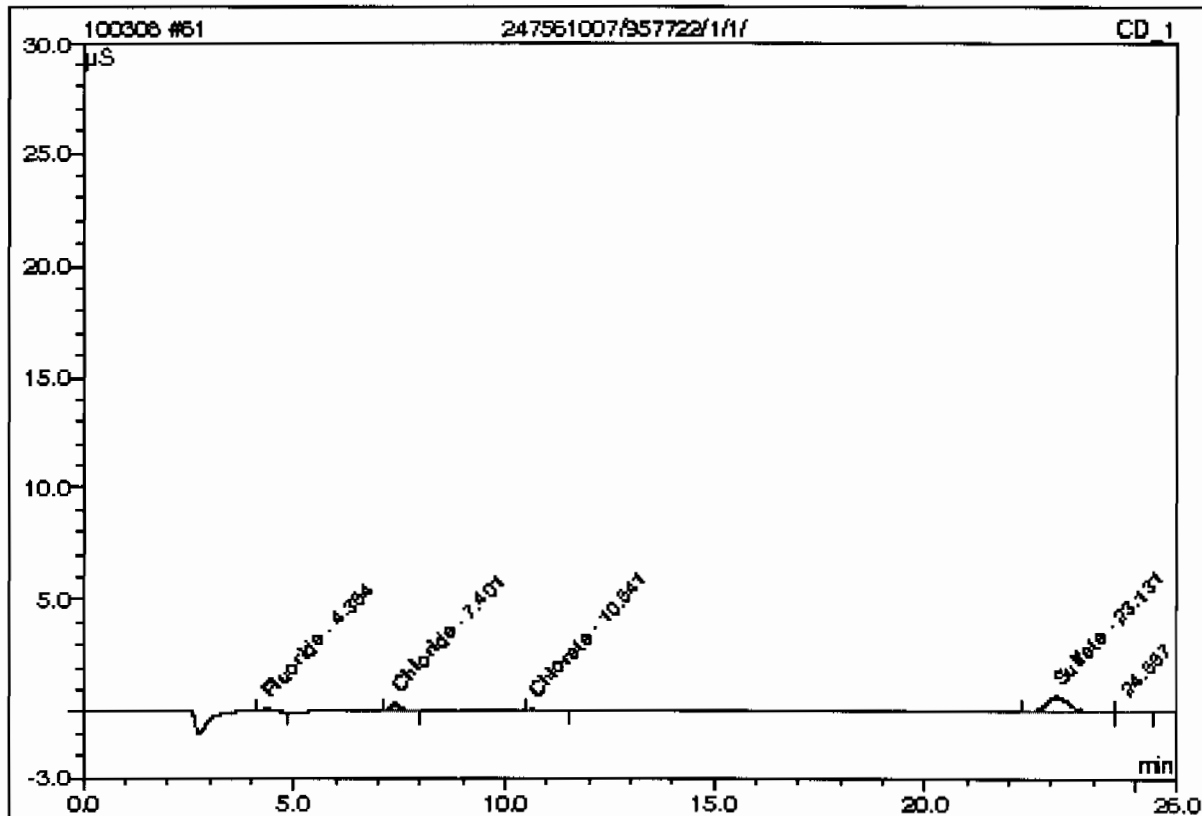
Sample Name:	247561006/957722/1/1/	Injection Volume:	1.0
Vial Number:	47	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	3/9/2010 12:37	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC ED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area uS*min	Rel. Area %
1	4.35	Fluoride	n.a.	0.1608		0.05742	6.26
2	7.40	Chloride	n.a.	0.6508		0.20112	21.92
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	14.03	Nitrate-N	n.a.	0.1208		0.03092	3.37
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.13	Sulfate	n.a.	2.3426		0.62799	68.45
Total:				3.2750	0.000	0.917	100.00

