

Friday, February 19, 2010

LOS ALAMOS
NATIONAL LABORATORY

Page 1 of 2
REQUEST NUMBER: 10-1957

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number: 10-1957

Per Agreement Number: 126310011

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

SW-846:60108	1	RE15-10-8247	R	2/15/2010	
	1	RE15-10-8248	R	2/15/2010	
	1	RE15-10-8249	R	2/15/2010	
	1	RE15-10-8250	R	2/15/2010	
	1	RE15-10-8251	R	2/15/2010	
	1	RE15-10-8252	R	2/15/2010	
	1	RE15-10-8253	R	2/15/2010	
	1	RE15-10-8254	R	2/15/2010	
	1	RE15-10-8264	R	2/15/2010	

Friday, February 19, 2010

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REQUEST NUMBER: 10-1957

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
SW-846:6010B	1	1	RE15-10-8268	R	2/15/2010	
			RE15-10-8271	W	2/15/2010	
			RE15-10-8271	W	2/15/2010	
			RE15-10-8271	W	2/15/2010	
			RE15-10-8247	R	2/15/2010	
			RE15-10-8248	R	2/15/2010	
			RE15-10-8249	R	2/15/2010	
			RE15-10-8250	R	2/15/2010	
			RE15-10-8251	R	2/15/2010	
			RE15-10-8252	R	2/15/2010	
SW-846:6850	1	1	RE15-10-8253	R	2/15/2010	
			RE15-10-8254	R	2/15/2010	
			RE15-10-8264	R	2/15/2010	
			RE15-10-8268	R	2/15/2010	
			RE15-10-8271	W	2/15/2010	

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Friday, February 19, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1957

LOS ALAMOS

REQUEST NUMBER: 10-1957

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
RE15-10-8252	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8253	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8250	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8251	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8248	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8249	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8247	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8254	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8271	1	POLY	METALS-GEL	Nitric Acid	W
RE15-10-8271	1	POLY	SW-846:6850	Ice	W
RE15-10-8271	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8268	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8264	1	POLY	Metals+ClO4+CN	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

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2504

EVENT NAME: 4th Qtr. FY09 - SWMU 15-007(d) - Threemile Canyon

SAMPLE ID: RE15-10-8247

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/15/2010		MEDIA:	QBT3		OK
TIME COLLECTED (HH:MM)		09:05		SUB-MEDIA:	TUFF 1		OK
PRS ID:	15-007(d)	OK		SAMPLE TECH CODE:	HA		CBS
LOCATION ID:	15-610819			FIELD QC TYPE:	NA		
LOCATION TYPE:	GENERIC			FIELD PREP:	NA		
TOP DEPTH:	0	109.0 ft		SAMPLE USAGE:	INV		
BOTTOM DEPTH:	0	110.0 ft		SCREEN/PORT DESC:			NA
FIELD MATRIX:	R	OK		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
BOREHOLE: YES/NO/NA				WATER FLOWING: YES/NO/NA			
BOREHOLE DECLINATION:	-90°			BOREHOLE DIRECTION:	NA		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Light brownish gray, non indurated, non welded, dehydrified, dry, arch flow tuff.

SAMPLE COMMENTS: N/A

LOCATION DESC: 7 d-1

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 36 dpm
Beta/Gamma = 2112 dpm

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

COLLECTED BY (PRINT)

REVIEWED BY (PRINT)

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) JON MARIN	2/16/10	(Printed Name) Sheri Sherwood	2/16/10
(Signature) Jon R. Marin	08:18 AM	(Signature) Sheri Sherwood	0818
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2504

EVENT NAME: 4th Qtr. FY09 - SWMU 15-007(d) - Threemile Canyon

SAMPLE ID: RE15-10-8248

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/15/2010		MEDIA: QBT3		QBT2	
TIME COLLECTED(HH:MM)		09:50		SUB-MEDIA: TUFF 1		OK	
PRS ID: 15-007(d)		OK		SAMPLE TECH CODE: HA		CBS	
LOCATION ID: 15-610819		|		FIELD QC TYPE: NA		OK	
LOCATION TYPE: GENERIC		|		FIELD PREP: NA		|	
TOP DEPTH: 0		123.5 ft		SAMPLE USAGE: INV		|	
BOTTOM DEPTH: 0		125.0 ft		SCREEN/PORT DESC:		NA	
FIELD MATRIX: R		OK		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA		NO	
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: -90°		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	2082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Light brownish gray, strongly indurated, partially welded, devitrified, dry, ash flow tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 7d-1

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 46 dpm
Beta/Gamma = 2110 dpm

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

COLLECTED BY (PRINT)

R. Saunders

REVIEWED BY (PRINT)

J. MARIN

RELINQUISHED BY (Printed Name) JON MARIN (Signature) Jon R. Marin	Date/Time 2/16/10 08:18 AM	RECEIVED BY (Printed Name) Sheri Sherwood (Signature) Sheri Sherwood	Date/Time 2/16/10 0818
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2504

EVENT NAME: 4th Qtr. FY09 - SWMU 15-007(d) - Threemile Canyon

SAMPLE ID: RE15-10-8249

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/15/2016		MEDIA:		QBT3	
TIME COLLECTED (HH:MM)		10:35		SUB-MEDIA:		TUFF 1	
PRS ID:	15-007(d)	OK		SAMPLE TECH CODE:		HA	
LOCATION ID:	15-610819	|		FIELD QC TYPE:		NA	
LOCATION TYPE:	GENERIC	|		FIELD PREP:		NA	
TOP DEPTH:	0	138.5 ft		SAMPLE USAGE:		INV	
BOTTOM DEPTH:	0	140.0 ft		SCREEN/PORT DESC:		XNA	
FIELD MATRIX:	R	OK		EXCAVATED: YES/NO/NA		(NO)	
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA		(NO)	
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: -90°		BOREHOLE DIRECTION: NA		(NA)	

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

from 2/15/10 Light grayish brown strongly indurated non to partially welded, dry, dehydrified, ash flow tuff

SAMPLE COMMENTS:

NA

LOCATION DESC:

7d-1

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 10 dpm
Beta/Gamma = 1989 dpm

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

COLLECTED BY (PRINT)

R. Saunders

REVIEWED BY (PRINT)

JOHN MARIN

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) JOHN MARIN	2/16/10	(Printed Name) Sheri Sherwood	2/16/10
(Signature) John R. Marin	08:17AM	(Signature) Sheri Sherwood	0817
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2504

EVENT NAME: 4th Qtr. FY09 - SWMU 15-007(d) - Threemile Canyon

SAMPLE ID: RE15-10-8250

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/15/2010	MEDIA:	OBT3		QBT2	
TIME COLLECTED(HH:MM)		11:12	SUB-MEDIA:	TUFF 1		OK	
PRS ID:	15-007(d)	OK	SAMPLE TECH CODE:	HA		CBS	
LOCATION ID:	15-610819		FIELD QC TYPE:	NA		OK	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA			
TOP DEPTH:	0	154.0 ft	SAMPLE USAGE:	INV			
BOTTOM DEPTH:	0	155.0 ft	SCREEN/PORT DESC:			NA	
FIELD MATRIX:	R	OK	EXCAVATED: YES/NO/NA				
COMPOSITE TYPE:	NA		COMPOSITE TIME INTERVAL:	NA		WATER FLOWING: YES/NO/NA	
BOREHOLE: YES/NO/NA			BOREHOLE DECLINATION:	-90°		BOREHOLE DIRECTION:	NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	PRM 2/15/10 8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Light brownish gray, slightly indurated, slightly welded, devitrified,
dry, ash flow tuff

SAMPLE COMMENTS:

NA

LOCATION DESC:

7d-1

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 36 dpm

Beta/Gamma = 1963 dpm

PRM 2/15/10
 $PID \frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$

COLLECTED BY (PRINT)

R. Saunders

REVIEWED BY (PRINT)

J. Marin

RELINQUISHED BY (Printed Name) JON MARIN (Signature) J. Marin	Date/Time 2/16/10 08:16 AM	RECEIVED BY (Printed Name) Sheri Sherwood (Signature) Sheri Sherwood	Date/Time 2/16/10 0816
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2504

EVENT NAME: 4th Qtr. FY09 - SWMU 15-007(d) - Threemile Canyon

SAMPLE ID: RE15-10-8251

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/15/2010		MEDIA:	QBT3		QBT 1
TIME COLLECTED (HH:MM)		11:50		SUB-MEDIA:	TUFF 1		OK
PRS ID:	15-007(d)	OK		SAMPLE TECH CODE:	HA		CBS
LOCATION ID:	15-610819	|		FIELD QC TYPE:	NA		OK
LOCATION TYPE:	GENERIC	|		FIELD PREP:	NA		|
TOP DEPTH:	0	169.0 F+		SAMPLE USAGE:	INV		|
BOTTOM DEPTH:	0	170.0 F+		SCREEN/PORT DESC:			NA
FIELD MATRIX:	R	OK		EXCAVATED: YES	<input checked="" type="checkbox"/> NO / NA		
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		WATER FLOWING: YES <input checked="" type="checkbox"/> NO NA
BOREHOLE:	<input checked="" type="checkbox"/> YES / NO / NA	BOREHOLE DECLINATION:	-90°	BOREHOLE DIRECTION:	NA		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	2082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	|	H3	500 ML POLY	Ice	Y	
1	|	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	|	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Light brownish gray, run to slightly indurated, non welded, deiritrified
 dry, ash flow tuff.

SAMPLE COMMENTS:

NA

LOCATION DESC:

7d-1
 2/15/10

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 36 dpm
 Beta/Gamma = 2140 dpm

PID $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$ 2/15/10

COLLECTED BY (PRINT)

R. Saunders

REVIEWED BY (PRINT)

J. MARIN

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) JON MARIN	2/16/10	(Printed Name) Sherri Sherwood	2/16/10
(Signature) Jon R. Marin	08:16 AM	(Signature) Sherri Sherwood	0816
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2504

EVENT NAME: 4th Qtr. FY09 - SWMU 15-007(d) - Threemile Canyon

SAMPLE ID: RE15-10-8252

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/15/2010		MEDIA:		QBT3	
TIME COLLECTED (HH:MM)		15:50		SUB-MEDIA:		TUFF 1	
PRS ID: 15-007(d)		OK		SAMPLE TECH CODE: HA		CB5	
LOCATION ID: 15-610820		|		FIELD QC TYPE: NA		OK	
LOCATION TYPE: GENERIC		|		FIELD PREP: NA		|	
TOP DEPTH: 0		4.0 Ft		SAMPLE USAGE: INV		|	
BOTTOM DEPTH: 0		5.0 Ft		SCREEN/PORT DESC:		NA	
FIELD MATRIX: R		OK		EXCAVATED: YES/NO/NA		NO	
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA		NO	
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION:		BOREHOLE DIRECTION:			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	|	H3	500 ML POLY	Ice	Y	
1	|	Metals+CIO4+CN	500 ML POLY	Ice	Y	
1	|	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Light gray non-indurated non-welded, de-vitrified, dry, ash flow tuff.

SAMPLE COMMENTS: NA

LOCATION DESC:

7d-2

FIELD SCREENING/MEASUREMENT RESULTS:

HE Spot Test Negative

Alpha = 25 dpm

Beta/Gamma = 2070 dpm

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

COLLECTED BY (PRINT)

R. Saunders

REVIEWED BY (PRINT)

J. MARLIN

RELINQUISHED BY (Printed Name) JON MARLIN (Signature) Jon R. Marlin	Date/Time 2/16/10 08:16 AM	RECEIVED BY (Printed Name) Jennifer Newwood (Signature) Jennifer Newwood	Date/Time 2/16/10 08:16
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2504

EVENT NAME: 4th Qtr. FY09 - SWMU 15-007(d) - Threemile Canyon

SAMPLE ID: RE15-10-8253

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/15/2010		MEDIA:		OBT3	
TIME COLLECTED (HH:MM)		16:18		SUB-MEDIA:		TUFF 1	
PRS ID: 15-007(d)		OK		SAMPLE TECH CODE: HA		C135	
LOCATION ID: 15-610820		|		FIELD QC TYPE: NA		OK	
LOCATION TYPE: GENERIC		|		FIELD PREP: NA		|	
TOP DEPTH: 0		18.0 ft		SAMPLE USAGE: INV		|	
BOTTOM DEPTH: 0		20.0 ft		SCREEN/PORT DESC:		NA	
FIELD MATRIX: R		OK		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES (NO) NA			
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: -90°		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+CIO4+CN	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Light gray, nonindurated, nonwelded, devitrified, dry, ash flow tuff

SAMPLE COMMENTS:

NA

LOCATION DESC:

7d-2

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 20 dpm
Beta/Gamma = 2040 dpm

PID ^{12M} Ambient Reading = ppm
2/15/10

COLLECTED BY (PRINT)

A. Saunders

REVIEWED BY (PRINT)

J. MARIN

RELINQUISHED BY (Printed Name) JON MARIN (Signature) Jon R. Marin	Date/Time 2/16/10 08:16 AM	RECEIVED BY (Printed Name) Sheri Sherwood (Signature) Sheri Sherwood	Date/Time 2/16/10 0816
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2504

EVENT NAME: 4th Qtr. FY09 - SWMU 15-007(d) - Threemile Canyon

SAMPLE ID: RE15-10-8254

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/15/2010		MEDIA:	QBT3		OK
TIME COLLECTED (HH:MM)		16:57		SUB-MEDIA:	TUFF 1		OK
PRS ID:	15-007(d)	OK		SAMPLE TECH CODE:	HA		CBS
LOCATION ID:	15-610820			FIELD QC TYPE:	NA		OK
LOCATION TYPE:	GENERIC			FIELD PREP:	NA		
TOP DEPTH:	0	34.0 ft		SAMPLE USAGE:	INV		
BOTTOM DEPTH:	0	35.0 ft		SCREEN/PORT DESC:			NA
FIELD MATRIX:	R	OK		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
BOREHOLE: YES/NO/NA				WATER FLOWING: YES/NO/NA			
BOREHOLE DECLINATION:	-90°			BOREHOLE DIRECTION:	NA		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Light gray, slightly indurated, non welded, dehydrified, dry, ash flow tuff.

SAMPLE COMMENTS: NA

LOCATION DESC: 7d-2

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 25 dpm
Beta/Gamma = 1845 dpm

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

COLLECTED BY (PRINT)

REVIEWED BY (PRINT)

RELINQUISHED BY (Printed Name) JON MARIN (Signature) Jon R. Marin	Date/Time 09:16 AM 2/16/10	RECEIVED BY (Printed Name) Sherrill Newwood (Signature) Sherrill Newwood	Date/Time 816 2/16/10
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2504

EVENT NAME: 4th Qtr. FY09 - SWMU 15-007(d) - Threemile Canyon

SAMPLE ID: RE15-10-8264

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/15/2010		MEDIA:	QBT3	QBT1	
TIME COLLECTED(HH:MM)		12:15		SUB-MEDIA:	TUFF 1	OK	
PRS ID:	15-007(d)	OK		SAMPLE TECH CODE:	HA	CBS	
LOCATION ID:	UNK	15-610819		FIELD QC TYPE:	NA	OK	
LOCATION TYPE:	GENERIC	OK		FIELD PREP:	NA		
TOP DEPTH:	Q	181.5 ft		SAMPLE USAGE:	INV		
BOTTOM DEPTH:	Q	182.5 ft		SCREEN/PORT DESC:		NA	
FIELD MATRIX:	R	OK		EXCAVATED: YES/NO	NA		
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
BOREHOLE:	YES/NO/NA			BOREHOLE DECLINATION:	-90°		
				BOREHOLE DIRECTION:	NA		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Light gray, non indurated, non welded, devitrified, dry, ash flow tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 7d-1

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 5 dpm
Beta/Gamma = 1956 dpm

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

PRM 2/15/10

COLLECTED BY (PRINT)

R. Saunders

REVIEWED BY (PRINT)

J. Marin

RELINQUISHED BY (Printed Name) JON MARIN (Signature) Jon R. Marin	Date/Time 2/16/10 08:16 AM	RECEIVED BY (Printed Name) Sheri Sherwood (Signature) Sheri Sherwood	Date/Time 2/16/10 0816
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2504

EVENT NAME: 4th Qtr. FY09 - SWMU 15-007(d) - Threemile Canyon

SAMPLE ID: RE15-10-8268

WORK ORDER:

AS PLANNED		AS COLLECTED	AS PLANNED		AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/15/10	MEDIA:		OBT3
TIME COLLECTED(HH:MM)		16:18	SUB-MEDIA:		TUFF 1
PRS ID:	15-007(d)	OK	SAMPLE TECH CODE:		HA
LOCATION ID:	UNK	15-61082.0	FIELD QC TYPE:		ED
LOCATION TYPE:	GENERIC	OK	FIELD PREP:		NA
TOP DEPTH:	0	18.0 ft	SAMPLE USAGE:		QC
BOTTOM DEPTH:	0	20.0 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	OK	EXCAVATED: YES/NO/NA		NA
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA	WATER FLOWING: YES/NO/NA		NA
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: -90°	BOREHOLE DIRECTION: NA		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE15-10-8253

Light gray non-indurated non-welded dehydrified, dry, ark flow tuff

SAMPLE COMMENTS:

NA

LOCATION DESC:

7d-2

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 20 dpm
Beta/Gamma = 2040 dpm

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

COLLECTED BY (PRINT)

R. Saunders

REVIEWED BY (PRINT)

J. MARIN

RELINQUISHED BY (Printed Name) J. MARIN (Signature) J. Marin	Date/Time 2/16/10 08:16 AM	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	Date/Time 2/16/10 0816
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2504

EVENT NAME: 4th Qtr. FY09 - SWMU 15-007(d) - Threemile Canyon

SAMPLE ID: RE15-10-8271

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/15/10		MEDIA:	NA		OK
TIME COLLECTED(HH:MM)		16:36		SUB-MEDIA:	OTHER		
PRS ID:	15-007(d)	OK		SAMPLE TECH CODE:	DC		
LOCATION ID:	UNK	15-610820		FIELD QC TYPE:	ER		
LOCATION TYPE:	GENERIC	OK		FIELD PREP:	UF		
TOP DEPTH:	0	0		SAMPLE USAGE:	QC		
BOTTOM DEPTH:	0	0		SCREEN/PORT DESC:			NA
FIELD MATRIX:	W	OK		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
				WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA				BOREHOLE DECLINATION: -90°			
				BOREHOLE DIRECTION: NA			

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

SAMPLE DESC: QC Sample of RE15-10-8253

SAMPLE COMMENTS: NA

LOCATION DESC: 7d-2

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT)

R. Saunders

REVIEWED BY (PRINT) J. MARIN

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Jon Marin	09:15 AM	(Printed Name) Sherrill Sherwood	0815
(Signature) Jon R. Marin	2/16/10	(Signature) Sherrill Sherwood	2/16/10
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	



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 +/- %	MDC	DLC	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Trace/Chem Recovery	Sample Matrix	Collection Date
ARS1-10-00262-001	RE15-10-8302	GROSS ALPHA	6.817	4.732	14.397	4.405	U	pc/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		pc/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	pc/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		pc/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	pc/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		pc/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		pc/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		pc/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	pc/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		pc/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	pc/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		pc/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	pc/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		pc/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	pc/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		pc/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	pc/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		pc/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	pc/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		pc/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-011	RE15-10-8253	GROSS ALPHA	3.451	3.582	13.138	3.819	U	pc/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		pc/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	pc/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		pc/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		pc/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		pc/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	pc/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		pc/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	pc/g	2/18/2010	CR	N/A	SO	
ARS1-10-00262-015	RE15-10-8250	GROSS BETA	36.111	6.111	7.756	3.445		pc/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	pc/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		pc/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	pc/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		pc/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	pc/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		pc/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: ARS-10-00262

Request or PO Number: N/A

Analysis Description: Gross Alpha/Beta in (Soil, Sludge, Waste, Sediment [SO])

Date Received: 2/17/2010

Analysis Test Method: GPC-A-003

Report Date: 02/18/10 12:34

ARS Sample ID	Client Sample ID	Isotope	Analysis Results	Analysis Error +/- 2 s	MOE	D/C	Qual	Analysis Unit	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	PC/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	U	PC/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	PC/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	U	PC/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	PC/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	U	PC/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	PC/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	U	PC/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	PC/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	U	PC/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	PC/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	U	PC/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	PC/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	U	PC/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	PC/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	U	PC/g	2/18/2010	CR	N/A	SO	
NOTES:													

Project Manager Review

Notice: 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.

LEIAP Certificate# 01949

NEIAP Certificate # E87558

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only



Section I.

REQUEST NUMBER: 10-1957 VALIDATION DATE: 4/1/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui 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):

- The aqueous MSD %R was > the laboratory UAL. The associated sample result was an ND and, thus, was not qualified. It should be noted that the aqueous MS and MSD parent sample was from another LANL RN and the raw data for the parent sample was not included in the package. No sample data were qualified as a result.

Reviewed by: Mary Donovan

Level: I

Date: 04/02/10


VALIDATOR'S SIGNATURE: _____

DATE: 4/1/10


Form 5121-1, Revision 0.0

LOS ALAMOS


Environmental Restoration Project

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 LC/MS/MS Perchlorate 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 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 LC/MS/MS Perchlorate 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"/>	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: 957436
 Extraction Type: Filter/DAI
 Sample Volume/Weight: 10.0 mL
 Concentrated Extract Volume: 10.0
 Client Sample No. RE15-10-8271
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1957-1
 GEL Sample ID: 247567001
 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 05:05	per0301115a
	Perchlorate Isotope Ratio						1	02-MAR-10 05:05	per0301115a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	02-MAR-10 05:05	per0301115a
	Perchlorate-O(18)			0.483	ug/L		1	02-MAR-10 05:05	per0301115a

[^] 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

LMF
4/1/10

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: 957937
 Extraction Type: Solid Prep
 Client Sample No. RE15-10-8252
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1957
 GEL Sample ID: 247566001
 Date Filtered: 05-MAR-10
 Injection Volume (uL): 20
 Sample Volume/Weight: 2.00 g
 %Solids: 97.2
 Concentrated Extract Volume: 20.0

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.514	2.06	0.514	ug/kg	U	1	11-MAR-10 21:25	per0311015a
	Perchlorate Isotope Ratio						1	11-MAR-10 21:25	per0311015a
14797-73-0	Perchlorate-101	.514	2.06	0.514	ug/kg	U	1	11-MAR-10 21:25	per0311015a
	Perchlorate-O(18)			5.17	ug/kg		1	11-MAR-10 21:25	per0311015a

^ 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

LMF
4/1/10

Form 1

Perchlorate Analysis Data Sheet

Client Sample No.

RE15-10-8253

Date Received: 20-FEB-10

GEL Job No (SDG): 10-1957

GEL Sample ID: 247566002

Date Filtered: 05-MAR-10

Injection Volume (uL): 20

%Solids: 97.4

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 957937

Extraction Type: Solid Prep

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	.513	2.05	2.12	ug/kg		1	11-MAR-10 21:34	per0311016a
	Perchlorate Isotope Ratio			3.05			1	11-MAR-10 21:34	per0311016a
14797-73-0	Perchlorate-101	.513	2.05	1.99	ug/kg	J	1	11-MAR-10 21:34	per0311016a
	Perchlorate-O(18)			5.19	ug/kg		1	11-MAR-10 21:34	per0311016a

[^] 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

LMF
4/1/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC
 Lab Code: GEL
 Instrument: LCMSMS
 Method: SW846 6850 Modified
 Matrix: SOIL
 Extraction Batch ID: 957937
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0

Client Sample No. RE15-10-8250
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1957
 GEL Sample ID: 247566003
 Date Filtered: 05-MAR-10
 Injection Volume (uL): 20
 %Solids: 97.8

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.511	2.04	0.511	ug/kg	U	1	11-MAR-10 22:01	per0311019a
	Perchlorate Isotope Ratio						1	11-MAR-10 22:01	per0311019a
14797-73-0	Perchlorate-101	.511	2.04	0.511	ug/kg	U	1	11-MAR-10 22:01	per0311019a
	Perchlorate-O(18)			5.05	ug/kg		1	11-MAR-10 22:01	per0311019a

[^] 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

LMF
4/1/10

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: 957937
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE15-10-8251
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1957
 GEL Sample ID: 247566004
 Date Filtered: 05-MAR-10
 Injection Volume (uL): 20
 %Solids: 97.4

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.513	2.05	0.513	ug/kg	U	1	11-MAR-10 22:10	per0311020a
	Perchlorate Isotope Ratio						1	11-MAR-10 22:10	per0311020a
14797-73-0	Perchlorate-101	.513	2.05	0.513	ug/kg	U	1	11-MAR-10 22:10	per0311020a
	Perchlorate-O(18)			5.25	ug/kg		1	11-MAR-10 22:10	per0311020a

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

LMF
4/1/10

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: 957937
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE15-10-8248
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1957
 GEL Sample ID: 247566005
 Date Filtered: 05-MAR-10
 Injection Volume (uL): 20
 %Solids: 98.3

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.508	2.03	0.508	ug/kg	U	1	11-MAR-10 22:19	per0311021a
	Perchlorate Isotope Ratio						1	11-MAR-10 22:19	per0311021a
14797-73-0	Perchlorate-101	.508	2.03	0.508	ug/kg	U	1	11-MAR-10 22:19	per0311021a
	Perchlorate-Q(18)			5.05	ug/kg		1	11-MAR-10 22:19	per0311021a

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

LMF
4/1/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC
 Lab Code: GEL
 Instrument: LCMSMS
 Method: SW846 6850 Modified
 Matrix: SOIL
 Extraction Batch ID: 957937
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE15-10-8249
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1957
 GEL Sample ID: 247566006
 Date Filtered: 05-MAR-10
 Injection Volume (uL): 20
 %Solids: 98.3

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.509	2.03	0.509	ug/kg	U	1	11-MAR-10 22:55	per0311025a
	Perchlorate Isotope Ratio						1	11-MAR-10 22:55	per0311025a
14797-73-0	Perchlorate-101	.509	2.03	0.509	ug/kg	U	1	11-MAR-10 22:55	per0311025a
	Perchlorate-O(18)			5.25	ug/kg		1	11-MAR-10 22:55	per0311025a

[^] 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

LMF
 4/1/10

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: 957937
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE15-10-8247
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1957
 GEL Sample ID: 247566007
 Date Filtered: 05-MAR-10
 Injection Volume (uL): 20
 %Solids: 97.8

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.511	2.05	0.511	ug/kg	U	1	11-MAR-10 23:04	per0311026a
	Perchlorate Isotope Ratio						1	11-MAR-10 23:04	per0311026a
14797-73-0	Perchlorate-101	.511	2.05	0.511	ug/kg	U	1	11-MAR-10 23:04	per0311026a
	Perchlorate-O(18)			5.19	ug/kg		1	11-MAR-10 23:04	per0311026a

[^] 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

LMF
4/1/10

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: 957937

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8254

Date Received: 20-FEB-10

GEL Job No (SDG): 10-1957

GEL Sample ID: 247566008

Date Filtered: 05-MAR-10

Injection Volume (uL): 20

%Solids: 98.1

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.51	2.04	2.37	ug/kg		1	11-MAR-10 23:13	per0311027a
	Perchlorate Isotope Ratio			3.12			1	11-MAR-10 23:13	per0311027a
14797-73-0	Perchlorate-101	.51	2.04	2.17	ug/kg		1	11-MAR-10 23:13	per0311027a
	Perchlorate-O(18)			5.04	ug/kg		1	11-MAR-10 23:13	per0311027a

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

LMF
4/1/10

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: 957937
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE15-10-8268
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1957
 GEL Sample ID: 247566009
 Date Filtered: 05-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	2.12	ug/kg		1	11-MAR-10 23:22	per0311028a
	Perchlorate Isotope Ratio			3.07			1	11-MAR-10 23:22	per0311028a
14797-73-0	Perchlorate-101	.514	2.06	1.98	ug/kg	J	1	11-MAR-10 23:22	per0311028a
	Perchlorate-O(18)			5.20	ug/kg		1	11-MAR-10 23:22	per0311028a

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

LMF
4/1/10

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: 957937

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8264

Date Received: 20-FEB-10

GEL Job No (SDG): 10-1957

GEL Sample ID: 247566010

Date Filtered: 05-MAR-10

Injection Volume (uL): 20

%Solids: 96.1

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.52	2.08	0.520	ug/kg	U	1	11-MAR-10 23:31	per0311029a
	Perchlorate Isotope Ratio						1	11-MAR-10 23:31	per0311029a
14797-73-0	Perchlorate-101	.52	2.08	0.520	ug/kg	U	1	11-MAR-10 23:31	per0311029a
	Perchlorate-O(18)			5.18	ug/kg		1	11-MAR-10 23:31	per0311029a

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

*Concentration =

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

LMF
4/1/10

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only



Section I.

REQUEST NUMBER: 10-1957 VALIDATION DATE: 4/1/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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


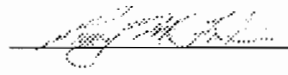
Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):


1. In the aqueous ICB and/or CCBs, Tl and Zn were detected. The associated sample results were NDs and, thus were not qualified. In the soil ICB and/or CCBs, Sb, Tl, and Zn were detected. The result for Tl in sample RE15-10-8252 was a detect $\leq 5X$ the greatest blank concentration and, thus, was qualified UJ4b. All other associated sample results were either $> 5X$ the greatest blank concentrations or were NDs and, thus, were not qualified.
2. In the FR blank (sample -8271) associated with all of the field samples, K and Na were detected. The associated field sample results were detects $> 5X$ the FR blank concentrations and, thus, were not qualified.
3. The soil MS %Rs were $>$ the laboratory UAL for Al, Ca, K, and Na. The associated sample results were detects and, thus, were qualified J+,I6b. The soil MS %Rs were $<$ the laboratory LAL but $\geq 10\%$ for Fe and Mn. However, the associated parent sample results were $> 4X$ the spike concentrations and, thus, no sample results were qualified, based on professional judgment.
4. The soil duplicate RPDs were $> 35\%$ for Mn and V, and both the duplicate and parent sample results were $\geq 5X$ the PQLs. The associated sample results were detects and, thus, were qualified J,I10a.
5. It should be noted that the aqueous matrix QC parent sample was from another LANL RN. It should also be noted that the soil matrix QC parent sample for CVAA was from another LANL RN. No sample results were qualified as a result.

Reviewed by: Mary Donovan


Level: I

Date: 04/02/10


DATA VALIDATION COVER SHEET	
5118-1	Records Use only
Data Validation Cover Sheet	
VALIDATOR'S SIGNATURE:  DATE: 4/1/10	
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 (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST	
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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	20. The sample result is $\leq 5X$ the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	22. The associated matrix spike recovery was $< 10\%$. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	23. The associated matrix spike recovery was $<$ 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: 10-1957-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247567001

BASIS: As Received

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8271

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 23:52	031710-1	955808
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	SKJ	03/19/10 02:15	100318-3	955810
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	03/17/10 23:52	031710-1	955808
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	03/17/10 23:52	031710-1	955808
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	SKJ	03/19/10 02:15	100318-3	955810
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	SKJ	03/19/10 02:15	100318-3	955810
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	03/17/10 23:52	031710-1	955808
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	03/17/10 23:52	031710-1	955808
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	03/17/10 23:52	031710-1	955808
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	03/17/10 23:52	031710-1	955808
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	03/17/10 23:52	031710-1	955808
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	PRB	03/20/10 18:13	100319-4	955810
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	03/17/10 23:52	031710-1	955808
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	SKJ	03/19/10 02:15	100318-3	955810
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/25/10 13:41	022510W1-5	957034
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	03/17/10 23:52	031710-1	955808
7440-09-7	Potassium	361	ug/L		50	150	150	1	P	HSC	03/17/10 23:52	031710-1	955808
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	03/17/10 23:52	031710-1	955808
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	03/17/10 23:52	031710-1	955808
7440-23-5	Sodium	243	ug/L	J	100	300	300	1	P	HSC	03/17/10 23:52	031710-1	955808
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	PRB	03/20/10 18:13	100319-4	955810
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	03/17/10 23:52	031710-1	955808
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	03/17/10 23:52	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

LMF
4/1/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1957

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247566001

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8252

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 97.2

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	1440000	ug/kg	N	6790	20000	20000	1	P	HSC	03/19/10 10:56	031910-1	955820
7440-36-0	Antimony	998	ug/kg	U	329	998	998	1	P	HSC	03/19/10 10:56	031910-1	955820
7440-38-2	Arsenic	345	ug/kg	J	200	1000	1000	2	MS	RMJ	03/22/10 20:56	100322-3	955822
7440-39-3	Barium	20800	ug/kg	*	99.8	499	499	1	P	HSC	03/19/10 10:56	031910-1	955820
7440-41-7	Beryllium	282	ug/kg		20	100	100	2	MS	RMJ	03/22/10 17:13	100321-2	955822
7440-43-9	Cadmium	499	ug/kg	U	99.8	499	499	1	P	HSC	03/19/10 10:56	031910-1	955820
7440-70-2	Calcium J+,I6b	453000	ug/kg	*N	7990	25000	25000	1	P	HSC	03/19/10 10:56	031910-1	955820
7440-47-3	Chromium	2090	ug/kg	*	150	499	499	1	P	HSC	03/19/10 10:56	031910-1	955820
7440-48-4	Cobalt	322	ug/kg	J	150	499	499	1	P	HSC	03/19/10 10:56	031910-1	955820
7440-50-8	Copper	989	ug/kg	J	300	998	998	1	P	HSC	03/19/10 10:56	031910-1	955820
7439-89-6	Iron	6750000	ug/kg		7990	25000	25000	1	P	HSC	03/19/10 10:56	031910-1	955820
7439-92-1	Lead	2590	ug/kg		250	998	998	1	P	HSC	03/19/10 10:56	031910-1	955820
7439-95-4	Magnesium	162000	ug/kg	*	8490	30000	30000	1	P	HSC	03/19/10 10:56	031910-1	955820
7439-96-5	Manganesec J,I10a	214000	ug/kg	*	200	998	998	1	P	HSC	03/19/10 10:56	031910-1	955820
7439-97-6	Mercury	4.13	ug/kg	J	4.07	12	12	1	AV	JXL1	03/09/10 13:51	030910S1-4	958664
7440-02-0	Nickel	1640	ug/kg	N	100	401	401	2	MS	RMJ	03/22/10 17:13	100321-2	955822
7440-09-7	Potassium J+,I6b	564000	ug/kg	N	6390	25000	25000	1	P	HSC	03/19/10 10:56	031910-1	955820
7782-49-2	Selenium	1000	ug/kg	U	501	1000	1000	2	MS	RMJ	03/22/10 20:56	100322-3	955822
7440-22-4	Silver	180	ug/kg	J	99.8	499	499	1	P	HSC	03/19/10 10:56	031910-1	955820
7440-23-5	Sodium J+,I6b	445000	ug/kg	N	6990	25000	25000	1	P	HSC	03/19/10 10:56	031910-1	955820
7440-28-0	Thallium U,I4b	67	ug/kg	J	60.1	200	200	2	MS	RMJ	03/22/10 17:13	100321-2	955822
7440-62-2	Vanadium J,I10a	2670	ug/kg	*	99.8	499	499	1	P	HSC	03/19/10 10:56	031910-1	955820
7440-66-6	Zinc	33700	ug/kg	*	329	998	998	1	P	HSC	03/19/10 10:56	031910-1	955820

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955820	955819	SW846 3050B	0.515	g	50	mL	02/25/10	AXG2
955822	955821	SW846 3050B	0.513	g	50	mL	02/25/10	AXG2
958664	958661	SW846 7471A Prep	0.515	g	30	mL	03/09/10	LXH2

LMF
4/1/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1957

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247566002

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8253

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 97.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	1450000	ug/kg	N	6440	18900	18900	1	P	HSC	03/19/10 11:31	031910-1	955820
7440-36-0	Antimony	947	ug/kg	U	313	947	947	1	P	HSC	03/19/10 11:31	031910-1	955820
7440-38-2	Arsenic	241	ug/kg	J	201	1010	1010	2	MS	RMJ	03/22/10 21:16	100322-3	955822
7440-39-3	Barium	16400	ug/kg	*	94.7	474	474	1	P	HSC	03/19/10 11:31	031910-1	955820
7440-41-7	Beryllium	346	ug/kg		20.1	101	101	2	MS	RMJ	03/22/10 17:33	100321-2	955822
7440-43-9	Cadmium	474	ug/kg	U	94.7	474	474	1	P	HSC	03/19/10 11:31	031910-1	955820
7440-70-2	Calcium J+,I6b	368000	ug/kg	*N	7580	23700	23700	1	P	HSC	03/19/10 11:31	031910-1	955820
7440-47-3	Chromium	3320	ug/kg	*	142	474	474	1	P	HSC	03/19/10 11:31	031910-1	955820
7440-48-4	Cobalt	511	ug/kg		142	474	474	1	P	HSC	03/19/10 11:31	031910-1	955820
7440-50-8	Copper	1230	ug/kg		284	947	947	1	P	HSC	03/19/10 11:31	031910-1	955820
7439-89-6	Iron	6870000	ug/kg		7580	23700	23700	1	P	HSC	03/19/10 11:31	031910-1	955820
7439-92-1	Lead	2330	ug/kg		237	947	947	1	P	HSC	03/19/10 11:31	031910-1	955820
7439-95-4	Magnesium	266000	ug/kg	*	8050	28400	28400	1	P	HSC	03/19/10 11:31	031910-1	955820
7439-96-5	Manganese J,I10a	257000	ug/kg	*	189	947	947	1	P	HSC	03/19/10 11:31	031910-1	955820
7439-97-6	Mercury	11.7	ug/kg	U	3.97	11.7	11.7	1	AV	JXL1	03/09/10 13:52	030910S1-4	958664
7440-02-0	Nickel	796	ug/kg	N	101	403	403	2	MS	RMJ	03/22/10 17:33	100321-2	955822
7440-09-7	Potassium J+,I6b	458000	ug/kg	N	6060	23700	23700	1	P	HSC	03/19/10 11:31	031910-1	955820
7782-49-2	Selenium	1010	ug/kg	U	503	1010	1010	2	MS	RMJ	03/22/10 21:16	100322-3	955822
7440-22-4	Silver	211	ug/kg	J	94.7	474	474	1	P	HSC	03/19/10 11:31	031910-1	955820
7440-23-5	Sodium J+,I6b	442000	ug/kg	N	6630	23700	23700	1	P	HSC	03/19/10 11:31	031910-1	955820
7440-28-0	Thallium	201	ug/kg	U	60.4	201	201	2	MS	RMJ	03/22/10 17:33	100321-2	955822
7440-62-2	Vanadium J,I10a	3350	ug/kg	*	94.7	474	474	1	P	HSC	03/19/10 11:31	031910-1	955820
7440-66-6	Zinc	37600	ug/kg	*	313	947	947	1	P	HSC	03/19/10 11:31	031910-1	955820

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955820	955819	SW846 3050B	0.542	g	50	mL	02/25/10	AXG2
955822	955821	SW846 3050B	0.51	g	50	mL	02/25/10	AXG2
958664	958661	SW846 7471A Prep	0.528	g	30	mL	03/09/10	LXH2

LMF
4/1/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1957

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247566003

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8250

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 97.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,16b	1020000	ug/kg	N	6580	19400	19400	1	P	HSC	03/19/10 11:52	031910-1	955820
7440-36-0	Antimony	968	ug/kg	U	320	968	968	1	P	HSC	03/19/10 11:52	031910-1	955820
7440-38-2	Arsenic	338	ug/kg	J	186	928	928	2	MS	RMJ	03/22/10 21:20	100322-3	955822
7440-39-3	Barium	11300	ug/kg	*	96.8	484	484	1	P	HSC	03/19/10 11:52	031910-1	955820
7440-41-7	Beryllium	518	ug/kg		18.6	92.8	92.8	2	MS	RMJ	03/22/10 17:37	100321-2	955822
7440-43-9	Cadmium	484	ug/kg	U	96.8	484	484	1	P	HSC	03/19/10 11:52	031910-1	955820
7440-70-2	Calcium J+,16b	291000	ug/kg	*N	7750	24200	24200	1	P	HSC	03/19/10 11:52	031910-1	955820
7440-47-3	Chromium	2800	ug/kg	*	145	484	484	1	P	HSC	03/19/10 11:52	031910-1	955820
7440-48-4	Cobalt	229	ug/kg	J	145	484	484	1	P	HSC	03/19/10 11:52	031910-1	955820
7440-50-8	Copper	1110	ug/kg		290	968	968	1	P	HSC	03/19/10 11:52	031910-1	955820
7439-89-6	Iron	6590000	ug/kg		7750	24200	24200	1	P	HSC	03/19/10 11:52	031910-1	955820
7439-92-1	Lead	4190	ug/kg		242	968	968	1	P	HSC	03/19/10 11:52	031910-1	955820
7439-95-4	Magnesium	125000	ug/kg	*	8230	29000	29000	1	P	HSC	03/19/10 11:52	031910-1	955820
7439-96-5	Manganese J,110a	312000	ug/kg	*	194	968	968	1	P	HSC	03/19/10 11:52	031910-1	955820
7439-97-6	Mercury	11.8	ug/kg	U	4	11.8	11.8	1	AV	JXL	03/09/10 13:54	030910S1-4	958664
7440-02-0	Nickel	413	ug/kg	N	92.8	371	371	2	MS	RMJ	03/22/10 17:37	100321-2	955822
7440-09-7	Potassium J+,16b	500000	ug/kg	N	6200	24200	24200	1	P	HSC	03/19/10 11:52	031910-1	955820
7782-49-2	Selenium	928	ug/kg	U	464	928	928	2	MS	RMJ	03/22/10 21:20	100322-3	955822
7440-22-4	Silver	484	ug/kg	U	96.8	484	484	1	P	HSC	03/19/10 11:52	031910-1	955820
7440-23-5	Sodium J+,16b	349000	ug/kg	N	6780	24200	24200	1	P	HSC	03/19/10 11:52	031910-1	955820
7440-28-0	Thallium	186	ug/kg	U	55.7	186	186	2	MS	RMJ	03/22/10 17:37	100321-2	955822
7440-62-2	Vanadium J,110a	2210	ug/kg	*	96.8	484	484	1	P	HSC	03/19/10 11:52	031910-1	955820
7440-66-6	Zinc	47200	ug/kg	*	320	968	968	1	P	HSC	03/19/10 11:52	031910-1	955820

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955820	955819	SW846 3050B	0.528	g	50	mL	02/25/10	AXG2
955822	955821	SW846 3050B	0.551	g	50	mL	02/25/10	AXG2
958664	958661	SW846 7471A Prep	0.521	g	30	mL	03/09/10	LXH2

LMF
4/1/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1957

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247566004

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8251

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 97.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	1240000	ug/kg	N	6970	20500	20500	1	P	HSC	03/19/10 11:59	031910-1	955820
7440-36-0	Antimony	1020	ug/kg	U	338	1020	1020	1	P	HSC	03/19/10 11:59	031910-1	955820
7440-38-2	Arsenic	393	ug/kg	J	201	1000	1000	2	MS	RMJ	03/22/10 21:30	100322-3	955822
7440-39-3	Barium	9840	ug/kg	*	102	512	512	1	P	HSC	03/19/10 11:59	031910-1	955820
7440-41-7	Beryllium	576	ug/kg		20.1	100	100	2	MS	RMJ	03/22/10 17:49	100321-2	955822
7440-43-9	Cadmium	512	ug/kg	U	102	512	512	1	P	HSC	03/19/10 11:59	031910-1	955820
7440-70-2	Calcium J+,I6b	462000	ug/kg	*N	8200	25600	25600	1	P	HSC	03/19/10 11:59	031910-1	955820
7440-47-3	Chromium	2330	ug/kg	*	154	512	512	1	P	HSC	03/19/10 11:59	031910-1	955820
7440-48-4	Cobalt	191	ug/kg	J	154	512	512	1	P	HSC	03/19/10 11:59	031910-1	955820
7440-50-8	Copper	1190	ug/kg		307	1020	1020	1	P	HSC	03/19/10 11:59	031910-1	955820
7439-89-6	Iron	5910000	ug/kg		8200	25600	25600	1	P	HSC	03/19/10 11:59	031910-1	955820
7439-92-1	Lead	3740	ug/kg		256	1020	1020	1	P	HSC	03/19/10 11:59	031910-1	955820
7439-95-4	Magnesium	155000	ug/kg	*	8710	30700	30700	1	P	HSC	03/19/10 11:59	031910-1	955820
7439-96-5	Manganese J,I10a	268000	ug/kg	*	205	1020	1020	1	P	HSC	03/19/10 11:59	031910-1	955820
7439-97-6	Mercury	11.9	ug/kg	U	4.06	11.9	11.9	1	AV	JXL1	03/09/10 13:56	030910S1-4	958664
7440-02-0	Nickel	579	ug/kg	N	100	401	401	2	MS	RMJ	03/22/10 17:49	100321-2	955822
7440-09-7	Potassium J+,I6b	459000	ug/kg	N	6560	25600	25600	1	P	HSC	03/19/10 11:59	031910-1	955820
7782-49-2	Selenium	1000	ug/kg	U	501	1000	1000	2	MS	RMJ	03/22/10 21:30	100322-3	955822
7440-22-4	Silver	131	ug/kg	J	102	512	512	1	P	HSC	03/19/10 11:59	031910-1	955820
7440-23-5	Sodium J+,I6b	324000	ug/kg	N	7170	25600	25600	1	P	HSC	03/19/10 11:59	031910-1	955820
7440-28-0	Thallium	201	ug/kg	U	60.2	201	201	2	MS	RMJ	03/22/10 17:49	100321-2	955822
7440-62-2	Vanadium J,I10a	2010	ug/kg	*	102	512	512	1	P	HSC	03/19/10 11:59	031910-1	955820
7440-66-6	Zinc	40800	ug/kg	*	338	1020	1020	1	P	HSC	03/19/10 11:59	031910-1	955820

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955820	955819	SW846 3050B	0.501	g	50	mL	02/25/10	AXG2
955822	955821	SW846 3050B	0.512	g	50	mL	02/25/10	AXG2
958664	958661	SW846 7471A Prep	0.516	g	30	mL	03/09/10	LXH2

LMF
4/1/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1957

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247566005

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8248

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 98.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	1310000	ug/kg	N	6460	19000	19000	1	P	HSC	03/19/10 12:07	031910-1	955820
7440-36-0	Antimony	950	ug/kg	U	314	950	950	1	P	HSC	03/19/10 12:07	031910-1	955820
7440-38-2	Arsenic	374	ug/kg	J	194	968	968	2	MS	RMJ	03/22/10 21:34	100322-3	955822
7440-39-3	Barium	13900	ug/kg	*	95	475	475	1	P	HSC	03/19/10 12:07	031910-1	955820
7440-41-7	Beryllium	480	ug/kg		19.4	96.8	96.8	2	MS	RMJ	03/22/10 17:53	100321-2	955822
7440-43-9	Cadmium	475	ug/kg	U	95	475	475	1	P	HSC	03/19/10 12:07	031910-1	955820
7440-70-2	Calcium J+,I6b	646000	ug/kg	*N	7600	23800	23800	1	P	HSC	03/19/10 12:07	031910-1	955820
7440-47-3	Chromium	2400	ug/kg	*	143	475	475	1	P	HSC	03/19/10 12:07	031910-1	955820
7440-48-4	Cobalt	550	ug/kg		143	475	475	1	P	HSC	03/19/10 12:07	031910-1	955820
7440-50-8	Copper	954	ug/kg		285	950	950	1	P	HSC	03/19/10 12:07	031910-1	955820
7439-89-6	Iron	5920000	ug/kg		7600	23800	23800	1	P	HSC	03/19/10 12:07	031910-1	955820
7439-92-1	Lead	3940	ug/kg		238	950	950	1	P	HSC	03/19/10 12:07	031910-1	955820
7439-95-4	Magnesium	108000	ug/kg	*	8080	28500	28500	1	P	HSC	03/19/10 12:07	031910-1	955820
7439-96-5	Mangancsc J,I10a	302000	ug/kg	*	190	950	950	1	P	HSC	03/19/10 12:07	031910-1	955820
7439-97-6	Mercury	12.1	ug/kg	U	4.12	12.1	12.1	1	AV	JXL1	03/09/10 13:57	030910S1-4	958664
7440-02-0	Nickel	361	ug/kg	JN	96.8	387	387	2	MS	RMJ	03/22/10 17:53	100321-2	955822
7440-09-7	Potassium J+,I6b	786000	ug/kg	N	6080	23800	23800	1	P	HSC	03/19/10 12:07	031910-1	955820
7782-49-2	Selenium	968	ug/kg	U	484	968	968	2	MS	RMJ	03/22/10 21:34	100322-3	955822
7440-22-4	Silver	139	ug/kg	J	95	475	475	1	P	HSC	03/19/10 12:07	031910-1	955820
7440-23-5	Sodium J+,I6b	604000	ug/kg	N	6650	23800	23800	1	P	HSC	03/19/10 12:07	031910-1	955820
7440-28-0	Thallium	194	ug/kg	U	58.1	194	194	2	MS	RMJ	03/22/10 17:53	100321-2	955822
7440-62-2	Vanadium J,I10a	1610	ug/kg	*	95	475	475	1	P	HSC	03/19/10 12:07	031910-1	955820
7440-66-6	Zinc	40400	ug/kg	*	314	950	950	1	P	HSC	03/19/10 12:07	031910-1	955820

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955820	955819	SW846 3050B	0.535	g	50	mL	02/25/10	AXG2
955822	955821	SW846 3050B	0.525	g	50	mL	02/25/10	AXG2
958664	958661	SW846 7471A Prep	0.503	g	30	mL	03/09/10	LXH2

LMF
4/1/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1957

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247566006

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8249

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 98.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,16b	1030000	ug/kg	N	6550	19300	19300	1	P	HSC	03/19/10 12:14	031910-1	955820
7440-36-0	Antimony	963	ug/kg	U	318	963	963	1	P	HSC	03/19/10 12:14	031910-1	955820
7440-38-2	Arsenic	386	ug/kg	J	201	1000	1000	2	MS	RMJ	03/22/10 21:38	100322-3	955822
7440-39-3	Barium	8530	ug/kg	*	96.3	482	482	1	P	HSC	03/19/10 12:14	031910-1	955820
7440-41-7	Beryllium	495	ug/kg		20.1	100	100	2	MS	RMJ	03/22/10 17:57	100321-2	955822
7440-43-9	Cadmium	482	ug/kg	U	96.3	482	482	1	P	HSC	03/19/10 12:14	031910-1	955820
7440-70-2	Calcium J+,16b	145000	ug/kg	*N	7700	24100	24100	1	P	HSC	03/19/10 12:14	031910-1	955820
7440-47-3	Chromium	9270	ug/kg	*	144	482	482	1	P	HSC	03/19/10 12:14	031910-1	955820
7440-48-4	Cobalt	1570	ug/kg		144	482	482	1	P	HSC	03/19/10 12:14	031910-1	955820
7440-50-8	Copper	846	ug/kg	J	289	963	963	1	P	HSC	03/19/10 12:14	031910-1	955820
7439-89-6	Iron	5380000	ug/kg		7700	24100	24100	1	P	HSC	03/19/10 12:14	031910-1	955820
7439-92-1	Lead	3370	ug/kg		241	963	963	1	P	HSC	03/19/10 12:14	031910-1	955820
7439-95-4	Magnesium	65300	ug/kg	*	8190	28900	28900	1	P	HSC	03/19/10 12:14	031910-1	955820
7439-96-5	Manganese J,110a	248000	ug/kg	*	193	963	963	1	P	HSC	03/19/10 12:14	031910-1	955820
7439-97-6	Mercury	11.6	ug/kg	U	3.93	11.6	11.6	1	AV	JXL1	03/09/10 13:59	030910S1-4	958664
7440-02-0	Nickel	341	ug/kg	JN	100	401	401	2	MS	RMJ	03/22/10 17:57	100321-2	955822
7440-09-7	Potassium J+,16b	637000	ug/kg	N	6160	24100	24100	1	P	HSC	03/19/10 12:14	031910-1	955820
7782-49-2	Selenium	549	ug/kg	J	501	1000	1000	2	MS	RMJ	03/22/10 21:38	100322-3	955822
7440-22-4	Silver	224	ug/kg	J	96.3	482	482	1	P	HSC	03/19/10 12:14	031910-1	955820
7440-23-5	Sodium J+,16b	464000	ug/kg	N	6740	24100	24100	1	P	HSC	03/19/10 12:14	031910-1	955820
7440-28-0	Thallium	201	ug/kg	U	60.2	201	201	2	MS	RMJ	03/22/10 17:57	100321-2	955822
7440-62-2	Vanadium J,110a	1410	ug/kg	*	96.3	482	482	1	P	HSC	03/19/10 12:14	031910-1	955820
7440-66-6	Zinc	37600	ug/kg	*	318	963	963	1	P	HSC	03/19/10 12:14	031910-1	955820

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955820	955819	SW846 3050B	0.528	g	50	mL	02/25/10	AXG2
955822	955821	SW846 3050B	0.507	g	50	mL	02/25/10	AXG2
958664	958661	SW846 7471A Prep	0.528	g	30	mL	03/09/10	LXH2

LMF
4/1/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1957

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247566007

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8247

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 97.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	875000	ug/kg	N	6900	20300	20300	1	P	HSC	03/19/10 12:21	031910-1	955820
7440-36-0	Antimony	1010	ug/kg	U	335	1010	1010	1	P	HSC	03/19/10 12:21	031910-1	955820
7440-38-2	Arsenic	961	ug/kg	U	192	961	961	2	MS	RMJ	03/22/10 21:41	100322-3	955822
7440-39-3	Barium	13000	ug/kg	*	101	507	507	1	P	HSC	03/19/10 12:21	031910-1	955820
7440-41-7	Beryllium	868	ug/kg		19.2	96.1	96.1	2	MS	RMJ	03/22/10 18:02	100321-2	955822
7440-43-9	Cadmium	507	ug/kg	U	101	507	507	1	P	HSC	03/19/10 12:21	031910-1	955820
7440-70-2	Calcium J+,I6b	332000	ug/kg	*N	8120	25400	25400	1	P	HSC	03/19/10 12:21	031910-1	955820
7440-47-3	Chromium	1390	ug/kg	*	152	507	507	1	P	HSC	03/19/10 12:21	031910-1	955820
7440-48-4	Cobalt	237	ug/kg	J	152	507	507	1	P	HSC	03/19/10 12:21	031910-1	955820
7440-50-8	Copper	1170	ug/kg		304	1010	1010	1	P	HSC	03/19/10 12:21	031910-1	955820
7439-89-6	Iron	6410000	ug/kg		8120	25400	25400	1	P	HSC	03/19/10 12:21	031910-1	955820
7439-92-1	Lead	1740	ug/kg		254	1010	1010	1	P	HSC	03/19/10 12:21	031910-1	955820
7439-95-4	Magnesium	189000	ug/kg	*	8620	30400	30400	1	P	HSC	03/19/10 12:21	031910-1	955820
7439-96-5	Manganese J,I10a	274000	ug/kg	*	203	1010	1010	1	P	HSC	03/19/10 12:21	031910-1	955820
7439-97-6	Mercury	11.5	ug/kg	U	3.91	11.5	11.5	1	AV	JXL1	03/09/10 14:01	030910S1-4	958664
7440-02-0	Nickel	606	ug/kg	N	96.1	385	385	2	MS	RMJ	03/22/10 18:02	100321-2	955822
7440-09-7	Potassium J+,I6b	305000	ug/kg	N	6490	25400	25400	1	P	HSC	03/19/10 12:21	031910-1	955820
7782-49-2	Selenium	961	ug/kg	U	481	961	961	2	MS	RMJ	03/22/10 21:41	100322-3	955822
7440-22-4	Silver	192	ug/kg	J	101	507	507	1	P	HSC	03/19/10 12:21	031910-1	955820
7440-23-5	Sodium J+,I6b	227000	ug/kg	N	7100	25400	25400	1	P	HSC	03/19/10 12:21	031910-1	955820
7440-28-0	Thallium	192	ug/kg	U	57.7	192	192	2	MS	RMJ	03/22/10 18:02	100321-2	955822
7440-62-2	Vanadium J,I10a	1880	ug/kg	*	101	507	507	1	P	HSC	03/19/10 12:21	031910-1	955820
7440-66-6	Zinc	33800	ug/kg	*	335	1010	1010	1	P	HSC	03/19/10 12:21	031910-1	955820

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955820	955819	SW846 3050B	0.504	g	50	mL	02/25/10	AXG2
955822	955821	SW846 3050B	0.532	g	50	mL	02/25/10	AXG2
958664	958661	SW846 7471A Prep	0.533	g	30	mL	03/09/10	LXH2

LMF
4/1/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1957

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247566008

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8254

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 98.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	4270000	ug/kg	N	6550	19300	19300	1	P	HSC	03/19/10 12:28	031910-1	955820
7440-36-0	Antimony	964	ug/kg	U	318	964	964	1	P	HSC	03/19/10 12:28	031910-1	955820
7440-38-2	Arsenic	551	ug/kg	J	204	1020	1020	2	MS	RMJ	03/22/10 21:45	100322-3	955822
7440-39-3	Barium	18800	ug/kg	*	96.4	482	482	1	P	HSC	03/19/10 12:28	031910-1	955820
7440-41-7	Beryllium	1670	ug/kg		20.4	102	102	2	MS	RMJ	03/22/10 18:06	100321-2	955822
7440-43-9	Cadmium	482	ug/kg	U	96.4	482	482	1	P	HSC	03/19/10 12:28	031910-1	955820
7440-70-2	Calcium J+,I6b	587000	ug/kg	*N	7710	24100	24100	1	P	HSC	03/19/10 12:28	031910-1	955820
7440-47-3	Chromium	4950	ug/kg	*	145	482	482	1	P	HSC	03/19/10 12:28	031910-1	955820
7440-48-4	Cobalt	538	ug/kg		145	482	482	1	P	HSC	03/19/10 12:28	031910-1	955820
7440-50-8	Copper	2330	ug/kg		289	964	964	1	P	HSC	03/19/10 12:28	031910-1	955820
7439-89-6	Iron	7600000	ug/kg		7710	24100	24100	1	P	HSC	03/19/10 12:28	031910-1	955820
7439-92-1	Lead	3290	ug/kg		241	964	964	1	P	HSC	03/19/10 12:28	031910-1	955820
7439-95-4	Magnesium	394000	ug/kg	*	8190	28900	28900	1	P	HSC	03/19/10 12:28	031910-1	955820
7439-96-5	Manganese J,I10a	185000	ug/kg	*	193	964	964	1	P	HSC	03/19/10 12:28	031910-1	955820
7439-97-6	Mercury	11.2	ug/kg	U	3.82	11.2	11.2	1	AV	JXL1	03/09/10 14:02	030910S1-4	958664
7440-02-0	Nickel	1250	ug/kg	N	102	408	408	2	MS	RMJ	03/22/10 18:06	100321-2	955822
7440-09-7	Potassium J+,I6b	494000	ug/kg	N	6170	24100	24100	1	P	HSC	03/19/10 12:28	031910-1	955820
7782-49-2	Selenium	1020	ug/kg	U	510	1020	1020	2	MS	RMJ	03/22/10 21:45	100322-3	955822
7440-22-4	Silver	210	ug/kg	J	96.4	482	482	1	P	HSC	03/19/10 12:28	031910-1	955820
7440-23-5	Sodium J+,I6b	366000	ug/kg	N	6750	24100	24100	1	P	HSC	03/19/10 12:28	031910-1	955820
7440-28-0	Thallium	204	ug/kg	U	61.2	204	204	2	MS	RMJ	03/22/10 18:06	100321-2	955822
7440-62-2	Vanadium J,I10a	4090	ug/kg	*	96.4	482	482	1	P	HSC	03/19/10 12:28	031910-1	955820
7440-66-6	Zinc	36300	ug/kg	*	318	964	964	1	P	HSC	03/19/10 12:28	031910-1	955820

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955820	955819	SW846 3050B	0.529	g	50	mL	02/25/10	AXG2
955822	955821	SW846 3050B	0.5	g	50	mL	02/25/10	AXG2
958664	958661	SW846 7471A Prep	0.545	g	30	mL	03/09/10	LXH2

LMF
4/1/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1957

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247566009

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8268

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 J+,I6b	1360000	ug/kg	N	6810	20000	20000	1	P	HSC	03/19/10 12:35	031910-1	955820
7440-36-0	Antimony	1000	ug/kg	U	331	1000	1000	1	P	HSC	03/19/10 12:35	031910-1	955820
7440-38-2	Arsenic	290	ug/kg	J	198	988	988	2	MS	RMJ	03/22/10 21:49	100322-3	955822
7440-39-3	Barium	10700	ug/kg	*	100	501	501	1	P	HSC	03/19/10 12:35	031910-1	955820
7440-41-7	Beryllium	421	ug/kg		19.8	98.8	98.8	2	MS	RMJ	03/22/10 18:10	100321-2	955822
7440-43-9	Cadmium	501	ug/kg	U	100	501	501	1	P	HSC	03/19/10 12:35	031910-1	955820
7440-70-2	Calcium J+,I6b	297000	ug/kg	*N	8020	25000	25000	1	P	HSC	03/19/10 12:35	031910-1	955820
7440-47-3	Chromium	4980	ug/kg	*	150	501	501	1	P	HSC	03/19/10 12:35	031910-1	955820
7440-48-4	Cobalt	483	ug/kg	J	150	501	501	1	P	HSC	03/19/10 12:35	031910-1	955820
7440-50-8	Copper	988	ug/kg	J	301	1000	1000	1	P	HSC	03/19/10 12:35	031910-1	955820
7439-89-6	Iron	6950000	ug/kg		8020	25000	25000	1	P	HSC	03/19/10 12:35	031910-1	955820
7439-92-1	Lead	2240	ug/kg		250	1000	1000	1	P	HSC	03/19/10 12:35	031910-1	955820
7439-95-4	Magnesium	218000	ug/kg	*	8520	30100	30100	1	P	HSC	03/19/10 12:35	031910-1	955820
7439-96-5	Manganesec J,I10a	223000	ug/kg	*	200	1000	1000	1	P	HSC	03/19/10 12:35	031910-1	955820
7439-97-6	Mercury	11.3	ug/kg	U	3.83	11.3	11.3	1	AV	JXL1	03/09/10 14:04	030910S1-4	958664
7440-02-0	Nickel	954	ug/kg	N	98.8	395	395	2	MS	RMJ	03/22/10 18:10	100321-2	955822
7440-09-7	Potassium J+,I6b	478000	ug/kg	N	6410	25000	25000	1	P	HSC	03/19/10 12:35	031910-1	955820
7782-49-2	Selenium	988	ug/kg	U	494	988	988	2	MS	RMJ	03/22/10 21:49	100322-3	955822
7440-22-4	Silver	130	ug/kg	J	100	501	501	1	P	HSC	03/19/10 12:35	031910-1	955820
7440-23-5	Sodium J+,I6b	462000	ug/kg	N	7010	25000	25000	1	P	HSC	03/19/10 12:35	031910-1	955820
7440-28-0	Thallium	198	ug/kg	U	59.3	198	198	2	MS	RMJ	03/22/10 18:10	100321-2	955822
7440-62-2	Vanadium J,I10a	2620	ug/kg	*	100	501	501	1	P	HSC	03/19/10 12:35	031910-1	955820
7440-66-6	Zinc	41100	ug/kg	*	331	1000	1000	1	P	HSC	03/19/10 12:35	031910-1	955820

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt/vol.	Units	Final wt/vol.	Units	Date	Analyst
955820	955819	SW846 3050B	0.513	g	50	mL	02/25/10	AXG2
955822	955821	SW846 3050B	0.52	g	50	mL	02/25/10	AXG2
958664	958661	SW846 7471A Prep	0.547	g	30	mL	03/09/10	LXH2

LMF
4/1/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1957

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247566010

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8264

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 96.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	1090000	ug/kg	N	6850	20200	20200	1	P	HSC	03/19/10 12:42	031910-1	955820
7440-36-0	Antimony	1010	ug/kg	U	333	1010	1010	1	P	HSC	03/19/10 12:42	031910-1	955820
7440-38-2	Arsenic	261	ug/kg	J	191	953	953	2	MS	RMJ	03/22/10 21:52	100322-3	955822
7440-39-3	Barium	10400	ug/kg	*	101	504	504	1	P	HSC	03/19/10 12:42	031910-1	955820
7440-41-7	Beryllium	354	ug/kg		19.1	95.3	95.3	2	MS	RMJ	03/22/10 18:14	100321-2	955822
7440-43-9	Cadmium	504	ug/kg	U	101	504	504	1	P	HSC	03/19/10 12:42	031910-1	955820
7440-70-2	Calcium J+,I6b	446000	ug/kg	*N	8060	25200	25200	1	P	HSC	03/19/10 12:42	031910-1	955820
7440-47-3	Chromium	2110	ug/kg	*	151	504	504	1	P	HSC	03/19/10 12:42	031910-1	955820
7440-48-4	Cobalt	336	ug/kg	J	151	504	504	1	P	HSC	03/19/10 12:42	031910-1	955820
7440-50-8	Copper	1170	ug/kg		302	1010	1010	1	P	HSC	03/19/10 12:42	031910-1	955820
7439-89-6	Iron	5890000	ug/kg		8060	25200	25200	1	P	HSC	03/19/10 12:42	031910-1	955820
7439-92-1	Lead	3980	ug/kg		252	1010	1010	1	P	HSC	03/19/10 12:42	031910-1	955820
7439-95-4	Magnesium	126000	ug/kg	*	8570	30200	30200	1	P	HSC	03/19/10 12:42	031910-1	955820
7439-96-5	Manganesec J,I10a	282000	ug/kg	*	202	1010	1010	1	P	HSC	03/19/10 12:42	031910-1	955820
7439-97-6	Mercury	12.5	ug/kg	U	4.24	12.5	12.5	1	AV	JXL1	03/09/10 14:06	030910S1-4	958664
7440-02-0	Nickel	386	ug/kg	N	95.3	381	381	2	MS	RMJ	03/22/10 18:14	100321-2	955822
7440-09-7	Potassium J+,I6b	459000	ug/kg	N	6450	25200	25200	1	P	HSC	03/19/10 12:42	031910-1	955820
7782-49-2	Selenium	513	ug/kg	J	476	953	953	2	MS	RMJ	03/22/10 21:52	100322-3	955822
7440-22-4	Silver	102	ug/kg	J	101	504	504	1	P	HSC	03/19/10 12:42	031910-1	955820
7440-23-5	Sodium J+,I6b	358000	ug/kg	N	7060	25200	25200	1	P	HSC	03/19/10 12:42	031910-1	955820
7440-28-0	Thallium	191	ug/kg	U	57.2	191	191	2	MS	RMJ	03/22/10 18:14	100321-2	955822
7440-62-2	Vanadium J,I10a	2080	ug/kg	*	101	504	504	1	P	HSC	03/19/10 12:42	031910-1	955820
7440-66-6	Zinc	42400	ug/kg	*	333	1010	1010	1	P	HSC	03/19/10 12:42	031910-1	955820

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955820	955819	SW846 3050B	0.516	g	50	mL	02/25/10	AXG2
955822	955821	SW846 3050B	0.546	g	50	mL	02/25/10	AXG2
958664	958661	SW846 7471A Prep	0.5	g	30	mL	03/09/10	LXH2

LMF
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DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only



Section I.

REQUEST NUMBER: 10-1957 VALIDATION DATE: 4/1/10 LAB CODE: GELCONTRACT LABORATORY NAME: GEL Laboratories LLCVALIDATOR: Larry Fukui 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): <u>Total CN</u> | | | |


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. It should be noted that the aqueous matrix QC parent sample was from another LANL RN. It should also be noted that the soil matrix QC parent samples associated with samples RE15-10-8252 and -8253 were from other LANR RNs. No sample data were qualified as a result.


Reviewed by: Mary DonovanLevel: IDate: 04/02/10VALIDATOR'S SIGNATURE: DATE: 4/1/10

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

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

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

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

Yes No N/A (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: 10-1957-1

Client Sample ID: RE15-10-8271
Sample ID: 247567001
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

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	

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4/1/10

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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 12, 2010

Client SDG: 10-1957

Client Sample ID: RE15-10-8252
Sample ID: 247566001
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 2.76%

Project: LANL01004
Client ID: LANL010

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

SW9012A Cyanide, Total "Dry Weight Corrected"

Cyanide, Total	U	ND	66.0	243	ug/kg	1	AXC2	03/01/10	1545	955989	1
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The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/26/10	1540	955988

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

Company : Los Alamos National Laboratory
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: 10-1957

Client Sample ID: RE15-10-8253
Sample ID: 247566002
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 2.63%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	64.7	238	ug/kg	1	AXC2	03/01/10	1545	955989	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/26/10	1540	955988

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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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: 10-1957

Client Sample ID: RE15-10-8250
Sample ID: 247566003
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 2.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	63.2	232	ug/kg	1	AXC2	02/26/10	1104	955992	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	02/25/10	1700	955991

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

Company : Los Alamos National Laboratory
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: 10-1957

Client Sample ID: RE15-10-8251
Sample ID: 247566004
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 2.59%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	69.8	257	ug/kg	1	AXC2	02/26/10	1108	955992	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	02/25/10	1700	955991

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LMF
4/1/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

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

Report Date: March 12, 2010

Client SDG: 10-1957

Client Sample ID: RE15-10-8248
Sample ID: 247566005
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 1.66%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	66.5	244	ug/kg	1	AXC2	02/26/10	1116	955992	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	02/25/10	1700	955991

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LMF
4/1/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

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

Report Date: March 12, 2010

Client SDG: 10-1957

Client Sample ID: RE15-10-8249
Sample ID: 247566006
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 1.67%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	61.7	227	ug/kg	1	AXC2	02/26/10	1117	955992	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	02/25/10	1700	955991

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LMF
4/1/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

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

Report Date: March 12, 2010

Client SDG: 10-1957

Client Sample ID: RE15-10-8247
Sample ID: 247566007
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 2.23%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	63.2	232	ug/kg	1	AXC2	02/26/10	1118	955992	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	02/25/10	1700	955991

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LMF
4/1/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

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

Report Date: March 12, 2010

Client SDG: 10-1957

Client Sample ID: RE15-10-8254
Sample ID: 247566008
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 1.95%

Project: LANL01004
Client ID: LANL010

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

SW9012A Cyanide, Total "Dry Weight Corrected"

Cyanide, Total	U	ND	65.4	241	ug/kg	1	AXC2	02/26/10	1119	955992	1
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The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	02/25/10	1700	955991

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LMF
4/1/10

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 12, 2010

Client SDG: 10-1957

Client Sample ID: RE15-10-8268
Sample ID: 247566009
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 2.72%

Project: LANL01004
Client ID: LANL010

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

Flow Injection Analysis

SW9012A Cyanide, Total "Dry Weight Corrected"

Cyanide, Total	U	ND	65.9	242	ug/kg	1	AXC2	02/26/10	1120	955992	1
----------------	---	----	------	-----	-------	---	------	----------	------	--------	---

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	02/25/10	1700	955991

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LMF
4/1/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

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

Report Date: March 12, 2010

Client SDG: 10-1957

Client Sample ID: RE15-10-8264
Sample ID: 247566010
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 3.87%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	69.3	255	ug/kg	1	AXC2	02/26/10	1120	955992	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	02/25/10	1700	955991

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LMF
4/1/10

Friday, February 19, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1957

LOS ALAMOS

REQUEST NUMBER: 10-1957

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:

247566, 247567⁰¹

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8252	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8253	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8250	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8251	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8248	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8249	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8247	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8254	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8271	1	POLY	METALS-GEL	Nitric Acid	W
RE15-10-8271	1	POLY	SW-846:6850	Ice	W
RE15-10-8271	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8268	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8264	1	POLY	Metals+ClO4+CN	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

These Samples are on:

LANL Request Number: 10-1957

Per Agreement Number: 126310011

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

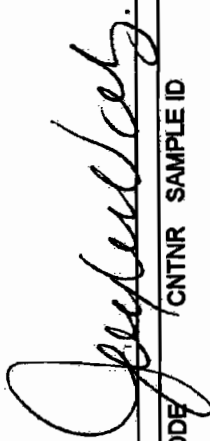
TURNAROUND REQ'D: 30 Days

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
	SW-846-6010B	1	RE15-10-8247	R	2/15/2010	
		1	RE15-10-8248	R	2/15/2010	
		1	RE15-10-8249	R	2/15/2010	
		1	RE15-10-8250	R	2/15/2010	
		1	RE15-10-8251	R	2/15/2010	
		1	RE15-10-8252	R	2/15/2010	
		1	RE15-10-8253	R	2/15/2010	
		1	RE15-10-8254	R	2/15/2010	
		1	RE15-10-8264	R	2/15/2010	

Friday, February 19, 2010

REQUEST NUMBER: 10-1957

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE15-10-8268	R	2/15/2010	
		1	RE15-10-8271	W	2/15/2010	
	SW-846:6020	1	RE15-10-8271	W	2/15/2010	
	SW-846:6850	1	RE15-10-8271	W	2/15/2010	
	SW-846:9012A	1	RE15-10-8247	R	2/15/2010	
		1	RE15-10-8248	R	2/15/2010	
		1	RE15-10-8249	R	2/15/2010	
		1	RE15-10-8250	R	2/15/2010	
		1	RE15-10-8251	R	2/15/2010	
		1	RE15-10-8252	R	2/15/2010	
		1	RE15-10-8253	R	2/15/2010	
		1	RE15-10-8254	R	2/15/2010	
		1	RE15-10-8284	R	2/15/2010	
		1	RE15-10-8268	R	2/15/2010	
		1	RE15-10-8271	W	2/15/2010	

Final Page of REQUEST NUMBER 10-1957



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: 247566 247567
SDG: 10-1957

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: 10-1957
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 247566 and 247567
SDG: 10-1957

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Miscellaneous	880
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Instrument QC Data Summary	894
Cyanide, Total	896

Case Narrative

**Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 247566 and 247567
SDG # : 10-1957**

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 samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. 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>
247566001	RE15-10-8252
247566002	RE15-10-8253
247566003	RE15-10-8250
247566004	RE15-10-8251
247566005	RE15-10-8248
247566006	RE15-10-8249
247566007	RE15-10-8247
247566008	RE15-10-8254
247566009	RE15-10-8268
247566010	RE15-10-8264
247567001	RE15-10-8271

Case Narrative

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

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

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

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

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: 10-1957

LOS ALAMOS

REQUEST NUMBER: 10-1957

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:

247566, 247567°/

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8252	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8253	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8250	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8251	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8248	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8249	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8247	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8254	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8271	1	POLY	METALS-GEL	Nitric Acid	W
RE15-10-8271	1	POLY	SW-846:6850	Ice	W
RE15-10-8271	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8268	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8264	1	POLY	Metals+ClO4+CN	Ice	R

Relinquished By:

Date

Time

Received By:

Date

Time

[Signature] 2/19/10 1400 Patricia Dover Dent P. W. Dent 2/20/10 08:55
 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

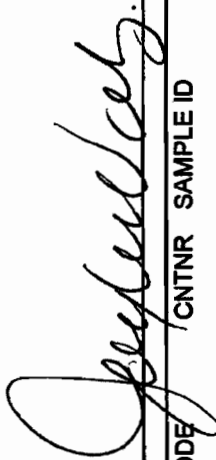
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:



REQUEST NUMBER: 10-1957

These Samples are on:

LANL Request Number: 10-1957
Per Agreement Number: 126310011
Project Cost Code: MR3A05529E00

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE15-10-8247	R	2/15/2010	
		1	RE15-10-8248	R	2/15/2010	
		1	RE15-10-8249	R	2/15/2010	
		1	RE15-10-8250	R	2/15/2010	
		1	RE15-10-8251	R	2/15/2010	
		1	RE15-10-8252	R	2/15/2010	
		1	RE15-10-8253	R	2/15/2010	
		1	RE15-10-8254	R	2/15/2010	
		1	RE15-10-8264	R	2/15/2010	

Friday, February 19, 2010

Page 2 of 2

REQUEST NUMBER: 10-1957

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8010B	1	RE15-10-8268	R	2/15/2010	
		1	RE15-10-8271	W	2/15/2010	
	SW-846:6020	1	RE15-10-8271	W	2/15/2010	
	SW-846:6850	1	RE15-10-8271	W	2/15/2010	
	SW-846:9012A	1	RE15-10-8247	R	2/15/2010	
		1	RE15-10-8248	R	2/15/2010	
		1	RE15-10-8249	R	2/15/2010	
		1	RE15-10-8250	R	2/15/2010	
		1	RE15-10-8251	R	2/15/2010	
		1	RE15-10-8252	R	2/15/2010	
		1	RE15-10-8253	R	2/15/2010	
		1	RE15-10-8254	R	2/15/2010	
		1	RE15-10-8264	R	2/15/2010	
		1	RE15-10-8268	R	2/15/2010	
		1	RE15-10-8271	W	2/15/2010	

Final Page of REQUEST NUMBER 10-1957



Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL			SDG/ARCOC/Work Order: 10-1957		
Received By: Patricia Dover-Dent			Date Received: February 20, 2009		
Suspected Hazard Information	Yes	No	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.		
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: 40 CPM		
Classified Radioactive II by RSO?		X			
COC/Samples marked containing PCBs?		X			
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:		
Samples identified as Foreign Soil?		X			

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

Comments: FEDEX#S

7209 7850 1448 2C

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

7209 7850 1404 12C

PM (or PMA) review: Initials

Date

2/22/10

ORIGIN ID: SAFA (005) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TAGG BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 19FEB10
ACTNGT: 55.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

ORIGIN ID: SAFA (005) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TAGG BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ORIGIN ID: SAFA (005) 665-9969
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

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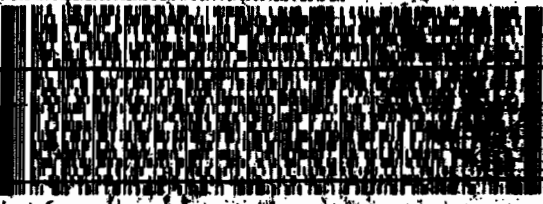


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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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REF: 6B010AMR3A05529E00



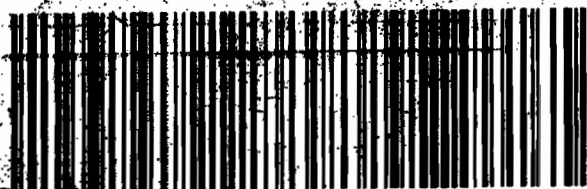
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Matr# 7209 7850 1437 0201
SATURDAY ###
PRIORITY OVERNIGHT

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NPS# 0263 7209 7850 1426
Matr# 7209 7850 1415 0201
SATURDAY ###
PRIORITY OVERNIGHT

X0 CHSA

29407
SC-US
CHS



ORIGIN ID: SAFA (005) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TAGG BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 19FEB10
ACTNGT: 55.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

ORIGIN ID: SAFA (005) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TAGG BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ORIGIN ID: SAFA (005) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TAGG BLDG 1237 DPU 03

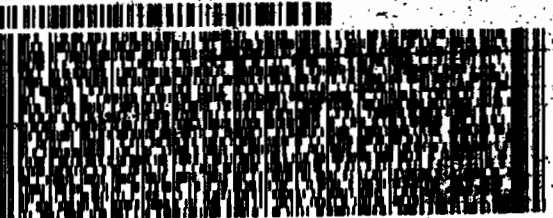
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SATURDAY ###
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NPS# 0263 7209 7850 1460
Matr# 7209 7850 1459 0201
SATURDAY ###
PRIORITY OVERNIGHT

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CHS



ORIGIN ID: SAFA (505) 555-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TAGO BLDG 1237 DPU 63

LOS ALAMOS NM 87545
UNITED STATES US

SHIP DATE: 19FEB10
ACTWGT: 52.8 LB MAN
CAD: 0014176/CAFE2450

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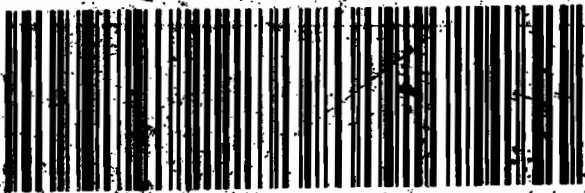


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SATURDAY ### A1
PRIORITY OVERNIGHT

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SC-US
CHS

X0 CHSA



ORIGIN ID: SAFA (505) 555-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TAGO BLDG 1237 DPU 63

LOS ALAMOS NM 87545
UNITED STATES US

SHIP DATE: 19FEB10
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

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REF: 6B010AMR3A0532VA00

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SATURDAY ### A1
PRIORITY OVERNIGHT

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SC-US
CHS

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JOYLENE VALDEZ (505) 555-9968
LOS ALAMOS NATL LAB
TAGO BLDG 1237 DPU 63
LOS ALAMOS NM 87545
UNITED STATES US

SHIP DATE: 19FEB10
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2450

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REF: 6B010AMR3A05529E00

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1 of 2
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SATURDAY ### A1
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8

ALWAYS USE THE SAME TRACKING NUMBER

ORIGIN ID: SAFA (505) 665-9988
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TAGS BLDG 1237 DPU 63
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10FEB10
ACTWGT: 59.0 LB TAN
CAD: 0014176/CAFE2450

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2 of 3 ### SATURDAY ### A1
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Matrn 7209 7850 1389 0263
PRIORITY OVERNIGHT

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LOS ALAMOS, NM 87545
UNITED STATES US

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GENERAL ENGINEERING LAB
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12°



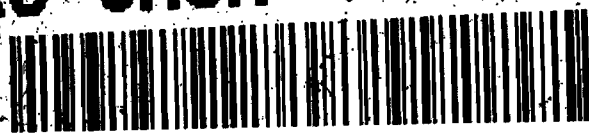
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3 of 3 ### SATURDAY ### A1
MPS# 7209 7850 1404
Matrn 7209 7850 1389 0263
PRIORITY OVERNIGHT

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 10-1957**

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: 957938

Prep Batch Number: 957937

Sample Analysis

Sample ID	Client ID
247566001	RE15-10-8252
247566002	RE15-10-8253
247566003	RE15-10-8250
247566004	RE15-10-8251
247566005	RE15-10-8248
247566006	RE15-10-8249
247566007	RE15-10-8247
247566008	RE15-10-8254
247566009	RE15-10-8268
247566010	RE15-10-8264
1202054216	Interference Check Sample (ICS)
1202054212	Method Blank (MB)
1202054213	Laboratory Control Sample (LCS)
1202054214	247566002(RE15-10-8253) Matrix Spike (MS)
1202054215	247566002(RE15-10-8253) Matrix Spike Duplicate (MSD)

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

10-1957-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 247566002 (RE15-10-8253) 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.

10-1957-PERLCMS

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Retention Time

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

Technical Information

Holding Time Specifications

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

Preparation/Analytical Method Verification

All procedures were performed as stated in the SOP.

Sample Dilutions

The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis

Samples and matrix spikes 1202054214 (RE15-10-8253MS), 1202054215 (RE15-10-8253MSD), 247566001 (RE15-10-8252), 247566002 (RE15-10-8253), 247566003 (RE15-10-8250), 247566004 (RE15-10-8251), 247566005 (RE15-10-8248), 247566006 (RE15-10-8249), 247566007 (RE15-10-8247), 247566008 (RE15-10-8254), 247566009 (RE15-10-8268) and 247566010 (RE15-10-8264) required re-analysis due to bracketing CCVs that failed. The re-analysis passed acceptance criteria and 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.

10-1957-PERLCMS

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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: Heather M. Mauer Date: 03/16/10

10-1957-PERLCMS

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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: 257937
 Extraction Type: Solid Prep
 Client Sample No. RE15-10-8252
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1957
 GEL Sample ID: 247566001
 Date Filtered: 05-MAR-10
 Injection Volume (uL): 20
 Sample Volume/Weight: 2.00 g
 %Solids: 97.2

Concentrated Extract Volume: 20.0

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.514	2.06	0.514	ug/kg	U	1	11-MAR-10 21:25	per0311015a
	Perchlorate Isotope Ratio						1	11-MAR-10 21:25	per0311015a
14797-73-0	Perchlorate-101	.514	2.06	0.514	ug/kg	U	1	11-MAR-10 21:25	per0311015a
	Perchlorate-O(18)			5.17	ug/kg		1	11-MAR-10 21:25	per0311015a

[^] 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: 257937

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8253

Date Received: 20-FEB-10

GEL Job No (SDG): 10-1957

GEL Sample ID: 247566002

Date Filtered: 05-MAR-10

Injection Volume (uL): 20

%Solids: 97.4

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.513	2.05	2.12	ug/kg		1	11-MAR-10 21:34	per0311016a
	Perchlorate Isotope Ratio			3.05			1	11-MAR-10 21:34	per0311016a
14797-73-0	Perchlorate-101	.513	2.05	1.99	ug/kg	J	1	11-MAR-10 21:34	per0311016a
	Perchlorate-O(18)			5.19	ug/kg		1	11-MAR-10 21:34	per0311016a

[^] 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: 957937

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8250

Date Received: 20-FEB-10

GEL Job No (SDG): 10-1957

GEL Sample ID: 247566003

Date Filtered: 05-MAR-10

Injection Volume (uL): 20

%Solids: 97.8

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.511	2.04	0.511	ug/kg	U	1	11-MAR-10 22:01	per0311019a
	Perchlorate Isotope Ratio						1	11-MAR-10 22:01	per0311019a
14797-73-0	Perchlorate-101	.511	2.04	0.511	ug/kg	U	1	11-MAR-10 22:01	per0311019a
	Perchlorate-O(18)			5.05	ug/kg		1	11-MAR-10 22:01	per0311019a

[^] 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: 957937

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8251

Date Received: 20-FEB-10

GEL Job No (SDG): 10-1957

GEL Sample ID: 247566004

Date Filtered: 05-MAR-10

Injection Volume (uL): 20

%Solids: 97.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.513	2.05	0.513	ug/kg	U	1	11-MAR-10 22:10	per0311020a
	Perchlorate Isotope Ratio						1	11-MAR-10 22:10	per0311020a
14797-73-0	Perchlorate-101	.513	2.05	0.513	ug/kg	U	1	11-MAR-10 22:10	per0311020a
	Perchlorate-O(18)			5.25	ug/kg		1	11-MAR-10 22:10	per0311020a

^ 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: 957937

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8248

Date Received: 20-FEB-10

GEL Job No (SDG): 10-1957

GEL Sample ID: 247566005

Date Filtered: 05-MAR-10

Injection Volume (uL): 20

% Solids: 28.3

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.508	2.03	0.508	ug/kg	U	1	11-MAR-10 22:19	per0311021a
	Perchlorate Isotope Ratio						1	11-MAR-10 22:19	per0311021a
14797-73-0	Perchlorate-101	.508	2.03	0.508	ug/kg	U	1	11-MAR-10 22:19	per0311021a
	Perchlorate-O(18)			5.05	ug/kg		1	11-MAR-10 22:19	per0311021a

[^] 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: 957937
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE15-10-8249
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1957
 GEL Sample ID: 247566006
 Date Filtered: 05-MAR-10
 Injection Volume (uL): 20
 %Solids: 98.3

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.509	2.03	0.509	ug/kg	U	1	11-MAR-10 22:55	per0311025a
	Perchlorate Isotope Ratio						1	11-MAR-10 22:55	per0311025a
14797-73-0	Perchlorate-101	.509	2.03	0.509	ug/kg	U	1	11-MAR-10 22:55	per0311025a
	Perchlorate-O(18)			5.25	ug/kg		1	11-MAR-10 22:55	per0311025a

[^] 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: 957937

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8247

Date Received: 20-FEB-10

GEL Job No (SDG): 10-1957

GEL Sample ID: 247566007

Date Filtered: 05-MAR-10

Injection Volume (uL): 20

%Solids: 97.8

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.511	2.05	0.511	ug/kg	U	1	11-MAR-10 23:04	per0311026a
	Perchlorate Isotope Ratio						1	11-MAR-10 23:04	per0311026a
14797-73-0	Perchlorate-101	.511	2.05	0.511	ug/kg	U	1	11-MAR-10 23:04	per0311026a
	Perchlorate-O(18)			5.19	ug/kg		1	11-MAR-10 23:04	per0311026a

[^] 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: 257937
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE15-10-8254
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1957
 GEL Sample ID: 247566008
 Date Filtered: 05-MAR-10
 Injection Volume (uL): 20
 %Solids: 98.1

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.51	2.04	2.37	ug/kg		1	11-MAR-10 23:13	per0311027a
	Perchlorate Isotope Ratio			3.12			1	11-MAR-10 23:13	per0311027a
14797-73-0	Perchlorate-101	.51	2.04	2.17	ug/kg		1	11-MAR-10 23:13	per0311027a
	Perchlorate-O(18)			5.04	ug/kg		1	11-MAR-10 23:13	per0311027a

^ 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: 957937
 Extraction Type: Solid Prep
 Client Sample No. RE15-10-8268
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1957
 GEL Sample ID: 247566009
 Date Filtered: 05-MAR-10
 Injection Volume (uL): 20
 Sample Volume/Weight: 2.00 g
 %Solids: 97.3

Concentrated Extract Volume: 20.0

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.514	2.06	2.12	ug/kg		1	11-MAR-10 23:22	per0311028a
	Perchlorate Isotope Ratio			3.07			1	11-MAR-10 23:22	per0311028a
14797-73-0	Perchlorate-101	.514	2.06	1.98	ug/kg	J	1	11-MAR-10 23:22	per0311028a
	Perchlorate-O(18)			5.20	ug/kg		1	11-MAR-10 23:22	per0311028a

[^] 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: 957937
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE15-10-8264
 Date Received: 20-FEB-10
 GEL Job No (SDG): 10-1957
 GEL Sample ID: 247566010
 Date Filtered: 05-MAR-10
 Injection Volume (uL): 20
 %Solids: 96.1

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.52	2.08	0.520	ug/kg	U	1	11-MAR-10 23:31	per0311029a
	Perchlorate Isotope Ratio						1	11-MAR-10 23:31	per0311029a
14797-73-0	Perchlorate-101	.52	2.08	0.520	ug/kg	U	1	11-MAR-10 23:31	per0311029a
	Perchlorate-O(18)			5.18	ug/kg		1	11-MAR-10 23:31	per0311029a

[^] 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): 10-1957

Extract Batch Code: 957937

Date Filtered: 05-MAR-10

Matrix: SOIL

Sample ID: 1202054213

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.39	ug/kg	119		70 - 130
Perchlorate Isotope Ratio		3.05				-
Perchlorate-101	2.00	2.43	ug/kg	121		70 - 130
Perchlorate-O(18)		5.31	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): 10-1957

Extract Batch Code: 957937

Date Filtered: 05-MAR-10

Matrix: SOIL

Sample ID: 1202054216

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.39	ug/kg	119		70 - 130
Perchlorate Isotope Ratio		3.06				
Perchlorate-101	2.00	2.42	ug/kg	121		70 - 130
Perchlorate-O(18)		5.39	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: Charliers W. Wilson

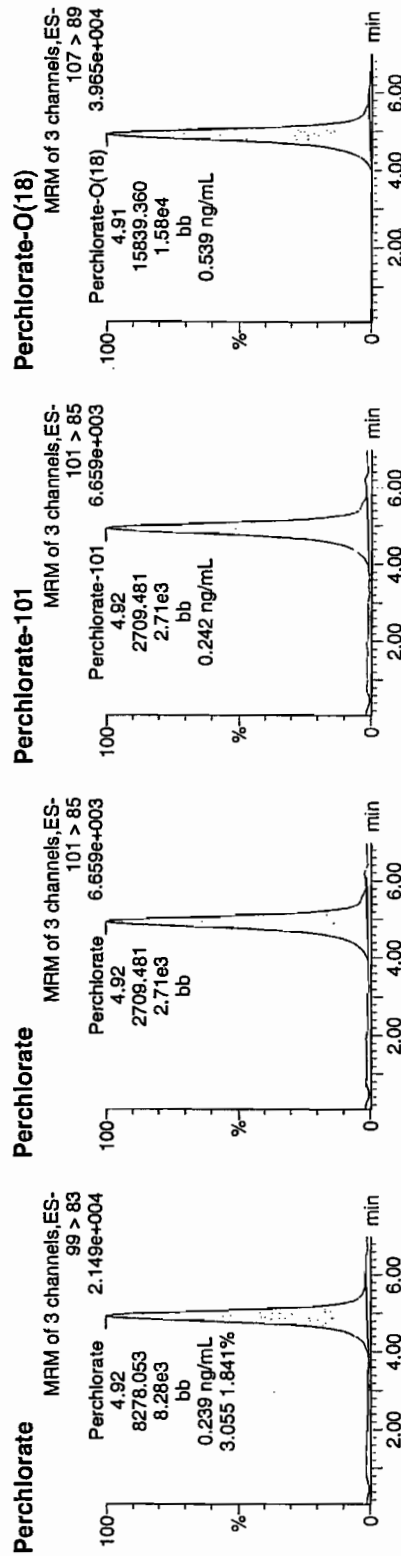
Dataset: C:\MassLynx\Perchlorate.PRO\per031010a.qld

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Printed: Thursday, March 11, 2010 8:51:51 AM Eastern Standard Time

Name: per0310057a
Date: 10-Mar-2010
Time: 23:16:34
ID: 1202054216
Vial: 2:1,C

33-11-10

1202054216 | 957933 | 3020 | 16 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202054216	Perchlorate	99 > 83	4.92	8278.053	8278.053	bb			0.2387	119.35	19.35	356.019	3.06
1202054216	Perchlorate-101	101 > 85	4.92	2709.481	2709.481	bb			0.2420	120.99	20.99	338.871	
1202054216	Perchlorate-Q(18)	107 > 89	4.91	15839.360	15839.360	bb			0.5395	107.89	7.89	1820.7...	

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

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10-1957

Extract Batch Code: 957937

Date Extracted: 05-MAR-10

GEL MS/PS ID: 1202054214

Client ID: RE15-10-8253

GEL MSD/PSD ID: 1202054215

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec	#	MSD Conc	MSD Rec	#	RPD	#	RPD Limit	Recovery Limit
Perchlorate	2.05	2.12	ug/kg	4.22	102		4.08	95.6		3.39		30	75 - 125
Perchlorate Isotope Ratio	0	0.00		2.9			3.11			0			-
Perchlorate-101	2.05	1.99	ug/kg	4.17	106		3.77	86.6		10.2		30	75 - 125
Perchlorate-O(18)	0	5.19	ug/kg	5.18			5.05			2.5			-

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

Comments:

Perchlorate Initial Calibration Blank

GEL Job No.(SDG): 10-1957

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	10-MAR-10	per0310001a	IPB001
Perchlorate-101	0.00	0	NA	10-MAR-10	per0310001a	IPB001
Perchlorate	0.00	0	NA	10-MAR-10	per0310002a	IPB001
Perchlorate-101	0.00	0	NA	10-MAR-10	per0310002a	IPB001
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

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031010a.qld

Last Altered: Thursday, March 11, 2010 8:38:20 AM Eastern Standard Time

Printed: Thursday, March 11, 2010 8:51:51 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per031010a.mdb 11 Mar 2010 08:37:49

Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per031010a.cdb 11 Mar 2010 08:38:19

Name: per0310001a

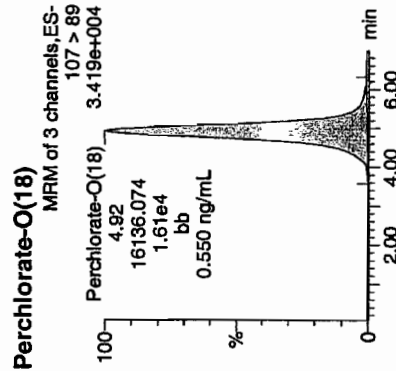
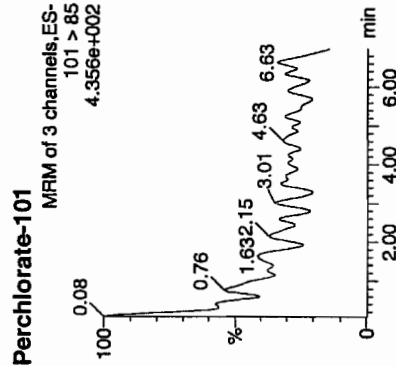
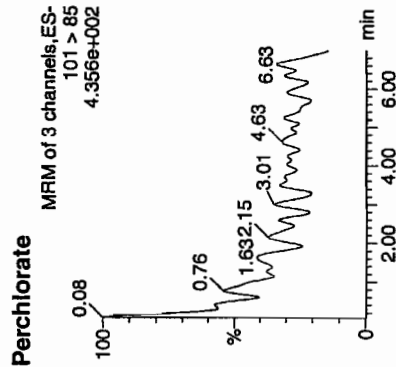
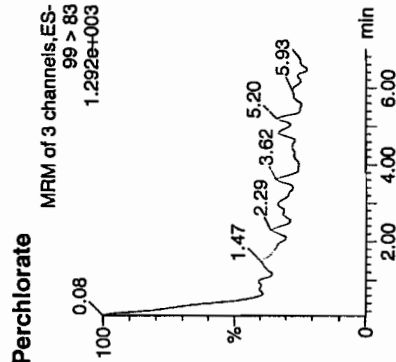
Date: 10-Mar-2010

Time: 13:53:52

ID: IPB001

Vial: 1:1,A

33-10-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	4.92	16136.074	16136.074	bb			0.5496	109.91	✓	9.91	1305.9...