61 247561007/957722/1/1/

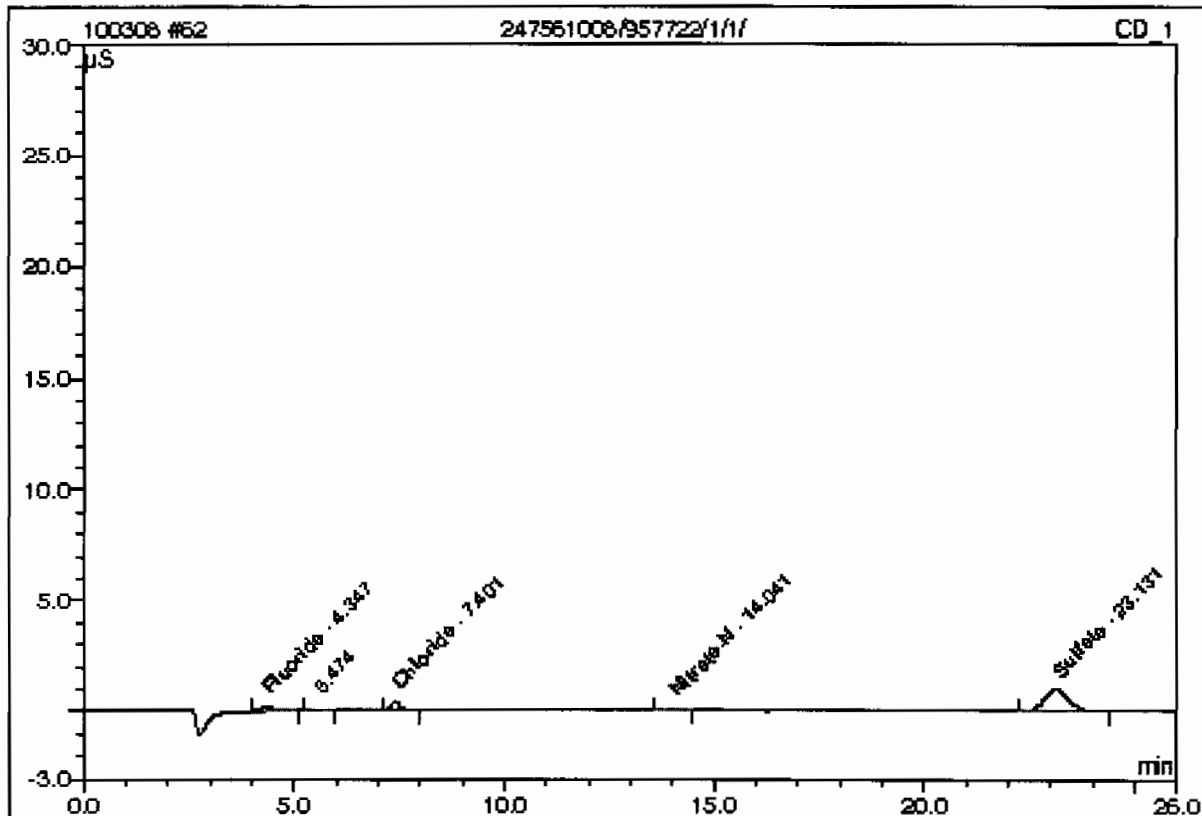
Sample Name:	247561007/957722/1/1/	Injection Volume:	1.0
Vial Number:	48	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	3/9/2010 13:06	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC ED86; 300; 9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.35	Fluoride	n.a.	0.1270		0.03793	5.66
2	7.40	Chloride	n.a.	0.4139		0.09939	14.83
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
3	10.64	Chlorate	n.a.	0.2932		0.03701	5.52
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	23.13	Sulfate	n.a.	1.8400		0.47963	71.57
Total:				2.6741	0.000	0.654	97.58