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3/16/10

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

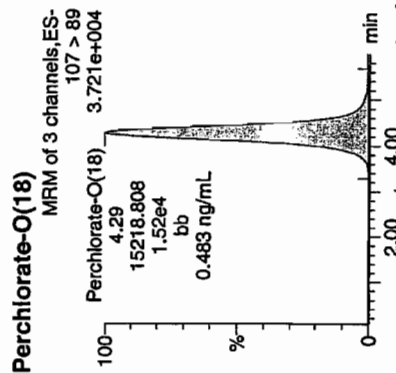
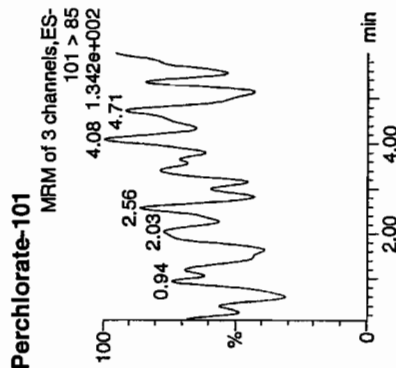
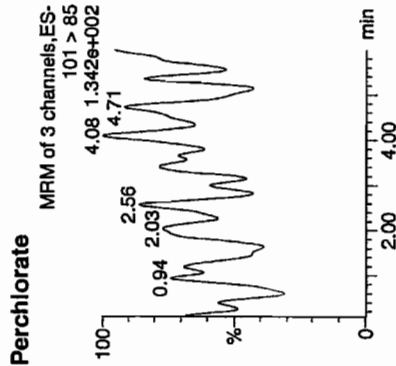
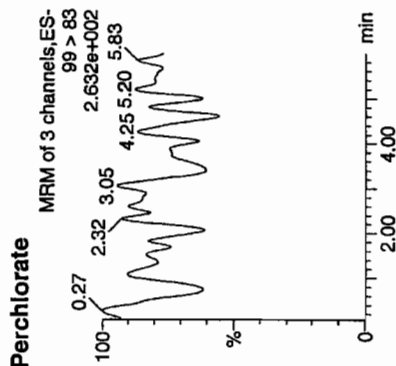
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Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
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Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per031110a.cdb 12 Mar 2010 09:22:30

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

03-12-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	4.29	15218.808	15218.808	bb			0.4831	96.61	-3.39	579.981	

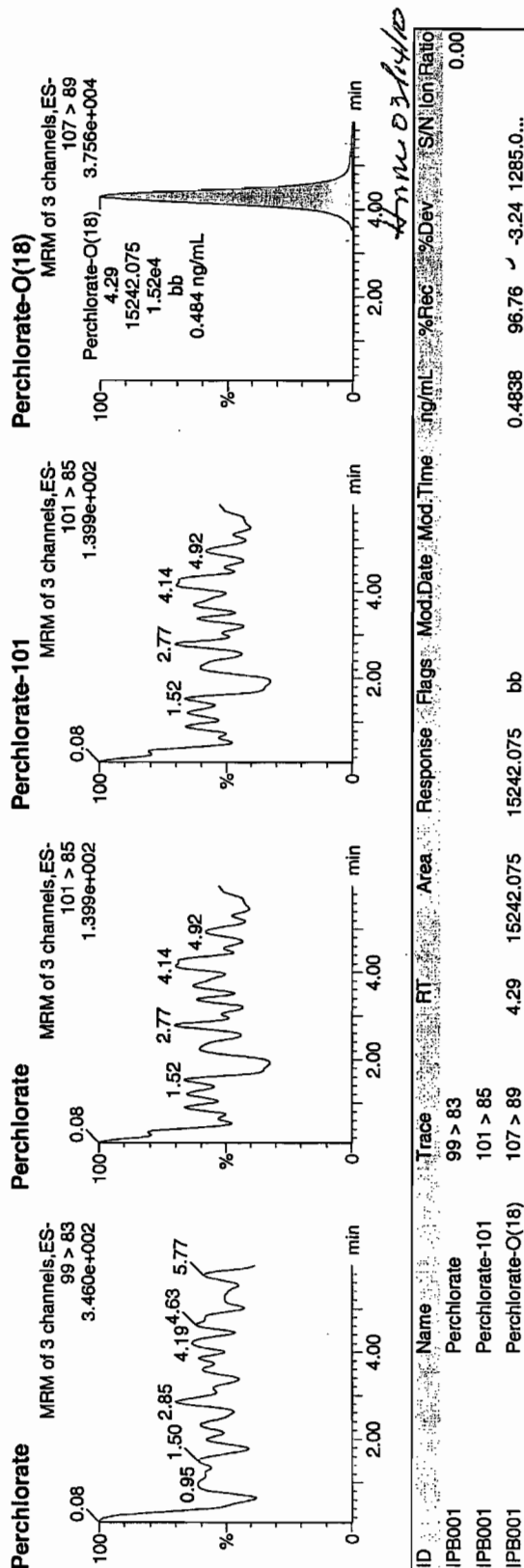
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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

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

Name: per03111002a
Date: 11-Mar-2010
Time: 19:27:57
ID: IPB001
Vial: 1:1,A

03-12-10



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

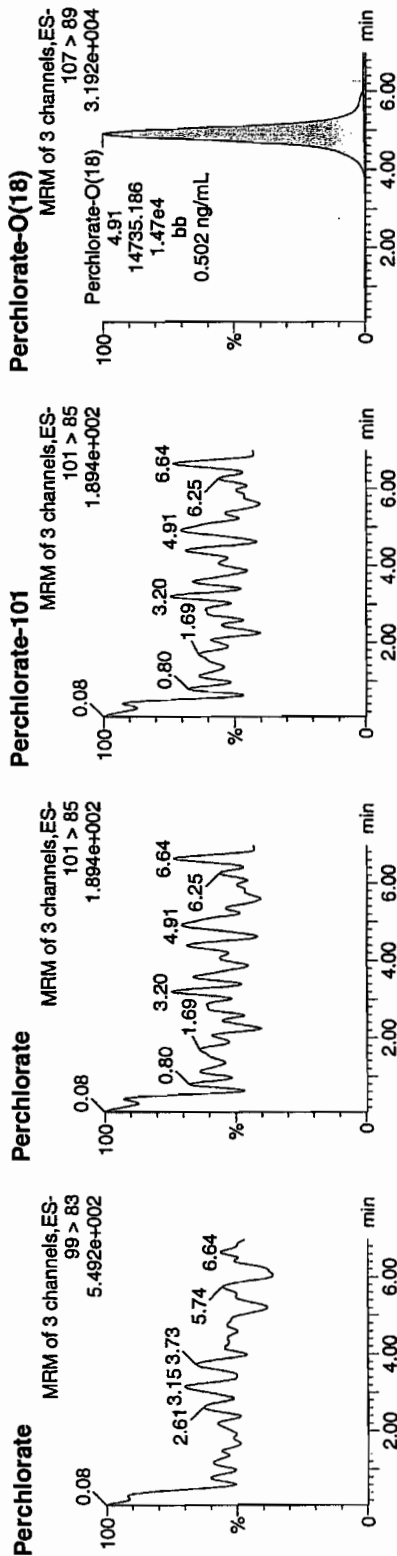
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031010a.qld

Last Altered: Thursday, March 11, 2010 8:38:20 AM Eastern Standard Time
Printed: Thursday, March 11, 2010 8:51:51 AM Eastern Standard Time

Name: per0310002a
Date: 10-Mar-2010
Time: 14:03:54
ID: IPB001
Vial: 1:1,A

03-11-10
03-11-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	4.91	14735.186	14735.186	bb			0.5019	100.37	0.37	1920.8...	

WST
3/11/10

Perchlorate Continuing Calibration Blank

GEL Job No.(SDG): 10-1957

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	10-MAR-10	per0310008a	IPB002
Perchlorate-101	0.00	0	NA	10-MAR-10	per0310008a	IPB002
Perchlorate	0.00	0	NA	10-MAR-10	per0310010a	IPB003
Perchlorate-101	0.00	0	NA	10-MAR-10	per0310010a	IPB003
Perchlorate	0.00	0	NA	10-MAR-10	per0310021a	IPB004
Perchlorate-101	0.00	0	NA	10-MAR-10	per0310021a	IPB004
Perchlorate	0.00	0	NA	10-MAR-10	per0310034a	IPB005
Perchlorate-101	0.00	0	NA	10-MAR-10	per0310034a	IPB005
Perchlorate	0.00	0	NA	10-MAR-10	per0310047a	IPB006
Perchlorate-101	0.00	0	NA	10-MAR-10	per0310047a	IPB006
Perchlorate	0.00	0	NA	10-MAR-10	per0310054a	IPB007
Perchlorate-101	0.00	0	NA	10-MAR-10	per0310054a	IPB007
Perchlorate	0.00	0	NA	10-MAR-10	per0310060a	IPB008

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1957

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate-101	0.00	0	NA	10-MAR-10	per0310060a	IPB008
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

Quantify Sample Report MassLynx 4.0 SP4

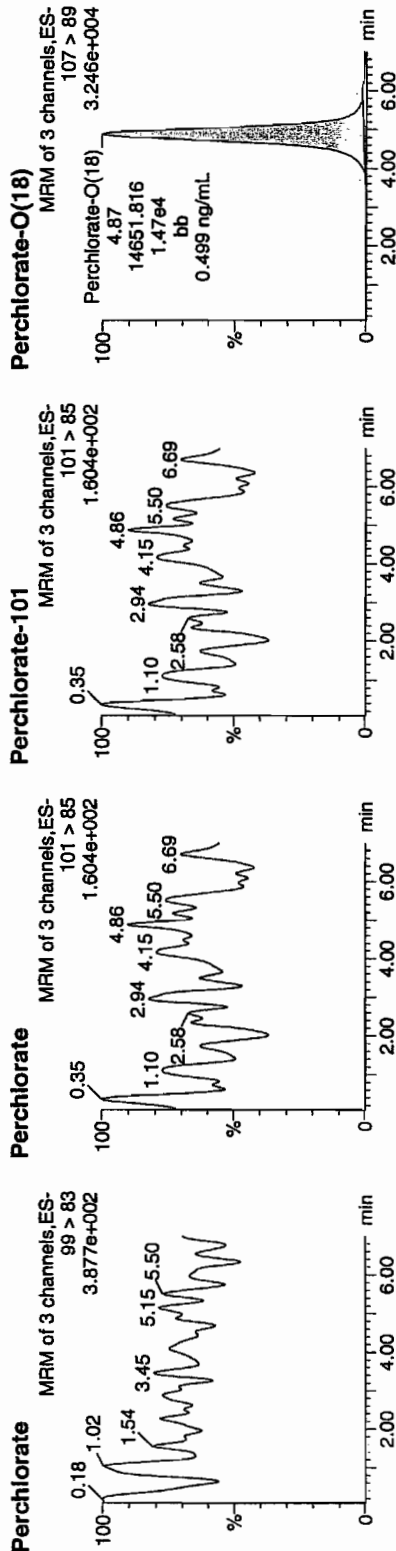
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031010a.qld

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Printed: Thursday, March 11, 2010 8:51:51 AM Eastern Standard Time

Name: per0310008a
Date: 10-Mar-2010
Time: 15:04:00
ID: IPB002
Vial: 1:1,A

03-11-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											0.00
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	4.87	14651.816	14651.816	bb			0.4990	99.80	-0.20	1746.0...	

WAT
3/11/10

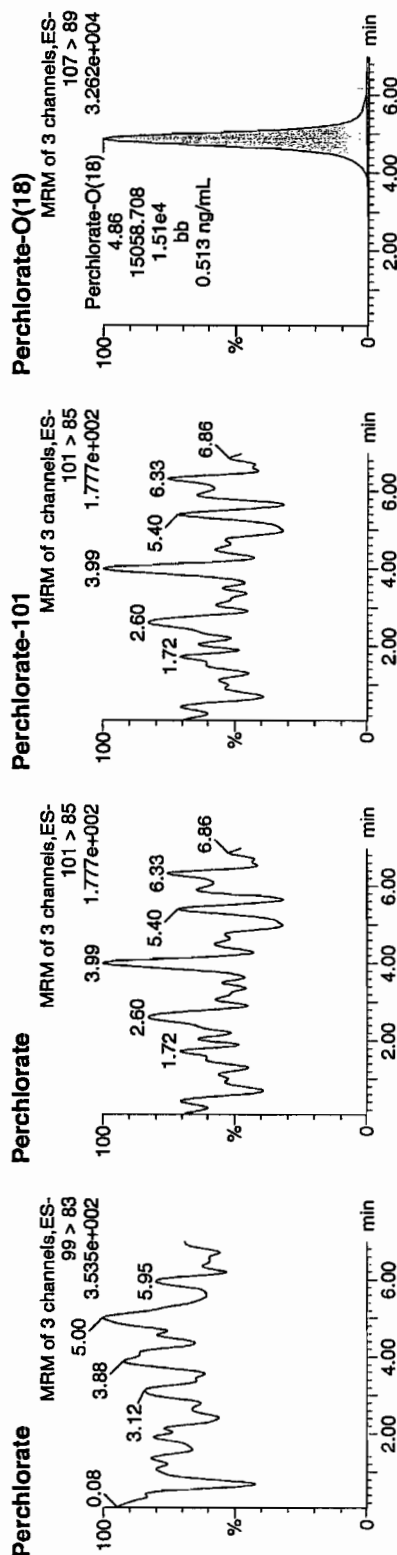
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031010a.qld

Last Altered: Thursday, March 11, 2010 8:38:20 AM Eastern Standard Time
Printed: Thursday, March 11, 2010 8:51:51 AM Eastern Standard Time

Name: per0310010a
Date: 10-Mar-2010
Time: 15:24:05
ID: IPB003
Vial: 1:1,A

03-11-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83											
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-O(18)	107 > 89	4.86	15058.708	15058.708	bb			0.5129	102.57	2.57	129.755	0.00

not
3/11/10

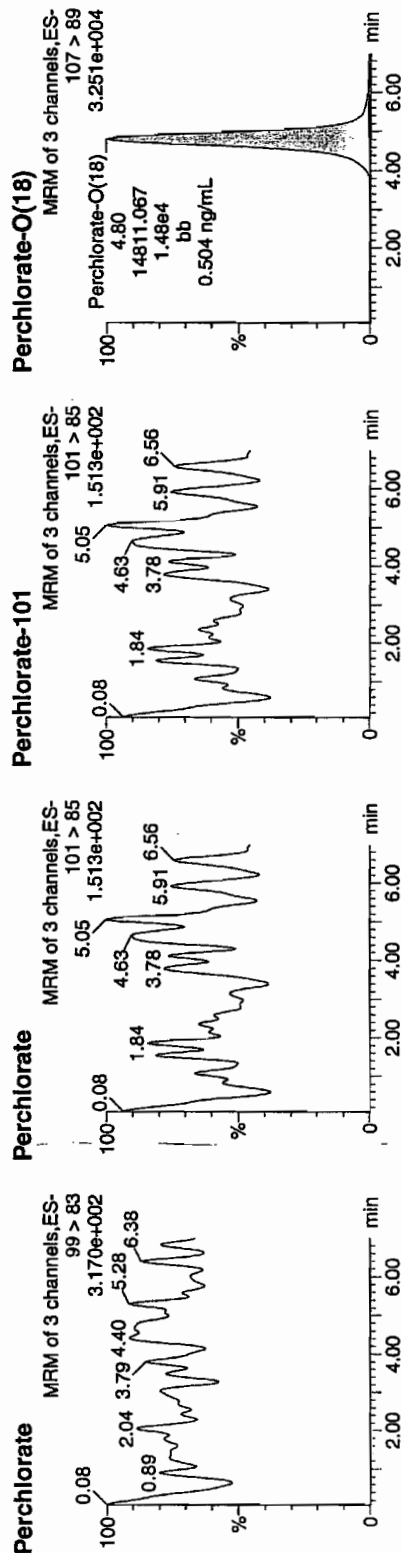
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031010a.qld

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Printed: Thursday, March 11, 2010 8:51:51 AM Eastern Standard Time

Name: per0310021a
Date: 10-Mar-2010
Time: 17:14:33
ID: IPB004
Vial: 1:1,A

03-11-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83											
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	4.80	14811.067	14811.067	bb			0.5044	100.89	0.89	174.597	0.00

1077
3/11/10

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

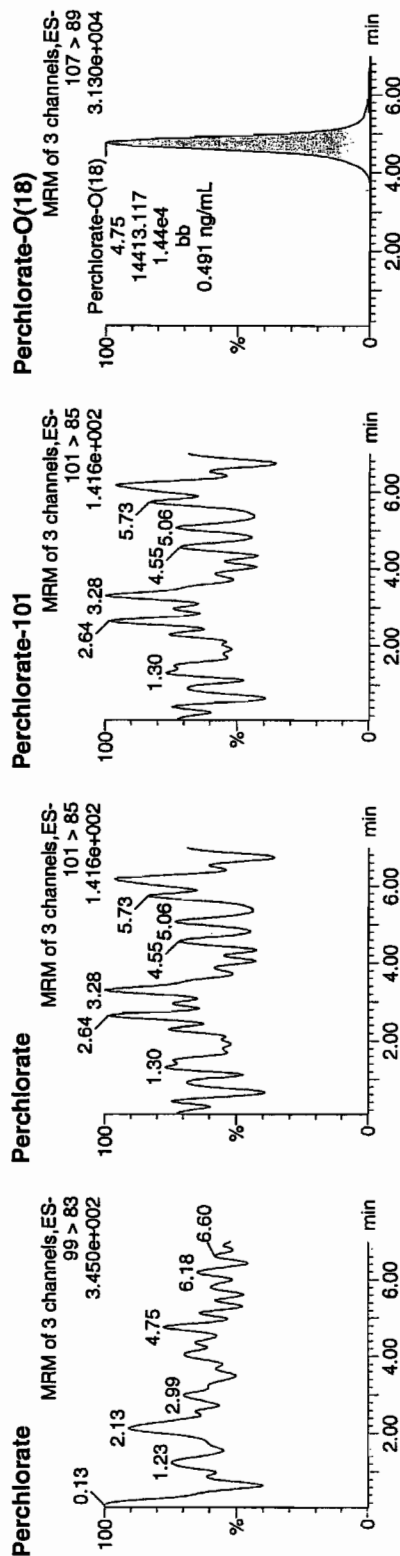
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031010a.qld

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Printed: Thursday, March 11, 2010 8:51:51 AM Eastern Standard Time

Name: per0310034a
Date: 10-Mar-2010
Time: 19:25:10
ID: IPB005
Vial: 1:1,A

03-11-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83											0.00
IPB005	Perchlorate-101	101 > 85											
IPB005	Perchlorate-O(18)	107 > 89	4.75	14413.117	14413.117	bb			0.4909	98.18	-1.82	1378.6...	

Not
3/4/10

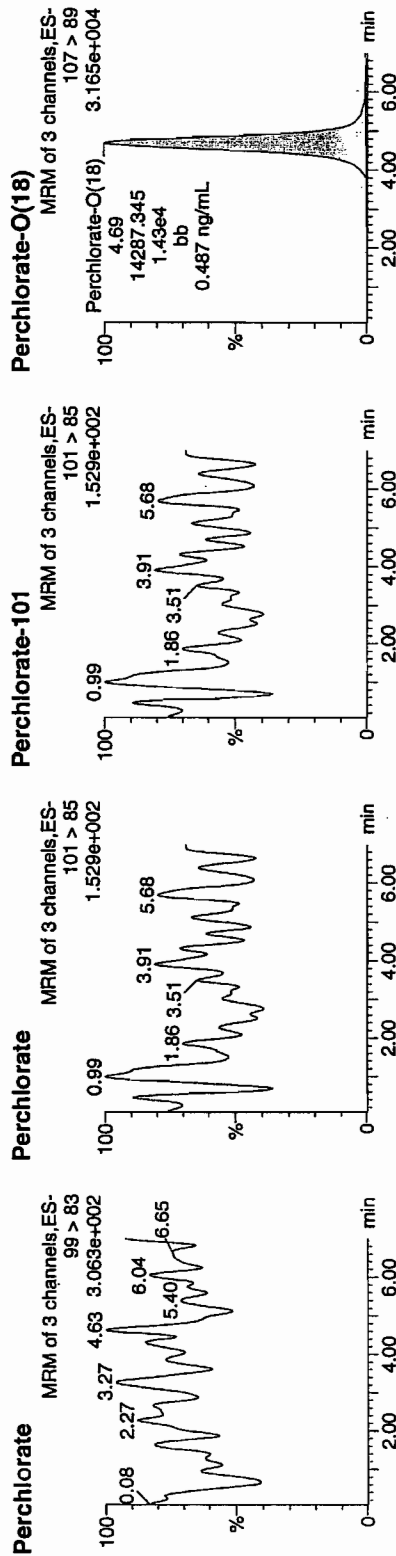
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031010a.qld

Last Altered: Thursday, March 11, 2010 8:38:20 AM Eastern Standard Time
Printed: Thursday, March 11, 2010 8:51:51 AM Eastern Standard Time

Name: per0310047a
Date: 10-Mar-2010
Time: 21:35:54
ID: IPB006
Vial: 1:1,A

03-11-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
IPB006	Perchlorate	99 > 83											0.00
IPB006	Perchlorate-101	101 > 85											
IPB006	Perchlorate-O(18)	107 > 89	4.69	14287.345	14287.345	bb			0.4866	97.32	-2.68	2391.5...	

14287
31614

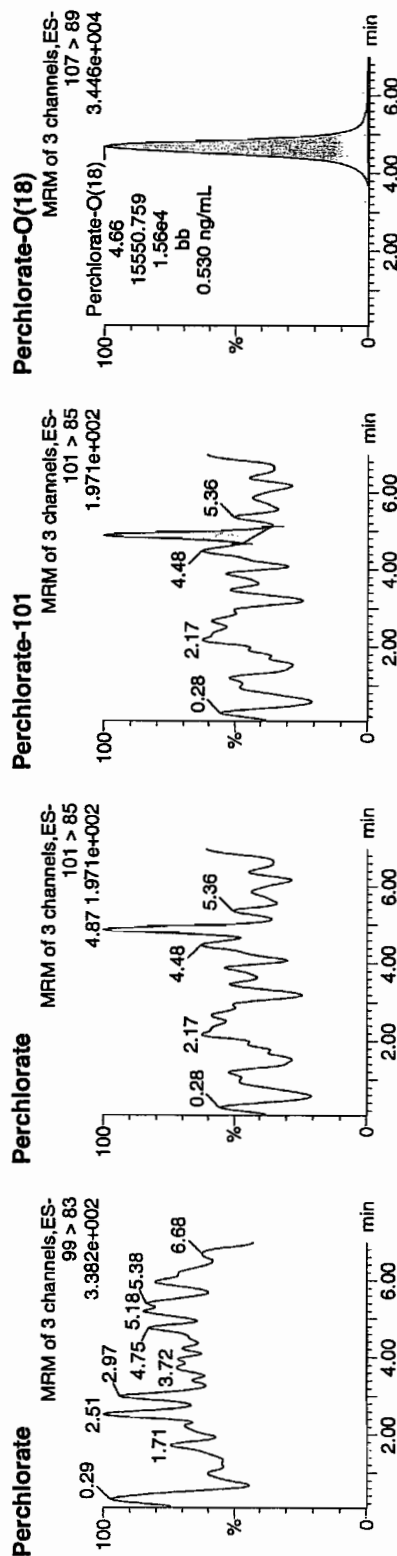
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031010a.qld

Last Altered: Thursday, March 11, 2010 8:38:20 AM Eastern Standard Time
Printed: Thursday, March 11, 2010 8:51:51 AM Eastern Standard Time

Name: per0310054a
Date: 10-Mar-2010
Time: 22:46:18
ID: IPB007
Vial: 1:1,A

Handwritten: 03-11-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83	4.87	23.111	23.111	bb			0.0021			6.387	0.00
IPB007	Perchlorate-101	101 > 85	4.66	15550.759	15550.759	bb			0.5296	105.93	✓	5.93	1771.5...
IPB007	Perchlorate-O(18)	107 > 89											

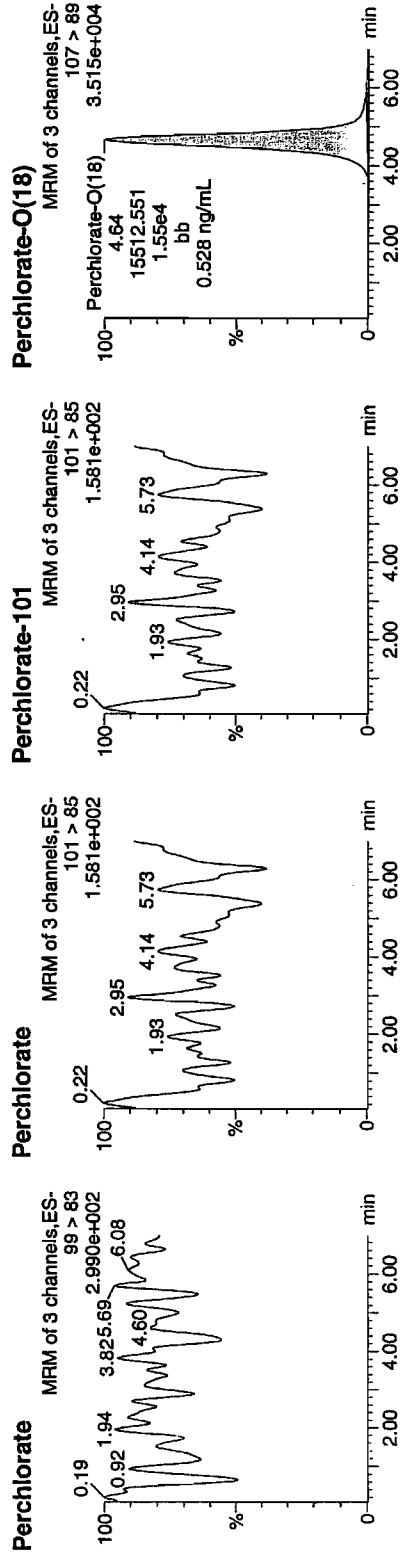
Handwritten: Not 3/11/10

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charliers W. Wilson
Dataset: C:\MassLynx\Perchlorate.PRO\per031010a.qld

Last Altered: Thursday, March 11, 2010 8:38:20 AM Eastern Standard Time
Printed: Thursday, March 11, 2010 8:51:51 AM Eastern Standard Time

Name: per0310060a
Date: 10-Mar-2010
Time: 23:46:54
ID: IPB008
Vial: 1:1,A

0.02
2.95-1.10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB008	Perchlorate	99 > 83											0.00
IPB008	Perchlorate-101	101 > 85											
IPB008	Perchlorate-O(18)	107 > 89	4.64	15512.551	15512.551	bb			0.5283	105.67	5.67	911.325	

4.64
3/11/10

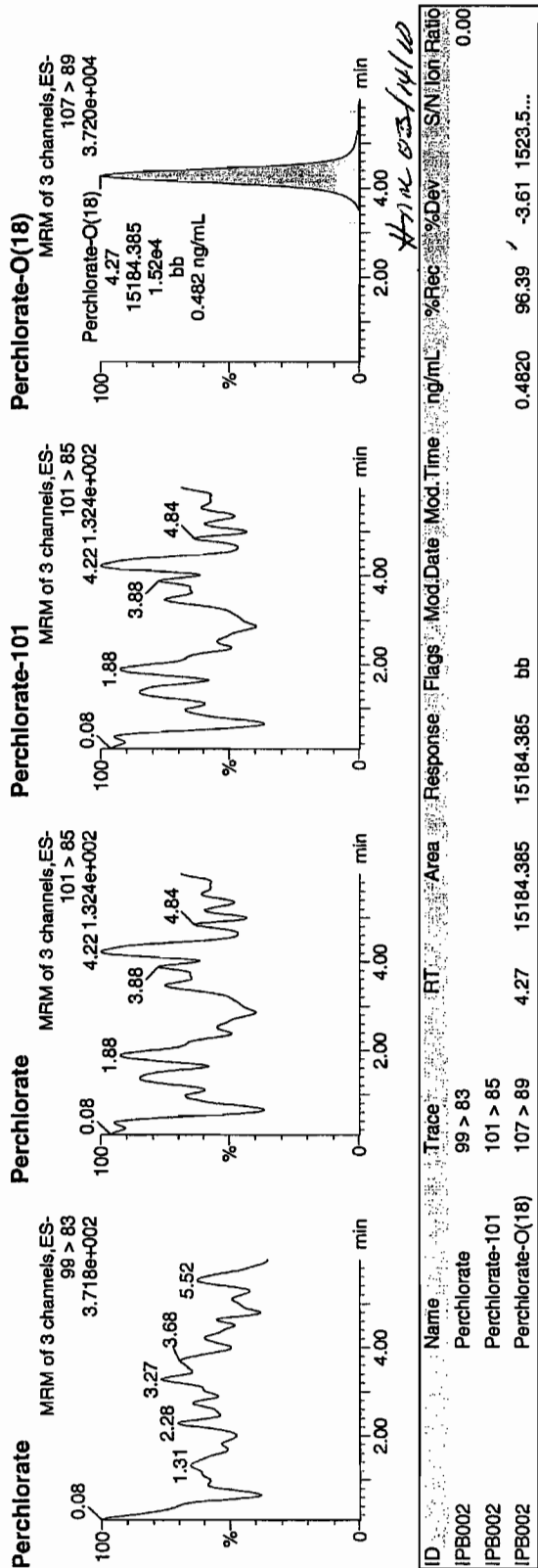
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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: per0311008a
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

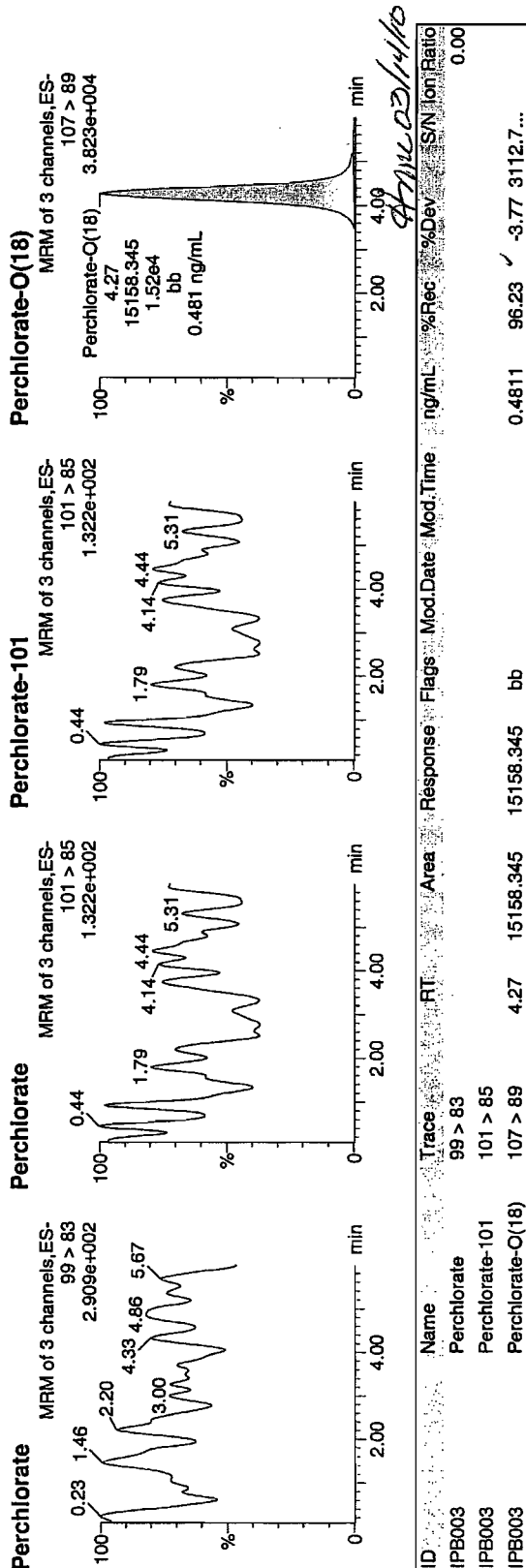
Date: 11-Mar-2010

Time: 20:40:09

ID: IPB003

Vial: 1:1,A

03-12-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
IPB003	Perchlorate	99 > 83											
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-Q(18)	107 > 89	4.27	15158.345	15158.345	bb			0.4811	96.23	-3.77	3112.7...	0.00

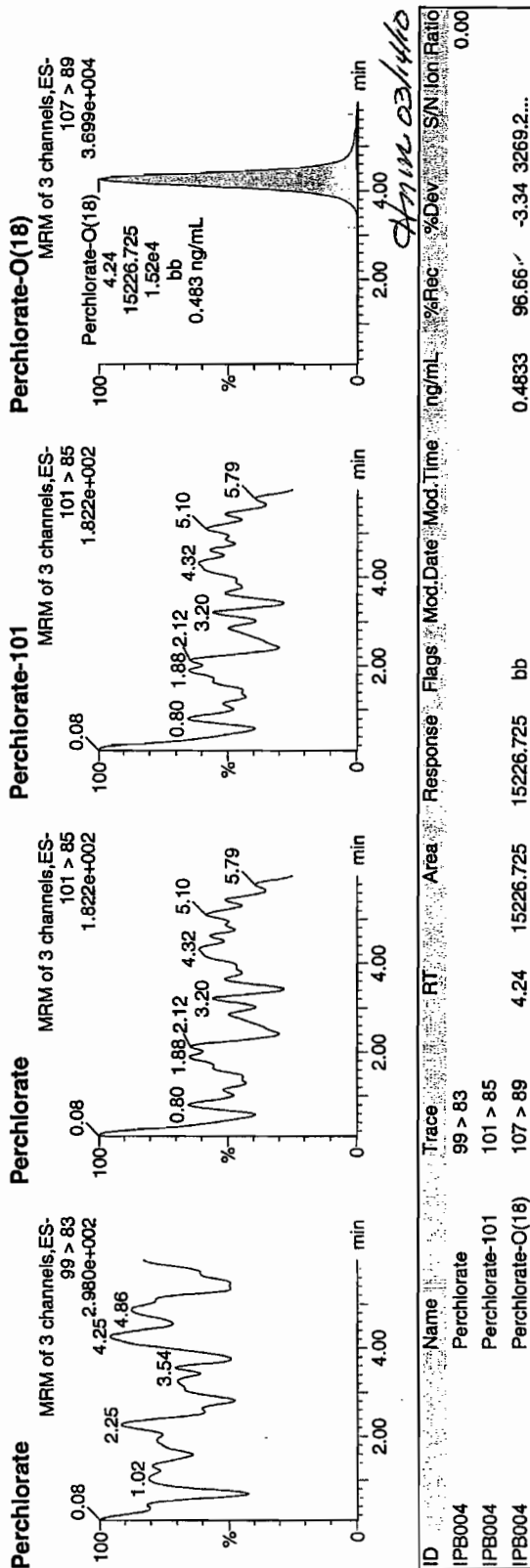
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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: per0311023a
Date: 11-Mar-2010
Time: 22:37:39
ID: IPB004
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
IPB004	Perchlorate	99 > 83											
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	4.24	15226.725	15226.725	bb			0.4833	96.66	-3.34	3269.2	...

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

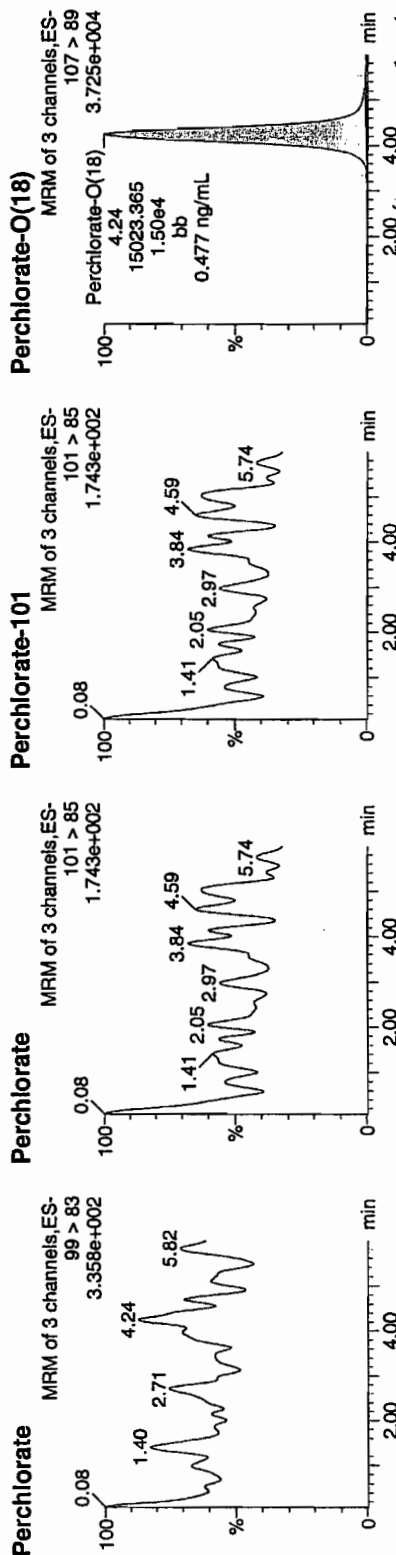
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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: per0311030a
Date: 11-Mar-2010
Time: 23:40:56
ID: IPB005
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
IPB005	Perchlorate	99 > 83											
IPB005	Perchlorate-101	101 > 85											
IPB005	Perchlorate-O(18)	107 > 89	4.24	15023.365	15023.365	bb			0.4768	95.37	-4.63	2656.7...	

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

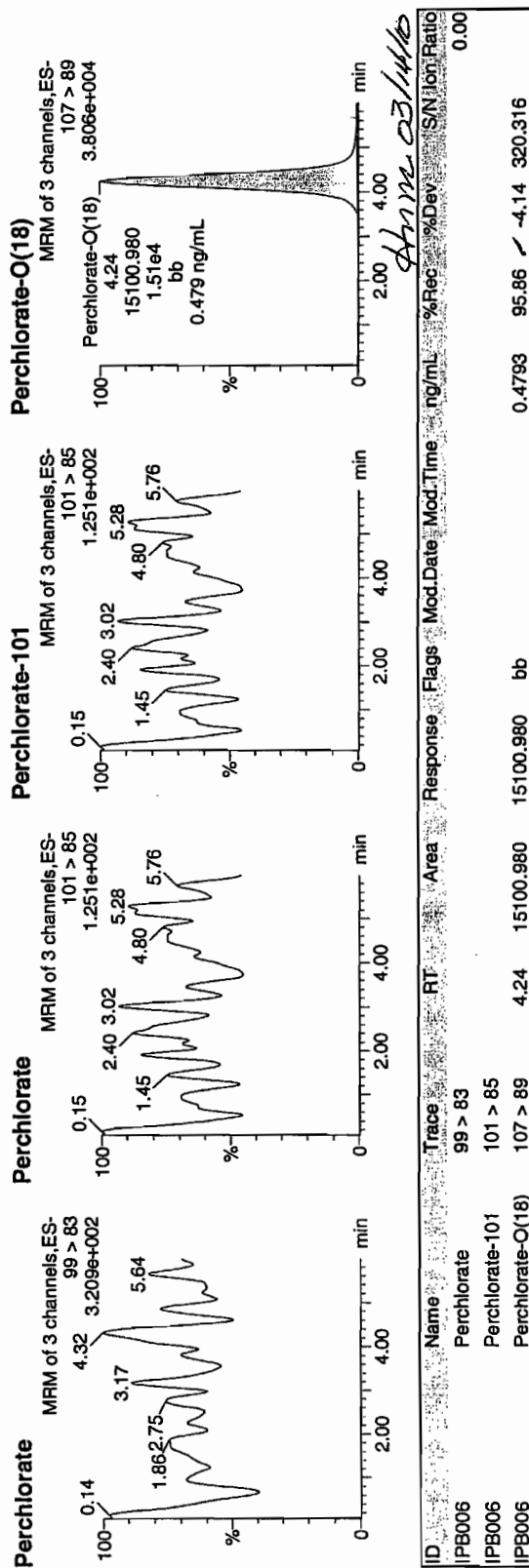
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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

03-12-10



Nairb.ref

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

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

QUATRO ULTIMA: nairb_01_08_08.ca

Calibration Report - MS1 Static

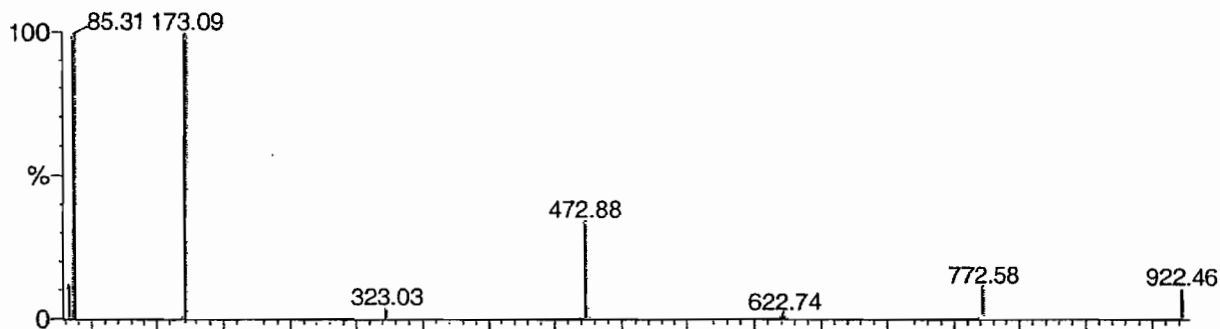
Page 1 of 1

Printed: Tue Jan 08 12:19:12 2008

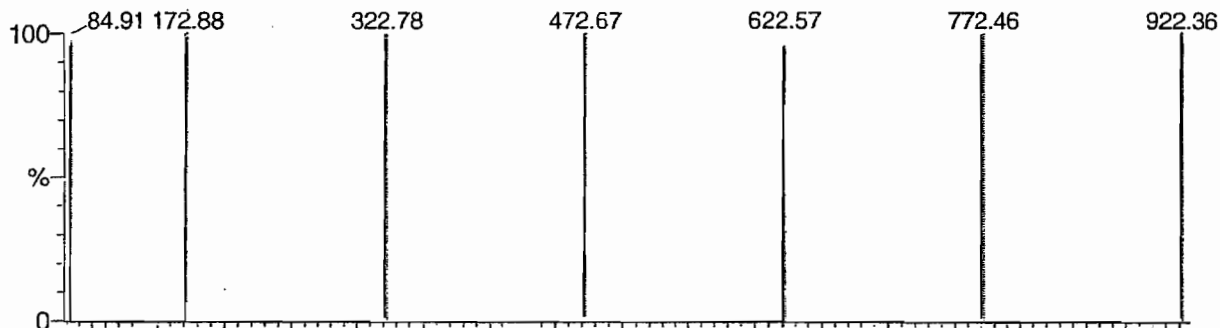
POINTS HIGHLIGHTED BY CURV 01-09-08

Data file: STATMS1 - Uncalibrated

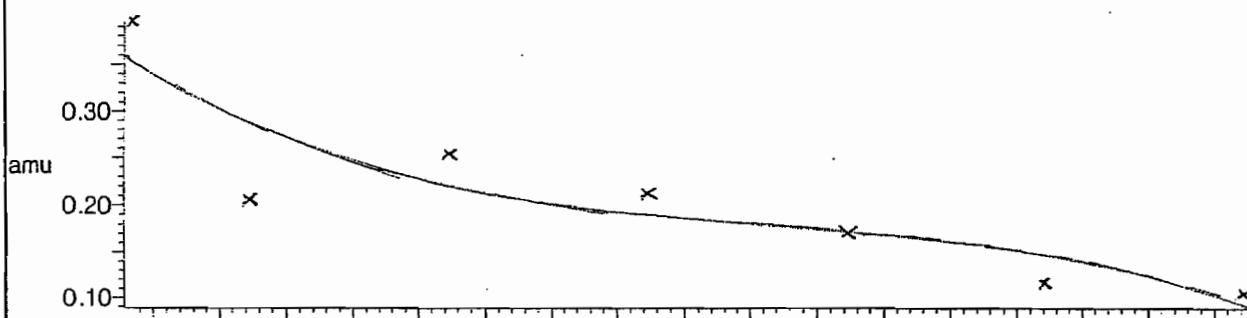
7 matches of 7 tested references



Reference file: Nairb

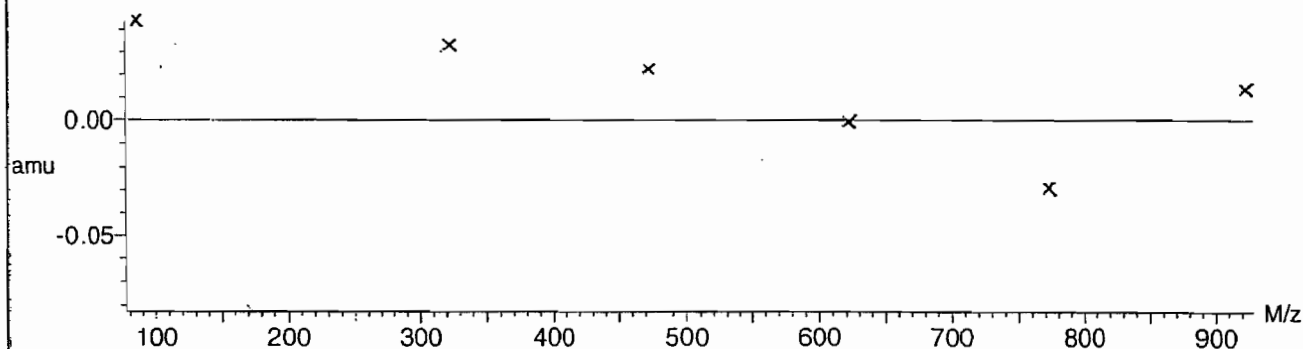


Mass difference (Raw - Ref mass)



Residuals

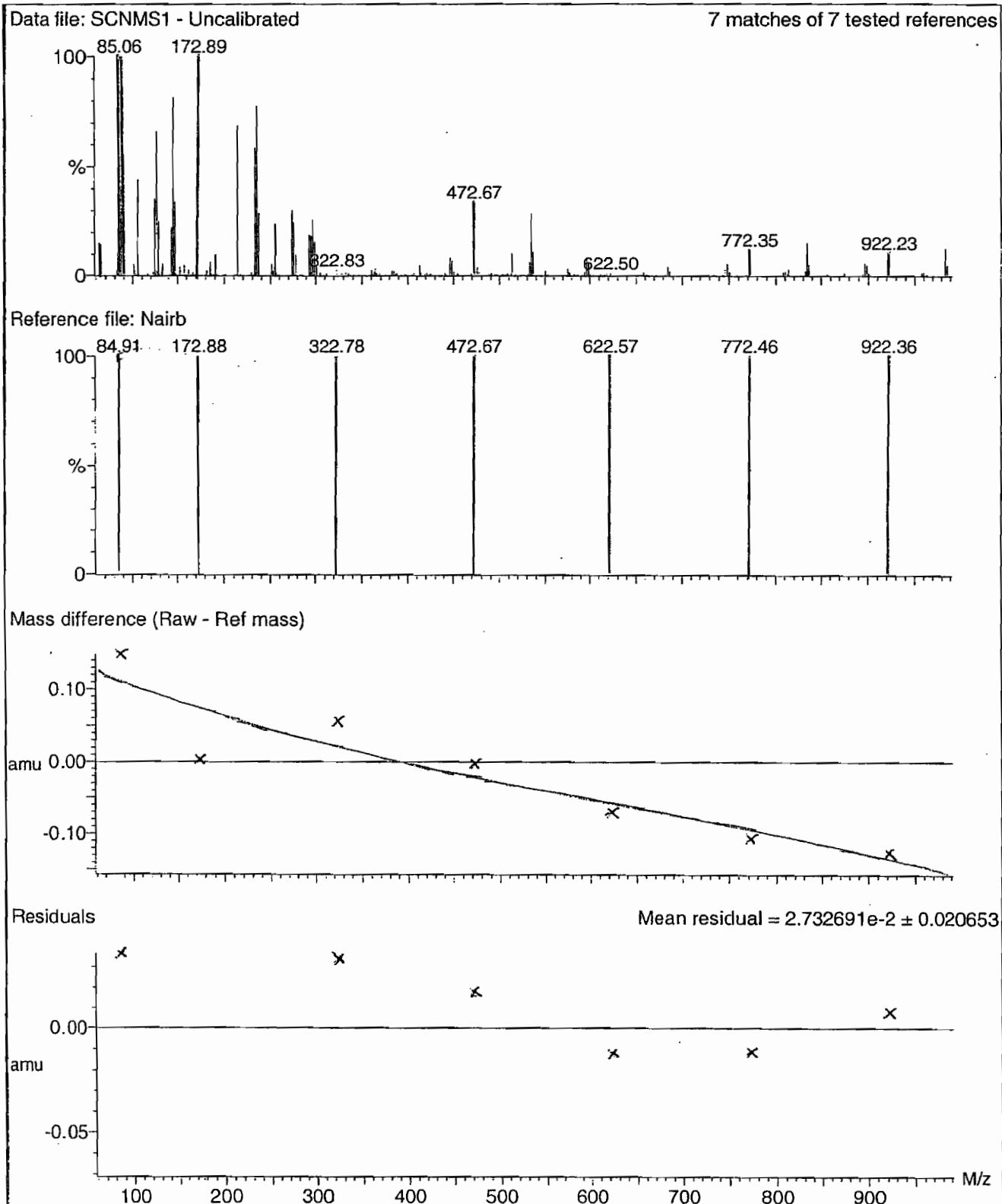
Mean residual = $3.212012 \times 10^{-2} \pm 0.024108$



Calibration Report - MS1 Scanning

Page 1 of 1

Printed: Tue Jan 08 12:20:09 2008



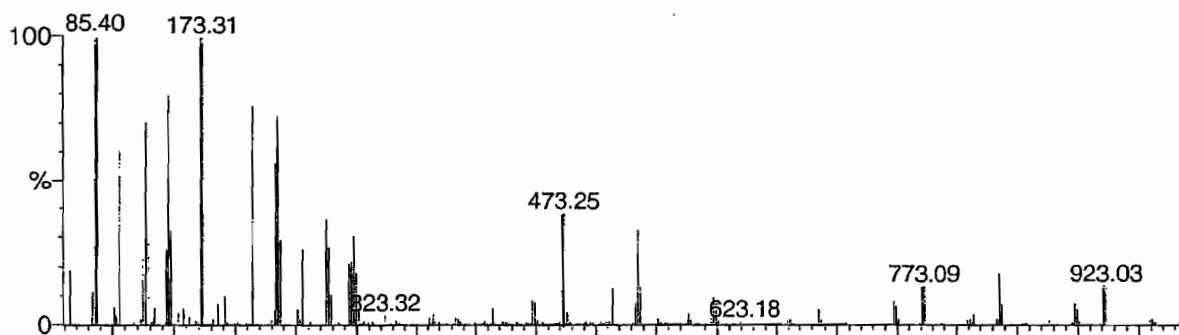
Calibration Report - MS1 Scan Speed Compensation

Page 1 of 1

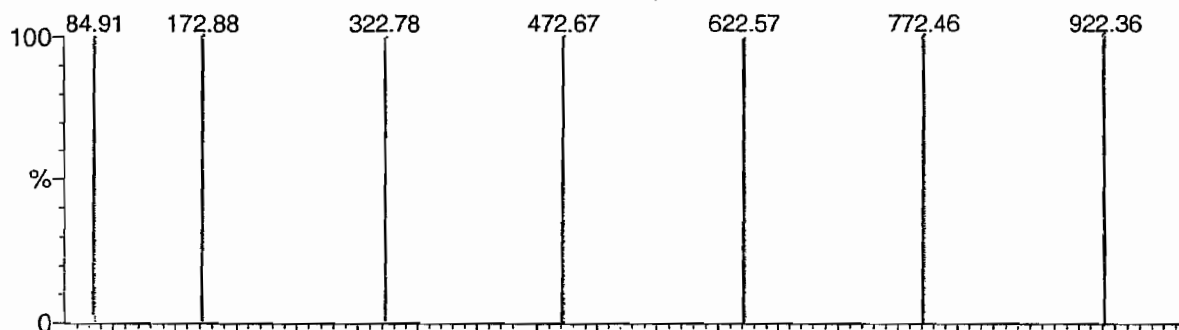
Printed: Tue Jan 08 12:21:04 2008

Data file: FASTMS1 - Uncalibrated

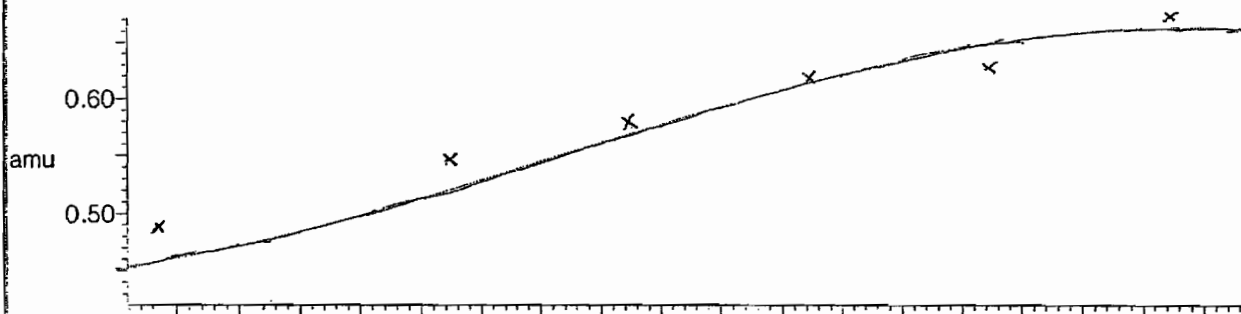
7 matches of 7 tested references



Reference file: Nairb

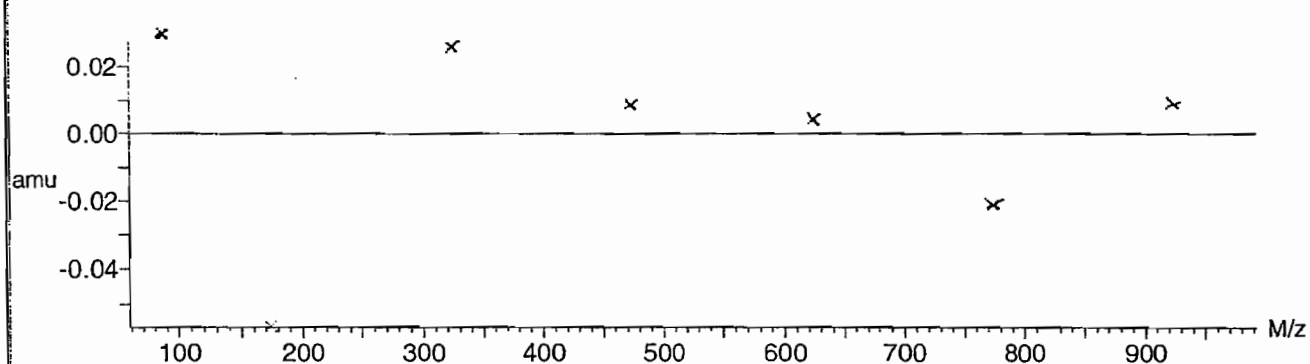


Mass difference (Raw - Ref mass)



Residuals

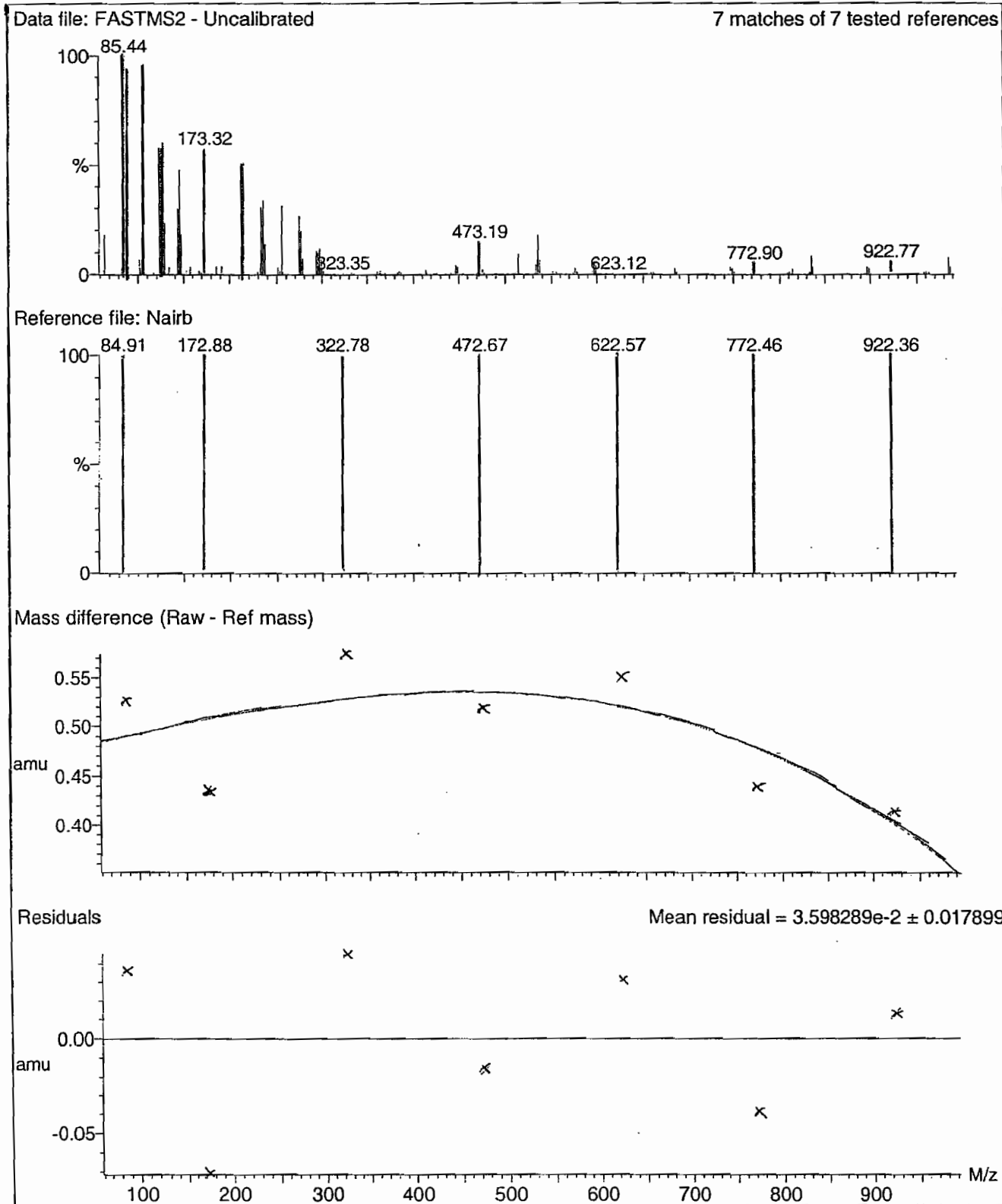
Mean residual = $2.224580 \times 10^{-2} \pm 0.016544$



Calibration Report - MS2 Scan Speed Compensation

Page 1 of 1

Printed: Tue Jan 08 12:23:51 2008



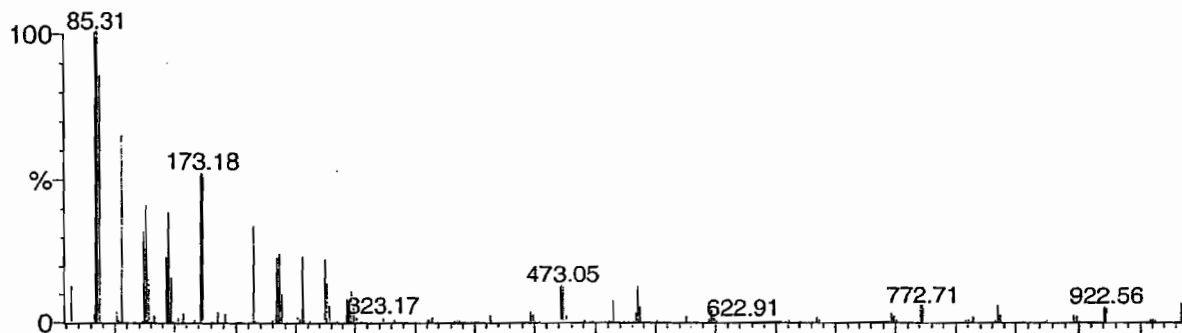
Calibration Report - MS2 Scanning

Page 1 of 1

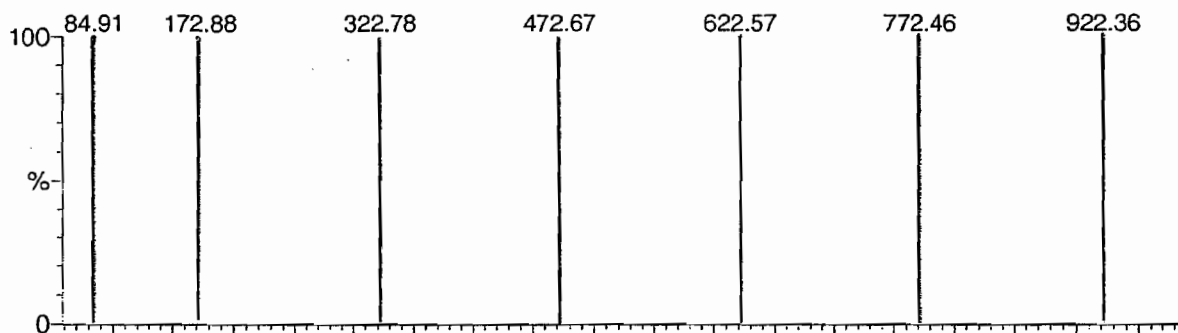
Printed: Tue Jan 08 12:22:56 2008

Data file: SCNMS2 - Uncalibrated

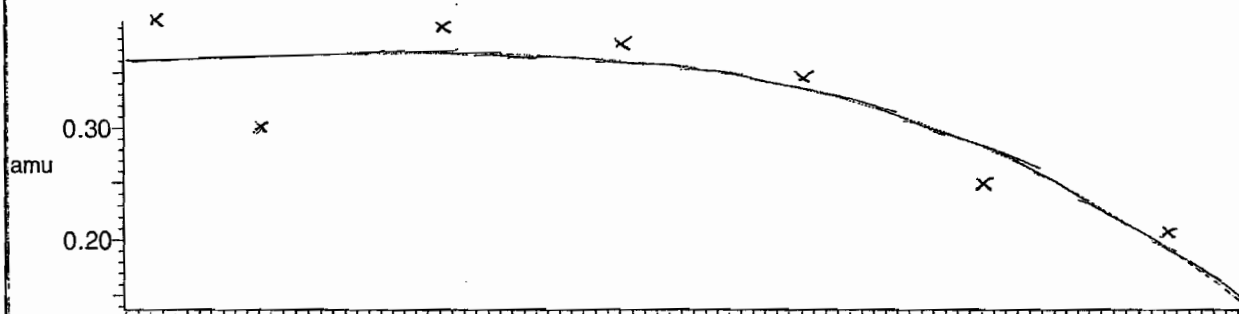
7 matches of 7 tested references



Reference file: Nairb

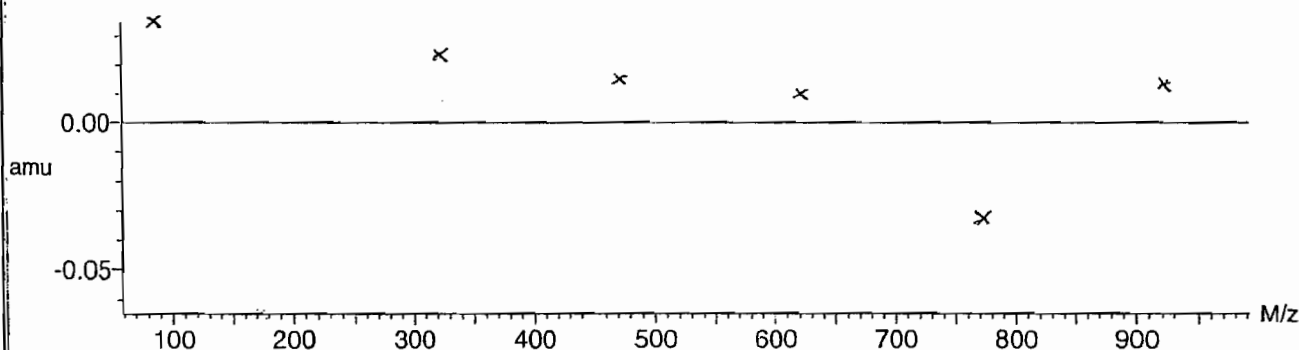


Mass difference (Raw - Ref mass)



Residuals

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



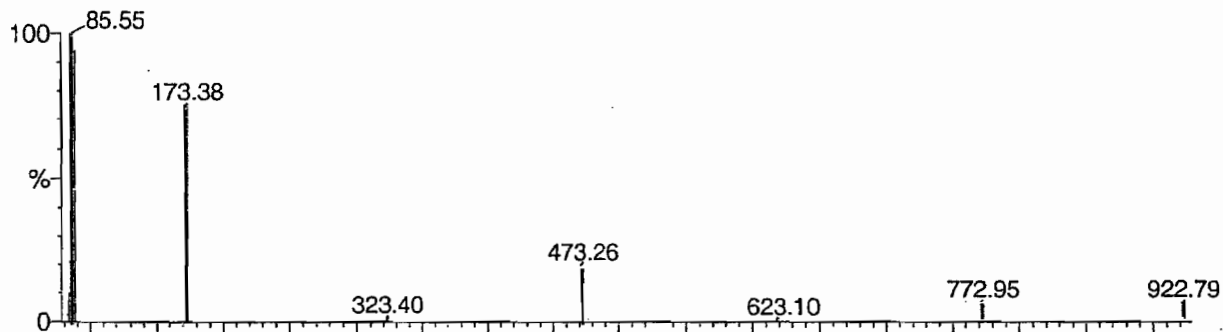
Calibration Report - MS2 Static

Page 1 of 1

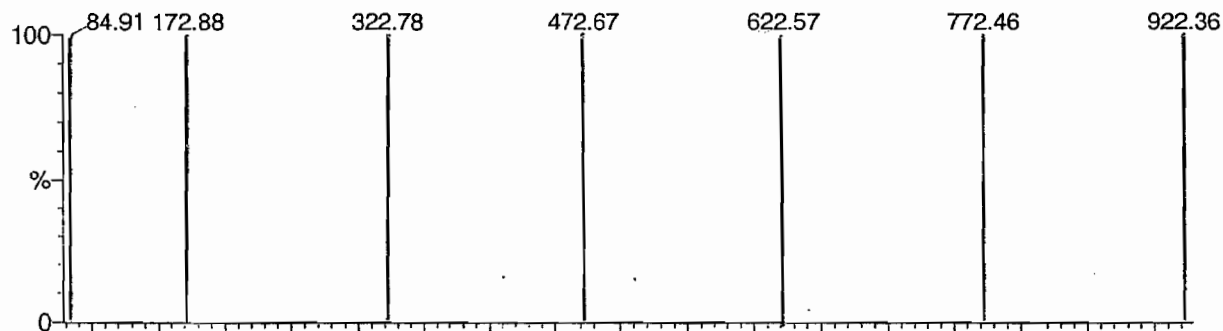
Printed: Tue Jan 08 12:21:59 2008

Data file: STATMS2 - Uncalibrated

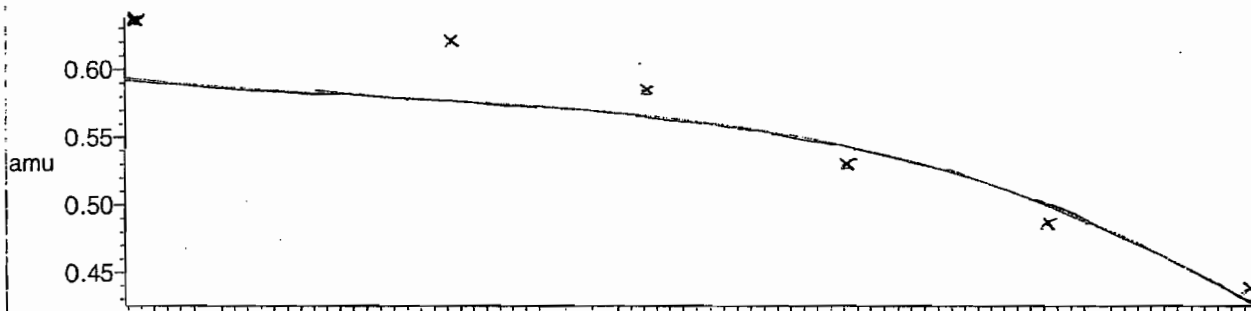
7 matches of 7 tested references



Reference file: Nairb

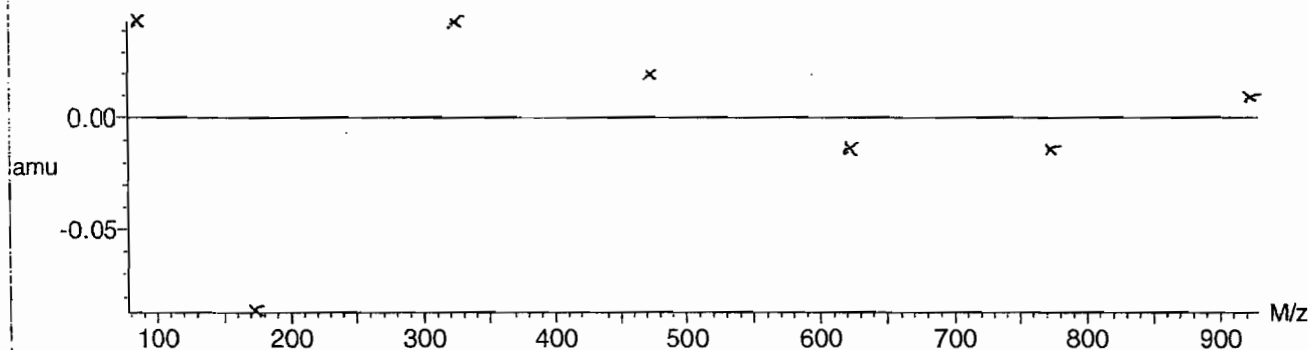


Mass difference (Raw - Ref mass)



Residuals

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



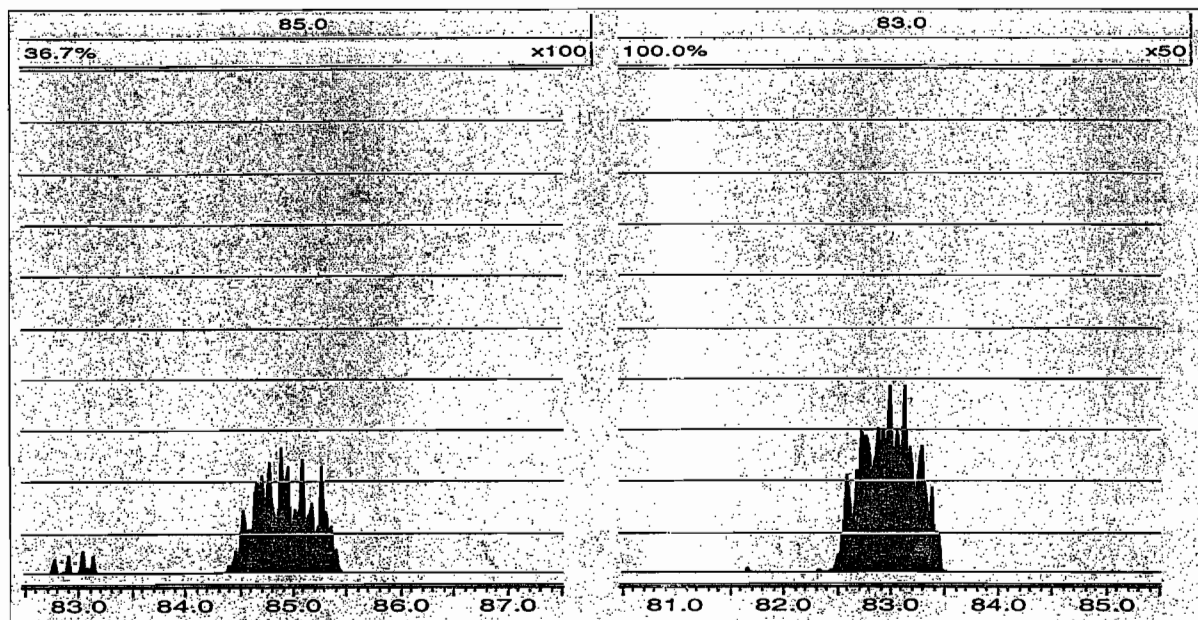
Tune Parameters

MassLynx 4.0 SP4

Page 1 of 1

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

Printed: Wednesday, March 10, 2010 13:51:21 Eastern Standard Time



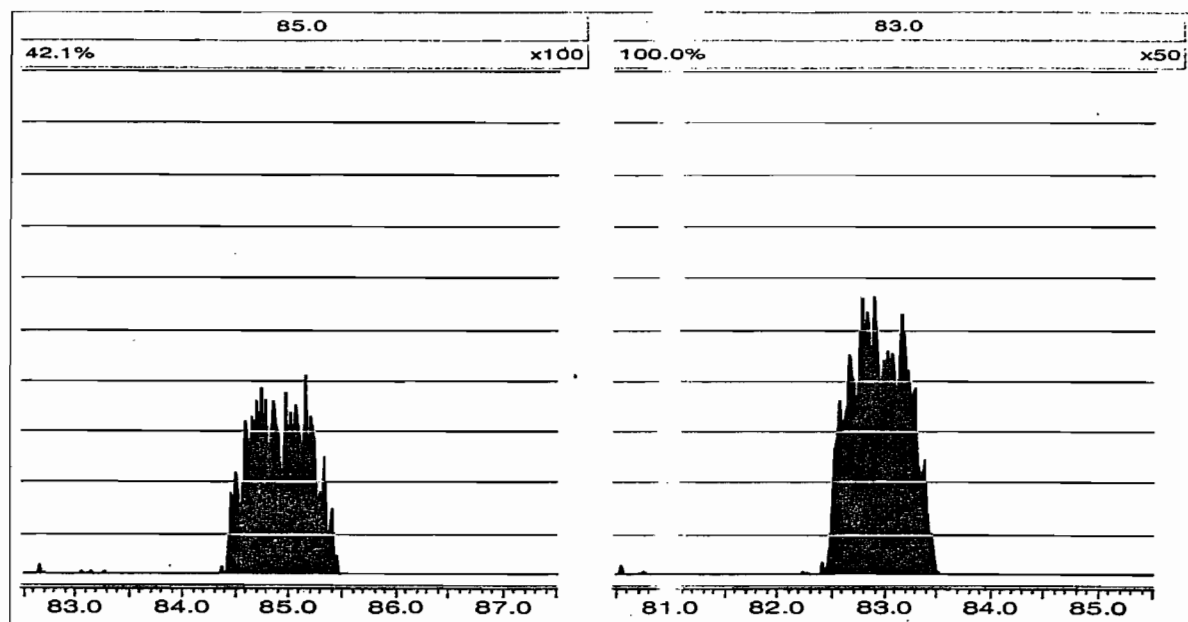
Tune Parameters

MassLynx 4.0 SP4

Page 1 of 1

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

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



Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS

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

GEL Job No.(SDG): 10-1957

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98-1.02
MidLevel Standard Area	per0310006a	10-MAR-10	14525.1				
Lower Area Limit			7262.55				
Upper Area Limit			29050.2				
1202054212	per0310055a	10-MAR-10 22:56	15534.8	4.65	4.72505	1.016	
1202054213	per0310056a	10-MAR-10 23:06	15583.6	4.65	4.66297	1.003	
1202054216	per0310057a	10-MAR-10 23:16	15839.4	4.91	4.92385	1.003	

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS

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

GEL Job No.(SDG): 10-1957

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				
247566001	per0311015a	11-MAR-10 21:25	15849.8	4.25	4.26538	1.004	
247566002	per0311016a	11-MAR-10 21:34	15908.5	4.24	4.2654	1.006	
1202054214	per0311017a	11-MAR-10 21:43	15889	4.24	4.253	1.003	
1202054215	per0311018a	11-MAR-10 21:52	15497.3	4.23	4.25303	1.005	
247566003	per0311019a	11-MAR-10 22:01	15549	4.24	4.26537	1.006	
247566004	per0311020a	11-MAR-10 22:10	16115.9	4.24	4.26537	1.006	
247566005	per0311021a	11-MAR-10 22:19	15640.3	4.24	4.2281	.997	
247566006	per0311025a	11-MAR-10 22:55	16269.5	4.23	4.21577	.997	

Perchlorate RT And Area Summary

GEL Job No.(SDG): 10-1957

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				
247566007	per0311026a	11-MAR-10 23:04	16000.5	4.24			
247566008	per0311027a	11-MAR-10 23:13	15570.5	4.24	4.25303	1.003	
247566009	per0311028a	11-MAR-10 23:22	15938	4.24	4.25302	1.003	
247566010	per0311029a	11-MAR-10 23:31	15697.7	4.23	4.24055	1.002	

SAMPLE DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 957937

Extraction Type: Solid Prep

Client Sample No.

RE15-10-8252

Date Received: 20-FEB-10

GEL Job No (SDG): 10-1957

GEL Sample ID: 247566001

Date Filtered: 05-MAR-10

Injection Volume (uL): 20

%Solids: 97.2

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	.514	2.06	0.514	ug/kg	U	1	11-MAR-10 21:25	per0311015a
	Perchlorate Isotope Ratio						1	11-MAR-10 21:25	per0311015a
14797-73-0	Perchlorate-101	.514	2.06	0.514	ug/kg	U	1	11-MAR-10 21:25	per0311015a
	Perchlorate-O(18)			5.17	ug/kg		1	11-MAR-10 21:25	per0311015a

[^] 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

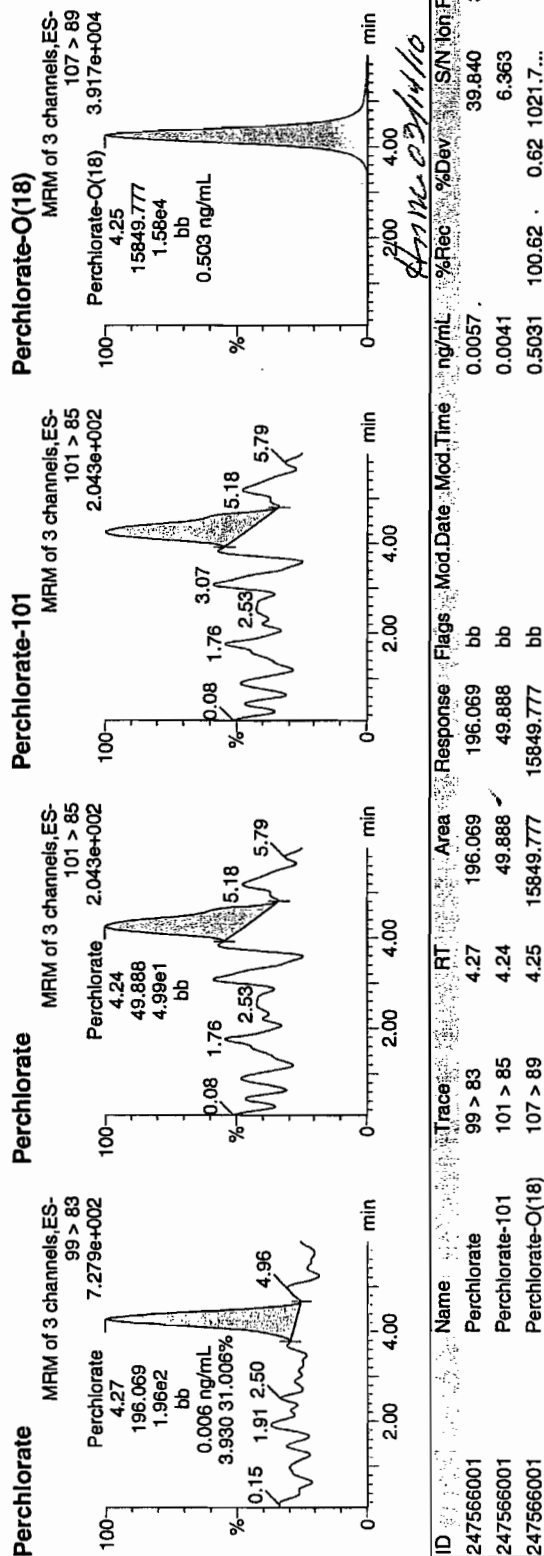
Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

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: per03111015a
Date: 11-Mar-2010
Time: 21:25:21
ID: 247566001
Vial: 1:3,D

03-12-10

15000 | 957938 | 5000 | 1 | 129



03-12-10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 957937

Extraction Type: Solid Prep

Client Sample No.

RE15-10-8253

Date Received: 20-FEB-10

GEL Job No (SDG): 10-1957

GEL Sample ID: 247566002

Date Filtered: 05-MAR-10

Injection Volume (uL): 20

%Solids: 97.4

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	.513	2.05	2.12	ug/kg		1	11-MAR-10 21:34	per0311016a
	Perchlorate Isotope Ratio			3.05			1	11-MAR-10 21:34	per0311016a
14797-73-0	Perchlorate-101	.513	2.05	1.99	ug/kg	J	1	11-MAR-10 21:34	per0311016a
	Perchlorate-O(18)			5.19	ug/kg		1	11-MAR-10 21:34	per0311016a

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

*Concentration =

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

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

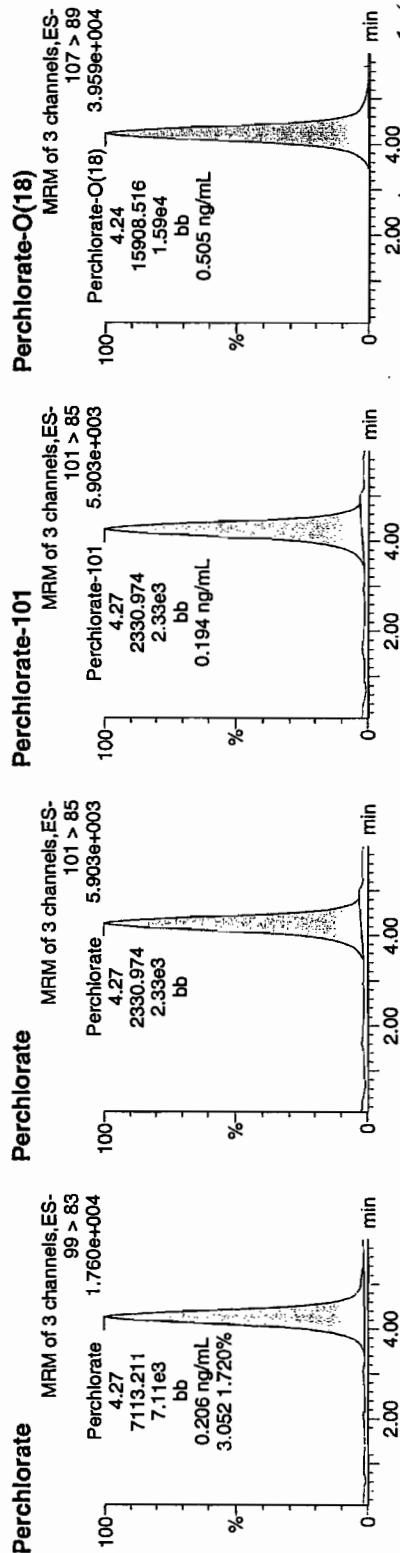
Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

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: per03111016a
Date: 11-Mar-2010
Time: 21:34:23
ID: 247566002
Vial: 1:3,E

23-12-10

1577-9574938 | 5020 | 1 | 19



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
247566002	Perchlorate	99 > 83	4.27	7113.211	7113.211	bb			0.2062	-		784.355	3.05
247566002	Perchlorate-101	101 > 85	4.27	2330.974	2330.974	bb			0.1938	-		249.402	
247566002	Perchlorate-O(18)	107 > 89	4.24	15908.516	15908.516	bb			0.5049	100.99	0.99	5643.8...	

$$\frac{7113.211}{34492} \times 100 = 2.12\%$$

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 957937

Extraction Type: Solid Prep

Client Sample No.

RE15-10-8250

Date Received: 20-FEB-10

GEL Job No (SDG): 10-1957

GEL Sample ID: 247566003

Date Filtered: 05-MAR-10

Injection Volume (uL): 20

%Solids: 97.8

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	.511	2.04	0.511	ug/kg	U	1	11-MAR-10 22:01	per0311019a
	Perchlorate Isotope Ratio						1	11-MAR-10 22:01	per0311019a
14797-73-0	Perchlorate-101	.511	2.04	0.511	ug/kg	U	1	11-MAR-10 22:01	per0311019a
	Perchlorate-O(18)			5.05	ug/kg		1	11-MAR-10 22:01	per0311019a

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

*Concentration =

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

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: per03111019a

Date: 11-Mar-2010

Time: 22:01:29

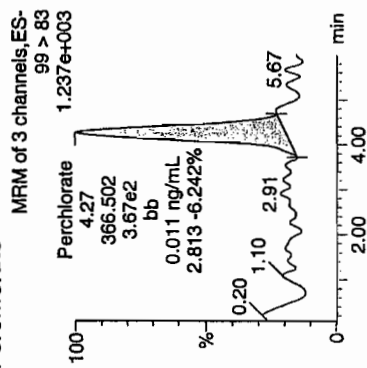
ID: 247566003

Vial: 1:4,B

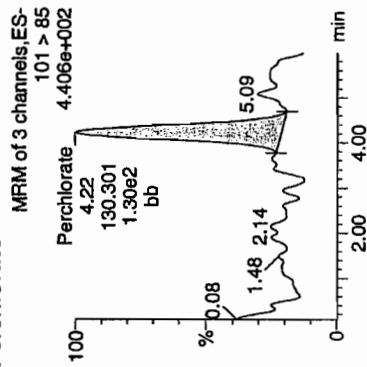
12700 | 957938 | 3070 | 11 | 0.9

03-12-10

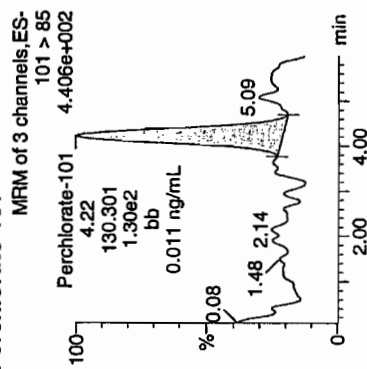
Perchlorate



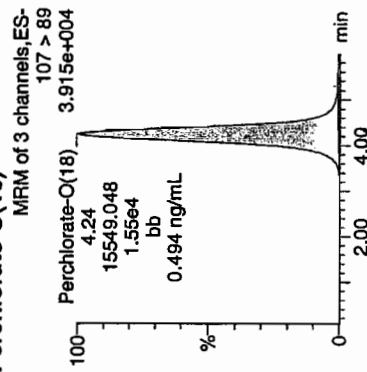
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
247566003	Perchlorate	99 > 83	4.27	366.502	366.502	bb			0.0106	-	30.707	2.81	-
247566003	Perchlorate-101	101 > 85	4.22	130.301	130.301	bb			0.0108	-	18.552		
247566003	Perchlorate-O(18)	107 > 89	4.24	15549.048	15549.048	bb			0.4935	98.71	-1.29	2441.4...	

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 957937

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8251

Date Received: 20-FEB-10

GEL Job No (SDG): 10-1957

GEL Sample ID: 247566004

Date Filtered: 05-MAR-10

Injection Volume (uL): 20

%Solids: 97.4

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.513	2.05	0.513	ug/kg	U	1	11-MAR-10 22:10	per0311020a
	Perchlorate Isotope Ratio						1	11-MAR-10 22:10	per0311020a
14797-73-0	Perchlorate-101	.513	2.05	0.513	ug/kg	U	1	11-MAR-10 22:10	per0311020a
	Perchlorate-O(18)			5.25	ug/kg		1	11-MAR-10 22:10	per0311020a

[^] 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: per0311020a

Date: 11-Mar-2010

Time: 22:10:32

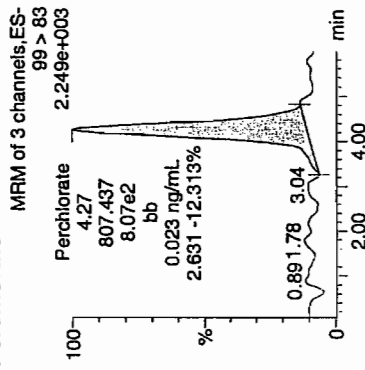
ID: 247566004

Vial: 1:4,C

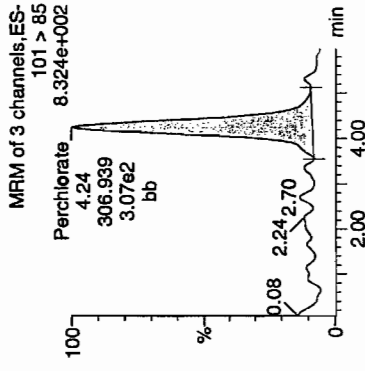
03-12-10

1222 | 957938 | 5020 | 11

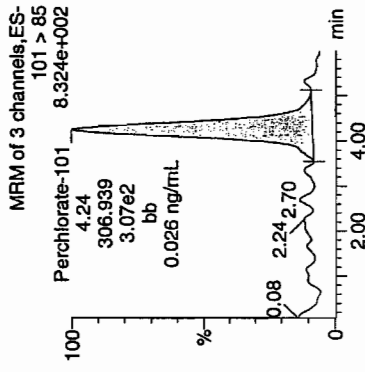
Perchlorate



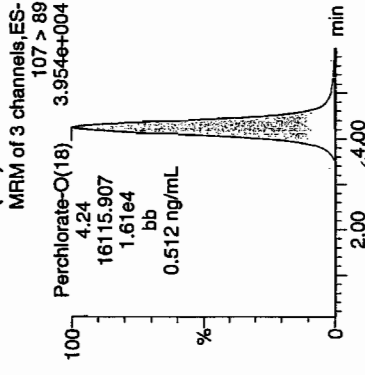
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
247566004	Perchlorate	99 > 83	4.27	807.437	807.437	bb			0.0234			67.108	2.63
247566004	Perchlorate-101	101 > 85	4.24	306.939	306.939	bb			0.0255			42.743	
247566004	Perchlorate-O(18)	107 > 89	4.24	16115.907	16115.907	bb			0.5115	102.30	2.30	2924.7...	

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 957937

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8248

Date Received: 20-FEB-10

GEL Job No (SDG): 10-1957

GEL Sample ID: 247566005

Date Filtered: 05-MAR-10

Injection Volume (uL): 20

%Solids: 98.3

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.508	2.03	0.508	ug/kg	U	1	11-MAR-10 22:19	per0311021a
	Perchlorate Isotope Ratio						1	11-MAR-10 22:19	per0311021a
14797-73-0	Perchlorate-101	.508	2.03	0.508	ug/kg	U	1	11-MAR-10 22:19	per0311021a
	Perchlorate-O(18)			5.05	ug/kg		1	11-MAR-10 22:19	per0311021a

[^] 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

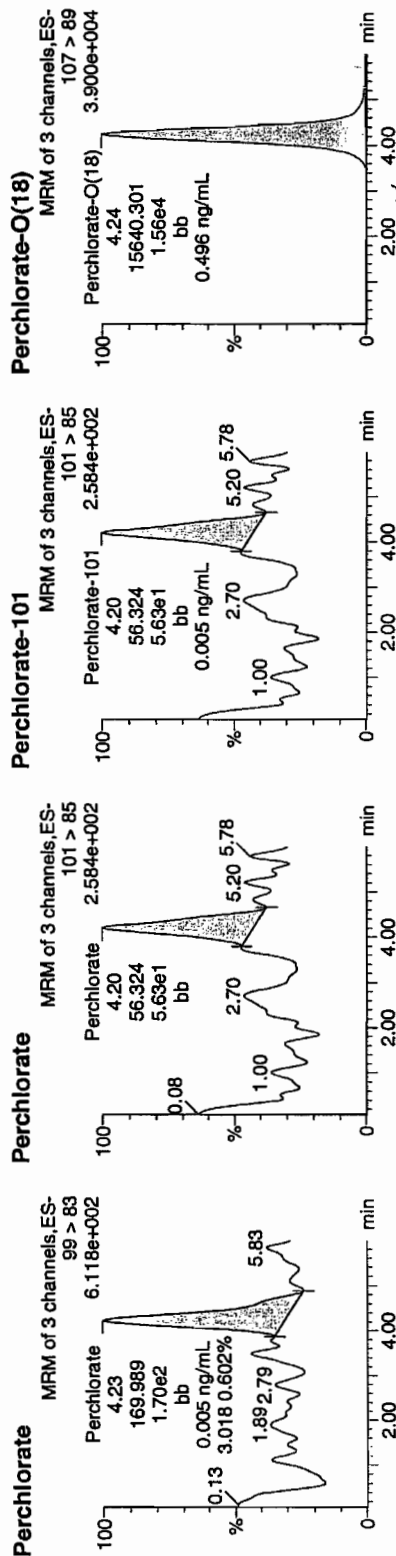
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Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311021a
Date: 11-Mar-2010
Time: 22:19:35
ID: 247566005
Vial: 1:4,D

03-12-10

157938 | 3000 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
247566005	Perchlorate	99 > 83	4.23	169.989	169.989	bb			0.0049			17.078	3.02
247566005	Perchlorate-101	101 > 85	4.20	56.324	56.324	bb			0.0047			8.745	
247566005	Perchlorate-O(18)	107 > 89	4.24	15640.301	15640.301	bb			0.4964	99.29	-0.71	2449.8...	

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

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 957937

Extraction Type: Solid Prep

Client Sample No.

RE15-10-8249

Date Received: 20-FEB-10

GEL Job No (SDG): 10-1957

GEL Sample ID: 247566006

Date Filtered: 05-MAR-10

Injection Volume (uL): 20

%Solids: 98.3

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	.509	2.03	0.509	ug/kg	U	1	11-MAR-10 22:55	per0311025a
	Perchlorate Isotope Ratio						1	11-MAR-10 22:55	per0311025a
14797-73-0	Perchlorate-101	.509	2.03	0.509	ug/kg	U	1	11-MAR-10 22:55	per0311025a
	Perchlorate-O(18)			5.25	ug/kg		1	11-MAR-10 22:55	per0311025a

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

*Concentration =

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

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

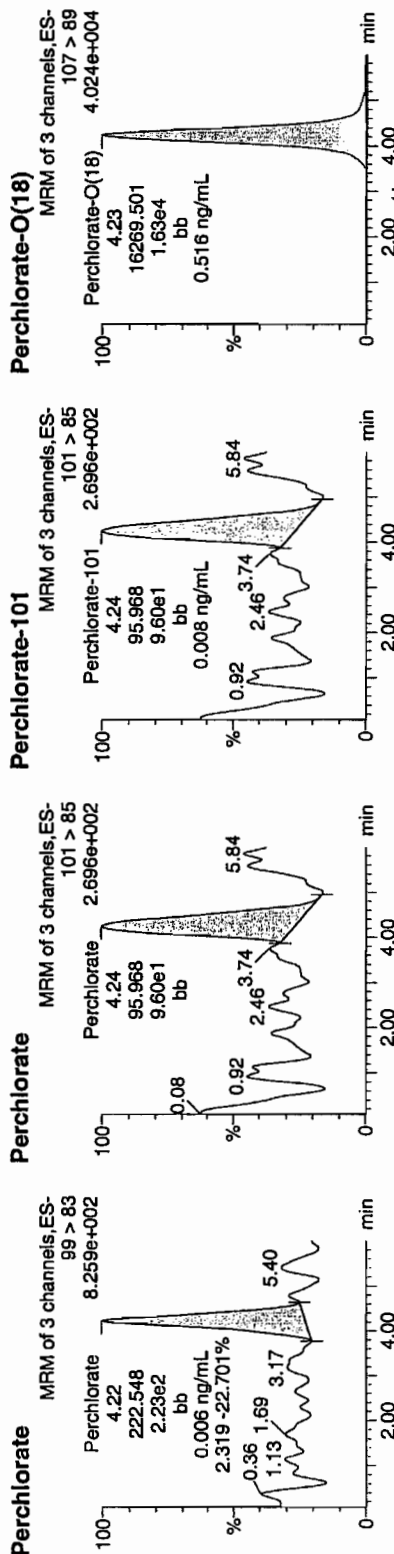
Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

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: per0311025a
 Date: 11-Mar-2010
 Time: 22:55:43
 ID: 247566006
 Vial: 1:4,E

03-12-10

LANC | 957938 | 3070 | 1 |



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
247566006	Perchlorate	99 > 83	4.22	222.548	222.548	bb			0.0065			15.272	2.32
247566006	Perchlorate-101	101 > 85	4.24	95.968	95.968	bb			0.0080			11.513	
247566006	Perchlorate-O(18)	107 > 89	4.23	16269.501	16269.501	bb			0.5164	103.28	3.28	5214.0...	

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 957937

Extraction Type: Solid Prep

Client Sample No.

RE15-10-8247

Date Received: 20-FEB-10

GEL Job No (SDG): 10-1957

GEL Sample ID: 247566007

Date Filtered: 05-MAR-10

Injection Volume (uL): 20

%Solids: 97.8

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	.511	2.05	0.511	ug/kg	U	1	11-MAR-10 23:04	per0311026a
	Perchlorate Isotope Ratio						1	11-MAR-10 23:04	per0311026a
14797-73-0	Perchlorate-101	.511	2.05	0.511	ug/kg	U	1	11-MAR-10 23:04	per0311026a
	Perchlorate-O(18)			5.19	ug/kg		1	11-MAR-10 23:04	per0311026a

[^] 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: per0311026a

Date: 11-Mar-2010

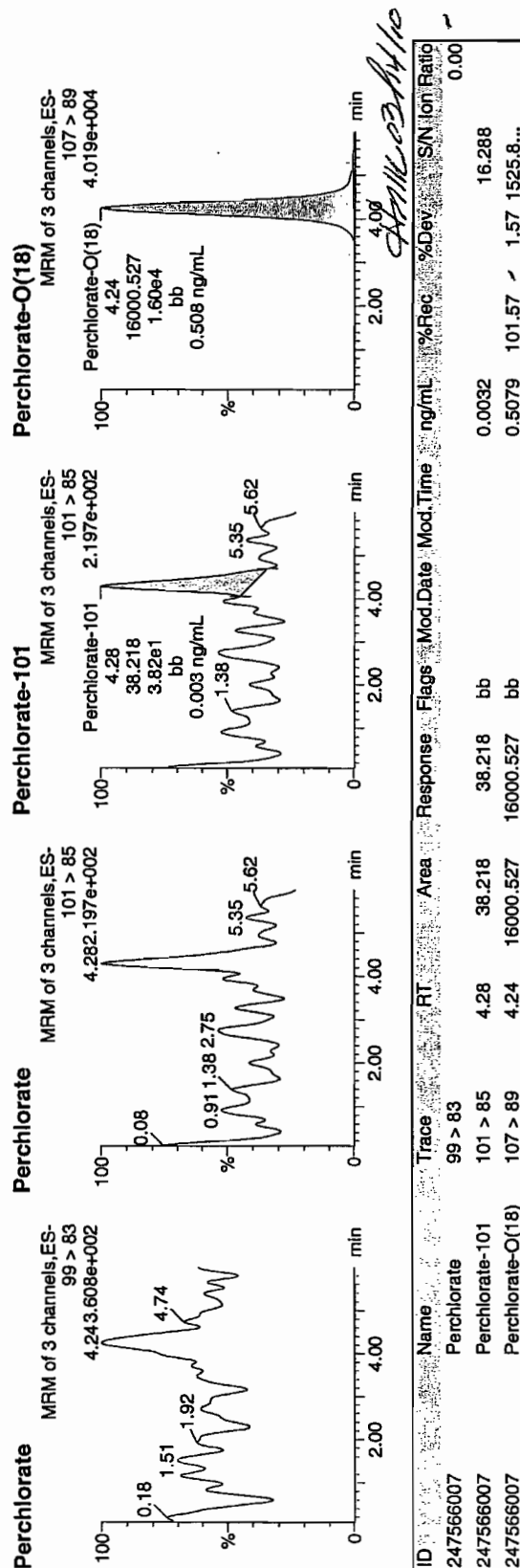
Time: 23:04:45

ID: 247566007

Vial: 1:4,F

03-12-10

1220 957938 3070 (11)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
247566007	Perchlorate	99 > 83											
247566007	Perchlorate-101	101 > 85	4.28	38.218	38.218	bb			0.0032	101.57	1.57	1525.8...	0.00
247566007	Perchlorate-O(18)	107 > 89	4.24	16000.527	16000.527	bb			0.5079	101.57	1.57	1525.8...	0.00

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 957937

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8254

Date Received: 20-FEB-10

GEL Job No (SDG): 10-1957

GEL Sample ID: 247566008

Date Filtered: 05-MAR-10

Injection Volume (uL): 20

%Solids: 98.1

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.51	2.04	2.37	ug/kg		1	11-MAR-10 23:13	per0311027a
	Perchlorate Isotope Ratio			3.12			1	11-MAR-10 23:13	per0311027a
14797-73-0	Perchlorate-101	.51	2.04	2.17	ug/kg		1	11-MAR-10 23:13	per0311027a
	Perchlorate-O(18)			5.04	ug/kg		1	11-MAR-10 23:13	per0311027a

[^] 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: per0311027a

Date: 11-Mar-2010

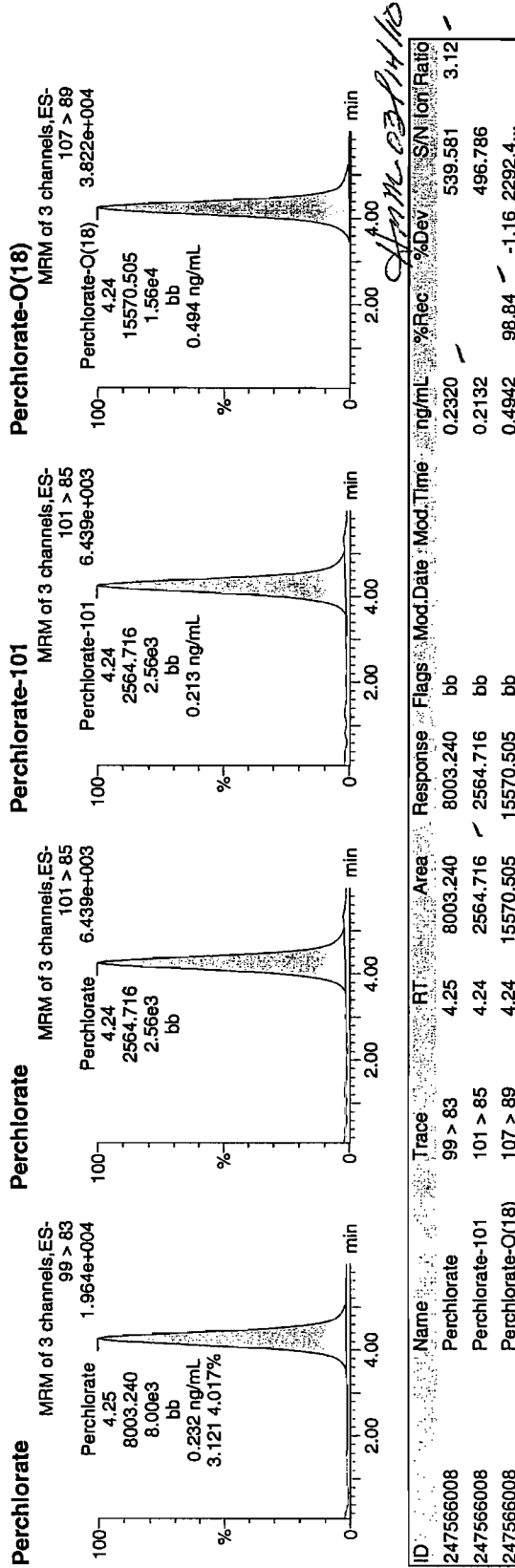
Time: 23:13:47

ID: 247566008

Vial: 1:5.A

03-12-10

15222 | 957933 | 5070 | 1 | NA



Handwritten signature: *Sam 03/14/10*

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
247566008	Perchlorate	99 > 83	4.25	8003.240	8003.240	bb			0.2320	-		539.581	3.12
247566008	Perchlorate-101	101 > 85	4.24	2564.716	2564.716	bb			0.2132	-		496.786	
247566008	Perchlorate-O(18)	107 > 89	4.24	15570.505	15570.505	bb			0.4942	98.84	-1.16	2292.4...	

P perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 957937

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8268

Date Received: 20-FEB-10

GEL Job No (SDG): 10-1957

GEL Sample ID: 247566002

Date Filtered: 05-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	2.12	ug/kg		1	11-MAR-10 23:22	per0311028a
	Perchlorate Isotope Ratio			3.07			1	11-MAR-10 23:22	per0311028a
14797-73-0	Perchlorate-101	.514	2.06	1.98	ug/kg	J	1	11-MAR-10 23:22	per0311028a
	Perchlorate-O(18)			5.20	ug/kg		1	11-MAR-10 23:22	per0311028a

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

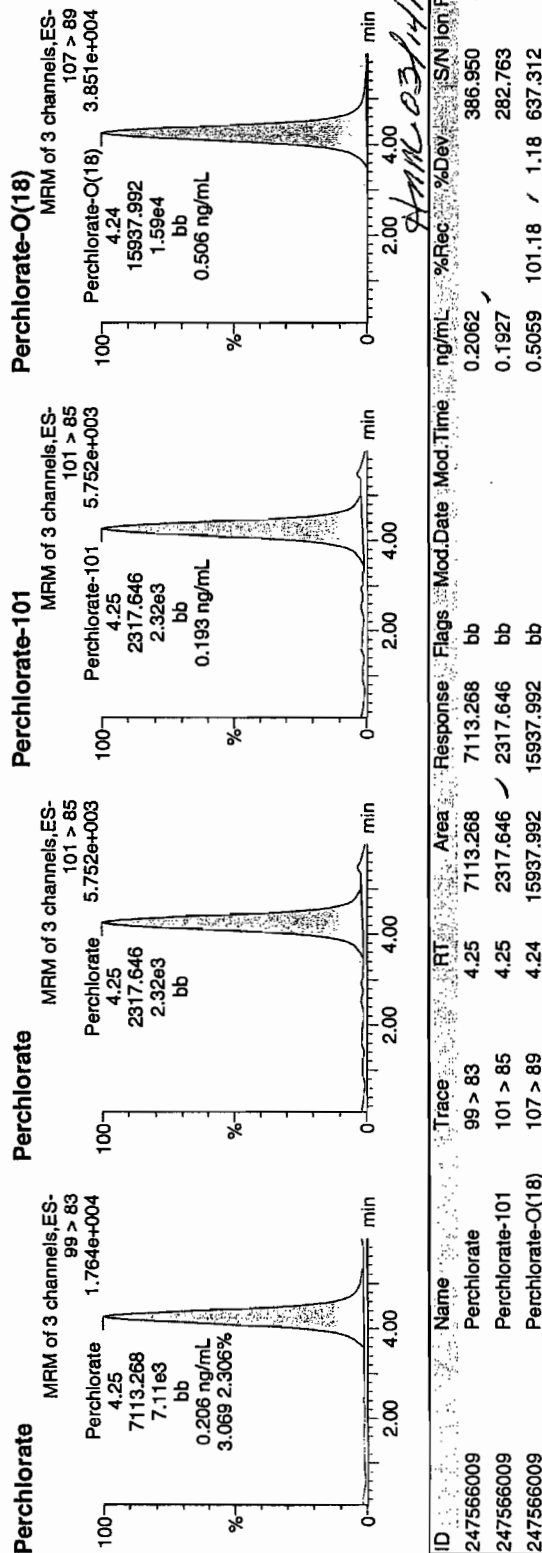
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Last Altered: Friday, March 12, 2010 9:22:32 AM Eastern Standard Time
Printed: Friday, March 12, 2010 9:41:12 AM Eastern Standard Time

Name: per0311028a
Date: 11-Mar-2010
Time: 23:22:50
ID: 247566009
Vial: 1:5,B

03-12-10

15200 | 957433 | 5020 | 11



Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 957937

Extraction Type: Solid Prep

Client Sample No.

RE15-10-8264

Date Received: 20-FEB-10

GEL Job No (SDG): 10-1957

GEL Sample ID: 247566010

Date Filtered: 05-MAR-10

Injection Volume (uL): 20

%Solids: 96.1

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	.52	2.08	0.520	ug/kg	U	1	11-MAR-10 23:31	per0311029a
	Perchlorate Isotope Ratio						1	11-MAR-10 23:31	per0311029a
14797-73-0	Perchlorate-101	.52	2.08	0.520	ug/kg	U	1	11-MAR-10 23:31	per0311029a
	Perchlorate-O(18)			5.18	ug/kg		1	11-MAR-10 23:31	per0311029a

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

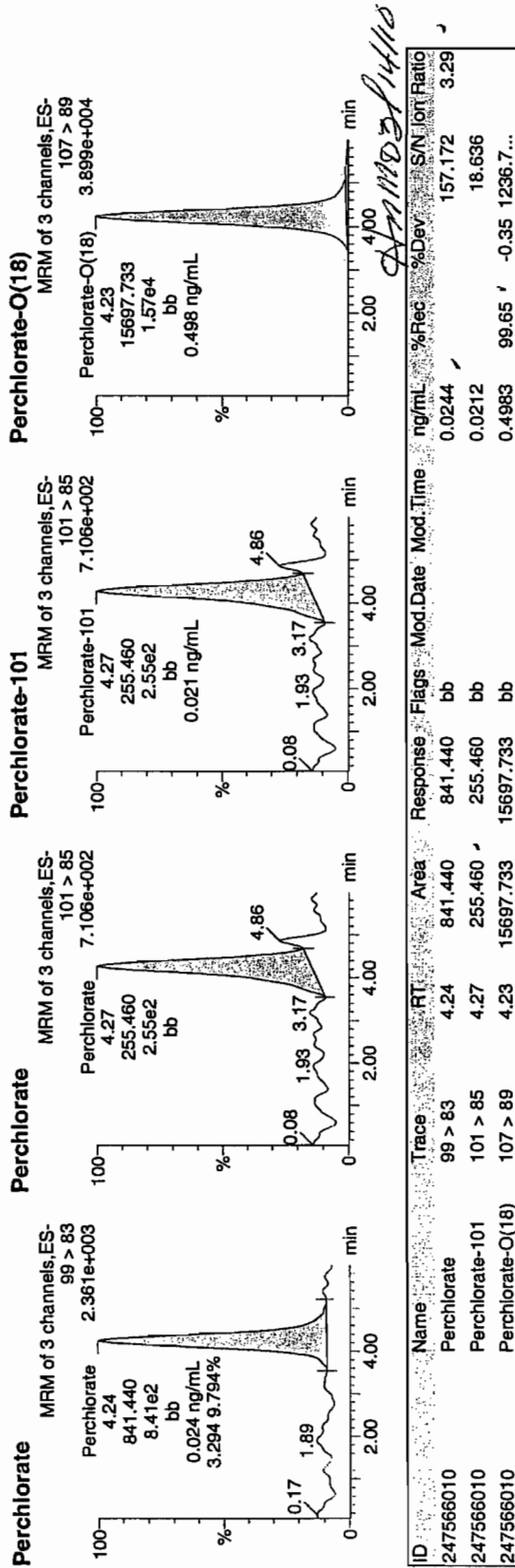
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson
Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

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: per0311029a
Date: 11-Mar-2010
Time: 23:31:53
ID: 247566010
Vial: 1:5,C

03-12-10

15222 | 957933 | 5020 | 11



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

STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1957

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 10-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

Coefficient of Determination:

Calibration Curve: 34679.54

Response Type: External Standard

Curve Type: RF

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1957

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 10-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: 11196.78

Response Type: External Standard

Curve Type: RF

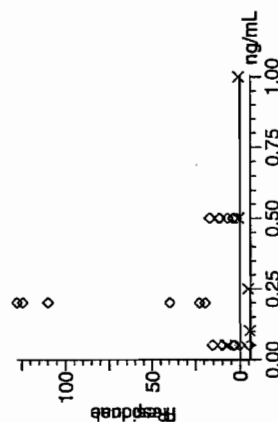
Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031010a.qld

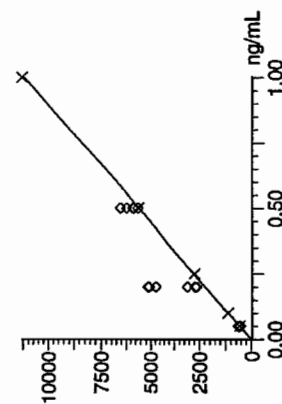
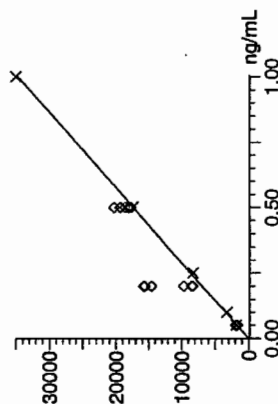
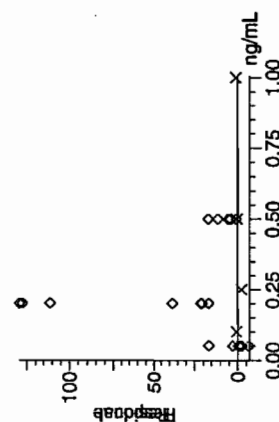
Last Altered: Thursday, March 11, 2010 8:38:20 AM Eastern Standard Time
Printed: Thursday, March 11, 2010 8:51:51 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per031010a.mdb 11 Mar 2010 08:37:49
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per031010a.cdb 11 Mar 2010 08:38:19

Compound name: Perchlorate ✓
Response Factor: 34679.5
RRF SD: 1906.75, % Relative SD: 5.49821
Response type: External Std, Area
Curve type: RIF ✓



Compound name: Perchlorate-101 ✓
Response Factor: 11196.8
RRF SD: 140.669, % Relative SD: 1.25633
Response type: External Std, Area
Curve type: RIF ✓



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

4577
3/11/10

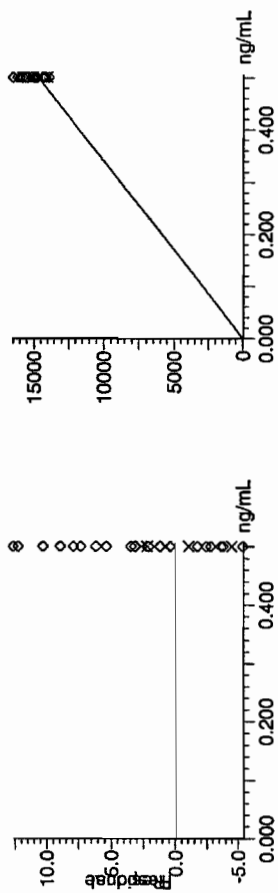
03-11-10

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

Dataset: C:\MassLynx\Perchlorate.PRO\per031010a.qld

Last Altered: Thursday, March 11, 2010 8:38:20 AM Eastern Standard Time
Printed: Thursday, March 11, 2010 8:51:51 AM Eastern Standard Time

Compound name: Perchlorate-O(18) ✓
Response Factor: 29361.6
RRF SD: 852.097, % Relative SD: 2.90208 ✓
Response type: External Std, Area
Curve type: RF



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

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1957

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

Perchlorate Initial Calibration

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Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1957

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

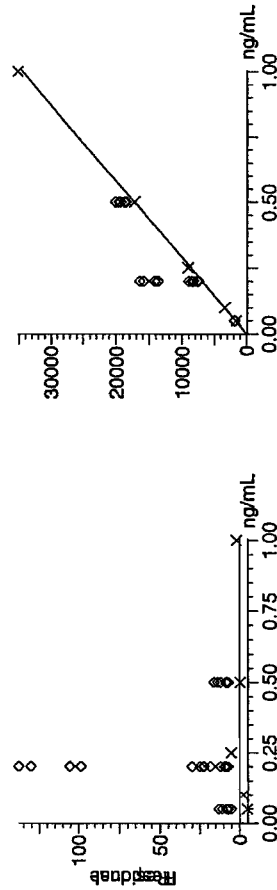
Parname Perchlorate-101

Coefficient of Determination:

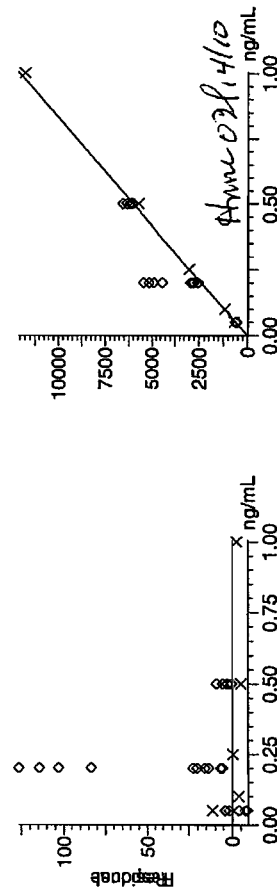
Calibration Curve: 12027.46

Response Type: External Standard

Curve Type: RF



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

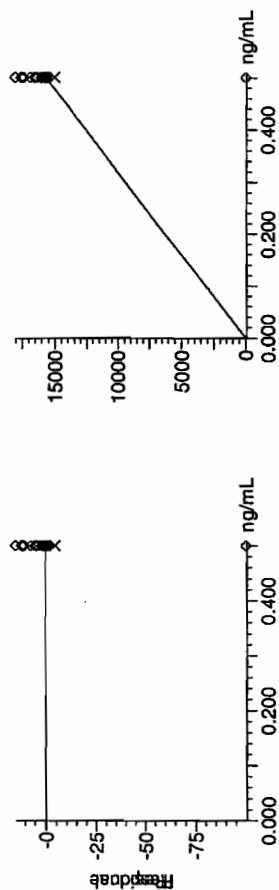


Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\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
RRF SD: 855.098, % Relative SD: 2.71411
Response type: External Std, Area
Curve type: RF



Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1957

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.54	107.18	10-MAR-10 15:14	per0310009a
Perchlorate Isotope Ratio		3.18		10-MAR-10 15:14	per0310009a
Perchlorate-101	.5	.52	104.39	10-MAR-10 15:14	per0310009a
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

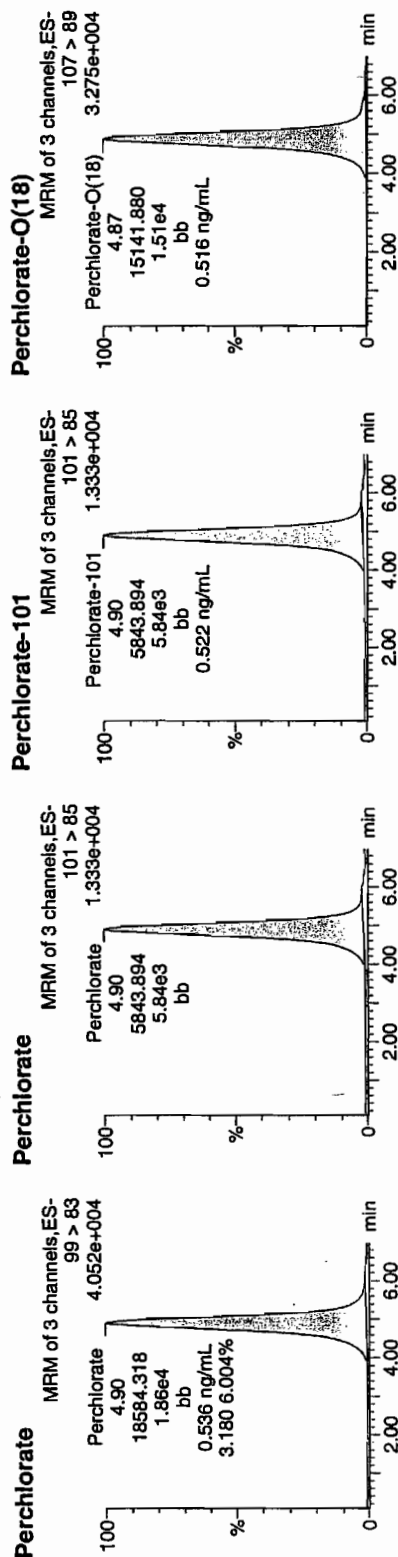
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\P perchlorate.PRO\per031010a.qld

Last Altered: Thursday, March 11, 2010 8:38:20 AM Eastern Standard Time
Printed: Thursday, March 11, 2010 8:51:51 AM Eastern Standard Time

Name: per0310009a
Date: 10-Mar-2010
Time: 15:14:03
ID: WCL100309-06ICV
Vial: 1:2,A

Pure
0.516
03-11-10



ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06ICV	Perchlorate	99 > 83	4.90	18584.318	18584.318	bb			0.5359	107.18	7.18	689.310	3.18
WCL100309-06ICV	Perchlorate-101	101 > 85	4.90	5843.894	5843.894	bb			0.5219	104.39	4.39	333.824	
WCL100309-06ICV	Perchlorate-Q(18)	107 > 89	4.87	15141.880	15141.880	bb			0.5157	103.14	3.14	1692.8...	

18584.318
34679.5 = 0.5359

not
3/11/10

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

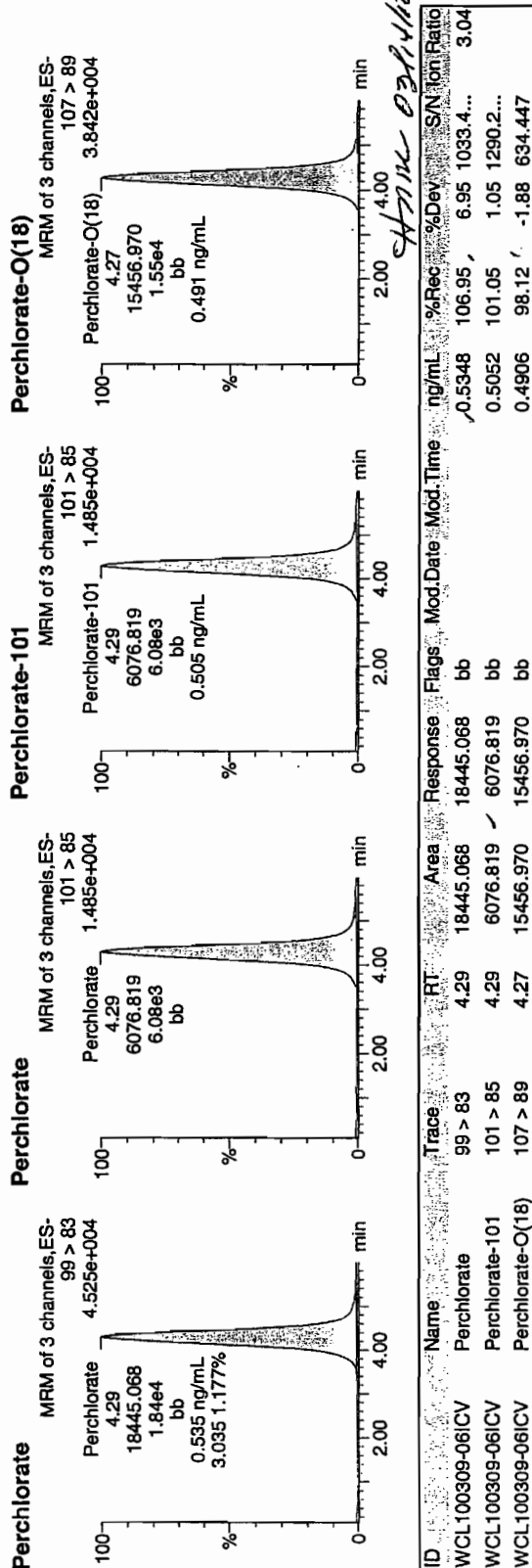
Dataset: C:\MassLynx\Perchlorate.PRO\per031110a.qld

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: per0311009a
Date: 11-Mar-2010
Time: 20:31:06
ID: WCL100309-06ICV
Vial: 1:2,A

Page

03-12-10



Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1957

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.51	101.89	10-MAR-10 17:04	per0310020a
Perchlorate Isotope Ratio		3.13		10-MAR-10 17:04	per0310020a
Perchlorate-101	.5	.5	100.93	10-MAR-10 17:04	per0310020a
Perchlorate	.5	.52	104.36	10-MAR-10 19:15	per0310033a
Perchlorate Isotope Ratio		3.1		10-MAR-10 19:15	per0310033a
Perchlorate-101	.5	.52	104.12	10-MAR-10 19:15	per0310033a
Perchlorate	.5	.52	103.39	10-MAR-10 21:25	per0310046a
Perchlorate Isotope Ratio		3.03		10-MAR-10 21:25	per0310046a
Perchlorate-101	.5	.53	105.8	10-MAR-10 21:25	per0310046a
Perchlorate	.5	.56	111.38	10-MAR-10 23:36	per0310059a
Perchlorate Isotope Ratio		3.1		10-MAR-10 23:36	per0310059a
Perchlorate-101	.5	.56	111.31	10-MAR-10 23:36	per0310059a
Perchlorate	.5	.54	108.85	11-MAR-10 22:28	per0311022a

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1957

Lab Code: GEL

Reporting Units: ug/kg

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

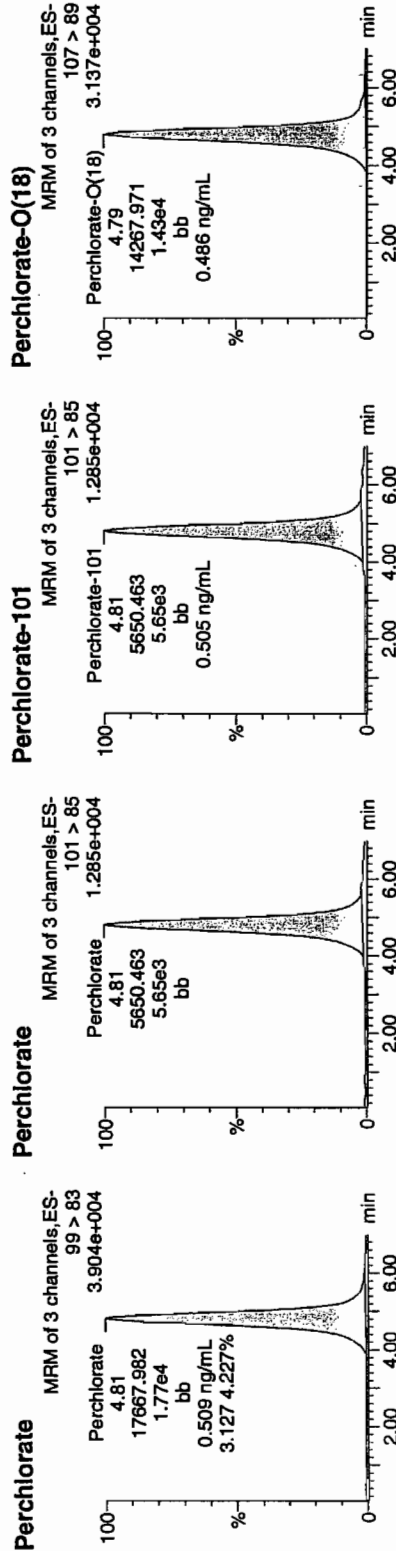
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031010a.qld

Last Altered: Thursday, March 11, 2010 8:38:20 AM Eastern Standard Time
Printed: Thursday, March 11, 2010 8:51:51 AM Eastern Standard Time

Name: per0310020a
Date: 10-Mar-2010
Time: 17:04:30
ID: WCL100309-06CCV
Vial: 1:2,A

Per
WCL
03-11-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	4.81	17667.982	17667.982	bb			0.5095	101.89	1.89	422.122	3.13
WCL100309-06CCV	Perchlorate-101	101 > 85	4.81	5650.463	5650.463	bb			0.5047	100.93	0.93	761.586	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	4.79	14267.971	14267.971	bb			0.4859	97.19	-2.81	1356.9...	

WCL
3/11/10

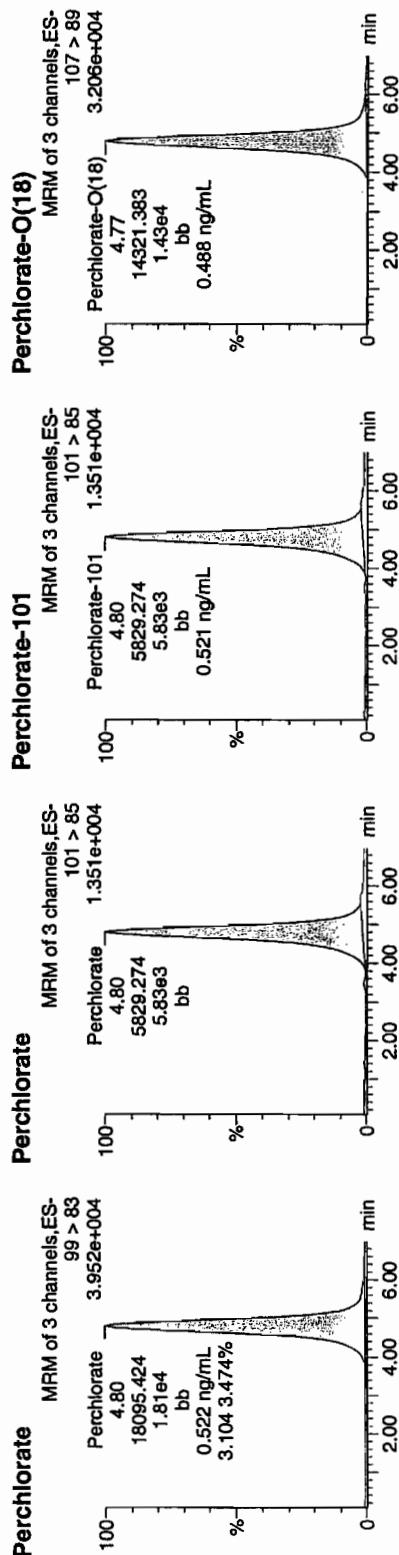
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031010a.qld

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Printed: Thursday, March 11, 2010 8:51:51 AM Eastern Standard Time

Name: per0310033a
Date: 10-Mar-2010
Time: 19:15:08
ID: WCL100309-06CCV
Vial: 1:2,A

*Run
and
3/11/10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	4.80	18095.424	18095.424	bb			0.5218	104.36	4.36	1131.6...	3.10
WCL100309-06CCV	Perchlorate-101	101 > 85	4.80	5829.274	5829.274	bb			0.5206	104.12	4.12	638.172	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	4.77	14321.383	14321.383	bb			0.4878	97.55	-2.45	2014.6...	

3/11/10

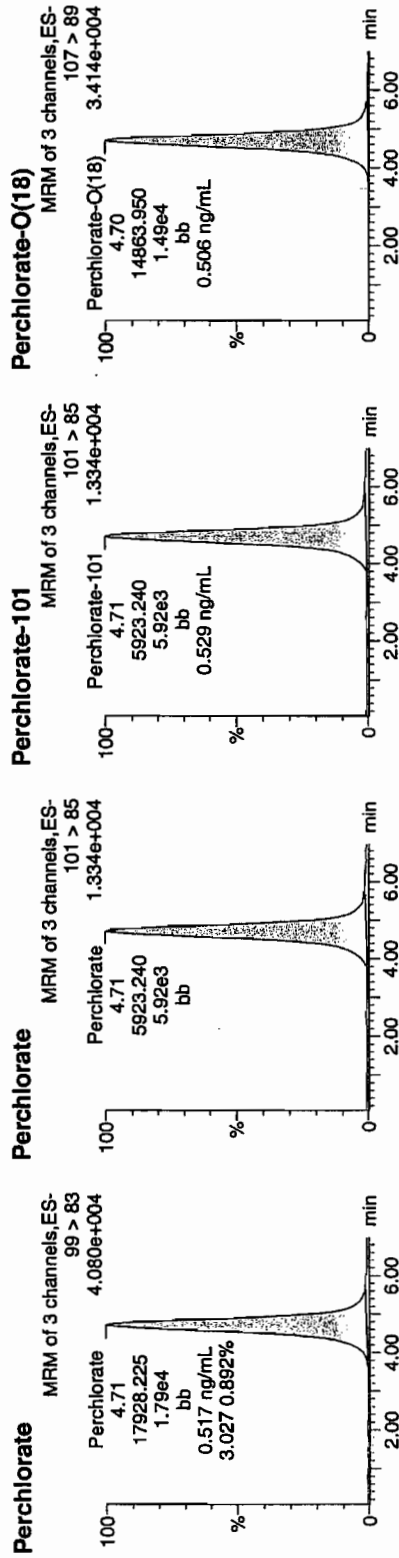
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031010a.qld

Last Altered: Thursday, March 11, 2010 8:38:20 AM Eastern Standard Time
Printed: Thursday, March 11, 2010 8:51:51 AM Eastern Standard Time

Name: per0310046a
Date: 10-Mar-2010
Time: 21:25:51
ID: WCL100309-06CCV
Vial: 1:2,A

Per
WCL
03-11-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	4.71	17928.225	17928.225	bb			0.5170	103.39	3.39	1294.8...	3.03
WCL100309-06CCV	Perchlorate-101	101 > 85	4.71	5923.240	5923.240	bb			0.5290	105.80	5.80	1058.0...	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	4.70	14863.950	14863.950	bb			0.5062	101.25	1.25	782.460	

WCL
3/11/10

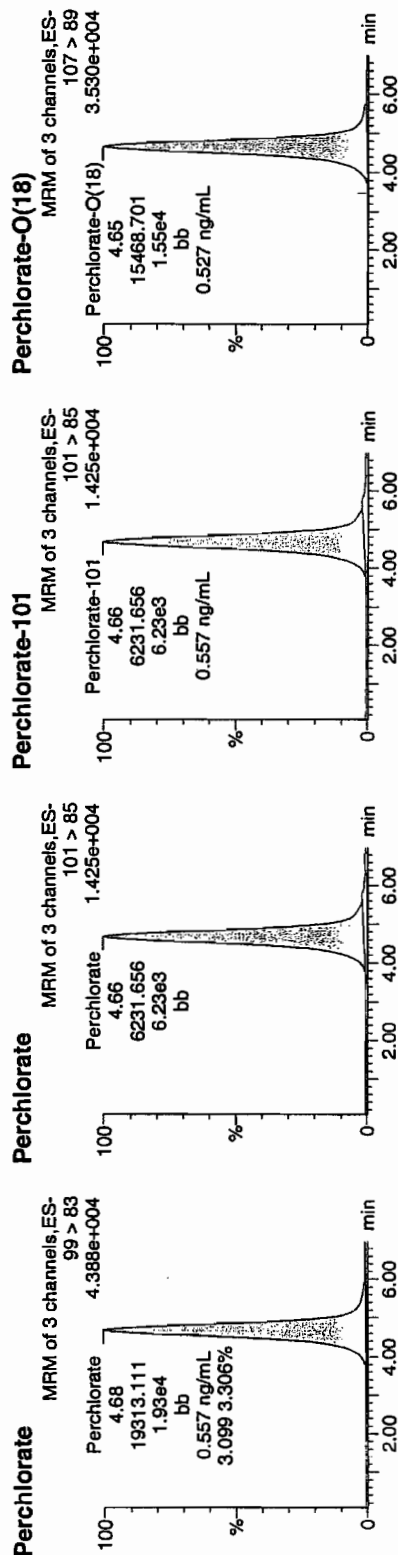
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031010a.qld

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Printed: Thursday, March 11, 2010 8:51:51 AM Eastern Standard Time

Name: per0310059a
Date: 10-Mar-2010
Time: 23:36:37
ID: WCL100309-06CCV
Vial: 1:2,A

Per
03-11-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	4.68	19313.111	19313.111	bb			0.5569	111.38	11.38	538.677	3.10
WCL100309-06CCV	Perchlorate-101	101 > 85	4.66	6231.656	6231.656	bb			0.5566	111.31	11.31	577.688	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	4.65	15468.701	15468.701	bb			0.5268	105.37	5.37	2265.1...	

WAT
3/11/10

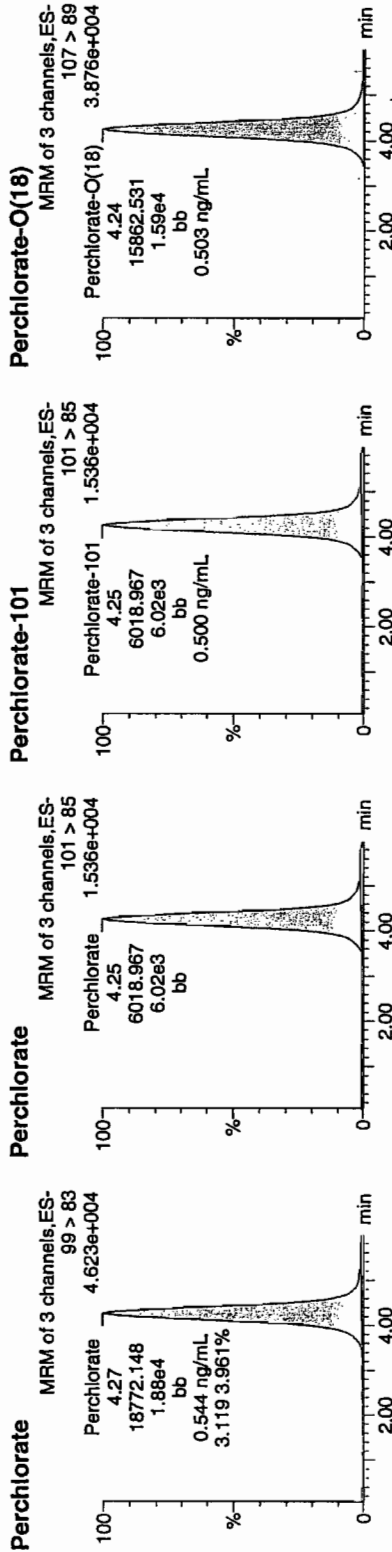
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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

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

Name: per0311022a
Date: 11-Mar-2010
Time: 22:28:36
ID: WCL100309-06CCV
Vial: 1:2,A

*Per
03-12-10*



4/22/10 03/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	4.27	18772.148	18772.148	bb			0.5442	108.85	8.85	1139.3...	3.12
WCL100309-06CCV	Perchlorate-101	101 > 85	4.25	6018.967	6018.967	bb			0.5004	100.09	0.09	935.407	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	4.24	15862.531	15862.531	bb			0.5035	100.70	0.70	2333.3...	

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: per0311035a

Date: 12-Mar-2010

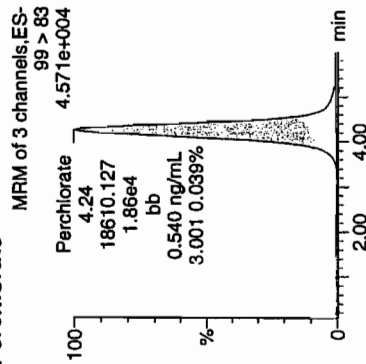
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ID: WCL100309-06CCV

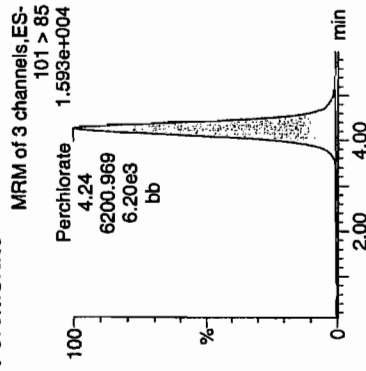
Vial: 1:2,A

Run
03-12-10

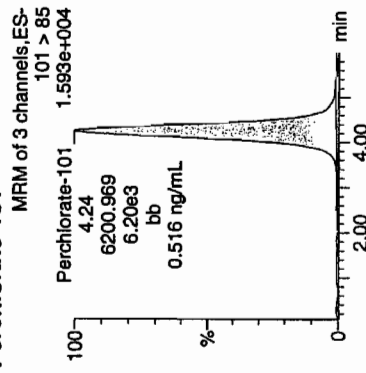
Perchlorate



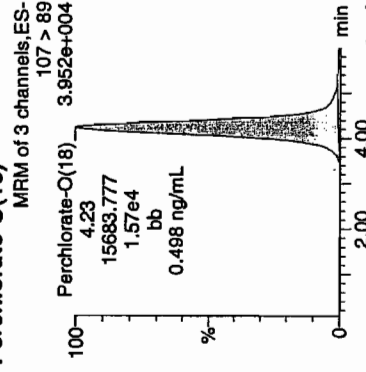
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-06CCV	Perchlorate	99 > 83	4.24	18610.127	18610.127	bb			0.5395	107.91	7.91	791.852	3.00
WCL100309-06CCV	Perchlorate-101	101 > 85	4.24	6200.969	6200.969	bb			0.5156	103.11	3.11	425.513	
WCL100309-06CCV	Perchlorate-O(18)	107 > 89	4.23	15683.777	15683.777	bb			0.4978	99.56	-0.44	2090.4...	

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1957

Lab Code: GEL

Reporting Units: µg/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	102.81	10-MAR-10 15:34	per0310011a
Perchlorate Isotope Ratio		3.4		10-MAR-10 15:34	per0310011a
Perchlorate-101	.05	.05	93.56	10-MAR-10 15:34	per0310011a
Perchlorate	.05	.05	94.85	10-MAR-10 17:24	per0310022a
Perchlorate Isotope Ratio		3		10-MAR-10 17:24	per0310022a
Perchlorate-101	.05	.05	97.97	10-MAR-10 17:24	per0310022a
Perchlorate	.05	.05	103.79	10-MAR-10 19:35	per0310035a
Perchlorate Isotope Ratio		3.22		10-MAR-10 19:35	per0310035a
Perchlorate-101	.05	.05	99.84	10-MAR-10 19:35	per0310035a
Perchlorate	.05	.05	100.16	10-MAR-10 21:45	per0310048a
Perchlorate Isotope Ratio		3.19		10-MAR-10 21:45	per0310048a

Perchlorate MDL Verification

GEL Job No.(SDG): 10-1957

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate-101	.05	.05	97.4	10-MAR-10 21:45	per0310048a
Perchlorate	.05	.05	104.19	10-MAR-10 23:56	per0310061a
Perchlorate Isotope Ratio		3.13		10-MAR-10 23:56	per0310061a
Perchlorate-101	.05	.05	102.96	10-MAR-10 23:56	per0310061a
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 MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1957

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate Isotope Ratio		3.36		12-MAR-10 00:44	per0311037a
Perchlorate-101	.05	.05	96.48	12-MAR-10 00:44	per0311037a

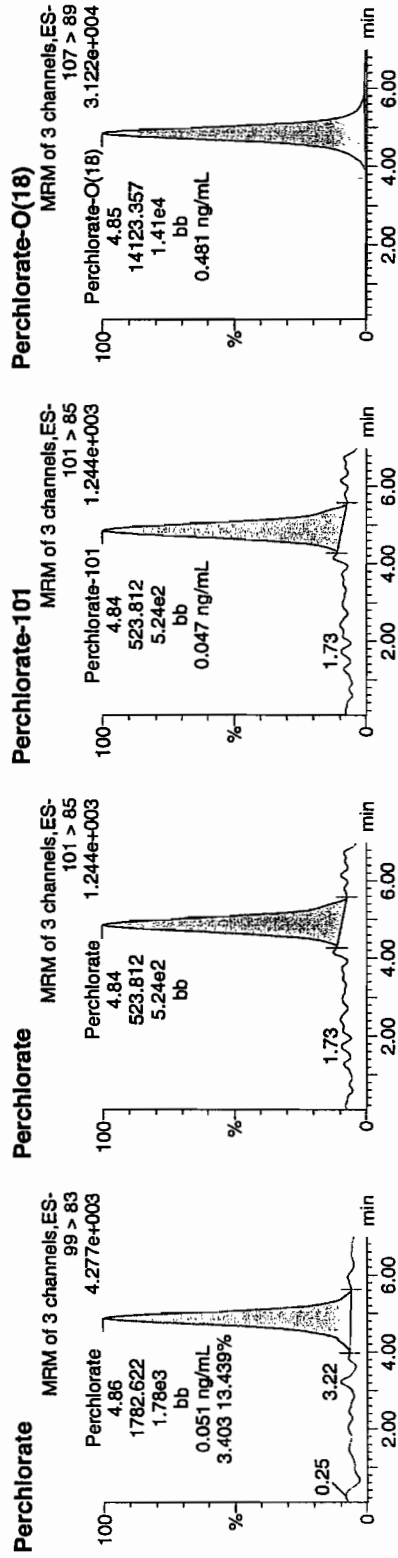
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031010a.qld

Last Altered: Thursday, March 11, 2010 8:38:20 AM Eastern Standard Time
Printed: Thursday, March 11, 2010 8:51:51 AM Eastern Standard Time

Name: per0310011a
Date: 10-Mar-2010
Time: 15:34:08
ID: WCL100309-07CRI
Vial: 1:2,B

*Per
and
03-11-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	4.86	1782.622	1782.622	bb			0.0514	102.81	2.81	129.008	3.40
WCL100309-07CRI	Perchlorate-101	101 > 85	4.84	✓ 523.812	523.812	bb			0.0468	93.56	-6.44	84.183	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	4.85	14123.357	14123.357	bb			0.4810	96.20	-3.80	706.497	

$$\frac{1782.622}{523.812} = 3.4032$$

*not
3/11/10*

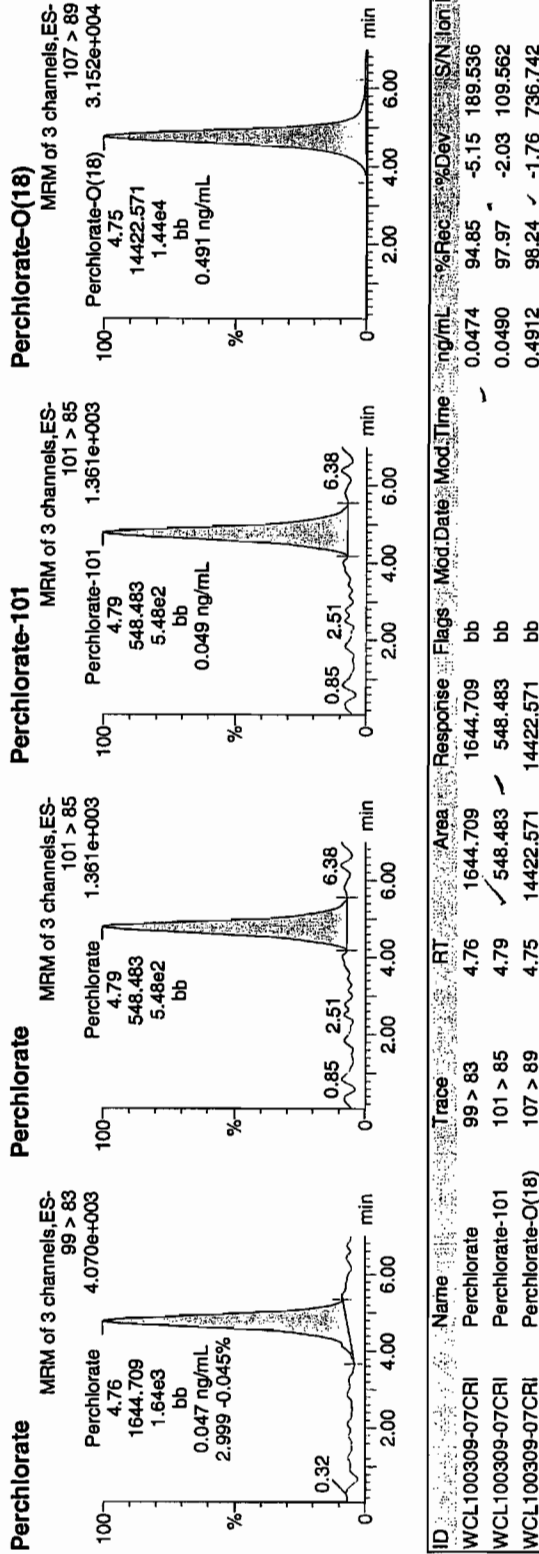
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031010a.qld

Last Altered: Thursday, March 11, 2010 8:38:20 AM Eastern Standard Time
Printed: Thursday, March 11, 2010 8:51:51 AM Eastern Standard Time

Name: per0310022a
Date: 10-Mar-2010
Time: 17:24:36
ID: WCL100309-07CRI
Vial: 1:2,B

Per
03-11-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	4.76	1644.709	1644.709	bb			0.0474	94.85	-5.15	189.536	3.00
WCL100309-07CRI	Perchlorate-101	101 > 85	4.79	548.483	548.483	bb			0.0490	97.97	-2.03	109.562	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	4.75	14422.571	14422.571	bb			0.4912	98.24	-1.76	736.742	

WCL
3/11/10

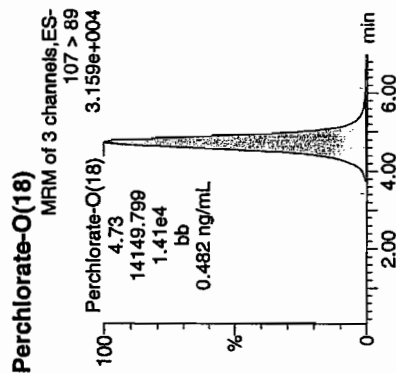
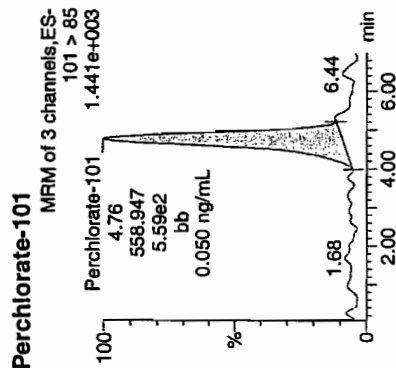
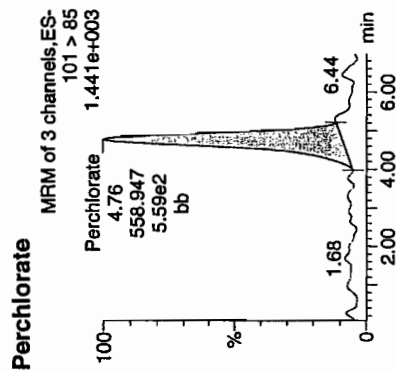
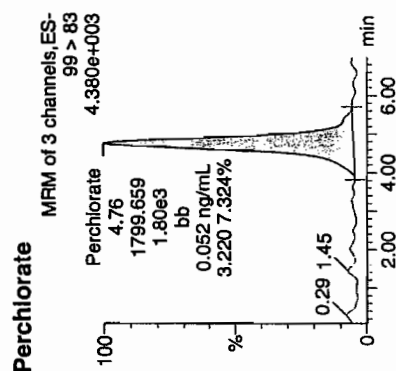
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031010a.qld

Last Altered: Thursday, March 11, 2010 8:38:20 AM Eastern Standard Time
Printed: Thursday, March 11, 2010 8:51:51 AM Eastern Standard Time

Name: per0310035a
Date: 10-Mar-2010
Time: 19:35:13
ID: WCL100309-07CRI
Vial: 1:2,B

Pues
WCL
03-11-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	4.76	1799.659	1799.659	bb			0.0519	103.79	3.79	107.289	3.22
WCL100309-07CRI	Perchlorate-101	101 > 85	4.76	558.947	558.947	bb			0.0499	99.84	-0.16	43.456	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	4.73	14149.799	14149.799	bb			0.4819	96.38	-3.62	1136.1...	

WCL
3/11/10

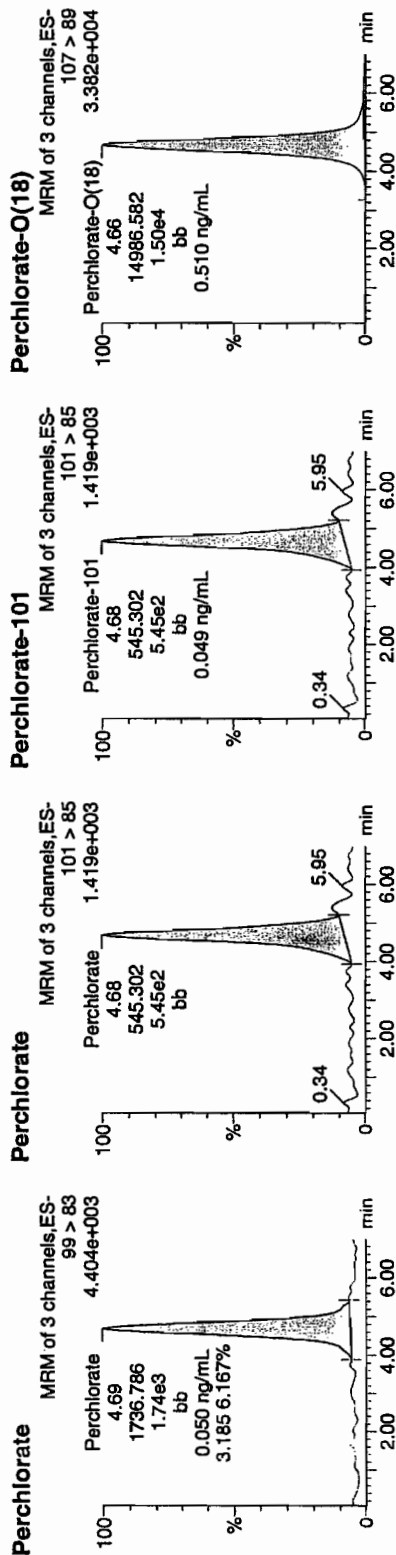
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031010a.qld

Last Altered: Thursday, March 11, 2010 8:38:20 AM Eastern Standard Time
Printed: Thursday, March 11, 2010 8:51:51 AM Eastern Standard Time

Para
WCL
3-11-10

Name: per0310048a
Date: 10-Mar-2010
Time: 21:45:57
ID: WCL100309-07CRI
Vial: 1:2,B



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	4.69	1736.786	1736.786	bb			0.0501	100.16	0.16	101.283	3.18
WCL100309-07CRI	Perchlorate-101	101 > 85	4.68	545.302	545.302	bb			0.0487	97.40	-2.60	86.571	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	4.66	14986.582	14986.582	bb			0.5104	102.08	2.08	2094.4...	

not
3/11/10

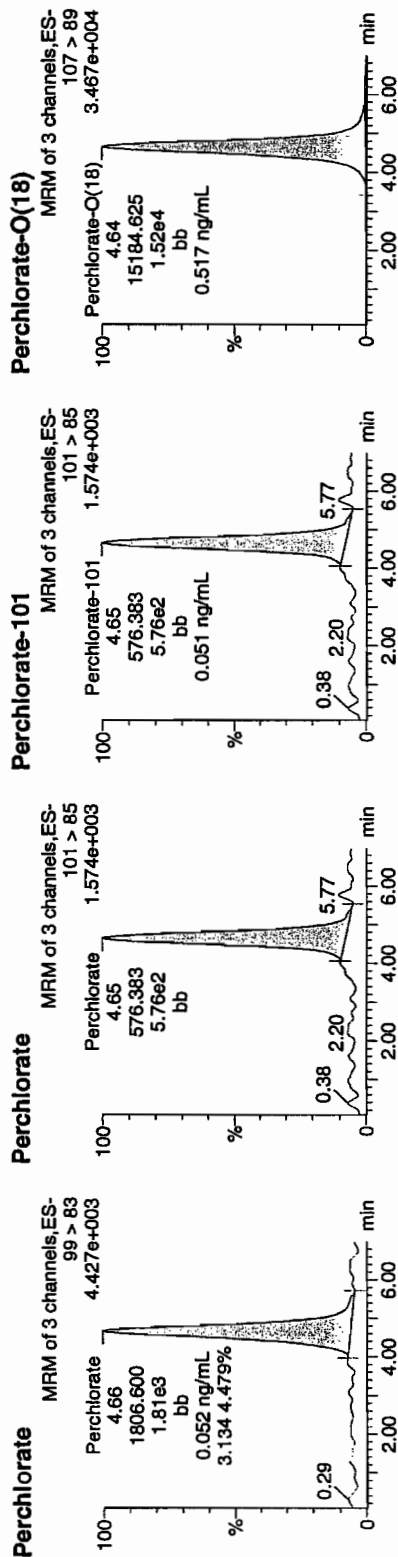
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031010a.qld

Last Altered: Thursday, March 11, 2010 8:38:20 AM Eastern Standard Time
Printed: Thursday, March 11, 2010 8:51:51 AM Eastern Standard Time

Name: per0310061a
Date: 10-Mar-2010
Time: 23:56:56
ID: WCL100309-07CRI
Vial: 1:2,B

pure
WCL
03-11-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100309-07CRI	Perchlorate	99 > 83	4.66	1806.600	1806.600	bb			0.0521	104.19	4.19	90.298	3.13
WCL100309-07CRI	Perchlorate-101	101 > 85	4.65	576.383	576.383	bb			0.0515	102.96	2.96	42.979	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	4.64	15184.625	15184.625	bb			0.5172	103.43	3.43	1532.2...	

WCL
3/4/10

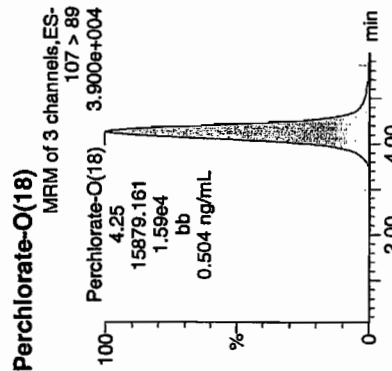
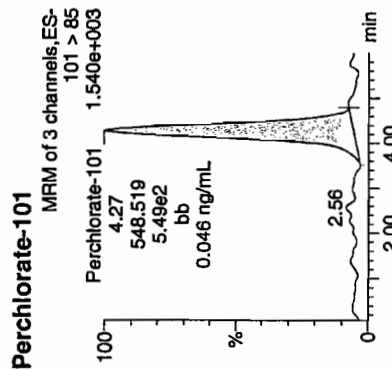
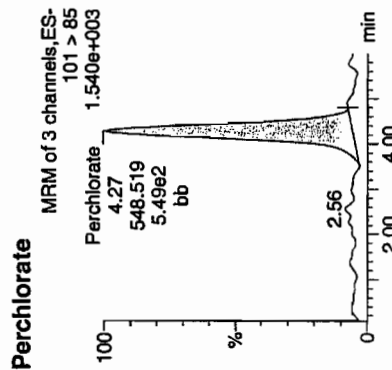
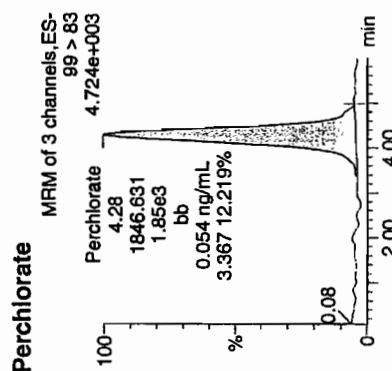
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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: per0311011a
Date: 11-Mar-2010
Time: 20:49:11
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	4.28	1846.631	1846.631	bb			0.0535	107.08	7.08	186.123	3.37
WCL100309-07CRI	Perchlorate-101	101 > 85	4.27	548.519	548.519	bb			0.0456	91.21	-8.79	116.694	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	4.25	15879.161	15879.161	bb			0.5040	100.80	0.80	2750.7...	

4.25 min 03/14/10

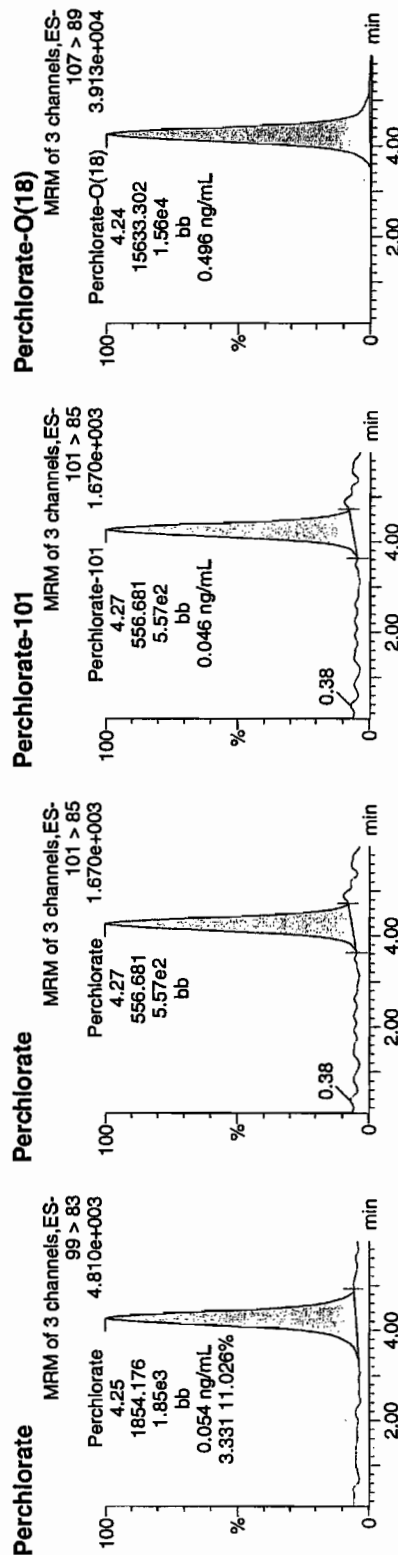
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\P 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: per0311024a
Date: 11-Mar-2010
Time: 22:46:41
ID: WCL100309-07CRI
Vial: 1;2,B

Per
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	4.25	1854.176	1854.176	bb			0.0538	107.51	7.51	103.638	3.33
WCL100309-07CRI	Perchlorate-101	101 > 85	4.27	556.681	556.681	bb			0.0463	92.57	-7.43	103.667	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	4.24	15633.302	15633.302	bb			0.4962	99.24	-0.76	1071.4...	

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

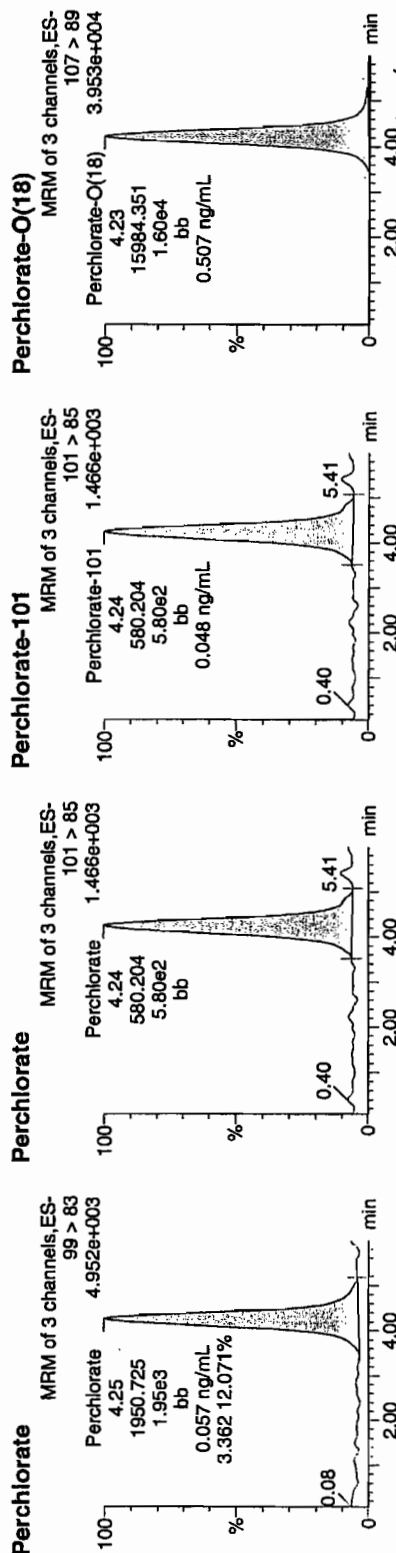
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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

Per
WCL
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	4.25	1950.725	1950.725	bb			0.0566	113.11	13.11	247.013	3.36
WCL100309-07CRI	Perchlorate-101	101 > 85	4.24	580.204	580.204	bb			0.0482	96.48	-3.52	43.878	
WCL100309-07CRI	Perchlorate-O(18)	107 > 89	4.23	15984.351	15984.351	bb			0.5073	101.47	1.47	1242.9...	

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: 957937

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

MB

Date Received: 05-MAR-10

GEL Job No (SDG): 10-1957

GEL Sample ID: 1202054212

Date Filtered: 05-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	0.500	ug/kg	U	1	10-MAR-10 22:56	per0310055a
	Perchlorate Isotope Ratio						1	10-MAR-10 22:56	per0310055a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	10-MAR-10 22:56	per0310055a
	Perchlorate-O(18)			5.29	ug/kg		1	10-MAR-10 22:56	per0310055a

[^] 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\per031010a.qld

Last Altered: Thursday, March 11, 2010 8:38:20 AM Eastern Standard Time
Printed: Thursday, March 11, 2010 8:51:51 AM Eastern Standard Time

Name: per0310055a

Date: 10-Mar-2010

Time: 22:56:20

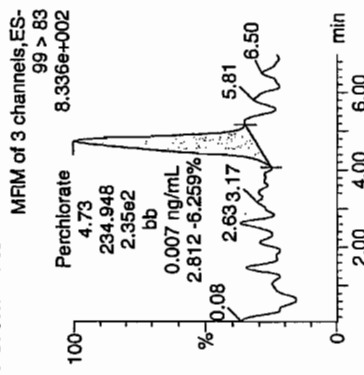
ID: 1202054212

Vial: 2:1,A

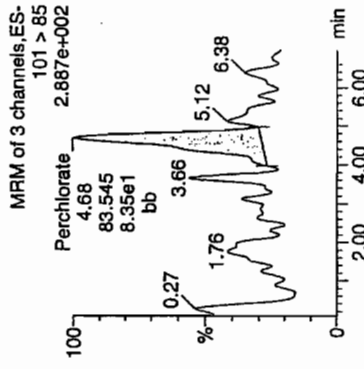
191111 | 957433 | 2005 | 10/11

03-11-10

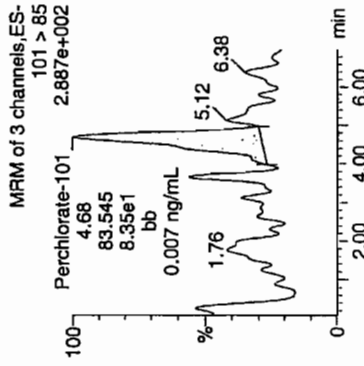
Perchlorate



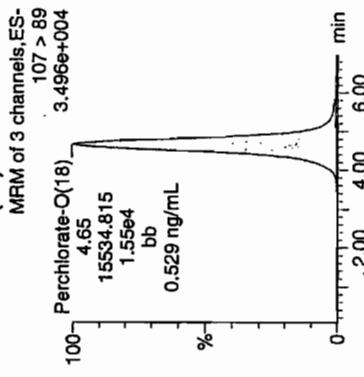
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202054212	Perchlorate	99 > 83	4.73	234.948	234.948	bb			0.0068			23.662	2.81
1202054212	Perchlorate-101	101 > 85	4.68	83.545	83.545	bb			0.0075			10.720	
1202054212	Perchlorate-O(18)	107 > 89	4.65	15534.815	15534.815	bb			0.5291	105.82	5.82	1371.7...	

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC
 Lab Code: GEL
 Instrument: LCMSMS
 Method: EPA 6850 Modified
 Matrix: SOIL
 Extraction Batch ID: 957937
 Extraction Type: Solid Prep
 Client Sample No. LCS
 Date Received: 05-MAR-10
 GEL Job No (SDG): 10-1957
 GEL Sample ID: 1202054213
 Date Filtered: 05-MAR-10
 Injection Volume (uL): 20
 Sample Volume/Weight: 2.00 g
 %Solids: 100

Concentrated Extract Volume: 20.0

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	2.39	ug/kg		1	10-MAR-10 23:06	per0310056a
	Perchlorate Isotope Ratio			3.05			1	10-MAR-10 23:06	per0310056a
14797-73-0	Perchlorate-101	.5	2	2.43	ug/kg		1	10-MAR-10 23:06	per0310056a
	Perchlorate-O(18)			5.31	ug/kg		1	10-MAR-10 23:06	per0310056a

[^] 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

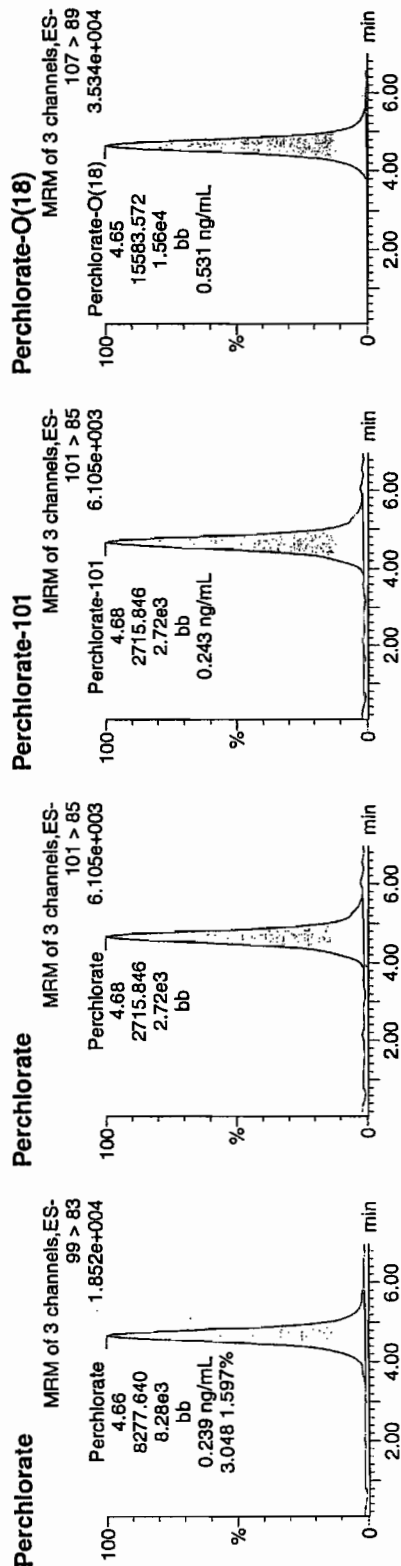
Dataset: C:\MassLynx\Perchlorate.PRO\per031010a.qld

Last Altered: Thursday, March 11, 2010 8:38:20 AM Eastern Standard Time
Printed: Thursday, March 11, 2010 8:51:51 AM Eastern Standard Time

Name: per0310056a
Date: 10-Mar-2010
Time: 23:06:33
ID: 1202054213
Vial: 2:1,B

623
03-11-10

1202054213 | 957928 | 30000 | 1202054213



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202054213	Perchlorate	99 > 83	4.66	8277.640	8277.640	bb			0.2387	119.34	19.34	1178.1...	3.05
1202054213	Perchlorate-101	101 > 85	4.68	2715.846	2715.846	bb			0.2426	121.28	21.28	376.408	
1202054213	Perchlorate-O(18)	107 > 89	4.65	15583.572	15583.572	bb			0.5307	106.15	6.15	3288.3...	

8277.640
34679.5
= 0.2387
0.2387

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 957937

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE15-10-8253MS

Date Received: 20-FEB-10

GEL Job No (SDG): 10-1957

GEL Sample ID: 1202054214

Date Filtered: 05-MAR-10

Injection Volume (uL): 20

%Solids: 97.4

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.513	2.05	4.22	ug/kg		1	11-MAR-10 21:43	per0311017a
	Perchlorate Isotope Ratio			2.9			1	11-MAR-10 21:43	per0311017a
14797-73-0	Perchlorate-101	.513	2.05	4.17	ug/kg		1	11-MAR-10 21:43	per0311017a
	Perchlorate-O(18)			5.18	ug/kg		1	11-MAR-10 21:43	per0311017a

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

Quantity Sample 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

Name: per03111017a

Date: 11-Mar-2010

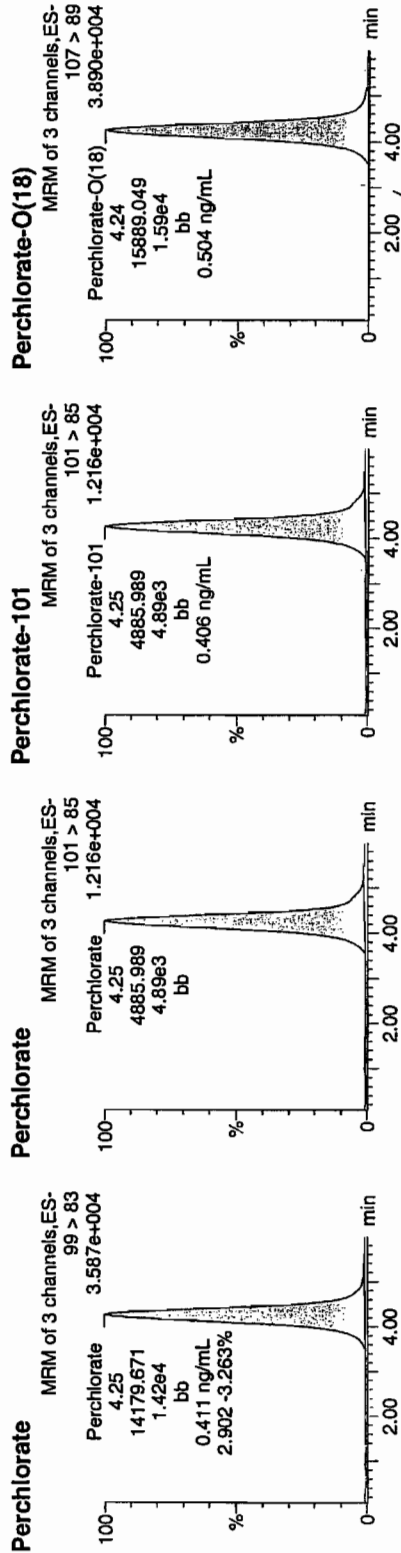
Time: 21:43:25

ID: 1202054214

Vial: 1:3,F

15700 | 957938 | 3070 | MS | 1 |

33-12-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202054214	Perchlorate	99 > 83	4.25	14179.671	14179.671	bb			0.4111	205.55	105.55	970.345	2.90
1202054214	Perchlorate-101	101 > 85	4.25	4885.989	4885.989	bb			0.4062	203.12	103.12	517.583	
1202054214	Perchlorate-O(18)	107 > 89	4.24	15889.049	15889.049	bb			0.5043	100.86	0.86	2025.8...	

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC Client Sample No. RE15-10-8253MSD

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

Instrument: LCMSMS GEL Job No (SDG): 10-1957

Method: SW846 6850 Modified GEL Sample ID: 1202054215

Matrix: SOIL Date Filtered: 05-MAR-10

Extraction Batch ID: 957937 Injection Volume (uL): 20

Extraction Type: Solid Prep %Solids: 97.4

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	.513	2.05	4.08	ug/kg		1	11-MAR-10 21:52	per0311018a
	Perchlorate Isotope Ratio			3.11			1	11-MAR-10 21:52	per0311018a
14797-73-0	Perchlorate-101	.513	2.05	3.77	ug/kg		1	11-MAR-10 21:52	per0311018a
	Perchlorate-O(18)			5.05	ug/kg		1	11-MAR-10 21:52	per0311018a

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

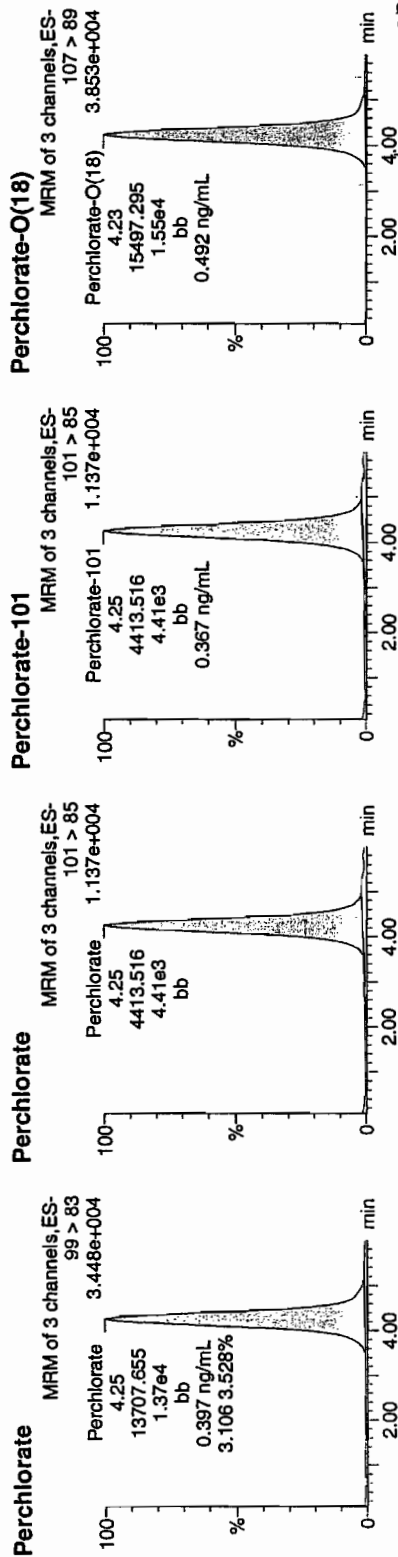
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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: per03111018a
Date: 11-Mar-2010
Time: 21:52:26
ID: 1202054215
Vial: 1:4,A

LANC 1957938 / 5020 / 150 / 11
03-12-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202054215	Perchlorate	99 > 83	4.25	13707.655	13707.655	bb			0.3974	198.71	98.71	1510.8...	3.11
1202054215	Perchlorate-101	101 > 85	4.25	4413.516	4413.516	bb			0.3670	183.48	83.48	347.844	
1202054215	Perchlorate-O(18)	107 > 89	4.23	15497.295	15497.295	bb			0.4919	98.38	-1.62	820.530	

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

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: 957937 Verified by: Lab SOP: GL-OA-E-067 REV# 6
 Analyst: Kaylie Westmoreland Instrument: MicroMass Quatro Ultima
 Method: SW846 6850 Modified

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)	Spike Amt	Units	Comments
1202054212 MB	05-MAR-2010 15:29:00	2	20	10			
1202054213 LCS	05-MAR-2010 15:29:00	2	20	10			
247550001	05-MAR-2010 15:29:00	2	20	10			
247551001	05-MAR-2010 15:29:00	2	20	10			
247551002	05-MAR-2010 15:29:00	2	20	10			
247552002	05-MAR-2010 15:29:00	2	20	10			
247566001	05-MAR-2010 15:29:00	2	20	10			
247566002	05-MAR-2010 15:29:00	2	20	10			
1202054214 MS (247566002)	05-MAR-2010 15:29:00	2	20	10			
1202054215 MSD (247566002)	05-MAR-2010 15:29:00	2	20	10			
247566003	05-MAR-2010 15:29:00	2	20	10			
247566004	05-MAR-2010 15:29:00	2	20	10			
247566005	05-MAR-2010 15:29:00	2	20	10			
247566006	05-MAR-2010 15:29:00	2	20	10			
247566007	05-MAR-2010 15:29:00	2	20	10			
247566008	05-MAR-2010 15:29:00	2	20	10			
247566009	05-MAR-2010 15:29:00	2	20	10			
247566010	05-MAR-2010 15:29:00	2	20	10			
1202054216 LCS	05-MAR-2010 15:29:00	2	20	10			
Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments	
LCS	1202054216	10 ug/L ICV/CCV Second Source	LC1100226-01.1	4	mL	Desalting Cartridges used: 100224-I-Bu & 100217-I-H	
LCS	1202054213	10 ug/L ICV/CCV Second Source	LC1100226-01.1	4	mL		
MS	1202054214	10 ug/L ICV/CCV Second Source	LC1100226-01.1	4	mL		
MSD	1202054215	10 ug/L ICV/CCV Second Source	LC1100226-01.1	4	mL		

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/10/10
 Extr. Injection Volume: 20µL
 Sequence Number: per031010a
 Initial Calibration Date: 03/10/10

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

Reviewed BY: *Hyll*
 Date: *03/14/10*
 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
per0310001a	IPB001	CWW	3/10/2010 13:53			1		USE	B
per0310002a	IPB001	CWW	3/10/2010 14:03			1		USE	B
per0310003a	WCLICAL-01	CWW	3/10/2010 14:13			1		USE	I
per0310004a	WCLICAL-02	CWW	3/10/2010 14:23			1		USE	I
per0310005a	WCLICAL-03	CWW	3/10/2010 14:33			1		USE	I
per0310006a	WCLICAL-04	CWW	3/10/2010 14:44			1		USE	I
per0310007a	WCLICAL-05	CWW	3/10/2010 14:54			1		USE	I
per0310008a	IPB002	CWW	3/10/2010 15:04			1		USE	B
per0310009a	WCLICV	CWW	3/10/2010 15:14			1		USE	C
per0310010a	IPB003	CWW	3/10/2010 15:24			1		USE	B
per0310011a	WCLCRI	CWW	3/10/2010 15:34			1		USE	C
per0310012a	247338004	CWW	3/10/2010 15:44	955718	10-1909	1	LANL	USE	S
per0310013a	247338005	CWW	3/10/2010 15:54	955718	10-1909	1	LANL	USE	S
per0310014a	247338006	CWW	3/10/2010 16:04	955718	10-1909	1	LANL	USE	S
per0310015a	247338007	CWW	3/10/2010 16:14	955718	10-1909	1	LANL	USE	S
per0310016a	247338008	CWW	3/10/2010 16:24	955718	10-1909	1	LANL	USE	S
per0310017a	247338009	CWW	3/10/2010 16:34	955718	10-1909	1	LANL	USE	S
per0310018a	247338010	CWW	3/10/2010 16:44	955718	10-1909	1	LANL	USE	S
per0310019a	247338011	CWW	3/10/2010 16:54	955718	10-1909	1	LANL	USE	S
per0310020a	WCLCCV	CWW	3/10/2010 17:04			1		USE	C
per0310021a	IPB004	CWW	3/10/2010 17:14			1		USE	B
per0310022a	WCLCRI	CWW	3/10/2010 17:24			1		USE	C
per0310023a	1202054207	CWW	3/10/2010 17:34	957935	VARIOUS	1	LANL	DUSE-RE	S
per0310024a	1202054208	CWW	3/10/2010 17:44	957935	VARIOUS	1	LANL	DUSE-RE	S
per0310025a	1202054211	CWW	3/10/2010 17:54	957935	VARIOUS	1	LANL	DUSE-RE	S
per0310026a	247544001	CWW	3/10/2010 18:04	957935	10-1963	1	LANL	DUSE-RE	S
per0310027a	247544002	CWW	3/10/2010 18:14	957935	10-1963	1	LANL	DUSE-RE	S
per0310028a	247544003	CWW	3/10/2010 18:24	957935	10-1963	1	LANL	DUSE-RE	S
per0310029a	247544004	CWW	3/10/2010 18:34	957935	10-1963	1	LANL	DUSE-RE	S

per0310030a	247546001	CWW	3/10/2010 18:44	957935	10-1965	1	LANL	DUSE-RE	S
per0310031a	247546002	CWW	3/10/2010 18:55	957935	10-1965	1	LANL	DUSE-RE	S
per0310032a	247546003	CWW	3/10/2010 19:05	957935	10-1965	1	LANL	DUSE-RE	S
per0310033a	WCLCCV	CWW	3/10/2010 19:15			1		USE	C
per0310034a	IPB005	CWW	3/10/2010 19:25			1		USE	B
per0310035a	WCLCRI	CWW	3/10/2010 19:35			1		USE	C
per0310036a	247558001	CWW	3/10/2010 19:45	957935	10-1954	1	LANL	DUSE-RE	S
per0310037a	247558002	CWW	3/10/2010 19:55	957935	10-1954	1	LANL	DUSE-RE	S
per0310038a	247558003	CWW	3/10/2010 20:05	957935	10-1954	1	LANL	DUSE-RE	S
per0310039a	247558004	CWW	3/10/2010 20:15	957935	10-1954	1	LANL	DUSE-RE	S
per0310040a	247558005	CWW	3/10/2010 20:25	957935	10-1954	1	LANL	DUSE-RE	S
per0310041a	247561001	CWW	3/10/2010 20:35	957935	10-1951-1	1	LANL	DUSE-RE	S
per0310042a	1202054209	CWW	3/10/2010 20:45	957935	10-1951-1	1	LANL	DUSE-RE	S
per0310043a	1202054210	CWW	3/10/2010 20:55	957935	10-1951-1	1	LANL	DUSE-RE	S
per0310044a	247561002	CWW	3/10/2010 21:05	957935	10-1951-1	1	LANL	DUSE-RE	S
per0310045a	247561003	CWW	3/10/2010 21:15	957935	10-1951-1	1	LANL	DUSE-RE	S
per0310046a	WCLCCV	CWW	3/10/2010 21:25			1		USE	C
per0310047a	IPB006	CWW	3/10/2010 21:35			1		USE	B
per0310048a	WCLCRI	CWW	3/10/2010 21:45			1		USE	C
per0310049a	247561004	CWW	3/10/2010 21:55	957935	10-1951-1	1	LANL	DUSE-RE	S
per0310050a	247561005	CWW	3/10/2010 22:06	957935	10-1951-1	1	LANL	DUSE-RE	S
per0310051a	247561006	CWW	3/10/2010 22:16	957935	10-1951-1	1	LANL	DUSE-RE	S
per0310052a	247561007	CWW	3/10/2010 22:26	957935	10-1951-1	1	LANL	DUSE-RE	S
per0310053a	247561008	CWW	3/10/2010 22:36	957935	10-1951-1	1	LANL	DUSE-RE	S
per0310054a	IPB007	CWW	3/10/2010 22:46			1		USE	B
per0310055a	1202054212	CWW	3/10/2010 22:56	957938	VARIOUS	1	LANL	USE	S
per0310056a	1202054213	CWW	3/10/2010 23:06	957938	VARIOUS	1	LANL	USE	S
per0310057a	1202054216	CWW	3/10/2010 23:16	957938	VARIOUS	1	LANL	USE	S
per0310058a	247550001	CWW	3/10/2010 23:26	957938	10-1967	1	LANL	USE	S
per0310059a	WCLCCV	CWW	3/10/2010 23:36			1		USE	C
per0310060a	IPB008	CWW	3/10/2010 23:46			1		USE	B
per0310061a	WCLCRI	CWW	3/10/2010 23:56			1		USE	C
per0310062a	247551001	CWW	3/11/2010 0:07	957938	10-1969	1	LANL	DUSE-RA	S
per0310063a	247551002	CWW	3/11/2010 0:17	957938	10-1969	1	LANL	DUSE-RA	S
per0310064a	247552002	CWW	3/11/2010 0:27	957938	10-1970	1	LANL	DUSE-RA	S
per0310065a	247566001	CWW	3/11/2010 0:37	957938	10-1957	1	LANL	DUSE-RA	S
per0310066a	247566002	CWW	3/11/2010 0:47	957938	10-1957	1	LANL	DUSE-RA	S

per0310067a	1202054214	CWW	3/11/2010 0:57	957938	10-1957	1	LANL	DUSE-RA	S
per0310068a	1202054215	CWW	3/11/2010 1:07	957938	10-1957	1	LANL	DUSE-RA	S
per0310069a	247566003	CWW	3/11/2010 1:17	957938	10-1957	1	LANL	DUSE-RA	S
per0310070a	247566004	CWW	3/11/2010 1:27	957938	10-1957	1	LANL	DUSE-RA	S
per0310071a	247566005	CWW	3/11/2010 1:37	957938	10-1957	1	LANL	DUSE-RA	S
per0310072a	WCLCCV	CWW	3/11/2010 1:47			1		DUSE	C
per0310073a	IPB009	CWW	3/11/2010 1:57			1		DUSE	B
per0310074a	WCLCRI	CWW	3/11/2010 2:07			1		DUSE	C
per0310075a	247566006	CWW	3/11/2010 2:17	957938	10-1957	1	LANL	DUSE-RA	S
per0310076a	247566007	CWW	3/11/2010 2:28	957938	10-1957	1	LANL	DUSE-RA	S
per0310077a	247566008	CWW	3/11/2010 2:38	957938	10-1957	1	LANL	DUSE-RA	S
per0310078a	247566009	CWW	3/11/2010 2:48	957938	10-1957	1	LANL	DUSE-RA	S
per0310079a	247566010	CWW	3/11/2010 2:58	957938	10-1957	1	LANL	DUSE-RA	S
per0310080a	WCLCCV	CWW	3/11/2010 3:08			1		DUSE	C
per0310081a	IPB010	CWW	3/11/2010 3:18			1		DUSE	B
per0310082a	WCLCRI	CWW	3/11/2010 3:28			1		DUSE	C

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: 03/11/10

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

per0311030a	IPB005	CWW	3/11/2010 23:40	964090	VARIOUS	1	LANL	USE	B
per0311031a	1202068285	CWW	3/11/2010 23:49	964090	VARIOUS	1	LANL	USE	S
per0311032a	1202068286	CWW	3/11/2010 23:59	964090	VARIOUS	1	LANL	USE	S
per0311033a	1202068291	CWW	3/12/2010 0:08	964090	VARIOUS	1	LANL	USE	S
per0311034a	248778001	CWW	3/12/2010 0:17	964090	10-2281-1	1	LANL	USE	S
per0311035a	WCLCCV	CWW	3/12/2010 0:26			1		USE	C
per0311036a	IPB006	CWW	3/12/2010 0:35			1		USE	B
per0311037a	WCLCRI	CWW	3/12/2010 0:44			1		USE	C
per0311038a	248783001	CWW	3/12/2010 0:53	964090	10-2284	1	LANL	USE	S
per0311039a	1202068289	CWW	3/12/2010 1:02	964090	10-2284	1	LANL	USE	S
per0311040a	1202068290	CWW	3/12/2010 1:11	964090	10-2284	1	LANL	USE	S
per0311041a	248792001	CWW	3/12/2010 1:20	964090	10-2287	1	LANL	USE	S
per0311042a	248799001	CWW	3/12/2010 1:29	964090	10-2289-1	1	LANL	USE	S
per0311043a	248861001	CWW	3/12/2010 1:38	964090	10-2313-1	1	LANL	USE	S
per0311044a	248861002	CWW	3/12/2010 1:47	964090	10-2313-1	1	LANL	USE	S
per0311045a	248953001	CWW	3/12/2010 1:56	964090	10-2322	1	LANL	USE	S
per0311046a	1202068287	CWW	3/12/2010 2:05	964090	10-2322	1	LANL	USE	S
per0311047a	1202068288	CWW	3/12/2010 2:14	964090	10-2322	1	LANL	USE	S
per0311048a	WCLCCV	CWW	3/12/2010 2:23			1		USE	C
per0311049a	IPB007	CWW	3/12/2010 2:32			1		USE	B
per0311050a	WCLCRI	CWW	3/12/2010 2:41			1		USE	C
per0311051a	1202068504	CWW	3/12/2010 2:51	964182	VARIOUS	1	LANL	USE	S
per0311052a	1202068505	CWW	3/12/2010 3:00	964182	VARIOUS	1	LANL	USE	S
per0311053a	1202068508	CWW	3/12/2010 3:09	964182	VARIOUS	1	LANL	USE	S
per0311054a	247544001	CWW	3/12/2010 3:18	964182	10-1963	1	LANL	USE	S
per0311055a	247544002	CWW	3/12/2010 3:27	964182	10-1963	1	LANL	USE	S
per0311056a	247544003	CWW	3/12/2010 3:36	964182	10-1963	1	LANL	USE	S
per0311057a	247544004	CWW	3/12/2010 3:45	964182	10-1963	1	LANL	USE	S
per0311058a	247546001	CWW	3/12/2010 3:54	964182	10-1965	1	LANL	USE	S
per0311059a	247546002	CWW	3/12/2010 4:03	964182	10-1965	1	LANL	USE	S
per0311060a	247546003	CWW	3/12/2010 4:12	964182	10-1965	1	LANL	USE	S
per0311061a	WCLCCV	CWW	3/12/2010 4:21			1		USE	C
per0311062a	IPB008	CWW	3/12/2010 4:30			1		USE	B
per0311063a	WCLCRI	CWW	3/12/2010 4:39			1		USE	C
per0311064a	247558001	CWW	3/12/2010 4:48	964182	10-1954	1	LANL	USE	S
per0311065a	247558002	CWW	3/12/2010 4:58	964182	10-1954	1	LANL	USE	S
per0311066a	247558003	CWW	3/12/2010 5:07	964182	10-1954	1	LANL	USE	S

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			1		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

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 10-1957-1**

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: 957439

Prep Batch Number: 957436

Sample Analysis

Sample ID	Client ID
247567001	RE15-10-8271
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.

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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.

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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: Heber DK Mauer Date: 03/05/10

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.