62 247561008/957722/1/1/

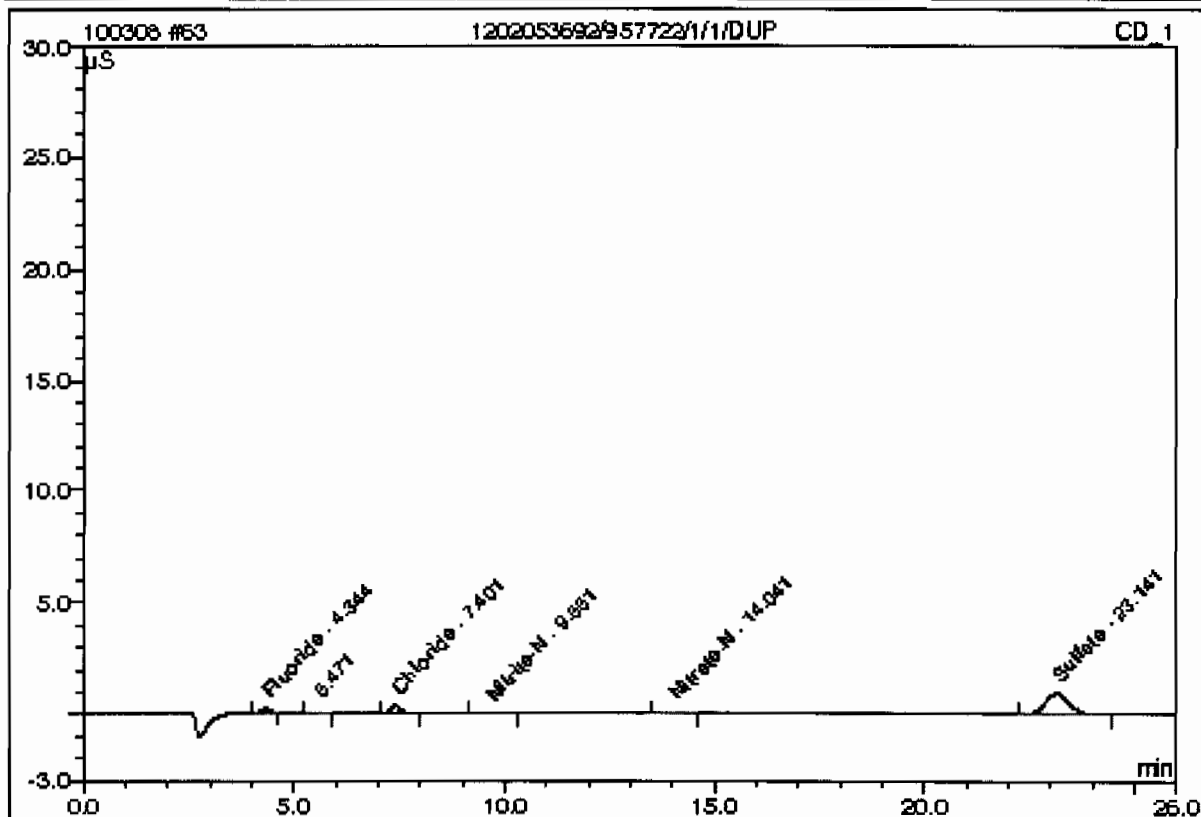
Sample Name:	247561008/957722/1/1/	Injection Volume:	1.0
Vial Number:	49	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	3/9/2010 13:34	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC E086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.35	Fluoride	n.a.	0.1971		0.07832	8.97
3	7.40	Chloride	n.a.	0.4246		0.10399	11.91
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.
4	14.04	Nitrate-N	n.a.	0.1204		0.03053	3.50
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	23.13	Sulfate	n.a.	2.3835		0.64006	73.28
Total:				3.1256	0.000	0.853	97.65

63 1202053692/957722/1/1/DUP

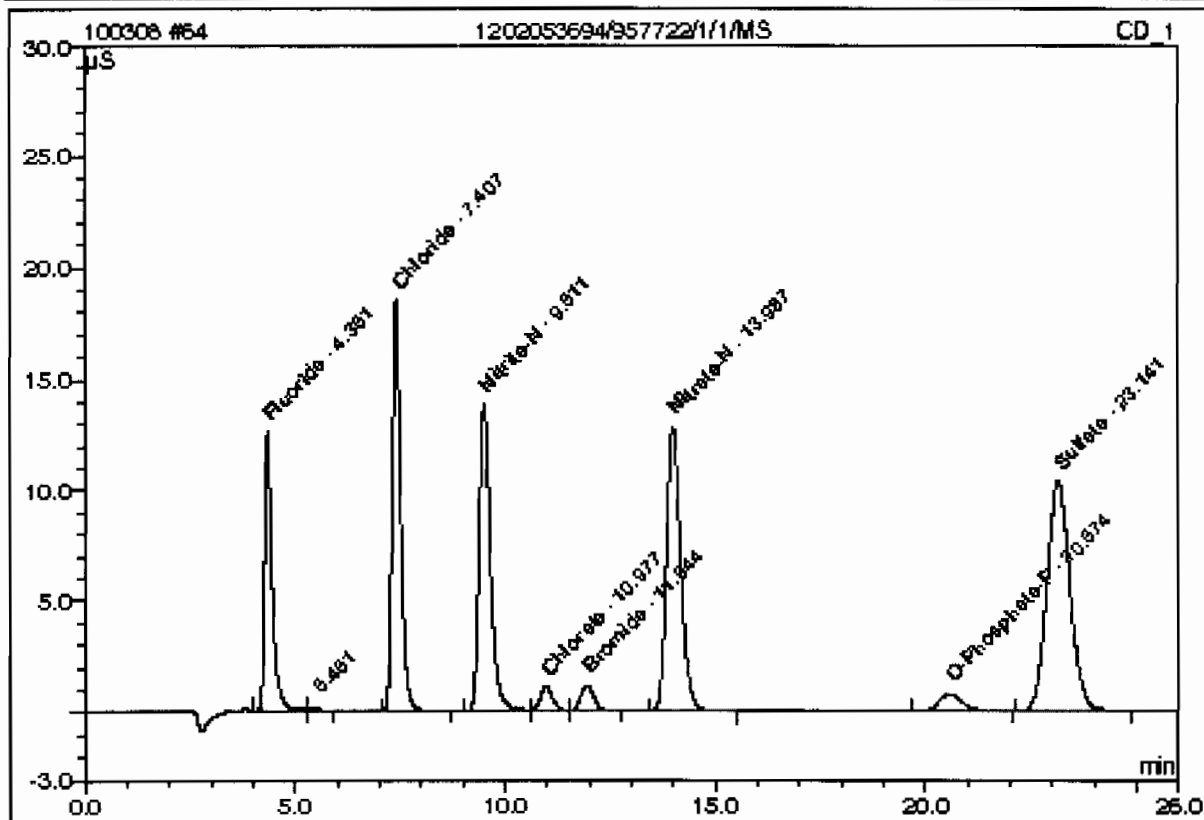
Sample Name:	1202053692/957722/1/1/DUP	Injection Volume:	1.0
Vial Number:	50	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	3/9/2010 14:03	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.34	Fluoride	n.a.	0.1297		0.03946	4.66
3	7.40	Chloride	n.a.	0.4298		0.10621	12.55
4	9.66	Nitrite-N	n.a.	0.0834		0.01706	2.02
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.
5	14.04	Nitrate-N	n.a.	0.1221		0.03225	3.81
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
6	23.14	Sulfate	n.a.	2.3625		0.63368	74.92
Total:				3.1275	0.000	0.829	97.97

64 1202053694/957722/1/1/MS

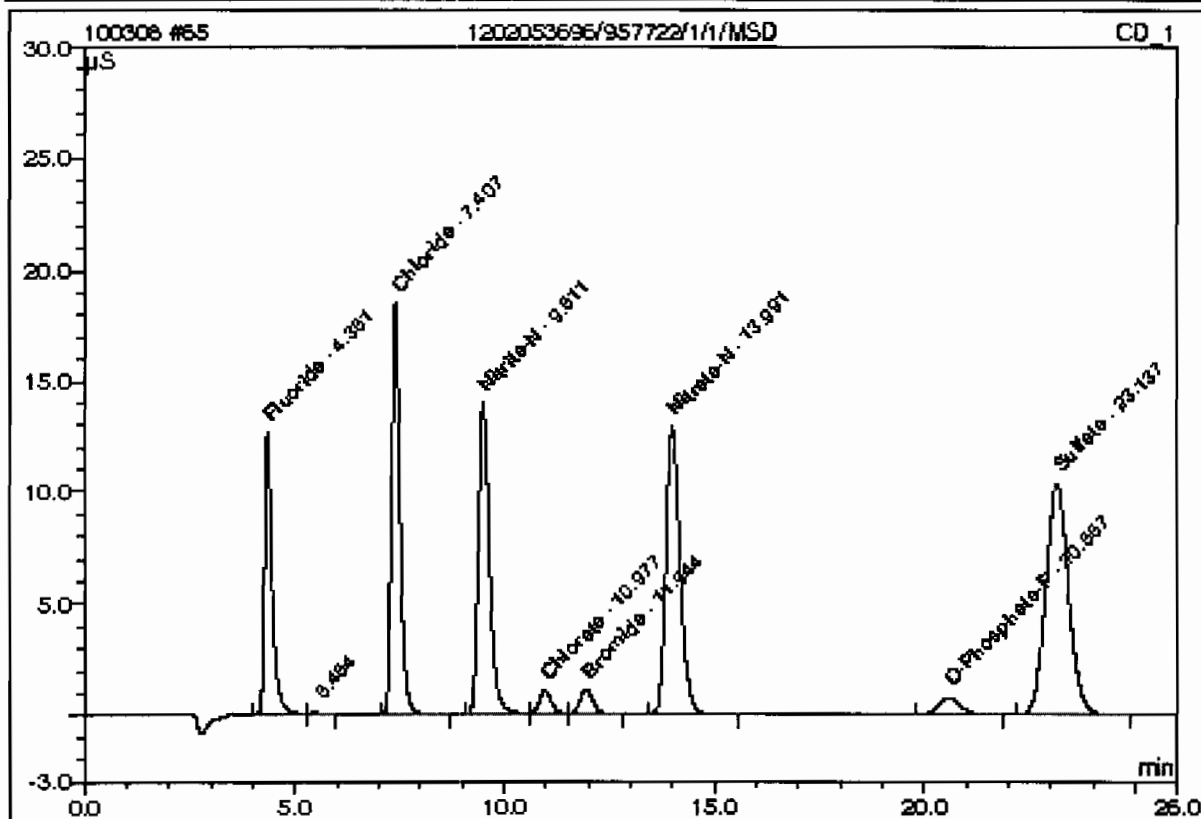
Sample Name:	1202053694/957722/1/1/MS	Injection Volume:	1.0
Vial Number:	1	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	3/9/2010 14:32	Analyst:	MAR1
Run Time (min):	26.00	Column:	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	4.35	Fluoride	n.a.	4.6459		2.64097	10.94
3	7.41	Chloride	n.a.	10.2634		4.32698	17.94
4	9.51	Nitrite-N	n.a.	5.1436		4.26024	17.65
5	10.98	Chlorate	n.a.	2.6139		0.37839	1.57
6	11.94	Bromide	n.a.	2.6117		0.40483	1.68
7	13.99	Nitrate-N	n.a.	5.0878		5.05569	20.95
8	20.57	O-Phosphate-P	n.a.	1.9194		0.50439	2.09
9	23.14	Sulfate	n.a.	22.3667		6.53851	27.09
Total:				54.6522	0.000	24.112	99.90