RE15-10-8271

Date Received: 20-FEB-10

GEL Job No (SDG): 10-1957-1

GEL Sample ID: 247567001

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 05:05	per0301115a
	Perchlorate Isotope Ratio						1	02-MAR-10 05:05	per0301115a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	02-MAR-10 05:05	per0301115a
	Perchlorate-O(18)			0.483	ug/L		1	02-MAR-10 05:05	per0301115a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1
Aliquot %Solids

QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL GEL Job No. (SDG): 10-1957-1

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): 10-1957-1

Extract Batch Code: 957436

Date Filtered: 25-FEB-10

Matrix: WATER

Sample ID: 1202052909

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: 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: per0301101a

Date: 02-Mar-2010

Time: 03:05:14

ID: 1202052909

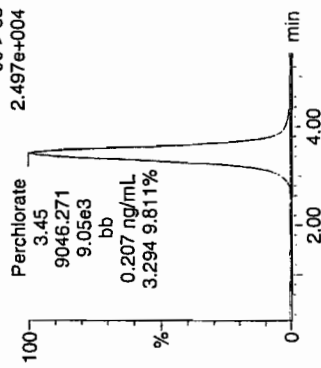
Vial: 3:1,C

0.33
03-02-10

LANU 1957431 1202052909

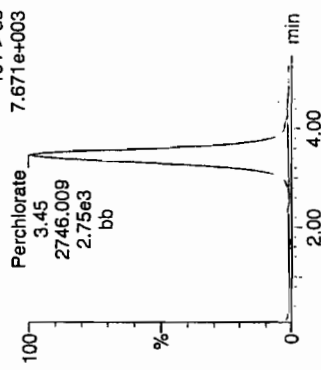
Perchlorate

MRM of 3 channels, ES-
99 > 83
2.497e+004



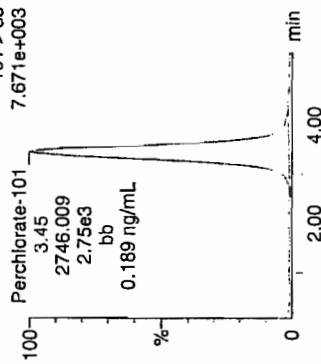
Perchlorate

MRM of 3 channels, ES-
101 > 85
7.671e+003



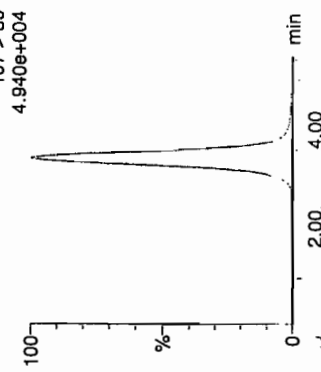
Perchlorate-101

MRM of 3 channels, ES-
101 > 85
7.671e+003



Perchlorate-O(18)

MRM of 3 channels, ES-
107 > 89
4.940e+004



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202052909	Perchlorate	99 > 83	3.45	9046.271	9046.271	bb			0.2067	103.37	3.37	1270.8...	3.29
1202052909	Perchlorate-101	101 > 85	3.45	2746.009	2746.009	bb			0.1885	94.27	-5.73	356.936	
1202052909	Perchlorate-O(18)	107 > 89	3.43	17763.203	17763.203	bb			0.4545	90.90	-9.10	2182.9...	

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

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

Extract Batch Code: 957436

GEL MS/PS ID: 1202052907

GEL MSD/PSD ID: 1202052908

GEL Job No (SDG): 10-1957-1

Date Extracted: 25-FEB-10

Client ID: RE46-10-13371

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): 10-1957-1

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: Charlers W. Wilson

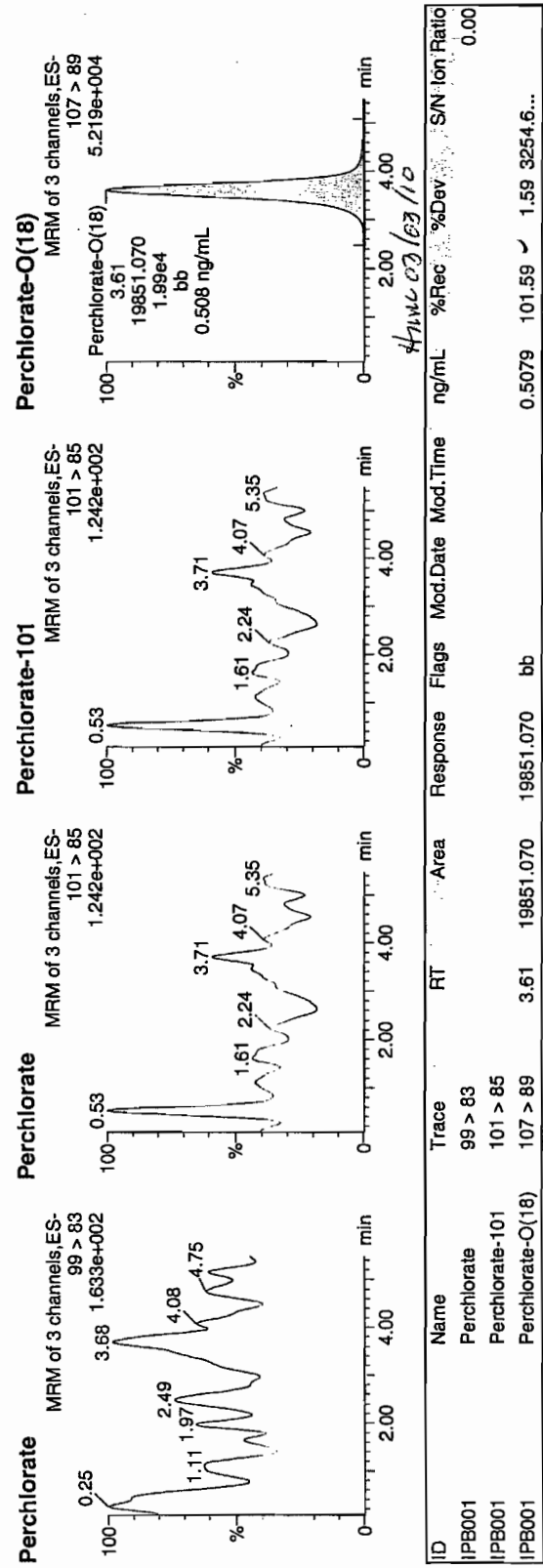
Dataset: C:\MassLynx\Perchlorate.PRO\per030110a.qld

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

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

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

03-02-10



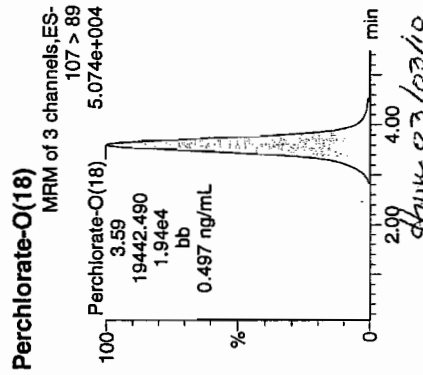
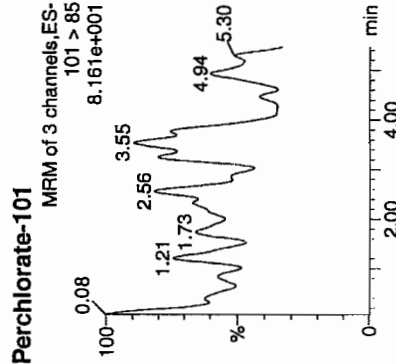
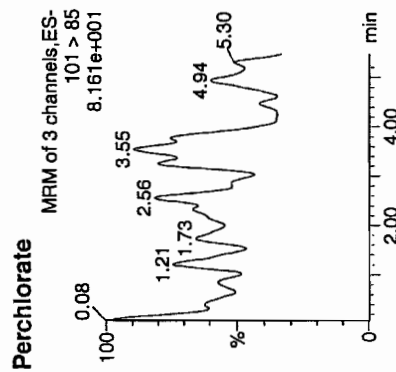
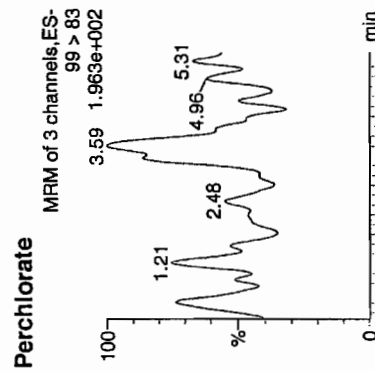
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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

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

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

03-02-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	3.59	19442.490	19442.490	bb			0.4975	99.50	-0.50	1858.7...	

Perchlorate Continuing Calibration Blank

GEL Job No.(SDG): 10-1957-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	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): 10-1957-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/L

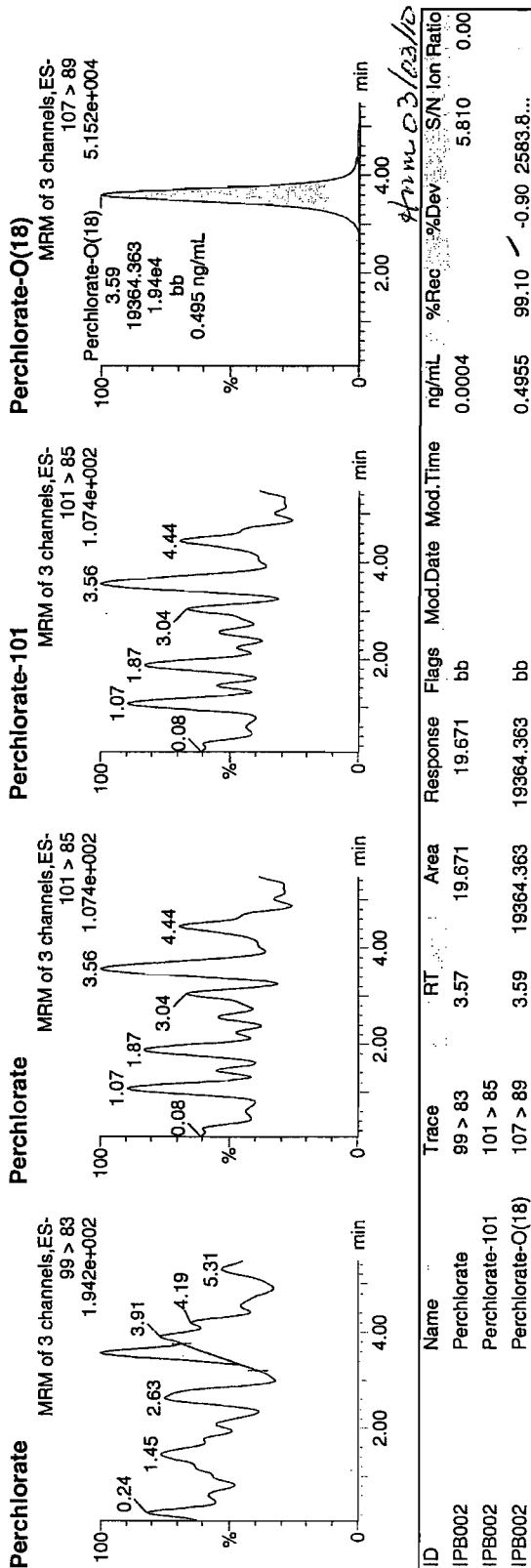
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Perchlorate	0.00	0	NA	01-MAR-10	per0301068a	IPB009
Perchlorate-101	0.00	0	NA	01-MAR-10	per0301068a	IPB009
Perchlorate	0.00	0	NA	02-MAR-10	per0301081a	IPB010
Perchlorate-101	0.00	0	NA	02-MAR-10	per0301081a	IPB010
Perchlorate	0.00	0	NA	02-MAR-10	per0301094a	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

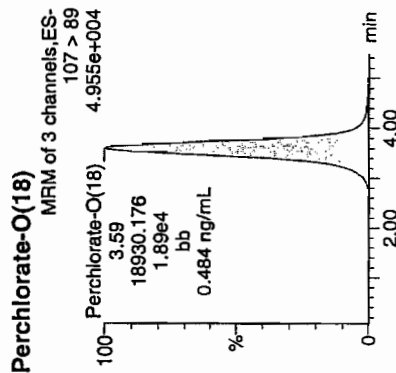
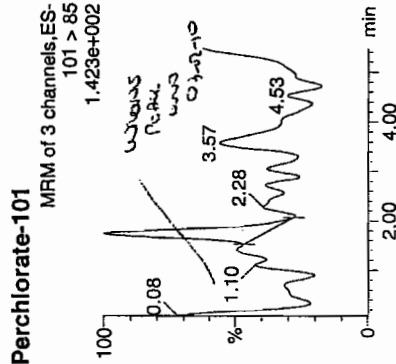
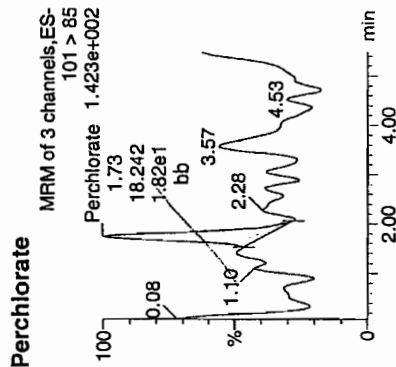
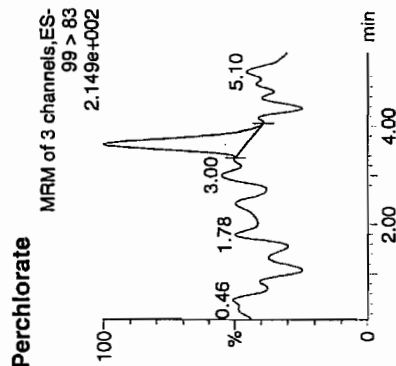


Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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



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

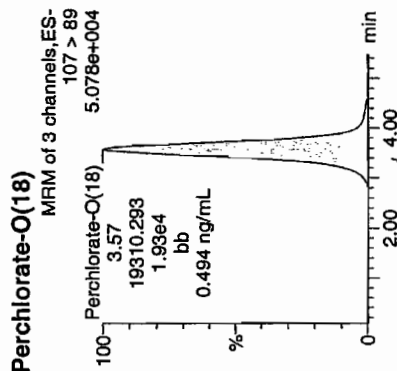
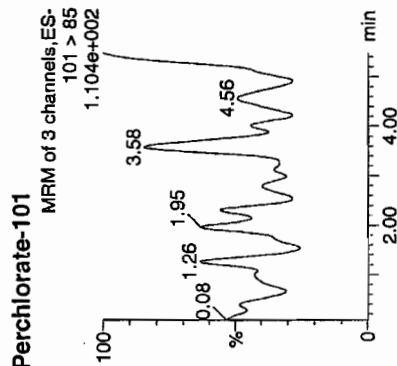
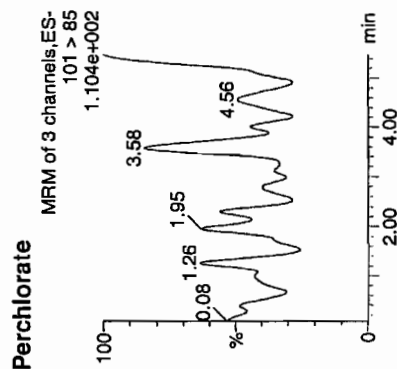
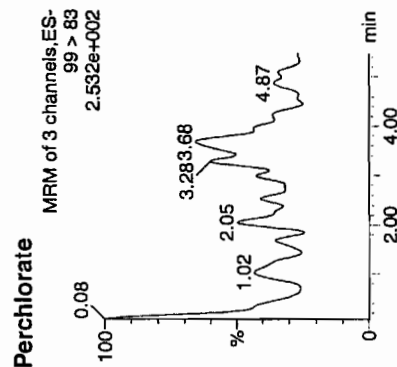
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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson
Dataset: C:\MassLynx\Perchlorate.PRO\per030110a.qld

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

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

0.08
0.08-10



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

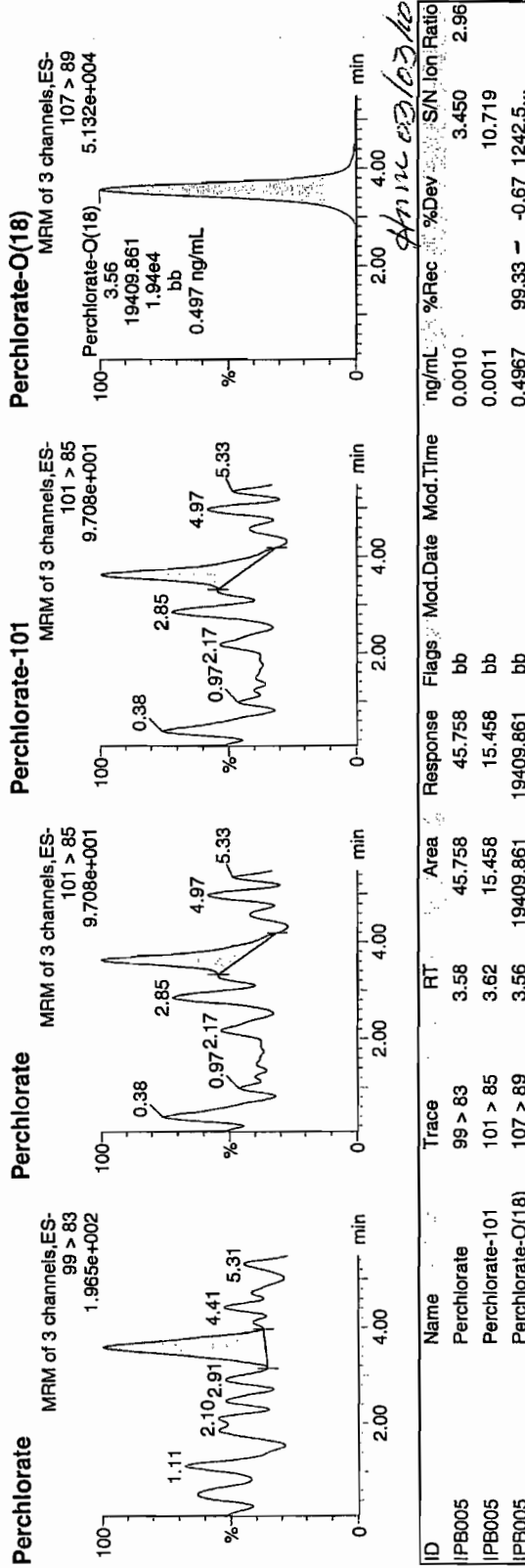
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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

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

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

Ch-01-10



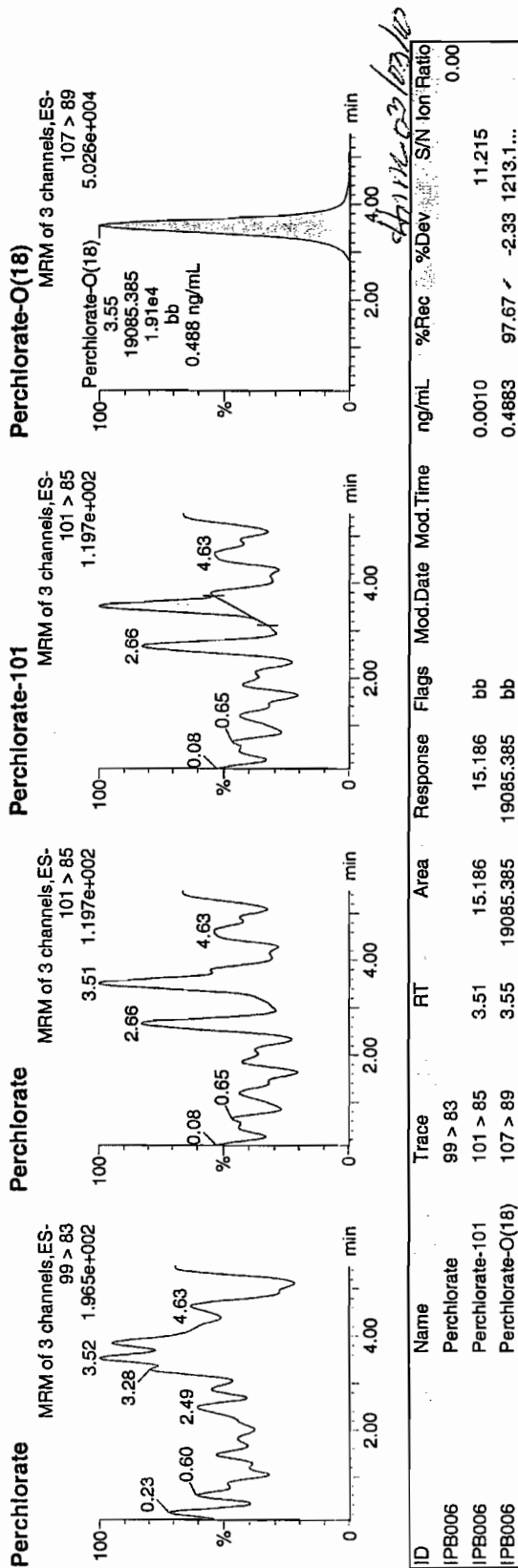
GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: 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
ID: IPB006
Vial: 1:1,A

03-01-10



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

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

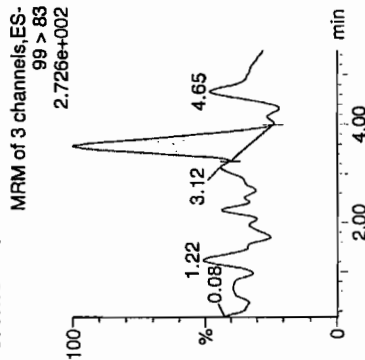
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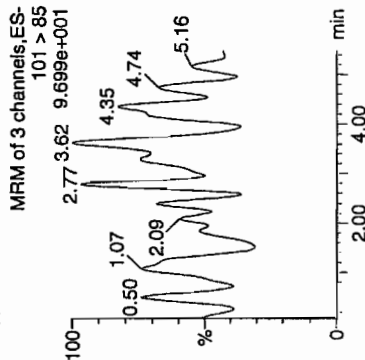
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 Date: 01-Mar-2010
 Time: 18:38:50
 ID: IPB007
 Vial: 1:1,A

03-02-10

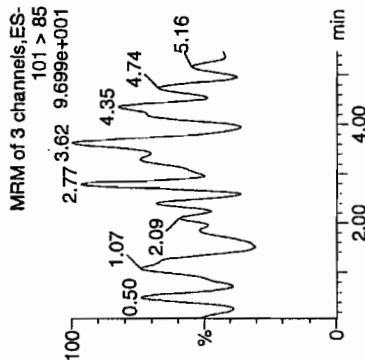
Perchlorate



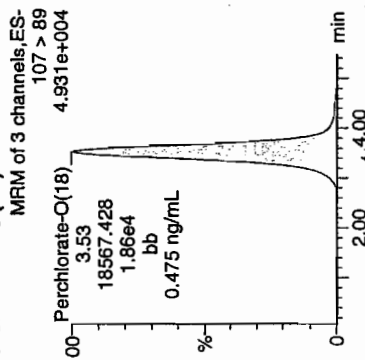
Perchlorate



Perchlorate-101



Perchlorate-O(18)



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

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

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

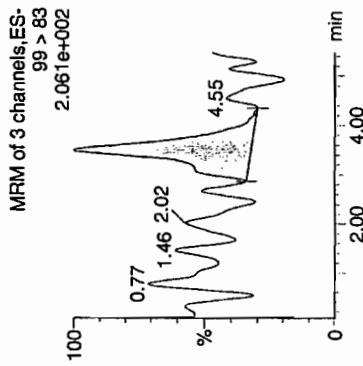
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Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

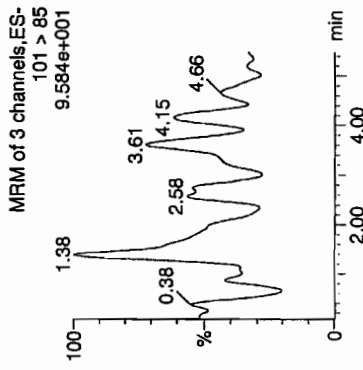
Name: per0301055a
Date: 01-Mar-2010
Time: 20:30:13
ID: IPB008
Vial: 1:1,A

03-07-10

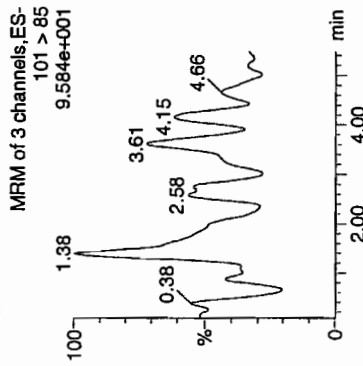
Perchlorate



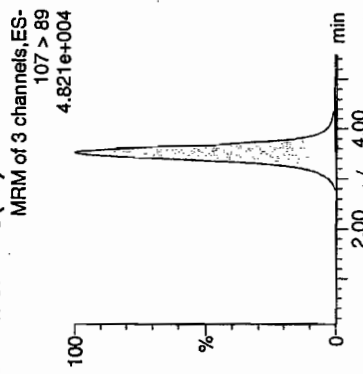
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB008	Perchlorate	99 > 83	3.50	68.146	68.146	bb			0.0016			10.065	0.00
IPB008	Perchlorate-101	101 > 85											
IPB008	Perchlorate-O(18)	107 > 89	3.51	18113.168	18113.168	bb			0.4635	92.69	-7.31	1421.2...	

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

Quantify Sample Report MassLynx 4.0 SP4

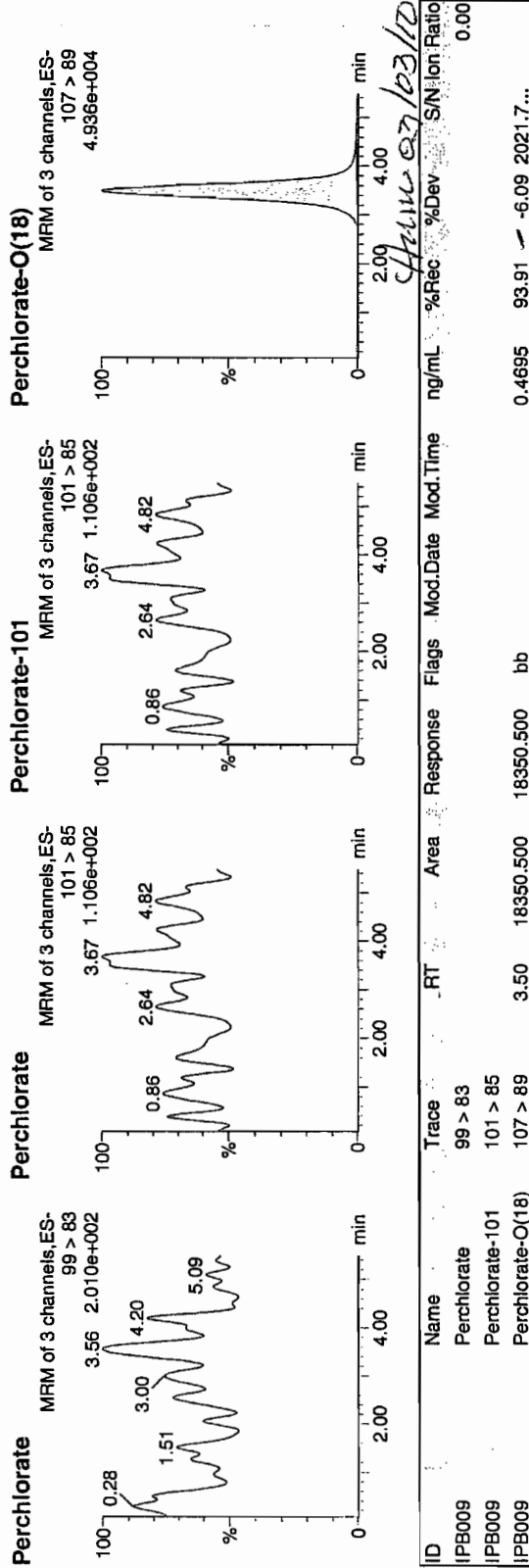
The GEL Group, LLC Analyst: Charlers W. Wilson

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

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

Name: per0301068a
Date: 01-Mar-2010
Time: 22:21:37
ID: IPB009
Vial: 1:1,A

03-02-10



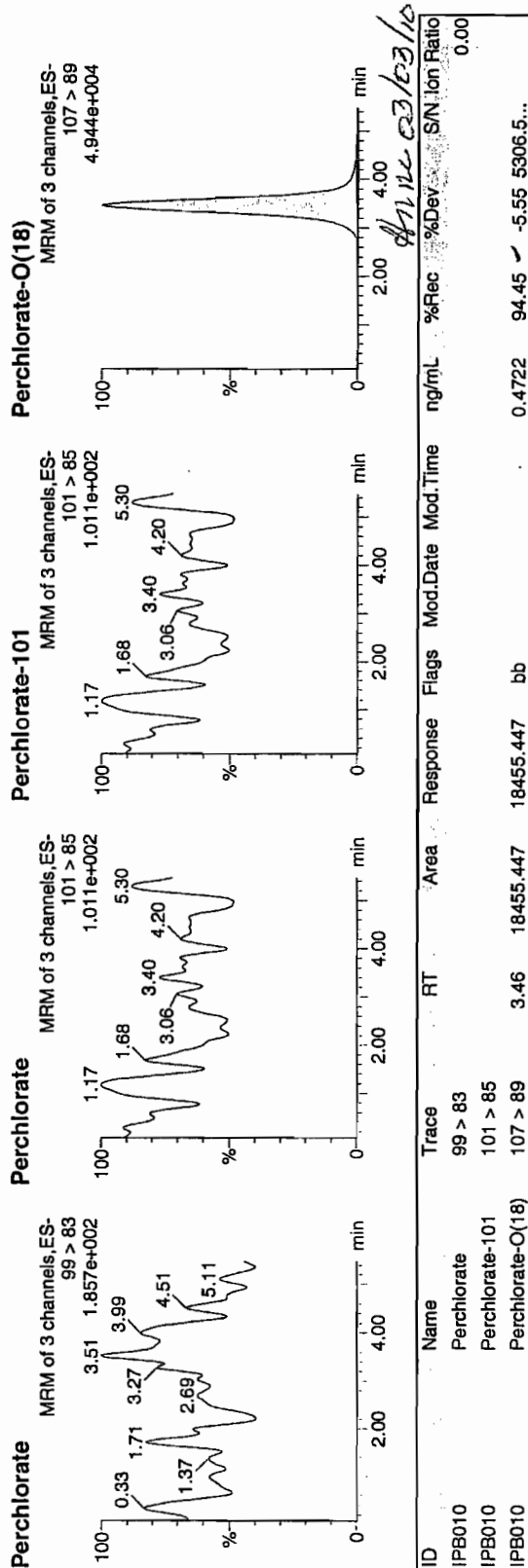
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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: per0301081a
Date: 02-Mar-2010
Time: 00:13:07
ID: IPB010
Vial: 1:1,A

03-02-10



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

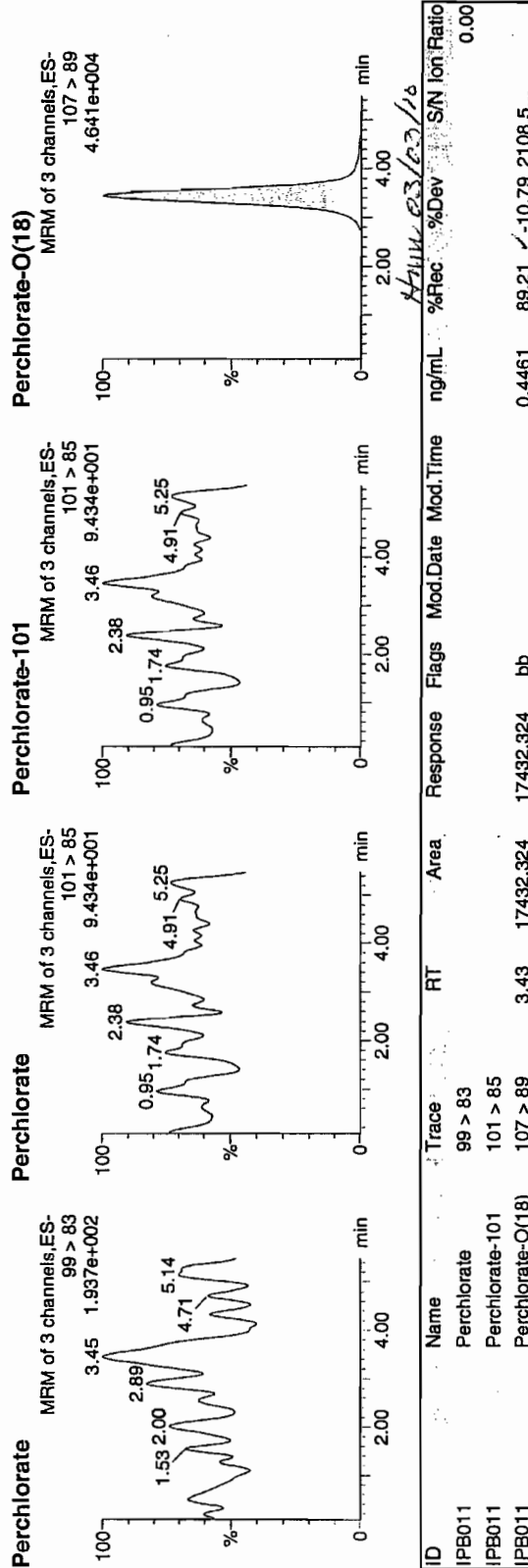
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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: per0301094a
Date: 02-Mar-2010
Time: 02:04:50
ID: IPB011
Vial: 1:1,A

03-02-10



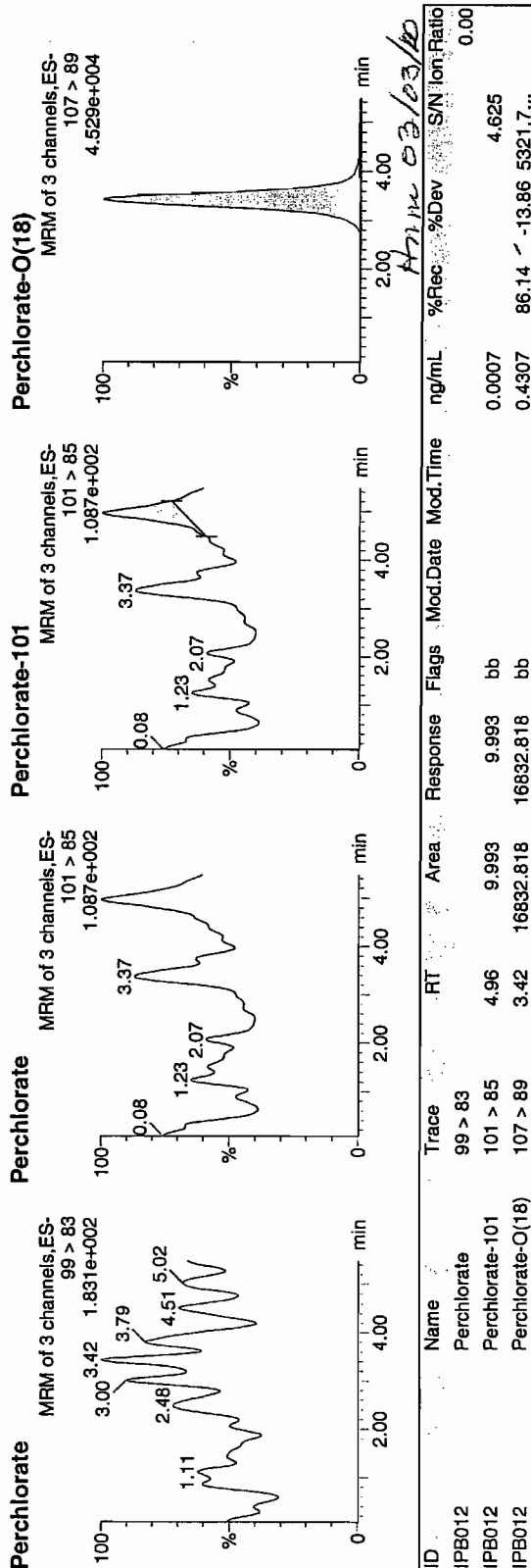
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charliers W. Wilson

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

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

Name: per0301098a
Date: 02-Mar-2010
Time: 02:39:12
ID: IPB012
Vial: 1:1,A

03-02-10



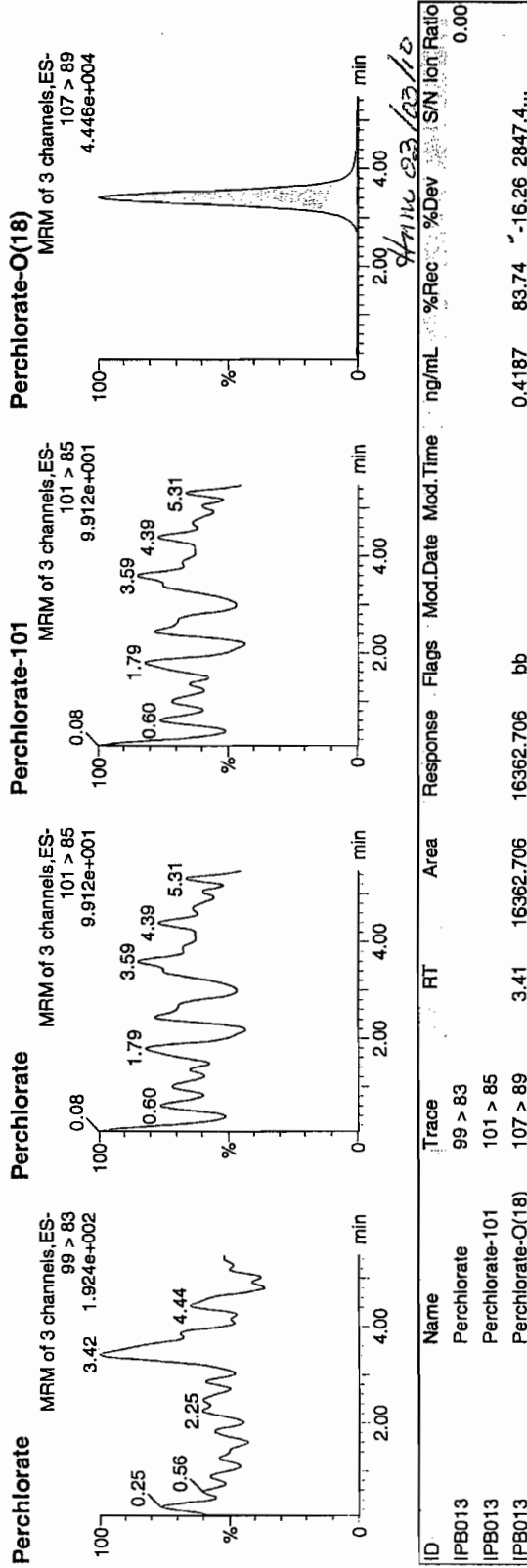
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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

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

02-03-10



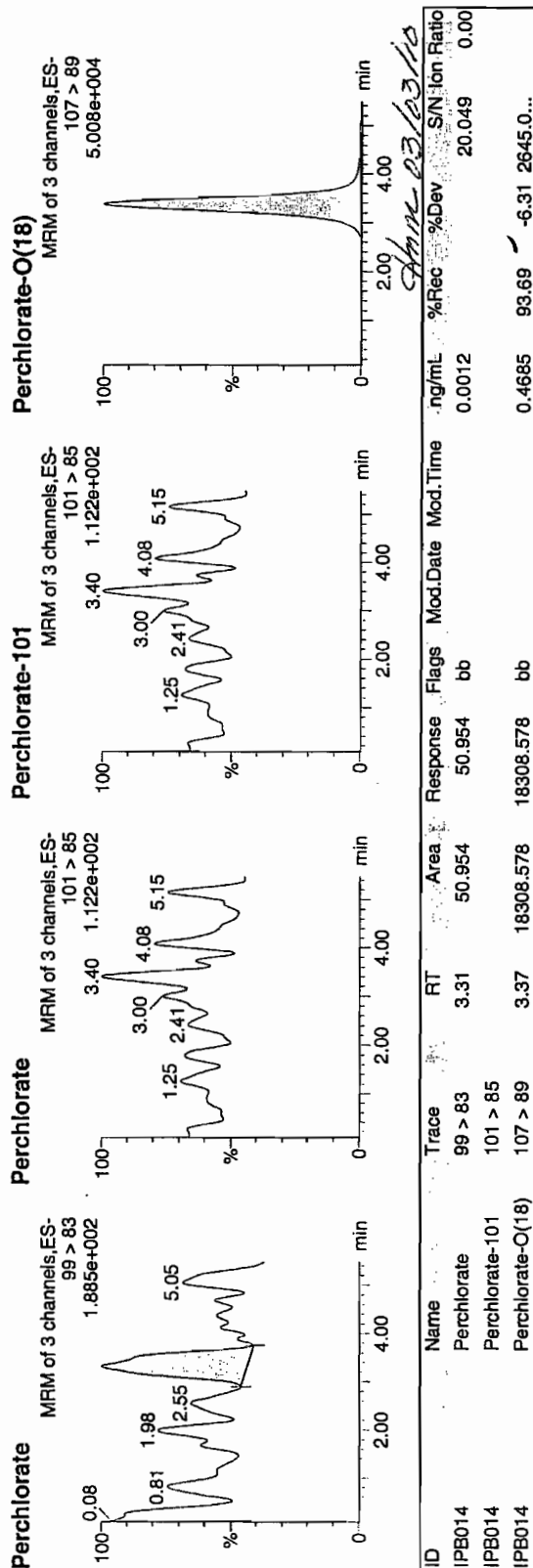
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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: per0301120a
Date: 02-Mar-2010
Time: 05:47:52
ID: IPB014
Vial: 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

QUATRO ULTIMA: nairb_01_08_08.cal

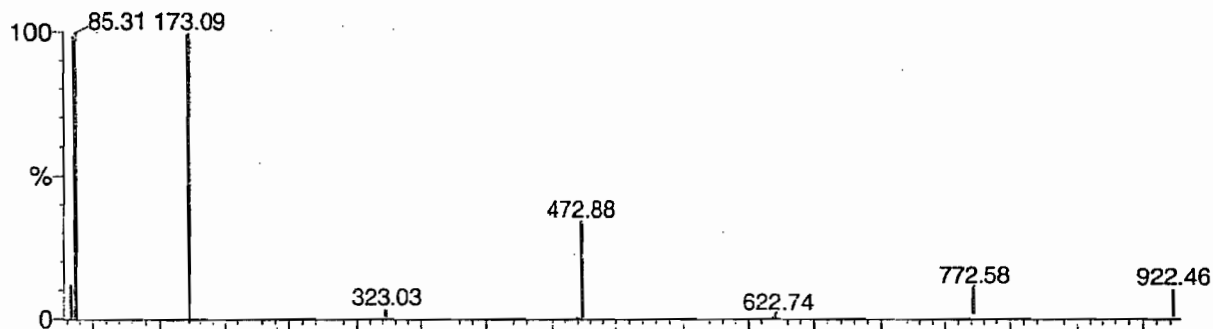
Calibration Report - MS1 Static

Page 1 of 1

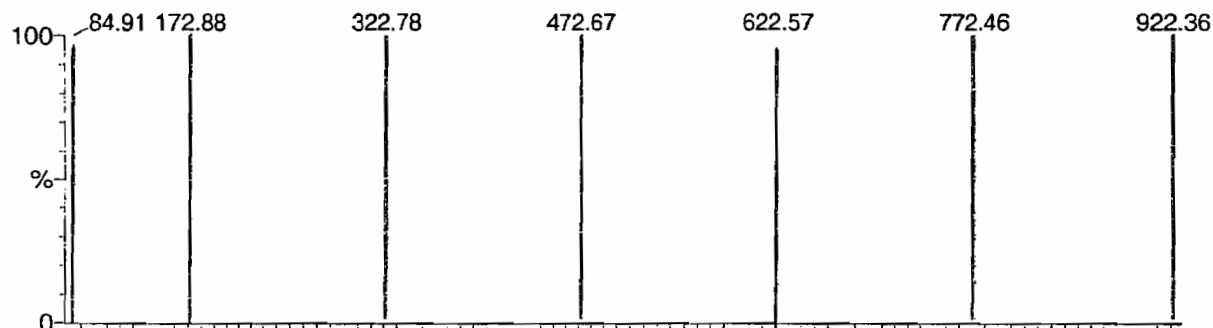
Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY GEL - 01-08-08

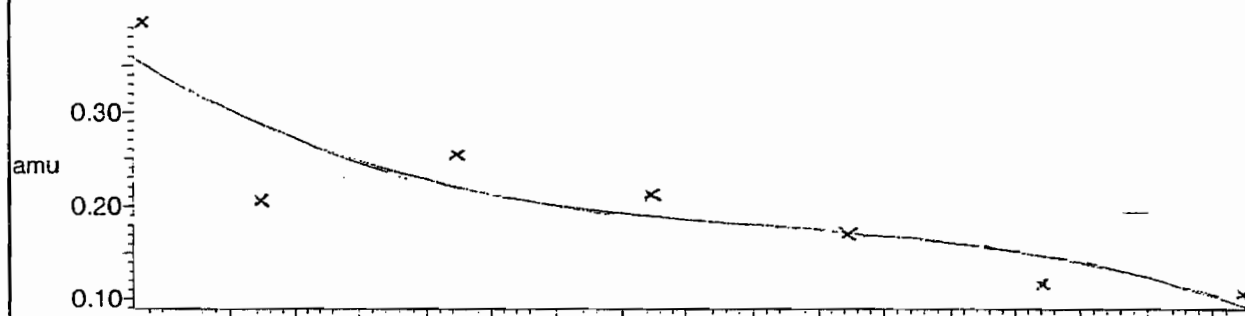
Data file: STATMS1 - Uncalibrated 7 matches of 7 tested references



Reference file: Nairb

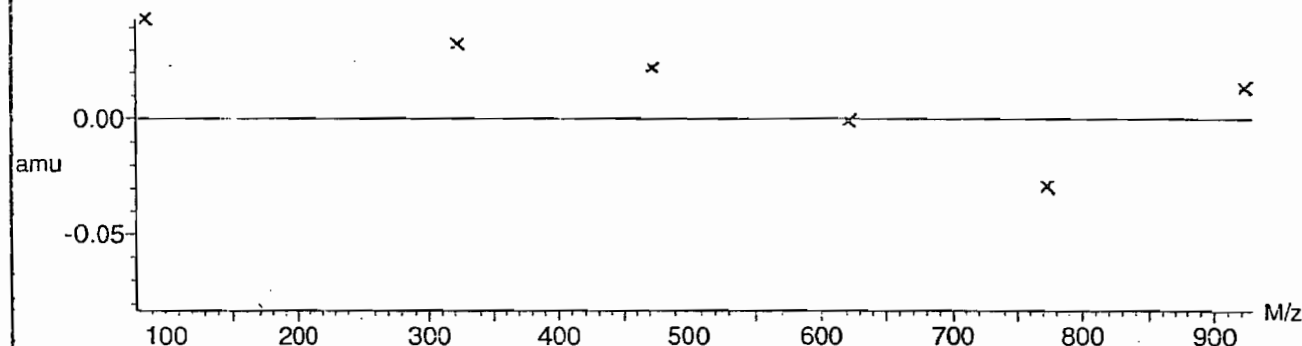


Mass difference (Raw - Ref mass)



Residuals

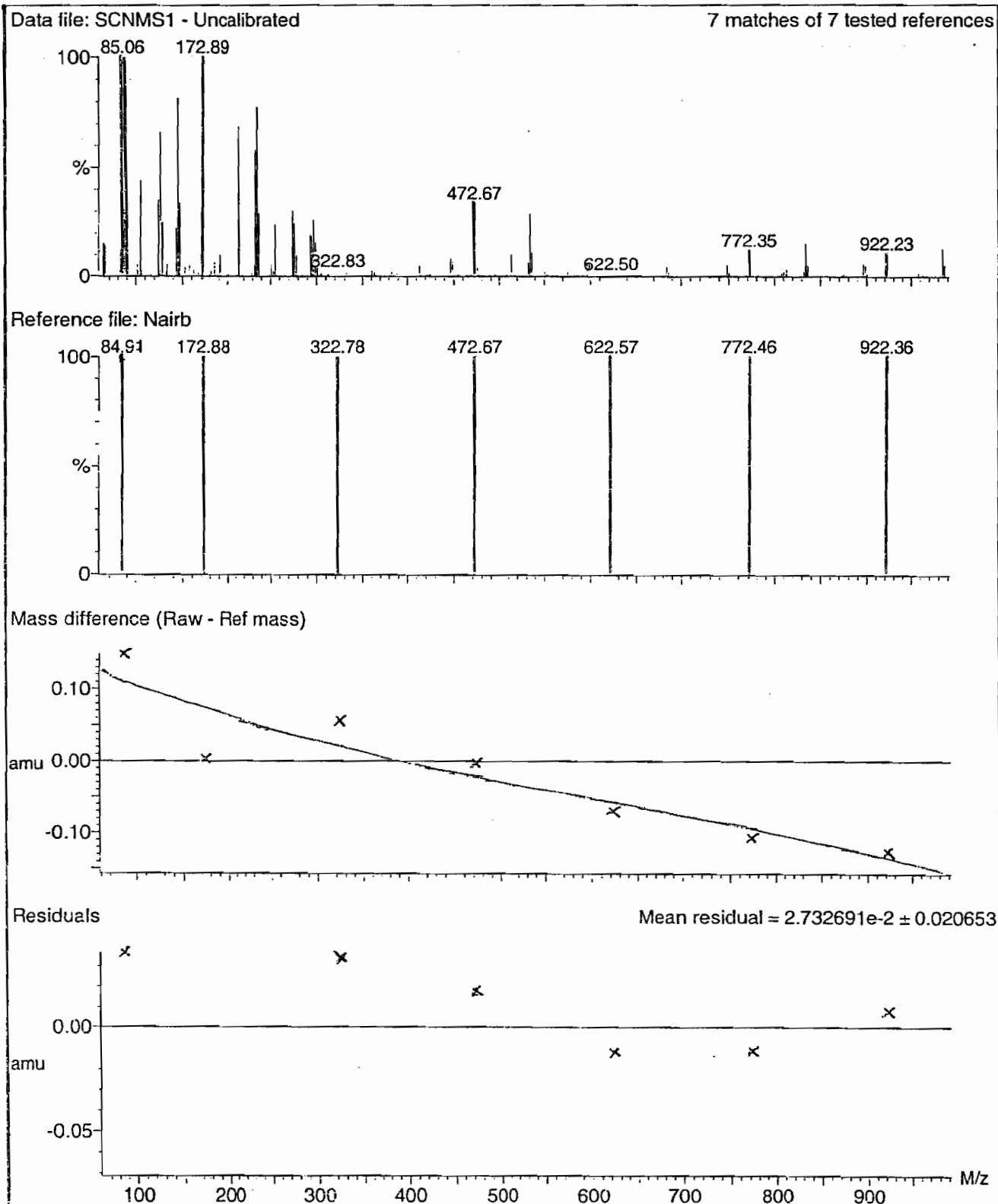
Mean residual = $3.212012 \times 10^{-2} \pm 0.024108$



Calibration Report - MS1 Scanning

Page 1 of 1

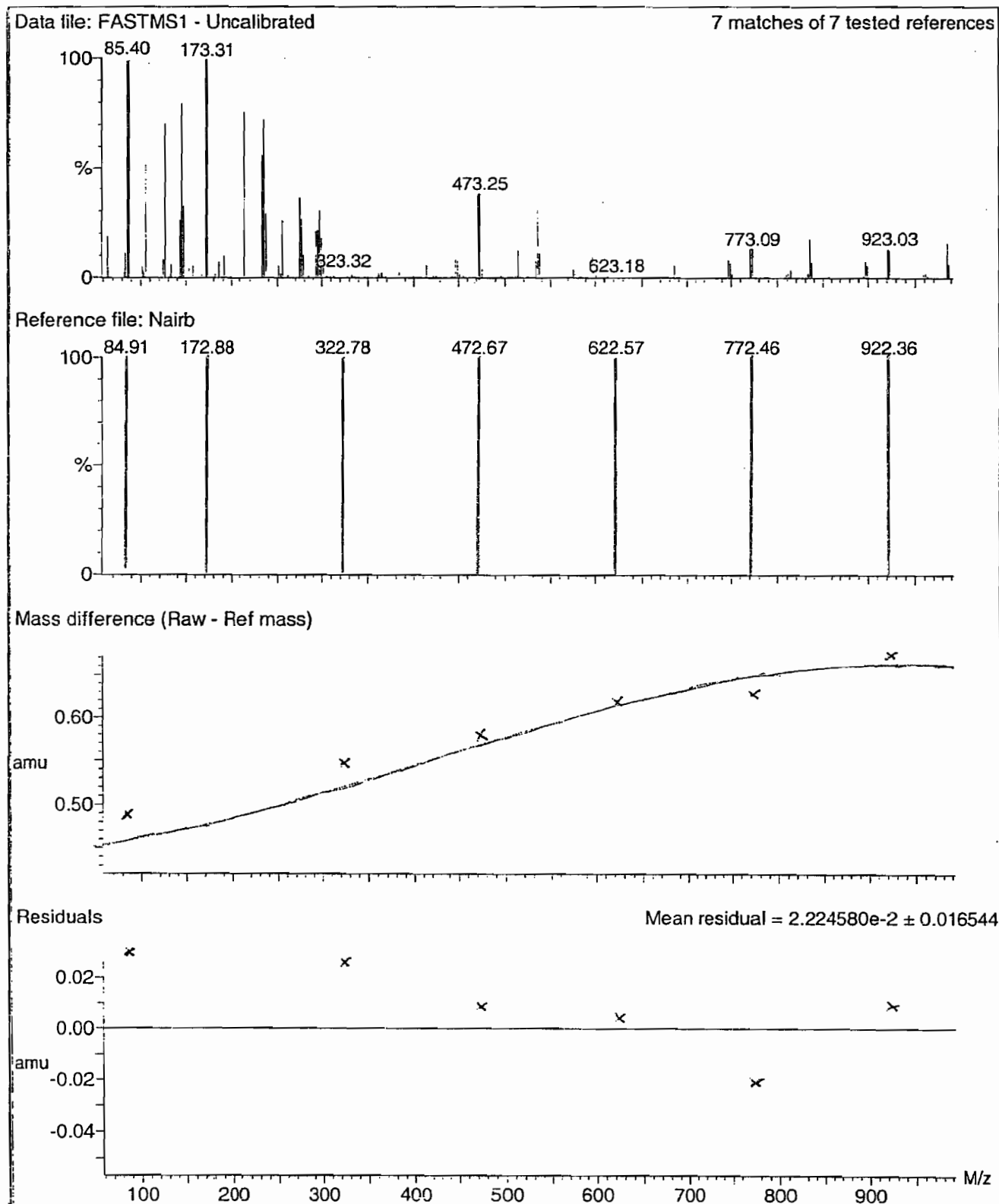
Printed: Tue Jan 08 12:20:09 2008



Calibration Report - MS1 Scan Speed Compensation

Page 1 of 1

Printed: Tue Jan 08 12:21:04 2008



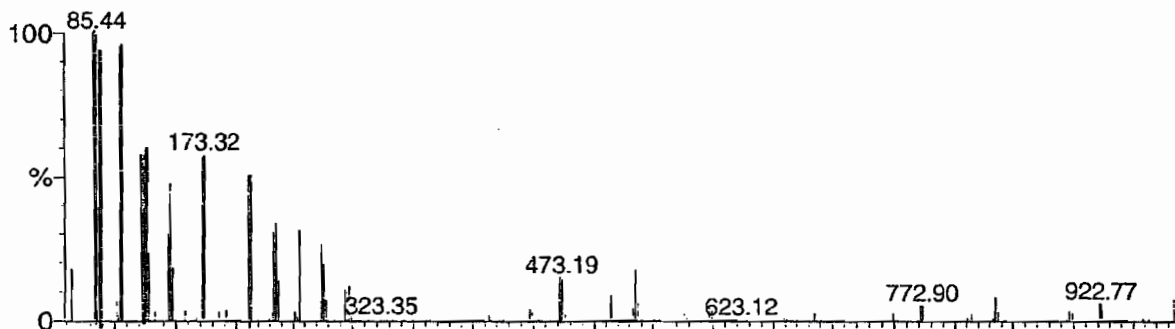
Calibration Report - MS2 Scan Speed Compensation

Page 1 of 1

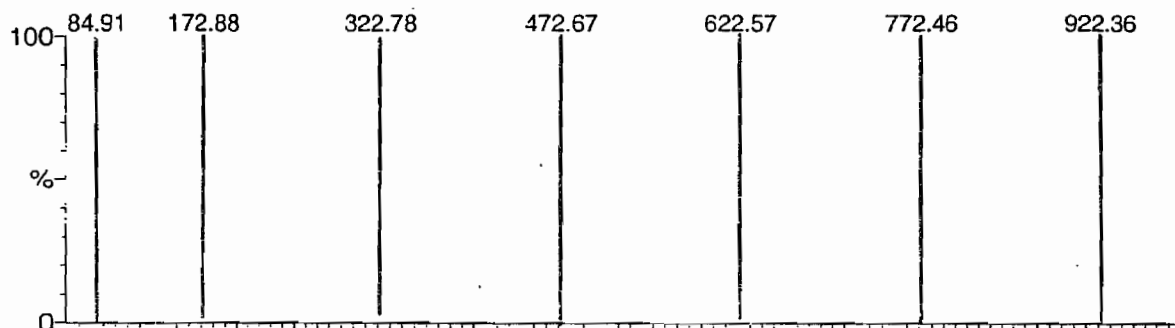
Printed: Tue Jan 08 12:23:51 2008

Data file: FASTMS2 - Uncalibrated

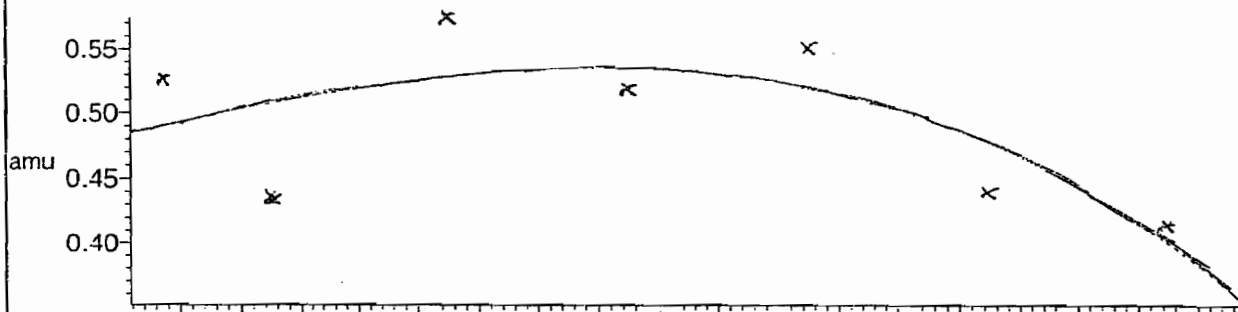
7 matches of 7 tested references



Reference file: Nairb

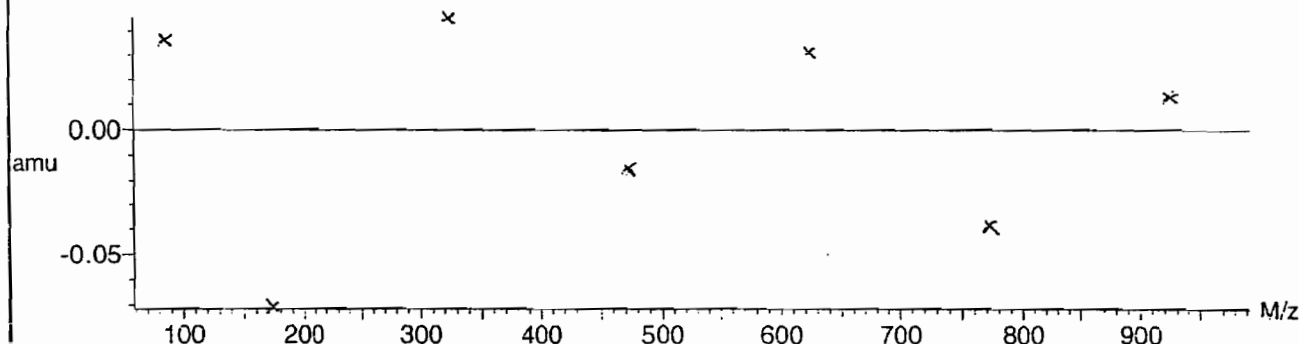


Mass difference (Raw - Ref mass)



Residuals

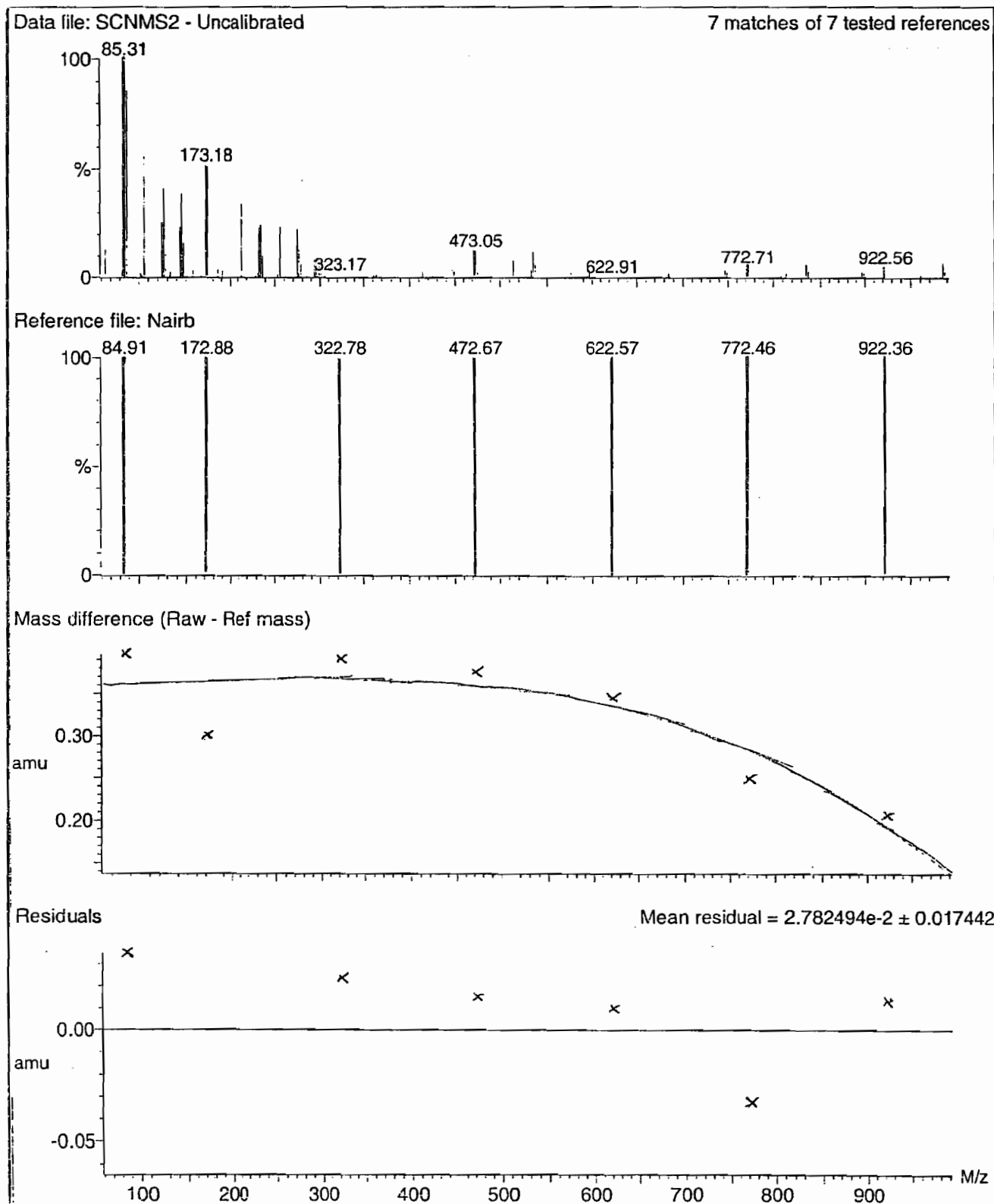
Mean residual = $3.598289 \times 10^{-2} \pm 0.017899$



Calibration Report - MS2 Scanning

Page 1 of 1

Printed: Tue Jan 08 12:22:56 2008

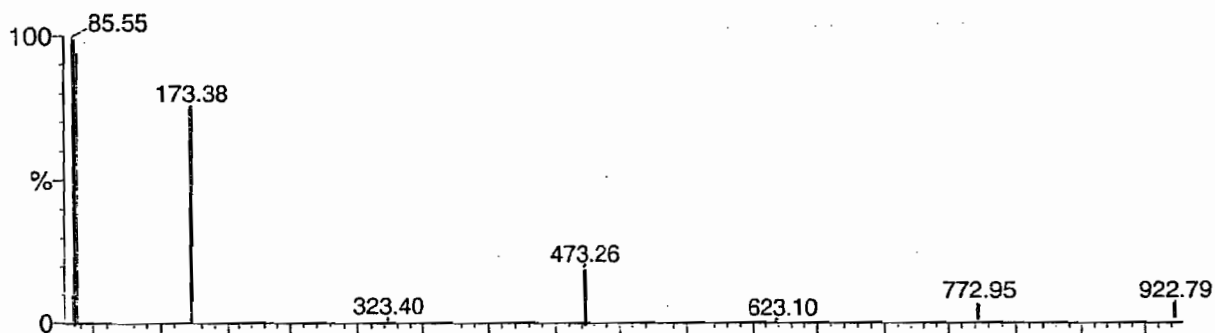


Calibration Report - MS2 Static

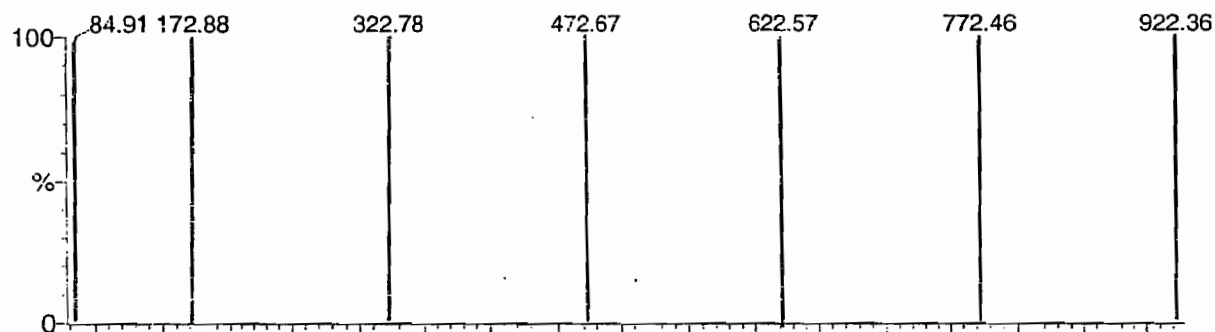
Page 1 of 1

Printed: Tue Jan 08 12:21:59 2008

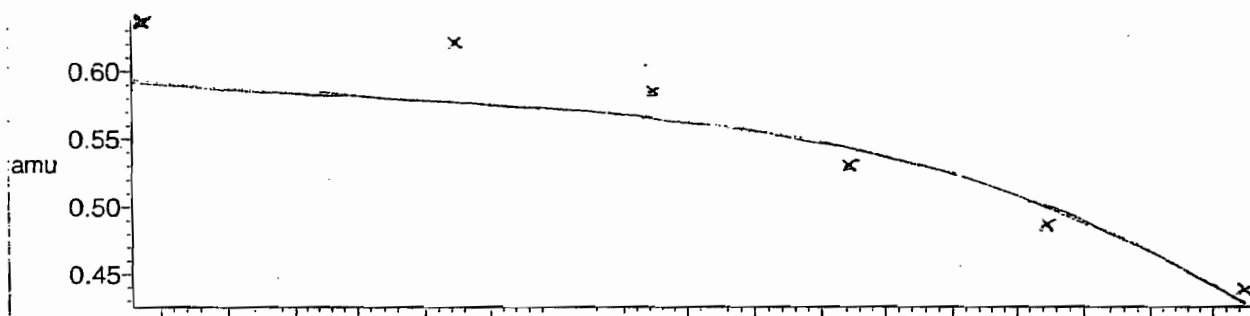
Data file: STATMS2 - Uncalibrated 7 matches of 7 tested references



Reference file: Nairb

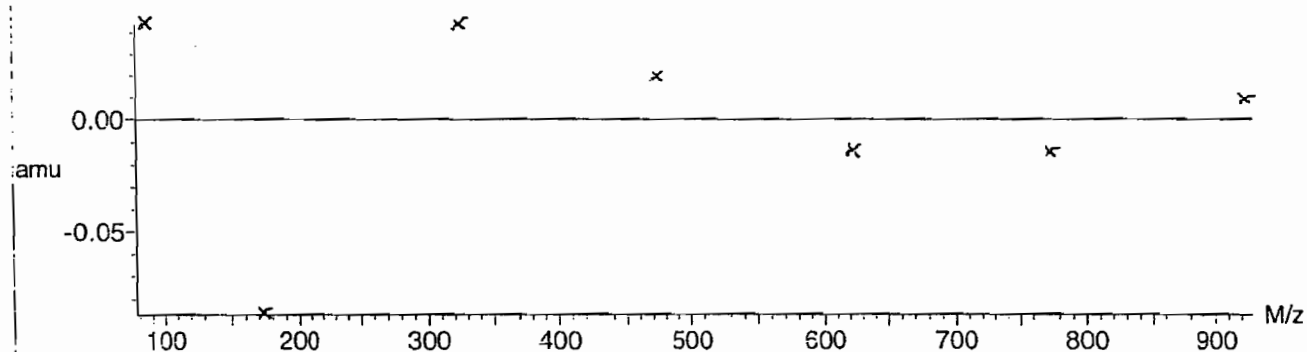


Mass difference (Raw - Ref mass)



Residuals

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



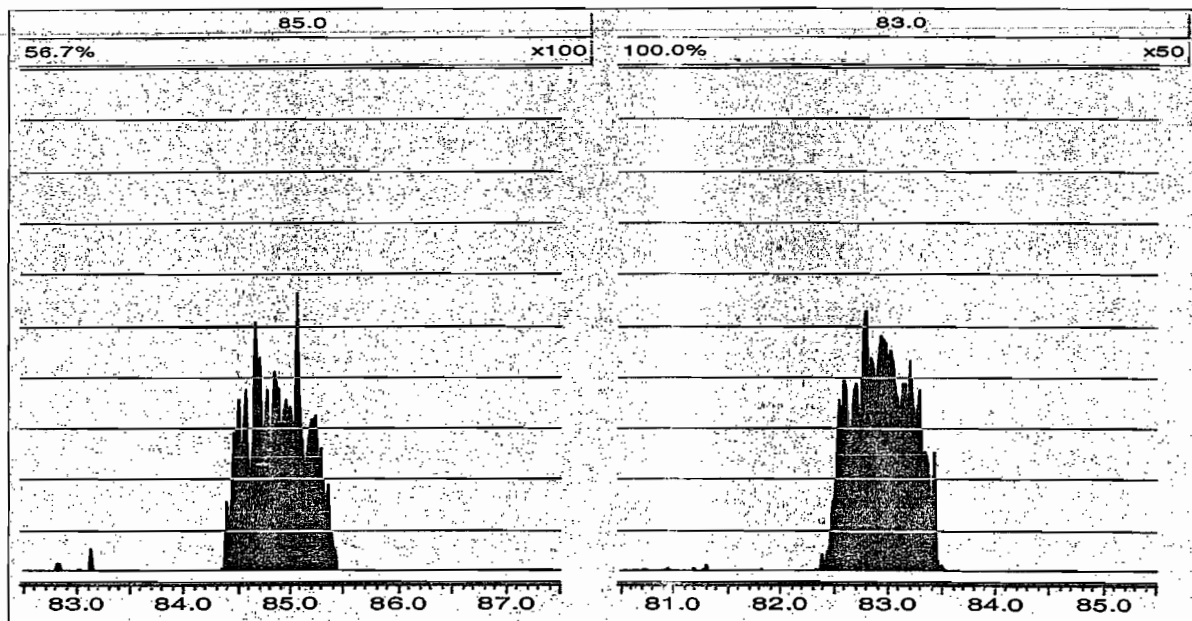
Tune Parameters

MassLynx 4.0 SP4

Page 1 of 1

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

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



Perchlorate RT And Area Summary

GEL Job No.(SDG): 10-1957-1

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	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	
247567001	per0301115a	02-MAR-10 05:05	18884.8	3.38	3.40828	1.008	

SAMPLE DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 957436

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.

RE15-10-8271

Date Received: 20-FEB-10

GEL Job No (SDG): 10-1957-1

GEL Sample ID: 247567001

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 05:05	per0301115a
	Perchlorate Isotope Ratio						1	02-MAR-10 05:05	per0301115a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	02-MAR-10 05:05	per0301115a
	Perchlorate-O(18)			0.483	ug/L		1	02-MAR-10 05:05	per0301115a

[^] 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

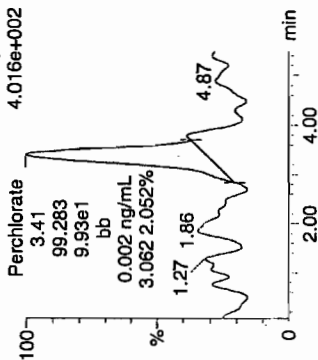
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Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

Name: per0301115a
Date: 02-Mar-2010
Time: 05:05:00
ID: 247567001
Vial: 3:3,B

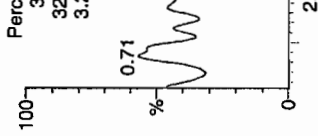
632
03-02-10

LANL | 957434 | 122 | 111

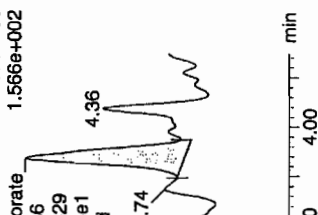
Perchlorate MRM of 3 channels, ES-
99 > 83 4.016e+002



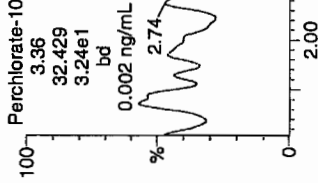
Perchlorate MRM of 3 channels, ES-
101 > 85 1.566e+002



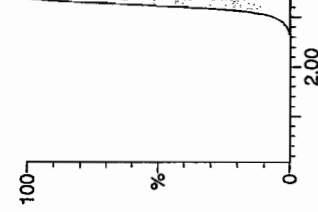
Perchlorate MRM of 3 channels, ES-
101 > 85 1.566e+002



Perchlorate-101 MRM of 3 channels, ES-
101 > 85 1.566e+002



Perchlorate-O(18) MRM of 3 channels, ES-
107 > 89 5.164e+004



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
247567001	Perchlorate	99 > 83	3.41	99.283	99.283	bb			0.0023	✓		27.562	3.06
247567001	Perchlorate-101	101 > 85	3.36	32.429	32.429	bd			0.0022			7.900	
247567001	Perchlorate-O(18)	107 > 89	3.38	18884.838	18884.838	bb			0.4832	96.64	✓	936.160	

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

STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-1957-1

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

Parmname 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): 10-1957-1

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-101

Coefficient of Determination:

Calibration Curve: 14564.22

Response Type: External Standard

Curve Type: RF

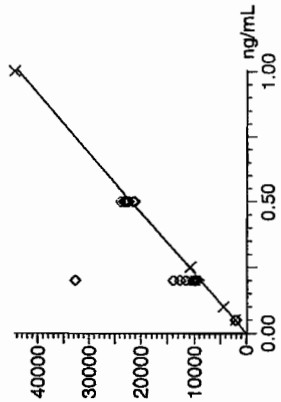
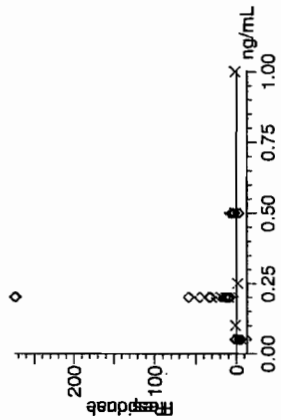
Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charliers W. Wilson

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

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

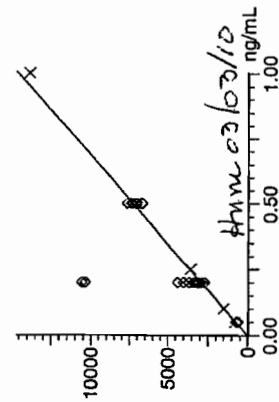
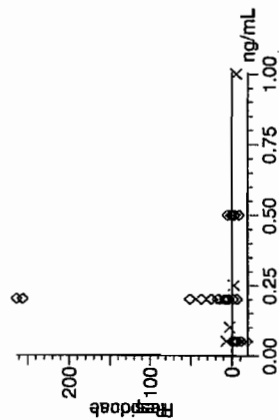
Method: C:\MassLynx\Perchlorate.PRO\MethDB\per030110a.mdb 02 Mar 2010 08:52:20
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per030110a.cdb 02 Mar 2010 08:52:38

Compound name: Perchlorate
Response Factor: 43756.3
RRF SD: 769.757, % Relative SD: 1.75919
Response type: External Std, Area
Curve type: RF ✓



03-07-10

Compound name: Perchlorate-101
Response Factor: 14564.2
RRF SD: 704.149, % Relative SD: 4.83479
Response type: External Std, Area
Curve type: RF ✓



03-07-10

Quantify Calibration Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

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

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

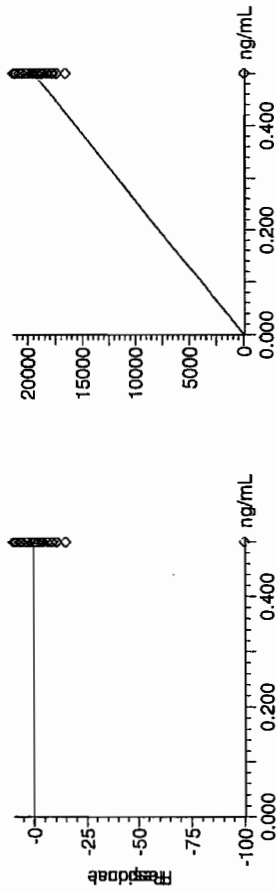
Compound name: Perchlorate-O(18)

Response Factor: 39081.4

RRF SD: 496.592, % Relative SD: 1.27066

Response type: External Std, Area

Curve type: RF



Perchlorate Initial Calibration Verification

GEL Job No.(SDG): 10-1957-1

Lab Name: General Engineering Laboratories

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

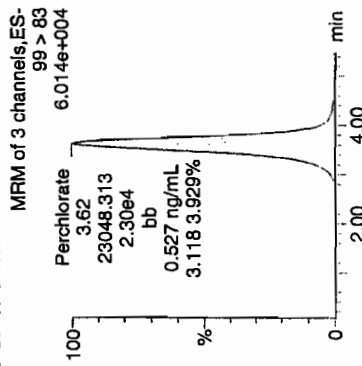
Dataset: C:\MassLynx\Perchlorate.PRO\per030110a.qld

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

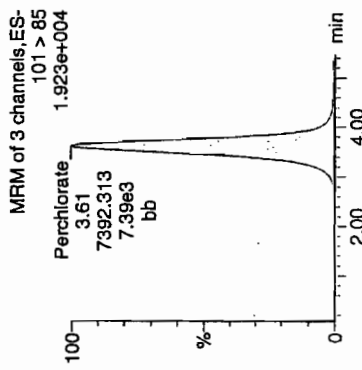
Name: per0301009a
Date: 01-Mar-2010
Time: 13:55:47
ID: WCL100227-06ICV
Vial: 1:2,A

Run and 03-02-10

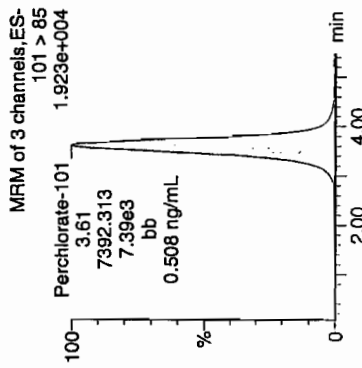
Perchlorate



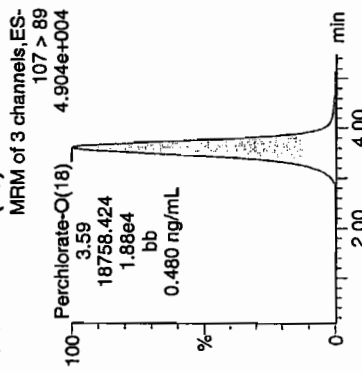
Perchlorate



Perchlorate-101



Perchlorate-O(18)



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

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

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1957-1

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

GEL Job No.(SDG): 10-1957-1

Lab Name: General Engineering Laboratories

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

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1957-1

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

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

Name: per0301019a

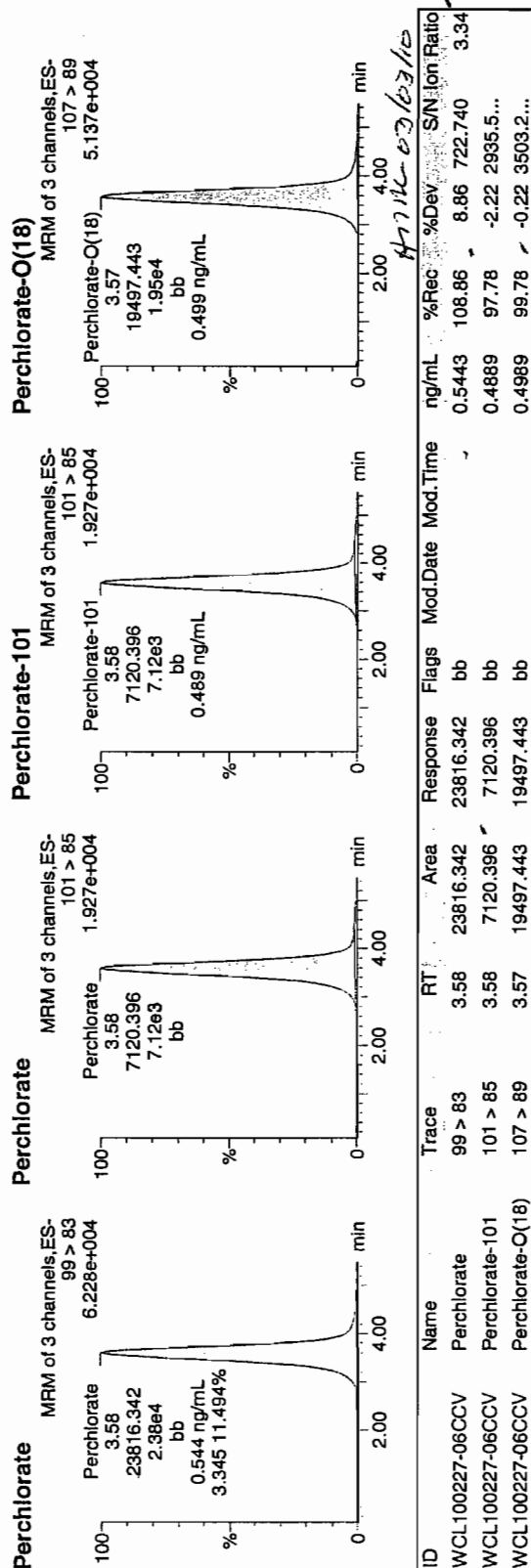
Date: 01-Mar-2010

Time: 15:21:16

ID: WCL100227-06CCV

Vial: 1:2,A

*Per
WCL100227-10*



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: per0301029a

Date: 01-Mar-2010

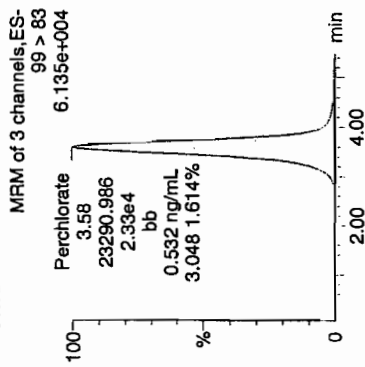
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ID: WCL100227-06CCV

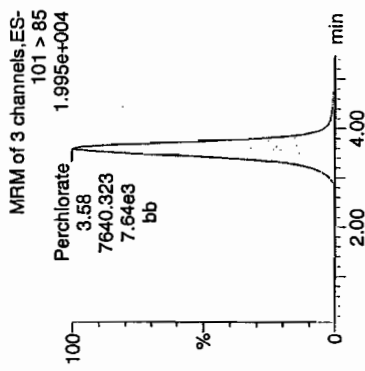
Vial: 1:2,A

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03-01-10

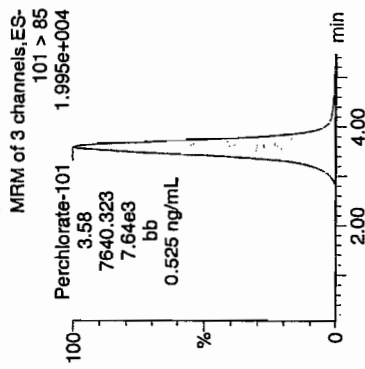
Perchlorate



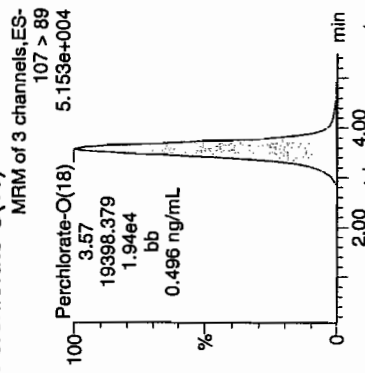
Perchlorate



Perchlorate-101



Perchlorate-O(18)



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

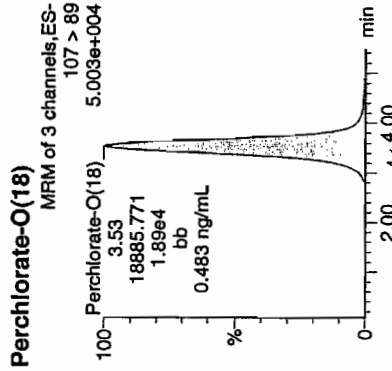
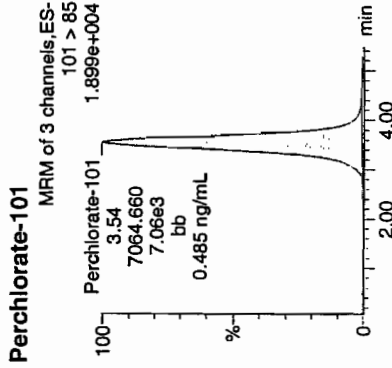
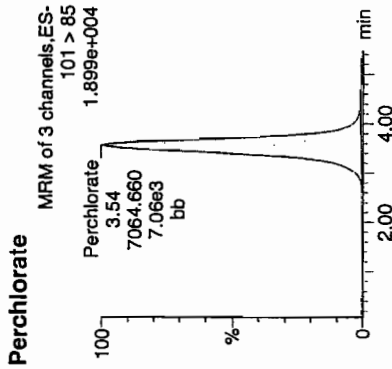
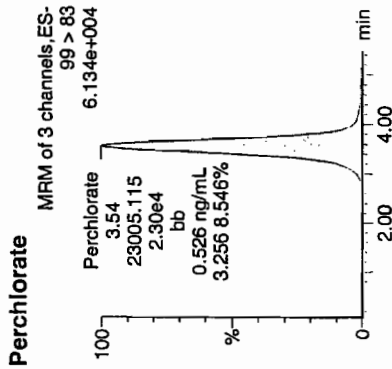
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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

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

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

Pure
WCL
03-02-10



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

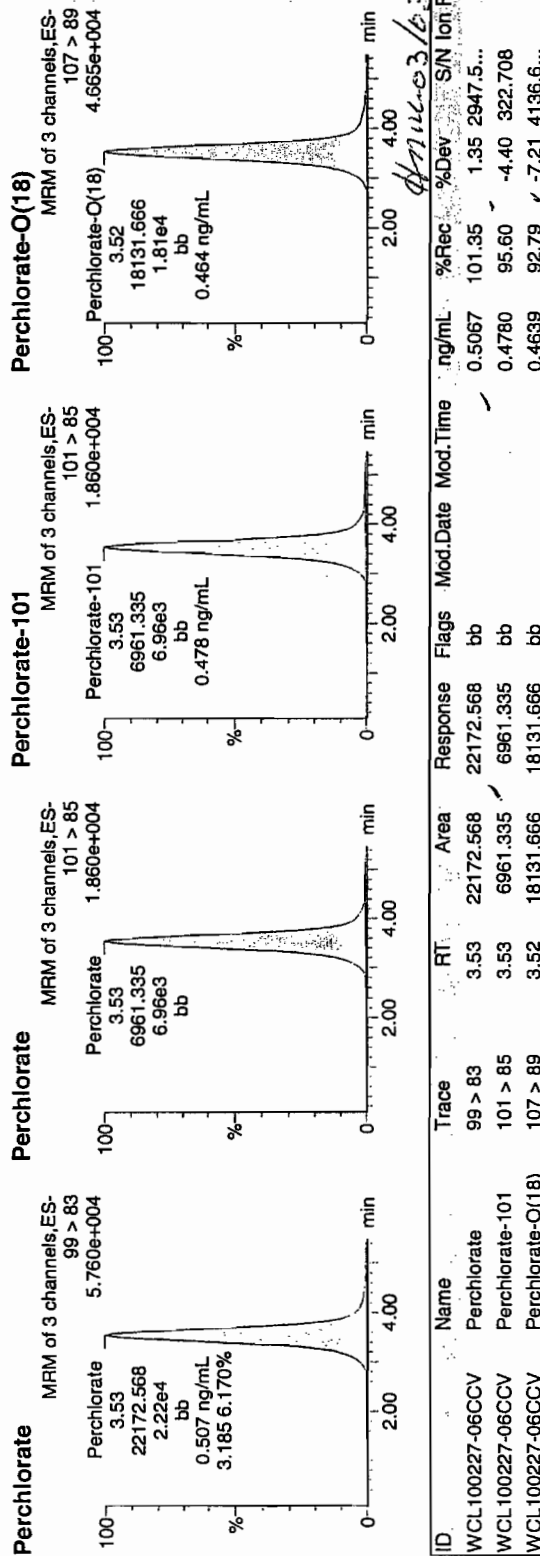
4/11/10 13/03/10

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

Per
and
O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-06CCV	Perchlorate	99 > 83	3.53	22172.568	22172.568	bb			0.5067	101.35	1.35	2947.5...	3.19
WCL100227-06CCV	Perchlorate-101	101 > 85	3.53	6961.335	6961.335	bb			0.4780	95.60	-4.40	322.708	
WCL100227-06CCV	Perchlorate-O(18)	107 > 89	3.52	18131.666	18131.666	bb			0.4639	92.79	-7.21	4136.6...	

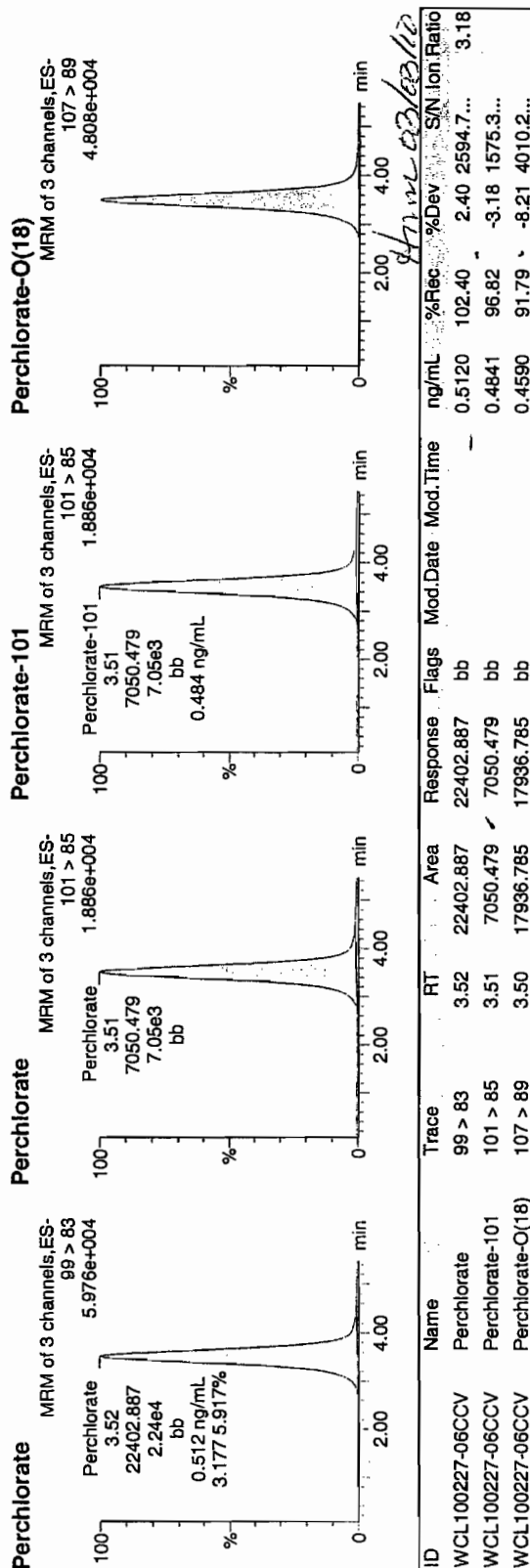
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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

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

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

Per
03-02-10



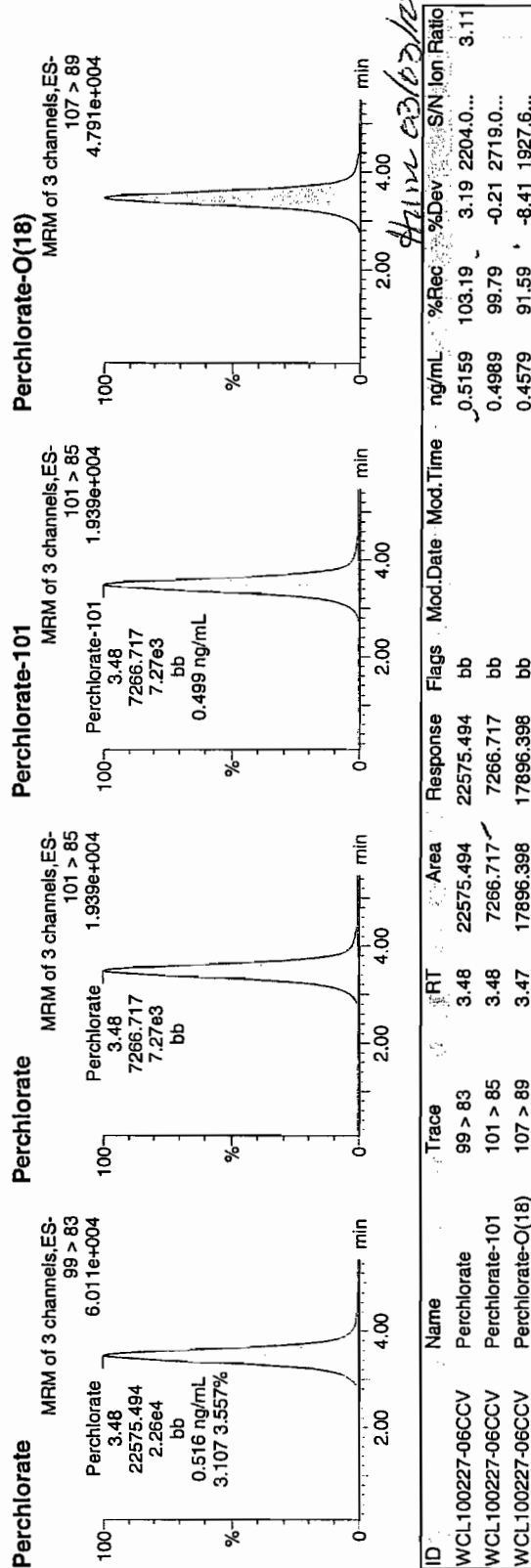
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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: per0301080a
Date: 02-Mar-2010
Time: 00:04:20
ID: WCL100227-06CCV
Vial: 1:2,A

*Perchlorate
02-02-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-06CCV	Perchlorate	99 > 83	3.48	22575.494	22575.494	bb			0.5159	103.19	3.19	2204.0...	3.11
WCL100227-06CCV	Perchlorate-101	101 > 85	3.48	7266.717	7266.717	bb			0.4989	99.79	-0.21	2719.0...	
WCL100227-06CCV	Perchlorate-Q(18)	107 > 89	3.47	17896.398	17896.398	bb			0.4579	91.59	-8.41	1927.6...	