65 1202053696/957722/1/1/MSD

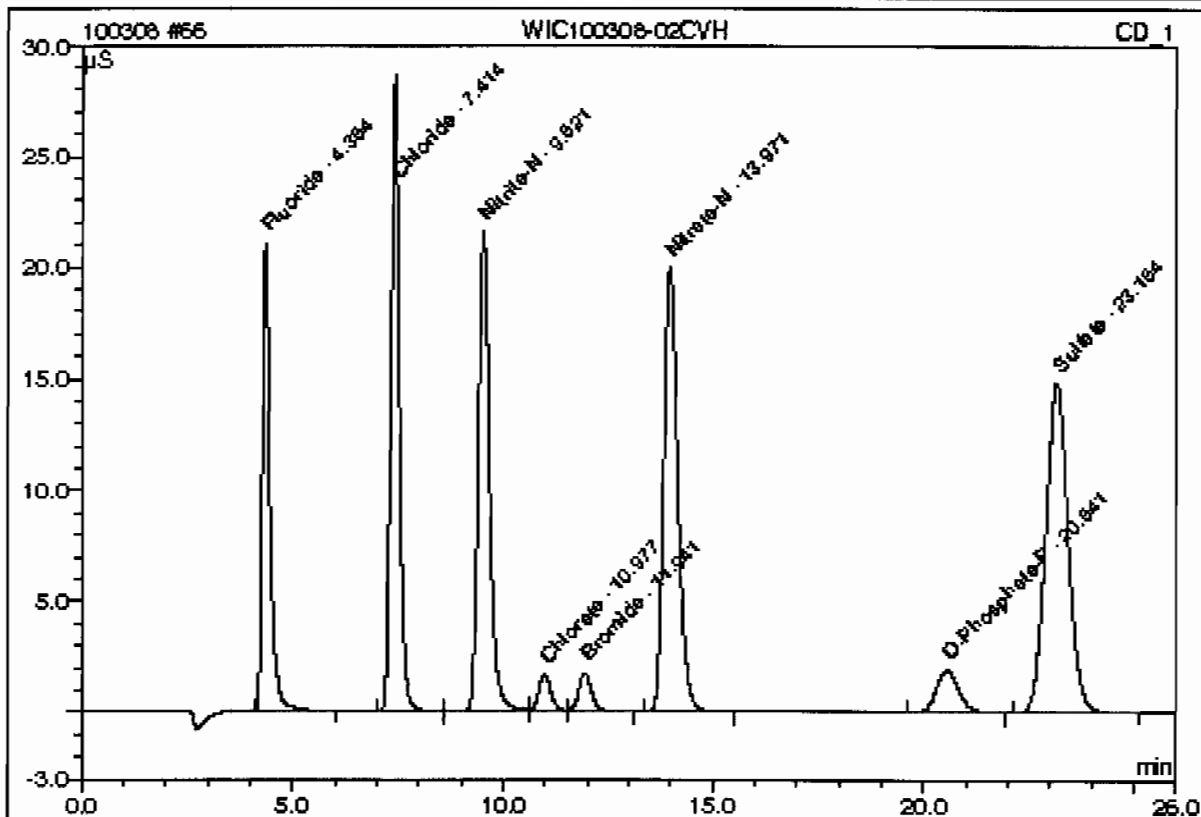
Sample Name:	1202053696/957722/1/1/MSD	Injection Volume:	1.0
Vial Number:	2	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	3/9/2010 15:01	Analyst:	MAR1
Run Time (min):	26.00	Column:	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	4.35	Fluoride	n.a.	4.6596		2.64890	10.96
3	7.41	Chloride	n.a.	10.2931		4.34174	17.96
4	9.51	Nitrate-N	n.a.	5.1612		4.27505	17.69
5	10.98	Chlorate	n.a.	2.6279		0.38044	1.57
6	11.94	Bromide	n.a.	2.6155		0.40542	1.68
7	13.99	Nitrate-N	n.a.	5.1039		5.07197	20.98
8	20.57	O-Phosphate-P	n.a.	1.9130		0.50257	2.08
9	23.14	Sulfate	n.a.	22.3113		6.52218	26.98
Total:				54.6855	0.000	24.148	99.90

66 WIC100308-02CVH

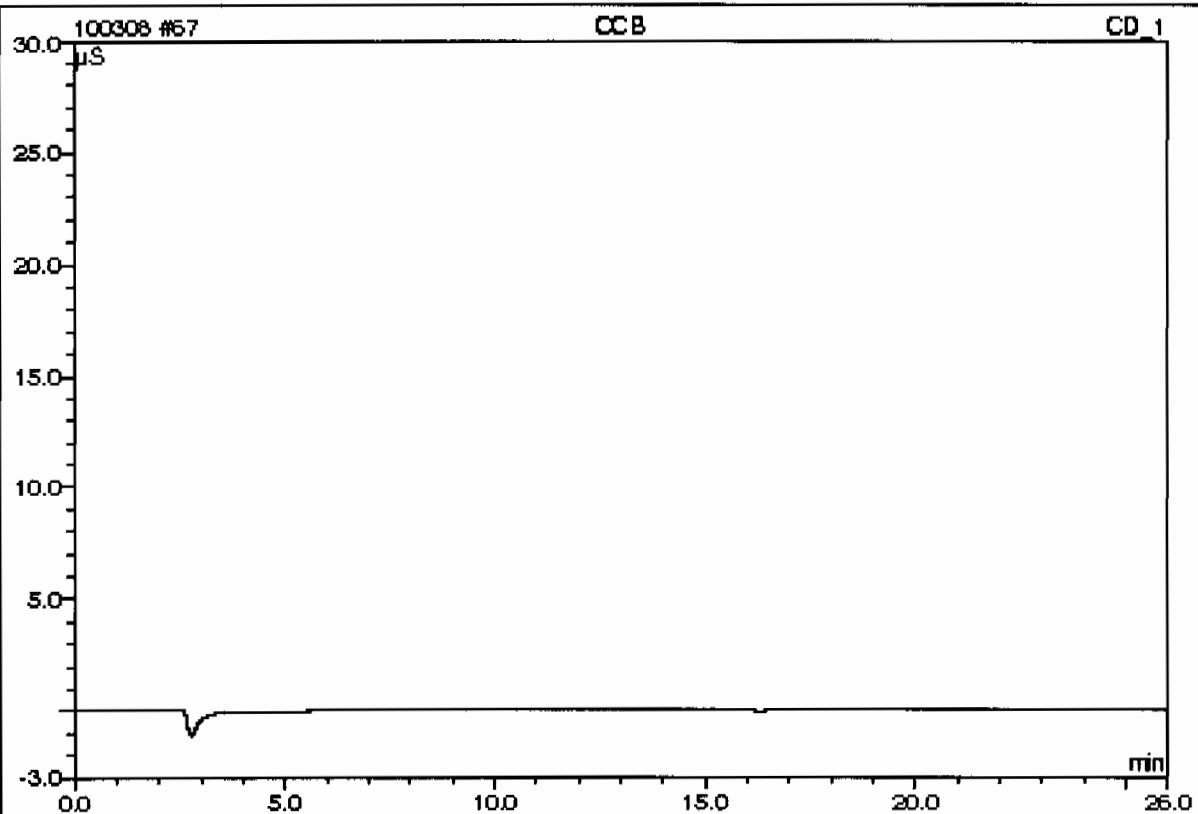
Sample Name:	WIC100308-02CVH	Injection Volume:	1.0
Vial Number:	3	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100225an	Sample Amount:	1.0000
Recording Time:	3/9/2010 15:30	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCE086;300;9058