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

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

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

Name: per0301093a

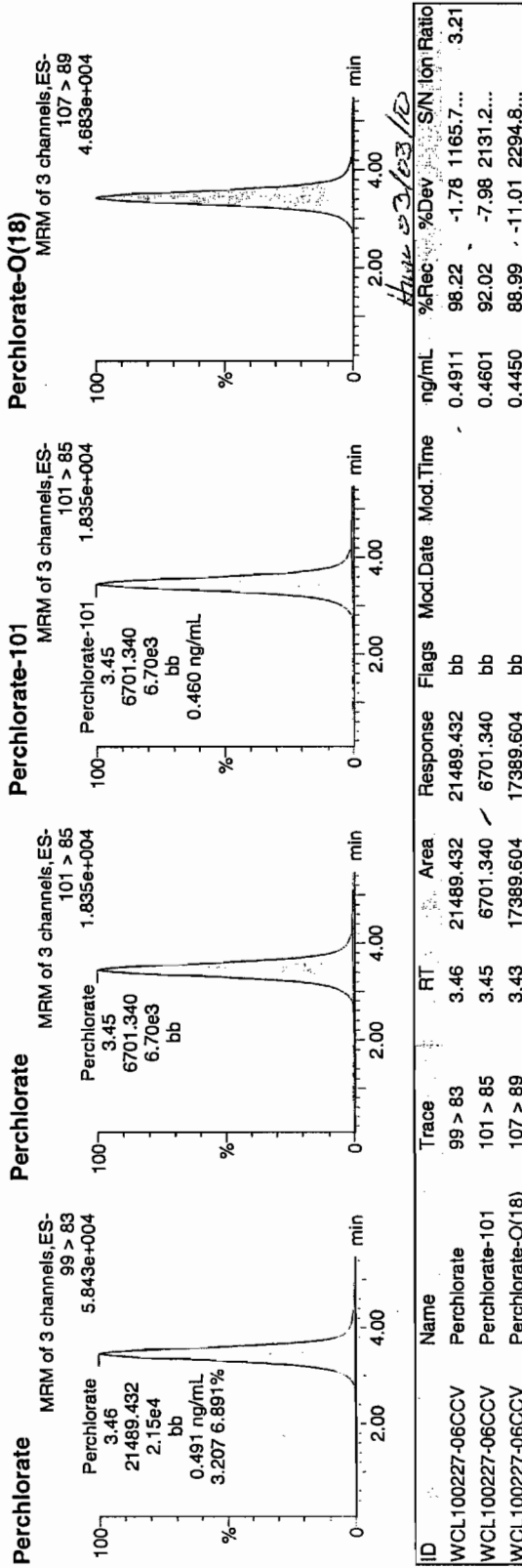
Date: 02-Mar-2010

Time: 01:56:03

ID: WCL100227-06CCV

Vial: 1:2,A

Pure
and
03-02-10



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

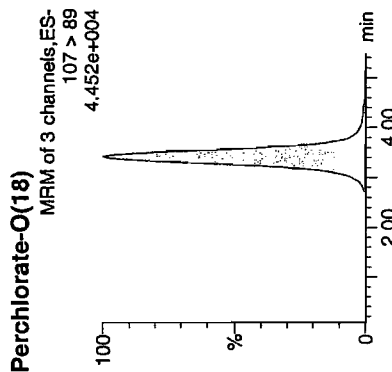
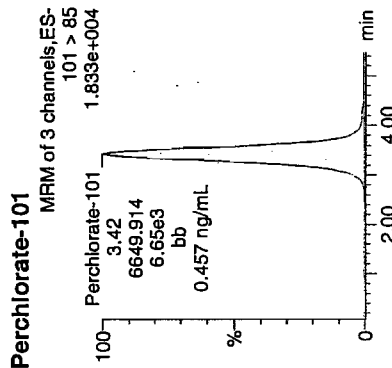
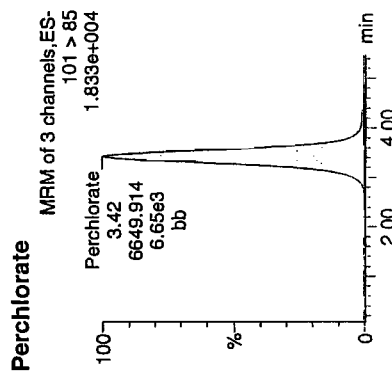
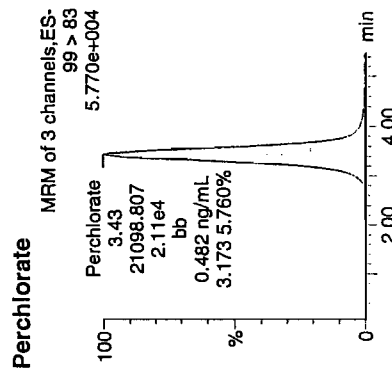
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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: per0301106a
Date: 02-Mar-2010
Time: 03:47:50
ID: WCL100227-06CCV
Vial: 1:2,A

*Runs
and
03-02-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-06CCV	Perchlorate	99 > 83	3.43	21098.807	21098.807	bb			0.4822	96.44	-3.56	982.579	3.17
WCL100227-06CCV	Perchlorate-101	101 > 85	3.42	6649.914	6649.914	bb			0.4566	91.32	-8.68	370.292	
WCL100227-06CCV	Perchlorate-O(18)	107 > 89	3.41	16618.670	16618.670	bb			0.4252	85.05	-14.95	820.393	

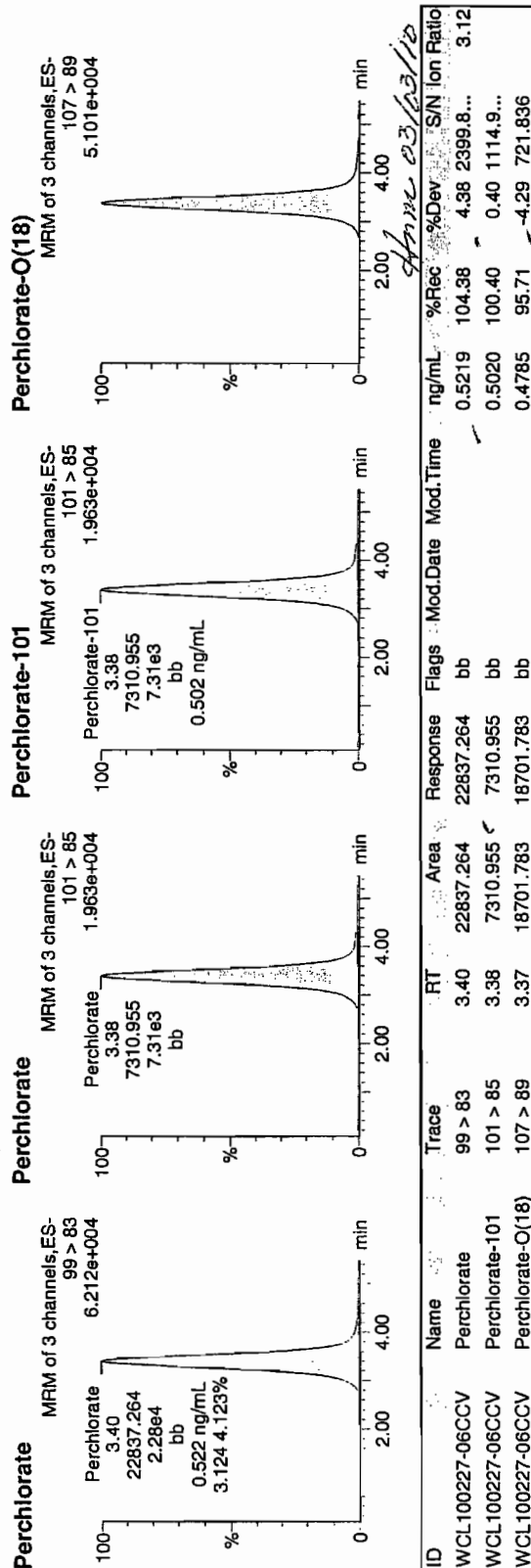
GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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: per0301119a
Date: 02-Mar-2010
Time: 05:39:07
ID: WCL100227-06CCV
Vial: 1:2,A

*Per
03-02-10*



Perchlorate MDL Verification

GEL Job No.(SDG): 10-1957-1

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

GEL Job No.(SDG): 10-1957-1

Lab Name: General Engineering Laboratories

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

GEL Job No.(SDG): 10-1957-1

Lab Name: General Engineering Laboratories

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

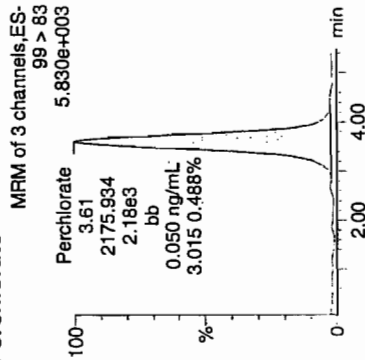
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Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

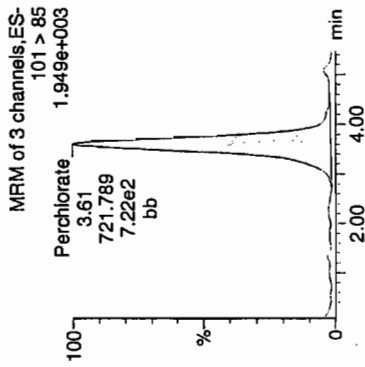
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Date: 01-Mar-2010
Time: 14:12:58
ID: WCL100227-07CRI
Vial: 1:2,B

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03-02-10

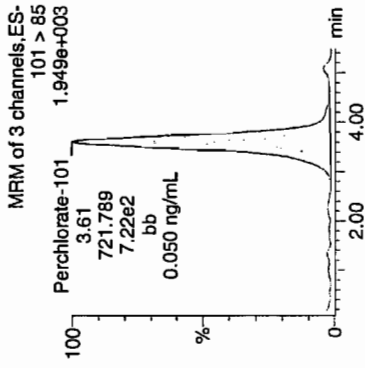
Perchlorate



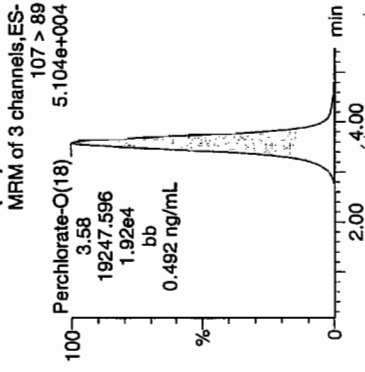
Perchlorate



Perchlorate-101



Perchlorate-O(18)



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

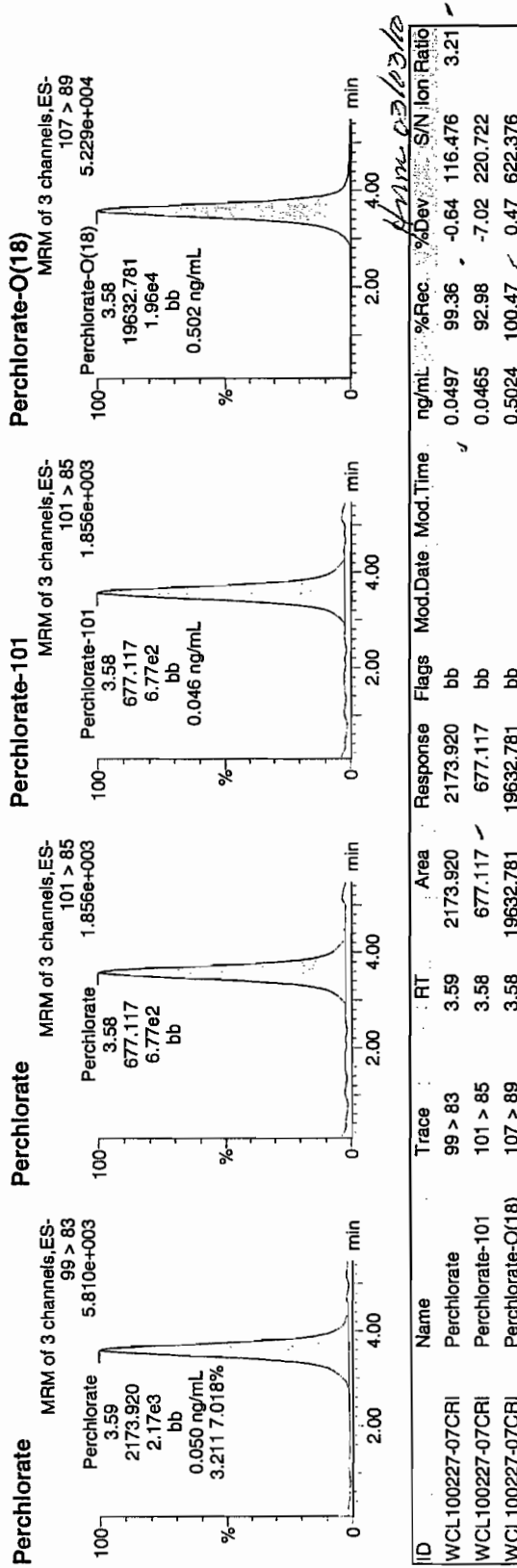
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charliers W. Wilson

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

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

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

*Per
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03-01-10*



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

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\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

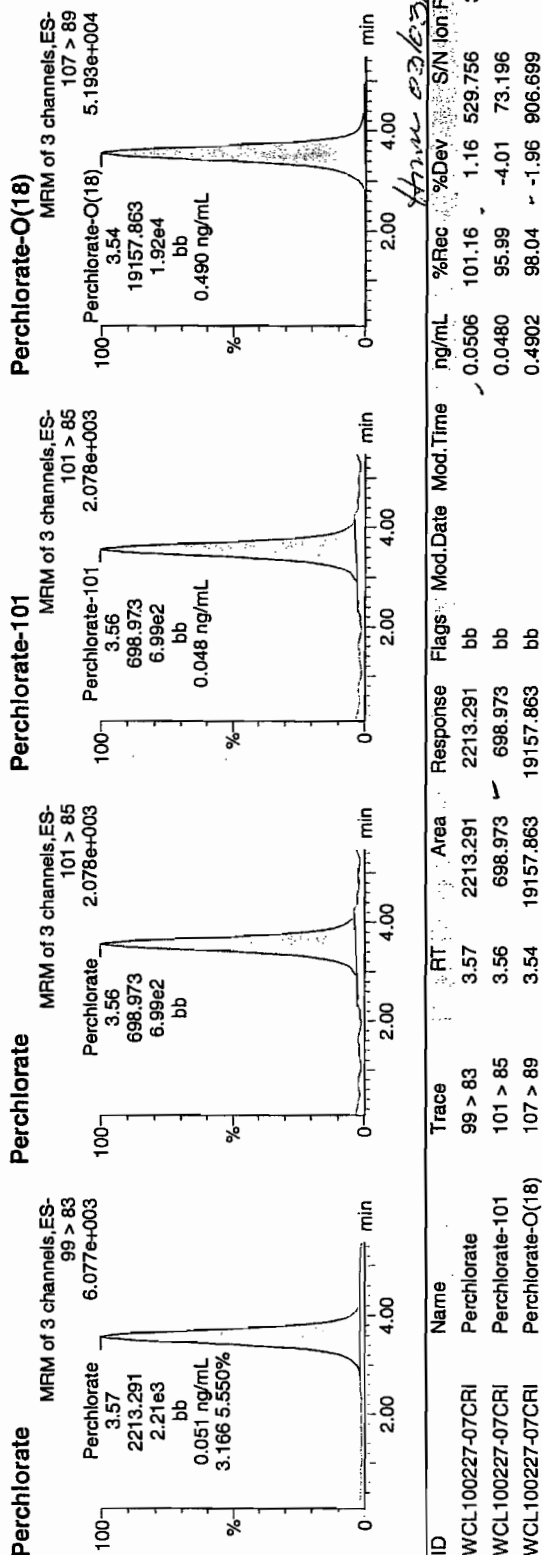
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Date: 01-Mar-2010

Time: 17:04:11

ID: WCL100227-07CRI

Vial: 1:2,B



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-07CRI	Perchlorate	99 > 83	3.57	2213.291	2213.291	bb			0.0506	101.16	1.16	529.756	3.17
WCL100227-07CRI	Perchlorate-101	101 > 85	3.56	698.973	698.973	bb			0.0480	95.99	-4.01	73.196	
WCL100227-07CRI	Perchlorate-Q(18)	107 > 89	3.54	19157.863	19157.863	bb			0.4902	98.04	-1.96	906.699	

GEL 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

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

Name: per0301043a

Date: 01-Mar-2010

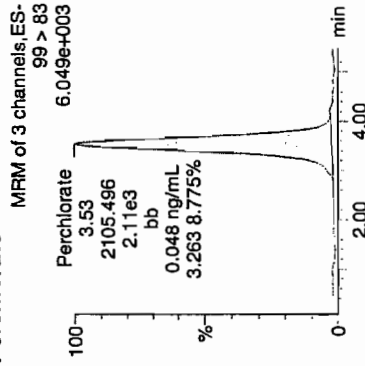
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ID: WCL100227-07CRI

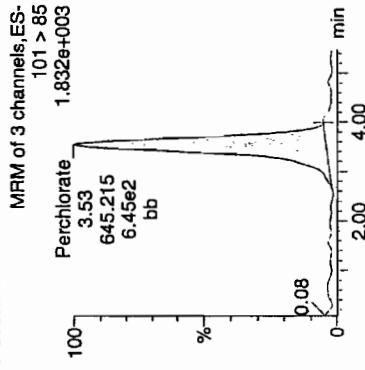
Vial: 1:2,B

*Per
and
03-02-10*

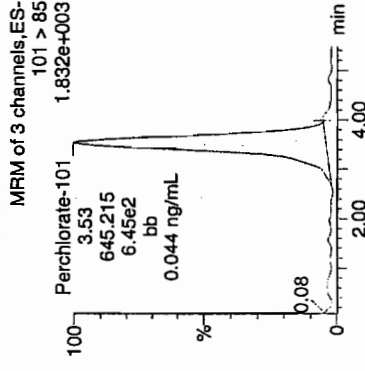
Perchlorate



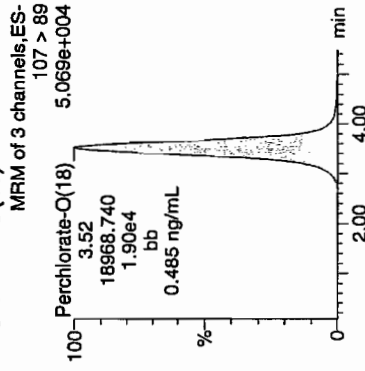
Perchlorate



Perchlorate-101



Perchlorate-O(18)



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

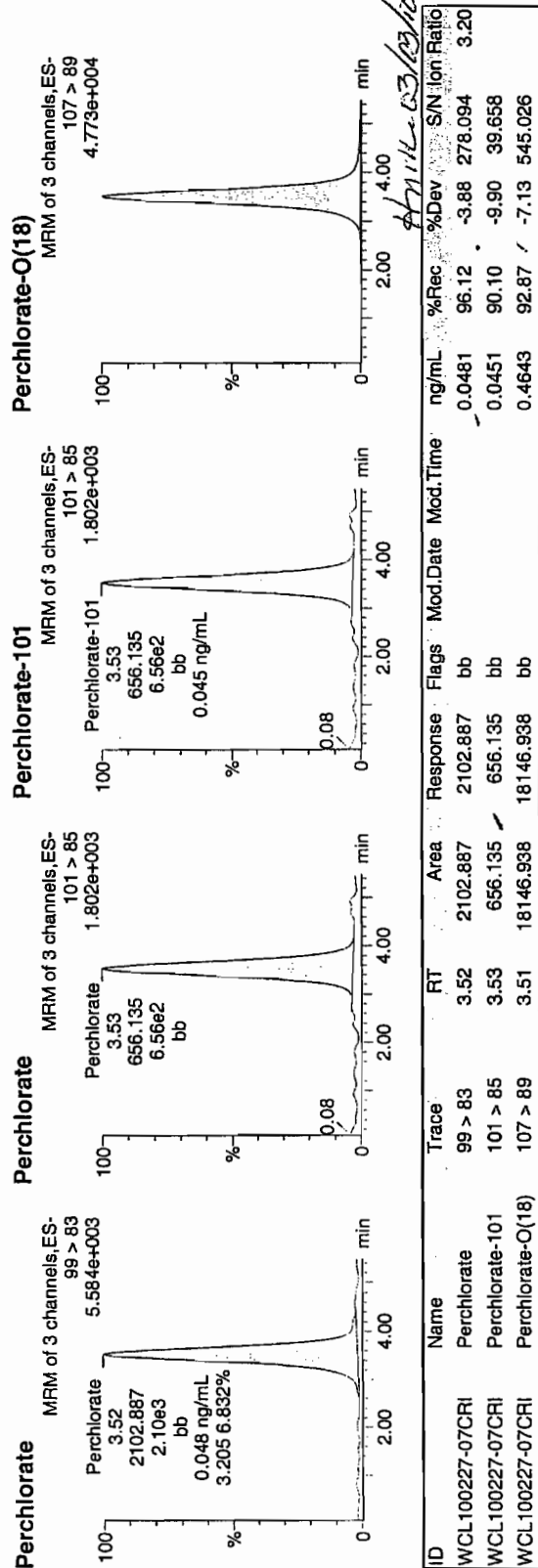
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charliers W. Wilson

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

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

Name: per0301056a
Date: 01-Mar-2010
Time: 20:38:45
ID: WCL100227-07CRI
Vial: 1:2,B

Run
and
03-02-10

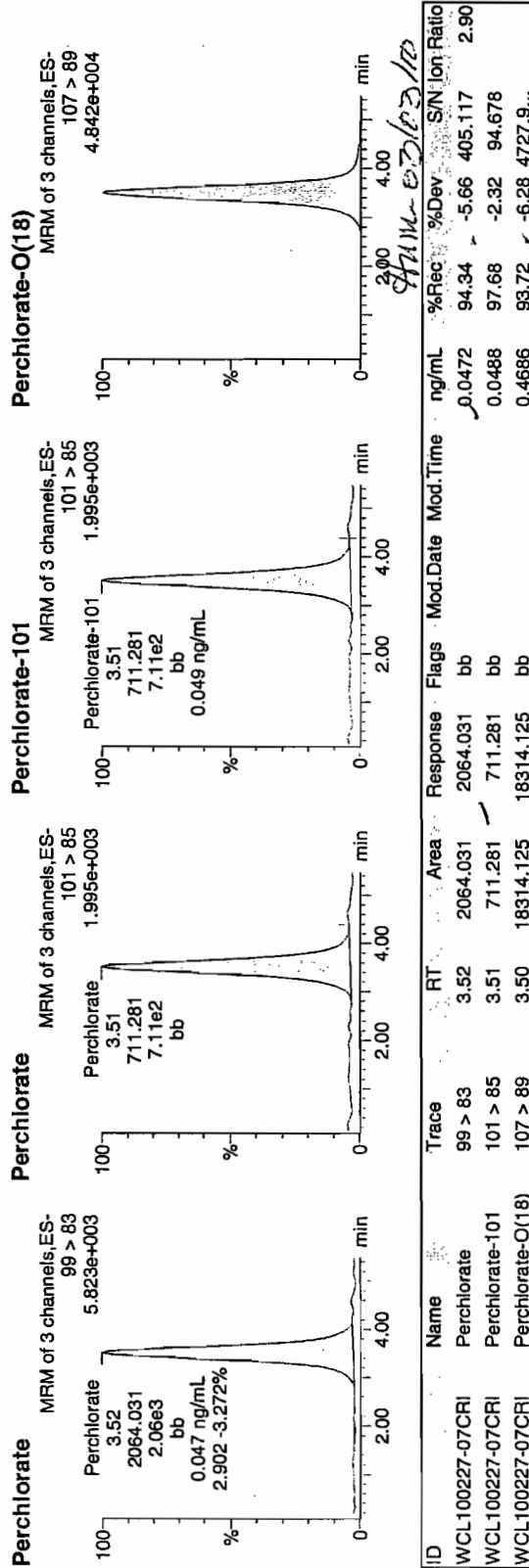


Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles W. Wilson
Dataset: C:\MassLynx\Perchlorate.PRO\per030110a.qld

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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

Run and 03-02-10

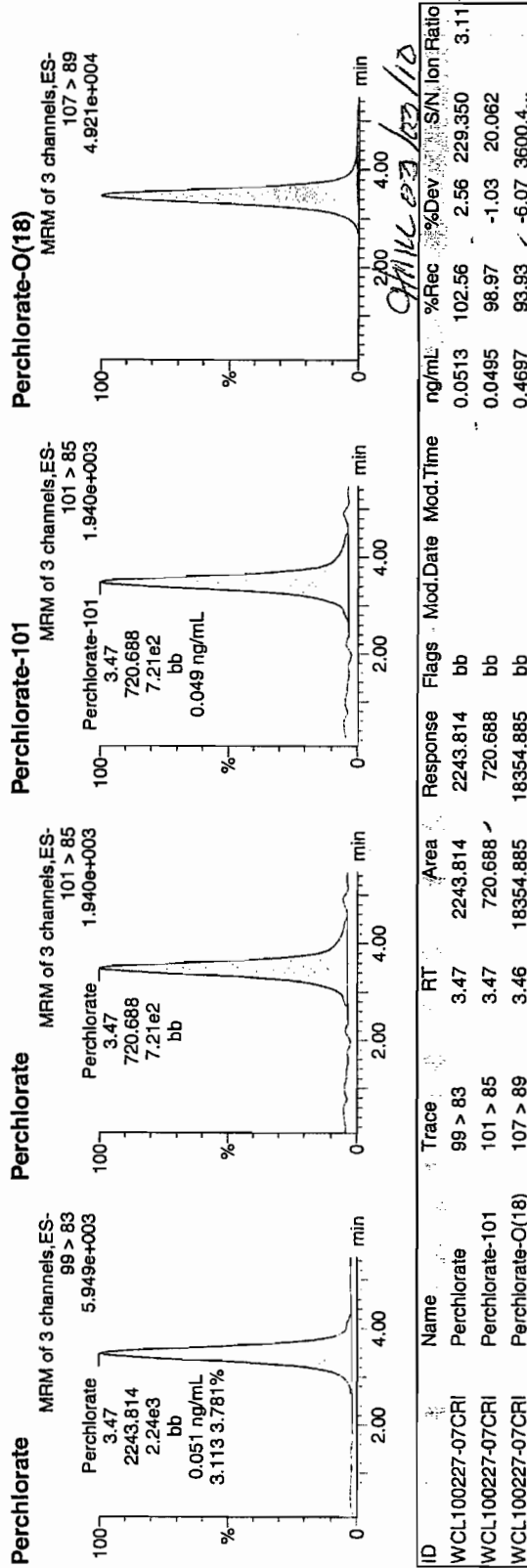


Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charfers W. Wilson
Dataset: C:\MassLynx\Perchlorate.PRO\per030110a.qld

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: per0301082a
Date: 02-Mar-2010
Time: 00:21:39
ID: WCL100227-07CRI
Vial: 1:2,B

*Perchlorate
and
Oxidant*



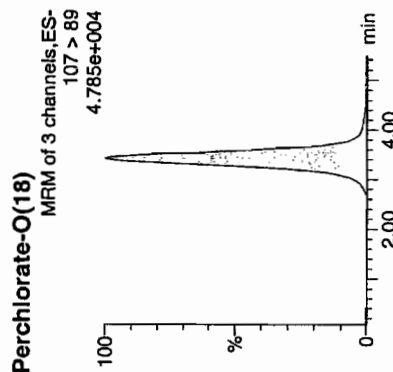
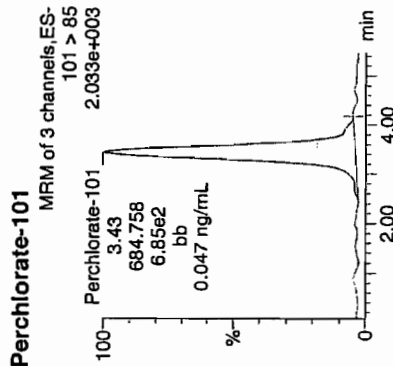
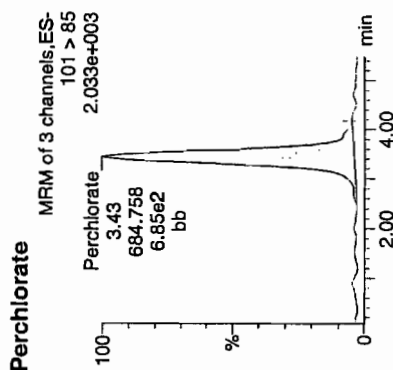
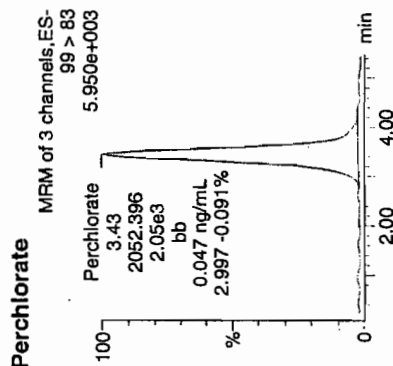
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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
ID: WCL100227-07CRI
Vial: 1:2,B

Per
03-02-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-07CRI	Perchlorate	99 > 83	3.43	2052.396	2052.396	bb			0.0469	93.81	-6.19	251.060	3.00
WCL100227-07CRI	Perchlorate-101	101 > 85	3.43	684.758	684.758	bb			0.0470	94.03	-5.97	572.962	
WCL100227-07CRI	Perchlorate-O(18)	107 > 89	3.42	17540.381	17540.381	bb			0.4488	89.76	-10.24	3516.1...	

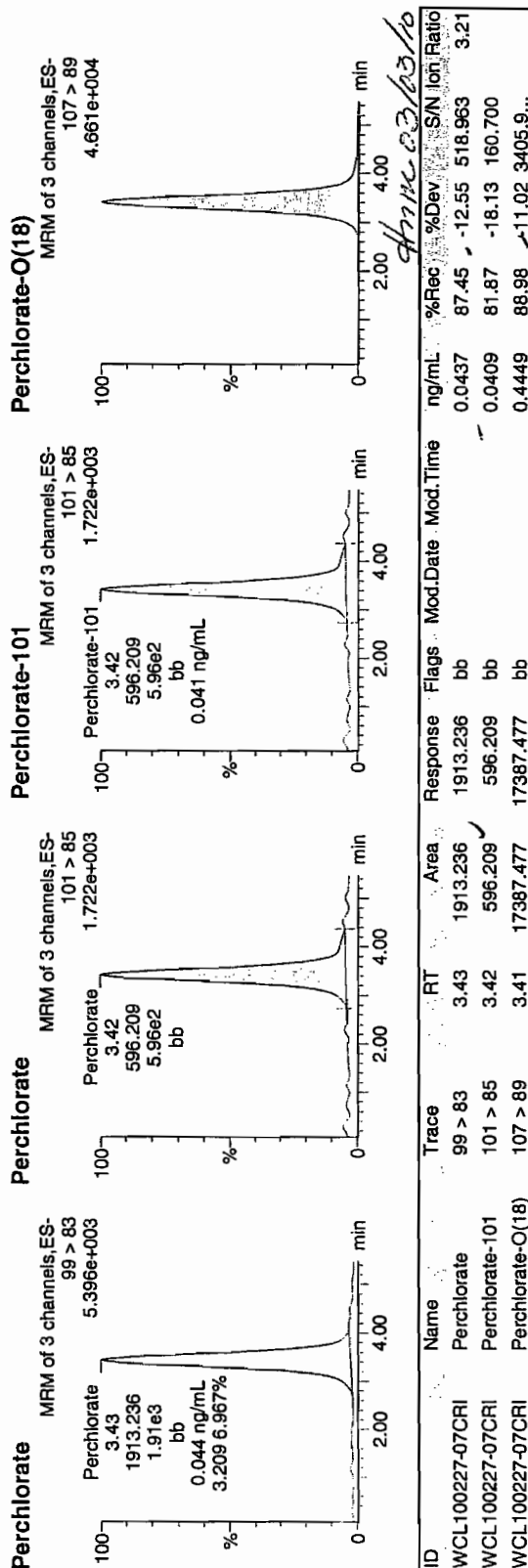
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charfers W. Wilson

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: per0301108a
Date: 02-Mar-2010
Time: 04:05:07
ID: WCL100227-07CRI
Vial: 1:2,B

*Per
and
03-02-10*



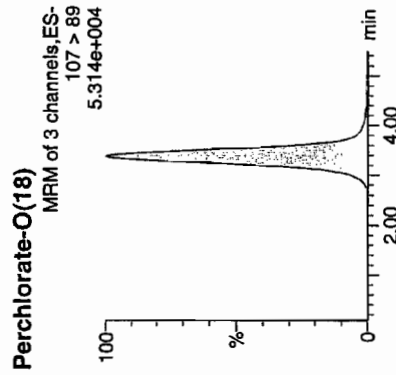
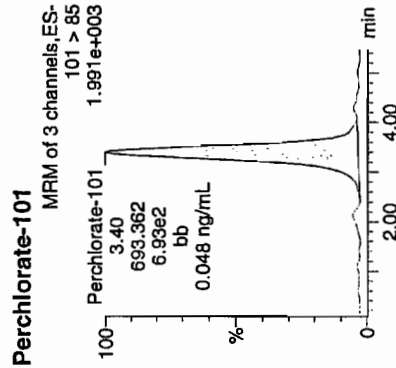
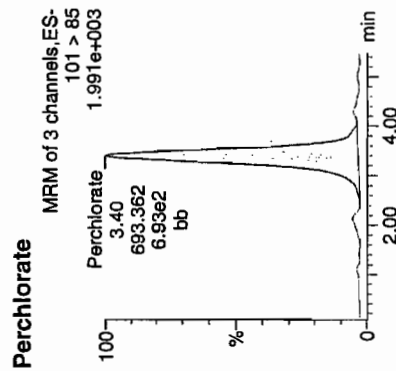
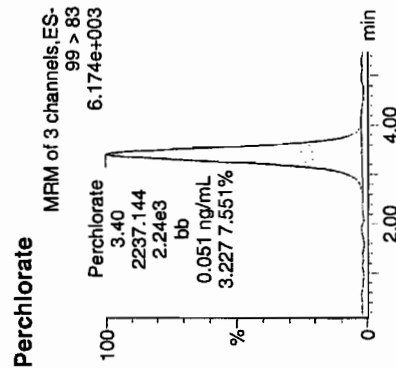
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

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: per0301121a
Date: 02-Mar-2010
Time: 05:56:24
ID: WCL100227-07CRI
Vial: 1:2,B

*Per
03-02-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-07CRI	Perchlorate	99 > 83	3.40	2237.144	2237.144	bb			0.0511	102.25	2.25	230.488	3.23
WCL100227-07CRI	Perchlorate-101	101 > 85	3.40	693.362	693.362	bb			0.0476	95.21	-4.79	275.471	
WCL100227-07CRI	Perchlorate-O(18)	107 > 89	3.37	19497.398	19497.398	bb			0.4989	99.78	-0.22	1379.6...	

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: WATER
 Extraction Batch ID: 957436
 Extraction Type: Filter/DAI
 Sample Volume/Weight: 10.0 mL
 Concentrated Extract Volume: 10.0
 Client Sample No. MB
 Date Received: 25-FEB-10
 GEL Job No (SDG): 10-1957-1
 GEL Sample ID: 1202052905
 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 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 $\frac{\text{Concentrated Extract Volume}}{\text{Aliquot}}$ X $\frac{1}{\% \text{Solids}}$

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

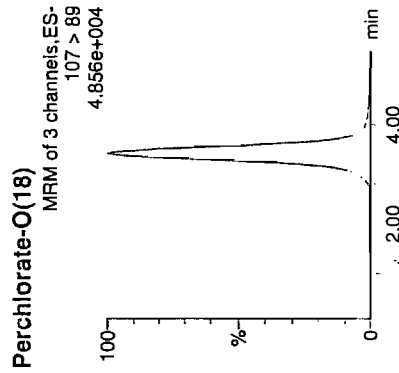
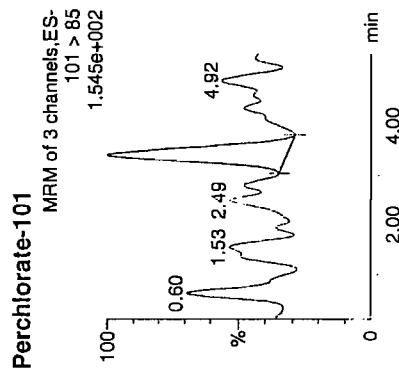
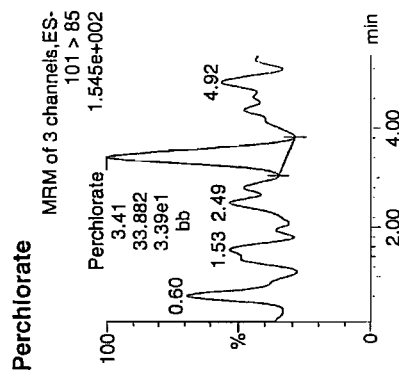
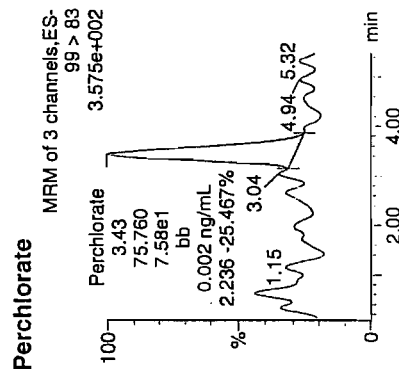
Dataset: C:\MassLynx\Perchlorate.PRO\per030110a.qld

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: per0301099a
Date: 02-Mar-2010
Time: 02:47:58
ID: 1202052905
Vial: 3:1,A

1202052905 1202052905 1202052905

03-02-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202052905	Perchlorate	99 > 83	3.43	75.760	75.760	bb			0.0017			17.194	2.24
1202052905	Perchlorate-101	101 > 85	3.41	33.882	33.882	bb			0.0023			18.276	
1202052905	Perchlorate-O(18)	107 > 89	3.42	17957.791	17957.791	bb			0.4595	91.90	-8.10	2507.1...	

4.92 min 0.3/0.3/1.0

0.0023
2.236-25.467%

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 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.

LCS

Date Received: 25-FEB-10

GEL Job No (SDG): 10-1957-1

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

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

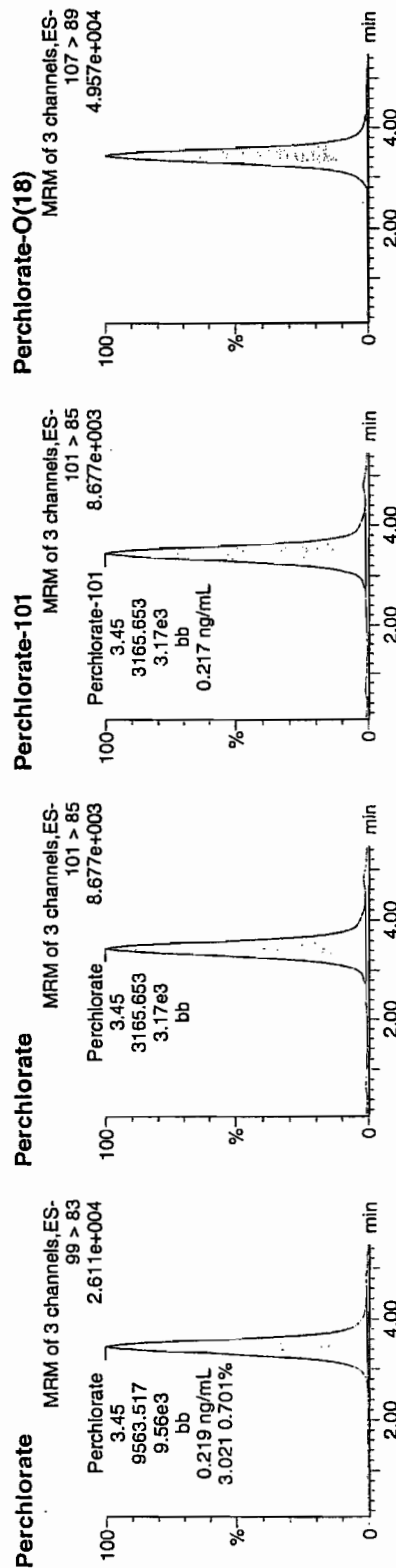
Dataset: C:\MassLynx\Perchlorate.PRO\per030110a.qld

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

666
03-02-10

1957439 | 1202052906 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202052906	Perchlorate	99 > 83	3.45	9563.517	9563.517	bb			-0.2186	109.28	9.28	1109.7...	3.02
1202052906	Perchlorate-101	101 > 85	3.45	3165.653	3165.653	bb			0.2174	108.68	8.68	1019.8...	
1202052906	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
Anne 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 MS (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

Comments:

Desalting cartridges used: BJ0003K0402 (IC-Ba) & BJ0005j0812

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202052909	10 ug/L ICV/CCV Second Source	UCL100210-02.1	.2	mL
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	O2SI HPLC Grade Water	1261217	10	mL
RGNT	All	500 ppm Carbonate, Bicarbonate, Chloride, Sulfate	1262643	10	mL

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 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: *Amw*
 Date: *03/23/10*
 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

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

per0301067a	WCLCCV	CWW	3/1/2010 22:12	1	USE	C
per0301068a	IPB009	CWW	3/1/2010 22:21	1	USE	B
per0301069a	WCLCRI	CWW	3/1/2010 22:30	1	USE	C
per0301070a	1202042696	CWW	3/1/2010 22:38	1	LANL	S
per0301071a	1202042697	CWW	3/1/2010 22:47	1	LANL	S
per0301072a	1202042700	CWW	3/1/2010 22:55	1	LANL	S
per0301073a	246861001	CWW	3/1/2010 23:04	1	LANL	S
per0301074a	246861002	CWW	3/1/2010 23:13	1	LANL	S
per0301075a	1202042698	CWW	3/1/2010 23:21	1	LANL	S
per0301076a	1202042699	CWW	3/1/2010 23:30	1	LANL	S
per0301077a	246861003	CWW	3/1/2010 23:38	1	LANL	S
per0301078a	246861004	CWW	3/1/2010 23:47	1	LANL	S
per0301079a	246861005	CWW	3/1/2010 23:55	1	LANL	S
per0301080a	WCLCCV	CWW	3/2/2010 0:04	1	USE	C
per0301081a	IPB010	CWW	3/2/2010 0:13	1	USE	B
per0301082a	WCLCRI	CWW	3/2/2010 0:21	1	USE	C
per0301083a	246861006	CWW	3/2/2010 0:30	1	LANL	S
per0301084a	246861007	CWW	3/2/2010 0:38	1	LANL	S
per0301085a	246861008	CWW	3/2/2010 0:47	1	LANL	S
per0301086a	246861009	CWW	3/2/2010 0:56	1	LANL	S
per0301087a	246872001	CWW	3/2/2010 1:04	1	LANL	S
per0301088a	246872002	CWW	3/2/2010 1:13	1	LANL	S
per0301089a	246872003	CWW	3/2/2010 1:21	1	LANL	S
per0301090a	246872004	CWW	3/2/2010 1:30	1	LANL	S
per0301091a	246872005	CWW	3/2/2010 1:38	1	LANL	S
per0301092a	246872006	CWW	3/2/2010 1:47	1	LANL	S
per0301093a	WCLCCV	CWW	3/2/2010 1:56	1	USE	C
per0301094a	IPB011	CWW	3/2/2010 2:04	1	USE	B
per0301095a	WCLCRI	CWW	3/2/2010 2:13	1	USE	C
per0301096a	246872007	CWW	3/2/2010 2:21	1	LANL	S
per0301097a	246872008	CWW	3/2/2010 2:30	1	LANL	S
per0301098a	IPB012	CWW	3/2/2010 2:39	1	USE	B
per0301099a	1202052905	CWW	3/2/2010 2:47	1	LANL	S
per0301100a	1202052906	CWW	3/2/2010 2:56	1	LANL	S
per0301101a	1202052909	CWW	3/2/2010 3:05	1	LANL	S
per0301102a	247434001	CWW	3/2/2010 3:13	1	LANL	S
per0301103a	247437006	CWW	3/2/2010 3:22	1	LANL	S

per0301104a	247438001	CWW	3/2/2010 3:30	957439	10-1932	1	LANL	USE	S
per0301105a	247441001	CWW	3/2/2010 3:39	957439	10-1934	1	LANL	USE	S
per0301106a	WCLCCV	CWW	3/2/2010 3:47			1		USE	C
per0301107a	IPB013	CWW	3/2/2010 3:56			1		USE	B
per0301108a	WCLCRI	CWW	3/2/2010 4:05			1		USE	C
per0301109a	247443004	CWW	3/2/2010 4:13	957439	10-1935	1	LANL	USE	S
per0301110a	247449001	CWW	3/2/2010 4:22	957439	10-1936	1	LANL	USE	S
per0301111a	247548001	CWW	3/2/2010 4:30	957439	10-1965-1	1	LANL	USE	S
per0301112a	247548002	CWW	3/2/2010 4:39	957439	10-1965-1	1	LANL	USE	S
per0301113a	247559001	CWW	3/2/2010 4:47	957439	10-1954-1	1	LANL	USE	S
per0301114a	247560001	CWW	3/2/2010 4:56	957439	10-1951	1	LANL	USE	S
per0301115a	247567001	CWW	3/2/2010 5:05	957439	10-1957-1	1	LANL	USE	S
per0301116a	247771001	CWW	3/2/2010 5:13	957439	10-1973-1	1	LANL	USE	S
per0301117a	247780001	CWW	3/2/2010 5:22	957439	10-1976	1	LANL	USE	S
per0301118a	247793001	CWW	3/2/2010 5:30	957439	10-1983	1	LANL	USE	S
per0301119a	WCLCCV	CWW	3/2/2010 5:39			1		USE	C
per0301120a	IPB014	CWW	3/2/2010 5:47			1		USE	B
per0301121a	WCLCRI	CWW	3/2/2010 5:56			1		USE	C
per0301122a	247807001	CWW	3/2/2010 6:04	957439	10-1991-1	1	LANL	USE	S
per0301123a	1202052907	CWW	3/2/2010 6:13	957439	10-1991-1	1	LANL	USE	S
per0301124a	1202052908	CWW	3/2/2010 6:22	957439	10-1991-1	1	LANL	USE	S
per0301125a	247807002	CWW	3/2/2010 6:30	957439	10-1991-1	1	LANL	USE	S
per0301126a	247807003	CWW	3/2/2010 6:39	957439	10-1991-1	1	LANL	USE	S
per0301127a	247807004	CWW	3/2/2010 6:47	957439	10-1991-1	1	LANL	USE	S
per0301128a	IPB015	CWW	3/2/2010 6:56			1		USE	B
per0301129a	1202042707	CWW	3/2/2010 7:07	953012	VARIOUS	1	LANL	DUSE	S
per0301130a	246598002	CWW	3/2/2010 7:16	953012	10-1696	2	LANL	USE	S
per0301131a	UCL100226-01.1	CWW	3/2/2010 7:24	Screen		1	GEL	USE	S
per0301132a	WCLCCV	CWW	3/2/2010 7:33			1		USE	C
per0301133a	IPB016	CWW	3/2/2010 7:42			1		USE	B
per0301134a	WCLCRI	CWW	3/2/2010 7:50			1		USE	C

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

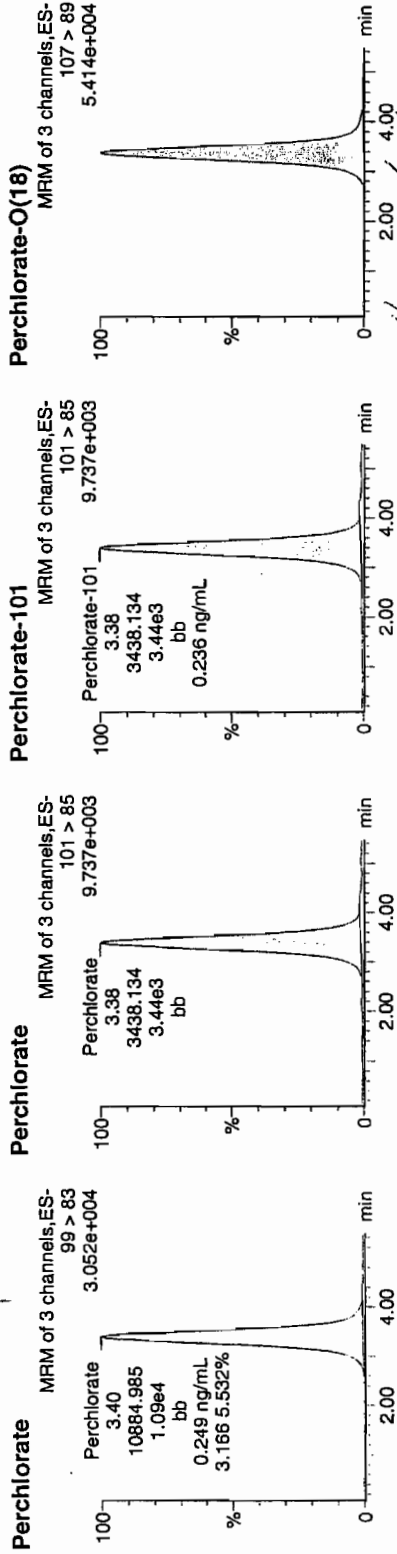
Dataset: C:\MassLynx\Perchlorate.PRO\per030110a.qld

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: per0301123a
Date: 02-Mar-2010
Time: 06:13:41
ID: 1202052907
Vial: 3:4,A

157439 | 122 | MS | 11

03-02-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202052907	Perchlorate	99 > 83	3.40	10884.985	10884.985	bb			0.248	124.38	24.38	1969.2...	3.17
1202052907	Perchlorate-101	101 > 85	3.38	3438.134	3438.134	bb			0.2361	118.03	18.03	506.070	
1202052907	Perchlorate-O(18)	107 > 89	3.37	19680.219	19680.219	bb			0.5036	100.71	0.71	592.449	

GEL 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

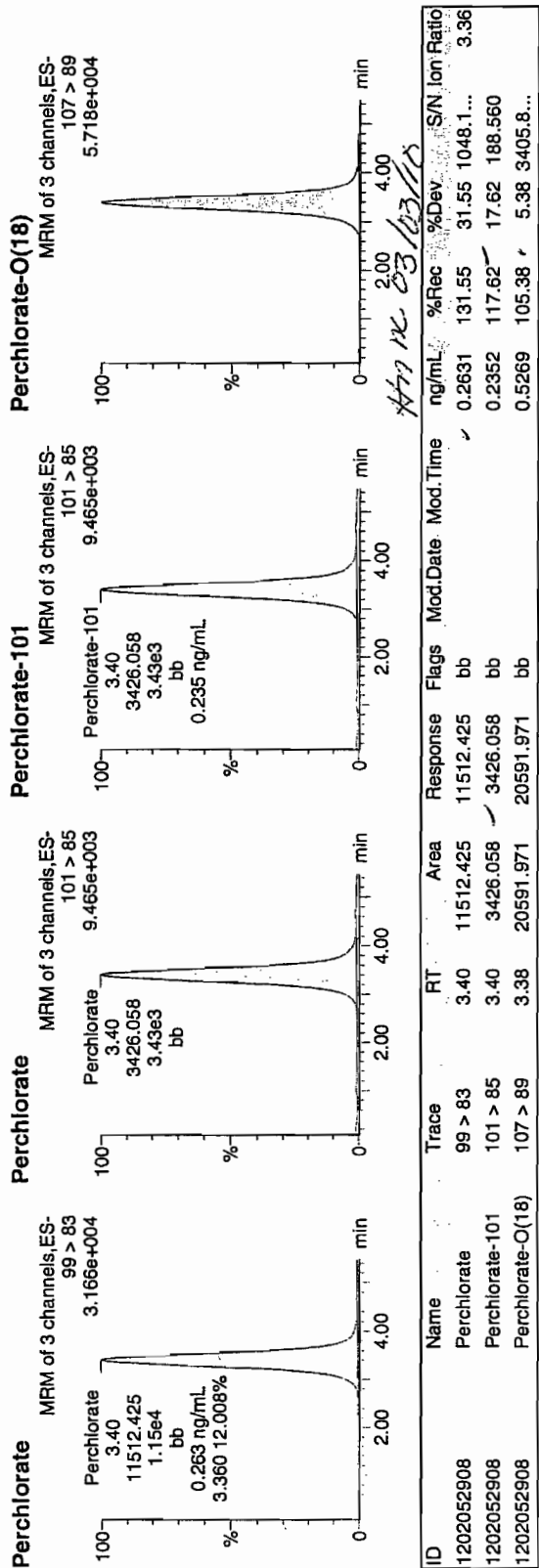
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Last Altered: Tuesday, March 02, 2010 8:52:39 AM Eastern Standard Time
Printed: Tuesday, March 02, 2010 9:12:14 AM Eastern Standard Time

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

LANU-1957434 | LLO | MSO | 11

03-02-10



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

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		
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)			
Application Issues:			
Failed Recovery for MSD/PSD			
Specification and Requirements		DER Disposition:	
Exception Description:			
1. High recovery for Perchlorate was observed in 1202052908 (MSD). The recovery was 130% and the acceptance range is 75-125%.		1. The high recovery may be the result of sample matrix. Similar recoveries were observed in 1202052907 (MS).	

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.

Metals Analysis

Case Narrative

**Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1957**

Sample Analysis

Sample ID	Client ID
247566001	RE15-10-8252
247566002	RE15-10-8253
247566003	RE15-10-8250
247566004	RE15-10-8251
247566005	RE15-10-8248
247566006	RE15-10-8249
247566007	RE15-10-8247
247566008	RE15-10-8254
247566009	RE15-10-8268
247566010	RE15-10-8264
1202049290	Method Blank (MB) ICP
1202049295	Laboratory Control Sample (LCS)
1202049292	247566001(RE15-10-8252L) Serial Dilution (SD)
1202049291	247566001(RE15-10-8252D) Sample Duplicate (DUP)
1202049293	247566001(RE15-10-8252S) Matrix Spike (MS)
1202049294	247566001(RE15-10-8252SD) Matrix Spike Duplicate (MSD)
1202049296	Method Blank (MB) ICP-MS
1202049301	Laboratory Control Sample (LCS)
1202049298	247566001(RE15-10-8252L) Serial Dilution (SD)
1202049297	247566001(RE15-10-8252D) Sample Duplicate (DUP)

1202049299	247566001(RE15-10-8252S) Matrix Spike (MS)
1202049300	247566001(RE15-10-8252SD) Matrix Spike Duplicate (MSD)
1202055991	Method Blank (MB) CVAA
1202055992	Laboratory Control Sample (LCS)
1202055995	247544001(RE46-10-12956L) Serial Dilution (SD)
1202055993	247544001(RE46-10-12956D) Sample Duplicate (DUP)
1202055994	247544001(RE46-10-12956S) Matrix Spike (MS)
1202055996	247544001(RE46-10-12956SD) Matrix Spike Duplicate (MSD)

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

Method/Analysis Information

Analytical Batch:	955820, 955822 and 958664
Prep Batch :	955819, 955821 and 958661
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 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of

scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/- 7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration

All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements

All CRDL standard(s) met the referenced advisory control limits with the exception of zinc, 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: 247566001 (RE15-10-8252) and 247544001 (RE46-10-12956).

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 aluminum, calcium, potassium and sodium, 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 aluminum, calcium, potassium, nickel and sodium, 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 "*" qualifier.

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 barium, chromium, magnesium, manganese, vanadium 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: 806894 and 807961. A copy of each DER is included in the Miscellaneous Data section of this package.

Additional Comments

Additional comments were not required for this SDG.

Certification Statement

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

Review Validation:

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

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

Reviewer: Kristen Panson Date: 3/23/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1957

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247566001

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8252

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 97.2

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1440000	ug/kg	N	6790	20000	20000	1	P	HSC	03/19/10 10:56	031910-1	955820
7440-36-0	Antimony	998	ug/kg	U	329	998	998	1	P	HSC	03/19/10 10:56	031910-1	955820
7440-38-2	Arsenic	345	ug/kg	J	200	1000	1000	2	MS	RMJ	03/22/10 20:56	100322-3	955822
7440-39-3	Barium	20800	ug/kg	*	99.8	499	499	1	P	HSC	03/19/10 10:56	031910-1	955820
7440-41-7	Beryllium	282	ug/kg		20	100	100	2	MS	RMJ	03/22/10 17:13	100321-2	955822
7440-43-9	Cadmium	499	ug/kg	U	99.8	499	499	1	P	HSC	03/19/10 10:56	031910-1	955820
7440-70-2	Calcium	453000	ug/kg	*N	7990	25000	25000	1	P	HSC	03/19/10 10:56	031910-1	955820
7440-47-3	Chromium	2090	ug/kg	*	150	499	499	1	P	HSC	03/19/10 10:56	031910-1	955820
7440-48-4	Cobalt	322	ug/kg	J	150	499	499	1	P	HSC	03/19/10 10:56	031910-1	955820
7440-50-8	Copper	989	ug/kg	J	300	998	998	1	P	HSC	03/19/10 10:56	031910-1	955820
7439-89-6	Iron	6750000	ug/kg		7990	25000	25000	1	P	HSC	03/19/10 10:56	031910-1	955820
7439-92-1	Lead	2590	ug/kg		250	998	998	1	P	HSC	03/19/10 10:56	031910-1	955820
7439-95-4	Magnesium	162000	ug/kg	*	8490	30000	30000	1	P	HSC	03/19/10 10:56	031910-1	955820
7439-96-5	Manganese	214000	ug/kg	*	200	998	998	1	P	HSC	03/19/10 10:56	031910-1	955820
7439-97-6	Mercury	4.13	ug/kg	J	4.07	12	12	1	AV	JXL1	03/09/10 13:51	030910S1-4	958664
7440-02-0	Nickel	1640	ug/kg	N	100	401	401	2	MS	RMJ	03/22/10 17:13	100321-2	955822
7440-09-7	Potassium	564000	ug/kg	N	6390	25000	25000	1	P	HSC	03/19/10 10:56	031910-1	955820
7782-49-2	Selenium	1000	ug/kg	U	501	1000	1000	2	MS	RMJ	03/22/10 20:56	100322-3	955822
7440-22-4	Silver	180	ug/kg	J	99.8	499	499	1	P	HSC	03/19/10 10:56	031910-1	955820
7440-23-5	Sodium	445000	ug/kg	N	6990	25000	25000	1	P	HSC	03/19/10 10:56	031910-1	955820
7440-28-0	Thallium	67	ug/kg	J	60.1	200	200	2	MS	RMJ	03/22/10 17:13	100321-2	955822
7440-62-2	Vanadium	2670	ug/kg	*	99.8	499	499	1	P	HSC	03/19/10 10:56	031910-1	955820
7440-66-6	Zinc	33700	ug/kg	*	329	998	998	1	P	HSC	03/19/10 10:56	031910-1	955820

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955820	955819	SW846 3050B	0.515	g	50	mL	02/25/10	AXG2
955822	955821	SW846 3050B	0.513	g	50	mL	02/25/10	AXG2
958664	958661	SW846 7471A Prep	0.515	g	30	mL	03/09/10	LXH2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1957

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247566002 **BASIS:** Dry Weight **DATE COLLECTED** 15-FEB-10
CLIENT ID: RE15-10-8253 **LEVEL:** Low **DATE RECEIVED** 20-FEB-10
MATRIX: SOIL **%SOLIDS:** 97.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1450000	ug/kg	N	6440	18900	18900	1	P	HSC	03/19/10 11:31	031910-1	955820
7440-36-0	Antimony	947	ug/kg	U	313	947	947	1	P	HSC	03/19/10 11:31	031910-1	955820
7440-38-2	Arsenic	241	ug/kg	J	201	1010	1010	2	MS	RMJ	03/22/10 21:16	100322-3	955822
7440-39-3	Barium	16400	ug/kg	*	94.7	474	474	1	P	HSC	03/19/10 11:31	031910-1	955820
7440-41-7	Beryllium	346	ug/kg		20.1	101	101	2	MS	RMJ	03/22/10 17:33	100321-2	955822
7440-43-9	Cadmium	474	ug/kg	U	94.7	474	474	1	P	HSC	03/19/10 11:31	031910-1	955820
7440-70-2	Calcium	368000	ug/kg	*N	7580	23700	23700	1	P	HSC	03/19/10 11:31	031910-1	955820
7440-47-3	Chromium	3320	ug/kg	*	142	474	474	1	P	HSC	03/19/10 11:31	031910-1	955820
7440-48-4	Cobalt	511	ug/kg		142	474	474	1	P	HSC	03/19/10 11:31	031910-1	955820
7440-50-8	Copper	1230	ug/kg		284	947	947	1	P	HSC	03/19/10 11:31	031910-1	955820
7439-89-6	Iron	6870000	ug/kg		7580	23700	23700	1	P	HSC	03/19/10 11:31	031910-1	955820
7439-92-1	Lead	2330	ug/kg		237	947	947	1	P	HSC	03/19/10 11:31	031910-1	955820
7439-95-4	Magnesium	266000	ug/kg	*	8050	28400	28400	1	P	HSC	03/19/10 11:31	031910-1	955820
7439-96-5	Manganese	257000	ug/kg	*	189	947	947	1	P	HSC	03/19/10 11:31	031910-1	955820
7439-97-6	Mercury	11.7	ug/kg	U	3.97	11.7	11.7	1	AV	JXL1	03/09/10 13:52	030910S1-4	958664
7440-02-0	Nickel	796	ug/kg	N	101	403	403	2	MS	RMJ	03/22/10 17:33	100321-2	955822
7440-09-7	Potassium	458000	ug/kg	N	6060	23700	23700	1	P	HSC	03/19/10 11:31	031910-1	955820
7782-49-2	Selenium	1010	ug/kg	U	503	1010	1010	2	MS	RMJ	03/22/10 21:16	100322-3	955822
7440-22-4	Silver	211	ug/kg	J	94.7	474	474	1	P	HSC	03/19/10 11:31	031910-1	955820
7440-23-5	Sodium	442000	ug/kg	N	6630	23700	23700	1	P	HSC	03/19/10 11:31	031910-1	955820
7440-28-0	Thallium	201	ug/kg	U	60.4	201	201	2	MS	RMJ	03/22/10 17:33	100321-2	955822
7440-62-2	Vanadium	3350	ug/kg	*	94.7	474	474	1	P	HSC	03/19/10 11:31	031910-1	955820
7440-66-6	Zinc	37600	ug/kg	*	313	947	947	1	P	HSC	03/19/10 11:31	031910-1	955820

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955820	955819	SW846 3050B	0.542	g	50	mL	02/25/10	AXG2
955822	955821	SW846 3050B	0.51	g	50	mL	02/25/10	AXG2
958664	958661	SW846 7471A Prep	0.528	g	30	mL	03/09/10	LXH2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1957

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247566003

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8250

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 97.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1020000	ug/kg	N	6580	19400	19400	1	P	HSC	03/19/10 11:52	031910-1	955820
7440-36-0	Antimony	968	ug/kg	U	320	968	968	1	P	HSC	03/19/10 11:52	031910-1	955820
7440-38-2	Arsenic	338	ug/kg	J	186	928	928	2	MS	RMJ	03/22/10 21:20	100322-3	955822
7440-39-3	Barium	11300	ug/kg	*	96.8	484	484	1	P	HSC	03/19/10 11:52	031910-1	955820
7440-41-7	Beryllium	518	ug/kg		18.6	92.8	92.8	2	MS	RMJ	03/22/10 17:37	100321-2	955822
7440-43-9	Cadmium	484	ug/kg	U	96.8	484	484	1	P	HSC	03/19/10 11:52	031910-1	955820
7440-70-2	Calcium	291000	ug/kg	*N	7750	24200	24200	1	P	HSC	03/19/10 11:52	031910-1	955820
7440-47-3	Chromium	2800	ug/kg	*	145	484	484	1	P	HSC	03/19/10 11:52	031910-1	955820
7440-48-4	Cobalt	229	ug/kg	J	145	484	484	1	P	HSC	03/19/10 11:52	031910-1	955820
7440-50-8	Copper	1110	ug/kg		290	968	968	1	P	HSC	03/19/10 11:52	031910-1	955820
7439-89-6	Iron	6590000	ug/kg		7750	24200	24200	1	P	HSC	03/19/10 11:52	031910-1	955820
7439-92-1	Lead	4190	ug/kg		242	968	968	1	P	HSC	03/19/10 11:52	031910-1	955820
7439-95-4	Magnesium	125000	ug/kg	*	8230	29000	29000	1	P	HSC	03/19/10 11:52	031910-1	955820
7439-96-5	Manganese	312000	ug/kg	*	194	968	968	1	P	HSC	03/19/10 11:52	031910-1	955820
7439-97-6	Mercury	11.8	ug/kg	U	4	11.8	11.8	1	AV	JXL1	03/09/10 13:54	030910S1-4	958664
7440-02-0	Nickel	413	ug/kg	N	92.8	371	371	2	MS	RMJ	03/22/10 17:37	100321-2	955822
7440-09-7	Potassium	500000	ug/kg	N	6200	24200	24200	1	P	HSC	03/19/10 11:52	031910-1	955820
7782-49-2	Selenium	928	ug/kg	U	464	928	928	2	MS	RMJ	03/22/10 21:20	100322-3	955822
7440-22-4	Silver	484	ug/kg	U	96.8	484	484	1	P	HSC	03/19/10 11:52	031910-1	955820
7440-23-5	Sodium	349000	ug/kg	N	6780	24200	24200	1	P	HSC	03/19/10 11:52	031910-1	955820
7440-28-0	Thallium	186	ug/kg	U	55.7	186	186	2	MS	RMJ	03/22/10 17:37	100321-2	955822
7440-62-2	Vanadium	2210	ug/kg	*	96.8	484	484	1	P	HSC	03/19/10 11:52	031910-1	955820
7440-66-6	Zinc	47200	ug/kg	*	320	968	968	1	P	HSC	03/19/10 11:52	031910-1	955820

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955820	955819	SW846 3050B	0.528	g	50	mL	02/25/10	AXG2
955822	955821	SW846 3050B	0.551	g	50	mL	02/25/10	AXG2
958664	958661	SW846 7471A Prep	0.521	g	30	mL	03/09/10	LXH2

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1957

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247566004

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8251

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 97.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1240000	ug/kg	N	6970	20500	20500	1	P	HSC	03/19/10 11:59	031910-1	955820
7440-36-0	Antimony	1020	ug/kg	U	338	1020	1020	1	P	HSC	03/19/10 11:59	031910-1	955820
7440-38-2	Arsenic	393	ug/kg	J	201	1000	1000	2	MS	RMJ	03/22/10 21:30	100322-3	955822
7440-39-3	Barium	9840	ug/kg	*	102	512	512	1	P	HSC	03/19/10 11:59	031910-1	955820
7440-41-7	Beryllium	576	ug/kg		20.1	100	100	2	MS	RMJ	03/22/10 17:49	100321-2	955822
7440-43-9	Cadmium	512	ug/kg	U	102	512	512	1	P	HSC	03/19/10 11:59	031910-1	955820
7440-70-2	Calcium	462000	ug/kg	*N	8200	25600	25600	1	P	HSC	03/19/10 11:59	031910-1	955820
7440-47-3	Chromium	2330	ug/kg	*	154	512	512	1	P	HSC	03/19/10 11:59	031910-1	955820
7440-48-4	Cobalt	191	ug/kg	J	154	512	512	1	P	HSC	03/19/10 11:59	031910-1	955820
7440-50-8	Copper	1190	ug/kg		307	1020	1020	1	P	HSC	03/19/10 11:59	031910-1	955820
7439-89-6	Iron	5910000	ug/kg		8200	25600	25600	1	P	HSC	03/19/10 11:59	031910-1	955820
7439-92-1	Lead	3740	ug/kg		256	1020	1020	1	P	HSC	03/19/10 11:59	031910-1	955820
7439-95-4	Magnesium	155000	ug/kg	*	8710	30700	30700	1	P	HSC	03/19/10 11:59	031910-1	955820
7439-96-5	Manganese	268000	ug/kg	*	205	1020	1020	1	P	HSC	03/19/10 11:59	031910-1	955820
7439-97-6	Mercury	11.9	ug/kg	U	4.06	11.9	11.9	1	AV	JXL1	03/09/10 13:56	030910S1-4	958664
7440-02-0	Nickel	579	ug/kg	N	100	401	401	2	MS	RMJ	03/22/10 17:49	100321-2	955822
7440-09-7	Potassium	459000	ug/kg	N	6560	25600	25600	1	P	HSC	03/19/10 11:59	031910-1	955820
7782-49-2	Selenium	1000	ug/kg	U	501	1000	1000	2	MS	RMJ	03/22/10 21:30	100322-3	955822
7440-22-4	Silver	131	ug/kg	J	102	512	512	1	P	HSC	03/19/10 11:59	031910-1	955820
7440-23-5	Sodium	324000	ug/kg	N	7170	25600	25600	1	P	HSC	03/19/10 11:59	031910-1	955820
7440-28-0	Thallium	201	ug/kg	U	60.2	201	201	2	MS	RMJ	03/22/10 17:49	100321-2	955822
7440-62-2	Vanadium	2010	ug/kg	*	102	512	512	1	P	HSC	03/19/10 11:59	031910-1	955820
7440-66-6	Zinc	40800	ug/kg	*	338	1020	1020	1	P	HSC	03/19/10 11:59	031910-1	955820

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955820	955819	SW846 3050B	0.501	g	50	mL	02/25/10	AXG2
955822	955821	SW846 3050B	0.512	g	50	mL	02/25/10	AXG2
958664	958661	SW846 7471A Prep	0.516	g	30	mL	03/09/10	LXH2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1957

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247566005

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8248

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 98.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1310000	ug/kg	N	6460	19000	19000	1	P	HSC	03/19/10 12:07	031910-1	955820
7440-36-0	Antimony	950	ug/kg	U	314	950	950	1	P	HSC	03/19/10 12:07	031910-1	955820
7440-38-2	Arsenic	374	ug/kg	J	194	968	968	2	MS	RMJ	03/22/10 21:34	100322-3	955822
7440-39-3	Barium	13900	ug/kg	*	95	475	475	1	P	HSC	03/19/10 12:07	031910-1	955820
7440-41-7	Beryllium	480	ug/kg		19.4	96.8	96.8	2	MS	RMJ	03/22/10 17:53	100321-2	955822
7440-43-9	Cadmium	475	ug/kg	U	95	475	475	1	P	HSC	03/19/10 12:07	031910-1	955820
7440-70-2	Calcium	646000	ug/kg	*N	7600	23800	23800	1	P	HSC	03/19/10 12:07	031910-1	955820
7440-47-3	Chromium	2400	ug/kg	*	143	475	475	1	P	HSC	03/19/10 12:07	031910-1	955820
7440-48-4	Cobalt	550	ug/kg		143	475	475	1	P	HSC	03/19/10 12:07	031910-1	955820
7440-50-8	Copper	954	ug/kg		285	950	950	1	P	HSC	03/19/10 12:07	031910-1	955820
7439-89-6	Iron	5920000	ug/kg		7600	23800	23800	1	P	HSC	03/19/10 12:07	031910-1	955820
7439-92-1	Lead	3940	ug/kg		238	950	950	1	P	HSC	03/19/10 12:07	031910-1	955820
7439-95-4	Magnesium	108000	ug/kg	*	8080	28500	28500	1	P	HSC	03/19/10 12:07	031910-1	955820
7439-96-5	Manganese	302000	ug/kg	*	190	950	950	1	P	HSC	03/19/10 12:07	031910-1	955820
7439-97-6	Mercury	12.1	ug/kg	U	4.12	12.1	12.1	1	AV	JXL1	03/09/10 13:57	030910S1-4	958664
7440-02-0	Nickel	361	ug/kg	JN	96.8	387	387	2	MS	RMJ	03/22/10 17:53	100321-2	955822
7440-09-7	Potassium	786000	ug/kg	N	6080	23800	23800	1	P	HSC	03/19/10 12:07	031910-1	955820
7782-49-2	Selenium	968	ug/kg	U	484	968	968	2	MS	RMJ	03/22/10 21:34	100322-3	955822
7440-22-4	Silver	139	ug/kg	J	95	475	475	1	P	HSC	03/19/10 12:07	031910-1	955820
7440-23-5	Sodium	604000	ug/kg	N	6650	23800	23800	1	P	HSC	03/19/10 12:07	031910-1	955820
7440-28-0	Thallium	194	ug/kg	U	58.1	194	194	2	MS	RMJ	03/22/10 17:53	100321-2	955822
7440-62-2	Vanadium	1610	ug/kg	*	95	475	475	1	P	HSC	03/19/10 12:07	031910-1	955820
7440-66-6	Zinc	40400	ug/kg	*	314	950	950	1	P	HSC	03/19/10 12:07	031910-1	955820

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955820	955819	SW846 3050B	0.535	g	50	mL	02/25/10	AXG2
955822	955821	SW846 3050B	0.525	g	50	mL	02/25/10	AXG2
958664	958661	SW846 7471A Prep	0.503	g	30	mL	03/09/10	LXH2

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1957

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247566006 **BASIS:** Dry Weight **DATE COLLECTED** 15-FEB-10
CLIENT ID: RE15-10-8249 **LEVEL:** Low **DATE RECEIVED** 20-FEB-10
MATRIX: SOIL **%SOLIDS:** 98.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1030000	ug/kg	N	6550	19300	19300	1	P	HSC	03/19/10 12:14	031910-1	955820
7440-36-0	Antimony	963	ug/kg	U	318	963	963	1	P	HSC	03/19/10 12:14	031910-1	955820
7440-38-2	Arsenic	386	ug/kg	J	201	1000	1000	2	MS	RMJ	03/22/10 21:38	100322-3	955822
7440-39-3	Barium	8530	ug/kg	*	96.3	482	482	1	P	HSC	03/19/10 12:14	031910-1	955820
7440-41-7	Beryllium	495	ug/kg		20.1	100	100	2	MS	RMJ	03/22/10 17:57	100321-2	955822
7440-43-9	Cadmium	482	ug/kg	U	96.3	482	482	1	P	HSC	03/19/10 12:14	031910-1	955820
7440-70-2	Calcium	145000	ug/kg	*N	7700	24100	24100	1	P	HSC	03/19/10 12:14	031910-1	955820
7440-47-3	Chromium	9270	ug/kg	*	144	482	482	1	P	HSC	03/19/10 12:14	031910-1	955820
7440-48-4	Cobalt	1570	ug/kg		144	482	482	1	P	HSC	03/19/10 12:14	031910-1	955820
7440-50-8	Copper	846	ug/kg	J	289	963	963	1	P	HSC	03/19/10 12:14	031910-1	955820
7439-89-6	Iron	5380000	ug/kg		7700	24100	24100	1	P	HSC	03/19/10 12:14	031910-1	955820
7439-92-1	Lead	3370	ug/kg		241	963	963	1	P	HSC	03/19/10 12:14	031910-1	955820
7439-95-4	Magnesium	65300	ug/kg	*	8190	28900	28900	1	P	HSC	03/19/10 12:14	031910-1	955820
7439-96-5	Manganese	248000	ug/kg	*	193	963	963	1	P	HSC	03/19/10 12:14	031910-1	955820
7439-97-6	Mercury	11.6	ug/kg	U	3.93	11.6	11.6	1	AV	JXL1	03/09/10 13:59	030910S1-4	958664
7440-02-0	Nickel	341	ug/kg	JN	100	401	401	2	MS	RMJ	03/22/10 17:57	100321-2	955822
7440-09-7	Potassium	637000	ug/kg	N	6160	24100	24100	1	P	HSC	03/19/10 12:14	031910-1	955820
7782-49-2	Selenium	549	ug/kg	J	501	1000	1000	2	MS	RMJ	03/22/10 21:38	100322-3	955822
7440-22-4	Silver	224	ug/kg	J	96.3	482	482	1	P	HSC	03/19/10 12:14	031910-1	955820
7440-23-5	Sodium	464000	ug/kg	N	6740	24100	24100	1	P	HSC	03/19/10 12:14	031910-1	955820
7440-28-0	Thallium	201	ug/kg	U	60.2	201	201	2	MS	RMJ	03/22/10 17:57	100321-2	955822
7440-62-2	Vanadium	1410	ug/kg	*	96.3	482	482	1	P	HSC	03/19/10 12:14	031910-1	955820
7440-66-6	Zinc	37600	ug/kg	*	318	963	963	1	P	HSC	03/19/10 12:14	031910-1	955820

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955820	955819	SW846 3050B	0.528	g	50	mL	02/25/10	AXG2
955822	955821	SW846 3050B	0.507	g	50	mL	02/25/10	AXG2
958664	958661	SW846 7471A Prep	0.528	g	30	mL	03/09/10	LXH2

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1957

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247566007

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8247

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 97.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	875000	ug/kg	N	6900	20300	20300	1	P	HSC	03/19/10 12:21	031910-1	955820
7440-36-0	Antimony	1010	ug/kg	U	335	1010	1010	1	P	HSC	03/19/10 12:21	031910-1	955820
7440-38-2	Arsenic	961	ug/kg	U	192	961	961	2	MS	RMJ	03/22/10 21:41	100322-3	955822
7440-39-3	Barium	13000	ug/kg	*	101	507	507	1	P	HSC	03/19/10 12:21	031910-1	955820
7440-41-7	Beryllium	868	ug/kg		19.2	96.1	96.1	2	MS	RMJ	03/22/10 18:02	100321-2	955822
7440-43-9	Cadmium	507	ug/kg	U	101	507	507	1	P	HSC	03/19/10 12:21	031910-1	955820
7440-70-2	Calcium	332000	ug/kg	*N	8120	25400	25400	1	P	HSC	03/19/10 12:21	031910-1	955820
7440-47-3	Chromium	1390	ug/kg	*	152	507	507	1	P	HSC	03/19/10 12:21	031910-1	955820
7440-48-4	Cobalt	237	ug/kg	J	152	507	507	1	P	HSC	03/19/10 12:21	031910-1	955820
7440-50-8	Copper	1170	ug/kg		304	1010	1010	1	P	HSC	03/19/10 12:21	031910-1	955820
7439-89-6	Iron	6410000	ug/kg		8120	25400	25400	1	P	HSC	03/19/10 12:21	031910-1	955820
7439-92-1	Lead	1740	ug/kg		254	1010	1010	1	P	HSC	03/19/10 12:21	031910-1	955820
7439-95-4	Magnesium	189000	ug/kg	*	8620	30400	30400	1	P	HSC	03/19/10 12:21	031910-1	955820
7439-96-5	Manganese	274000	ug/kg	*	203	1010	1010	1	P	HSC	03/19/10 12:21	031910-1	955820
7439-97-6	Mercury	11.5	ug/kg	U	3.91	11.5	11.5	1	AV	JXL1	03/09/10 14:01	030910S1-4	958664
7440-02-0	Nickel	606	ug/kg	N	96.1	385	385	2	MS	RMJ	03/22/10 18:02	100321-2	955822
7440-09-7	Potassium	305000	ug/kg	N	6490	25400	25400	1	P	HSC	03/19/10 12:21	031910-1	955820
7782-49-2	Selenium	961	ug/kg	U	481	961	961	2	MS	RMJ	03/22/10 21:41	100322-3	955822
7440-22-4	Silver	192	ug/kg	J	101	507	507	1	P	HSC	03/19/10 12:21	031910-1	955820
7440-23-5	Sodium	227000	ug/kg	N	7100	25400	25400	1	P	HSC	03/19/10 12:21	031910-1	955820
7440-28-0	Thallium	192	ug/kg	U	57.7	192	192	2	MS	RMJ	03/22/10 18:02	100321-2	955822
7440-62-2	Vanadium	1880	ug/kg	*	101	507	507	1	P	HSC	03/19/10 12:21	031910-1	955820
7440-66-6	Zinc	33800	ug/kg	*	335	1010	1010	1	P	HSC	03/19/10 12:21	031910-1	955820

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955820	955819	SW846 3050B	0.504	g	50	mL	02/25/10	AXG2
955822	955821	SW846 3050B	0.532	g	50	mL	02/25/10	AXG2
958664	958661	SW846 7471A Prep	0.533	g	30	mL	03/09/10	LXH2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1957

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247566008 **BASIS:** Dry Weight **DATE COLLECTED** 15-FEB-10
CLIENT ID: RE15-10-8254 **LEVEL:** Low **DATE RECEIVED** 20-FEB-10
MATRIX: SOIL **%SOLIDS:** 98.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4270000	ug/kg	N	6550	19300	19300	1	P	HSC	03/19/10 12:28	031910-1	955820
7440-36-0	Antimony	964	ug/kg	U	318	964	964	1	P	HSC	03/19/10 12:28	031910-1	955820
7440-38-2	Arsenic	551	ug/kg	J	204	1020	1020	2	MS	RMJ	03/22/10 21:45	100322-3	955822
7440-39-3	Barium	18800	ug/kg	*	96.4	482	482	1	P	HSC	03/19/10 12:28	031910-1	955820
7440-41-7	Beryllium	1670	ug/kg		20.4	102	102	2	MS	RMJ	03/22/10 18:06	100321-2	955822
7440-43-9	Cadmium	482	ug/kg	U	96.4	482	482	1	P	HSC	03/19/10 12:28	031910-1	955820
7440-70-2	Calcium	587000	ug/kg	*N	7710	24100	24100	1	P	HSC	03/19/10 12:28	031910-1	955820
7440-47-3	Chromium	4950	ug/kg	*	145	482	482	1	P	HSC	03/19/10 12:28	031910-1	955820
7440-48-4	Cobalt	538	ug/kg		145	482	482	1	P	HSC	03/19/10 12:28	031910-1	955820
7440-50-8	Copper	2330	ug/kg		289	964	964	1	P	HSC	03/19/10 12:28	031910-1	955820
7439-89-6	Iron	7600000	ug/kg		7710	24100	24100	1	P	HSC	03/19/10 12:28	031910-1	955820
7439-92-1	Lead	3290	ug/kg		241	964	964	1	P	HSC	03/19/10 12:28	031910-1	955820
7439-95-4	Magnesium	394000	ug/kg	*	8190	28900	28900	1	P	HSC	03/19/10 12:28	031910-1	955820
7439-96-5	Manganese	185000	ug/kg	*	193	964	964	1	P	HSC	03/19/10 12:28	031910-1	955820
7439-97-6	Mercury	11.2	ug/kg	U	3.82	11.2	11.2	1	AV	JXL1	03/09/10 14:02	030910S1-4	958664
7440-02-0	Nickel	1250	ug/kg	N	102	408	408	2	MS	RMJ	03/22/10 18:06	100321-2	955822
7440-09-7	Potassium	494000	ug/kg	N	6170	24100	24100	1	P	HSC	03/19/10 12:28	031910-1	955820
7782-49-2	Selenium	1020	ug/kg	U	510	1020	1020	2	MS	RMJ	03/22/10 21:45	100322-3	955822
7440-22-4	Silver	210	ug/kg	J	96.4	482	482	1	P	HSC	03/19/10 12:28	031910-1	955820
7440-23-5	Sodium	366000	ug/kg	N	6750	24100	24100	1	P	HSC	03/19/10 12:28	031910-1	955820
7440-28-0	Thallium	204	ug/kg	U	61.2	204	204	2	MS	RMJ	03/22/10 18:06	100321-2	955822
7440-62-2	Vanadium	4090	ug/kg	*	96.4	482	482	1	P	HSC	03/19/10 12:28	031910-1	955820
7440-66-6	Zinc	36300	ug/kg	*	318	964	964	1	P	HSC	03/19/10 12:28	031910-1	955820

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955820	955819	SW846 3050B	0.529	g	50	mL	02/25/10	AXG2
955822	955821	SW846 3050B	0.5	g	50	mL	02/25/10	AXG2
958664	958661	SW846 7471A Prep	0.545	g	30	mL	03/09/10	LXH2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1957

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247566009

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8268

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	1360000	ug/kg	N	6810	20000	20000	1	P	HSC	03/19/10 12:35	031910-1	955820
7440-36-0	Antimony	1000	ug/kg	U	331	1000	1000	1	P	HSC	03/19/10 12:35	031910-1	955820
7440-38-2	Arsenic	290	ug/kg	J	198	988	988	2	MS	RMJ	03/22/10 21:49	100322-3	955822
7440-39-3	Barium	10700	ug/kg	*	100	501	501	1	P	HSC	03/19/10 12:35	031910-1	955820
7440-41-7	Beryllium	421	ug/kg		19.8	98.8	98.8	2	MS	RMJ	03/22/10 18:10	100321-2	955822
7440-43-9	Cadmium	501	ug/kg	U	100	501	501	1	P	HSC	03/19/10 12:35	031910-1	955820
7440-70-2	Calcium	297000	ug/kg	*N	8020	25000	25000	1	P	HSC	03/19/10 12:35	031910-1	955820
7440-47-3	Chromium	4980	ug/kg	*	150	501	501	1	P	HSC	03/19/10 12:35	031910-1	955820
7440-48-4	Cobalt	483	ug/kg	J	150	501	501	1	P	HSC	03/19/10 12:35	031910-1	955820
7440-50-8	Copper	988	ug/kg	J	301	1000	1000	1	P	HSC	03/19/10 12:35	031910-1	955820
7439-89-6	Iron	6950000	ug/kg		8020	25000	25000	1	P	HSC	03/19/10 12:35	031910-1	955820
7439-92-1	Lead	2240	ug/kg		250	1000	1000	1	P	HSC	03/19/10 12:35	031910-1	955820
7439-95-4	Magnesium	218000	ug/kg	*	8520	30100	30100	1	P	HSC	03/19/10 12:35	031910-1	955820
7439-96-5	Manganese	223000	ug/kg	*	200	1000	1000	1	P	HSC	03/19/10 12:35	031910-1	955820
7439-97-6	Mercury	11.3	ug/kg	U	3.83	11.3	11.3	1	AV	JXL1	03/09/10 14:04	030910S1-4	958664
7440-02-0	Nickel	954	ug/kg	N	98.8	395	395	2	MS	RMJ	03/22/10 18:10	100321-2	955822
7440-09-7	Potassium	478000	ug/kg	N	6410	25000	25000	1	P	HSC	03/19/10 12:35	031910-1	955820
7782-49-2	Selenium	988	ug/kg	U	494	988	988	2	MS	RMJ	03/22/10 21:49	100322-3	955822
7440-22-4	Silver	130	ug/kg	J	100	501	501	1	P	HSC	03/19/10 12:35	031910-1	955820
7440-23-5	Sodium	462000	ug/kg	N	7010	25000	25000	1	P	HSC	03/19/10 12:35	031910-1	955820
7440-28-0	Thallium	198	ug/kg	U	59.3	198	198	2	MS	RMJ	03/22/10 18:10	100321-2	955822
7440-62-2	Vanadium	2620	ug/kg	*	100	501	501	1	P	HSC	03/19/10 12:35	031910-1	955820
7440-66-6	Zinc	41100	ug/kg	*	331	1000	1000	1	P	HSC	03/19/10 12:35	031910-1	955820

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955820	955819	SW846 3050B	0.513	g	50	mL	02/25/10	AXG2
955822	955821	SW846 3050B	0.52	g	50	mL	02/25/10	AXG2
958664	958661	SW846 7471A Prep	0.547	g	30	mL	03/09/10	LXH2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1957

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247566010

BASIS: Dry Weight

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8264

LEVEL: Low

DATE RECEIVED 20-FEB-10

MATRIX: SOIL

%SOLIDS: 96.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1090000	ug/kg	N	6850	20200	20200	1	P	HSC	03/19/10 12:42	031910-1	955820
7440-36-0	Antimony	1010	ug/kg	U	333	1010	1010	1	P	HSC	03/19/10 12:42	031910-1	955820
7440-38-2	Arsenic	261	ug/kg	J	191	953	953	2	MS	RMJ	03/22/10 21:52	100322-3	955822
7440-39-3	Barium	10400	ug/kg	*	101	504	504	1	P	HSC	03/19/10 12:42	031910-1	955820
7440-41-7	Beryllium	354	ug/kg		19.1	95.3	95.3	2	MS	RMJ	03/22/10 18:14	100321-2	955822
7440-43-9	Cadmium	504	ug/kg	U	101	504	504	1	P	HSC	03/19/10 12:42	031910-1	955820
7440-70-2	Calcium	446000	ug/kg	*N	8060	25200	25200	1	P	HSC	03/19/10 12:42	031910-1	955820
7440-47-3	Chromium	2110	ug/kg	*	151	504	504	1	P	HSC	03/19/10 12:42	031910-1	955820
7440-48-4	Cobalt	336	ug/kg	J	151	504	504	1	P	HSC	03/19/10 12:42	031910-1	955820
7440-50-8	Copper	1170	ug/kg		302	1010	1010	1	P	HSC	03/19/10 12:42	031910-1	955820
7439-89-6	Iron	5890000	ug/kg		8060	25200	25200	1	P	HSC	03/19/10 12:42	031910-1	955820
7439-92-1	Lead	3980	ug/kg		252	1010	1010	1	P	HSC	03/19/10 12:42	031910-1	955820
7439-95-4	Magnesium	126000	ug/kg	*	8570	30200	30200	1	P	HSC	03/19/10 12:42	031910-1	955820
7439-96-5	Manganese	282000	ug/kg	*	202	1010	1010	1	P	HSC	03/19/10 12:42	031910-1	955820
7439-97-6	Mercury	12.5	ug/kg	U	4.24	12.5	12.5	1	AV	JXL1	03/09/10 14:06	030910S1-4	958664
7440-02-0	Nickel	386	ug/kg	N	95.3	381	381	2	MS	RMJ	03/22/10 18:14	100321-2	955822
7440-09-7	Potassium	459000	ug/kg	N	6450	25200	25200	1	P	HSC	03/19/10 12:42	031910-1	955820
7782-49-2	Selenium	513	ug/kg	J	476	953	953	2	MS	RMJ	03/22/10 21:52	100322-3	955822
7440-22-4	Silver	102	ug/kg	J	101	504	504	1	P	HSC	03/19/10 12:42	031910-1	955820
7440-23-5	Sodium	358000	ug/kg	N	7060	25200	25200	1	P	HSC	03/19/10 12:42	031910-1	955820
7440-28-0	Thallium	191	ug/kg	U	57.2	191	191	2	MS	RMJ	03/22/10 18:14	100321-2	955822
7440-62-2	Vanadium	2080	ug/kg	*	101	504	504	1	P	HSC	03/19/10 12:42	031910-1	955820
7440-66-6	Zinc	42400	ug/kg	*	333	1010	1010	1	P	HSC	03/19/10 12:42	031910-1	955820

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955820	955819	SW846 3050B	0.516	g	50	mL	02/25/10	AXG2
955822	955821	SW846 3050B	0.546	g	50	mL	02/25/10	AXG2
958664	958661	SW846 7471A Prep	0.5	g	30	mL	03/09/10	LXH2

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1957

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,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	5.2	ug/L	5	ug/L	104	90.0 – 110.0	AV	09-MAR-10 13:22	030910S1-4
	Aluminum	5180	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	19-MAR-10 07:43	031910-1
	Antimony	525	ug/L	500	ug/L	105	90.0 – 110.0	P	19-MAR-10 07:43	031910-1
	Barium	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	19-MAR-10 07:43	031910-1
	Cadmium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	19-MAR-10 07:43	031910-1
	Calcium	5170	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	19-MAR-10 07:43	031910-1
	Chromium	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	19-MAR-10 07:43	031910-1
	Cobalt	516	ug/L	500	ug/L	103.3	90.0 – 110.0	P	19-MAR-10 07:43	031910-1
	Copper	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	19-MAR-10 07:43	031910-1
	Iron	5240	ug/L	5000	ug/L	104.9	90.0 – 110.0	P	19-MAR-10 07:43	031910-1
	Lead	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	19-MAR-10 07:43	031910-1
	Magnesium	5440	ug/L	5000	ug/L	108.8	90.0 – 110.0	P	19-MAR-10 07:43	031910-1
	Manganese	516	ug/L	500	ug/L	103.3	90.0 – 110.0	P	19-MAR-10 07:43	031910-1
	Potassium	2560	ug/L	2500	ug/L	102.3	90.0 – 110.0	P	19-MAR-10 07:43	031910-1
	Silver	260	ug/L	250	ug/L	104.2	90.0 – 110.0	P	19-MAR-10 07:43	031910-1
	Sodium	2460	ug/L	2500	ug/L	98.5	90.0 – 110.0	P	19-MAR-10 07:43	031910-1
	Vanadium	516	ug/L	500	ug/L	103.3	90.0 – 110.0	P	19-MAR-10 07:43	031910-1
	Zinc	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	19-MAR-10 07:43	031910-1
	Beryllium	49.7	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	22-MAR-10 16:28	100321-2
	Nickel	51.5	ug/L	50	ug/L	103	90.0 – 110.0	MS	22-MAR-10 16:28	100321-2
	Thallium	49.8	ug/L	50	ug/L	99.6	90.0 – 110.0	MS	22-MAR-10 16:28	100321-2
	Arsenic	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	22-MAR-10 20:27	100322-3
	Selenium	50.2	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	22-MAR-10 20:27	100322-3
CCV01										
	Mercury	5.06	ug/L	5	ug/L	101.2	80.0 – 120.0	AV	09-MAR-10 13:27	030910S1-4
	Aluminum	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	19-MAR-10 08:47	031910-1
	Antimony	519	ug/L	500	ug/L	103.9	90.0 – 110.0	P	19-MAR-10 08:47	031910-1
	Barium	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	19-MAR-10 08:47	031910-1
	Cadmium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	19-MAR-10 08:47	031910-1
	Calcium	5190	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	19-MAR-10 08:47	031910-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1957

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,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	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	19-MAR-10 08:47	031910-1
	Cobalt	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	19-MAR-10 08:47	031910-1
	Copper	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	19-MAR-10 08:47	031910-1
	Iron	5300	ug/L	5000	ug/L	106	90.0 – 110.0	P	19-MAR-10 08:47	031910-1
	Lead	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	19-MAR-10 08:47	031910-1
	Magnesium	5370	ug/L	5000	ug/L	107.5	90.0 – 110.0	P	19-MAR-10 08:47	031910-1
	Manganese	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	19-MAR-10 08:47	031910-1
	Potassium	5210	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	19-MAR-10 08:47	031910-1
	Silver	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	19-MAR-10 08:47	031910-1
	Sodium	10300	ug/L	10000	ug/L	103.1	90.0 – 110.0	P	19-MAR-10 08:47	031910-1
	Vanadium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19-MAR-10 08:47	031910-1
	Zinc	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	19-MAR-10 08:47	031910-1
	Beryllium	49.6	ug/L	50	ug/L	99.1	90.0 – 110.0	MS	22-MAR-10 16:49	100321-2
	Nickel	51.8	ug/L	50	ug/L	103.6	90.0 – 110.0	MS	22-MAR-10 16:49	100321-2
	Thallium	50	ug/L	50	ug/L	100.1	90.0 – 110.0	MS	22-MAR-10 16:49	100321-2
	Arsenic	50.5	ug/L	50	ug/L	101.1	90.0 – 110.0	MS	22-MAR-10 20:42	100322-3
	Selenium	53.2	ug/L	50	ug/L	106.4	90.0 – 110.0	MS	22-MAR-10 20:42	100322-3
CCV02	Mercury	5.17	ug/L	5	ug/L	103.3	80.0 – 120.0	AV	09-MAR-10 13:47	030910S1-4
	Aluminum	5140	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	19-MAR-10 09:08	031910-1
	Antimony	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	19-MAR-10 09:08	031910-1
	Barium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19-MAR-10 09:08	031910-1
	Cadmium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19-MAR-10 09:08	031910-1
	Calcium	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	19-MAR-10 09:08	031910-1
	Chromium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	19-MAR-10 09:08	031910-1
	Cobalt	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	19-MAR-10 09:08	031910-1
	Copper	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	19-MAR-10 09:08	031910-1
	Iron	5230	ug/L	5000	ug/L	104.7	90.0 – 110.0	P	19-MAR-10 09:08	031910-1
	Lead	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	19-MAR-10 09:08	031910-1
	Magnesium	5410	ug/L	5000	ug/L	108.2	90.0 – 110.0	P	19-MAR-10 09:08	031910-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1957

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,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	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	19-MAR-10 09:08	031910-1
	Potassium	5220	ug/L	5000	ug/L	104.4	90.0 – 110.0	P	19-MAR-10 09:08	031910-1
	Silver	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	19-MAR-10 09:08	031910-1
	Sodium	9900	ug/L	10000	ug/L	99	90.0 – 110.0	P	19-MAR-10 09:08	031910-1
	Vanadium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	19-MAR-10 09:08	031910-1
	Zinc	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	19-MAR-10 09:08	031910-1
	Beryllium	47.4	ug/L	50	ug/L	94.9	90.0 – 110.0	MS	22-MAR-10 17:05	100321-2
	Nickel	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	22-MAR-10 17:05	100321-2
	Thallium	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	22-MAR-10 17:05	100321-2
	Arsenic	50.2	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	22-MAR-10 21:24	100322-3
	Selenium	53.1	ug/L	50	ug/L	106.2	90.0 – 110.0	MS	22-MAR-10 21:24	100322-3
CCV03										
	Mercury	5.23	ug/L	5	ug/L	104.6	80.0 – 120.0	AV	09-MAR-10 14:07	030910S1-4
	Aluminum	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	19-MAR-10 10:18	031910-1
	Antimony	519	ug/L	500	ug/L	103.8	90.0 – 110.0	P	19-MAR-10 10:18	031910-1
	Barium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	19-MAR-10 10:18	031910-1
	Cadmium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	19-MAR-10 10:18	031910-1
	Calcium	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	19-MAR-10 10:18	031910-1
	Chromium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	19-MAR-10 10:18	031910-1
	Cobalt	505	ug/L	500	ug/L	101	90.0 – 110.0	P	19-MAR-10 10:18	031910-1
	Copper	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	19-MAR-10 10:18	031910-1
	Iron	5320	ug/L	5000	ug/L	106.4	90.0 – 110.0	P	19-MAR-10 10:18	031910-1
	Lead	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	19-MAR-10 10:18	031910-1
	Magnesium	5390	ug/L	5000	ug/L	107.7	90.0 – 110.0	P	19-MAR-10 10:18	031910-1
	Manganese	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19-MAR-10 10:18	031910-1
	Potassium	5220	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	19-MAR-10 10:18	031910-1
	Silver	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	19-MAR-10 10:18	031910-1
	Sodium	10500	ug/L	10000	ug/L	104.9	90.0 – 110.0	P	19-MAR-10 10:18	031910-1
	Vanadium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	19-MAR-10 10:18	031910-1
	Zinc	495	ug/L	500	ug/L	99	90.0 – 110.0	P	19-MAR-10 10:18	031910-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1957