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.35	Fluoride	n.a.	7.7595		4.43454	11.93
2	7.41	Chloride	n.a.	15.6494		6.64167	17.86
3	9.52	Nitrite-N	n.a.	7.9445		6.60697	17.77
4	10.98	Chlorate	n.a.	4.0062		0.58348	1.57
5	11.94	Bromide	n.a.	4.0291		0.62437	1.68
6	13.97	Nitrate-N	n.a.	7.8577		7.85781	21.13
7	20.54	O-Phosphate-P	n.a.	4.3329		1.19396	3.21
8	23.15	Sulfate	n.a.	31.5210		9.24059	24.85
Total:				83.1022	0.000	37.166	100.00

67 CCB

Sample Name:	CCB	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:	100225an	Sample Amount:	1.0000
Recording Time:	3/9/2010 15:59	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 %
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: TXT1
 Batch: 956097
 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 12020500076 IMM100209-01 LCS BUFFER SOLUTION

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(%)
1202050076 LCS		Soil	22-FEB-2010 10:30:00	22-FEB-2010 10:35:00	22-FEB-10 15:00	pH	20	20	6.98	19.4°C	7	99.714	
1202050076 LCS		Soil	22-FEB-2010 10:30:00	22-FEB-2010 10:35:00	22-FEB-10 15:00	pH 2	20	20	6.98	19.5°C	7	99.714	
247561001		Soil	22-FEB-2010 10:30:00	22-FEB-2010 10:35:00	22-FEB-10 15:01	pH	20	20	8.58	20.5°C			
247561001		Soil	22-FEB-2010 10:30:00	22-FEB-2010 10:35:00	22-FEB-10 15:01	pH 2	20	20	8.58	20.5°C			
1202050075 DUP	247561001	Soil	22-FEB-2010 10:30:00	22-FEB-2010 10:35:00	22-FEB-10 15:03	pH	20	20	8.63	20.1°C			.581
1202050075 DUP	247561001	Soil	22-FEB-2010 10:30:00	22-FEB-2010 10:35:00	22-FEB-10 15:03	pH 2	20	20	8.63	20.2°C			.581
247561002		Soil	22-FEB-2010 10:30:00	22-FEB-2010 10:35:00	22-FEB-10 15:04	pH	20	20	9.54	20.1°C			
247561002		Soil	22-FEB-2010 10:30:00	22-FEB-2010 10:35:00	22-FEB-10 15:04	pH 2	20	20	9.54	20.1°C			
247561003		Soil	22-FEB-2010 10:30:00	22-FEB-2010 10:35:00	22-FEB-10 15:05	pH	20	20	10.21	20.1°C			
247561003		Soil	22-FEB-2010 10:30:00	22-FEB-2010 10:35:00	22-FEB-10 15:05	pH 2	20	20	10.21	20.1°C			
CCV			22-FEB-2010 10:30:00	22-FEB-2010 10:35:00	22-FEB-10 15:07	pH	20	20	7	19.7°C	7	100	
CCV			22-FEB-2010 10:30:00	22-FEB-2010 10:35:00	22-FEB-10 15:07	pH 2	20	20	7	19.8°C	7	100	
247561004		Soil	22-FEB-2010 10:30:00	22-FEB-2010 10:35:00	22-FEB-10 15:09	pH	20	20	9.69	20.1°C			
247561004		Soil	22-FEB-2010 10:30:00	22-FEB-2010 10:35:00	22-FEB-10 15:09	pH 2	20	20	9.7	20.2°C			
247561005		Soil	22-FEB-2010 10:30:00	22-FEB-2010 10:35:00	22-FEB-10 15:10	pH	20	20	9.14	20.4°C			
247561005		Soil	22-FEB-2010 10:30:00	22-FEB-2010 10:35:00	22-FEB-10 15:10	pH 2	20	20	9.13	20.5°C			
247561006		Soil	22-FEB-2010 10:30:00	22-FEB-2010 10:35:00	22-FEB-10 15:11	pH	20	20	10.3	20.3°C			
247561006		Soil	22-FEB-2010 10:30:00	22-FEB-2010 10:35:00	22-FEB-10 15:11	pH 2	20	20	10.3	20.3°C			
247561007		Soil	22-FEB-2010 10:30:00	22-FEB-2010 10:35:00	22-FEB-10 15:12	pH	20	20	9.16	20.2°C			
247561007		Soil	22-FEB-2010 10:30:00	22-FEB-2010 10:35:00	22-FEB-10 15:12	pH 2	20	20	9.15	20.2°C			
247561008		Soil	22-FEB-2010 10:30:00	22-FEB-2010 10:35:00	22-FEB-10 15:14	pH	20	20	10.29	20.3°C			
247561008		Soil	22-FEB-2010 10:30:00	22-FEB-2010 10:35:00	22-FEB-10 15:14	pH 2	20	20	10.28	20.3°C			