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,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>
CCV04	Beryllium	49.1	ug/L	50	ug/L	98.1	90.0 – 110.0	MS	22-MAR-10 17:41	100321-2
	Nickel	52.2	ug/L	50	ug/L	104.3	90.0 – 110.0	MS	22-MAR-10 17:41	100321-2
	Thallium	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	22-MAR-10 17:41	100321-2
	Arsenic	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	22-MAR-10 21:55	100322-3
	Selenium	51.5	ug/L	50	ug/L	103	90.0 – 110.0	MS	22-MAR-10 21:55	100322-3
CCV04	Aluminum	5250	ug/L	5000	ug/L	105	90.0 – 110.0	P	19-MAR-10 11:38	031910-1
	Antimony	522	ug/L	500	ug/L	104.4	90.0 – 110.0	P	19-MAR-10 11:38	031910-1
	Barium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	19-MAR-10 11:38	031910-1
	Cadmium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	19-MAR-10 11:38	031910-1
	Calcium	5230	ug/L	5000	ug/L	104.7	90.0 – 110.0	P	19-MAR-10 11:38	031910-1
	Chromium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	19-MAR-10 11:38	031910-1
	Cobalt	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	19-MAR-10 11:38	031910-1
	Copper	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	19-MAR-10 11:38	031910-1
	Iron	5270	ug/L	5000	ug/L	105.5	90.0 – 110.0	P	19-MAR-10 11:38	031910-1
	Lead	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19-MAR-10 11:38	031910-1
	Magnesium	5330	ug/L	5000	ug/L	106.6	90.0 – 110.0	P	19-MAR-10 11:38	031910-1
	Manganese	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	19-MAR-10 11:38	031910-1
	Potassium	5370	ug/L	5000	ug/L	107.4	90.0 – 110.0	P	19-MAR-10 11:38	031910-1
	Silver	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	19-MAR-10 11:38	031910-1
	Sodium	10200	ug/L	10000	ug/L	102.5	90.0 – 110.0	P	19-MAR-10 11:38	031910-1
	Vanadium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	19-MAR-10 11:38	031910-1
	Zinc	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	19-MAR-10 11:38	031910-1
	Beryllium	49.2	ug/L	50	ug/L	98.4	90.0 – 110.0	MS	22-MAR-10 18:18	100321-2
	Nickel	51.7	ug/L	50	ug/L	103.4	90.0 – 110.0	MS	22-MAR-10 18:18	100321-2
	Thallium	49	ug/L	50	ug/L	98.1	90.0 – 110.0	MS	22-MAR-10 18:18	100321-2
CCV05	Aluminum	5150	ug/L	5000	ug/L	103	90.0 – 110.0	P	19-MAR-10 12:49	031910-1
	Antimony	523	ug/L	500	ug/L	104.6	90.0 – 110.0	P	19-MAR-10 12:49	031910-1
	Barium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	19-MAR-10 12:49	031910-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1957

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,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>
	Cadmium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	19-MAR-10 12:49	031910-1
	Calcium	5210	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	19-MAR-10 12:49	031910-1
	Chromium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	19-MAR-10 12:49	031910-1
	Cobalt	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	19-MAR-10 12:49	031910-1
	Copper	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	19-MAR-10 12:49	031910-1
	Iron	5290	ug/L	5000	ug/L	105.9	90.0 – 110.0	P	19-MAR-10 12:49	031910-1
	Lead	505	ug/L	500	ug/L	101	90.0 – 110.0	P	19-MAR-10 12:49	031910-1
	Magnesium	5320	ug/L	5000	ug/L	106.5	90.0 – 110.0	P	19-MAR-10 12:49	031910-1
	Manganese	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	19-MAR-10 12:49	031910-1
	Potassium	5290	ug/L	5000	ug/L	105.8	90.0 – 110.0	P	19-MAR-10 12:49	031910-1
	Silver	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	19-MAR-10 12:49	031910-1
	Sodium	10400	ug/L	10000	ug/L	104.3	90.0 – 110.0	P	19-MAR-10 12:49	031910-1
	Vanadium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	19-MAR-10 12:49	031910-1
	Zinc	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	19-MAR-10 12:49	031910-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-1957

Contract: LANL01004

Lab Code: GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS6,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	.2	ug/L	.2	ug/L	100	70.0 – 130.0	AV	09-MAR-10 13:26	030910S1-4
	Nickel	2.24	ug/L	2	ug/L	112	70.0 – 130.0	MS	22-MAR-10 16:37	100321-2
	Thallium	1.17	ug/L	1	ug/L	116.7	70.0 – 130.0	MS	22-MAR-10 16:37	100321-2
	Beryllium	.554	ug/L	.5	ug/L	110.8	70.0 – 130.0	MS	22-MAR-10 16:37	100321-2
	Selenium	6.3	ug/L	5	ug/L	125.9	70.0 – 130.0	MS	22-MAR-10 20:33	100322-3
	Arsenic	6.1	ug/L	5	ug/L	122.1	70.0 – 130.0	MS	22-MAR-10 20:33	100322-3
PQL01										
	Aluminum	211	ug/L	200	ug/L	105.6	70.0 – 130.0	P	19-MAR-10 07:57	031910-1
	Iron	117	ug/L	100	ug/L	116.6	70.0 – 130.0	P	19-MAR-10 07:57	031910-1
	Lead	12.2	ug/L	10	ug/L	122.4	70.0 – 130.0	P	19-MAR-10 07:57	031910-1
	Magnesium	344	ug/L	300	ug/L	114.8	70.0 – 130.0	P	19-MAR-10 07:57	031910-1
	Manganese	10.6	ug/L	10	ug/L	106.1	70.0 – 130.0	P	19-MAR-10 07:57	031910-1
	Potassium	170	ug/L	150	ug/L	113.2	70.0 – 130.0	P	19-MAR-10 07:57	031910-1
	Silver	5.16	ug/L	5	ug/L	103.2	70.0 – 130.0	P	19-MAR-10 07:57	031910-1
	Sodium	286	ug/L	300	ug/L	95.2	70.0 – 130.0	P	19-MAR-10 07:57	031910-1
	Antimony	10.5	ug/L	10	ug/L	104.7	70.0 – 130.0	P	19-MAR-10 07:57	031910-1
	Barium	5.23	ug/L	5	ug/L	104.6	70.0 – 130.0	P	19-MAR-10 07:57	031910-1
	Cadmium	5.13	ug/L	5	ug/L	102.6	70.0 – 130.0	P	19-MAR-10 07:57	031910-1
	Chromium	5.11	ug/L	5	ug/L	102.1	70.0 – 130.0	P	19-MAR-10 07:57	031910-1
	Cobalt	5.16	ug/L	5	ug/L	103.2	70.0 – 130.0	P	19-MAR-10 07:57	031910-1
	Copper	10.4	ug/L	10	ug/L	104	70.0 – 130.0	P	19-MAR-10 07:57	031910-1
	Vanadium	4.92	ug/L	5	ug/L	98.3	70.0 – 130.0	P	19-MAR-10 07:57	031910-1
	Zinc	13.7	ug/L	10	ug/L	137.3	70.0 – 130.0	P	19-MAR-10 07:57	031910-1
	Calcium	223	ug/L	200	ug/L	111.7	70.0 – 130.0	P	19-MAR-10 07:57	031910-1
PQL02										
	Aluminum	211	ug/L	200	ug/L	105.6	70.0 – 130.0	P	19-MAR-10 10:25	031910-1
	Iron	107	ug/L	100	ug/L	107.5	70.0 – 130.0	P	19-MAR-10 10:25	031910-1
	Lead	12.1	ug/L	10	ug/L	121.3	70.0 – 130.0	P	19-MAR-10 10:25	031910-1
	Magnesium	384	ug/L	300	ug/L	128	70.0 – 130.0	P	19-MAR-10 10:25	031910-1
	Manganese	10.6	ug/L	10	ug/L	106.4	70.0 – 130.0	P	19-MAR-10 10:25	031910-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-1957

Contract: LANL01004

Lab Code: GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: HG3,ICPMS6,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>
	Potassium	171	ug/L	150	ug/L	113.7	70.0 – 130.0	P	19-MAR-10 10:25	031910-1
	Silver	5.08	ug/L	5	ug/L	101.7	70.0 – 130.0	P	19-MAR-10 10:25	031910-1
	Sodium	287	ug/L	300	ug/L	95.6	70.0 – 130.0	P	19-MAR-10 10:25	031910-1
	Antimony	11.8	ug/L	10	ug/L	117.6	70.0 – 130.0	P	19-MAR-10 10:25	031910-1
	Barium	5.33	ug/L	5	ug/L	106.6	70.0 – 130.0	P	19-MAR-10 10:25	031910-1
	Cadmium	5.26	ug/L	5	ug/L	105.3	70.0 – 130.0	P	19-MAR-10 10:25	031910-1
	Cobalt	5.4	ug/L	5	ug/L	108.1	70.0 – 130.0	P	19-MAR-10 10:25	031910-1
	Copper	10.1	ug/L	10	ug/L	101.2	70.0 – 130.0	P	19-MAR-10 10:25	031910-1
	Vanadium	5.01	ug/L	5	ug/L	100.3	70.0 – 130.0	P	19-MAR-10 10:25	031910-1
	Zinc	13.6	ug/L	10	ug/L	135.7	70.0 – 130.0	P	19-MAR-10 10:25	031910-1
	Calcium	221	ug/L	200	ug/L	110.5	70.0 – 130.0	P	19-MAR-10 10:25	031910-1
	Chromium	5.12	ug/L	5	ug/L	102.3	70.0 – 130.0	P	19-MAR-10 10:25	031910-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1957

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result ng/L</u>	<u>Acceptance</u>	<u>Conc Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run</u>
ICB01										
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	09-MAR-10 13:24	030910S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-MAR-10 07:50	031910-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-MAR-10 07:50	031910-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 07:50	031910-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 07:50	031910-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-MAR-10 07:50	031910-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-MAR-10 07:50	031910-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-MAR-10 07:50	031910-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-MAR-10 07:50	031910-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-MAR-10 07:50	031910-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-MAR-10 07:50	031910-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-MAR-10 07:50	031910-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-MAR-10 07:50	031910-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-MAR-10 07:50	031910-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 07:50	031910-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-MAR-10 07:50	031910-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 07:50	031910-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-MAR-10 07:50	031910-1
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	22-MAR-10 16:33	100321-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	22-MAR-10 16:33	100321-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	22-MAR-10 16:33	100321-2
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	22-MAR-10 20:30	100322-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	22-MAR-10 20:30	100322-3
CCB01										
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	09-MAR-10 13:29	030910S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-MAR-10 08:54	031910-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-MAR-10 08:54	031910-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 08:54	031910-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 08:54	031910-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-MAR-10 08:54	031910-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-MAR-10 08:54	031910-1

SW846

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1957

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result ng/L</u>	<u>Acceptance</u>	<u>Conc Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run</u>
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-MAR-10 08:54	031910-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-MAR-10 08:54	031910-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-MAR-10 08:54	031910-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-MAR-10 08:54	031910-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-MAR-10 08:54	031910-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-MAR-10 08:54	031910-1
	Potassium	79.8	+/-250	J	64.0	250	SOL	P	19-MAR-10 08:54	031910-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 08:54	031910-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-MAR-10 08:54	031910-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 08:54	031910-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-MAR-10 08:54	031910-1
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	22-MAR-10 16:53	100321-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	22-MAR-10 16:53	100321-2
	Thallium	0.496	+/-1	J	0.3	1.0	SOL	MS	22-MAR-10 16:53	100321-2
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	22-MAR-10 20:45	100322-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	22-MAR-10 20:45	100322-3
CCB02	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	09-MAR-10 13:49	030910S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-MAR-10 09:15	031910-1
	Antimony	4.1	+/-10	J	3.3	10.0	SOL	P	19-MAR-10 09:15	031910-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 09:15	031910-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 09:15	031910-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-MAR-10 09:15	031910-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-MAR-10 09:15	031910-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-MAR-10 09:15	031910-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-MAR-10 09:15	031910-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-MAR-10 09:15	031910-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-MAR-10 09:15	031910-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-MAR-10 09:15	031910-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-MAR-10 09:15	031910-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-MAR-10 09:15	031910-1

SW846

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1957

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 09:15	031910-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-MAR-10 09:15	031910-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 09:15	031910-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-MAR-10 09:15	031910-1
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	22-MAR-10 17:09	100321-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	22-MAR-10 17:09	100321-2
	Thallium	0.577	+/-1	J	0.3	1.0	SOL	MS	22-MAR-10 17:09	100321-2
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	22-MAR-10 21:27	100322-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	22-MAR-10 21:27	100322-3
CCB03	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	09-MAR-10 14:09	030910S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-MAR-10 10:32	031910-1
	Antimony	5.04	+/-10	J	3.3	10.0	SOL	P	19-MAR-10 10:32	031910-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 10:32	031910-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 10:32	031910-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-MAR-10 10:32	031910-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-MAR-10 10:32	031910-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-MAR-10 10:32	031910-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-MAR-10 10:32	031910-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-MAR-10 10:32	031910-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-MAR-10 10:32	031910-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-MAR-10 10:32	031910-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-MAR-10 10:32	031910-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-MAR-10 10:32	031910-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 10:32	031910-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-MAR-10 10:32	031910-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 10:32	031910-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-MAR-10 10:32	031910-1
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	22-MAR-10 17:45	100321-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	22-MAR-10 17:45	100321-2
	Thallium	0.348	+/-1	J	0.3	1.0	SOL	MS	22-MAR-10 17:45	100321-2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1957

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>
CCB04	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	22-MAR-10 21:58	100322-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	22-MAR-10 21:58	100322-3
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-MAR-10 11:45	031910-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-MAR-10 11:45	031910-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 11:45	031910-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 11:45	031910-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-MAR-10 11:45	031910-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-MAR-10 11:45	031910-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-MAR-10 11:45	031910-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-MAR-10 11:45	031910-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-MAR-10 11:45	031910-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-MAR-10 11:45	031910-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-MAR-10 11:45	031910-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-MAR-10 11:45	031910-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-MAR-10 11:45	031910-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 11:45	031910-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-MAR-10 11:45	031910-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 11:45	031910-1
	Zinc	4.13	+/-10	J	3.3	10.0	SOL	P	19-MAR-10 11:45	031910-1
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	22-MAR-10 18:22	100321-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	22-MAR-10 18:22	100321-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	22-MAR-10 18:22	100321-2
CCB05	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-MAR-10 12:56	031910-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-MAR-10 12:56	031910-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 12:56	031910-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 12:56	031910-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-MAR-10 12:56	031910-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-MAR-10 12:56	031910-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-MAR-10 12:56	031910-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1957

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>
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-MAR-10 12:56	031910-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-MAR-10 12:56	031910-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-MAR-10 12:56	031910-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-MAR-10 12:56	031910-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-MAR-10 12:56	031910-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-MAR-10 12:56	031910-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 12:56	031910-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-MAR-10 12:56	031910-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-MAR-10 12:56	031910-1
	Zinc	3.36	+/-10	J	3.3	10.0	SOL	P	19-MAR-10 12:56	031910-1

METALS
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PREPARATION BLANK SUMMARY

SDG NO. 10-1957
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>
1202049290	Aluminum	6130	ug/kg	+/-18000	U	P	6130	18000
	Antimony	297	ug/kg	+/-901	U	P	297	901
	Barium	90.1	ug/kg	+/-450	U	P	90.1	450
	Chromium	135	ug/kg	+/-450	U	P	135	450
	Cobalt	135	ug/kg	+/-450	U	P	135	450
	Calcium	7210	ug/kg	+/-22500	U	P	7210	22500
	Cadmium	90.1	ug/kg	+/-450	U	P	90.1	450
	Copper	270	ug/kg	+/-901	U	P	270	901
	Lead	225	ug/kg	+/-901	U	P	225	901
	Zinc	297	ug/kg	+/-901	U	P	297	901
	Vanadium	90.1	ug/kg	+/-450	U	P	90.1	450
	Sodium	6310	ug/kg	+/-22500	U	P	6310	22500
	Silver	90.1	ug/kg	+/-450	U	P	90.1	450
	Potassium	5770	ug/kg	+/-22500	U	P	5770	22500
	Manganese	180	ug/kg	+/-901	U	P	180	901
	Magnesium	7660	ug/kg	+/-27000	U	P	7660	27000
	Iron	7210	ug/kg	+/-22500	U	P	7210	22500
1202049296	Arsenic	194	ug/kg	+/-969	U	MS	194	969
	Beryllium	19.4	ug/kg	+/-96.9	U	MS	19.4	96.9
	Nickel	96.9	ug/kg	+/-388	U	MS	96.9	388
	Selenium	484	ug/kg	+/-969	U	MS	484	969
	Thallium	58.1	ug/kg	+/-194	U	MS	58.1	194
1202055991	Mercury	3.76	ug/kg	+/-11	U	AV	3.76	11

METALS
~~–4–~~
Interference Check Sample

SDG No: 10-1957

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	512000	ug/L	500000	ug/L	103	80.0 – 120.0	19-MAR-10 08:04	031910-1
	Antimony	0.061	ug/L					19-MAR-10 08:04	031910-1
	Barium	0.525	ug/L					19-MAR-10 08:04	031910-1
	Cadmium	0.764	ug/L					19-MAR-10 08:04	031910-1
	Calcium	473000	ug/L	500000	ug/L	94.6	80.0 – 120.0	19-MAR-10 08:04	031910-1
	Chromium	0.655	ug/L					19-MAR-10 08:04	031910-1
	Cobalt	-1.25	ug/L					19-MAR-10 08:04	031910-1
	Copper	2.12	ug/L					19-MAR-10 08:04	031910-1
	Iron	185000	ug/L	200000	ug/L	92.5	80.0 – 120.0	19-MAR-10 08:04	031910-1
	Lead	-10.6	ug/L					19-MAR-10 08:04	031910-1
	Magnesium	488000	ug/L	500000	ug/L	97.7	80.0 – 120.0	19-MAR-10 08:04	031910-1
	Manganese	-2.72	ug/L					19-MAR-10 08:04	031910-1
	Potassium	-190.0	ug/L					19-MAR-10 08:04	031910-1
	Silver	-1.58	ug/L					19-MAR-10 08:04	031910-1
	Sodium	9.4	ug/L					19-MAR-10 08:04	031910-1
	Vanadium	-3.12	ug/L					19-MAR-10 08:04	031910-1
	Zinc	0.975	ug/L					19-MAR-10 08:04	031910-1
ICSAB01									
	Aluminum	514000	ug/L	500000	ug/L	103	80.0 – 120.0	19-MAR-10 08:11	031910-1
	Antimony	542	ug/L	500	ug/L	108	80.0 – 120.0	19-MAR-10 08:11	031910-1
	Barium	492	ug/L	500	ug/L	98.5	80.0 – 120.0	19-MAR-10 08:11	031910-1
	Cadmium	464	ug/L	500	ug/L	92.7	80.0 – 120.0	19-MAR-10 08:11	031910-1
	Calcium	478000	ug/L	500000	ug/L	95.5	80.0 – 120.0	19-MAR-10 08:11	031910-1
	Chromium	486	ug/L	500	ug/L	97.2	80.0 – 120.0	19-MAR-10 08:11	031910-1
	Cobalt	445	ug/L	500	ug/L	89	80.0 – 120.0	19-MAR-10 08:11	031910-1
	Copper	547	ug/L	500	ug/L	110	80.0 – 120.0	19-MAR-10 08:11	031910-1
	Iron	188000	ug/L	200000	ug/L	94	80.0 – 120.0	19-MAR-10 08:11	031910-1
	Lead	451	ug/L	500	ug/L	90.3	80.0 – 120.0	19-MAR-10 08:11	031910-1
	Magnesium	492000	ug/L	500000	ug/L	98.4	80.0 – 120.0	19-MAR-10 08:11	031910-1

METALS

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Interference Check Sample

SDG No: 10-1957

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	476	ug/L	500	ug/L	95.3	80.0 – 120.0	19-MAR-10 08:11	031910-1
	Potassium	5280	ug/L	5000	ug/L	106	80.0 – 120.0	19-MAR-10 08:11	031910-1
	Silver	274	ug/L	250	ug/L	110	80.0 – 120.0	19-MAR-10 08:11	031910-1
	Sodium	5500	ug/L	5000	ug/L	110	80.0 – 120.0	19-MAR-10 08:11	031910-1
	Vanadium	508	ug/L	500	ug/L	102	80.0 – 120.0	19-MAR-10 08:11	031910-1
	Zinc	493	ug/L	500	ug/L	98.5	80.0 – 120.0	19-MAR-10 08:11	031910-1

METALS
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Interference Check Sample

SDG No: 10-1957

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									
	Beryllium	0.104	ug/L					22-MAR-10 16:41	100321-2
	Nickel	2.59	ug/L					22-MAR-10 16:41	100321-2
	Thallium	0.06	ug/L					22-MAR-10 16:41	100321-2
ICSAB01									
	Beryllium	22.4	ug/L	20	ug/L	112	80.0 - 120.0	22-MAR-10 16:45	100321-2
	Nickel	24.2	ug/L	23.31	ug/L	104	80.0 - 120.0	22-MAR-10 16:45	100321-2
	Thallium	20.0	ug/L	20	ug/L	100	80.0 - 120.0	22-MAR-10 16:45	100321-2

METALS
-4-
Interference Check Sample

SDG No: 10-1957

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									
	Arsenic	0.306	ug/L					22-MAR-10 20:36	100322-3
	Selenium	0.338	ug/L					22-MAR-10 20:36	100322-3
ICSAB01									
	Arsenic	21.7	ug/L	20	ug/L	108	80.0 - 120.0	22-MAR-10 20:39	100322-3
	Selenium	22.5	ug/L	20	ug/L	113	80.0 - 120.0	22-MAR-10 20:39	100322-3

METALS

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Matrix Spike Summary

SDG NO. 10-1957 Client ID RE15-10-8252S

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 97.2

Sample ID: 247566001 Spike ID: 1202049293

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg	75-125	2870000		1440000		490000	292	N	P
Antimony	ug/kg	75-125	49600		329	U	49000	101		P
Barium	ug/kg	75-125	68500		20800		49000	97.4		P
Cadmium	ug/kg	75-125	47000		99.8	U	49000	96		P
Calcium	ug/kg	75-125	1480000		453000		490000	209	N	P
Chromium	ug/kg	75-125	50300		2090		49000	98.4		P
Cobalt	ug/kg	75-125	47300		322	J	49000	95.9		P
Copper	ug/kg	75-125	52400		989	J	49000	105		P
Iron	ug/kg		6880000		6750000		490000	26.4	N/A	P
Lead	ug/kg	75-125	51400		2590		49000	99.6		P
Magnesium	ug/kg	75-125	733000		162000		490000	117		P
Manganese	ug/kg		243000		214000		49000	60	N/A	P
Potassium	ug/kg	75-125	1430000		564000		490000	176	N	P
Silver	ug/kg	75-125	47800		180	J	49000	97.2		P
Sodium	ug/kg	75-125	1320000		445000		490000	178	N	P
Vanadium	ug/kg	75-125	50700		2670		49000	98.1		P
Zinc	ug/kg	75-125	80800		33700		49000	96.2		P

METALS

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Matrix Spike Duplicate Summary

SDG NO. 10-1957 Client ID: RE15-10-8252SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 97.2

Sample ID: 247566001 Spike ID: 1202049294

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Silver	ug/kg	75-125	50400		180	J	49300	102		P
Sodium	ug/kg	75-125	1270000		445000		493000	167	N	P
Vanadium	ug/kg	75-125	52500		2670		49300	101		P
Zinc	ug/kg	75-125	87400		33700		49300	109		P
Aluminum	ug/kg	75-125	3000000		1440000		493000	316	N	P
Antimony	ug/kg	75-125	50500		329	U	49300	103		P
Barium	ug/kg	75-125	71200		20800		49300	102		P
Cadmium	ug/kg	75-125	49600		99.8	U	49300	101		P
Calcium	ug/kg	75-125	1120000		453000		493000	136	N	P
Chromium	ug/kg	75-125	52000		2090		49300	101		P
Cobalt	ug/kg	75-125	49700		322	J	49300	100		P
Copper	ug/kg	75-125	54100		989	J	49300	108		P
Iron	ug/kg		7850000		6750000		493000	224	N/A	P
Lead	ug/kg	75-125	53800		2590		49300	104		P
Magnesium	ug/kg	75-125	741000		162000		493000	118		P
Manganese	ug/kg		262000		214000		49300	96.7	N/A	P
Potassium	ug/kg	75-125	1470000		564000		493000	185	N	P

METALS

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Matrix Spike Summary

SDG NO. 10-1957 Client ID: RE15-10-8252S

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 97.2

Sample ID: 247566001 Spike ID: 1202049299

<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>
Arsenic	ug/kg	75-125	8300		345	J	7910	101		MS
Beryllium	ug/kg	75-125	4990		282		4940	95.3		MS
Nickel	ug/kg	75-125	7070		1640		4940	110		MS
Selenium	ug/kg	75-125	2470		501	U	1980	108		MS
Thallium	ug/kg	75-125	8820		67	J	9890	88.5		MS

METALS

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Matrix Spike Duplicate Summary

SDG NO. 10-1957 Client ID RE15-10-8252SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 97.2

Sample ID: 247566001 Spike ID: 1202049300

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75-125	8560		345	J	7960	103		MS
Beryllium	ug/kg	75-125	5190		282		4970	98.7		MS
Nickel	ug/kg	75-125	8120		1640		4970	130	N	MS
Selenium	ug/kg	75-125	2320		501	U	1990	99.4		MS
Thallium	ug/kg	75-125	9160		67	J	9950	91.4		MS

METALS

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Matrix Spike Summary

SDG NO.	10-1957	Client ID:	RE46-10-12956S
Contract:	LANL01004	Level:	Low
Matrix:	SOIL	% Solids:	94.3
Sample ID:	247544001	Spike ID:	1202055994

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	128		6.4	J	117	104		AV

METALS

-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-1957 **Client ID:** RE46-10-12956SD**Contract:** LANL01004 **Level:** Low**Matrix:** SOIL **% Solids:** 94.3**Sample ID:** 247544001 **Spike ID:** 1202055996

<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	141		6.4	J	123	110		AV

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1957

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE15-10-8252D

Sample ID: 247566001

Duplicate ID: 1202049291

Percent Solids for Dup: 97.2

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/-20%	1440000		1480000		2.49		P
Antimony	ug/kg		329 U		326 U				P
Barium	ug/kg	+/-20%	20800		27600		28.2	*	P
Cadmium	ug/kg		99.8 U		98.9 U				P
Calcium	ug/kg	+/-20%	453000		551000		19.5		P
Chromium	ug/kg	+/-494	2090		2920		33.3	*	P
Cobalt	ug/kg	+/-494	322 J		518		46.7		P
Copper	ug/kg	+/-989	989 J		1020		2.73		P
Iron	ug/kg	+/-20%	6750000		8050000		17.6		P
Lead	ug/kg	+/-989	2590		2600		.472		P
Magnesium	ug/kg	+/-20%	162000		199000		20.5	*	P
Manganese	ug/kg	+/-20%	214000		331000		43	*	P
Potassium	ug/kg	+/-20%	564000		538000		4.65		P
Silver	ug/kg	+/-494	180 J		216 J		18		P
Sodium	ug/kg	+/-20%	445000		426000		4.36		P
Vanadium	ug/kg	+/-20%	2670		3890		37.4	*	P
Zinc	ug/kg	+/-20%	33700		42600		23.6	*	P

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1957

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE15-10-8252SD

Sample ID: 1202049293

Duplicate ID: 1202049294

Percent Solids for Dup: 97.2

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/-20	2870000		3000000		4.23		P
Antimony	ug/kg	+/-20	49600		50500		1.91		P
Barium	ug/kg	+/-20	68500		71200		3.83		P
Cadmium	ug/kg	+/-20	47000		49600		5.38		P
Calcium	ug/kg	+/-20	1480000		1120000		27.1	*	P
Chromium	ug/kg	+/-20	50300		52000		3.36		P
Cobalt	ug/kg	+/-20	47300		49700		5.01		P
Copper	ug/kg	+/-20	52400		54100		3.29		P
Iron	ug/kg	+/-20	6880000		7850000		13.2		P
Lead	ug/kg	+/-20	51400		53800		4.61		P
Magnesium	ug/kg	+/-20	733000		741000		1.07		P
Manganese	ug/kg	+/-20	243000		262000		7.22		P
Potassium	ug/kg	+/-20	1430000		1470000		3.24		P
Silver	ug/kg	+/-20	47800		50400		5.41		P
Sodium	ug/kg	+/-20	1320000		1270000		3.86		P
Vanadium	ug/kg	+/-20	50700		52500		3.55		P
Zinc	ug/kg	+/-20	80800		87400		7.84		P

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1957

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE15-10-8252D

Sample ID: 247566001

Duplicate ID: 1202049297

Percent Solids for Dup: 97.2

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/-995	345 J		360 J		4.33		MS
Beryllium	ug/kg	+/-99.5	282		338		17.8		MS
Nickel	ug/kg	+/-398	1640		1660		1.49		MS
Selenium	ug/kg		501 U		497 U				MS
Thallium	ug/kg		67 J		59.7 U		200		MS

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1957

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE15-10-8252SD

Sample ID: 1202049299

Duplicate ID: 1202049300

Percent Solids for Dup: 97.2

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/-20	8300		8560		3.07		MS
Beryllium	ug/kg	+/-20	4990		5190		3.91		MS
Nickel	ug/kg	+/-20	7070		8120		13.8		MS
Selenium	ug/kg	+/-20	2470		2320		6.54		MS
Thallium	ug/kg	+/-20	8820		9160		3.78		MS

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1957

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE46-10-12956D

Sample ID: 247544001

Duplicate ID: 1202055993

Percent Solids for Dup: 94.3

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-11.7	6.4 J		6.65 J		3.93		AV

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1957

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE46-10-12956SD

Sample ID: 1202055994

Duplicate ID: 1202055996

Percent Solids for Dup: 94.3

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-20	128		141		9.65		AV

METALS

-7-

Laboratory Control Sample Summary

SDG NO. 10-1957

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>
1202049295								
	Aluminum	ug/kg	10500000	9400000		89.5	56-144	P
	Antimony	ug/kg	173000	125000		72.3	71-130	P
	Barium	ug/kg	198000	206000		104	80-120	P
	Cadmium	ug/kg	60700	59400		97.8	81-120	P
	Calcium	ug/kg	9870000	9820000		99.5	83-117	P
	Chromium	ug/kg	236000	247000		105	80-120	P
	Cobalt	ug/kg	91200	92100		101	81-120	P
	Copper	ug/kg	174000	191000		110	81-118	P
	Iron	ug/kg	18000000	19400000		108	51-149	P
	Lead	ug/kg	86000	83800		97.5	79-121	P
	Magnesium	ug/kg	4000000	3920000		97.9	79-122	P
	Manganese	ug/kg	558000	552000		98.8	81-119	P
	Potassium	ug/kg	4300000	4270000		99.3	74-127	P
	Silver	ug/kg	30100	32700		109	66-134	P
	Sodium	ug/kg	1020000	1040000		102	74-127	P
	Vanadium	ug/kg	115000	128000		111	79-121	P
	Zinc	ug/kg	594000	599000		101	80-121	P

METALS

-7-

Laboratory Control Sample Summary

SDG NO. 10-1957

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>
1202049301								
	Arsenic	ug/kg	104000	104000		100	78-123	MS
	Beryllium	ug/kg	77600	71200		91.8	84-116	MS
	Nickel	ug/kg	134000	136000		102	78-123	MS
	Selenium	ug/kg	286000	285000		99.6	77-123	MS
	Thallium	ug/kg	121000	119000		98	78-122	MS

METALS

-7-

Laboratory Control Sample Summary

SDG NO. 10-1957

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>
1202055992	Mercury	ug/kg	5150	5170		100	71.6-128.3	AV

METALS

-9-

Serial Dilution Sample Summary

SDG NO. 10-1957

Client ID RE15-10-8252L

Contract: LANL01004

Matrix: SOLID

Level: Low

Sample ID: 247566001

Serial Dilution ID: 1202049292

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	14400		14700		1.74		10	P
Antimony	3.3	U	16.5	U				P
Barium	208		218		4.57		10	P
Cadmium	1	U	5	U				P
Calcium	4540		4750		4.63		10	P
Chromium	20.9		21.5	J	2.87			P
Cobalt	3.23	J	7.5	U	100			P
Copper	9.91	J	15	U	100			P
Iron	67600		69000		2.07		10	P
Lead	26		33.8	J	30			P
Magnesium	1620		1710		5.56			P
Manganese	2140		2260		5.61		10	P
Potassium	5650		5800		2.65		10	P
Silver	1.8	J	5	U	100			P
Sodium	4460		4300		3.7		10	P
Vanadium	26.7		26.1		2.25			P
Zinc	337		351		4.01		10	P

METALS

-9-

Serial Dilution Sample Summary

SDG NO. 10-1957 Client ID: RE15-10-8252L

Contract: LANL01004

Matrix: SOLID Level: Low

Sample ID: 247566001 Serial Dilution ID: 1202049298

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	1.72	J	5	U	100			MS
Beryllium	1.41		1.75	J	24.1			MS
Nickel	8.16		7.8	J	4.41			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.334	J	1.87	J	458			MS

METALS

-9-

Serial Dilution Sample Summary

SDG NO. 10-1957 Client ID: RE46-10-12956L

Contract: LANL01004

Matrix: SOLID Level: Low

Sample ID: 247544001 Serial Dilution ID: 1202055995

<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	.108	J	.34	U	100			AV

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1957

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 955819							
1202049290	MB for batch 955819	MB	S	25-FEB-10	.555g	50mL	
1202049295	LCS for batch 955819	LCS	S	25-FEB-10	.501g	50mL	
1202049293	RE15-10-8252S	MS	S	25-FEB-10	.525g	50mL	
1202049294	RE15-10-8252SD	MSD	S	25-FEB-10	.522g	50mL	
1202049291	RE15-10-8252D	DUP	S	25-FEB-10	.52g	50mL	
247566001	RE15-10-8252	SAMPLE	S	25-FEB-10	.515g	50mL	
247566002	RE15-10-8253	SAMPLE	S	25-FEB-10	.542g	50mL	
247566003	RE15-10-8250	SAMPLE	S	25-FEB-10	.528g	50mL	
247566004	RE15-10-8251	SAMPLE	S	25-FEB-10	.501g	50mL	
247566005	RE15-10-8248	SAMPLE	S	25-FEB-10	.535g	50mL	
247566006	RE15-10-8249	SAMPLE	S	25-FEB-10	.528g	50mL	
247566007	RE15-10-8247	SAMPLE	S	25-FEB-10	.504g	50mL	
247566008	RE15-10-8254	SAMPLE	S	25-FEB-10	.529g	50mL	
247566009	RE15-10-8268	SAMPLE	S	25-FEB-10	.513g	50mL	
247566010	RE15-10-8264	SAMPLE	S	25-FEB-10	.516g	50mL	

SW846

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1957

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 955821							
1202049296	MB for batch 955821	MB	S	25-FEB-10	.516g	50mL	
1202049301	LCS for batch 955821	LCS	S	25-FEB-10	.504g	50mL	
1202049299	RE15-10-8252S	MS	S	25-FEB-10	.52g	50mL	
1202049300	RE15-10-8252SD	MSD	S	25-FEB-10	.517g	50mL	
1202049297	RE15-10-8252D	DUP	S	25-FEB-10	.517g	50mL	
247566001	RE15-10-8252	SAMPLE	S	25-FEB-10	.513g	50mL	
247566002	RE15-10-8253	SAMPLE	S	25-FEB-10	.51g	50mL	
247566003	RE15-10-8250	SAMPLE	S	25-FEB-10	.551g	50mL	
247566004	RE15-10-8251	SAMPLE	S	25-FEB-10	.512g	50mL	
247566005	RE15-10-8248	SAMPLE	S	25-FEB-10	.525g	50mL	
247566006	RE15-10-8249	SAMPLE	S	25-FEB-10	.507g	50mL	
247566007	RE15-10-8247	SAMPLE	S	25-FEB-10	.532g	50mL	
247566008	RE15-10-8254	SAMPLE	S	25-FEB-10	.5g	50mL	
247566009	RE15-10-8268	SAMPLE	S	25-FEB-10	.52g	50mL	
247566010	RE15-10-8264	SAMPLE	S	25-FEB-10	.546g	50mL	

SW846

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1957

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 958661							
1202055991	MB for batch 958661	MB	S	09-MAR-10	.543g	30mL	
1202055992	LCS for batch 958661	LCS	S	09-MAR-10	.207g	30mL	
1202055994	RE46-10-12956S	MS	S	09-MAR-10	.544g	30mL	
1202055996	RE46-10-12956SD	MSD	S	09-MAR-10	.519g	30mL	
1202055993	RE46-10-12956D	DUP	S	09-MAR-10	.545g	30mL	
247566001	RE15-10-8252	SAMPLE	S	09-MAR-10	.515g	30mL	
247566002	RE15-10-8253	SAMPLE	S	09-MAR-10	.528g	30mL	
247566003	RE15-10-8250	SAMPLE	S	09-MAR-10	.521g	30mL	
247566004	RE15-10-8251	SAMPLE	S	09-MAR-10	.516g	30mL	
247566005	RE15-10-8248	SAMPLE	S	09-MAR-10	.503g	30mL	
247566006	RE15-10-8249	SAMPLE	S	09-MAR-10	.528g	30mL	
247566007	RE15-10-8247	SAMPLE	S	09-MAR-10	.533g	30mL	
247566008	RE15-10-8254	SAMPLE	S	09-MAR-10	.545g	30mL	
247566009	RE15-10-8268	SAMPLE	S	09-MAR-10	.547g	30mL	
247566010	RE15-10-8264	SAMPLE	S	09-MAR-10	.5g	30mL	

SW846

Metals
-14-
Analysis Run Log

Contract: LANL01004

Client Sdg: 10-1957

Lab Code: GEL

Method MS

Inst Name: ICPMS6

Data File: 100321-2

Start Date: 22-MAR-10

End Date: 22-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	V	Zn
S0.0	1	16:16					X											X					X		
S10	1	16:20					X											X					X		
S100	1	16:24					X											X					X		
ICV01	1	16:28					X											X					X		
ICB01	1	16:33					X											X					X		
CRDL01	1	16:37					X											X					X		
ICSA01	1	16:41					X											X					X		
ICSAB01	1	16:45					X											X					X		
CCV01	1	16:49					X											X					X		
CCB01	1	16:53					X											X					X		
I202049296	2	16:57					X											X					X		
I202049301	40	17:01					X											X					X		
CCV02	1	17:05					X											X					X		
CCB02	1	17:09					X											X					X		
247566001	2	17:13					X											X					X		
I202049297	2	17:17					X											X					X		
I202049299	2	17:21					X											X					X		
I202049300	2	17:25					X											X					X		
I202049298	10	17:29					X											X					X		
247566002	2	17:33					X											X					X		
247566003	2	17:37					X											X					X		
CCV03	1	17:41					X											X					X		
CCB03	1	17:45					X											X					X		
247566004	2	17:49					X											X					X		
247566005	2	17:53					X											X					X		
247566006	2	17:57					X											X					X		
247566007	2	18:02					X											X					X		
247566008	2	18:06					X											X					X		
247566009	2	18:10					X											X					X		
247566010	2	18:14					X											X					X		
CCV04	1	18:18					X											X					X		
CCB04	1	18:22					X											X					X		

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS6

Start Date: 22-MAR-10

End Date: 22-MAR-10

Client Sdg: 10-1957

Method MS

Data File: 100322-3

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	V	Zn
S0.0	1	20:18			X															X					
S10	1	20:21			X															X					
S100	1	20:24			X															X					
ICV01	1	20:27			X															X					
ICB01	1	20:30			X															X					
CRDL01	1	20:33			X															X					
ICSA01	1	20:36			X															X					
ICSAB01	1	20:39			X															X					
CCV01	1	20:42			X															X					
CCB01	1	20:45			X															X					
1202049296	2	20:48			X															X					
1202049301	40	20:52			X															X					
247566001	2	20:56			X															X					
1202049297	2	21:00			X															X					
1202049299	2	21:04			X															X					
1202049300	2	21:08			X															X					
1202049298	10	21:12			X															X					
247566002	2	21:16			X															X					
247566003	2	21:20			X															X					
CCV02	1	21:24			X															X					
CCB02	1	21:27			X															X					
247566004	2	21:30			X															X					
247566005	2	21:34			X															X					
247566006	2	21:38			X															X					
247566007	2	21:41			X															X					
247566008	2	21:45			X															X					
247566009	2	21:49			X															X					
247566010	2	21:52			X															X					
CCV03	1	21:55			X															X					
CCB03	1	21:58			X															X					

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: OPTIMA3

Start Date: 19-MAR-10

End Date: 19-MAR-10

Client Sdg: 10-1957

Method P

Data File: 031910-1

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	V	Zn
S0.0	1	07:10	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
S0.1	1	07:17		X		X		X		X	X	X		X		X			X		X			X	X
S0.5	1	07:23	X	X		X		X	X	X	X	X		X	X	X			X		X			X	X
SCAL	1	07:30	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
S10	1	07:37	X						X				X		X							X			
ICV01	1	07:43	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ICB01	1	07:50	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
PQL01	1	07:57	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ICSA01	1	08:04	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ICSAB01	1	08:11	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
LR01	1	08:18	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
LR02	1	08:24	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	08:31																							
ZZZZZZ	1	08:38																							
CCV01	1	08:47	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB01	1	08:54	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
LR03	1	09:01	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV02	1	09:08	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB02	1	09:15	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	09:29																							
ZZZZZZ	1	09:36																							
ZZZZZZ	1	09:43																							
ZZZZZZ	1	09:49																							
ZZZZZZ	20	09:56																							
ZZZZZZ	20	10:03																							
ZZZZZZ	10	10:11																							
CCV03	1	10:18	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
PQL02	1	10:25	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB03	1	10:32	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202049290	1	10:42	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202049295	1	10:49	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
247566001	1	10:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202049291	1	11:03	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202049293	1	11:10	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202049294	1	11:17	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202049292	5	11:24	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
247566002	1	11:31	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV04	1	11:38	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB04	1	11:45	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
247566003	1	11:52	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X

Samp No.	D/F	Run Time																								
247566004	1	11:59	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X	
247566005	1	12:07	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X	
247566006	1	12:14	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X	
247566007	1	12:21	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X	
247566008	1	12:28	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X	
247566009	1	12:35	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X	
247566010	1	12:42	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X	
CCV05	1	12:49	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X	
CCB05	1	12:56	X	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:** HG3**Start Date:** 09-MAR-10**End Date:** 09-MAR-10**Client Sdg:** 10-1957**Method:** AV**Data File:** 030910S1-4

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	V	Zn
S0.0	1	13:12															X								
S0.2	1	13:14															X								
S0.5	1	13:16															X								
S2.0	1	13:17															X								
S5.0	1	13:19															X								
S10.0	1	13:21															X								
ICV01	1	13:22															X								
ICB01	1	13:24															X								
CRDL01	1	13:26															X								
CCV01	1	13:27															X								
CCB01	1	13:29															X								
1202055991	1	13:31															X								
1202055992	10	13:32															X								
ZZZZZZ	1	13:34																							
1202055993	1	13:36															X								
1202055994	1	13:37															X								
1202055996	1	13:39															X								
1202055995	5	13:41															X								
ZZZZZZ	1	13:42																							
ZZZZZZ	1	13:44																							
ZZZZZZ	1	13:46																							
CCV02	1	13:47															X								
CCB02	1	13:49															X								
247566001	1	13:51															X								
247566002	1	13:52															X								
247566003	1	13:54															X								
247566004	1	13:56															X								
247566005	1	13:57															X								
247566006	1	13:59															X								
247566007	1	14:01															X								
247566008	1	14:02															X								
247566009	1	14:04															X								
247566010	1	14:06															X								
CCV03	1	14:07															X								
CCB03	1	14:09															X								

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1957

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
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1957

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. 10-1957

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
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
 Contract: LANL01004

GEL Job No: 10-1957

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: **10-1957**

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: GEL

GEL Job No: 10-1957

Contract: LANL01004

Instrument: OPTIMA3

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	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: GEL

GEL Job No: 10-1957

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Nickel	Phosphorous	Potassium	Selenium	Silica
Parmname	Wavelength					
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-0.84443	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.63547	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.37026	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL

GEL Job No: 10-1957

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: GELGEL Job No: **10-1957**Contract: LANL01004Instrument: OPTIMA3Effective Dates: **01-FEB-10**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Tin	Titanium	Uranium	Vanadium	Zinc
Parmname	Wavelength					
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. 10-1957

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>
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
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10

METALS
-12-
Linear Ranges

SDG NO. 10-1957

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
Vanadium	20	10000	ug/L	01-FEB-10
Zinc	20	15000	ug/L	01-FEB-10

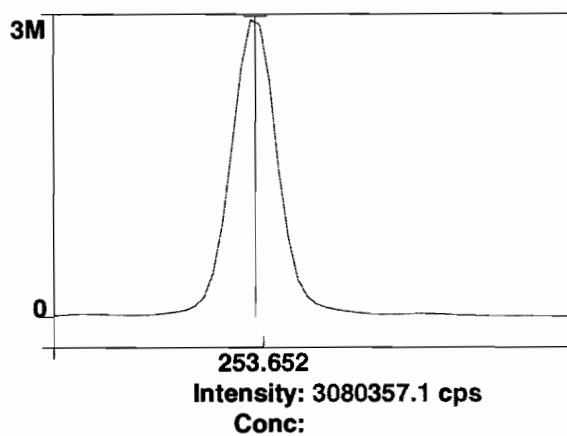
Raw Data

Method: Hg_ReAlign
Result: 032310

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1



1

3/19/2010 06:54:45 Hg ReAlign... Actual peak offset (nm): -0.009
Drift (nm): -0.000 Slit adjustment: 0

Analysis Begun

Start Time: 3/19/2010 07:10:13 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\031910.sif

Batch ID:

Results Data Set: 031910

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

Method Loaded

Method Name: General Eng.2AX

Method Last Saved: 3/18/2010 18:42:02

IEC File: 011110.iec

MSF File:

Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1

Autosampler Location: 8

Sample ID: S0

Date Collected: 3/19/2010 07:10:15

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: S0

Net	Corrected	Calib.	Analysis
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Repl#	Analyte	Intensity	Intensity	Conc. Units	Time
1	Sc Radial	4353.7	4353.7	0.000 %	07:12:08
1	Y RADIAL	4701.2	4701.2	0.000 %	07:12:08
1	Al 396.153Radial†	-70.7	-71.4	[0.00] ug/L	07:12:28
1	Ca 317.933Radial†	17.3	17.5	[0.00] ug/L	07:12:28
1	Fe 238.204 Radial†	9.7	9.8	[0.00] ug/L	07:12:28
1	K 766.490 Radial†	2594.9	2619.5	[0.00] ug/L	07:12:08
1	Mg 279.077 IEC†	0.4	0.4	[0.00] ug/L	07:12:28
1	Na 589.592 Radial†	-880.1	-888.4	[0.00] ug/L	07:12:08
1	Sr 421.552†	28.7	28.9	[0.00] ug/L	07:12:08
1	Sc 361.383	813923.1	813923.1	0.0000 %	07:13:24
1	Y 371.029	687856.7	687856.7	0.0000 %	07:13:24
1	Ag 328.068†	163.2	164.2	[0.00] ug/L	07:13:24
1	As 188.979†	-27.2	-27.4	[0.00] ug/L	07:13:44
1	B 249.677†	-533.0	-536.2	[0.00] ug/L	07:13:44
1	Ba 233.527†	-6.3	-6.3	[0.00] ug/L	07:13:44
1	Be 313.107†	-3672.2	-3694.3	[0.00] ug/L	07:13:24
1	Cd 226.502†	-177.2	-178.3	[0.00] ug/L	07:13:44
1	Co 228.616†	-39.2	-39.4	[0.00] ug/L	07:13:44
1	Cr 267.716†	70.5	70.9	[0.00] ug/L	07:13:44
1	Cu 324.752†	5494.6	5527.6	[0.00] ug/L	07:13:24
1	Mn 257.610†	391.2	393.5	[0.00] ug/L	07:13:44
1	Mo 202.031†	4.3	4.3	[0.00] ug/L	07:13:44
1	Ni 231.604†	78.3	78.8	[0.00] ug/L	07:13:44
1	P 214.914†	181.5	182.6	[0.00] ug/L	07:13:44
1	Pb 220.353†	-56.8	-57.2	[0.00] ug/L	07:13:44
1	S 181.975 Axial†	28.5	28.7	[0.00] ug/L	07:13:44
1	Sb 206.836†	27.2	27.4	[0.00] ug/L	07:13:44
1	Se 196.026†	-14.5	-14.6	[0.00] ug/L	07:13:44
1	Si 251.611†	480.1	483.0	[0.00] ug/L	07:13:44
1	Sn 189.927†	11.1	11.2	[0.00] ug/L	07:13:44
1	Ti 334.940†	-1120.6	-1127.3	[0.00] ug/L	07:13:24
1	Tl 190.801†	-33.9	-34.1	[0.00] ug/L	07:13:44
1	U 409.014†	-2254.8	-2268.4	[0.00] ug/L	07:13:24
1	V 292.402†	-1344.0	-1352.1	[0.00] ug/L	07:13:24
1	Zn 213.857†	561.6	565.0	[0.00] ug/L	07:13:44
1	SiO2†	511.8	514.9	[0.00] ug/L	07:14:55
2	Sc Radial	4414.0	4414.0	0.000 %	07:12:33
2	Y RADIAL	4778.8	4778.8	0.000 %	07:12:33
2	Al 396.153Radial†	-78.8	-78.5	[0.00] ug/L	07:12:53
2	Ca 317.933Radial†	16.9	16.9	[0.00] ug/L	07:12:53
2	Fe 238.204 Radial†	7.2	7.2	[0.00] ug/L	07:12:53
2	K 766.490 Radial†	2539.4	2528.4	[0.00] ug/L	07:12:33
2	Mg 279.077 IEC†	1.1	1.0	[0.00] ug/L	07:12:53
2	Na 589.592 Radial†	-865.3	-861.6	[0.00] ug/L	07:12:33
2	Sr 421.552†	13.8	13.7	[0.00] ug/L	07:12:33
2	Sc 361.383	820260.9	820260.9	0.0000 %	07:13:50
2	Y 371.029	692610.2	692610.2	0.0000 %	07:13:50
2	Ag 328.068†	188.4	188.1	[0.00] ug/L	07:13:50
2	As 188.979†	-24.0	-23.9	[0.00] ug/L	07:14:10
2	B 249.677†	-538.2	-537.3	[0.00] ug/L	07:14:10
2	Ba 233.527†	-4.3	-4.3	[0.00] ug/L	07:14:10
2	Be 313.107†	-3734.7	-3728.2	[0.00] ug/L	07:13:50
2	Cd 226.502†	-161.4	-161.2	[0.00] ug/L	07:14:10
2	Co 228.616†	-38.5	-38.4	[0.00] ug/L	07:14:10
2	Cr 267.716†	73.2	73.0	[0.00] ug/L	07:14:10
2	Cu 324.752†	5607.8	5597.9	[0.00] ug/L	07:13:50
2	Mn 257.610†	387.1	386.5	[0.00] ug/L	07:14:10
2	Mo 202.031†	6.2	6.2	[0.00] ug/L	07:14:10
2	Ni 231.604†	95.9	95.7	[0.00] ug/L	07:14:10
2	P 214.914†	197.1	196.7	[0.00] ug/L	07:14:10
2	Pb 220.353†	-49.7	-49.6	[0.00] ug/L	07:14:10
2	S 181.975 Axial†	30.2	30.2	[0.00] ug/L	07:14:10
2	Sb 206.836†	22.6	22.5	[0.00] ug/L	07:14:10
2	Se 196.026†	-17.3	-17.3	[0.00] ug/L	07:14:10
2	Si 251.611†	500.7	499.8	[0.00] ug/L	07:14:10
2	Sn 189.927†	4.3	4.3	[0.00] ug/L	07:14:10
2	Ti 334.940†	-1112.7	-1110.8	[0.00] ug/L	07:13:50
2	Tl 190.801†	-27.8	-27.8	[0.00] ug/L	07:14:10
2	U 409.014†	-2181.2	-2177.4	[0.00] ug/L	07:13:50
2	V 292.402†	-1308.1	-1305.8	[0.00] ug/L	07:13:50

2	Zn 213.857†	572.4	571.4	[0.00]	ug/L	07:14:10
2	SiO2†	481.0	480.2	[0.00]	ug/L	07:15:15
3	Sc Radial	4417.5	4417.5	0.000	%	07:12:58
3	Y RADIAL	4801.7	4801.7	0.000	%	07:12:58
3	Al 396.153Radial†	-84.8	-84.4	[0.00]	ug/L	07:13:18
3	Ca 317.933Radial†	12.8	12.8	[0.00]	ug/L	07:13:18
3	Fe 238.204 Radial†	8.5	8.4	[0.00]	ug/L	07:13:18
3	K 766.490 Radial†	2661.8	2648.3	[0.00]	ug/L	07:12:58
3	Mg 279.077 IEC†	3.1	3.1	[0.00]	ug/L	07:13:18
3	Na 589.592 Radial†	-879.8	-875.3	[0.00]	ug/L	07:12:58
3	Sr 421.552†	19.9	19.8	[0.00]	ug/L	07:12:58
3	Sc 361.383	822290.3	822290.3	0.0000	%	07:14:15
3	Y 371.029	694473.4	694473.4	0.0000	%	07:14:15
3	Ag 328.068†	204.0	203.1	[0.00]	ug/L	07:14:15
3	As 188.979†	-29.2	-29.1	[0.00]	ug/L	07:14:35
3	B 249.677†	-540.9	-538.6	[0.00]	ug/L	07:14:35
3	Ba 233.527†	8.5	8.5	[0.00]	ug/L	07:14:35
3	Be 313.107†	-3786.6	-3770.6	[0.00]	ug/L	07:14:15
3	Cd 226.502†	-173.2	-172.5	[0.00]	ug/L	07:14:35
3	Co 228.616†	-61.1	-60.8	[0.00]	ug/L	07:14:35
3	Cr 267.716†	70.8	70.5	[0.00]	ug/L	07:14:35
3	Cu 324.752†	5553.8	5530.4	[0.00]	ug/L	07:14:15
3	Mn 257.610†	388.8	387.2	[0.00]	ug/L	07:14:35
3	Mo 202.031†	15.1	15.1	[0.00]	ug/L	07:14:35
3	Ni 231.604†	78.0	77.7	[0.00]	ug/L	07:14:35
3	P 214.914†	183.3	182.6	[0.00]	ug/L	07:14:35
3	Pb 220.353†	-68.4	-68.2	[0.00]	ug/L	07:14:35
3	S 181.975 Axial†	31.8	31.7	[0.00]	ug/L	07:14:35
3	Sb 206.836†	21.2	21.1	[0.00]	ug/L	07:14:35
3	Se 196.026†	-19.1	-19.0	[0.00]	ug/L	07:14:35
3	Si 251.611†	483.8	481.8	[0.00]	ug/L	07:14:35
3	Sn 189.927†	6.0	6.0	[0.00]	ug/L	07:14:35
3	Ti 334.940†	-1130.3	-1125.5	[0.00]	ug/L	07:14:15
3	Tl 190.801†	-25.5	-25.4	[0.00]	ug/L	07:14:35
3	U 409.014†	-2176.0	-2166.9	[0.00]	ug/L	07:14:15
3	V 292.402†	-1299.9	-1294.4	[0.00]	ug/L	07:14:15
3	Zn 213.857†	576.3	573.9	[0.00]	ug/L	07:14:35
3	SiO2†	505.1	502.9	[0.00]	ug/L	07:15:35

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	818824.8	4364.54	0.53%	0.0000 %
Sc Radial	4395.1	35.85	0.82%	0.000 %
Y 371.029	691646.8	3411.92	0.49%	0.0000 %
Y RADIAL	4760.6	52.66	1.11%	0.000 %
Ag 328.068†	185.1	19.62	10.60%	[0.00] ug/L
Al 396.153Radial†	-78.1	6.49	8.31%	[0.00] ug/L
As 188.979†	-26.8	2.63	9.80%	[0.00] ug/L
B 249.677†	-537.4	1.22	0.23%	[0.00] ug/L
Ba 233.527†	-0.7	8.03	>999.9%	[0.00] ug/L
Be 313.107†	-3731.0	38.23	1.02%	[0.00] ug/L
Ca 317.933Radial†	15.7	2.56	16.28%	[0.00] ug/L
Cd 226.502†	-170.6	8.70	5.10%	[0.00] ug/L
Co 228.616†	-46.2	12.65	27.38%	[0.00] ug/L
Cr 267.716†	71.5	1.34	1.87%	[0.00] ug/L
Cu 324.752†	5552.0	39.81	0.72%	[0.00] ug/L
Fe 238.204 Radial†	8.5	1.30	15.32%	[0.00] ug/L
K 766.490 Radial†	2598.8	62.57	2.41%	[0.00] ug/L
Mg 279.077 IEC†	1.5	1.42	93.27%	[0.00] ug/L
Mn 257.610†	389.1	3.91	1.00%	[0.00] ug/L
Mo 202.031†	8.5	5.74	67.28%	[0.00] ug/L
Na 589.592 Radial†	-875.1	13.40	1.53%	[0.00] ug/L
Ni 231.604†	84.1	10.11	12.03%	[0.00] ug/L
P 214.914†	187.3	8.17	4.36%	[0.00] ug/L
Pb 220.353†	-58.3	9.33	16.01%	[0.00] ug/L
S 181.975 Axial†	30.2	1.49	4.94%	[0.00] ug/L
Sb 206.836†	23.7	3.28	13.84%	[0.00] ug/L
Se 196.026†	-17.0	2.24	13.19%	[0.00] ug/L
Si 251.611†	488.2	10.08	2.06%	[0.00] ug/L

Sn 189.927†	7.2	3.58	49.92%	[0.00]	ug/L
Sr 421.552†	20.8	7.65	36.76%	[0.00]	ug/L
Ti 334.940†	-1121.2	9.07	0.81%	[0.00]	ug/L
Tl 190.801†	-29.1	4.53	15.58%	[0.00]	ug/L
U 409.014†	-2204.2	55.80	2.53%	[0.00]	ug/L
V 292.402†	-1317.4	30.53	2.32%	[0.00]	ug/L
Zn 213.857†	570.1	4.60	0.81%	[0.00]	ug/L
SiO2†	499.3	17.63	3.53%	[0.00]	ug/L

Sequence No.: 2

Sample ID: S0.1

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 2

Date Collected: 3/19/2010 07:17:46

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	4299.2	4299.2	97.8 %	07:19:44
1	Y RADIAL	4673.1	4673.1	98.16 %	07:19:44
1	K 766.490 Radial†	7813.6	5389.1	[1000] ug/L	07:19:39
1	Sr 421.552†	12088.1	12336.8	[100] ug/L	07:19:44
1	Sc 361.383	819565.4	819565.4	100.09 %	07:20:11
1	Y 371.029	689971.2	689971.2	99.758 %	07:20:11
1	Ag 328.068†	19793.2	19590.2	[100] ug/L	07:20:11
1	As 188.979†	168.5	195.1	[100] ug/L	07:20:31
1	B 249.677†	2888.3	3423.0	[100] ug/L	07:20:11
1	Ba 233.527†	10948.2	10939.0	[100] ug/L	07:20:11
1	Be 313.107†	234967.8	238486.5	[100] ug/L	07:20:11
1	Cd 226.502†	6701.2	6865.8	[100] ug/L	07:20:31
1	Co 228.616†	3917.8	3960.4	[100] ug/L	07:20:31
1	Cr 267.716†	7686.1	7607.7	[100] ug/L	07:20:11
1	Cu 324.752†	36199.8	30615.1	[100] ug/L	07:20:11
1	Mn 257.610†	79100.7	78640.2	[100] ug/L	07:20:11
1	Mo 202.031†	1143.2	1133.6	[100] ug/L	07:20:31
1	Ni 231.604†	3285.2	3198.1	[100] ug/L	07:20:31
1	P 214.914†	856.5	668.4	[500] ug/L	07:20:31
1	Pb 220.353†	619.7	677.4	[100] ug/L	07:20:31
1	S 181.975 Axial†	142.1	111.8	[200] ug/L	07:20:31
1	Sb 206.836†	263.5	239.6	[100] ug/L	07:20:31
1	Se 196.026†	105.0	121.8	[100] ug/L	07:20:31
1	Si 251.611†	13768.7	13268.1	[500] ug/L	07:20:11
1	Sn 189.927†	444.8	437.2	[100] ug/L	07:20:31
1	Ti 334.940†	56944.7	58014.5	[100] ug/L	07:20:11
1	Tl 190.801†	236.6	265.5	[100] ug/L	07:20:31
1	U 409.014†	1277.7	3480.8	[100] ug/L	07:20:11
1	V 292.402†	11266.0	12573.2	[100] ug/L	07:20:11
1	Zn 213.857†	8992.7	8414.5	[100] ug/L	07:20:11
1	SiO2†	13699.9	13188.2	[1069.5] ug/L	07:21:27
2	Sc Radial	4351.7	4351.7	99.0 %	07:19:54
2	Y RADIAL	4736.2	4736.2	99.49 %	07:19:54
2	K 766.490 Radial†	7639.5	5116.9	[1000] ug/L	07:19:49
2	Sr 421.552†	12186.1	12286.7	[100] ug/L	07:19:54
2	Sc 361.383	806559.5	806559.5	98.502 %	07:20:36
2	Y 371.029	679008.4	679008.4	98.173 %	07:20:36
2	Ag 328.068†	19410.1	19520.1	[100] ug/L	07:20:36
2	As 188.979†	160.0	189.2	[100] ug/L	07:20:57
2	B 249.677†	2853.4	3434.1	[100] ug/L	07:20:36
2	Ba 233.527†	10778.3	10943.0	[100] ug/L	07:20:36
2	Be 313.107†	231279.8	238527.9	[100] ug/L	07:20:36
2	Cd 226.502†	6685.7	6958.0	[100] ug/L	07:20:57
2	Co 228.616†	3912.0	4017.7	[100] ug/L	07:20:57
2	Cr 267.716†	7564.8	7608.4	[100] ug/L	07:20:36
2	Cu 324.752†	35581.8	30570.9	[100] ug/L	07:20:36
2	Mn 257.610†	77938.0	78734.1	[100] ug/L	07:20:36
2	Mo 202.031†	1144.1	1152.9	[100] ug/L	07:20:57
2	Ni 231.604†	3297.2	3263.3	[100] ug/L	07:20:57
2	P 214.914†	848.3	673.9	[500] ug/L	07:20:57
2	Pb 220.353†	620.7	688.5	[100] ug/L	07:20:57
2	S 181.975 Axial†	146.4	118.4	[200] ug/L	07:20:57
2	Sb 206.836†	264.3	244.6	[100] ug/L	07:20:57
2	Se 196.026†	107.5	126.1	[100] ug/L	07:20:57
2	Si 251.611†	13541.3	13259.0	[500] ug/L	07:20:36
2	Sn 189.927†	446.3	445.9	[100] ug/L	07:20:57
2	Ti 334.940†	56083.7	58057.7	[100] ug/L	07:20:36
2	Tl 190.801†	232.7	265.4	[100] ug/L	07:20:57
2	U 409.014†	1337.0	3561.5	[100] ug/L	07:20:36

2	V 292.402†	11053.6	12539.2	[100]	ug/L	07:20:36
2	Zn 213.857†	8858.1	8422.7	[100]	ug/L	07:20:36
2	SiO2†	13722.0	13431.3	[1069.5]	ug/L	07:21:32
3	Sc Radial	4298.2	4298.2	97.8	%	07:20:04
3	Y RADIAL	4680.6	4680.6	98.32	%	07:20:04
3	K 766.490 Radial†	7824.1	5401.6	[1000]	ug/L	07:19:59
3	Sr 421.552†	12067.8	12318.9	[100]	ug/L	07:20:04
3	Sc 361.383	819475.4	819475.4	100.08	%	07:21:02
3	Y 371.029	690004.4	690004.4	99.763	%	07:21:02
3	Ag 328.068†	19783.4	19582.5	[100]	ug/L	07:21:02
3	As 188.979†	160.2	186.9	[100]	ug/L	07:21:22
3	B 249.677†	2918.4	3453.5	[100]	ug/L	07:21:02
3	Ba 233.527†	10967.6	10959.6	[100]	ug/L	07:21:02
3	Be 313.107†	234959.9	238504.4	[100]	ug/L	07:21:02
3	Cd 226.502†	6644.2	6809.6	[100]	ug/L	07:21:22
3	Co 228.616†	3875.7	3918.8	[100]	ug/L	07:21:22
3	Cr 267.716†	7681.2	7603.6	[100]	ug/L	07:21:02
3	Cu 324.752†	36243.6	30662.8	[100]	ug/L	07:21:02
3	Mn 257.610†	79237.9	78785.9	[100]	ug/L	07:21:02
3	Mo 202.031†	1142.7	1133.3	[100]	ug/L	07:21:22
3	Ni 231.604†	3256.6	3170.0	[100]	ug/L	07:21:22
3	P 214.914†	855.5	667.5	[500]	ug/L	07:21:22
3	Pb 220.353†	594.6	652.4	[100]	ug/L	07:21:22
3	S 181.975 Axial†	141.7	111.4	[200]	ug/L	07:21:22
3	Sb 206.836†	256.8	232.9	[100]	ug/L	07:21:22
3	Se 196.026†	97.7	114.6	[100]	ug/L	07:21:22
3	Si 251.611†	13838.2	13339.0	[500]	ug/L	07:21:02
3	Sn 189.927†	447.8	440.3	[100]	ug/L	07:21:22
3	Ti 334.940†	57007.2	58083.1	[100]	ug/L	07:21:02
3	Tl 190.801†	233.6	262.6	[100]	ug/L	07:21:22
3	U 409.014†	1393.7	3596.8	[100]	ug/L	07:21:02
3	V 292.402†	11249.5	12558.0	[100]	ug/L	07:21:02
3	Zn 213.857†	9030.1	8452.9	[100]	ug/L	07:21:02
3	SiO2†	13379.9	12869.9	[1069.5]	ug/L	07:21:37

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	815200.1	7483.11	0.92%	99.557 %
Sc Radial	4316.4	30.60	0.71%	98.2 %
Y 371.029	686328.0	6339.00	0.92%	99.231 %
Y RADIAL	4696.6	34.45	0.73%	98.66 %
Ag 328.068†	19564.3	38.44	0.20%	[100] ug/L
As 188.979†	190.4	4.23	2.22%	[100] ug/L
B 249.677†	3436.9	15.41	0.45%	[100] ug/L
Ba 233.527†	10947.2	10.95	0.10%	[100] ug/L
Be 313.107†	238506.3	20.75	0.01%	[100] ug/L
Cd 226.502†	6877.8	74.92	1.09%	[100] ug/L
Co 228.616†	3965.6	49.63	1.25%	[100] ug/L
Cr 267.716†	7606.6	2.55	0.03%	[100] ug/L
Cu 324.752†	30616.3	45.95	0.15%	[100] ug/L
K 766.490 Radial†	5302.5	160.89	3.03%	[1000] ug/L
Mn 257.610†	78720.1	73.87	0.09%	[100] ug/L
Mo 202.031†	1139.9	11.27	0.99%	[100] ug/L
Ni 231.604†	3210.5	47.86	1.49%	[100] ug/L
P 214.914†	670.0	3.47	0.52%	[500] ug/L
Pb 220.353†	672.8	18.46	2.74%	[100] ug/L
S 181.975 Axial†	113.9	3.97	3.49%	[200] ug/L
Sb 206.836†	239.0	5.88	2.46%	[100] ug/L
Se 196.026†	120.8	5.83	4.83%	[100] ug/L
Si 251.611†	13288.7	43.81	0.33%	[500] ug/L
Sn 189.927†	441.1	4.43	1.00%	[100] ug/L
Sr 421.552†	12314.1	25.41	0.21%	[100] ug/L
Ti 334.940†	58051.8	34.72	0.06%	[100] ug/L
Tl 190.801†	264.5	1.66	0.63%	[100] ug/L
U 409.014†	3546.4	59.46	1.68%	[100] ug/L
V 292.402†	12556.8	17.06	0.14%	[100] ug/L
Zn 213.857†	8430.0	20.23	0.24%	[100] ug/L
SiO2†	13163.2	281.55	2.14%	[1069.5] ug/L

Sequence No.: 3

Sample ID: S0.5

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 3/19/2010 07:23:48

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	4176.8	4176.8	95.0	%	07:26:01
1	Y RADIAL	4651.6	4651.6	97.71	%	07:25:41
1	Al 396.153Radial†	4914.3	5249.1	[5000]	ug/L	07:25:41
1	Ca 317.933Radial†	2634.9	2756.9	[5000]	ug/L	07:26:01
1	K 766.490 Radial†	28253.2	27130.7	[5000]	ug/L	07:25:41
1	Mg 279.077 IEC†	121.5	126.4	[5000]	ug/L	07:26:01
1	Sr 421.552†	60226.2	63352.3	[500]	ug/L	07:25:41
1	Sc 361.383	821637.6	821637.6	100.34	%	07:26:58
1	Y 371.029	685019.0	685019.0	99.042	%	07:26:58
1	Ag 328.068†	98692.4	98169.4	[500]	ug/L	07:27:03
1	As 188.979†	887.8	911.5	[500]	ug/L	07:27:23
1	B 249.677†	17522.6	18000.0	[500]	ug/L	07:27:03
1	Ba 233.527†	54446.1	54260.5	[500]	ug/L	07:27:03
1	Be 313.107†	1185449.4	1185122.2	[500]	ug/L	07:26:58
1	Cd 226.502†	35110.5	35160.9	[500]	ug/L	07:27:03
1	Co 228.616†	20009.0	19986.7	[500]	ug/L	07:27:03
1	Cr 267.716†	38103.4	37901.5	[500]	ug/L	07:27:03
1	Cu 324.752†	159261.1	153163.9	[500]	ug/L	07:27:03
1	Mn 257.610†	382996.5	381296.3	[500]	ug/L	07:26:58
1	Mo 202.031†	5661.9	5634.0	[500]	ug/L	07:27:23
1	Ni 231.604†	16362.9	16222.8	[500]	ug/L	07:27:03
1	P 214.914†	3554.2	3354.8	[2500]	ug/L	07:27:23
1	Pb 220.353†	3215.7	3263.0	[500]	ug/L	07:27:23
1	S 181.975 Axial†	589.7	557.5	[1000]	ug/L	07:27:23
1	Sb 206.836†	1218.1	1190.2	[500]	ug/L	07:27:23
1	Se 196.026†	576.1	591.1	[500]	ug/L	07:27:23
1	Si 251.611†	67712.5	66992.5	[2500]	ug/L	07:27:03
1	Sn 189.927†	2220.6	2205.8	[500]	ug/L	07:27:23
1	Ti 334.940†	286976.2	287114.9	[500]	ug/L	07:27:03
1	Tl 190.801†	1277.6	1302.4	[500]	ug/L	07:27:23
1	U 409.014†	14882.9	17036.1	[500]	ug/L	07:27:03
1	V 292.402†	62512.7	63616.1	[500]	ug/L	07:27:03
1	Zn 213.857†	42904.3	42187.4	[500]	ug/L	07:27:03
1	SiO2†	66118.3	65392.6	[5347.5]	ug/L	07:28:31
2	Sc Radial	4187.9	4187.9	95.3	%	07:26:26
2	Y RADIAL	4622.9	4622.9	97.11	%	07:26:06
2	Al 396.153Radial†	4898.9	5219.3	[5000]	ug/L	07:26:06
2	Ca 317.933Radial†	2632.3	2746.8	[5000]	ug/L	07:26:26
2	K 766.490 Radial†	28051.2	26840.0	[5000]	ug/L	07:26:06
2	Mg 279.077 IEC†	123.8	128.4	[5000]	ug/L	07:26:26
2	Sr 421.552†	59628.2	62556.9	[500]	ug/L	07:26:06
2	Sc 361.383	825022.8	825022.8	100.76	%	07:27:29
2	Y 371.029	687439.8	687439.8	99.392	%	07:27:29
2	Ag 328.068†	97697.4	96778.3	[500]	ug/L	07:27:34
2	As 188.979†	890.6	910.7	[500]	ug/L	07:27:54
2	B 249.677†	17330.0	17737.2	[500]	ug/L	07:27:34
2	Ba 233.527†	53830.4	53426.7	[500]	ug/L	07:27:34
2	Be 313.107†	1189558.3	1184352.8	[500]	ug/L	07:27:29
2	Cd 226.502†	34616.6	34527.2	[500]	ug/L	07:27:34
2	Co 228.616†	19815.7	19713.0	[500]	ug/L	07:27:34
2	Cr 267.716†	37703.7	37349.0	[500]	ug/L	07:27:34
2	Cu 324.752†	157566.2	150830.5	[500]	ug/L	07:27:34
2	Mn 257.610†	384618.0	381339.5	[500]	ug/L	07:27:29
2	Mo 202.031†	5644.3	5593.4	[500]	ug/L	07:27:54
2	Ni 231.604†	16177.2	15971.6	[500]	ug/L	07:27:34
2	P 214.914†	3569.2	3355.1	[2500]	ug/L	07:27:54
2	Pb 220.353†	3211.8	3245.9	[500]	ug/L	07:27:54
2	S 181.975 Axial†	589.2	554.6	[1000]	ug/L	07:27:54
2	Sb 206.836†	1221.4	1188.5	[500]	ug/L	07:27:54

2	Se 196.026†	590.5	603.1	[500]	ug/L	07:27:54
2	Si 251.611†	66983.6	65992.2	[2500]	ug/L	07:27:34
2	Sn 189.927†	2206.0	2182.2	[500]	ug/L	07:27:54
2	Ti 334.940†	284172.9	283159.3	[500]	ug/L	07:27:34
2	Tl 190.801†	1271.4	1291.0	[500]	ug/L	07:27:54
2	U 409.014†	14780.1	16873.3	[500]	ug/L	07:27:34
2	V 292.402†	61704.6	62558.5	[500]	ug/L	07:27:34
2	Zn 213.857†	42493.9	41604.6	[500]	ug/L	07:27:34
2	SiO2†	66791.9	65790.8	[5347.5]	ug/L	07:28:36
3	Sc Radial	4203.5	4203.5	95.6	%	07:26:51
3	Y RADIAL	4694.9	4694.9	98.62	%	07:26:31
3	Al 396.153Radial†	4935.9	5239.0	[5000]	ug/L	07:26:31
3	Ca 317.933Radial†	2631.7	2735.9	[5000]	ug/L	07:26:51
3	K 766.490 Radial†	28217.2	26904.4	[5000]	ug/L	07:26:31
3	Mg 279.077 IEC†	124.5	128.6	[5000]	ug/L	07:26:51
3	Sr 421.552†	60103.1	62821.5	[500]	ug/L	07:26:31
3	Sc 361.383	826571.9	826571.9	100.95	%	07:28:00
3	Y 371.029	687898.7	687898.7	99.458	%	07:28:00
3	Ag 328.068†	99152.7	98038.2	[500]	ug/L	07:28:05
3	As 188.979†	889.6	908.1	[500]	ug/L	07:28:25
3	B 249.677†	17693.7	18065.2	[500]	ug/L	07:28:05
3	Ba 233.527†	54817.6	54304.6	[500]	ug/L	07:28:05
3	Be 313.107†	1190349.2	1182923.6	[500]	ug/L	07:28:00
3	Cd 226.502†	35274.6	35114.6	[500]	ug/L	07:28:05
3	Co 228.616†	20091.0	19948.9	[500]	ug/L	07:28:05
3	Cr 267.716†	38295.2	37864.7	[500]	ug/L	07:28:05
3	Cu 324.752†	160283.3	153229.1	[500]	ug/L	07:28:05
3	Mn 257.610†	385572.6	381569.8	[500]	ug/L	07:28:00
3	Mo 202.031†	5688.1	5626.2	[500]	ug/L	07:28:25
3	Ni 231.604†	16456.1	16217.8	[500]	ug/L	07:28:05
3	P 214.914†	3559.1	3338.4	[2500]	ug/L	07:28:25
3	Pb 220.353†	3226.6	3254.6	[500]	ug/L	07:28:25
3	S 181.975 Axial†	594.2	558.4	[1000]	ug/L	07:28:25
3	Sb 206.836†	1241.9	1206.6	[500]	ug/L	07:28:25
3	Se 196.026†	590.7	602.1	[500]	ug/L	07:28:25
3	Si 251.611†	68168.0	67040.9	[2500]	ug/L	07:28:05
3	Sn 189.927†	2212.7	2184.8	[500]	ug/L	07:28:25
3	Ti 334.940†	289122.7	287534.1	[500]	ug/L	07:28:05
3	Tl 190.801†	1277.8	1294.9	[500]	ug/L	07:28:25
3	U 409.014†	15107.2	17169.8	[500]	ug/L	07:28:05
3	V 292.402†	62733.4	63462.9	[500]	ug/L	07:28:05
3	Zn 213.857†	43215.4	42240.3	[500]	ug/L	07:28:05
3	SiO2†	66865.0	65739.0	[5347.5]	ug/L	07:28:41

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	824410.7	2523.46	0.31%	100.68 %
Sc Radial	4189.4	13.40	0.32%	95.3 %
Y 371.029	686785.8	1547.25	0.23%	99.297 %
Y RADIAL	4656.5	36.25	0.78%	97.81 %
Ag 328.068†	97662.0	768.09	0.79%	[500] ug/L
Al 396.153Radial†	5235.8	15.16	0.29%	[5000] ug/L
As 188.979†	910.1	1.80	0.20%	[500] ug/L
B 249.677†	17934.1	173.65	0.97%	[500] ug/L
Ba 233.527†	53997.2	494.58	0.92%	[500] ug/L
Be 313.107†	1184132.9	1115.71	0.09%	[500] ug/L
Ca 317.933Radial†	2746.5	10.52	0.38%	[5000] ug/L
Cd 226.502†	34934.2	353.27	1.01%	[500] ug/L
Co 228.616†	19882.9	148.31	0.75%	[500] ug/L
Cr 267.716†	37705.1	308.91	0.82%	[500] ug/L
Cu 324.752†	152407.8	1366.39	0.90%	[500] ug/L
K 766.490 Radial†	26958.4	152.71	0.57%	[5000] ug/L
Mg 279.077 IEC†	127.8	1.24	0.97%	[5000] ug/L
Mn 257.610†	381401.8	147.04	0.04%	[500] ug/L
Mo 202.031†	5617.9	21.56	0.38%	[500] ug/L
Ni 231.604†	16137.4	143.62	0.89%	[500] ug/L
P 214.914†	3349.4	9.54	0.28%	[2500] ug/L
Pb 220.353†	3254.5	8.54	0.26%	[500] ug/L
S 181.975 Axial†	556.8	1.98	0.36%	[1000] ug/L

Sb 206.836†	1195.1	9.96	0.83%	[500]	ug/L
Se 196.026†	598.8	6.64	1.11%	[500]	ug/L
Si 251.611†	66675.2	592.00	0.89%	[2500]	ug/L
Sn 189.927†	2190.9	12.95	0.59%	[500]	ug/L
Sr 421.552†	62910.2	405.09	0.64%	[500]	ug/L
Ti 334.940†	285936.1	2413.92	0.84%	[500]	ug/L
Tl 190.801†	1296.1	5.78	0.45%	[500]	ug/L
U 409.014†	17026.4	148.49	0.87%	[500]	ug/L
V 292.402†	63212.5	571.55	0.90%	[500]	ug/L
Zn 213.857†	42010.8	352.73	0.84%	[500]	ug/L
SiO2†	65640.8	216.53	0.33%	[5347.5]	ug/L

Sequence No.: 4

Sample ID: SCAL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 3/19/2010 07:30:51

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib.	Analysis Time
1	Sc Radial	4344.4	4344.4	98.8 %		07:32:44
1	Y RADIAL	4668.8	4668.8	98.07 %		07:32:44
1	Al 396.153Radial†	9900.0	10093.5	[10000] ug/L		07:32:44
1	Ca 317.933Radial†	5333.2	5379.7	[10000] ug/L		07:32:44
1	Fe 238.204 Radial†	855.1	856.7	[10000] ug/L		07:33:04
1	K 766.490 Radial†	54124.1	52156.7	[10000] ug/L		07:32:44
1	Mg 279.077 IEC†	245.6	246.9	[10000] ug/L		07:33:04
1	Na 589.592 Radial†	26296.6	27478.5	[10000] ug/L		07:32:44
1	Sr 421.552†	122992.3	124406.1	[1000] ug/L		07:32:44
1	Sc 361.383	819368.6	819368.6	100.07 %		07:34:03
1	Y 371.029	681762.9	681762.9	98.571 %		07:34:03
1	Ag 328.068†	192124.2	191811.5	[1000] ug/L		07:34:03
1	As 188.979†	1787.9	1813.5	[1000] ug/L		07:34:23
1	B 249.677†	35038.7	35552.8	[1000] ug/L		07:34:03
1	Ba 233.527†	106549.2	106479.2	[1000] ug/L		07:34:03
1	Be 313.107†	2343163.6	2345339.4	[1000] ug/L		07:34:03
1	Cd 226.502†	68574.5	68699.6	[1000] ug/L		07:34:03
1	Co 228.616†	38220.4	38241.3	[1000] ug/L		07:34:23
1	Cr 267.716†	74436.4	74315.5	[1000] ug/L		07:34:03
1	Cu 324.752†	307593.6	301837.4	[1000] ug/L		07:34:03
1	Mn 257.610†	760183.6	759290.0	[1000] ug/L		07:34:03
1	Mo 202.031†	11214.5	11198.6	[1000] ug/L		07:34:23
1	Ni 231.604†	31271.9	31167.1	[1000] ug/L		07:34:23
1	P 214.914†	6883.9	6692.0	[5000] ug/L		07:34:23
1	Pb 220.353†	6420.7	6474.7	[1000] ug/L		07:34:23
1	S 181.975 Axial†	1148.2	1117.2	[2000] ug/L		07:34:23
1	Sb 206.836†	2390.0	2364.7	[1000] ug/L		07:34:23
1	Se 196.026†	1177.1	1193.2	[1000] ug/L		07:34:23
1	Si 251.611†	131710.3	131134.7	[5000] ug/L		07:34:03
1	Sn 189.927†	4409.0	4398.9	[1000] ug/L		07:34:23
1	Ti 334.940†	574509.8	575249.8	[1000] ug/L		07:34:03
1	Tl 190.801†	2539.4	2566.8	[1000] ug/L		07:34:23
1	U 409.014†	30310.0	32494.1	[1000] ug/L		07:34:03
1	V 292.402†	123779.9	125015.2	[1000] ug/L		07:34:03
1	Zn 213.857†	82765.8	82140.8	[1000] ug/L		07:34:03
1	SiO2†	132053.9	131467.0	[10695] ug/L		07:35:24
2	Sc Radial	4357.0	4357.0	99.1 %		07:33:09
2	Y RADIAL	4710.6	4710.6	98.95 %		07:33:09
2	Al 396.153Radial†	9962.0	10127.1	[10000] ug/L		07:33:09
2	Ca 317.933Radial†	5341.3	5372.3	[10000] ug/L		07:33:09
2	Fe 238.204 Radial†	854.5	853.6	[10000] ug/L		07:33:29
2	K 766.490 Radial†	54185.4	52060.1	[10000] ug/L		07:33:09
2	Mg 279.077 IEC†	247.3	247.9	[10000] ug/L		07:33:29
2	Na 589.592 Radial†	26245.8	27350.2	[10000] ug/L		07:33:09
2	Sr 421.552†	123608.6	124667.8	[1000] ug/L		07:33:09
2	Sc 361.383	825030.9	825030.9	100.76 %		07:34:31
2	Y 371.029	685551.0	685551.0	99.119 %		07:34:31
2	Ag 328.068†	193526.5	191885.6	[1000] ug/L		07:34:31
2	As 188.979†	1800.1	1813.4	[1000] ug/L		07:34:51
2	B 249.677†	35389.2	35660.3	[1000] ug/L		07:34:31
2	Ba 233.527†	107337.0	106530.3	[1000] ug/L		07:34:31
2	Be 313.107†	2360060.0	2346038.1	[1000] ug/L		07:34:31
2	Cd 226.502†	69252.4	68902.1	[1000] ug/L		07:34:31
2	Co 228.616†	38675.7	38431.0	[1000] ug/L		07:34:51
2	Cr 267.716†	75156.9	74520.0	[1000] ug/L		07:34:31
2	Cu 324.752†	310179.0	302293.8	[1000] ug/L		07:34:31
2	Mn 257.610†	766947.4	760789.2	[1000] ug/L		07:34:31
2	Mo 202.031†	11357.1	11263.1	[1000] ug/L		07:34:51
2	Ni 231.604†	31613.1	31291.2	[1000] ug/L		07:34:51

2	P 214.914†	6950.8	6711.2	[5000]	ug/L	07:34:51
2	Pb 220.353†	6501.7	6511.1	[1000]	ug/L	07:34:51
2	S 181.975 Axial†	1154.9	1116.1	[2000]	ug/L	07:34:51
2	Sb 206.836†	2442.5	2400.4	[1000]	ug/L	07:34:51
2	Se 196.026†	1199.8	1207.7	[1000]	ug/L	07:34:51
2	Si 251.611†	132902.2	131414.3	[5000]	ug/L	07:34:31
2	Sn 189.927†	4443.2	4402.6	[1000]	ug/L	07:34:51
2	Ti 334.940†	579279.1	576042.9	[1000]	ug/L	07:34:31
2	Tl 190.801†	2581.0	2590.7	[1000]	ug/L	07:34:51
2	U 409.014†	30791.4	32764.0	[1000]	ug/L	07:34:31
2	V 292.402†	124696.3	125075.7	[1000]	ug/L	07:34:31
2	Zn 213.857†	83432.2	82234.5	[1000]	ug/L	07:34:31
2	SiO2†	132062.1	130569.4	[10695]	ug/L	07:35:29
3	Sc Radial	4286.2	4286.2	97.5	%	07:33:35
3	Y RADIAL	4648.8	4648.8	97.65	%	07:33:35
3	Al 396.153Radial†	9858.2	10186.7	[10000]	ug/L	07:33:35
3	Ca 317.933Radial†	5285.1	5403.6	[10000]	ug/L	07:33:35
3	Fe 238.204 Radial†	857.4	870.7	[10000]	ug/L	07:33:55
3	K 766.490 Radial†	53393.5	52151.0	[10000]	ug/L	07:33:35
3	Mg 279.077 IEC†	248.5	253.3	[10000]	ug/L	07:33:55
3	Na 589.592 Radial†	25596.1	27121.3	[10000]	ug/L	07:33:35
3	Sr 421.552†	121376.4	124438.7	[1000]	ug/L	07:33:35
3	Sc 361.383	819528.5	819528.5	100.09	%	07:34:58
3	Y 371.029	680490.9	680490.9	98.387	%	07:34:58
3	Ag 328.068†	192351.3	192001.0	[1000]	ug/L	07:34:58
3	As 188.979†	1810.4	1835.6	[1000]	ug/L	07:35:18
3	B 249.677†	35087.9	35595.1	[1000]	ug/L	07:34:58
3	Ba 233.527†	106371.3	106280.7	[1000]	ug/L	07:34:58
3	Be 313.107†	2336429.7	2338154.4	[1000]	ug/L	07:34:58
3	Cd 226.502†	68339.3	68451.2	[1000]	ug/L	07:34:58
3	Co 228.616†	38543.9	38557.0	[1000]	ug/L	07:35:18
3	Cr 267.716†	74336.2	74200.8	[1000]	ug/L	07:34:58
3	Cu 324.752†	308824.8	303007.6	[1000]	ug/L	07:34:58
3	Mn 257.610†	760159.6	759117.9	[1000]	ug/L	07:34:58
3	Mo 202.031†	11311.6	11293.3	[1000]	ug/L	07:35:18
3	Ni 231.604†	31511.2	31400.1	[1000]	ug/L	07:35:18
3	P 214.914†	6937.1	6743.8	[5000]	ug/L	07:35:18
3	Pb 220.353†	6481.7	6534.5	[1000]	ug/L	07:35:18
3	S 181.975 Axial†	1151.4	1120.2	[2000]	ug/L	07:35:18
3	Sb 206.836†	2431.5	2405.7	[1000]	ug/L	07:35:18
3	Se 196.026†	1185.9	1201.9	[1000]	ug/L	07:35:18
3	Si 251.611†	131907.0	131305.6	[5000]	ug/L	07:34:58
3	Sn 189.927†	4448.1	4437.1	[1000]	ug/L	07:35:18
3	Ti 334.940†	575356.7	575983.9	[1000]	ug/L	07:34:58
3	Tl 190.801†	2562.9	2589.7	[1000]	ug/L	07:35:18
3	U 409.014†	30555.8	32733.8	[1000]	ug/L	07:34:58
3	V 292.402†	123490.0	124701.4	[1000]	ug/L	07:34:58
3	Zn 213.857†	82686.9	82045.8	[1000]	ug/L	07:34:58
3	SiO2†	131524.8	130912.6	[10695]	ug/L	07:35:34

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	821309.3	3223.93	0.39%	100.30	%
Sc Radial	4329.2	37.77	0.87%	98.5	%
Y 371.029	682601.6	2632.21	0.39%	98.692	%
Y RADIAL	4676.1	31.56	0.67%	98.22	%
Ag 328.068†	191899.4	95.49	0.05%	[1000]	ug/L
Al 396.153Radial†	10135.8	47.17	0.47%	[10000]	ug/L
As 188.979†	1820.9	12.80	0.70%	[1000]	ug/L
B 249.677†	35602.8	54.15	0.15%	[1000]	ug/L
Ba 233.527†	106430.1	131.89	0.12%	[1000]	ug/L
Be 313.107†	2343177.3	4363.95	0.19%	[1000]	ug/L
Ca 317.933Radial†	5385.2	16.38	0.30%	[10000]	ug/L
Cd 226.502†	68684.3	225.84	0.33%	[1000]	ug/L
Co 228.616†	38409.7	158.92	0.41%	[1000]	ug/L
Cr 267.716†	74345.5	161.70	0.22%	[1000]	ug/L
Cu 324.752†	302379.6	589.80	0.20%	[1000]	ug/L
Fe 238.204 Radial†	860.3	9.13	1.06%	[10000]	ug/L
K 766.490 Radial†	52122.6	54.20	0.10%	[10000]	ug/L

Mg 279.077 IEC†	249.4	3.39	1.36%	[10000]	ug/L
Mn 257.610†	759732.4	919.29	0.12%	[1000]	ug/L
Mo 202.031†	11251.7	48.40	0.43%	[1000]	ug/L
Na 589.592 Radial†	27316.7	180.92	0.66%	[10000]	ug/L
Ni 231.604†	31286.1	116.56	0.37%	[1000]	ug/L
P 214.914†	6715.7	26.19	0.39%	[5000]	ug/L
Pb 220.353†	6506.8	30.09	0.46%	[1000]	ug/L
S 181.975 Axial†	1117.8	2.14	0.19%	[2000]	ug/L
Sb 206.836†	2390.3	22.30	0.93%	[1000]	ug/L
Se 196.026†	1201.0	7.29	0.61%	[1000]	ug/L
Si 251.611†	131284.9	140.98	0.11%	[5000]	ug/L
Sn 189.927†	4412.9	21.08	0.48%	[1000]	ug/L
Sr 421.552†	124504.2	142.63	0.11%	[1000]	ug/L
Ti 334.940†	575758.8	441.87	0.08%	[1000]	ug/L
Tl 190.801†	2582.4	13.54	0.52%	[1000]	ug/L
U 409.014†	32663.9	147.89	0.45%	[1000]	ug/L
V 292.402†	124930.8	200.93	0.16%	[1000]	ug/L
Zn 213.857†	82140.4	94.36	0.11%	[1000]	ug/L
SiO2†	130983.0	452.91	0.35%	[10695]	ug/L

Sequence No.: 5

Sample ID: S10

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 5

Date Collected: 3/19/2010 07:37:45

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib.	Analysis Time
1	Sc Radial	4263.0	4263.0	97.0 %		07:39:59
1	Y RADIAL	4575.6	4575.6	96.11 %		07:39:59
1	Al 396.153Radial†	49831.2	51453.0	[50000] ug/L		07:39:39
1	Ca 317.933Radial†	25954.1	26742.4	[50000] ug/L		07:39:39
1	Fe 238.204 Radial†	1687.7	1731.5	[20000] ug/L		07:39:59
1	Mg 279.077 IEC†	1178.7	1213.7	[50000] ug/L		07:39:59
1	Na 589.592 Radial†	55567.4	58164.0	[20000] ug/L		07:39:39
1	Sc 361.383	789692.1	789692.1	96.442 %		07:40:56
1	Y 371.029	653528.4	653528.4	94.489 %		07:40:56
2	Sc Radial	4290.8	4290.8	97.6 %		07:40:24
2	Y RADIAL	4619.8	4619.8	97.04 %		07:40:24
2	Al 396.153Radial†	48689.3	49950.4	[50000] ug/L		07:40:04
2	Ca 317.933Radial†	25266.7	25864.9	[50000] ug/L		07:40:04
2	Fe 238.204 Radial†	1692.1	1724.8	[20000] ug/L		07:40:24
2	Mg 279.077 IEC†	1181.2	1208.4	[50000] ug/L		07:40:24
2	Na 589.592 Radial†	54008.3	56195.6	[20000] ug/L		07:40:04
2	Sc 361.383	793240.2	793240.2	96.875 %		07:41:02
2	Y 371.029	656699.3	656699.3	94.947 %		07:41:02
3	Sc Radial	4280.8	4280.8	97.4 %		07:40:49
3	Y RADIAL	4602.7	4602.7	96.68 %		07:40:49
3	Al 396.153Radial†	49877.2	51287.3	[50000] ug/L		07:40:29
3	Ca 317.933Radial†	25897.8	26573.7	[50000] ug/L		07:40:29
3	Fe 238.204 Radial†	1689.6	1726.2	[20000] ug/L		07:40:49
3	Mg 279.077 IEC†	1178.0	1207.9	[50000] ug/L		07:40:49
3	Na 589.592 Radial†	55072.5	57418.3	[20000] ug/L		07:40:29
3	Sc 361.383	800906.3	800906.3	97.812 %		07:41:07
3	Y 371.029	662694.7	662694.7	95.814 %		07:41:07

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc. Units	Calib
Sc 361.383	794612.9	5731.76	0.72%	97.043 %	
Sc Radial	4278.2	14.08	0.33%	97.3 %	
Y 371.029	657640.8	4655.12	0.71%	95.083 %	
Y RADIAL	4599.4	22.30	0.48%	96.61 %	
Al 396.153Radial†	50896.9	823.85	1.62%	[50000] ug/L	
Ca 317.933Radial†	26393.7	465.66	1.76%	[50000] ug/L	
Fe 238.204 Radial†	1727.5	3.53	0.20%	[20000] ug/L	
Mg 279.077 IEC†	1210.0	3.21	0.27%	[50000] ug/L	
Na 589.592 Radial†	57259.3	993.78	1.74%	[20000] ug/L	

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	192.6	0.00000	0.999974	
Al 396.153Radial	3	Lin Thru 0	0.0	1.018	0.00000	0.999996	
As 188.979	3	Lin Thru 0	0.0	1.821	0.00000	0.999992	
B 249.677	3	Lin Thru 0	0.0	35.65	0.00000	0.999990	
Ba 233.527	3	Lin Thru 0	0.0	106.8	0.00000	0.999980	
Be 313.107	3	Lin Thru 0	0.0	2348	0.00000	0.999990	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.5285	0.00000	0.999985	
Cd 226.502	3	Lin Thru 0	0.0	68.92	0.00000	0.999977	
Co 228.616	3	Lin Thru 0	0.0	38.69	0.00000	0.999900	
Cr 267.716	3	Lin Thru 0	0.0	74.57	0.00000	0.999982	
Cu 324.752	3	Lin Thru 0	0.0	302.9	0.00000	0.999994	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0863	0.00000	0.999999	
K 766.490 Radial	3	Lin Thru 0	0.0	5.249	0.00000	0.999907	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0242	0.00000	0.999969
Mn 257.610	3	Lin Thru 0	0.0	760.6	0.00000	0.999994
Mo 202.031	3	Lin Thru 0	0.0	11.25	0.00000	0.999999
Na 589.592 Radia	2	Lin Thru 0	0.0	2.837	0.00000	0.999829
Ni 231.604	3	Lin Thru 0	0.0	31.49	0.00000	0.999920
P 214.914	3	Lin Thru 0	0.0	1.342	0.00000	0.999999
Pb 220.353	3	Lin Thru 0	0.0	6.509	0.00000	0.999995
S 181.975 Axial	3	Lin Thru 0	0.0	0.5586	0.00000	0.999997
Sb 206.836	3	Lin Thru 0	0.0	2.390	0.00000	1.000000
Se 196.026	3	Lin Thru 0	0.0	1.200	0.00000	0.999999
Si 251.611	3	Lin Thru 0	0.0	26.34	0.00000	0.999980
Sn 189.927	3	Lin Thru 0	0.0	4.407	0.00000	0.999996
Sr 421.552	3	Lin Thru 0	0.0	124.8	0.00000	0.999990
Ti 334.940	3	Lin Thru 0	0.0	575.0	0.00000	0.999996
Tl 190.801	3	Lin Thru 0	0.0	2.585	0.00000	0.999997
U 409.014	3	Lin Thru 0	0.0	32.96	0.00000	0.999836
V 292.402	3	Lin Thru 0	0.0	125.2	0.00000	0.999989
Zn 213.857	3	Lin Thru 0	0.0	82.53	0.00000	0.999957
SiO2	3	Lin Thru 0	0.0	12.25	0.00000	1.000000

Sequence No.: 6

Sample ID: ICV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 9

Date Collected: 3/19/2010 07:43:19

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	4236.5	4236.5	96.4 %		07:45:31
1	Y RADIAL	4746.7	4746.7	99.71 %		07:45:11
1	Al 396.153Radial†	5043.7	5310.7	5190.6 ug/L	5190.6 ppb	07:45:11
1	Ca 317.933Radial†	2646.9	2730.3	5166.3 ug/L	5166.3 ppb	07:45:31
1	Fe 238.204 Radial†	443.6	451.8	5249.8 ug/L	5249.8 ppb	07:45:31
1	K 766.490 Radial†	15378.7	13355.8	2541.1 ug/L	2541.1 ppb	07:45:11
1	Mg 279.077 IEC†	129.9	133.2	5494.7 ug/L	5494.7 ppb	07:45:31
1	Na 589.592 Radial†	5945.3	7043.0	2482.8 ug/L	2482.8 ppb	07:45:11
1	Sr 421.552†	65683.4	68121.9	546.01 ug/L	546.01 ppb	07:45:11
1	Sc 361.383	828020.8	828020.8	101.12 %		07:46:29
1	Y 371.029	691853.4	691853.4	100.03 %		07:46:29
1	Ag 328.068†	50281.0	49537.5	260.39 ug/L	260.39 ppb	07:46:29
1	As 188.979†	842.0	859.4	476.13 ug/L	476.13 ppb	07:46:49
1	B 249.677†	18333.9	18667.6	521.37 ug/L	521.37 ppb	07:46:29
1	Ba 233.527†	55293.2	54679.8	513.44 ug/L	513.44 ppb	07:46:29
1	Be 313.107†	620824.3	617660.4	264.14 ug/L	264.14 ppb	07:46:29
1	Cd 226.502†	34825.2	34609.1	502.04 ug/L	502.04 ppb	07:46:29
1	Co 228.616†	20188.0	20010.0	517.35 ug/L	517.35 ppb	07:46:29
1	Cr 267.716†	37007.0	36524.5	490.87 ug/L	490.87 ppb	07:46:29
1	Cu 324.752†	161407.2	154062.6	508.63 ug/L	508.63 ppb	07:46:29
1	Mn 257.610†	397858.6	393050.9	517.08 ug/L	517.08 ppb	07:46:29
1	Mo 202.031†	6082.7	6006.6	534.40 ug/L	534.40 ppb	07:46:49
1	Ni 231.604†	16297.5	16032.5	508.84 ug/L	508.84 ppb	07:46:29
1	P 214.914†	3585.3	3358.2	2402.7 ug/L	2402.7 ppb	07:46:49
1	Pb 220.353†	3230.6	3253.0	501.29 ug/L	501.29 ppb	07:46:49
1	S 181.975 Axial†	1435.1	1389.0	2485.7 ug/L	2485.7 ppb	07:46:49
1	Sb 206.836†	1237.1	1199.7	521.16 ug/L	521.16 ppb	07:46:49
1	Se 196.026†	3117.5	3099.8	2600.8 ug/L	2600.8 ppb	07:46:49
1	Si 251.611†	132565.1	130604.6	4951.6 ug/L	4951.6 ppb	07:46:29
1	Sn 189.927†	2396.2	2362.4	536.72 ug/L	536.72 ppb	07:46:49
1	Ti 334.940†	289993.6	287894.1	500.51 ug/L	500.51 ppb	07:46:29
1	Tl 190.801†	1336.3	1350.6	525.90 ug/L	525.90 ppb	07:46:49
1	U 409.014†	14608.3	16650.2	503.45 ug/L	503.45 ppb	07:46:29
1	V 292.402†	63227.7	63842.9	516.94 ug/L	516.94 ppb	07:46:29
1	Zn 213.857†	43406.0	42353.9	508.47 ug/L	508.47 ppb	07:46:29
1	SiO2†	131517.0	129557.0	10559 ug/L	10559 ppb	07:47:47
2	Sc Radial	4236.2	4236.2	96.4 %		07:45:57
2	Y RADIAL	4735.0	4735.0	99.46 %		07:45:37
2	Al 396.153Radial†	5034.3	5301.2	5181.0 ug/L	5181.0 ppb	07:45:37
2	Ca 317.933Radial†	2653.7	2737.5	5180.0 ug/L	5180.0 ppb	07:45:57
2	Fe 238.204 Radial†	444.4	452.6	5259.7 ug/L	5259.7 ppb	07:45:57
2	K 766.490 Radial†	15389.8	13368.3	2543.5 ug/L	2543.5 ppb	07:45:37
2	Mg 279.077 IEC†	128.0	131.2	5414.3 ug/L	5414.3 ppb	07:45:57
2	Na 589.592 Radial†	5861.5	6956.4	2452.3 ug/L	2452.3 ppb	07:45:37
2	Sr 421.552†	65138.0	67560.5	541.51 ug/L	541.51 ppb	07:45:37
2	Sc 361.383	820882.8	820882.8	100.25 %		07:46:55
2	Y 371.029	687024.5	687024.5	99.332 %		07:46:55
2	Ag 328.068†	49859.0	49548.8	260.46 ug/L	260.46 ppb	07:46:55
2	As 188.979†	857.3	882.0	488.48 ug/L	488.48 ppb	07:47:15
2	B 249.677†	18074.8	18566.8	518.55 ug/L	518.55 ppb	07:46:55
2	Ba 233.527†	54807.3	54670.6	513.35 ug/L	513.35 ppb	07:46:55
2	Be 313.107†	615521.6	617709.5	264.16 ug/L	264.16 ppb	07:46:55
2	Cd 226.502†	34435.0	34519.3	500.74 ug/L	500.74 ppb	07:46:55
2	Co 228.616†	19937.1	19933.4	515.39 ug/L	515.39 ppb	07:46:55
2	Cr 267.716†	36766.8	36603.1	491.93 ug/L	491.93 ppb	07:46:55
2	Cu 324.752†	159435.0	153483.3	506.73 ug/L	506.73 ppb	07:46:55
2	Mn 257.610†	393797.0	392420.7	516.26 ug/L	516.26 ppb	07:46:55
2	Mo 202.031†	6112.4	6088.6	541.69 ug/L	541.69 ppb	07:47:15
2	Ni 231.604†	16226.6	16101.8	511.04 ug/L	511.04 ppb	07:46:55

2	P 214.914†	3616.6	3420.3	2449.3 ug/L	2449.3 ppb	07:47:15
2	Pb 220.353†	3236.1	3286.3	506.43 ug/L	506.43 ppb	07:47:15
2	S 181.975 Axial†	1446.8	1413.0	2528.5 ug/L	2528.5 ppb	07:47:15
2	Sb 206.836†	1247.3	1220.5	530.13 ug/L	530.13 ppb	07:47:15
2	Se 196.026†	3136.4	3145.5	2638.9 ug/L	2638.9 ppb	07:47:15
2	Si 251.611†	131086.9	130270.1	4938.8 ug/L	4938.8 ppb	07:46:55
2	Sn 189.927†	2402.1	2388.9	542.72 ug/L	542.72 ppb	07:47:15
2	Ti 334.940†	287075.9	287477.4	499.80 ug/L	499.80 ppb	07:46:55
2	Tl 190.801†	1363.4	1389.1	540.79 ug/L	540.79 ppb	07:47:15
2	U 409.014†	14162.5	16331.2	493.76 ug/L	493.76 ppb	07:46:55
2	V 292.402†	62608.2	63768.7	516.43 ug/L	516.43 ppb	07:46:55
2	Zn 213.857†	42973.0	42295.1	507.75 ug/L	507.75 ppb	07:46:55
2	SiO2†	129984.9	129159.7	10526 ug/L	10526 ppb	07:47:52
3	Sc Radial	4249.4	4249.4	96.7 %		07:46:22
3	Y RADIAL	4742.6	4742.6	99.62 %		07:46:02
3	Al 396.153Radial†	5051.7	5303.0	5183.1 ug/L	5183.1 ppb	07:46:02
3	Ca 317.933Radial†	2658.2	2733.6	5172.6 ug/L	5172.6 ppb	07:46:22
3	Fe 238.204 Radial†	442.5	449.2	5220.7 ug/L	5220.7 ppb	07:46:22
3	K 766.490 Radial†	15649.2	13587.0	2585.2 ug/L	2585.2 ppb	07:46:02
3	Mg 279.077 IEC†	128.5	131.3	5417.7 ug/L	5417.7 ppb	07:46:22
3	Na 589.592 Radial†	5869.2	6945.6	2448.5 ug/L	2448.5 ppb	07:46:02
3	Sr 421.552†	65487.0	67711.5	542.72 ug/L	542.72 ppb	07:46:02
3	Sc 361.383	827095.9	827095.9	101.01 %		07:47:21
3	Y 371.029	692361.2	692361.2	100.10 %		07:47:21
3	Ag 328.068†	50259.5	49571.7	260.55 ug/L	260.55 ppb	07:47:21
3	As 188.979†	842.1	860.4	476.66 ug/L	476.66 ppb	07:47:41
3	B 249.677†	18172.4	18528.1	517.47 ug/L	517.47 ppb	07:47:21
3	Ba 233.527†	55205.3	54653.9	513.19 ug/L	513.19 ppb	07:47:21
3	Be 313.107†	620935.3	618456.9	264.48 ug/L	264.48 ppb	07:47:21
3	Cd 226.502†	34701.6	34525.3	500.83 ug/L	500.83 ppb	07:47:21
3	Co 228.616†	20116.9	19961.9	516.11 ug/L	516.11 ppb	07:47:21
3	Cr 267.716†	37016.0	36574.3	491.54 ug/L	491.54 ppb	07:47:21
3	Cu 324.752†	160873.9	153713.2	507.48 ug/L	507.48 ppb	07:47:21
3	Mn 257.610†	396517.7	392163.4	515.92 ug/L	515.92 ppb	07:47:21
3	Mo 202.031†	6064.4	5995.2	533.39 ug/L	533.39 ppb	07:47:41
3	Ni 231.604†	16302.2	16055.1	509.55 ug/L	509.55 ppb	07:47:21
3	P 214.914†	3576.3	3353.2	2399.2 ug/L	2399.2 ppb	07:47:41
3	Pb 220.353†	3197.5	3223.8	496.81 ug/L	496.81 ppb	07:47:41
3	S 181.975 Axial†	1440.1	1395.5	2497.3 ug/L	2497.3 ppb	07:47:41
3	Sb 206.836†	1240.5	1204.4	523.11 ug/L	523.11 ppb	07:47:41
3	Se 196.026†	3103.0	3088.9	2591.7 ug/L	2591.7 ppb	07:47:41
3	Si 251.611†	131993.1	130185.0	4935.6 ug/L	4935.6 ppb	07:47:21
3	Sn 189.927†	2394.1	2363.0	536.84 ug/L	536.84 ppb	07:47:41
3	Ti 334.940†	289182.3	287411.7	499.68 ug/L	499.68 ppb	07:47:41
3	Tl 190.801†	1341.9	1357.6	528.61 ug/L	528.61 ppb	07:47:41
3	U 409.014†	14513.2	16572.3	501.08 ug/L	501.08 ppb	07:47:21
3	V 292.402†	62962.4	63650.2	515.39 ug/L	515.39 ppb	07:47:21
3	Zn 213.857†	43202.6	42200.5	506.62 ug/L	506.62 ppb	07:47:21
3	SiO2†	131712.1	129895.6	10586 ug/L	10586 ppb	07:47:57

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	825333.2	100.79 %	0.474			0.47%
Sc Radial	4240.7	96.5 %	0.17			0.18%
Y 371.029	690413.1	99.822 %	0.4259			0.43%
Y RADIAL	4741.4	99.60 %	0.126			0.13%
Ag 328.068†	49552.7	260.47 ug/L	0.083	260.47 ppb	0.083	0.03%
QC value within limits for Ag 328.068 Recovery = 104.19%						
Al 396.153Radial†	5304.9	5184.9 ug/L	5.08	5184.9 ppb	5.08	0.10%
QC value within limits for Al 396.153Radial Recovery = 103.70%						
As 188.979†	867.3	480.42 ug/L	6.979	480.42 ppb	6.979	1.45%
QC value within limits for As 188.979 Recovery = 96.08%						
B 249.677†	18587.5	519.13 ug/L	2.017	519.13 ppb	2.017	0.39%
QC value within limits for B 249.677 Recovery = 103.83%						
Ba 233.527†	54668.1	513.32 ug/L	0.125	513.32 ppb	0.125	0.02%
QC value within limits for Ba 233.527 Recovery = 102.66%						
Be 313.107†	617942.3	264.26 ug/L	0.189	264.26 ppb	0.189	0.07%
QC value within limits for Be 313.107 Recovery = 105.70%						
Ca 317.933Radial†	2733.8	5173.0 ug/L	6.84	5173.0 ppb	6.84	0.13%

QC value within limits for Ca 317.933 Radial Recovery = 103.46%

Cd	226.502†	34551.2	501.21 ug/L	0.728	501.21 ppb	0.728	0.15%
QC value within limits for Cd 226.502 Recovery = 100.24%							
Co	228.616†	19968.4	516.29 ug/L	0.993	516.29 ppb	0.993	0.19%
QC value within limits for Co 228.616 Recovery = 103.26%							
Cr	267.716†	36567.3	491.45 ug/L	0.535	491.45 ppb	0.535	0.11%
QC value within limits for Cr 267.716 Recovery = 98.29%							
Cu	324.752†	153753.0	507.61 ug/L	0.960	507.61 ppb	0.960	0.19%
QC value within limits for Cu 324.752 Recovery = 101.52%							
Fe	238.204 Radial†	451.2	5243.4 ug/L	20.29	5243.4 ppb	20.29	0.39%
QC value within limits for Fe 238.204 Radial Recovery = 104.87%							
K	766.490 Radial†	13437.0	2556.6 ug/L	24.79	2556.6 ppb	24.79	0.97%
QC value within limits for K 766.490 Radial Recovery = 102.26%							
Mg	279.077 IEC†	131.9	5442.2 ug/L	45.49	5442.2 ppb	45.49	0.84%
QC value within limits for Mg 279.077 IEC Recovery = 108.84%							
Mn	257.610†	392545.0	516.42 ug/L	0.600	516.42 ppb	0.600	0.12%
QC value within limits for Mn 257.610 Recovery = 103.28%							
Mo	202.031†	6030.1	536.49 ug/L	4.528	536.49 ppb	4.528	0.84%
QC value within limits for Mo 202.031 Recovery = 107.30%							
Na	589.592 Radial†	6981.7	2461.2 ug/L	18.82	2461.2 ppb	18.82	0.76%
QC value within limits for Na 589.592 Radial Recovery = 98.45%							
Ni	231.604†	16063.1	509.81 ug/L	1.124	509.81 ppb	1.124	0.22%
QC value within limits for Ni 231.604 Recovery = 101.96%							
P	214.914†	3377.2	2417.1 ug/L	27.99	2417.1 ppb	27.99	1.16%
QC value within limits for P 214.914 Recovery = 96.68%							
Pb	220.353†	3254.4	501.51 ug/L	4.813	501.51 ppb	4.813	0.96%
QC value within limits for Pb 220.353 Recovery = 100.30%							
S	181.975 Axial†	1399.2	2503.8 ug/L	22.17	2503.8 ppb	22.17	0.89%
QC value within limits for S 181.975 Axial Recovery = 100.15%							
Sb	206.836†	1208.2	524.80 ug/L	4.720	524.80 ppb	4.720	0.90%
QC value within limits for Sb 206.836 Recovery = 104.96%							
Se	196.026†	3111.4	2610.5 ug/L	25.06	2610.5 ppb	25.06	0.96%
QC value within limits for Se 196.026 Recovery = 104.42%							
Si	251.611†	130353.2	4942.0 ug/L	8.43	4942.0 ppb	8.43	0.17%
QC value within limits for Si 251.611 Recovery = 98.84%							
Sn	189.927†	2371.4	538.76 ug/L	3.429	538.76 ppb	3.429	0.64%
QC value within limits for Sn 189.927 Recovery = 107.75%							
Sr	421.552†	67798.0	543.41 ug/L	2.329	543.41 ppb	2.329	0.43%
QC value within limits for Sr 421.552 Recovery = 108.68%							
Ti	334.940†	287594.4	499.99 ug/L	0.450	499.99 ppb	0.450	0.09%
QC value within limits for Ti 334.940 Recovery = 100.00%							
Tl	190.801†	1365.7	531.77 ug/L	7.929	531.77 ppb	7.929	1.49%
QC value within limits for Tl 190.801 Recovery = 106.35%							
U	409.014†	16517.9	499.43 ug/L	5.048	499.43 ppb	5.048	1.01%
QC value within limits for U 409.014 Recovery = 99.89%							
V	292.402†	63753.9	516.25 ug/L	0.792	516.25 ppb	0.792	0.15%
QC value within limits for V 292.402 Recovery = 103.25%							
Zn	213.857†	42283.2	507.61 ug/L	0.936	507.61 ppb	0.936	0.18%
QC value within limits for Zn 213.857 Recovery = 101.52%							
SiO2†		129537.4	10557 ug/L	30.2	10557 ppb	30.2	0.29%
QC value within limits for SiO2 Recovery = 98.71%							

All analyte(s) passed QC.

Sequence No.: 7

Sample ID: ICB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 3/19/2010 07:50:08

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	4227.6	4227.6	96.2 %		07:52:21
1	Y RADIAL	4774.1	4774.1	100.3 %		07:52:01
1	Al 396.153Radial†	-68.9	6.4	6.3185 ug/L	6.3185 ppb	07:52:21
1	Ca 317.933Radial†	18.9	4.0	7.5299 ug/L	7.5299 ppb	07:52:21
1	Fe 238.204 Radial†	9.1	1.0	11.562 ug/L	11.562 ppb	07:52:21
1	K 766.490 Radial†	2602.7	107.0	20.388 ug/L	20.388 ppb	07:52:01
1	Mg 279.077 IEC†	1.1	-0.4	-16.653 ug/L	-16.653 ppb	07:52:21
1	Na 589.592 Radial†	-877.3	-37.0	-13.028 ug/L	-13.028 ppb	07:52:01
1	Sr 421.552†	-2.3	-23.2	-0.1857 ug/L	-0.1857 ppb	07:52:01
1	Sc 361.383	822500.8	822500.8	100.45 %		07:53:18
1	Y 371.029	694388.9	694388.9	100.40 %		07:53:18
1	Ag 328.068†	219.4	33.2	0.1721 ug/L	0.1721 ppb	07:53:18
1	As 188.979†	-14.3	12.6	6.8925 ug/L	6.8925 ppb	07:53:38
1	B 249.677†	-143.2	394.8	11.075 ug/L	11.075 ppb	07:53:38
1	Ba 233.527†	3.8	4.5	0.0412 ug/L	0.0412 ppb	07:53:38
1	Be 313.107†	-3620.9	126.3	0.0535 ug/L	0.0535 ppb	07:53:18
1	Cd 226.502†	-170.4	1.0	0.0130 ug/L	0.0130 ppb	07:53:38
1	Co 228.616†	-53.3	-6.9	-0.1775 ug/L	-0.1775 ppb	07:53:38
1	Cr 267.716†	81.7	9.8	0.1311 ug/L	0.1311 ppb	07:53:38
1	Cu 324.752†	5460.0	-116.4	-0.3851 ug/L	-0.3851 ppb	07:53:18
1	Mn 257.610†	435.0	44.0	0.0597 ug/L	0.0597 ppb	07:53:38
1	Mo 202.031†	12.1	3.5	0.3106 ug/L	0.3106 ppb	07:53:38
1	Ni 231.604†	74.1	-10.3	-0.3261 ug/L	-0.3261 ppb	07:53:38
1	P 214.914†	199.0	10.8	8.1501 ug/L	8.1501 ppb	07:53:38
1	Pb 220.353†	-64.9	-6.3	-0.9611 ug/L	-0.9611 ppb	07:53:38
1	S 181.975 Axial†	28.0	-2.3	-4.1877 ug/L	-4.1877 ppb	07:53:38
1	Sb 206.836†	25.3	1.5	0.6355 ug/L	0.6355 ppb	07:53:38
1	Se 196.026†	-18.2	-1.2	-0.9475 ug/L	-0.9475 ppb	07:53:38
1	Si 251.611†	523.3	32.7	1.2394 ug/L	1.2394 ppb	07:53:38
1	Sn 189.927†	9.4	2.2	0.5039 ug/L	0.5039 ppb	07:53:38
1	Ti 334.940†	-1203.2	-76.6	-0.1322 ug/L	-0.1322 ppb	07:53:18
1	Tl 190.801†	-32.0	-2.7	-1.0626 ug/L	-1.0626 ppb	07:53:38
1	U 409.014†	-2124.4	89.3	2.7075 ug/L	2.7075 ppb	07:53:18
1	V 292.402†	-1376.1	-52.5	-0.4113 ug/L	-0.4113 ppb	07:53:18
1	Zn 213.857†	569.1	-3.5	-0.0418 ug/L	-0.0418 ppb	07:53:38
1	SiO2†	542.5	40.7	3.3134 ug/L	3.3134 ppb	07:54:49
2	Sc Radial	4262.1	4262.1	97.0 %		07:52:47
2	Y RADIAL	4708.4	4708.4	98.90 %		07:52:27
2	Al 396.153Radial†	-75.6	0.2	0.1122 ug/L	0.1122 ppb	07:52:47
2	Ca 317.933Radial†	15.6	0.4	0.7040 ug/L	0.7040 ppb	07:52:47
2	Fe 238.204 Radial†	8.1	-0.1	-1.2667 ug/L	-1.2667 ppb	07:52:47
2	K 766.490 Radial†	2562.5	43.7	8.3262 ug/L	8.3262 ppb	07:52:27
2	Mg 279.077 IEC†	0.5	-1.0	-43.214 ug/L	-43.214 ppb	07:52:47
2	Na 589.592 Radial†	-902.5	-55.5	-19.565 ug/L	-19.565 ppb	07:52:27
2	Sr 421.552†	-0.1	-20.9	-0.1676 ug/L	-0.1676 ppb	07:52:27
2	Sc 361.383	809397.3	809397.3	98.849 %		07:53:44
2	Y 371.029	684094.8	684094.8	98.908 %		07:53:44
2	Ag 328.068†	108.4	-75.5	-0.3948 ug/L	-0.3948 ppb	07:53:44
2	As 188.979†	-26.5	-0.0	-0.0164 ug/L	-0.0164 ppb	07:54:04
2	B 249.677†	-133.5	402.3	11.288 ug/L	11.288 ppb	07:54:04
2	Ba 233.527†	-10.0	-9.4	-0.0882 ug/L	-0.0882 ppb	07:54:04
2	Be 313.107†	-3759.4	-72.2	-0.0306 ug/L	-0.0306 ppb	07:53:44
2	Cd 226.502†	-175.0	-6.4	-0.0927 ug/L	-0.0927 ppb	07:54:04
2	Co 228.616†	-54.4	-8.9	-0.2262 ug/L	-0.2262 ppb	07:54:04
2	Cr 267.716†	75.5	4.9	0.0640 ug/L	0.0640 ppb	07:54:04
2	Cu 324.752†	5612.9	126.3	0.4151 ug/L	0.4151 ppb	07:53:44
2	Mn 257.610†	405.8	21.5	0.0299 ug/L	0.0299 ppb	07:54:04
2	Mo 202.031†	22.9	14.6	1.3019 ug/L	1.3019 ppb	07:54:04
2	Ni 231.604†	81.9	-1.2	-0.0393 ug/L	-0.0393 ppb	07:54:04

2	P 214.914†	176.7	-8.5	-6.4383 ug/L	-6.4383 ppb	07:54:04
2	Pb 220.353†	-50.1	7.6	1.1742 ug/L	1.1742 ppb	07:54:04
2	S 181.975 Axial†	28.6	-1.2	-2.1912 ug/L	-2.1912 ppb	07:54:04
2	Sb 206.836†	26.4	3.0	1.2919 ug/L	1.2919 ppb	07:54:04
2	Se 196.026†	-26.5	-9.8	-8.1711 ug/L	-8.1711 ppb	07:54:04
2	Si 251.611†	511.4	29.2	1.0927 ug/L	1.0927 ppb	07:54:04
2	Sn 189.927†	7.7	0.6	0.1470 ug/L	0.1470 ppb	07:54:04
2	Ti 334.940†	-1067.3	41.5	0.0743 ug/L	0.0743 ppb	07:53:44
2	Tl 190.801†	-29.0	-0.3	-0.1073 ug/L	-0.1073 ppb	07:54:04
2	U 409.014†	-2072.2	107.9	3.2725 ug/L	3.2725 ppb	07:53:44
2	V 292.402†	-1292.4	10.0	0.1038 ug/L	0.1038 ppb	07:53:44
2	Zn 213.857†	554.3	-9.3	-0.1129 ug/L	-0.1129 ppb	07:54:04
2	SiO2†	534.3	41.2	3.3239 ug/L	3.3239 ppb	07:55:09
3	Sc Radial	4234.0	4234.0	96.3 %		07:53:12
3	Y RADIAL	4724.6	4724.6	99.24 %		07:52:52
3	Al 396.153Radial†	-81.6	-6.6	-6.5359 ug/L	-6.5359 ppb	07:53:12
3	Ca 317.933Radial†	16.3	1.3	2.3818 ug/L	2.3818 ppb	07:53:12
3	Fe 238.204 Radial†	9.4	1.3	15.504 ug/L	15.504 ppb	07:53:12
3	K 766.490 Radial†	2538.1	35.9	6.8490 ug/L	6.8490 ppb	07:52:52
3	Mg 279.077 IEC†	4.4	3.0	123.58 ug/L	123.58 ppb	07:53:12
3	Na 589.592 Radial†	-910.3	-69.8	-24.604 ug/L	-24.604 ppb	07:52:52
3	Sr 421.552†	52.7	33.9	0.2718 ug/L	0.2718 ppb	07:52:52
3	Sc 361.383	824073.6	824073.6	100.64 %		07:54:09
3	Y 371.029	697428.4	697428.4	100.84 %		07:54:09
3	Ag 328.068†	260.6	73.8	0.3839 ug/L	0.3839 ppb	07:54:09
3	As 188.979†	-24.2	2.7	1.4956 ug/L	1.4956 ppb	07:54:29
3	B 249.677†	-133.9	404.3	11.340 ug/L	11.340 ppb	07:54:29
3	Ba 233.527†	24.9	25.4	0.2395 ug/L	0.2395 ppb	07:54:29
3	Be 313.107†	-3640.4	113.8	0.0487 ug/L	0.0487 ppb	07:54:09
3	Cd 226.502†	-164.0	7.7	0.1121 ug/L	0.1121 ppb	07:54:29
3	Co 228.616†	-49.5	-3.0	-0.0776 ug/L	-0.0776 ppb	07:54:29
3	Cr 267.716†	78.7	6.7	0.0889 ug/L	0.0889 ppb	07:54:29
3	Cu 324.752†	5545.9	-41.4	-0.1401 ug/L	-0.1401 ppb	07:54:09
3	Mn 257.610†	423.7	31.9	0.0384 ug/L	0.0384 ppb	07:54:29
3	Mo 202.031†	12.7	4.1	0.3639 ug/L	0.3639 ppb	07:54:29
3	Ni 231.604†	92.7	8.1	0.2558 ug/L	0.2558 ppb	07:54:29
3	P 214.914†	185.9	-2.6	-1.9063 ug/L	-1.9063 ppb	07:54:29
3	Pb 220.353†	-55.4	3.3	0.4986 ug/L	0.4986 ppb	07:54:29
3	S 181.975 Axial†	25.6	-4.7	-8.4722 ug/L	-8.4722 ppb	07:54:29
3	Sb 206.836†	24.2	0.4	0.1882 ug/L	0.1882 ppb	07:54:29
3	Se 196.026†	-16.5	0.5	0.4855 ug/L	0.4855 ppb	07:54:29
3	Si 251.611†	522.6	31.1	1.1761 ug/L	1.1761 ppb	07:54:29
3	Sn 189.927†	14.3	7.0	1.5931 ug/L	1.5931 ppb	07:54:29
3	Ti 334.940†	-1072.1	56.0	0.0843 ug/L	0.0843 ppb	07:54:09
3	Tl 190.801†	-26.9	2.3	0.9032 ug/L	0.9032 ppb	07:54:29
3	U 409.014†	-1972.4	244.3	7.4112 ug/L	7.4112 ppb	07:54:09
3	V 292.402†	-1263.2	62.3	0.5170 ug/L	0.5170 ppb	07:54:09
3	Zn 213.857†	568.9	-4.8	-0.0621 ug/L	-0.0621 ppb	07:54:29
3	SiO2†	526.0	23.4	1.8968 ug/L	1.8968 ppb	07:55:29

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	818657.3	99.980 %	0.9841			0.98%
Sc Radial	4241.2	96.5 %	0.42			0.43%
Y 371.029	691970.7	100.05 %	1.010			1.01%
Y RADIAL	4735.7	99.48 %	0.719			0.72%
Ag 328.068†	10.5	0.0537 ug/L	0.40263	0.0537 ppb	0.40263	749.28%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-0.0	-0.0351 ug/L	6.42850	-0.0351 ppb	6.42850	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	5.1	2.7906 ug/L	3.63190	2.7906 ppb	3.63190	130.15%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	400.5	11.235 ug/L	0.1403	11.235 ppb	0.1403	1.25%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	6.8	0.0642 ug/L	0.16504	0.0642 ppb	0.16504	257.23%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	56.0	0.0239 ug/L	0.04720	0.0239 ppb	0.04720	197.83%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	1.9	3.5386 ug/L	3.55694	3.5386 ppb	3.55694	100.52%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd 226.502†	0.7	0.0108 ug/L	0.10245	0.0108 ppb	0.10245	947.92%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-6.3	-0.1604 ug/L	0.07575	-0.1604 ppb	0.07575	47.21%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	7.1	0.0947 ug/L	0.03391	0.0947 ppb	0.03391	35.82%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-10.5	-0.0367 ug/L	0.41001	-0.0367 ppb	0.41001	>999.9%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	0.7	8.5999 ug/L	8.76910	8.5999 ppb	8.76910	101.97%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	62.2	11.854 ug/L	7.4269	11.854 ppb	7.4269	62.65%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	0.5	21.237 ug/L	89.6187	21.237 ppb	89.6187	422.00%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	32.5	0.0427 ug/L	0.01531	0.0427 ppb	0.01531	35.88%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	7.4	0.6588 ug/L	0.55759	0.6588 ppb	0.55759	84.64%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-54.1	-19.066 ug/L	5.8042	-19.066 ppb	5.8042	30.44%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-1.2	-0.0366 ug/L	0.29096	-0.0366 ppb	0.29096	795.90%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-0.1	-0.0648 ug/L	7.46648	-0.0648 ppb	7.46648	>999.9%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	1.5	0.2372 ug/L	1.09140	0.2372 ppb	1.09140	460.05%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-2.8	-4.9504 ug/L	3.20920	-4.9504 ppb	3.20920	64.83%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	1.6	0.7052 ug/L	0.55515	0.7052 ppb	0.55515	78.72%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-3.5	-2.8777 ug/L	4.63988	-2.8777 ppb	4.63988	161.23%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	31.0	1.1694 ug/L	0.07358	1.1694 ppb	0.07358	6.29%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	3.3	0.7480 ug/L	0.75332	0.7480 ppb	0.75332	100.71%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-3.4	-0.0272 ug/L	0.25907	-0.0272 ppb	0.25907	952.37%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	6.9	0.0088 ug/L	0.12217	0.0088 ppb	0.12217	>999.9%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-0.2	-0.0889 ug/L	0.98302	-0.0889 ppb	0.98302	>999.9%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	147.2	4.4637 ug/L	2.56816	4.4637 ppb	2.56816	57.53%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	6.6	0.0698 ug/L	0.46509	0.0698 ppb	0.46509	666.11%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	-5.9	-0.0723 ug/L	0.03665	-0.0723 ppb	0.03665	50.72%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	35.1	2.8447 ug/L	0.82097	2.8447 ppb	0.82097	28.86%
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: 3/19/2010 07:57:41

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	4245.6	4245.6	96.6 %		07:59:54
1	Y RADIAL	4767.8	4767.8	100.2 %		07:59:34
1	Al 396.153Radial†	133.0	215.8	211.49 ug/L	211.49 ppb	07:59:54
1	Ca 317.933Radial†	126.9	115.7	218.92 ug/L	218.92 ppb	07:59:54
1	Fe 238.204 Radial†	17.7	9.9	114.61 ug/L	114.61 ppb	07:59:54
1	K 766.490 Radial†	3386.5	907.0	172.60 ug/L	172.60 ppb	07:59:34
1	Mg 279.077 IEC†	8.9	7.7	318.80 ug/L	318.80 ppb	07:59:54
1	Na 589.592 Radial†	-60.9	812.1	286.28 ug/L	286.28 ppb	07:59:34
1	Sr 421.552†	640.5	642.3	5.1465 ug/L	5.1465 ppb	07:59:34
1	Sc 361.383	812136.9	812136.9	99.183 %		08:00:50
1	Y 371.029	686807.1	686807.1	99.300 %		08:00:50
1	Ag 328.068†	1209.8	1034.6	5.3773 ug/L	5.3773 ppb	08:00:50
1	As 188.979†	35.4	62.5	34.339 ug/L	34.339 ppb	08:01:10
1	B 249.677†	1543.2	2093.3	58.692 ug/L	58.692 ppb	08:00:50
1	Ba 233.527†	549.9	555.1	5.2128 ug/L	5.2128 ppb	08:01:10
1	Be 313.107†	8135.1	11933.1	5.0926 ug/L	5.0926 ppb	08:00:50
1	Cd 226.502†	189.2	361.4	5.2462 ug/L	5.2462 ppb	08:01:10
1	Co 228.616†	146.1	193.5	5.0142 ug/L	5.0142 ppb	08:01:10
1	Cr 267.716†	456.1	388.3	5.2039 ug/L	5.2039 ppb	08:01:10
1	Cu 324.752†	8656.8	3176.1	10.462 ug/L	10.462 ppb	08:00:50
1	Mn 257.610†	8403.4	8083.6	10.627 ug/L	10.627 ppb	08:00:50
1	Mo 202.031†	123.8	116.3	10.352 ug/L	10.352 ppb	08:01:10
1	Ni 231.604†	241.6	159.5	5.0629 ug/L	5.0629 ppb	08:01:10
1	P 214.914†	390.7	206.6	151.89 ug/L	151.89 ppb	08:01:10
1	Pb 220.353†	30.8	89.3	13.777 ug/L	13.777 ppb	08:01:10
1	S 181.975 Axial†	80.2	50.7	90.708 ug/L	90.708 ppb	08:01:10
1	Sb 206.836†	48.7	25.4	10.975 ug/L	10.975 ppb	08:01:10
1	Se 196.026†	23.6	40.7	34.377 ug/L	34.377 ppb	08:01:10
1	Si 251.611†	3086.7	2623.9	99.485 ug/L	99.485 ppb	08:01:10
1	Sn 189.927†	45.2	38.4	8.7521 ug/L	8.7521 ppb	08:01:10
1	Ti 334.940†	1751.7	2887.3	4.9985 ug/L	4.9985 ppb	08:00:50
1	Tl 190.801†	25.5	54.8	21.246 ug/L	21.246 ppb	08:01:10
1	U 409.014†	-392.1	1808.8	54.852 ug/L	54.852 ppb	08:00:50
1	V 292.402†	-753.3	557.9	4.6884 ug/L	4.6884 ppb	08:00:50
1	Zn 213.857†	1676.7	1120.5	13.513 ug/L	13.513 ppb	08:01:10
1	SiO2†	3159.0	2685.6	218.90 ug/L	218.90 ppb	08:02:07
2	Sc Radial	4256.7	4256.7	96.9 %		08:00:19
2	Y RADIAL	4740.6	4740.6	99.58 %		07:59:59
2	Al 396.153Radial†	133.7	216.1	211.76 ug/L	211.76 ppb	08:00:19
2	Ca 317.933Radial†	133.1	121.7	230.30 ug/L	230.30 ppb	08:00:19
2	Fe 238.204 Radial†	19.0	11.2	129.88 ug/L	129.88 ppb	08:00:19
2	K 766.490 Radial†	3378.3	889.3	169.24 ug/L	169.24 ppb	07:59:59
2	Mg 279.077 IEC†	10.6	9.4	386.96 ug/L	386.96 ppb	08:00:19
2	Na 589.592 Radial†	-44.7	829.0	292.24 ug/L	292.24 ppb	07:59:59
2	Sr 421.552†	676.8	678.0	5.4327 ug/L	5.4327 ppb	07:59:59
2	Sc 361.383	801259.4	801259.4	97.855 %		08:01:16
2	Y 371.029	678307.1	678307.1	98.071 %		08:01:16
2	Ag 328.068†	1161.0	1001.3	5.2110 ug/L	5.2110 ppb	08:01:16
2	As 188.979†	31.1	58.6	32.207 ug/L	32.207 ppb	08:01:36
2	B 249.677†	1398.3	1966.3	55.127 ug/L	55.127 ppb	08:01:16
2	Ba 233.527†	552.1	564.9	5.3055 ug/L	5.3055 ppb	08:01:36
2	Be 313.107†	7983.7	11889.7	5.0737 ug/L	5.0737 ppb	08:01:16
2	Cd 226.502†	167.9	342.2	4.9656 ug/L	4.9656 ppb	08:01:36
2	Co 228.616†	157.6	207.3	5.3712 ug/L	5.3712 ppb	08:01:36
2	Cr 267.716†	439.2	377.4	5.0596 ug/L	5.0596 ppb	08:01:36
2	Cu 324.752†	8568.0	3203.8	10.554 ug/L	10.554 ppb	08:01:16
2	Mn 257.610†	8238.3	8029.8	10.555 ug/L	10.555 ppb	08:01:16
2	Mo 202.031†	129.4	123.7	11.006 ug/L	11.006 ppb	08:01:36
2	Ni 231.604†	255.4	176.9	5.6155 ug/L	5.6155 ppb	08:01:36

2	P 214.914†	384.2	205.3	150.90 ug/L	150.90 ppb	08:01:36
2	Pb 220.353†	12.7	71.3	11.005 ug/L	11.005 ppb	08:01:36
2	S 181.975 Axial†	79.4	50.9	91.168 ug/L	91.168 ppb	08:01:36
2	Sb 206.836†	45.8	23.1	10.044 ug/L	10.044 ppb	08:01:36
2	Se 196.026†	19.7	37.1	31.393 ug/L	31.393 ppb	08:01:36
2	Si 251.611†	3082.1	2661.5	100.90 ug/L	100.90 ppb	08:01:36
2	Sn 189.927†	45.7	39.6	9.0109 ug/L	9.0109 ppb	08:01:36
2	Ti 334.940†	1629.0	2785.9	4.8185 ug/L	4.8185 ppb	08:01:16
2	Tl 190.801†	25.8	55.4	21.494 ug/L	21.494 ppb	08:01:36
2	U 409.014†	-410.1	1785.1	54.130 ug/L	54.130 ppb	08:01:16
2	V 292.402†	-698.7	603.5	5.0593 ug/L	5.0593 ppb	08:01:16
2	Zn 213.857†	1690.2	1157.1	13.951 ug/L	13.951 ppb	08:01:36
2	SiO2†	3155.7	2725.5	222.13 ug/L	222.13 ppb	08:02:12
3	Sc Radial	4251.9	4251.9	96.7 %		08:00:44
3	Y RADIAL	4745.3	4745.3	99.68 %		08:00:24
3	Al 396.153Radial†	131.9	214.4	210.14 ug/L	210.14 ppb	08:00:44
3	Ca 317.933Radial†	128.1	116.7	220.87 ug/L	220.87 ppb	08:00:44
3	Fe 238.204 Radial†	17.0	9.1	105.35 ug/L	105.35 ppb	08:00:44
3	K 766.490 Radial†	3366.8	881.4	167.74 ug/L	167.74 ppb	08:00:24
3	Mg 279.077 IEC†	9.2	7.9	327.36 ug/L	327.36 ppb	08:00:44
3	Na 589.592 Radial†	-82.1	790.3	278.59 ug/L	278.59 ppb	08:00:24
3	Sr 421.552†	676.9	678.9	5.4400 ug/L	5.4400 ppb	08:00:24
3	Sc 361.383	809668.4	809668.4	98.882 %		08:01:41
3	Y 371.029	684999.1	684999.1	99.039 %		08:01:41
3	Ag 328.068†	1111.9	939.3	4.8848 ug/L	4.8848 ppb	08:01:41
3	As 188.979†	39.5	66.8	36.695 ug/L	36.695 ppb	08:02:01
3	B 249.677†	1432.9	1986.5	55.697 ug/L	55.697 ppb	08:01:41
3	Ba 233.527†	543.7	550.5	5.1700 ug/L	5.1700 ppb	08:02:01
3	Be 313.107†	8221.7	12045.7	5.1405 ug/L	5.1405 ppb	08:01:41
3	Cd 226.502†	183.8	356.5	5.1759 ug/L	5.1759 ppb	08:02:01
3	Co 228.616†	148.7	196.6	5.0937 ug/L	5.0937 ppb	08:02:01
3	Cr 267.716†	443.8	377.3	5.0573 ug/L	5.0573 ppb	08:02:01
3	Cu 324.752†	8543.8	3088.5	10.174 ug/L	10.174 ppb	08:01:41
3	Mn 257.610†	8388.1	8093.9	10.639 ug/L	10.639 ppb	08:01:41
3	Mo 202.031†	121.9	114.7	10.207 ug/L	10.207 ppb	08:02:01
3	Ni 231.604†	260.7	179.6	5.7006 ug/L	5.7006 ppb	08:02:01
3	P 214.914†	386.5	203.6	149.69 ug/L	149.69 ppb	08:02:01
3	Pb 220.353†	18.8	77.4	11.941 ug/L	11.941 ppb	08:02:01
3	S 181.975 Axial†	81.1	51.8	92.740 ug/L	92.740 ppb	08:02:01
3	Sb 206.836†	47.2	24.0	10.393 ug/L	10.393 ppb	08:02:01
3	Se 196.026†	12.7	29.8	25.236 ug/L	25.236 ppb	08:02:01
3	Si 251.611†	3109.9	2656.9	100.74 ug/L	100.74 ppb	08:02:01
3	Sn 189.927†	47.7	41.0	9.3474 ug/L	9.3474 ppb	08:02:01
3	Ti 334.940†	1745.7	2886.7	4.9992 ug/L	4.9992 ppb	08:01:41
3	Tl 190.801†	26.8	56.2	21.792 ug/L	21.792 ppb	08:02:01
3	U 409.014†	-546.4	1651.6	50.085 ug/L	50.085 ppb	08:01:41
3	V 292.402†	-711.5	597.9	4.9984 ug/L	4.9984 ppb	08:01:41
3	Zn 213.857†	1689.0	1138.0	13.723 ug/L	13.723 ppb	08:02:01
3	SiO2†	3182.7	2719.4	221.65 ug/L	221.65 ppb	08:02:17

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	807688.2	98.640 %	0.6965			0.71%
Sc Radial	4251.4	96.7 %	0.13			0.13%
Y 371.029	683371.1	98.803 %	0.6474			0.66%
Y RADIAL	4751.3	99.80 %	0.306			0.31%
Ag 328.068†	991.8	5.1577 ug/L	0.25053	5.1577 ppb	0.25053	4.86%
QC value within limits for Ag 328.068 Recovery = 103.15%						
Al 396.153Radial†	215.5	211.13 ug/L	0.870	211.13 ppb	0.870	0.41%
QC value within limits for Al 396.153Radial Recovery = 105.57%						
As 188.979†	62.6	34.414 ug/L	2.2453	34.414 ppb	2.2453	6.52%
QC value within limits for As 188.979 Recovery = 114.71%						
B 249.677†	2015.4	56.505 ug/L	1.9154	56.505 ppb	1.9154	3.39%
QC value within limits for B 249.677 Recovery = 113.01%						
Ba 233.527†	556.8	5.2294 ug/L	0.06925	5.2294 ppb	0.06925	1.32%
QC value within limits for Ba 233.527 Recovery = 104.59%						
Be 313.107†	11956.2	5.1023 ug/L	0.03444	5.1023 ppb	0.03444	0.68%
QC value within limits for Be 313.107 Recovery = 102.05%						
Ca 317.933Radial†	118.0	223.36 ug/L	6.081	223.36 ppb	6.081	2.72%

QC value within limits for Ca 317.933 Radial Recovery = 111.68%

Cd 226.502†	353.4	5.1292 ug/L	0.14600	5.1292 ppb	0.14600	2.85%
QC value within limits for Cd 226.502 Recovery = 102.58%						
Co 228.616†	199.1	5.1597 ug/L	0.18742	5.1597 ppb	0.18742	3.63%
QC value within limits for Co 228.616 Recovery = 103.19%						
Cr 267.716†	381.0	5.1070 ug/L	0.08399	5.1070 ppb	0.08399	1.64%
QC value within limits for Cr 267.716 Recovery = 102.14%						
Cu 324.752†	3156.1	10.397 ug/L	0.1981	10.397 ppb	0.1981	1.91%
QC value within limits for Cu 324.752 Recovery = 103.97%						
Fe 238.204 Radial†	10.1	116.61 ug/L	12.388	116.61 ppb	12.388	10.62%
QC value within limits for Fe 238.204 Radial Recovery = 116.61%						
K 766.490 Radial†	892.6	169.86 ug/L	2.490	169.86 ppb	2.490	1.47%
QC value within limits for K 766.490 Radial Recovery = 113.24%						
Mg 279.077 IEC†	8.3	344.37 ug/L	37.126	344.37 ppb	37.126	10.78%
QC value within limits for Mg 279.077 IEC Recovery = 114.79%						
Mn 257.610†	8069.1	10.607 ug/L	0.0455	10.607 ppb	0.0455	0.43%
QC value within limits for Mn 257.610 Recovery = 106.07%						
Mo 202.031†	118.2	10.522 ug/L	0.4257	10.522 ppb	0.4257	4.05%
QC value within limits for Mo 202.031 Recovery = 105.22%						
Na 589.592 Radial†	810.5	285.70 ug/L	6.845	285.70 ppb	6.845	2.40%
QC value within limits for Na 589.592 Radial Recovery = 95.23%						
Ni 231.604†	172.0	5.4597 ug/L	0.34627	5.4597 ppb	0.34627	6.34%
QC value within limits for Ni 231.604 Recovery = 109.19%						
P 214.914†	205.2	150.83 ug/L	1.104	150.83 ppb	1.104	0.73%
QC value within limits for P 214.914 Recovery = 100.55%						
Pb 220.353†	79.3	12.241 ug/L	1.4102	12.241 ppb	1.4102	11.52%
QC value within limits for Pb 220.353 Recovery = 122.41%						
S 181.975 Axial†	51.2	91.538 ug/L	1.0656	91.538 ppb	1.0656	1.16%
QC value within limits for S 181.975 Axial Recovery = 91.54%						
Sb 206.836†	24.2	10.471 ug/L	0.4701	10.471 ppb	0.4701	4.49%
QC value within limits for Sb 206.836 Recovery = 104.71%						
Se 196.026†	35.9	30.335 ug/L	4.6611	30.335 ppb	4.6611	15.37%
QC value within limits for Se 196.026 Recovery = 101.12%						
Si 251.611†	2647.5	100.38 ug/L	0.775	100.38 ppb	0.775	0.77%
QC value within limits for Si 251.611 Recovery = 100.38%						
Sn 189.927†	39.7	9.0368 ug/L	0.29853	9.0368 ppb	0.29853	3.30%
QC value within limits for Sn 189.927 Recovery = 90.37%						
Sr 421.552†	666.4	5.3397 ug/L	0.16737	5.3397 ppb	0.16737	3.13%
QC value within limits for Sr 421.552 Recovery = 106.79%						
Ti 334.940†	2853.3	4.9388 ug/L	0.10410	4.9388 ppb	0.10410	2.11%
QC value within limits for Ti 334.940 Recovery = 98.78%						
Tl 190.801†	55.4	21.511 ug/L	0.2730	21.511 ppb	0.2730	1.27%
QC value within limits for Tl 190.801 Recovery = 107.55%						
U 409.014†	1748.5	53.022 ug/L	2.5696	53.022 ppb	2.5696	4.85%
QC value within limits for U 409.014 Recovery = 106.04%						
V 292.402†	586.4	4.9153 ug/L	0.19891	4.9153 ppb	0.19891	4.05%
QC value within limits for V 292.402 Recovery = 98.31%						
Zn 213.857†	1138.5	13.729 ug/L	0.2193	13.729 ppb	0.2193	1.60%
QC value greater than the upper limit for Zn 213.857 Recovery = 137.29%						
SiO2†	2710.2	220.90 ug/L	1.746	220.90 ppb	1.746	0.79%
QC value within limits for SiO2 Recovery = 103.71%						

QC Failed. Continue with analysis.

Sequence No.: 9

Sample ID: ICSEA

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 13

Date Collected: 3/19/2010 08:04:28

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: ICSEA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	3920.8	3920.8	89.2 %		08:06:41
1	Y RADIAL	4255.0	4255.0	89.38 %		08:06:41
1	Al 396.153Radial†	468586.1	525352.2	516040 ug/L	516040 ppb	08:06:21
1	Ca 317.933Radial†	224935.9	252132.2	477090 ug/L	477090 ppb	08:06:21
1	Fe 238.204 Radial†	14279.3	15998.3	185370 ug/L	185370 ppb	08:06:41
1	K 766.490 Radial†	2233.0	-95.6	-177.79 ug/L	-177.79 ppb	08:06:21
1	Mg 279.077 IEC†	10594.3	11874.5	489650 ug/L	489650 ppb	08:06:41
1	Na 589.592 Radial†	-736.1	50.0	17.626 ug/L	17.626 ppb	08:06:41
1	Sr 421.552†	455.0	489.2	0.3587 ug/L	0.3587 ppb	08:06:41
1	Sc 361.383	711859.2	711859.2	86.937 %		08:07:38
1	Y 371.029	589005.7	589005.7	85.160 %		08:07:38
1	Ag 328.068†	-8544.0	-10013.0	-1.1206 ug/L	-1.1206 ppb	08:07:38
1	As 188.979†	-91.2	-78.1	0.3558 ug/L	0.3558 ppb	08:07:58
1	B 249.677†	234.3	806.9	-7.4693 ug/L	-7.4693 ppb	08:07:38
1	Ba 233.527†	-483.4	-555.4	0.4708 ug/L	0.4708 ppb	08:07:58
1	Be 313.107†	-3961.7	-826.0	-0.4074 ug/L	-0.4074 ppb	08:07:38
1	Cd 226.502†	1036.4	1362.8	0.6368 ug/L	0.6368 ppb	08:07:58
1	Co 228.616†	-1.8	44.2	-1.5292 ug/L	-1.5292 ppb	08:07:58
1	Cr 267.716†	-1170.5	-1417.9	0.6295 ug/L	0.6295 ppb	08:07:58
1	Cu 324.752†	2762.6	-2374.2	1.9508 ug/L	1.9508 ppb	08:07:58
1	Mn 257.610†	-266.0	-695.1	-2.6341 ug/L	-2.6341 ppb	08:07:38
1	Mo 202.031†	-207.6	-247.3	-1.9158 ug/L	-1.9158 ppb	08:07:58
1	Ni 231.604†	165.6	106.5	3.3806 ug/L	3.3806 ppb	08:07:58
1	P 214.914†	163.7	1.0	-19.106 ug/L	-19.106 ppb	08:07:58
1	Pb 220.353†	-643.0	-681.3	-10.248 ug/L	-10.248 ppb	08:07:58
1	S 181.975 Axial†	34.7	9.8	-79.226 ug/L	-79.226 ppb	08:07:58
1	Sb 206.836†	61.2	46.7	1.8899 ug/L	1.8899 ppb	08:07:58
1	Se 196.026†	-737.5	-831.3	4.6258 ug/L	4.6258 ppb	08:07:58
1	Si 251.611†	353.1	-82.0	-2.8425 ug/L	-2.8425 ppb	08:07:58
1	Sn 189.927†	-323.4	-379.2	-11.932 ug/L	-11.932 ppb	08:07:58
1	Ti 334.940†	-13245.3	-14114.4	-0.5760 ug/L	-0.5760 ppb	08:07:38
1	Tl 190.801†	-56.4	-35.8	-14.081 ug/L	-14.081 ppb	08:07:58
1	U 409.014†	-766.4	1322.6	19.037 ug/L	19.037 ppb	08:07:38
1	V 292.402†	470.2	1858.3	-2.8990 ug/L	-2.8990 ppb	08:07:58
1	Zn 213.857†	2564.8	2380.1	1.0881 ug/L	1.0881 ppb	08:07:58
1	SiO2†	380.9	-61.2	-4.3969 ug/L	-4.3969 ppb	08:08:55
2	Sc Radial	3895.3	3895.3	88.6 %		08:07:06
2	Y RADIAL	4206.8	4206.8	88.37 %		08:07:06
2	Al 396.153Radial†	461570.8	520869.5	511640 ug/L	511640 ppb	08:06:46
2	Ca 317.933Radial†	221149.1	249507.4	472120 ug/L	472120 ppb	08:06:46
2	Fe 238.204 Radial†	14177.3	15987.8	185250 ug/L	185250 ppb	08:07:06
2	K 766.490 Radial†	2093.1	-237.1	-203.08 ug/L	-203.08 ppb	08:06:46
2	Mg 279.077 IEC†	10491.8	11836.4	488080 ug/L	488080 ppb	08:07:06
2	Na 589.592 Radial†	-755.5	22.6	7.9842 ug/L	7.9842 ppb	08:07:06
2	Sr 421.552†	436.5	471.7	0.2555 ug/L	0.2555 ppb	08:07:06
2	Sc 361.383	718309.4	718309.4	87.724 %		08:08:04
2	Y 371.029	594864.3	594864.3	86.007 %		08:08:04
2	Ag 328.068†	-8802.7	-10219.6	-2.1639 ug/L	-2.1639 ppb	08:08:04
2	As 188.979†	-71.1	-54.2	13.461 ug/L	13.461 ppb	08:08:24
2	B 249.677†	320.1	902.3	-4.7766 ug/L	-4.7766 ppb	08:08:04
2	Ba 233.527†	-494.1	-562.5	0.3993 ug/L	0.3993 ppb	08:08:24
2	Be 313.107†	-3916.5	-733.5	-0.3687 ug/L	-0.3687 ppb	08:08:04
2	Cd 226.502†	1052.8	1370.8	0.7640 ug/L	0.7640 ppb	08:08:24
2	Co 228.616†	24.8	74.5	-0.7426 ug/L	-0.7426 ppb	08:08:24
2	Cr 267.716†	-1176.9	-1413.1	0.6812 ug/L	0.6812 ppb	08:08:24
2	Cu 324.752†	2830.9	-2325.0	2.1075 ug/L	2.1075 ppb	08:08:24
2	Mn 257.610†	-401.1	-846.3	-2.7806 ug/L	-2.7806 ppb	08:08:04
2	Mo 202.031†	-202.8	-239.7	-1.3101 ug/L	-1.3101 ppb	08:08:24
2	Ni 231.604†	157.8	95.8	3.0425 ug/L	3.0425 ppb	08:08:24

2	P 214.914†	142.0	-25.4	-39.810 ug/L	-39.810 ppb	08:08:24
2	Pb 220.353†	-626.2	-655.5	-7.3083 ug/L	-7.3083 ppb	08:08:24
2	S 181.975 Axial†	33.1	7.6	-82.324 ug/L	-82.324 ppb	08:08:24
2	Sb 206.836†	57.9	42.3	0.2175 ug/L	0.2175 ppb	08:08:24
2	Se 196.026†	-747.2	-834.8	-0.0402 ug/L	-0.0402 ppb	08:08:24
2	Si 251.611†	394.3	-38.6	-1.2048 ug/L	-1.2048 ppb	08:08:24
2	Sn 189.927†	-320.8	-372.8	-11.367 ug/L	-11.367 ppb	08:08:24
2	Ti 334.940†	-13503.6	-14272.0	-1.3874 ug/L	-1.3874 ppb	08:08:04
2	Tl 190.801†	-66.2	-46.4	-18.205 ug/L	-18.205 ppb	08:08:24
2	U 409.014†	-803.9	1287.9	17.995 ug/L	17.995 ppb	08:08:04
2	V 292.402†	431.2	1808.9	-3.2983 ug/L	-3.2983 ppb	08:08:24
2	Zn 213.857†	2544.3	2330.3	0.5041 ug/L	0.5041 ppb	08:08:24
2	SiO2†	365.5	-82.7	-6.1658 ug/L	-6.1658 ppb	08:09:00
3	Sc Radial	3942.4	3942.4	89.7 %		08:07:32
3	Y RADIAL	4260.7	4260.7	89.50 %		08:07:32
3	Al 396.153Radial†	465460.7	518986.8	509790 ug/L	509790 ppb	08:07:12
3	Ca 317.933Radial†	222404.3	247926.9	469130 ug/L	469130 ppb	08:07:12
3	Fe 238.204 Radial†	14272.6	15903.0	184260 ug/L	184260 ppb	08:07:32
3	K 766.490 Radial†	2182.7	-165.4	-188.41 ug/L	-188.41 ppb	08:07:12
3	Mg 279.077 IEC†	10595.7	11810.8	487020 ug/L	487020 ppb	08:07:32
3	Na 589.592 Radial†	-778.4	7.4	2.5977 ug/L	2.5977 ppb	08:07:32
3	Sr 421.552†	437.6	467.0	0.2402 ug/L	0.2402 ppb	08:07:32
3	Sc 361.383	710682.9	710682.9	86.793 %		08:08:29
3	Y 371.029	587564.2	587564.2	84.951 %		08:08:29
3	Ag 328.068†	-8544.3	-10029.6	-1.4420 ug/L	-1.4420 ppb	08:08:29
3	As 188.979†	-70.5	-54.5	13.089 ug/L	13.089 ppb	08:08:49
3	B 249.677†	259.8	836.6	-6.4560 ug/L	-6.4560 ppb	08:08:29
3	Ba 233.527†	-457.9	-526.8	0.7037 ug/L	0.7037 ppb	08:08:49
3	Be 313.107†	-3965.0	-837.3	-0.4118 ug/L	-0.4118 ppb	08:08:29
3	Cd 226.502†	1043.0	1372.4	0.8901 ug/L	0.8901 ppb	08:08:49
3	Co 228.616†	-1.0	45.0	-1.4890 ug/L	-1.4890 ppb	08:08:49
3	Cr 267.716†	-1159.4	-1407.3	0.6536 ug/L	0.6536 ppb	08:08:49
3	Cu 324.752†	2863.3	-2253.0	2.2920 ug/L	2.2920 ppb	08:08:49
3	Mn 257.610†	-330.0	-769.3	-2.7332 ug/L	-2.7332 ppb	08:08:29
3	Mo 202.031†	-196.9	-235.4	-1.0397 ug/L	-1.0397 ppb	08:08:49
3	Ni 231.604†	178.7	121.9	3.8690 ug/L	3.8690 ppb	08:08:49
3	P 214.914†	162.7	0.1	-20.545 ug/L	-20.545 ppb	08:08:49
3	Pb 220.353†	-656.2	-697.7	-14.099 ug/L	-14.099 ppb	08:08:49
3	S 181.975 Axial†	42.3	18.6	-62.284 ug/L	-62.284 ppb	08:08:49
3	Sb 206.836†	52.8	37.1	-1.9255 ug/L	-1.9255 ppb	08:08:49
3	Se 196.026†	-745.0	-841.4	-8.9102 ug/L	-8.9102 ppb	08:08:49
3	Si 251.611†	372.9	-58.6	-1.9659 ug/L	-1.9659 ppb	08:08:49
3	Sn 189.927†	-328.8	-386.0	-14.835 ug/L	-14.835 ppb	08:08:49
3	Ti 334.940†	-13136.3	-14014.0	-1.2548 ug/L	-1.2548 ppb	08:08:29
3	Tl 190.801†	-69.7	-51.2	-20.066 ug/L	-20.066 ppb	08:08:49
3	U 409.014†	-736.8	1355.3	20.153 ug/L	20.153 ppb	08:08:29
3	V 292.402†	426.1	1808.4	-3.1711 ug/L	-3.1711 ppb	08:08:49
3	Zn 213.857†	2566.5	2386.9	1.3317 ug/L	1.3317 ppb	08:08:49
3	SiO2†	334.0	-114.6	-8.7798 ug/L	-8.7798 ppb	08:09:05

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	713617.2	87.151 %	0.5014			0.58%
Sc Radial	3919.5	89.2 %	0.54			0.60%
Y 371.029	590478.1	85.373 %	0.5590			0.65%
Y RADIAL	4240.8	89.08 %	0.622			0.70%
Ag 328.068†	-10087.4	-1.5755 ug/L	0.53429	-1.5755 ppb	0.53429	33.91%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	521736.2	512490 ug/L	3212.1	512490 ppb	3212.1	0.63%
QC value within limits for Al 396.153Radial Recovery = 102.50%						
As 188.979†	-62.3	8.9685 ug/L	7.46115	8.9685 ppb	7.46115	83.19%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	848.6	-6.2340 ug/L	1.36000	-6.2340 ppb	1.36000	21.82%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-548.2	0.5246 ug/L	0.15915	0.5246 ppb	0.15915	30.34%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-798.9	-0.3960 ug/L	0.02374	-0.3960 ppb	0.02374	5.99%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	249855.5	472780 ug/L	4019.3	472780 ppb	4019.3	0.85%

QC value within limits for Ca 317.933 Radial Recovery = 94.56%							
Cd 226.502†	1368.7	0.7636 ug/L	0.12665	0.7636 ppb	0.12665	16.59%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	54.6	-1.2536 ug/L	0.44296	-1.2536 ppb	0.44296	35.33%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-1412.8	0.6548 ug/L	0.02586	0.6548 ppb	0.02586	3.95%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-2317.4	2.1168 ug/L	0.17081	2.1168 ppb	0.17081	8.07%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	15963.0	184960 ug/L	605.0	184960 ppb	605.0	0.33%	
QC value within limits for Fe 238.204 Radial Recovery = 92.48%							
K 766.490 Radial†	-166.0	-189.76 ug/L	12.700	-189.76 ppb	12.700	6.69%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	11840.6	488250 ug/L	1320.7	488250 ppb	1320.7	0.27%	
QC value within limits for Mg 279.077 IEC Recovery = 97.65%							
Mn 257.610†	-770.2	-2.7160 ug/L	0.07477	-2.7160 ppb	0.07477	2.75%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-240.8	-1.4219 ug/L	0.44861	-1.4219 ppb	0.44861	31.55%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	26.7	9.4025 ug/L	7.61365	9.4025 ppb	7.61365	80.97%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	108.1	3.4307 ug/L	0.41549	3.4307 ppb	0.41549	12.11%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-8.1	-26.487 ug/L	11.5606	-26.487 ppb	11.5606	43.65%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-678.2	-10.552 ug/L	3.4057	-10.552 ppb	3.4057	32.28%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	12.0	-74.612 ug/L	10.7874	-74.612 ppb	10.7874	14.46%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	42.0	0.0607 ug/L	1.91250	0.0607 ppb	1.91250	>999.9%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-835.9	-1.4415 ug/L	6.87597	-1.4415 ppb	6.87597	476.99%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	-59.7	-2.0044 ug/L	0.81955	-2.0044 ppb	0.81955	40.89%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-379.4	-12.711 ug/L	1.8610	-12.711 ppb	1.8610	14.64%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	475.9	0.2848 ug/L	0.06445	0.2848 ppb	0.06445	22.63%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-14133.4	-1.0727 ug/L	0.43523	-1.0727 ppb	0.43523	40.57%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-44.5	-17.450 ug/L	3.0630	-17.450 ppb	3.0630	17.55%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	1321.9	19.062 ug/L	1.0788	19.062 ppb	1.0788	5.66%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	1825.2	-3.1228 ug/L	0.20398	-3.1228 ppb	0.20398	6.53%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	2365.8	0.9747 ug/L	0.42531	0.9747 ppb	0.42531	43.64%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	-86.1	-6.4475 ug/L	2.20499	-6.4475 ppb	2.20499	34.20%	
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: 3/19/2010 08:11:16

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	3929.4	3929.4	89.4 %			08:13:28
1	Y RADIAL	4274.8	4274.8	89.80 %			08:13:28
1	Al 396.153Radial†	461471.5	516235.9	507060 ug/L	507060	ppb	08:13:08
1	Ca 317.933Radial†	222675.9	249048.2	471250 ug/L	471250	ppb	08:13:08
1	Fe 238.204 Radial†	14573.7	16292.3	188790 ug/L	188790	ppb	08:13:28
1	K 766.490 Radial†	27582.5	28252.3	5222.4 ug/L	5222.4	ppb	08:13:08
1	Mg 279.077 IEC†	10715.6	11983.9	494160 ug/L	494160	ppb	08:13:28
1	Na 589.592 Radial†	12902.7	15306.9	5396.0 ug/L	5396.0	ppb	08:13:08
1	Sr 421.552†	56906.9	63629.8	506.52 ug/L	506.52	ppb	08:13:08
1	Sc 361.383	720288.2	720288.2	87.966 %			08:14:26
1	Y 371.029	594435.6	594435.6	85.945 %			08:14:26
1	Ag 328.068†	37624.4	42586.3	274.73 ug/L	274.73	ppb	08:14:26
1	As 188.979†	754.1	884.0	532.66 ug/L	532.66	ppb	08:14:46
1	B 249.677†	16639.1	19452.7	513.79 ug/L	513.79	ppb	08:14:26
1	Ba 233.527†	45572.8	51808.0	492.14 ug/L	492.14	ppb	08:14:26
1	Be 313.107†	509360.8	582773.2	249.25 ug/L	249.25	ppb	08:14:26
1	Cd 226.502†	29115.2	33268.9	463.61 ug/L	463.61	ppb	08:14:46
1	Co 228.616†	15201.6	17327.4	445.24 ug/L	445.24	ppb	08:14:46
1	Cr 267.716†	30631.0	34749.9	486.52 ug/L	486.52	ppb	08:14:26
1	Cu 324.752†	148588.6	163363.8	549.04 ug/L	549.04	ppb	08:14:26
1	Mn 257.610†	320306.8	363736.2	476.68 ug/L	476.68	ppb	08:14:26
1	Mo 202.031†	4633.3	5258.6	487.71 ug/L	487.71	ppb	08:14:46
1	Ni 231.604†	12601.2	14241.0	451.98 ug/L	451.98	ppb	08:14:46
1	P 214.914†	3139.5	3381.7	2390.1 ug/L	2390.1	ppb	08:14:46
1	Pb 220.353†	1997.6	2329.2	450.62 ug/L	450.62	ppb	08:14:46
1	S 181.975 Axial†	1333.5	1485.8	2564.9 ug/L	2564.9	ppb	08:14:46
1	Sb 206.836†	1162.5	1297.9	543.31 ug/L	543.31	ppb	08:14:46
1	Se 196.026†	1939.8	2222.1	2556.9 ug/L	2556.9	ppb	08:14:46
1	Si 251.611†	121964.3	138161.0	5239.2 ug/L	5239.2	ppb	08:14:26
1	Sn 189.927†	1579.3	1788.2	478.67 ug/L	478.67	ppb	08:14:46
1	Ti 334.940†	244598.2	279180.8	507.93 ug/L	507.93	ppb	08:14:26
1	Tl 190.801†	961.9	1122.5	437.65 ug/L	437.65	ppb	08:14:46
1	U 409.014†	13648.4	17719.7	515.02 ug/L	515.02	ppb	08:14:26
1	V 292.402†	56031.7	65014.4	508.15 ug/L	508.15	ppb	08:14:26
1	Zn 213.857†	38636.8	43352.3	493.43 ug/L	493.43	ppb	08:14:26
1	SiO2†	120760.5	136781.4	11150 ug/L	11150	ppb	08:15:44
2	Sc Radial	3946.5	3946.5	89.8 %			08:13:54
2	Y RADIAL	4277.8	4277.8	89.86 %			08:13:54
2	Al 396.153Radial†	472937.5	526772.2	517410 ug/L	517410	ppb	08:13:34
2	Ca 317.933Radial†	228578.7	254544.5	481650 ug/L	481650	ppb	08:13:34
2	Fe 238.204 Radial†	14556.7	16202.9	187750 ug/L	187750	ppb	08:13:54
2	K 766.490 Radial†	28173.1	28776.6	5318.7 ug/L	5318.7	ppb	08:13:34
2	Mg 279.077 IEC†	10699.3	11913.9	491280 ug/L	491280	ppb	08:13:54
2	Na 589.592 Radial†	13381.9	15778.1	5562.1 ug/L	5562.1	ppb	08:13:34
2	Sr 421.552†	58340.8	64951.3	517.04 ug/L	517.04	ppb	08:13:34
2	Sc 361.383	719730.9	719730.9	87.898 %			08:14:52
2	Y 371.029	594594.5	594594.5	85.968 %			08:14:52
2	Ag 328.068†	37665.4	42666.1	274.69 ug/L	274.69	ppb	08:14:52
2	As 188.979†	733.5	861.3	519.90 ug/L	519.90	ppb	08:15:12
2	B 249.677†	16494.5	19302.8	509.76 ug/L	509.76	ppb	08:14:52
2	Ba 233.527†	45632.5	51915.9	493.12 ug/L	493.12	ppb	08:14:52
2	Be 313.107†	509580.7	583471.7	249.55 ug/L	249.55	ppb	08:14:52
2	Cd 226.502†	29008.1	33172.6	462.32 ug/L	462.32	ppb	08:15:12
2	Co 228.616†	15102.4	17227.9	442.69 ug/L	442.69	ppb	08:15:12
2	Cr 267.716†	30639.4	34786.4	486.90 ug/L	486.90	ppb	08:14:52
2	Cu 324.752†	148069.9	162904.5	547.47 ug/L	547.47	ppb	08:14:52
2	Mn 257.610†	319951.8	363614.3	476.54 ug/L	476.54	ppb	08:14:52
2	Mo 202.031†	4644.0	5274.9	489.20 ug/L	489.20	ppb	08:15:12
2	Ni 231.604†	12562.9	14208.5	450.95 ug/L	450.95	ppb	08:15:12

2	P 214.914†	3115.9	3357.6	2375.9 ug/L	2375.9 ppb	08:15:12
2	Pb 220.353†	1987.6	2319.6	451.73 ug/L	451.73 ppb	08:15:12
2	S 181.975 Axial†	1323.2	1475.2	2544.0 ug/L	2544.0 ppb	08:15:12
2	Sb 206.836†	1137.8	1270.8	531.74 ug/L	531.74 ppb	08:15:12
2	Se 196.026†	1929.4	2212.0	2548.8 ug/L	2548.8 ppb	08:15:12
2	Si 251.611†	121859.8	138149.5	5238.8 ug/L	5238.8 ppb	08:14:52
2	Sn 189.927†	1577.9	1788.0	480.53 ug/L	480.53 ppb	08:15:12
2	Ti 334.940†	244000.0	278715.6	508.76 ug/L	508.76 ppb	08:14:52
2	Tl 190.801†	973.5	1136.6	443.10 ug/L	443.10 ppb	08:15:12
2	U 409.014†	13501.3	17564.4	510.42 ug/L	510.42 ppb	08:14:52
2	V 292.402†	56069.0	65106.1	508.99 ug/L	508.99 ppb	08:14:52
2	Zn 213.857†	38575.9	43317.0	493.16 ug/L	493.16 ppb	08:14:52
2	SiO2†	121690.4	137945.6	11245 ug/L	11245 ppb	08:15:49
3	Sc Radial	3955.1	3955.1	90.0 %		08:14:19
3	Y RADIAL	4282.0	4282.0	89.95 %		08:14:19
3	Al 396.153Radial†	473789.5	526577.2	517220 ug/L	517220 ppb	08:13:59
3	Ca 317.933Radial†	228286.7	253668.2	479990 ug/L	479990 ppb	08:13:59
3	Fe 238.204 Radial†	14574.2	16187.1	187570 ug/L	187570 ppb	08:14:19
3	K 766.490 Radial†	28154.5	28687.9	5302.4 ug/L	5302.4 ppb	08:13:59
3	Mg 279.077 IEC†	10706.9	11896.6	490560 ug/L	490560 ppb	08:14:19
3	Na 589.592 Radial†	13327.1	15684.9	5529.2 ug/L	5529.2 ppb	08:13:59
3	Sr 421.552†	58635.9	65138.4	518.55 ug/L	518.55 ppb	08:13:59
3	Sc 361.383	717692.3	717692.3	87.649 %		08:15:18
3	Y 371.029	592016.4	592016.4	85.595 %		08:15:18
3	Ag 328.068†	37419.2	42507.0	273.82 ug/L	273.82 ppb	08:15:18
3	As 188.979†	734.9	865.3	522.04 ug/L	522.04 ppb	08:15:38
3	B 249.677†	16478.1	19337.4	510.75 ug/L	510.75 ppb	08:15:18
3	Ba 233.527†	45400.4	51798.6	492.01 ug/L	492.01 ppb	08:15:18
3	Be 313.107†	505147.9	580061.1	248.09 ug/L	248.09 ppb	08:15:18
3	Cd 226.502†	29070.9	33338.0	464.74 ug/L	464.74 ppb	08:15:38
3	Co 228.616†	15202.6	17391.1	446.92 ug/L	446.92 ppb	08:15:38
3	Cr 267.716†	30397.7	34609.6	484.51 ug/L	484.51 ppb	08:15:18
3	Cu 324.752†	147241.9	162438.3	545.92 ug/L	545.92 ppb	08:15:18
3	Mn 257.610†	318560.0	363060.3	475.82 ug/L	475.82 ppb	08:15:18
3	Mo 202.031†	4659.6	5307.7	492.08 ug/L	492.08 ppb	08:15:38
3	Ni 231.604†	12615.1	14308.6	454.13 ug/L	454.13 ppb	08:15:38
3	P 214.914†	3126.1	3379.3	2392.5 ug/L	2392.5 ppb	08:15:38
3	Pb 220.353†	1981.7	2319.2	451.65 ug/L	451.65 ppb	08:15:38
3	S 181.975 Axial†	1326.1	1482.7	2557.5 ug/L	2557.5 ppb	08:15:38
3	Sb 206.836†	1177.2	1319.5	552.20 ug/L	552.20 ppb	08:15:38
3	Se 196.026†	1947.1	2238.4	2570.2 ug/L	2570.2 ppb	08:15:38
3	Si 251.611†	121149.0	137732.4	5222.9 ug/L	5222.9 ppb	08:15:18
3	Sn 189.927†	1579.5	1795.0	481.83 ug/L	481.83 ppb	08:15:38
3	Ti 334.940†	242971.7	278330.9	507.93 ug/L	507.93 ppb	08:15:18
3	Tl 190.801†	945.2	1107.5	431.81 ug/L	431.81 ppb	08:15:38
3	U 409.014†	13527.8	17638.3	512.69 ug/L	512.69 ppb	08:15:18
3	V 292.402†	55602.3	64754.9	506.25 ug/L	506.25 ppb	08:15:18
3	Zn 213.857†	38305.4	43133.0	490.94 ug/L	490.94 ppb	08:15:18
3	SiO2†	121243.0	137828.4	11236 ug/L	11236 ppb	08:15:54

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	719237.2	87.838 %	0.1669			0.19%
Sc Radial	3943.7	89.7 %	0.30			0.33%
Y 371.029	593682.2	85.836 %	0.2089			0.24%
Y RADIAL	4278.2	89.87 %	0.076			0.08%
Ag 328.068†	42586.5	274.42 ug/L	0.516	274.42 ppb	0.516	0.19%
QC value within limits for Ag 328.068 Recovery = 109.77%						
Al 396.153Radial†	523195.1	513900 ug/L	5920.7	513900 ppb	5920.7	1.15%
QC value within limits for Al 396.153Radial Recovery = 102.78%						
As 188.979†	870.2	524.87 ug/L	6.835	524.87 ppb	6.835	1.30%
QC value within limits for As 188.979 Recovery = 104.97%						
B 249.677†	19364.3	511.43 ug/L	2.100	511.43 ppb	2.100	0.41%
QC value within limits for B 249.677 Recovery = 102.29%						
Ba 233.527†	51840.8	492.43 ug/L	0.607	492.43 ppb	0.607	0.12%
QC value within limits for Ba 233.527 Recovery = 98.49%						
Be 313.107†	582102.0	248.96 ug/L	0.768	248.96 ppb	0.768	0.31%
QC value within limits for Be 313.107 Recovery = 99.59%						
Ca 317.933Radial†	252420.3	477630 ug/L	5587.7	477630 ppb	5587.7	1.17%

QC value within limits for Ca 317.933 Radial Recovery = 95.53%

Cd 226.502†	33259.8	463.56 ug/L	1.211	463.56 ppb	1.211	0.26%
QC value within limits for Cd 226.502 Recovery = 92.71%						
Co 228.616†	17315.5	444.95 ug/L	2.129	444.95 ppb	2.129	0.48%
QC value within limits for Co 228.616 Recovery = 88.99%						
Cr 267.716†	34715.3	485.98 ug/L	1.287	485.98 ppb	1.287	0.26%
QC value within limits for Cr 267.716 Recovery = 97.20%						
Cu 324.752†	162902.2	547.48 ug/L	1.559	547.48 ppb	1.559	0.28%
QC value within limits for Cu 324.752 Recovery = 109.50%						
Fe 238.204 Radial†	16227.4	188040 ug/L	657.2	188040 ppb	657.2	0.35%
QC value within limits for Fe 238.204 Radial Recovery = 94.02%						
K 766.490 Radial†	28572.3	5281.2 ug/L	51.56	5281.2 ppb	51.56	0.98%
QC value within limits for K 766.490 Radial Recovery = 105.62%						
Mg 279.077 IEC†	11931.5	492000 ug/L	1907.0	492000 ppb	1907.0	0.39%
QC value within limits for Mg 279.077 IEC Recovery = 98.40%						
Mn 257.610†	363470.3	476.34 ug/L	0.461	476.34 ppb	0.461	0.10%
QC value within limits for Mn 257.610 Recovery = 95.27%						
Mo 202.031†	5280.4	489.66 ug/L	2.224	489.66 ppb	2.224	0.45%
QC value within limits for Mo 202.031 Recovery = 97.93%						
Na 589.592 Radial†	15589.9	5495.8 ug/L	87.97	5495.8 ppb	87.97	1.60%
QC value within limits for Na 589.592 Radial Recovery = 109.92%						
Ni 231.604†	14252.7	452.36 ug/L	1.621	452.36 ppb	1.621	0.36%
QC value within limits for Ni 231.604 Recovery = 90.47%						
P 214.914†	3372.9	2386.2 ug/L	8.95	2386.2 ppb	8.95	0.38%
QC value within limits for P 214.914 Recovery = 95.45%						
Pb 220.353†	2322.7	451.34 ug/L	0.618	451.34 ppb	0.618	0.14%
QC value within limits for Pb 220.353 Recovery = 90.27%						
S 181.975 Axial†	1481.2	2555.4 ug/L	10.60	2555.4 ppb	10.60	0.41%
QC value within limits for S 181.975 Axial Recovery = 102.22%						
Sb 206.836†	1296.0	542.42 ug/L	10.256	542.42 ppb	10.256	1.89%
QC value within limits for Sb 206.836 Recovery = 108.48%						
Se 196.026†	2224.2	2558.7 ug/L	10.81	2558.7 ppb	10.81	0.42%
QC value within limits for Se 196.026 Recovery = 102.35%						
Si 251.611†	138014.3	5233.7 ug/L	9.30	5233.7 ppb	9.30	0.18%
QC value within limits for Si 251.611 Recovery = 104.67%						
Sn 189.927†	1790.4	480.34 ug/L	1.588	480.34 ppb	1.588	0.33%
QC value within limits for Sn 189.927 Recovery = 96.07%						
Sr 421.552†	64573.1	514.03 ug/L	6.551	514.03 ppb	6.551	1.27%
QC value within limits for Sr 421.552 Recovery = 102.81%						
Ti 334.940†	278742.4	508.21 ug/L	0.478	508.21 ppb	0.478	0.09%
QC value within limits for Ti 334.940 Recovery = 101.64%						
Tl 190.801†	1122.2	437.52 ug/L	5.646	437.52 ppb	5.646	1.29%
QC value within limits for Tl 190.801 Recovery = 87.50%						
U 409.014†	17640.8	512.71 ug/L	2.298	512.71 ppb	2.298	0.45%
QC value within limits for U 409.014 Recovery = 102.54%						
V 292.402†	64958.4	507.80 ug/L	1.406	507.80 ppb	1.406	0.28%
QC value within limits for V 292.402 Recovery = 101.56%						
Zn 213.857†	43267.4	492.51 ug/L	1.364	492.51 ppb	1.364	0.28%
QC value within limits for Zn 213.857 Recovery = 98.50%						
SiO2†	137518.5	11210 ug/L	52.3	11210 ppb	52.3	0.47%
QC value within limits for SiO2 Recovery = 104.82%						

All analyte(s) passed QC.

Sequence No.: 11

Sample ID: LR1

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 15

Date Collected: 3/19/2010 08:18:04

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	3858.3	3858.3	87.8 %		08:20:17
1	Y RADIAL	4204.0	4204.0	88.31 %		08:20:17
1	Al 396.153Radial†	464225.3	528893.5	519520 ug/L	519520 ppb	08:19:57
1	Ca 317.933Radial†	223881.2	255015.3	482540 ug/L	482540 ppb	08:19:57
1	Fe 238.204 Radial†	33047.8	37637.5	436100 ug/L	436100 ppb	08:20:17
1	K 766.490 Radial†	2465.2	209.4	-328.44 ug/L	-328.44 ppb	08:19:57
1	Mg 279.077 IEC†	10432.1	11882.0	489700 ug/L	489700 ppb	08:20:17
1	Na 589.592 Radial†	1320643.5	1505266.9	530640 ug/L	530640 ppb	08:19:57
1	Sr 421.552†	1394.9	1568.2	8.9670 ug/L	8.9670 ppb	08:20:17
1	Sc 361.383	692124.4	692124.4	84.527 %		08:21:15
1	Y 371.029	573747.0	573747.0	82.954 %		08:21:15
1	Ag 328.068†	-19613.3	-23388.8	-5.2352 ug/L	-5.2352 ppb	08:21:15
1	As 188.979†	-142.9	-142.3	23.974 ug/L	23.974 ppb	08:21:35
1	B 249.677†	872.5	1569.6	-26.808 ug/L	-26.808 ppb	08:21:15
1	Ba 233.527†	-1321.0	-1562.1	-1.3183 ug/L	-1.3183 ppb	08:21:35
1	Be 313.107†	-9468.2	-7470.4	-3.2304 ug/L	-3.2304 ppb	08:21:15
1	Cd 226.502†	2655.0	3311.7	5.9163 ug/L	5.9163 ppb	08:21:35
1	Co 228.616†	194.4	276.1	0.7761 ug/L	0.7761 ppb	08:21:35
1	Cr 267.716†	-1023.6	-1282.5	23.115 ug/L	23.115 ppb	08:21:35
1	Cu 324.752†	582.4	-4862.9	-1.2373 ug/L	-1.2373 ppb	08:21:15
1	Mn 257.610†	-20079.9	-24144.8	-8.7155 ug/L	-8.7155 ppb	08:21:15
1	Mo 202.031†	-437.4	-526.0	-7.1607 ug/L	-7.1607 ppb	08:21:35
1	Ni 231.604†	224.5	181.6	5.7615 ug/L	5.7615 ppb	08:21:35
1	P 214.914†	473.6	373.1	58.508 ug/L	58.508 ppb	08:21:35
1	Pb 220.353†	-449.8	-473.9	-13.265 ug/L	-13.265 ppb	08:21:35
1	S 181.975 Axial†	45.7	23.9	-54.613 ug/L	-54.613 ppb	08:21:35
1	Sb 206.836†	49.4	34.7	-6.5923 ug/L	-6.5923 ppb	08:21:35
1	Se 196.026†	-1806.4	-2120.1	-347.16 ug/L	-347.16 ppb	08:21:35
1	Si 251.611†	-299.5	-842.5	-31.407 ug/L	-31.407 ppb	08:21:35
1	Sn 189.927†	-339.4	-408.7	-32.054 ug/L	-32.054 ppb	08:21:35
1	Ti 334.940†	-11536.9	-12527.6	-3.6494 ug/L	-3.6494 ppb	08:21:15
1	Tl 190.801†	-84.5	-70.9	-27.844 ug/L	-27.844 ppb	08:21:35
1	U 409.014†	414094.0	492102.3	14880 ug/L	14880 ppb	08:21:15
1	V 292.402†	1055.9	2566.7	-5.6116 ug/L	-5.6116 ppb	08:21:35
1	Zn 213.857†	4619.7	4895.3	-5.9615 ug/L	-5.9615 ppb	08:21:35
1	SiO2†	-253.8	-799.6	-63.985 ug/L	-63.985 ppb	08:22:32
2	Sc Radial	3862.7	3862.7	87.9 %		08:20:43
2	Y RADIAL	4199.0	4199.0	88.20 %		08:20:43
2	Al 396.153Radial†	461838.3	525564.2	516250 ug/L	516250 ppb	08:20:23
2	Ca 317.933Radial†	223024.1	253744.3	480140 ug/L	480140 ppb	08:20:23
2	Fe 238.204 Radial†	33136.1	37694.2	436750 ug/L	436750 ppb	08:20:43
2	K 766.490 Radial†	2317.4	38.0	-359.39 ug/L	-359.39 ppb	08:20:23
2	Mg 279.077 IEC†	10466.5	11907.4	490740 ug/L	490740 ppb	08:20:43
2	Na 589.592 Radial†	1316291.1	1498569.5	528280 ug/L	528280 ppb	08:20:23
2	Sr 421.552†	1406.5	1579.6	9.0762 ug/L	9.0762 ppb	08:20:43
2	Sc 361.383	730532.2	730532.2	89.217 %		08:21:41
2	Y 371.029	605265.0	605265.0	87.511 %		08:21:41
2	Ag 328.068†	-19445.3	-21980.6	2.9810 ug/L	2.9810 ppb	08:21:41
2	As 188.979†	-136.7	-126.4	32.829 ug/L	32.829 ppb	08:22:01
2	B 249.677†	952.3	1604.8	-25.925 ug/L	-25.925 ppb	08:21:41
2	Ba 233.527†	-1364.7	-1528.9	-0.9888 ug/L	-0.9888 ppb	08:22:01
2	Be 313.107†	-9512.7	-6931.4	-3.0000 ug/L	-3.0000 ppb	08:21:41
2	Cd 226.502†	2640.5	3130.3	3.0561 ug/L	3.0561 ppb	08:22:01
2	Co 228.616†	193.3	262.9	0.4413 ug/L	0.4413 ppb	08:22:01
2	Cr 267.716†	-1053.2	-1252.0	23.918 ug/L	23.918 ppb	08:22:01
2	Cu 324.752†	530.5	-4957.4	-1.0589 ug/L	-1.0589 ppb	08:21:41
2	Mn 257.610†	-20279.0	-23119.0	-7.3448 ug/L	-7.3448 ppb	08:21:41
2	Mo 202.031†	-388.0	-443.4	0.2051 ug/L	0.2051 ppb	08:22:01
2	Ni 231.604†	244.4	189.9	6.0255 ug/L	6.0255 ppb	08:22:01

2	P 214.914†	460.8	329.2	24.570 ug/L	24.570 ppb	08:22:01
2	Pb 220.353†	-451.1	-447.3	-10.020 ug/L	-10.020 ppb	08:22:01
2	S 181.975 Axial†	65.6	43.3	-19.239 ug/L	-19.239 ppb	08:22:01
2	Sb 206.836†	71.3	56.2	2.7172 ug/L	2.7172 ppb	08:22:01
2	Se 196.026†	-1799.4	-2000.0	-246.22 ug/L	-246.22 ppb	08:22:01
2	Si 251.611†	-238.1	-755.1	-28.180 ug/L	-28.180 ppb	08:22:01
2	Sn 189.927†	-334.8	-382.4	-26.547 ug/L	-26.547 ppb	08:22:01
2	Ti 334.940†	-11966.2	-12291.2	-3.2854 ug/L	-3.2854 ppb	08:21:41
2	Tl 190.801†	-81.0	-61.7	-24.259 ug/L	-24.259 ppb	08:22:01
2	U 409.014†	412871.2	464975.3	14057 ug/L	14057 ppb	08:21:41
2	V 292.402†	1032.4	2474.6	-7.8937 ug/L	-7.8937 ppb	08:22:01
2	Zn 213.857†	4602.5	4588.7	-9.7762 ug/L	-9.7762 ppb	08:22:01
2	SiO2†	-292.8	-827.5	-66.459 ug/L	-66.459 ppb	08:22:37
3	Sc Radial	3792.3	3792.3	86.3 %		08:21:08
3	Y RADIAL	4133.1	4133.1	86.82 %		08:21:08
3	Al 396.153Radial†	464025.1	537857.3	528320 ug/L	528320 ppb	08:20:48
3	Ca 317.933Radial†	223657.0	259190.2	490440 ug/L	490440 ppb	08:20:48
3	Fe 238.204 Radial†	32562.1	37729.2	437160 ug/L	437160 ppb	08:21:08
3	K 766.490 Radial†	2391.3	172.7	-341.14 ug/L	-341.14 ppb	08:20:48
3	Mg 279.077 IEC†	10258.7	11887.7	489930 ug/L	489930 ppb	08:21:08
3	Na 589.592 Radial†	1317202.9	1527439.6	538460 ug/L	538460 ppb	08:20:48
3	Sr 421.552†	1379.4	1577.8	8.9853 ug/L	8.9853 ppb	08:21:08
3	Sc 361.383	694267.4	694267.4	84.788 %		08:22:07
3	Y 371.029	575265.2	575265.2	83.173 %		08:22:07
3	Ag 328.068†	-19833.7	-23577.2	-6.0148 ug/L	-6.0148 ppb	08:22:07
3	As 188.979†	-136.5	-134.2	28.664 ug/L	28.664 ppb	08:22:27
3	B 249.677†	971.8	1683.5	-23.784 ug/L	-23.784 ppb	08:22:07
3	Ba 233.527†	-1352.4	-1594.4	-1.5876 ug/L	-1.5876 ppb	08:22:27
3	Be 313.107†	-9518.2	-7494.8	-3.2398 ug/L	-3.2398 ppb	08:22:07
3	Cd 226.502†	2641.5	3286.0	5.4396 ug/L	5.4396 ppb	08:22:27
3	Co 228.616†	198.7	280.6	0.8817 ug/L	0.8817 ppb	08:22:27
3	Cr 267.716†	-1048.2	-1307.7	22.878 ug/L	22.878 ppb	08:22:27
3	Cu 324.752†	478.2	-4988.0	-1.6100 ug/L	-1.6100 ppb	08:22:07
3	Mn 257.610†	-20061.9	-24050.2	-8.4958 ug/L	-8.4958 ppb	08:22:07
3	Mo 202.031†	-407.4	-489.1	-3.7020 ug/L	-3.7020 ppb	08:22:27
3	Ni 231.604†	237.1	195.5	6.2055 ug/L	6.2055 ppb	08:22:27
3	P 214.914†	471.4	368.6	56.630 ug/L	56.630 ppb	08:22:27
3	Pb 220.353†	-461.8	-486.3	-13.261 ug/L	-13.261 ppb	08:22:27
3	S 181.975 Axial†	57.5	37.6	-31.678 ug/L	-31.678 ppb	08:22:27
3	Sb 206.836†	68.6	57.3	2.6559 ug/L	2.6559 ppb	08:22:27
3	Se 196.026†	-1780.3	-2082.7	-310.14 ug/L	-310.14 ppb	08:22:27
3	Si 251.611†	-272.2	-809.2	-30.184 ug/L	-30.184 ppb	08:22:27
3	Sn 189.927†	-340.5	-408.7	-30.723 ug/L	-30.723 ppb	08:22:27
3	Ti 334.940†	-11350.1	-12265.2	-2.1655 ug/L	-2.1655 ppb	08:22:07
3	Tl 190.801†	-95.1	-83.0	-32.522 ug/L	-32.522 ppb	08:22:27
3	U 409.014†	416181.0	493051.5	14909 ug/L	14909 ppb	08:22:07
3	V 292.402†	1073.7	2583.8	-5.5239 ug/L	-5.5239 ppb	08:22:27
3	Zn 213.857†	4591.0	4844.6	-6.7377 ug/L	-6.7377 ppb	08:22:27
3	SiO2†	-295.7	-848.1	-68.030 ug/L	-68.030 ppb	08:22:42

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	705641.3	86.177 %	2.6358			3.06%
Sc Radial	3837.8	87.3 %	0.90			1.03%
Y 371.029	584759.1	84.546 %	2.5699			3.04%
Y RADIAL	4178.7	87.78 %	0.831			0.95%
Ag 328.068†	-22982.2	-2.7564 ug/L	4.98395	-2.7564 ppb	4.98395	180.82%
Al 396.153Radial†	530771.7	521360 ug/L	6245.4	521360 ppb	6245.4	1.20%
QC value within limits for Al 396.153Radial Recovery = 104.27%						
As 188.979†	-134.3	28.489 ug/L	4.4300	28.489 ppb	4.4300	15.55%
B 249.677†	1619.3	-25.506 ug/L	1.5552	-25.506 ppb	1.5552	6.10%
Ba 233.527†	-1561.8	-1.2983 ug/L	0.29988	-1.2983 ppb	0.29988	23.10%
Be 313.107†	-7298.9	-3.1567 ug/L	0.13583	-3.1567 ppb	0.13583	4.30%
Ca 317.933Radial†	255983.3	484370 ug/L	5391.1	484370 ppb	5391.1	1.11%
QC value within limits for Ca 317.933Radial Recovery = 96.87%						
Cd 226.502†	3242.6	4.8040 ug/L	1.53236	4.8040 ppb	1.53236	31.90%
Co 228.616†	273.2	0.6997 ug/L	0.22995	0.6997 ppb	0.22995	32.86%
Cr 267.716†	-1280.7	23.303 ug/L	0.5453	23.303 ppb	0.5453	2.34%
Cu 324.752†	-4936.1	-1.3021 ug/L	0.28121	-1.3021 ppb	0.28121	21.60%

Fe 238.204 Radial†	37687.0	436670 ug/L	536.3	436670 ppb	536.3	0.12%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 87.33%						
K 766.490 Radial†	140.0	-342.99 ug/L	15.557	-342.99 ppb	15.557	4.54%
Mg 279.077 IEC†	11892.4	490120 ug/L	550.1	490120 ppb	550.1	0.11%
QC value within limits for Mg 279.077 IEC Recovery = 98.02%						
Mn 257.610†	-23771.3	-8.1853 ug/L	0.73620	-8.1853 ppb	0.73620	8.99%
Mo 202.031†	-486.1	-3.5526 ug/L	3.68516	-3.5526 ppb	3.68516	103.73%
Na 589.592 Radial†	1510425.3	532460 ug/L	5326.8	532460 ppb	5326.8	1.00%
QC value within limits for Na 589.592 Radial Recovery = 106.49%						
Ni 231.604†	189.0	5.9975 ug/L	0.22333	5.9975 ppb	0.22333	3.72%
P 214.914†	357.0	46.570 ug/L	19.0751	46.570 ppb	19.0751	40.96%
Pb 220.353†	-469.2	-12.182 ug/L	1.8719	-12.182 ppb	1.8719	15.37%
S 181.975 Axial†	34.9	-35.177 ug/L	17.9448	-35.177 ppb	17.9448	51.01%
Sb 206.836†	49.4	-0.4064 ug/L	5.35721	-0.4064 ppb	5.35721	>999.9%
Se 196.026†	-2067.6	-301.17 ug/L	51.066	-301.17 ppb	51.066	16.96%
Si 251.611†	-802.2	-29.924 ug/L	1.6288	-29.924 ppb	1.6288	5.44%
Sn 189.927†	-399.9	-29.775 ug/L	2.8732	-29.775 ppb	2.8732	9.65%
Sr 421.552†	1575.2	9.0095 ug/L	0.05848	9.0095 ppb	0.05848	0.65%
Ti 334.940†	-12361.3	-3.0334 ug/L	0.77339	-3.0334 ppb	0.77339	25.50%
Tl 190.801†	-71.9	-28.208 ug/L	4.1435	-28.208 ppb	4.1435	14.69%
U 409.014†	483376.4	14615 ug/L	483.7	14615 ppb	483.7	3.31%
QC value within limits for U 409.014 Recovery = 97.43%						
V 292.402†	2541.7	-6.3431 ug/L	1.34363	-6.3431 ppb	1.34363	21.18%
Zn 213.857†	4776.2	-7.4918 ug/L	2.01607	-7.4918 ppb	2.01607	26.91%
SiO2†	-825.1	-66.158 ug/L	2.0394	-66.158 ppb	2.0394	3.08%
QC Failed. Continue with analysis.						