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Page#

pH / Corrosivity LogBook

Analyst: TXT1
 Batch: 956097
 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(%)
CCV			22-FEB-2010 10:30:00	22-FEB-2010 10:35:00	22-FEB-10 15:15	pH	20	20	7	19.7°C	7	100	
CCV			22-FEB-2010 10:30:00	22-FEB-2010 10:35:00	22-FEB-10 15:15	pH 2	20	20	7	19.7°C	7	100	

Comments:

Calibration Information:				Standard				Observed				Theoretical				C				%Recovery			
Run Date:	22-FEB-10	10:31		10:31	IMM100222-PH1	4.01	4	10:31	IMM100222-PH1	4.01	7	10:31	IMM100222-PH1	4.01	7	10:31	IMM100222-PH1	4.01	7	10:31	IMM100222-PH1	4.01	7
Instrument:	PHX370			10:31	IMM100222-PH-	7	7	10:31	IMM100222-PH-	7	7	10:31	IMM100222-PH-	7	7	10:31	IMM100222-PH-	7	7	10:31	IMM100222-PH-	7	7
Analyst:	LXA1			10:31	UPH100222-a	10.05	10	10:31	UPH100222-a	10.05	10	10:31	UPH100222-a	10.05	10	10:31	UPH100222-a	10.05	10	10:31	UPH100222-a	10.05	10
				10:31	UPH100222-PH2	2.02	2	10:31	UPH100222-PH2	2.02	2	10:31	UPH100222-PH2	2.02	2	10:31	UPH100222-PH2	2.02	2	10:31	UPH100222-PH2	2.02	2
				10:31	100222-a	12.1	12	10:31	100222-a	12.1	12	10:31	100222-a	12.1	12	10:31	100222-a	12.1	12	10:31	100222-a	12.1	12
				10:31	IMM100222-01a	7.01	7	10:31	IMM100222-01a	7.01	7	10:31	IMM100222-01a	7.01	7	10:31	IMM100222-01a	7.01	7	10:31	IMM100222-01a	7.01	7

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr. 04-MAR-10	Division: Industrial	Quality Criteria: Specifications	Type: Process
Instrument Type: LACHAT Flow Injection Analyzer	Test / Method: SW846 9012A	Matrix Type: Solid	Client Code: LANL
Batch ID: 955989	Sample Numbers: See Below		
Potentially affected work order(s)(SDG): 247249(10-1877),247255(10-1879),247551(10-1969),247561(10-1951-1),247566(10-1957) Application Issues: Failed RPD for MS/MSD, or PS/PSD Failed Recovery for MSD/PSD			
Specification and Requirements		DER Disposition:	
Exception Description:			
1. Failed RPD for MS/MSD, or PS/PSD: QC 1202049751MS 1202049753MSD 2. Failed recovery for MSD: QC 1202049752MSD 3. Failed recovery for MSD: QC 1202049753MSD		1. The relative percent difference between the matrix spike and the matrix spike duplicate falls outside of the required acceptance limits due to the heterogeneous matrix of the sample. 2. The spike duplicate recovery falls outside of the client specified acceptance limits. Since both the spike recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported. 3. The spike duplicate recovery was outside of the required acceptance limits due to sample non-homogeneity.	

Originator's Name:

Ashley Earl

04-MAR-10

Data Validator/Group Leader:

Elzbieta Szulc

08-MAR-10