Sequence No.: 12

Sample ID: LR2

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 16

Date Collected: 3/19/2010 08:24:52

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	4137.8	4137.8	94.1 %		08:27:10
1	Y RADIAL	4644.1	4644.1	97.55 %		08:26:50
1	Al 396.153Radial†	390.0	492.3	15.191 ug/L	15.191 ppb	08:26:50
1	Ca 317.933Radial†	33.8	20.2	38.282 ug/L	38.282 ppb	08:27:10
1	Fe 238.204 Radial†	-17.3	-26.9	-23.574 ug/L	-23.574 ppb	08:27:10
1	K 766.490 Radial†	1547401.2	1641029.2	312650 ug/L	312650 ppb	08:26:45
1	Mg 279.077 IEC†	-3.3	-5.0	-105.68 ug/L	-105.68 ppb	08:27:10
1	Na 589.592 Radial†	-347.1	506.4	178.52 ug/L	178.52 ppb	08:26:50
1	Sr 421.552†	1216543.4	1292174.6	10358 ug/L	10358 ppb	08:26:45
1	Sc 361.383	804970.1	804970.1	98.308 %		08:28:28
1	Y 371.029	666238.5	666238.5	96.326 %		08:28:28
1	Ag 328.068†	-6177.1	-6468.5	7.0301 ug/L	7.0301 ppb	08:28:33
1	As 188.979†	17708.3	18039.8	9966.6 ug/L	9966.6 ppb	08:28:33
1	B 249.677†	175916.7	179481.8	5007.7 ug/L	5007.7 ppb	08:28:28
1	Ba 233.527†	1479029.4	1504486.3	14114 ug/L	14114 ppb	08:28:28
1	Be 313.107†	6728544.3	6848082.8	2938.4 ug/L	2938.4 ppb	08:28:21
1	Cd 226.502†	658581.0	670086.7	9729.0 ug/L	9729.0 ppb	08:28:28
1	Co 228.616†	365808.7	372151.0	9616.9 ug/L	9616.9 ppb	08:28:28
1	Cr 267.716†	1773359.1	1803809.5	24204 ug/L	24204 ppb	08:28:28
1	Cu 324.752†	6042194.5	6140637.0	20273 ug/L	20273 ppb	08:28:21
1	Mn 257.610†	7074413.2	7195784.5	9461.1 ug/L	9461.1 ppb	08:28:21
1	Mo 202.031†	106826.9	108657.0	9658.6 ug/L	9658.6 ppb	08:28:33
1	Ni 231.604†	306782.5	311978.6	9901.8 ug/L	9901.8 ppb	08:28:28
1	P 214.914†	23485.0	23701.9	13724 ug/L	13724 ppb	08:28:33
1	Pb 220.353†	155065.2	157792.4	24255 ug/L	24255 ppb	08:28:28
1	S 181.975 Axial†	28593.5	29055.4	52015 ug/L	52015 ppb	08:28:33
1	Sb 206.836†	24495.7	24893.6	10774 ug/L	10774 ppb	08:28:33
1	Se 196.026†	12052.6	12277.0	10257 ug/L	10257 ppb	08:28:33
1	Si 251.611†	1232990.0	1253723.3	47476 ug/L	47476 ppb	08:28:28
1	Sn 189.927†	43906.6	44655.1	10133 ug/L	10133 ppb	08:28:33
1	Ti 334.940†	5587153.3	5684437.1	9876.8 ug/L	9876.8 ppb	08:28:21
1	Tl 190.801†	24418.9	24868.3	9687.0 ug/L	9687.0 ppb	08:28:33
1	U 409.014†	-1200.6	983.0	-24.275 ug/L	-24.275 ppb	08:28:28
1	V 292.402†	1238824.8	1261464.1	10190 ug/L	10190 ppb	08:28:28
1	Zn 213.857†	1148798.8	1168001.2	14062 ug/L	14062 ppb	08:28:28
1	SiO2†	1231318.9	1252012.3	101920 ug/L	101920 ppb	08:29:19
2	Sc Radial	4145.5	4145.5	94.3 %		08:27:41
2	Y RADIAL	4527.2	4527.2	95.10 %		08:27:21
2	Al 396.153Radial†	369.2	469.5	-8.7245 ug/L	-8.7245 ppb	08:27:21
2	Ca 317.933Radial†	32.2	18.5	34.943 ug/L	34.943 ppb	08:27:41
2	Fe 238.204 Radial†	-18.2	-27.8	-32.856 ug/L	-32.856 ppb	08:27:41
2	K 766.490 Radial†	1542370.3	1632628.8	311050 ug/L	311050 ppb	08:27:16
2	Mg 279.077 IEC†	-5.6	-7.4	-205.17 ug/L	-205.17 ppb	08:27:41
2	Na 589.592 Radial†	-354.2	499.6	176.11 ug/L	176.11 ppb	08:27:21
2	Sr 421.552†	1209601.5	1282403.8	10279 ug/L	10279 ppb	08:27:16
2	Sc 361.383	811868.5	811868.5	99.150 %		08:28:48
2	Y 371.029	670978.1	670978.1	97.012 %		08:28:48
2	Ag 328.068†	-6279.8	-6518.8	6.8157 ug/L	6.8157 ppb	08:28:53
2	As 188.979†	17949.0	18129.6	10015 ug/L	10015 ppb	08:28:53
2	B 249.677†	177983.5	180045.9	5023.5 ug/L	5023.5 ppb	08:28:48
2	Ba 233.527†	1494980.9	1507790.9	14145 ug/L	14145 ppb	08:28:48
2	Be 313.107†	6732933.5	6794353.7	2915.3 ug/L	2915.3 ppb	08:28:41
2	Cd 226.502†	666918.4	672803.4	9768.4 ug/L	9768.4 ppb	08:28:48
2	Co 228.616†	370193.2	373411.3	9649.8 ug/L	9649.8 ppb	08:28:48
2	Cr 267.716†	1791743.9	1807024.5	24247 ug/L	24247 ppb	08:28:48
2	Cu 324.752†	6030940.7	6077063.1	20063 ug/L	20063 ppb	08:28:41
2	Mn 257.610†	7074899.8	7135130.0	9381.4 ug/L	9381.4 ppb	08:28:41
2	Mo 202.031†	108087.3	109004.9	9689.6 ug/L	9689.6 ppb	08:28:53
2	Ni 231.604†	310630.5	313208.0	9940.8 ug/L	9940.8 ppb	08:28:48

2	P 214.914†	23794.6	23811.2	13848 ug/L	13848 ppb	08:28:53
2	Pb 220.353†	156895.5	158298.2	24333 ug/L	24333 ppb	08:28:48
2	S 181.975 Axial†	29039.9	29258.5	52379 ug/L	52379 ppb	08:28:53
2	Sb 206.836†	24818.6	25007.5	10823 ug/L	10823 ppb	08:28:53
2	Se 196.026†	12224.9	12346.6	10315 ug/L	10315 ppb	08:28:53
2	Si 251.611†	1246148.3	1256337.3	47575 ug/L	47575 ppb	08:28:48
2	Sn 189.927†	44475.4	44849.3	10178 ug/L	10178 ppb	08:28:53
2	Ti 334.940†	5582866.5	5631822.9	9785.3 ug/L	9785.3 ppb	08:28:41
2	Tl 190.801†	24653.6	24894.0	9695.6 ug/L	9695.6 ppb	08:28:53
2	U 409.014†	-1298.1	895.0	-27.040 ug/L	-27.040 ppb	08:28:48
2	V 292.402†	1250891.0	1262926.4	10202 ug/L	10202 ppb	08:28:48
2	Zn 213.857†	1161089.0	1170467.4	14092 ug/L	14092 ppb	08:28:48
2	SiO2†	1234688.1	1244767.8	101320 ug/L	101320 ppb	08:29:25
3	Sc Radial	4156.1	4156.1	94.6 %		08:28:11
3	Y RADIAL	4593.1	4593.1	96.48 %		08:27:51
3	Al 396.153Radial†	406.4	507.9	24.084 ug/L	24.084 ppb	08:27:51
3	Ca 317.933Radial†	32.6	18.8	35.616 ug/L	35.616 ppb	08:28:11
3	Fe 238.204 Radial†	-11.3	-20.4	53.420 ug/L	53.420 ppb	08:28:11
3	K 766.490 Radial†	1534339.9	1619978.5	308640 ug/L	308640 ppb	08:27:46
3	Mg 279.077 IEC†	-5.4	-7.2	-196.31 ug/L	-196.31 ppb	08:28:11
3	Na 589.592 Radial†	-370.0	483.8	170.55 ug/L	170.55 ppb	08:27:51
3	Sr 421.552†	1205944.7	1275275.8	10222 ug/L	10222 ppb	08:27:46
3	Sc 361.383	799541.9	799541.9	97.645 %		08:29:08
3	Y 371.029	660328.4	660328.4	95.472 %		08:29:08
3	Ag 328.068†	-6237.4	-6572.9	6.6426 ug/L	6.6426 ppb	08:29:13
3	As 188.979†	17849.2	18306.5	10114 ug/L	10114 ppb	08:29:13
3	B 249.677†	175494.5	180264.3	5029.5 ug/L	5029.5 ppb	08:29:08
3	Ba 233.527†	1476470.2	1512079.6	14185 ug/L	14185 ppb	08:29:08
3	Be 313.107†	6787317.6	6954741.4	2984.1 ug/L	2984.1 ppb	08:29:01
3	Cd 226.502†	659516.8	675593.3	9808.9 ug/L	9808.9 ppb	08:29:08
3	Co 228.616†	365913.6	374784.7	9685.0 ug/L	9685.0 ppb	08:29:08
3	Cr 267.716†	1770674.5	1813307.1	24331 ug/L	24331 ppb	08:29:08
3	Cu 324.752†	6079322.5	6220388.3	20537 ug/L	20537 ppb	08:29:01
3	Mn 257.610†	7133186.6	7304831.8	9604.5 ug/L	9604.5 ppb	08:29:01
3	Mo 202.031†	107562.7	110148.3	9791.2 ug/L	9791.2 ppb	08:29:13
3	Ni 231.604†	306847.3	314163.7	9971.1 ug/L	9971.1 ppb	08:29:08
3	P 214.914†	23753.0	24138.6	13999 ug/L	13999 ppb	08:29:13
3	Pb 220.353†	155100.2	158899.1	24425 ug/L	24425 ppb	08:29:08
3	S 181.975 Axial†	28855.2	29520.9	52849 ug/L	52849 ppb	08:29:13
3	Sb 206.836†	24631.3	25201.6	10908 ug/L	10908 ppb	08:29:13
3	Se 196.026†	12064.9	12372.8	10337 ug/L	10337 ppb	08:29:13
3	Si 251.611†	1229504.0	1258668.3	47662 ug/L	47662 ppb	08:29:08
3	Sn 189.927†	44342.4	45404.7	10304 ug/L	10304 ppb	08:29:13
3	Ti 334.940†	5623242.8	5759982.3	10008 ug/L	10008 ppb	08:29:01
3	Tl 190.801†	24541.9	25162.9	9802.4 ug/L	9802.4 ppb	08:29:13
3	U 409.014†	-1135.1	1041.7	-22.786 ug/L	-22.786 ppb	08:29:08
3	V 292.402†	1234480.5	1265570.5	10225 ug/L	10225 ppb	08:29:08
3	Zn 213.857†	1148149.8	1175270.1	14149 ug/L	14149 ppb	08:29:08
3	SiO2†	1217210.0	1246066.7	101430 ug/L	101430 ppb	08:29:31

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	805460.2	98.368 %	0.7545			0.77%
Sc Radial	4146.4	94.3 %	0.21			0.22%
Y 371.029	665848.3	96.270 %	0.7714			0.80%
Y RADIAL	4588.1	96.38 %	1.231			1.28%
Ag 328.068†	-6520.1	6.8295 ug/L	0.19414	6.8295 ppb	0.19414	2.84%
Al 396.153Radial†	489.9	10.184 ug/L	16.9680	10.184 ppb	16.9680	166.62%
As 188.979†	18158.6	10032 ug/L	75.0	10032 ppb	75.0	0.75%
QC value within limits for As 188.979 Recovery = 100.32%						
B 249.677†	179930.7	5020.2 ug/L	11.23	5020.2 ppb	11.23	0.22%
QC value within limits for B 249.677 Recovery = 100.40%						
Ba 233.527†	1508118.9	14148 ug/L	35.7	14148 ppb	35.7	0.25%
QC value within limits for Ba 233.527 Recovery = 94.32%						
Be 313.107†	6865726.0	2945.9 ug/L	35.01	2945.9 ppb	35.01	1.19%
QC value within limits for Be 313.107 Recovery = 98.20%						
Ca 317.933Radial†	19.2	36.280 ug/L	1.7659	36.280 ppb	1.7659	4.87%
Cd 226.502†	672827.8	9768.8 ug/L	39.97	9768.8 ppb	39.97	0.41%
QC value within limits for Cd 226.502 Recovery = 97.69%						

Co 228.616†	373449.0	9650.6 ug/L	34.05	9650.6 ppb	34.05	0.35%
QC value within limits for Co 228.616 Recovery = 96.51%						
Cr 267.716†	1808047.0	24260 ug/L	64.8	24260 ppb	64.8	0.27%
QC value within limits for Cr 267.716 Recovery = 97.04%						
Cu 324.752†	6146029.5	20291 ug/L	237.1	20291 ppb	237.1	1.17%
QC value within limits for Cu 324.752 Recovery = 101.46%						
Fe 238.204 Radial†	-25.0	-1.0033 ug/L	47.36013	-1.0033 ppb	47.36013	>999.9%
K 766.490 Radial†	1631212.1	310780 ug/L	2019.1	310780 ppb	2019.1	0.65%
QC value within limits for K 766.490 Radial Recovery = 103.59%						
Mg 279.077 IEC†	-6.6	-169.05 ug/L	55.058	-169.05 ppb	55.058	32.57%
Mn 257.610†	7211915.4	9482.4 ug/L	113.07	9482.4 ppb	113.07	1.19%
QC value within limits for Mn 257.610 Recovery = 94.82%						
Mo 202.031†	109270.1	9713.1 ug/L	69.35	9713.1 ppb	69.35	0.71%
QC value within limits for Mo 202.031 Recovery = 97.13%						
Na 589.592 Radial†	496.6	175.06 ug/L	4.087	175.06 ppb	4.087	2.33%
Ni 231.604†	313116.8	9937.9 ug/L	34.77	9937.9 ppb	34.77	0.35%
QC value within limits for Ni 231.604 Recovery = 99.38%						
P 214.914†	23883.9	13857 ug/L	137.5	13857 ppb	137.5	0.99%
QC value within limits for P 214.914 Recovery = 92.38%						
Pb 220.353†	158329.9	24337 ug/L	85.2	24337 ppb	85.2	0.35%
QC value within limits for Pb 220.353 Recovery = 97.35%						
S 181.975 Axial†	29278.3	52414 ug/L	417.8	52414 ppb	417.8	0.80%
QC value within limits for S 181.975 Axial Recovery = 104.83%						
Sb 206.836†	25034.3	10835 ug/L	67.7	10835 ppb	67.7	0.63%
QC value within limits for Sb 206.836 Recovery = 108.35%						
Se 196.026†	12332.1	10303 ug/L	41.5	10303 ppb	41.5	0.40%
QC value within limits for Se 196.026 Recovery = 103.03%						
Si 251.611†	1256243.0	47571 ug/L	93.1	47571 ppb	93.1	0.20%
QC value within limits for Si 251.611 Recovery = 95.14%						
Sn 189.927†	44969.7	10205 ug/L	88.3	10205 ppb	88.3	0.87%
QC value within limits for Sn 189.927 Recovery = 102.05%						
Sr 421.552†	1283284.7	10286 ug/L	68.0	10286 ppb	68.0	0.66%
QC value within limits for Sr 421.552 Recovery = 102.86%						
Ti 334.940†	5692080.8	9890.1 ug/L	112.01	9890.1 ppb	112.01	1.13%
QC value within limits for Ti 334.940 Recovery = 98.90%						
Tl 190.801†	24975.1	9728.3 ug/L	64.27	9728.3 ppb	64.27	0.66%
QC value within limits for Tl 190.801 Recovery = 97.28%						
U 409.014†	973.2	-24.700 ug/L	2.1584	-24.700 ppb	2.1584	8.74%
V 292.402†	1263320.3	10206 ug/L	17.5	10206 ppb	17.5	0.17%
QC value within limits for V 292.402 Recovery = 102.06%						
Zn 213.857†	1171246.2	14101 ug/L	44.3	14101 ppb	44.3	0.31%
QC value within limits for Zn 213.857 Recovery = 94.01%						
SiO2†	1247615.6	101560 ug/L	316.3	101560 ppb	316.3	0.31%
QC value within limits for SiO2 Recovery = 94.91%						
All analyte(s) passed QC.						

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Analysis Begun

Start Time: 3/19/2010 08:47:07

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

Logged In Analyst: Optima3

Technique: ICP Continuous

Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\031910.sif

Batch ID:

Results Data Set: 031910

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

Method Name: General Eng.2AX

Method Last Saved: 3/19/2010 07:15:37

IEC File: 011110.iec

MSF File:

Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/19/2010 08:47:08

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4305.8	4305.8	98.0 %		08:49:20
1	Y RADIAL	4716.7	4716.7	99.08 %		08:49:00
1	Al 396.153Radial†	4931.5	5111.8	4997.3 ug/L	4997.3 ppb	08:49:00

1	Ca 317.933Radial†	2710.1	2750.6	5204.7 ug/L	5204.7 ppb	08:49:20
1	Fe 238.204 Radial†	455.7	456.7	5306.4 ug/L	5306.4 ppb	08:49:20
1	K 766.490 Radial†	29165.1	27171.3	5170.4 ug/L	5170.4 ppb	08:49:00
1	Mg 279.077 IEC†	127.8	129.0	5319.9 ug/L	5319.9 ppb	08:49:20
1	Na 589.592 Radial†	27601.2	29048.8	10240 ug/L	10240 ppb	08:49:00
1	Sr 421.552†	62875.2	64158.5	514.24 ug/L	514.24 ppb	08:49:00
1	Sc 361.383	842688.6	842688.6	102.91 %		08:50:18
1	Y 371.029	702082.9	702082.9	101.51 %		08:50:18
1	Ag 328.068†	97152.7	94216.3	492.30 ug/L	492.30 ppb	08:50:23
1	As 188.979†	915.3	916.2	507.22 ug/L	507.22 ppb	08:50:43
1	B 249.677†	17731.7	17766.9	496.15 ug/L	496.15 ppb	08:50:23
1	Ba 233.527†	53823.5	52300.4	491.10 ug/L	491.10 ppb	08:50:23
1	Be 313.107†	1211376.0	1180802.4	503.88 ug/L	503.88 ppb	08:50:18
1	Cd 226.502†	34646.6	33836.1	490.81 ug/L	490.81 ppb	08:50:23
1	Co 228.616†	19740.5	19227.7	497.07 ug/L	497.07 ppb	08:50:23
1	Cr 267.716†	37683.1	36544.5	491.12 ug/L	491.12 ppb	08:50:23
1	Cu 324.752†	156492.6	146509.0	483.70 ug/L	483.70 ppb	08:50:23
1	Mn 257.610†	390297.8	378856.0	498.43 ug/L	498.43 ppb	08:50:18
1	Mo 202.031†	5708.4	5538.2	492.77 ug/L	492.77 ppb	08:50:43
1	Ni 231.604†	16164.2	15622.4	495.83 ug/L	495.83 ppb	08:50:23
1	P 214.914†	3592.6	3303.6	2366.4 ug/L	2366.4 ppb	08:50:43
1	Pb 220.353†	3247.3	3213.6	495.10 ug/L	495.10 ppb	08:50:43
1	S 181.975 Axial†	591.1	544.2	973.26 ug/L	973.26 ppb	08:50:43
1	Sb 206.836†	1250.0	1190.9	516.03 ug/L	516.03 ppb	08:50:43
1	Se 196.026†	596.8	596.8	515.55 ug/L	515.55 ppb	08:50:43
1	Si 251.611†	66710.0	64332.6	2436.2 ug/L	2436.2 ppb	08:50:23
1	Sn 189.927†	2261.3	2190.1	497.61 ug/L	497.61 ppb	08:50:43
1	Ti 334.940†	283251.6	276351.5	480.46 ug/L	480.46 ppb	08:50:23
1	Tl 190.801†	1282.3	1275.1	496.57 ug/L	496.57 ppb	08:50:43
1	U 409.014†	14644.3	16433.8	496.87 ug/L	496.87 ppb	08:50:23
1	V 292.402†	61720.7	61290.3	495.97 ug/L	495.97 ppb	08:50:23
1	Zn 213.857†	42521.3	40747.1	489.11 ug/L	489.11 ppb	08:50:23
1	SiO2†	66780.4	64389.9	5241.6 ug/L	5241.6 ppb	08:51:50
2	Sc Radial	4310.3	4310.3	98.1 %		08:49:46
2	Y RADIAL	4803.0	4803.0	100.9 %		08:49:26
2	Al 396.153Radial†	5008.9	5185.5	5069.2 ug/L	5069.2 ppb	08:49:26
2	Ca 317.933Radial†	2706.8	2744.3	5192.8 ug/L	5192.8 ppb	08:49:46
2	Fe 238.204 Radial†	454.3	454.8	5284.6 ug/L	5284.6 ppb	08:49:46
2	K 766.490 Radial†	29710.5	27696.0	5270.2 ug/L	5270.2 ppb	08:49:26
2	Mg 279.077 IEC†	130.0	131.0	5404.3 ug/L	5404.3 ppb	08:49:46
2	Na 589.592 Radial†	28243.8	29674.3	10461 ug/L	10461 ppb	08:49:26
2	Sr 421.552†	64090.9	65330.4	523.63 ug/L	523.63 ppb	08:49:26
2	Sc 361.383	835415.1	835415.1	102.03 %		08:50:49
2	Y 371.029	696746.4	696746.4	100.74 %		08:50:49
2	Ag 328.068†	98655.9	96511.5	504.24 ug/L	504.24 ppb	08:50:54
2	As 188.979†	915.8	924.4	511.79 ug/L	511.79 ppb	08:51:14
2	B 249.677†	18161.0	18337.7	512.14 ug/L	512.14 ppb	08:50:54
2	Ba 233.527†	54512.5	53430.6	501.72 ug/L	501.72 ppb	08:50:54
2	Be 313.107†	1202410.4	1182263.0	504.53 ug/L	504.53 ppb	08:50:49
2	Cd 226.502†	35172.4	34644.5	502.56 ug/L	502.56 ppb	08:50:54
2	Co 228.616†	20017.6	19666.3	508.40 ug/L	508.40 ppb	08:50:54
2	Cr 267.716†	38195.4	37365.3	502.14 ug/L	502.14 ppb	08:50:54
2	Cu 324.752†	159175.9	150462.8	496.75 ug/L	496.75 ppb	08:50:54
2	Mn 257.610†	387381.3	379299.3	499.01 ug/L	499.01 ppb	08:50:49
2	Mo 202.031†	5767.0	5643.9	502.17 ug/L	502.17 ppb	08:51:14
2	Ni 231.604†	16383.4	15974.0	506.99 ug/L	506.99 ppb	08:50:54
2	P 214.914†	3601.9	3343.1	2393.4 ug/L	2393.4 ppb	08:51:14
2	Pb 220.353†	3277.1	3270.3	503.85 ug/L	503.85 ppb	08:51:14
2	S 181.975 Axial†	602.5	560.3	1002.1 ug/L	1002.1 ppb	08:51:14
2	Sb 206.836†	1254.1	1205.5	522.43 ug/L	522.43 ppb	08:51:14
2	Se 196.026†	611.7	616.6	531.97 ug/L	531.97 ppb	08:51:14
2	Si 251.611†	67838.4	66003.0	2499.5 ug/L	2499.5 ppb	08:50:54
2	Sn 189.927†	2268.7	2216.5	503.59 ug/L	503.59 ppb	08:51:14
2	Ti 334.940†	287345.1	282760.0	491.58 ug/L	491.58 ppb	08:50:54
2	Tl 190.801†	1298.2	1301.6	506.83 ug/L	506.83 ppb	08:51:14
2	U 409.014†	15075.3	16980.2	513.43 ug/L	513.43 ppb	08:50:54
2	V 292.402†	62616.3	62690.3	507.30 ug/L	507.30 ppb	08:50:54
2	Zn 213.857†	43043.2	41618.3	499.58 ug/L	499.58 ppb	08:50:54
2	SiO2†	67536.8	65696.3	5347.9 ug/L	5347.9 ppb	08:51:56
3	Sc Radial	4320.9	4320.9	98.3 %		08:50:11
3	Y RADIAL	4722.3	4722.3	99.20 %		08:49:51

3	Al 396.153Radial†	4930.1	5092.8	4978.3 ug/L	4978.3 ppb	08:49:51
3	Ca 317.933Radial†	2709.3	2740.1	5184.9 ug/L	5184.9 ppb	08:50:11
3	Fe 238.204 Radial†	457.4	456.8	5308.2 ug/L	5308.2 ppb	08:50:11
3	K 766.490 Radial†	29302.8	27207.3	5177.2 ug/L	5177.2 ppb	08:49:51
3	Mg 279.077 IEC†	130.2	130.9	5398.3 ug/L	5398.3 ppb	08:50:11
3	Na 589.592 Radial†	27688.5	29039.1	10237 ug/L	10237 ppb	08:49:51
3	Sr 421.552†	62909.5	63969.0	512.72 ug/L	512.72 ppb	08:49:51
3	Sc 361.383	833064.0	833064.0	101.74 %		08:51:20
3	Y 371.029	694093.3	694093.3	100.35 %		08:51:20
3	Ag 328.068†	96658.0	94820.7	495.44 ug/L	495.44 ppb	08:51:25
3	As 188.979†	909.2	920.4	509.56 ug/L	509.56 ppb	08:51:45
3	B 249.677†	17772.0	18005.6	502.84 ug/L	502.84 ppb	08:51:25
3	Ba 233.527†	53540.6	52626.1	494.16 ug/L	494.16 ppb	08:51:25
3	Be 313.107†	1198980.6	1182217.9	504.49 ug/L	504.49 ppb	08:51:20
3	Cd 226.502†	34489.0	34070.1	494.21 ug/L	494.21 ppb	08:51:25
3	Co 228.616†	19647.2	19357.6	500.44 ug/L	500.44 ppb	08:51:25
3	Cr 267.716†	37544.8	36831.6	494.97 ug/L	494.97 ppb	08:51:25
3	Cu 324.752†	155601.0	147389.4	486.61 ug/L	486.61 ppb	08:51:25
3	Mn 257.610†	386953.3	379950.2	499.87 ug/L	499.87 ppb	08:51:20
3	Mo 202.031†	5728.1	5621.6	500.19 ug/L	500.19 ppb	08:51:45
3	Ni 231.604†	16137.8	15777.9	500.76 ug/L	500.76 ppb	08:51:25
3	P 214.914†	3584.6	3336.0	2390.0 ug/L	2390.0 ppb	08:51:45
3	Pb 220.353†	3264.9	3267.4	503.37 ug/L	503.37 ppb	08:51:45
3	S 181.975 Axial†	592.3	552.0	987.22 ug/L	987.22 ppb	08:51:45
3	Sb 206.836†	1243.0	1198.1	519.27 ug/L	519.27 ppb	08:51:45
3	Se 196.026†	592.4	599.2	517.57 ug/L	517.57 ppb	08:51:45
3	Si 251.611†	66318.2	64696.5	2449.9 ug/L	2449.9 ppb	08:51:25
3	Sn 189.927†	2253.3	2207.6	501.58 ug/L	501.58 ppb	08:51:45
3	Ti 334.940†	281695.2	278001.5	483.32 ug/L	483.32 ppb	08:51:25
3	Tl 190.801†	1289.9	1297.0	505.05 ug/L	505.05 ppb	08:51:45
3	U 409.014†	14513.9	16470.0	497.96 ug/L	497.96 ppb	08:51:25
3	V 292.402†	61261.2	61531.5	498.00 ug/L	498.00 ppb	08:51:25
3	Zn 213.857†	42320.7	41027.2	492.47 ug/L	492.47 ppb	08:51:25
3	SiO2†	66750.8	65110.6	5300.2 ug/L	5300.2 ppb	08:52:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	837055.9	102.23 %	0.613			0.60%
Sc Radial	4312.3	98.1 %	0.18			0.18%
Y 371.029	697640.9	100.87 %	0.588			0.58%
Y RADIAL	4747.3	99.72 %	1.014			1.02%
Ag 328.068†	95182.9	497.33 ug/L	6.190	497.33 ppb	6.190	1.24%
QC value within limits for Ag 328.068 Recovery = 99.47%						
Al 396.153Radial†	5130.0	5014.9 ug/L	47.95	5014.9 ppb	47.95	0.96%
QC value within limits for Al 396.153Radial Recovery = 100.30%						
As 188.979†	920.3	509.52 ug/L	2.282	509.52 ppb	2.282	0.45%
QC value within limits for As 188.979 Recovery = 101.90%						
B 249.677†	18036.7	503.71 ug/L	8.027	503.71 ppb	8.027	1.59%
QC value within limits for B 249.677 Recovery = 100.74%						
Ba 233.527†	52785.6	495.66 ug/L	5.463	495.66 ppb	5.463	1.10%
QC value within limits for Ba 233.527 Recovery = 99.13%						
Be 313.107†	1181761.1	504.30 ug/L	0.363	504.30 ppb	0.363	0.07%
QC value within limits for Be 313.107 Recovery = 100.86%						
Ca 317.933Radial†	2745.0	5194.1 ug/L	9.96	5194.1 ppb	9.96	0.19%
QC value within limits for Ca 317.933Radial Recovery = 103.88%						
Cd 226.502†	34183.6	495.86 ug/L	6.043	495.86 ppb	6.043	1.22%
QC value within limits for Cd 226.502 Recovery = 99.17%						
Co 228.616†	19417.2	501.97 ug/L	5.822	501.97 ppb	5.822	1.16%
QC value within limits for Co 228.616 Recovery = 100.39%						
Cr 267.716†	36913.8	496.08 ug/L	5.590	496.08 ppb	5.590	1.13%
QC value within limits for Cr 267.716 Recovery = 99.22%						
Cu 324.752†	148120.4	489.02 ug/L	6.848	489.02 ppb	6.848	1.40%
QC value within limits for Cu 324.752 Recovery = 97.80%						
Fe 238.204 Radial†	456.1	5299.7 ug/L	13.14	5299.7 ppb	13.14	0.25%
QC value within limits for Fe 238.204 Radial Recovery = 105.99%						
K 766.490 Radial†	27358.2	5205.9 ug/L	55.79	5205.9 ppb	55.79	1.07%
QC value within limits for K 766.490 Radial Recovery = 104.12%						
Mg 279.077 IEC†	130.3	5374.1 ug/L	47.09	5374.1 ppb	47.09	0.88%
QC value within limits for Mg 279.077 IEC Recovery = 107.48%						

Mn 257.610†	379368.5	499.10 ug/L	0.722	499.10 ppb	0.722	0.14%
QC value within limits for Mn 257.610 Recovery = 99.82%						
Mo 202.031†	5601.2	498.37 ug/L	4.955	498.37 ppb	4.955	0.99%
QC value within limits for Mo 202.031 Recovery = 99.67%						
Na 589.592 Radial†	29254.1	10313 ug/L	128.3	10313 ppb	128.3	1.24%
QC value within limits for Na 589.592 Radial Recovery = 103.13%						
Ni 231.604†	15791.4	501.19 ug/L	5.592	501.19 ppb	5.592	1.12%
QC value within limits for Ni 231.604 Recovery = 100.24%						
P 214.914†	3327.6	2383.3 ug/L	14.70	2383.3 ppb	14.70	0.62%
QC value within limits for P 214.914 Recovery = 95.33%						
Pb 220.353†	3250.5	500.77 ug/L	4.917	500.77 ppb	4.917	0.98%
QC value within limits for Pb 220.353 Recovery = 100.15%						
S 181.975 Axial†	552.2	987.54 ug/L	14.439	987.54 ppb	14.439	1.46%
QC value within limits for S 181.975 Axial Recovery = 98.75%						
Sb 206.836†	1198.2	519.24 ug/L	3.201	519.24 ppb	3.201	0.62%
QC value within limits for Sb 206.836 Recovery = 103.85%						
Se 196.026†	604.2	521.70 ug/L	8.953	521.70 ppb	8.953	1.72%
QC value within limits for Se 196.026 Recovery = 104.34%						
Si 251.611†	65010.7	2461.9 ug/L	33.30	2461.9 ppb	33.30	1.35%
QC value within limits for Si 251.611 Recovery = 98.47%						
Sn 189.927†	2204.7	500.93 ug/L	3.046	500.93 ppb	3.046	0.61%
QC value within limits for Sn 189.927 Recovery = 100.19%						
Sr 421.552†	64486.0	516.86 ug/L	5.911	516.86 ppb	5.911	1.14%
QC value within limits for Sr 421.552 Recovery = 103.37%						
Ti 334.940†	279037.7	485.12 ug/L	5.777	485.12 ppb	5.777	1.19%
QC value within limits for Ti 334.940 Recovery = 97.02%						
Tl 190.801†	1291.2	502.82 ug/L	5.485	502.82 ppb	5.485	1.09%
QC value within limits for Tl 190.801 Recovery = 100.56%						
U 409.014†	16628.0	502.75 ug/L	9.259	502.75 ppb	9.259	1.84%
QC value within limits for U 409.014 Recovery = 100.55%						
V 292.402†	61837.4	500.42 ug/L	6.043	500.42 ppb	6.043	1.21%
QC value within limits for V 292.402 Recovery = 100.08%						
Zn 213.857†	41130.9	493.72 ug/L	5.346	493.72 ppb	5.346	1.08%
QC value within limits for Zn 213.857 Recovery = 98.74%						
SiO2†	65065.6	5296.6 ug/L	53.27	5296.6 ppb	53.27	1.01%
QC value within limits for SiO2 Recovery = 99.05%						

All analyte(s) passed QC.

Sequence No.: 2

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/19/2010 08:54:10

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	4278.0	4278.0	97.3 %		08:56:23
1	Y RADIAL	4838.9	4838.9	101.6 %		08:56:03
1	Al 396.153Radial†	-75.6	0.4	0.3184 ug/L	0.3184 ppb	08:56:23
1	Ca 317.933Radial†	23.5	8.5	16.044 ug/L	16.044 ppb	08:56:23
1	Fe 238.204 Radial†	8.5	0.3	3.4993 ug/L	3.4993 ppb	08:56:23
1	K 766.490 Radial†	2965.1	447.5	85.252 ug/L	85.252 ppb	08:56:03
1	Mg 279.077 IEC†	0.2	-1.3	-54.781 ug/L	-54.781 ppb	08:56:23
1	Na 589.592 Radial†	-832.8	19.5	6.8849 ug/L	6.8849 ppb	08:56:03
1	Sr 421.552†	5.5	-15.1	-0.1214 ug/L	-0.1214 ppb	08:56:03
1	Sc 361.383	825108.5	825108.5	100.77 %		08:57:20
1	Y 371.029	697408.9	697408.9	100.83 %		08:57:20
1	Ag 328.068†	183.8	-2.8	-0.0178 ug/L	-0.0178 ppb	08:57:20
1	As 188.979†	-22.6	4.4	2.4163 ug/L	2.4163 ppb	08:57:40
1	B 249.677†	152.9	689.1	19.332 ug/L	19.332 ppb	08:57:40
1	Ba 233.527†	8.3	9.0	0.0838 ug/L	0.0838 ppb	08:57:40
1	Be 313.107†	-3650.8	108.0	0.0460 ug/L	0.0460 ppb	08:57:20
1	Cd 226.502†	-153.3	18.5	0.2683 ug/L	0.2683 ppb	08:57:40
1	Co 228.616†	-54.3	-7.7	-0.1957 ug/L	-0.1957 ppb	08:57:40
1	Cr 267.716†	76.4	4.3	0.0557 ug/L	0.0557 ppb	08:57:40
1	Cu 324.752†	5642.6	47.6	0.1550 ug/L	0.1550 ppb	08:57:20
1	Mn 257.610†	411.6	19.4	0.0280 ug/L	0.0280 ppb	08:57:40
1	Mo 202.031†	21.9	13.2	1.1724 ug/L	1.1724 ppb	08:57:40
1	Ni 231.604†	74.1	-10.5	-0.3340 ug/L	-0.3340 ppb	08:57:40
1	P 214.914†	178.9	-9.7	-7.2705 ug/L	-7.2705 ppb	08:57:40
1	Pb 220.353†	-46.9	11.7	1.8038 ug/L	1.8038 ppb	08:57:40
1	S 181.975 Axial†	20.4	-10.0	-17.833 ug/L	-17.833 ppb	08:57:40
1	Sb 206.836†	27.2	3.4	1.4349 ug/L	1.4349 ppb	08:57:40
1	Se 196.026†	-14.3	2.8	2.3246 ug/L	2.3246 ppb	08:57:40
1	Si 251.611†	553.7	61.4	2.3149 ug/L	2.3149 ppb	08:57:40
1	Sn 189.927†	9.9	2.6	0.6033 ug/L	0.6033 ppb	08:57:40
1	Ti 334.940†	-1116.7	13.0	0.0274 ug/L	0.0274 ppb	08:57:20
1	Tl 190.801†	-32.2	-2.9	-1.1249 ug/L	-1.1249 ppb	08:57:40
1	U 409.014†	-2076.1	144.0	4.3671 ug/L	4.3671 ppb	08:57:20
1	V 292.402†	-1348.4	-20.7	-0.1418 ug/L	-0.1418 ppb	08:57:20
1	Zn 213.857†	714.3	138.7	1.6825 ug/L	1.6825 ppb	08:57:40
1	SiO2†	559.1	55.5	4.4993 ug/L	4.4993 ppb	08:58:51
2	Sc Radial	4424.5	4424.5	101 %		08:56:48
2	Y RADIAL	4835.4	4835.4	101.6 %		08:56:28
2	Al 396.153Radial†	-71.2	7.3	7.2099 ug/L	7.2099 ppb	08:56:48
2	Ca 317.933Radial†	25.5	9.7	18.317 ug/L	18.317 ppb	08:56:48
2	Fe 238.204 Radial†	8.6	0.1	0.7604 ug/L	0.7604 ppb	08:56:48
2	K 766.490 Radial†	2915.1	296.9	56.563 ug/L	56.563 ppb	08:56:28
2	Mg 279.077 IEC†	3.1	1.5	63.159 ug/L	63.159 ppb	08:56:48
2	Na 589.592 Radial†	-851.2	29.6	10.439 ug/L	10.439 ppb	08:56:28
2	Sr 421.552†	16.7	-4.2	-0.0342 ug/L	-0.0342 ppb	08:56:28
2	Sc 361.383	825546.1	825546.1	100.82 %		08:57:45
2	Y 371.029	698004.5	698004.5	100.92 %		08:57:45
2	Ag 328.068†	154.1	-32.2	-0.1736 ug/L	-0.1736 ppb	08:57:45
2	As 188.979†	-11.3	15.6	8.5484 ug/L	8.5484 ppb	08:58:05
2	B 249.677†	122.5	658.9	18.485 ug/L	18.485 ppb	08:58:05
2	Ba 233.527†	17.0	17.6	0.1635 ug/L	0.1635 ppb	08:58:05
2	Be 313.107†	-3632.3	128.3	0.0547 ug/L	0.0547 ppb	08:57:45
2	Cd 226.502†	-153.8	18.0	0.2625 ug/L	0.2625 ppb	08:58:05
2	Co 228.616†	-45.7	0.9	0.0233 ug/L	0.0233 ppb	08:58:05
2	Cr 267.716†	76.5	4.4	0.0564 ug/L	0.0564 ppb	08:58:05
2	Cu 324.752†	5580.6	-16.8	-0.0581 ug/L	-0.0581 ppb	08:57:45
2	Mn 257.610†	421.9	29.4	0.0362 ug/L	0.0362 ppb	08:58:05
2	Mo 202.031†	10.0	1.3	0.1193 ug/L	0.1193 ppb	08:58:05
2	Ni 231.604†	82.3	-2.4	-0.0773 ug/L	-0.0773 ppb	08:58:05

2	P 214.914†	185.7	-3.1	-2.2742 ug/L	-2.2742 ppb	08:58:05
2	Pb 220.353†	-49.8	8.9	1.3690 ug/L	1.3690 ppb	08:58:05
2	S 181.975 Axial†	27.7	-2.8	-4.9384 ug/L	-4.9384 ppb	08:58:05
2	Sb 206.836†	29.2	5.3	2.2297 ug/L	2.2297 ppb	08:58:05
2	Se 196.026†	-19.2	-2.0	-1.6916 ug/L	-1.6916 ppb	08:58:05
2	Si 251.611†	540.1	47.5	1.8023 ug/L	1.8023 ppb	08:58:05
2	Sn 189.927†	16.4	9.1	2.0790 ug/L	2.0790 ppb	08:58:05
2	Ti 334.940†	-1116.9	13.4	0.0185 ug/L	0.0185 ppb	08:57:45
2	Tl 190.801†	-24.0	5.3	2.0373 ug/L	2.0373 ppb	08:58:05
2	U 409.014†	-2063.9	157.2	4.7674 ug/L	4.7674 ppb	08:57:45
2	V 292.402†	-1400.4	-71.6	-0.5599 ug/L	-0.5599 ppb	08:57:45
2	Zn 213.857†	717.9	141.9	1.7202 ug/L	1.7202 ppb	08:58:05
2	SiO2†	559.9	56.0	4.5655 ug/L	4.5655 ppb	08:59:11
3	Sc Radial	4211.4	4211.4	95.8 %		08:57:13
3	Y RADIAL	4686.7	4686.7	98.45 %		08:56:53
3	Al 396.153Radial†	-80.5	-5.9	-5.8397 ug/L	-5.8397 ppb	08:57:13
3	Ca 317.933Radial†	17.0	2.1	3.9096 ug/L	3.9096 ppb	08:57:13
3	Fe 238.204 Radial†	8.0	-0.1	-1.4023 ug/L	-1.4023 ppb	08:57:13
3	K 766.490 Radial†	2980.9	512.2	97.574 ug/L	97.574 ppb	08:56:53
3	Mg 279.077 IEC†	0.9	-0.6	-23.241 ug/L	-23.241 ppb	08:57:13
3	Na 589.592 Radial†	-766.9	74.7	26.347 ug/L	26.347 ppb	08:56:53
3	Sr 421.552†	23.5	3.7	0.0298 ug/L	0.0298 ppb	08:56:53
3	Sc 361.383	820504.7	820504.7	100.21 %		08:58:10
3	Y 371.029	693341.7	693341.7	100.25 %		08:58:10
3	Ag 328.068†	152.8	-32.7	-0.1715 ug/L	-0.1715 ppb	08:58:10
3	As 188.979†	-18.3	8.5	4.6781 ug/L	4.6781 ppb	08:58:30
3	B 249.677†	121.5	658.6	18.475 ug/L	18.475 ppb	08:58:30
3	Ba 233.527†	8.5	9.2	0.0850 ug/L	0.0850 ppb	08:58:30
3	Be 313.107†	-3659.6	78.9	0.0335 ug/L	0.0335 ppb	08:58:10
3	Cd 226.502†	-158.0	13.0	0.1883 ug/L	0.1883 ppb	08:58:30
3	Co 228.616†	-37.5	8.8	0.2269 ug/L	0.2269 ppb	08:58:30
3	Cr 267.716†	79.8	8.1	0.1083 ug/L	0.1083 ppb	08:58:30
3	Cu 324.752†	5690.0	126.4	0.4174 ug/L	0.4174 ppb	08:58:10
3	Mn 257.610†	401.9	12.0	0.0166 ug/L	0.0166 ppb	08:58:30
3	Mo 202.031†	9.7	1.2	0.1027 ug/L	0.1027 ppb	08:58:30
3	Ni 231.604†	74.0	-10.2	-0.3245 ug/L	-0.3245 ppb	08:58:30
3	P 214.914†	199.3	11.7	8.5967 ug/L	8.5967 ppb	08:58:30
3	Pb 220.353†	-37.5	20.9	3.2128 ug/L	3.2128 ppb	08:58:30
3	S 181.975 Axial†	33.5	3.2	5.7488 ug/L	5.7488 ppb	08:58:30
3	Sb 206.836†	23.2	-0.5	-0.2012 ug/L	-0.2012 ppb	08:58:30
3	Se 196.026†	-15.7	1.3	1.0768 ug/L	1.0768 ppb	08:58:30
3	Si 251.611†	542.7	53.5	2.0283 ug/L	2.0283 ppb	08:58:30
3	Sn 189.927†	7.9	0.8	0.1757 ug/L	0.1757 ppb	08:58:30
3	Ti 334.940†	-1147.9	-24.4	-0.0399 ug/L	-0.0399 ppb	08:58:10
3	Tl 190.801†	-29.0	0.2	0.0650 ug/L	0.0650 ppb	08:58:30
3	U 409.014†	-2219.3	-10.6	-0.3213 ug/L	-0.3213 ppb	08:58:10
3	V 292.402†	-1372.5	-52.2	-0.4166 ug/L	-0.4166 ppb	08:58:10
3	Zn 213.857†	704.0	132.5	1.6069 ug/L	1.6069 ppb	08:58:30
3	SiO2†	572.1	71.6	5.8426 ug/L	5.8426 ppb	08:59:31

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	823719.8	100.60 %		0.341			0.34%
Sc Radial	4304.6	97.9 %		2.48			2.53%
Y 371.029	696251.7	100.67 %		0.367			0.36%
Y RADIAL	4787.0	100.6 %		1.83			1.82%
Ag 328.068†	-22.6	-0.1210 ug/L		0.08936	-0.1210 ppb	0.08936	73.87%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	0.6	0.5629 ug/L		6.52825	0.5629 ppb	6.52825	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	9.5	5.2142 ug/L		3.10101	5.2142 ppb	3.10101	59.47%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	668.9	18.764 ug/L		0.4917	18.764 ppb	0.4917	2.62%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	11.9	0.1107 ug/L		0.04564	0.1107 ppb	0.04564	41.21%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	105.1	0.0447 ug/L		0.01065	0.0447 ppb	0.01065	23.81%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	6.7	12.757 ug/L		7.7459	12.757 ppb	7.7459	60.72%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd	226.502†	16.5	0.2397 ug/L	0.04458	0.2397 ppb	0.04458	18.60%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co	228.616†	0.7	0.0182 ug/L	0.21136	0.0182 ppb	0.21136	>999.9%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr	267.716†	5.6	0.0734 ug/L	0.03018	0.0734 ppb	0.03018	41.09%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	52.4	0.1714 ug/L	0.23815	0.1714 ppb	0.23815	138.91%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	0.1	0.9525 ug/L	2.45646	0.9525 ppb	2.45646	257.90%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	418.9	79.796 ug/L	21.0429	79.796 ppb	21.0429	26.37%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	-0.1	-4.9541 ug/L	61.05970	-4.9541 ppb	61.05970	>999.9%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	20.3	0.0269 ug/L	0.00982	0.0269 ppb	0.00982	36.45%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	5.2	0.4648 ug/L	0.61286	0.4648 ppb	0.61286	131.86%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	41.3	14.557 ug/L	10.3641	14.557 ppb	10.3641	71.20%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	-7.7	-0.2453 ug/L	0.14554	-0.2453 ppb	0.14554	59.34%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	-0.4	-0.3160 ug/L	8.11280	-0.3160 ppb	8.11280	>999.9%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	13.8	2.1285 ug/L	0.96384	2.1285 ppb	0.96384	45.28%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	-3.2	-5.6743 ug/L	11.80827	-5.6743 ppb	11.80827	208.10%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	2.7	1.1544 ug/L	1.23947	1.1544 ppb	1.23947	107.37%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	0.7	0.5699 ug/L	2.05554	0.5699 ppb	2.05554	360.68%
QC value within limits for Se 196.026 Recovery = Not calculated							
Si	251.611†	54.1	2.0485 ug/L	0.25687	2.0485 ppb	0.25687	12.54%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	4.2	0.9526 ug/L	0.99861	0.9526 ppb	0.99861	104.83%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	-5.2	-0.0419 ug/L	0.07592	-0.0419 ppb	0.07592	181.15%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	0.7	0.0020 ug/L	0.03653	0.0020 ppb	0.03653	>999.9%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	0.8	0.3258 ug/L	1.59716	0.3258 ppb	1.59716	490.27%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	96.8	2.9377 ug/L	2.82949	2.9377 ppb	2.82949	96.32%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	-48.2	-0.3728 ug/L	0.21249	-0.3728 ppb	0.21249	57.01%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	137.7	1.6699 ug/L	0.05769	1.6699 ppb	0.05769	3.45%
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†		61.0	4.9691 ug/L	0.75715	4.9691 ppb	0.75715	15.24%
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 3

Sample ID: LR1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 37

Date Collected: 3/19/2010 09:01:41

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	4168.4	4168.4	94.8 %		09:03:54
1	Y RADIAL	4671.2	4671.2	98.12 %		09:03:34
1	Al 396.153Radial†	-95.9	-23.0	-21.536 ug/L	-21.536 ppb	09:03:54
1	Ca 317.933Radial†	10.9	-4.2	-7.9891 ug/L	-7.9891 ppb	09:03:54
1	Fe 238.204 Radial†	31552.6	33259.8	385370 ug/L	385370 ppb	09:03:34
1	K 766.490 Radial†	2463.6	-1.2	-0.1828 ug/L	-0.1828 ppb	09:03:34
1	Mg 279.077 IEC†	8.2	7.1	-111.04 ug/L	-111.04 ppb	09:03:54
1	Na 589.592 Radial†	-839.1	-9.6	-3.3743 ug/L	-3.3743 ppb	09:03:34
1	Sr 421.552†	108.5	93.6	0.7503 ug/L	0.7503 ppb	09:03:34
1	Sc 361.383	804663.0	804663.0	98.270 %		09:04:52
1	Y 371.029	675570.8	675570.8	97.676 %		09:04:52
1	Ag 328.068†	-22147.7	-22722.6	1.3619 ug/L	1.3619 ppb	09:04:52
1	As 188.979†	-157.8	-133.8	16.851 ug/L	16.851 ppb	09:05:12
1	B 249.677†	1573.3	2138.4	-2.6414 ug/L	-2.6414 ppb	09:04:52
1	Ba 233.527†	-1501.1	-1526.9	-2.4607 ug/L	-2.4607 ppb	09:04:52
1	Be 313.107†	-3547.0	121.6	0.0516 ug/L	0.0516 ppb	09:04:52
1	Cd 226.502†	2545.1	2760.5	0.2621 ug/L	0.2621 ppb	09:04:52
1	Co 228.616†	597.4	654.1	11.286 ug/L	11.286 ppb	09:05:12
1	Cr 267.716†	-466.6	-546.3	33.551 ug/L	33.551 ppb	09:05:12
1	Cu 324.752†	-1345.0	-6920.6	-2.4866 ug/L	-2.4866 ppb	09:04:52
1	Mn 257.610†	-31215.4	-32153.8	-4.2266 ug/L	-4.2266 ppb	09:04:52
1	Mo 202.031†	-238.6	-251.3	7.5762 ug/L	7.5762 ppb	09:04:52
1	Ni 231.604†	179.0	98.1	3.1049 ug/L	3.1049 ppb	09:05:12
1	P 214.914†	594.2	417.4	5.0000 ug/L	5.0000 ppb	09:05:12
1	Pb 220.353†	167.3	228.6	-19.764 ug/L	-19.764 ppb	09:05:12
1	S 181.975 Axial†	39.8	10.3	18.462 ug/L	18.462 ppb	09:05:12
1	Sb 206.836†	21.4	-1.9	-5.4959 ug/L	-5.4959 ppb	09:05:12
1	Se 196.026†	-1587.1	-1598.1	-223.50 ug/L	-223.50 ppb	09:05:12
1	Si 251.611†	-466.5	-962.8	-36.277 ug/L	-36.277 ppb	09:04:52
1	Sn 189.927†	-22.6	-30.2	-28.971 ug/L	-28.971 ppb	09:05:12
1	Ti 334.940†	-1147.3	-46.2	-0.1313 ug/L	-0.1313 ppb	09:04:52
1	Tl 190.801†	-24.1	4.6	1.3905 ug/L	1.3905 ppb	09:05:12
1	U 409.014†	-57.2	2146.0	21.189 ug/L	21.189 ppb	09:04:52
1	V 292.402†	5156.9	6565.1	-3.8861 ug/L	-3.8861 ppb	09:04:52
1	Zn 213.857†	3563.3	3056.0	-20.632 ug/L	-20.632 ppb	09:05:12
1	SiO2†	-531.6	-1040.3	-84.290 ug/L	-84.290 ppb	09:06:09
2	Sc Radial	4220.4	4220.4	96.0 %		09:04:19
2	Y RADIAL	4695.8	4695.8	98.64 %		09:03:59
2	Al 396.153Radial†	-97.7	-23.6	-22.030 ug/L	-22.030 ppb	09:04:19
2	Ca 317.933Radial†	15.8	0.8	1.4196 ug/L	1.4196 ppb	09:04:19
2	Fe 238.204 Radial†	31639.3	32940.5	381670 ug/L	381670 ppb	09:03:59
2	K 766.490 Radial†	2419.9	-78.7	-14.957 ug/L	-14.957 ppb	09:03:59
2	Mg 279.077 IEC†	9.6	8.5	-49.042 ug/L	-49.042 ppb	09:04:19
2	Na 589.592 Radial†	-819.9	21.3	7.4941 ug/L	7.4941 ppb	09:03:59
2	Sr 421.552†	73.1	55.3	0.4436 ug/L	0.4436 ppb	09:03:59
2	Sc 361.383	814772.9	814772.9	99.505 %		09:05:18
2	Y 371.029	684115.4	684115.4	98.911 %		09:05:18
2	Ag 328.068†	-22528.6	-22825.8	-0.3166 ug/L	-0.3166 ppb	09:05:18
2	As 188.979†	-170.1	-144.2	10.308 ug/L	10.308 ppb	09:05:38
2	B 249.677†	1557.8	2102.9	-3.0390 ug/L	-3.0390 ppb	09:05:18
2	Ba 233.527†	-1537.5	-1544.4	-2.7386 ug/L	-2.7386 ppb	09:05:18
2	Be 313.107†	-3576.5	136.7	0.0579 ug/L	0.0579 ppb	09:05:18
2	Cd 226.502†	2505.0	2688.1	-0.4074 ug/L	-0.4074 ppb	09:05:18
2	Co 228.616†	636.8	686.2	12.164 ug/L	12.164 ppb	09:05:38
2	Cr 267.716†	-490.7	-564.7	32.914 ug/L	32.914 ppb	09:05:38
2	Cu 324.752†	-1389.0	-6947.9	-2.7705 ug/L	-2.7705 ppb	09:05:18
2	Mn 257.610†	-31480.4	-32026.0	-4.4264 ug/L	-4.4264 ppb	09:05:18
2	Mo 202.031†	-265.9	-275.8	5.1133 ug/L	5.1133 ppb	09:05:18
2	Ni 231.604†	160.0	76.7	2.4260 ug/L	2.4260 ppb	09:05:38

2	P 214.914†	604.0	419.7	9.7533 ug/L	9.7533 ppb	09:05:38
2	Pb 220.353†	148.9	207.9	-22.419 ug/L	-22.419 ppb	09:05:38
2	S 181.975 Axial†	36.7	6.7	12.001 ug/L	12.001 ppb	09:05:38
2	Sb 206.836†	26.7	3.2	-3.3702 ug/L	-3.3702 ppb	09:05:38
2	Se 196.026†	-1602.6	-1593.6	-230.43 ug/L	-230.43 ppb	09:05:38
2	Si 251.611†	-451.6	-942.0	-35.459 ug/L	-35.459 ppb	09:05:18
2	Sn 189.927†	-21.3	-28.6	-28.391 ug/L	-28.391 ppb	09:05:38
2	Ti 334.940†	-1185.9	-70.6	-0.1755 ug/L	-0.1755 ppb	09:05:18
2	Tl 190.801†	-35.9	-7.0	-3.0798 ug/L	-3.0798 ppb	09:05:38
2	U 409.014†	-170.3	2033.0	18.184 ug/L	18.184 ppb	09:05:18
2	V 292.402†	5184.7	6527.9	-3.6800 ug/L	-3.6800 ppb	09:05:18
2	Zn 213.857†	3582.0	3029.7	-20.392 ug/L	-20.392 ppb	09:05:38
2	SiO2†	-332.9	-833.9	-67.390 ug/L	-67.390 ppb	09:06:14
3	Sc Radial	4150.7	4150.7	94.4 %		09:04:44
3	Y RADIAL	4717.7	4717.7	99.10 %		09:04:24
3	Al 396.153Radial†	-105.7	-33.8	-31.932 ug/L	-31.932 ppb	09:04:44
3	Ca 317.933Radial†	13.3	-1.6	-3.0737 ug/L	-3.0737 ppb	09:04:44
3	Fe 238.204 Radial†	31506.1	33352.3	386440 ug/L	386440 ppb	09:04:24
3	K 766.490 Radial†	2562.8	114.9	21.945 ug/L	21.945 ppb	09:04:24
3	Mg 279.077 IEC†	10.3	9.3	-19.131 ug/L	-19.131 ppb	09:04:44
3	Na 589.592 Radial†	-841.1	-15.4	-5.4450 ug/L	-5.4450 ppb	09:04:24
3	Sr 421.552†	63.7	46.6	0.3735 ug/L	0.3735 ppb	09:04:24
3	Sc 361.383	818472.2	818472.2	99.957 %		09:05:44
3	Y 371.029	686196.9	686196.9	99.212 %		09:05:44
3	Ag 328.068†	-22590.8	-22785.7	1.3597 ug/L	1.3597 ppb	09:05:44
3	As 188.979†	-159.6	-132.8	17.658 ug/L	17.658 ppb	09:06:04
3	B 249.677†	1700.5	2238.6	-0.0015 ug/L	-0.0015 ppb	09:05:44
3	Ba 233.527†	-1597.3	-1597.3	-3.0907 ug/L	-3.0907 ppb	09:05:44
3	Be 313.107†	-3601.1	128.4	0.0547 ug/L	0.0547 ppb	09:05:44
3	Cd 226.502†	2563.1	2734.9	-0.2206 ug/L	-0.2206 ppb	09:05:44
3	Co 228.616†	596.2	642.6	10.963 ug/L	10.963 ppb	09:06:04
3	Cr 267.716†	-477.4	-549.1	33.624 ug/L	33.624 ppb	09:06:04
3	Cu 324.752†	-1475.3	-7027.9	-2.7850 ug/L	-2.7850 ppb	09:05:44
3	Mn 257.610†	-31871.3	-32274.1	-4.2829 ug/L	-4.2829 ppb	09:05:44
3	Mo 202.031†	-289.1	-297.8	3.5310 ug/L	3.5310 ppb	09:05:44
3	Ni 231.604†	163.4	79.4	2.5118 ug/L	2.5118 ppb	09:06:04
3	P 214.914†	601.0	414.0	1.6780 ug/L	1.6780 ppb	09:06:04
3	Pb 220.353†	165.2	223.6	-20.698 ug/L	-20.698 ppb	09:06:04
3	S 181.975 Axial†	38.6	8.5	15.150 ug/L	15.150 ppb	09:06:04
3	Sb 206.836†	22.5	-1.2	-5.3079 ug/L	-5.3079 ppb	09:06:04
3	Se 196.026†	-1604.4	-1588.1	-212.13 ug/L	-212.13 ppb	09:06:04
3	Si 251.611†	-406.7	-895.1	-33.654 ug/L	-33.654 ppb	09:05:44
3	Sn 189.927†	-25.3	-32.4	-29.546 ug/L	-29.546 ppb	09:06:04
3	Ti 334.940†	-1114.8	5.9	-0.0482 ug/L	-0.0482 ppb	09:05:44
3	Tl 190.801†	-40.4	-11.4	-4.7656 ug/L	-4.7656 ppb	09:06:04
3	U 409.014†	-3.7	2200.5	22.719 ug/L	22.719 ppb	09:05:44
3	V 292.402†	5104.1	6423.7	-5.2245 ug/L	-5.2245 ppb	09:05:44
3	Zn 213.857†	3569.3	3000.7	-21.457 ug/L	-21.457 ppb	09:06:04
3	SiO2†	-395.4	-894.9	-72.310 ug/L	-72.310 ppb	09:06:19

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	812636.0	99.244 %	0.8730			0.88%
Sc Radial	4179.8	95.1 %	0.82			0.87%
Y 371.029	681961.1	98.600 %	0.8142			0.83%
Y RADIAL	4694.9	98.62 %	0.488			0.49%
Ag 328.068†	-22778.0	0.8017 ug/L	0.96844	0.8017 ppb	0.96844	120.80%
Al 396.153Radial†	-26.8	-25.166 ug/L	5.8648	-25.166 ppb	5.8648	23.30%
As 188.979†	-136.9	14.939 ug/L	4.0310	14.939 ppb	4.0310	26.98%
B 249.677†	2160.0	-1.8940 ug/L	1.65089	-1.8940 ppb	1.65089	87.17%
Ba 233.527†	-1556.2	-2.7633 ug/L	0.31570	-2.7633 ppb	0.31570	11.42%
Be 313.107†	128.9	0.0547 ug/L	0.00317	0.0547 ppb	0.00317	5.79%
Ca 317.933Radial†	-1.7	-3.2144 ug/L	4.70597	-3.2144 ppb	4.70597	146.40%
Cd 226.502†	2727.8	-0.1220 ug/L	0.34551	-0.1220 ppb	0.34551	283.27%
Co 228.616†	661.0	11.471 ug/L	0.6212	11.471 ppb	0.6212	5.42%
Cr 267.716†	-553.4	33.363 ug/L	0.3909	33.363 ppb	0.3909	1.17%
Cu 324.752†	-6965.5	-2.6807 ug/L	0.16824	-2.6807 ppb	0.16824	6.28%
Fe 238.204 Radial†	33184.2	384500 ug/L	2503.3	384500 ppb	2503.3	0.65%
K 766.490 Radial†	11.7	2.2685 ug/L	18.57239	2.2685 ppb	18.57239	818.72%

Mg 279.077 IEC†	8.3	-59.738 ug/L	46.8800	-59.738 ppb	46.8800	78.48%
Mn 257.610†	-32151.3	-4.3119 ug/L	0.10299	-4.3119 ppb	0.10299	2.39%
Mo 202.031†	-275.0	5.4068 ug/L	2.03849	5.4068 ppb	2.03849	37.70%
Na 589.592 Radial†	-1.3	-0.4417 ug/L	6.95019	-0.4417 ppb	6.95019	>999.9%
Ni 231.604†	84.7	2.6809 ug/L	0.36971	2.6809 ppb	0.36971	13.79%
P 214.914†	417.1	5.4771 ug/L	4.05878	5.4771 ppb	4.05878	74.10%
Pb 220.353†	220.0	-20.960 ug/L	1.3465	-20.960 ppb	1.3465	6.42%
S 181.975 Axial†	8.5	15.204 ug/L	3.2307	15.204 ppb	3.2307	21.25%
Sb 206.836†	0.0	-4.7247 ug/L	1.17674	-4.7247 ppb	1.17674	24.91%
Se 196.026†	-1593.3	-222.02 ug/L	9.239	-222.02 ppb	9.239	4.16%
Si 251.611†	-933.3	-35.130 ug/L	1.3424	-35.130 ppb	1.3424	3.82%
Sn 189.927†	-30.4	-28.970 ug/L	0.5777	-28.970 ppb	0.5777	1.99%
Sr 421.552†	65.2	0.5225 ug/L	0.20038	0.5225 ppb	0.20038	38.35%
Ti 334.940†	-37.0	-0.1184 ug/L	0.06463	-0.1184 ppb	0.06463	54.61%
Tl 190.801†	-4.6	-2.1516 ug/L	3.18128	-2.1516 ppb	3.18128	147.86%
U 409.014†	2126.5	20.697 ug/L	2.3074	20.697 ppb	2.3074	11.15%
V 292.402†	6505.6	-4.2635 ug/L	0.83854	-4.2635 ppb	0.83854	19.67%
Zn 213.857†	3028.8	-20.827 ug/L	0.5589	-20.827 ppb	0.5589	2.68%
SiO2†	-923.0	-74.663 ug/L	8.6924	-74.663 ppb	8.6924	11.64%

Sequence No.: 4

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/19/2010 09:08:31

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	4270.1	4270.1	97.2 %		09:10:44
1	Y RADIAL	4722.2	4722.2	99.19 %		09:10:24
1	Al 396.153Radial†	5015.6	5240.5	5123.3 ug/L	5123.3 ppb	09:10:24
1	Ca 317.933Radial†	2685.2	2748.1	5200.0 ug/L	5200.0 ppb	09:10:44
1	Fe 238.204 Radial†	444.5	449.0	5218.2 ug/L	5218.2 ppb	09:10:44
1	K 766.490 Radial†	29180.3	27435.6	5220.8 ug/L	5220.8 ppb	09:10:24
1	Mg 279.077 IEC†	125.9	128.1	5282.8 ug/L	5282.8 ppb	09:10:44
1	Na 589.592 Radial†	26587.3	28240.6	9955.4 ug/L	9955.4 ppb	09:10:24
1	Sr 421.552†	62098.4	63895.1	512.13 ug/L	512.13 ppb	09:10:24
1	Sc 361.383	835263.3	835263.3	102.01 %		09:11:41
1	Y 371.029	695826.9	695826.9	100.60 %		09:11:41
1	Ag 328.068†	98312.6	96192.6	502.56 ug/L	502.56 ppb	09:11:46
1	As 188.979†	917.6	926.3	512.83 ug/L	512.83 ppb	09:12:06
1	B 249.677†	17862.9	18048.7	504.04 ug/L	504.04 ppb	09:11:46
1	Ba 233.527†	54434.3	53363.7	501.08 ug/L	501.08 ppb	09:11:46
1	Be 313.107†	1200300.9	1180409.2	503.74 ug/L	503.74 ppb	09:11:41
1	Cd 226.502†	35059.9	34540.6	501.05 ug/L	501.05 ppb	09:11:46
1	Co 228.616†	20023.4	19675.5	508.65 ug/L	508.65 ppb	09:11:46
1	Cr 267.716†	38027.8	37207.9	500.02 ug/L	500.02 ppb	09:11:46
1	Cu 324.752†	158463.8	149793.1	494.54 ug/L	494.54 ppb	09:11:46
1	Mn 257.610†	382150.2	374240.2	492.36 ug/L	492.36 ppb	09:11:46
1	Mo 202.031†	5765.9	5643.9	502.16 ug/L	502.16 ppb	09:12:06
1	Ni 231.604†	16343.9	15938.2	505.85 ug/L	505.85 ppb	09:11:46
1	P 214.914†	3636.1	3377.2	2419.3 ug/L	2419.3 ppb	09:12:06
1	Pb 220.353†	3269.8	3263.8	502.86 ug/L	502.86 ppb	09:12:06
1	S 181.975 Axial†	600.7	558.7	999.26 ug/L	999.26 ppb	09:12:06
1	Sb 206.836†	1248.4	1200.2	520.17 ug/L	520.17 ppb	09:12:06
1	Se 196.026†	601.5	606.7	523.56 ug/L	523.56 ppb	09:12:06
1	Si 251.611†	67607.5	65788.7	2491.4 ug/L	2491.4 ppb	09:11:46
1	Sn 189.927†	2258.0	2206.4	501.31 ug/L	501.31 ppb	09:12:06
1	Ti 334.940†	286341.1	281827.0	489.97 ug/L	489.97 ppb	09:11:46
1	Tl 190.801†	1304.7	1308.1	509.32 ug/L	509.32 ppb	09:12:06
1	U 409.014†	14816.5	16729.1	505.82 ug/L	505.82 ppb	09:11:46
1	V 292.402†	62225.1	62317.9	504.32 ug/L	504.32 ppb	09:11:46
1	Zn 213.857†	42974.6	41558.7	498.88 ug/L	498.88 ppb	09:11:46
1	SiO2†	67784.3	65950.9	5368.7 ug/L	5368.7 ppb	09:13:13
2	Sc Radial	4267.1	4267.1	97.1 %		09:11:09
2	Y RADIAL	4754.5	4754.5	99.87 %		09:10:49
2	Al 396.153Radial†	5038.4	5267.6	5150.2 ug/L	5150.2 ppb	09:10:49
2	Ca 317.933Radial†	2668.0	2732.4	5170.2 ug/L	5170.2 ppb	09:11:09
2	Fe 238.204 Radial†	442.2	447.0	5194.2 ug/L	5194.2 ppb	09:11:09
2	K 766.490 Radial†	29100.8	27375.1	5209.4 ug/L	5209.4 ppb	09:10:49
2	Mg 279.077 IEC†	129.6	131.9	5441.6 ug/L	5441.6 ppb	09:11:09
2	Na 589.592 Radial†	26364.9	28031.0	9881.5 ug/L	9881.5 ppb	09:10:49
2	Sr 421.552†	62039.1	63879.7	512.00 ug/L	512.00 ppb	09:10:49
2	Sc 361.383	836951.4	836951.4	102.21 %		09:12:12
2	Y 371.029	697139.4	697139.4	100.79 %		09:12:12
2	Ag 328.068†	97894.3	95589.0	499.41 ug/L	499.41 ppb	09:12:17
2	As 188.979†	901.5	908.8	503.18 ug/L	503.18 ppb	09:12:37
2	B 249.677†	17816.6	17968.1	501.79 ug/L	501.79 ppb	09:12:17
2	Ba 233.527†	54115.2	52943.9	497.14 ug/L	497.14 ppb	09:12:17
2	Be 313.107†	1204879.6	1182515.5	504.63 ug/L	504.63 ppb	09:12:12
2	Cd 226.502†	34879.3	34294.5	497.48 ug/L	497.48 ppb	09:12:17
2	Co 228.616†	19921.4	19536.2	505.04 ug/L	505.04 ppb	09:12:17
2	Cr 267.716†	37895.4	37003.2	497.27 ug/L	497.27 ppb	09:12:17
2	Cu 324.752†	157529.2	148565.4	490.48 ug/L	490.48 ppb	09:12:17
2	Mn 257.610†	380465.2	371836.1	489.19 ug/L	489.19 ppb	09:12:17
2	Mo 202.031†	5705.9	5573.8	495.93 ug/L	495.93 ppb	09:12:37
2	Ni 231.604†	16330.3	15892.5	504.40 ug/L	504.40 ppb	09:12:17

2	P 214.914†	3580.1	3315.3	2373.9 ug/L	2373.9 ppb	09:12:37
2	Pb 220.353†	3237.2	3225.4	496.97 ug/L	496.97 ppb	09:12:37
2	S 181.975 Axial†	591.9	548.9	981.65 ug/L	981.65 ppb	09:12:37
2	Sb 206.836†	1238.0	1187.5	514.66 ug/L	514.66 ppb	09:12:37
2	Se 196.026†	596.5	600.5	518.35 ug/L	518.35 ppb	09:12:37
2	Si 251.611†	67153.8	65211.2	2469.5 ug/L	2469.5 ppb	09:12:17
2	Sn 189.927†	2240.3	2184.6	496.37 ug/L	496.37 ppb	09:12:37
2	Ti 334.940†	284868.9	279820.4	486.47 ug/L	486.47 ppb	09:12:17
2	Tl 190.801†	1280.9	1282.3	499.31 ug/L	499.31 ppb	09:12:37
2	U 409.014†	14705.3	16591.0	501.64 ug/L	501.64 ppb	09:12:17
2	V 292.402†	62071.6	62044.7	502.05 ug/L	502.05 ppb	09:12:17
2	Zn 213.857†	42755.3	41259.3	495.27 ug/L	495.27 ppb	09:12:17
2	SiO2†	68107.0	66132.6	5383.7 ug/L	5383.7 ppb	09:13:18
3	Sc Radial	4261.7	4261.7	97.0 %		09:11:34
3	Y RADIAL	4762.6	4762.6	100.0 %		09:11:14
3	Al 396.153Radial†	5041.6	5277.5	5159.8 ug/L	5159.8 ppb	09:11:14
3	Ca 317.933Radial†	2678.0	2746.1	5196.2 ug/L	5196.2 ppb	09:11:34
3	Fe 238.204 Radial†	449.7	455.3	5290.6 ug/L	5290.6 ppb	09:11:34
3	K 766.490 Radial†	29132.2	27445.0	5222.7 ug/L	5222.7 ppb	09:11:14
3	Mg 279.077 IEC†	130.7	133.3	5498.4 ug/L	5498.4 ppb	09:11:34
3	Na 589.592 Radial†	26247.0	27943.4	9850.6 ug/L	9850.6 ppb	09:11:14
3	Sr 421.552†	62138.9	64062.5	513.47 ug/L	513.47 ppb	09:11:14
3	Sc 361.383	831297.4	831297.4	101.52 %		09:12:42
3	Y 371.029	692170.0	692170.0	100.08 %		09:12:42
3	Ag 328.068†	98276.5	96616.8	504.80 ug/L	504.80 ppb	09:12:48
3	As 188.979†	900.4	913.7	505.94 ug/L	505.94 ppb	09:13:08
3	B 249.677†	17875.0	18144.2	506.70 ug/L	506.70 ppb	09:12:48
3	Ba 233.527†	54411.2	53595.5	503.26 ug/L	503.26 ppb	09:12:48
3	Be 313.107†	1194741.7	1180547.0	503.80 ug/L	503.80 ppb	09:12:42
3	Cd 226.502†	35068.4	34712.9	503.55 ug/L	503.55 ppb	09:12:48
3	Co 228.616†	19944.2	19691.1	509.03 ug/L	509.03 ppb	09:12:48
3	Cr 267.716†	38090.4	37447.4	503.24 ug/L	503.24 ppb	09:12:48
3	Cu 324.752†	158408.5	150479.8	496.81 ug/L	496.81 ppb	09:12:48
3	Mn 257.610†	381751.2	375634.4	494.19 ug/L	494.19 ppb	09:12:48
3	Mo 202.031†	5698.4	5604.4	498.66 ug/L	498.66 ppb	09:13:08
3	Ni 231.604†	16336.3	16007.2	508.04 ug/L	508.04 ppb	09:12:48
3	P 214.914†	3559.0	3318.3	2374.9 ug/L	2374.9 ppb	09:13:08
3	Pb 220.353†	3230.4	3240.2	499.23 ug/L	499.23 ppb	09:13:08
3	S 181.975 Axial†	591.9	552.9	988.76 ug/L	988.76 ppb	09:13:08
3	Sb 206.836†	1233.3	1191.2	516.26 ug/L	516.26 ppb	09:13:08
3	Se 196.026†	600.5	608.5	525.25 ug/L	525.25 ppb	09:13:08
3	Si 251.611†	67511.8	66010.7	2499.8 ug/L	2499.8 ppb	09:12:48
3	Sn 189.927†	2230.4	2189.7	497.53 ug/L	497.53 ppb	09:13:08
3	Ti 334.940†	286639.6	283460.1	492.80 ug/L	492.80 ppb	09:12:48
3	Tl 190.801†	1274.1	1284.1	500.05 ug/L	500.05 ppb	09:13:08
3	U 409.014†	14726.7	16710.0	505.23 ug/L	505.23 ppb	09:12:48
3	V 292.402†	62390.5	62771.8	507.88 ug/L	507.88 ppb	09:12:48
3	Zn 213.857†	42899.3	41685.6	500.39 ug/L	500.39 ppb	09:12:48
3	SiO2†	68263.8	66740.2	5433.2 ug/L	5433.2 ppb	09:13:23

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	834504.1	101.91 %	0.354			0.35%
Sc Radial	4266.3	97.1 %	0.10			0.10%
Y 371.029	695045.4	100.49 %	0.372			0.37%
Y RADIAL	4746.4	99.70 %	0.449			0.45%
Ag 328.068†	96132.8	502.25 ug/L	2.706	502.25 ppb	2.706	0.54%
QC value within limits for Ag 328.068 Recovery = 100.45%						
Al 396.153Radial†	5261.9	5144.4 ug/L	18.91	5144.4 ppb	18.91	0.37%
QC value within limits for Al 396.153Radial Recovery = 102.89%						
As 188.979†	916.3	507.32 ug/L	4.968	507.32 ppb	4.968	0.98%
QC value within limits for As 188.979 Recovery = 101.46%						
B 249.677†	18053.7	504.18 ug/L	2.459	504.18 ppb	2.459	0.49%
QC value within limits for B 249.677 Recovery = 100.84%						
Ba 233.527†	53301.0	500.49 ug/L	3.101	500.49 ppb	3.101	0.62%
QC value within limits for Ba 233.527 Recovery = 100.10%						
Be 313.107†	1181157.2	504.06 ug/L	0.496	504.06 ppb	0.496	0.10%
QC value within limits for Be 313.107 Recovery = 100.81%						
Ca 317.933Radial†	2742.2	5188.8 ug/L	16.23	5188.8 ppb	16.23	0.31%

QC value within limits for Ca 317.933 Radial Recovery = 103.78%

Cd 226.502†	34516.0	500.69 ug/L	3.048	500.69 ppb	3.048	0.61%
QC value within limits for Cd 226.502 Recovery = 100.14%						
Co 228.616†	19634.3	507.57 ug/L	2.204	507.57 ppb	2.204	0.43%
QC value within limits for Co 228.616 Recovery = 101.51%						
Cr 267.716†	37219.5	500.17 ug/L	2.991	500.17 ppb	2.991	0.60%
QC value within limits for Cr 267.716 Recovery = 100.03%						
Cu 324.752†	149612.8	493.94 ug/L	3.203	493.94 ppb	3.203	0.65%
QC value within limits for Cu 324.752 Recovery = 98.79%						
Fe 238.204 Radial†	450.4	5234.3 ug/L	50.20	5234.3 ppb	50.20	0.96%
QC value within limits for Fe 238.204 Radial Recovery = 104.69%						
K 766.490 Radial†	27418.6	5217.6 ug/L	7.22	5217.6 ppb	7.22	0.14%
QC value within limits for K 766.490 Radial Recovery = 104.35%						
Mg 279.077 IEC†	131.1	5407.6 ug/L	111.73	5407.6 ppb	111.73	2.07%
QC value within limits for Mg 279.077 IEC Recovery = 108.15%						
Mn 257.610†	373903.6	491.91 ug/L	2.530	491.91 ppb	2.530	0.51%
QC value within limits for Mn 257.610 Recovery = 98.38%						
Mo 202.031†	5607.4	498.92 ug/L	3.125	498.92 ppb	3.125	0.63%
QC value within limits for Mo 202.031 Recovery = 99.78%						
Na 589.592 Radial†	28071.7	9895.9 ug/L	53.83	9895.9 ppb	53.83	0.54%
QC value within limits for Na 589.592 Radial Recovery = 98.96%						
Ni 231.604†	15946.0	506.09 ug/L	1.832	506.09 ppb	1.832	0.36%
QC value within limits for Ni 231.604 Recovery = 101.22%						
P 214.914†	3336.9	2389.4 ug/L	25.93	2389.4 ppb	25.93	1.09%
QC value within limits for P 214.914 Recovery = 95.57%						
Pb 220.353†	3243.1	499.68 ug/L	2.973	499.68 ppb	2.973	0.59%
QC value within limits for Pb 220.353 Recovery = 99.94%						
S 181.975 Axial†	553.5	989.89 ug/L	8.861	989.89 ppb	8.861	0.90%
QC value within limits for S 181.975 Axial Recovery = 98.99%						
Sb 206.836†	1193.0	517.03 ug/L	2.832	517.03 ppb	2.832	0.55%
QC value within limits for Sb 206.836 Recovery = 103.41%						
Se 196.026†	605.2	522.39 ug/L	3.594	522.39 ppb	3.594	0.69%
QC value within limits for Se 196.026 Recovery = 104.48%						
Si 251.611†	65670.2	2486.9 ug/L	15.64	2486.9 ppb	15.64	0.63%
QC value within limits for Si 251.611 Recovery = 99.48%						
Sn 189.927†	2193.6	498.40 ug/L	2.582	498.40 ppb	2.582	0.52%
QC value within limits for Sn 189.927 Recovery = 99.68%						
Sr 421.552†	63945.7	512.53 ug/L	0.813	512.53 ppb	0.813	0.16%
QC value within limits for Sr 421.552 Recovery = 102.51%						
Ti 334.940†	281702.5	489.75 ug/L	3.169	489.75 ppb	3.169	0.65%
QC value within limits for Ti 334.940 Recovery = 97.95%						
Tl 190.801†	1291.5	502.89 ug/L	5.573	502.89 ppb	5.573	1.11%
QC value within limits for Tl 190.801 Recovery = 100.58%						
U 409.014†	16676.7	504.23 ug/L	2.261	504.23 ppb	2.261	0.45%
QC value within limits for U 409.014 Recovery = 100.85%						
V 292.402†	62378.1	504.75 ug/L	2.939	504.75 ppb	2.939	0.58%
QC value within limits for V 292.402 Recovery = 100.95%						
Zn 213.857†	41501.2	498.18 ug/L	2.631	498.18 ppb	2.631	0.53%
QC value within limits for Zn 213.857 Recovery = 99.64%						
SiO2†	66274.6	5395.2 ug/L	33.76	5395.2 ppb	33.76	0.63%
QC value within limits for SiO2 Recovery = 100.89%						

All analyte(s) passed QC.

Sequence No.: 5

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/19/2010 09:15:34

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4271.6	4271.6	97.2 %		09:17:46
1	Y RADIAL	4777.6	4777.6	100.4 %		09:17:26
1	Al 396.153Radial†	-79.6	-3.9	-3.8423 ug/L	-3.8423 ppb	09:17:46
1	Ca 317.933Radial†	19.6	4.5	8.4521 ug/L	8.4521 ppb	09:17:46
1	Fe 238.204 Radial†	6.5	-1.8	-20.460 ug/L	-20.460 ppb	09:17:46
1	K 766.490 Radial†	2764.2	245.3	46.730 ug/L	46.730 ppb	09:17:26
1	Mg 279.077 IEC†	2.5	1.0	42.322 ug/L	42.322 ppb	09:17:46
1	Na 589.592 Radial†	-782.7	69.8	24.603 ug/L	24.603 ppb	09:17:26
1	Sr 421.552†	33.1	13.2	0.1058 ug/L	0.1058 ppb	09:17:26
1	Sc 361.383	814482.5	814482.5	99.470 %		09:18:43
1	Y 371.029	687746.5	687746.5	99.436 %		09:18:43
1	Ag 328.068†	219.3	35.3	0.1775 ug/L	0.1775 ppb	09:18:43
1	As 188.979†	-17.3	9.4	5.1795 ug/L	5.1795 ppb	09:19:03
1	B 249.677†	-3.5	533.8	14.980 ug/L	14.980 ppb	09:19:03
1	Ba 233.527†	9.2	10.0	0.0933 ug/L	0.0933 ppb	09:19:03
1	Be 313.107†	-3582.3	129.6	0.0550 ug/L	0.0550 ppb	09:18:43
1	Cd 226.502†	-164.5	5.3	0.0788 ug/L	0.0788 ppb	09:19:03
1	Co 228.616†	-51.3	-5.3	-0.1349 ug/L	-0.1349 ppb	09:19:03
1	Cr 267.716†	75.2	4.1	0.0529 ug/L	0.0529 ppb	09:19:03
1	Cu 324.752†	5609.0	87.0	0.2858 ug/L	0.2858 ppb	09:18:43
1	Mn 257.610†	401.8	14.9	0.0159 ug/L	0.0159 ppb	09:19:03
1	Mo 202.031†	20.3	11.9	1.0542 ug/L	1.0542 ppb	09:19:03
1	Ni 231.604†	83.5	-0.1	-0.0036 ug/L	-0.0036 ppb	09:19:03
1	P 214.914†	187.8	1.5	1.0765 ug/L	1.0765 ppb	09:19:03
1	Pb 220.353†	-53.2	4.8	0.7489 ug/L	0.7489 ppb	09:19:03
1	S 181.975 Axial†	27.3	-2.7	-4.8368 ug/L	-4.8368 ppb	09:19:03
1	Sb 206.836†	39.0	15.5	6.5154 ug/L	6.5154 ppb	09:19:03
1	Se 196.026†	-12.3	4.6	3.7725 ug/L	3.7725 ppb	09:19:03
1	Si 251.611†	533.6	48.3	1.8197 ug/L	1.8197 ppb	09:19:03
1	Sn 189.927†	8.7	1.6	0.3694 ug/L	0.3694 ppb	09:19:03
1	Ti 334.940†	-1171.1	-56.1	-0.1001 ug/L	-0.1001 ppb	09:18:43
1	Tl 190.801†	-28.6	0.4	0.1418 ug/L	0.1418 ppb	09:19:03
1	U 409.014†	-2178.9	13.7	0.4170 ug/L	0.4170 ppb	09:18:43
1	V 292.402†	-1286.3	24.2	0.2131 ug/L	0.2131 ppb	09:18:43
1	Zn 213.857†	690.5	124.1	1.5064 ug/L	1.5064 ppb	09:19:03
1	SiO2†	541.5	45.1	3.6495 ug/L	3.6495 ppb	09:19:59
2	Sc Radial	4262.8	4262.8	97.0 %		09:18:11
2	Y RADIAL	4796.9	4796.9	100.8 %		09:17:51
2	Al 396.153Radial†	-78.0	-2.3	-2.3148 ug/L	-2.3148 ppb	09:18:11
2	Ca 317.933Radial†	19.3	4.3	8.0475 ug/L	8.0475 ppb	09:18:11
2	Fe 238.204 Radial†	7.2	-1.0	-11.440 ug/L	-11.440 ppb	09:18:11
2	K 766.490 Radial†	2748.7	235.2	44.821 ug/L	44.821 ppb	09:17:51
2	Mg 279.077 IEC†	2.8	1.3	55.437 ug/L	55.437 ppb	09:18:11
2	Na 589.592 Radial†	-871.9	-23.9	-8.4179 ug/L	-8.4179 ppb	09:17:51
2	Sr 421.552†	16.5	-3.9	-0.0310 ug/L	-0.0310 ppb	09:17:51
2	Sc 361.383	817570.3	817570.3	99.847 %		09:19:08
2	Y 371.029	690582.6	690582.6	99.846 %		09:19:08
2	Ag 328.068†	196.2	11.4	0.0530 ug/L	0.0530 ppb	09:19:08
2	As 188.979†	-27.6	-0.8	-0.4463 ug/L	-0.4463 ppb	09:19:28
2	B 249.677†	-4.1	533.3	14.962 ug/L	14.962 ppb	09:19:28
2	Ba 233.527†	26.6	27.4	0.2550 ug/L	0.2550 ppb	09:19:28
2	Be 313.107†	-3673.1	52.3	0.0223 ug/L	0.0223 ppb	09:19:08
2	Cd 226.502†	-163.4	7.0	0.1028 ug/L	0.1028 ppb	09:19:28
2	Co 228.616†	-52.3	-6.2	-0.1578 ug/L	-0.1578 ppb	09:19:28
2	Cr 267.716†	111.6	40.2	0.5373 ug/L	0.5373 ppb	09:19:28
2	Cu 324.752†	5650.1	106.8	0.3513 ug/L	0.3513 ppb	09:19:08
2	Mn 257.610†	409.8	21.4	0.0247 ug/L	0.0247 ppb	09:19:28
2	Mo 202.031†	15.6	7.1	0.6264 ug/L	0.6264 ppb	09:19:28
2	Ni 231.604†	69.7	-14.3	-0.4542 ug/L	-0.4542 ppb	09:19:28

2	P 214.914†	180.2	-6.8	-5.1075 ug/L	-5.1075 ppb	09:19:28
2	Pb 220.353†	-55.0	3.2	0.4903 ug/L	0.4903 ppb	09:19:28
2	S 181.975 Axial†	28.5	-1.6	-2.9431 ug/L	-2.9431 ppb	09:19:28
2	Sb 206.836†	34.7	11.1	4.6710 ug/L	4.6710 ppb	09:19:28
2	Se 196.026†	-15.5	1.4	1.1515 ug/L	1.1515 ppb	09:19:28
2	Si 251.611†	555.3	68.0	2.5719 ug/L	2.5719 ppb	09:19:28
2	Sn 189.927†	8.7	1.6	0.3569 ug/L	0.3569 ppb	09:19:28
2	Ti 334.940†	-1114.5	5.0	0.0047 ug/L	0.0047 ppb	09:19:08
2	Tl 190.801†	-19.5	9.5	3.6905 ug/L	3.6905 ppb	09:19:28
2	U 409.014†	-2170.8	30.1	0.9119 ug/L	0.9119 ppb	09:19:08
2	V 292.402†	-1366.1	-50.8	-0.3922 ug/L	-0.3922 ppb	09:19:08
2	Zn 213.857†	683.1	114.1	1.3864 ug/L	1.3864 ppb	09:19:28
2	SiO2†	541.1	42.6	3.4608 ug/L	3.4608 ppb	09:20:04
3	Sc Radial	4286.3	4286.3	97.5 %		09:18:36
3	Y RADIAL	4854.7	4854.7	102.0 %		09:18:16
3	Al 396.153Radial†	-90.4	-14.6	-14.360 ug/L	-14.360 ppb	09:18:36
3	Ca 317.933Radial†	24.9	9.9	18.648 ug/L	18.648 ppb	09:18:36
3	Fe 238.204 Radial†	7.6	-0.7	-7.7386 ug/L	-7.7386 ppb	09:18:36
3	K 766.490 Radial†	2787.2	259.2	49.398 ug/L	49.398 ppb	09:18:16
3	Mg 279.077 IEC†	3.8	2.3	96.474 ug/L	96.474 ppb	09:18:36
3	Na 589.592 Radial†	-957.9	-107.1	-37.767 ug/L	-37.767 ppb	09:18:16
3	Sr 421.552†	10.2	-10.4	-0.0832 ug/L	-0.0832 ppb	09:18:16
3	Sc 361.383	814846.7	814846.7	99.514 %		09:19:34
3	Y 371.029	688863.2	688863.2	99.598 %		09:19:34
3	Ag 328.068†	112.3	-72.3	-0.3809 ug/L	-0.3809 ppb	09:19:34
3	As 188.979†	-19.8	6.9	3.8016 ug/L	3.8016 ppb	09:19:54
3	B 249.677†	-11.6	525.7	14.748 ug/L	14.748 ppb	09:19:54
3	Ba 233.527†	13.2	14.0	0.1296 ug/L	0.1296 ppb	09:19:54
3	Be 313.107†	-3646.0	67.2	0.0286 ug/L	0.0286 ppb	09:19:34
3	Cd 226.502†	-174.8	-5.1	-0.0723 ug/L	-0.0723 ppb	09:19:54
3	Co 228.616†	-45.4	0.6	0.0137 ug/L	0.0137 ppb	09:19:54
3	Cr 267.716†	81.6	10.5	0.1380 ug/L	0.1380 ppb	09:19:54
3	Cu 324.752†	5635.8	111.3	0.3662 ug/L	0.3662 ppb	09:19:34
3	Mn 257.610†	399.2	12.1	0.0112 ug/L	0.0112 ppb	09:19:54
3	Mo 202.031†	4.4	-4.1	-0.3630 ug/L	-0.3630 ppb	09:19:54
3	Ni 231.604†	77.0	-6.7	-0.2117 ug/L	-0.2117 ppb	09:19:54
3	P 214.914†	186.2	-0.2	-0.1874 ug/L	-0.1874 ppb	09:19:54
3	Pb 220.353†	-67.8	-9.8	-1.5113 ug/L	-1.5113 ppb	09:19:54
3	S 181.975 Axial†	31.5	1.5	2.6801 ug/L	2.6801 ppb	09:19:54
3	Sb 206.836†	26.2	2.7	1.1279 ug/L	1.1279 ppb	09:19:54
3	Se 196.026†	-24.8	-7.9	-6.6490 ug/L	-6.6490 ppb	09:19:54
3	Si 251.611†	539.9	54.4	2.0696 ug/L	2.0696 ppb	09:19:54
3	Sn 189.927†	11.4	4.3	0.9890 ug/L	0.9890 ppb	09:19:54
3	Ti 334.940†	-1124.0	-8.2	-0.0205 ug/L	-0.0205 ppb	09:19:34
3	Tl 190.801†	-21.4	7.6	2.9459 ug/L	2.9459 ppb	09:19:54
3	U 409.014†	-2140.4	53.3	1.6188 ug/L	1.6188 ppb	09:19:34
3	V 292.402†	-1367.7	-56.9	-0.4537 ug/L	-0.4537 ppb	09:19:34
3	Zn 213.857†	679.6	112.8	1.3688 ug/L	1.3688 ppb	09:19:54
3	SiO2†	581.9	85.4	6.9819 ug/L	6.9819 ppb	09:20:09

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	815633.2	99.610 %	0.2061			0.21%
Sc Radial	4273.6	97.2 %	0.27			0.28%
Y 371.029	689064.1	99.627 %	0.2066			0.21%
Y RADIAL	4809.8	101.0 %	0.84			0.83%
Ag 328.068†	-8.5	-0.0502 ug/L	0.29315	-0.0502 ppb	0.29315	584.39%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-6.9	-6.8391 ug/L	6.55807	-6.8391 ppb	6.55807	95.89%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	5.2	2.8450 ug/L	2.93238	2.8450 ppb	2.93238	103.07%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	530.9	14.897 ug/L	0.1288	14.897 ppb	0.1288	0.86%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	17.1	0.1593 ug/L	0.08483	0.1593 ppb	0.08483	53.25%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	83.0	0.0353 ug/L	0.01733	0.0353 ppb	0.01733	49.14%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	6.2	11.716 ug/L	6.0069	11.716 ppb	6.0069	51.27%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd 226.502†	2.4	0.0364 ug/L	0.09492	0.0364 ppb	0.09492	260.66%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-3.6	-0.0930 ug/L	0.09311	-0.0930 ppb	0.09311	100.13%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	18.3	0.2428 ug/L	0.25864	0.2428 ppb	0.25864	106.54%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	101.7	0.3344 ug/L	0.04278	0.3344 ppb	0.04278	12.79%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-1.1	-13.213 ug/L	6.5433	-13.213 ppb	6.5433	49.52%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	246.6	46.983 ug/L	2.2993	46.983 ppb	2.2993	4.89%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	1.6	64.745 ug/L	28.2505	64.745 ppb	28.2505	43.63%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	16.1	0.0173 ug/L	0.00685	0.0173 ppb	0.00685	39.68%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	5.0	0.4392 ug/L	0.72693	0.4392 ppb	0.72693	165.51%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-20.4	-7.1939 ug/L	31.20291	-7.1939 ppb	31.20291	433.74%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	-7.0	-0.2232 ug/L	0.22549	-0.2232 ppb	0.22549	101.04%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-1.8	-1.4062 ug/L	3.26718	-1.4062 ppb	3.26718	232.35%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-0.6	-0.0907 ug/L	1.23706	-0.0907 ppb	1.23706	>999.9%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-1.0	-1.6999 ug/L	3.90961	-1.6999 ppb	3.90961	229.99%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	9.8	4.1048 ug/L	2.73805	4.1048 ppb	2.73805	66.70%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-0.6	-0.5750 ug/L	5.42099	-0.5750 ppb	5.42099	942.80%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	56.9	2.1537 ug/L	0.38312	2.1537 ppb	0.38312	17.79%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	2.5	0.5717 ug/L	0.36138	0.5717 ppb	0.36138	63.21%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	-0.3	-0.0028 ug/L	0.09757	-0.0028 ppb	0.09757	>999.9%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-19.8	-0.0386 ug/L	0.05470	-0.0386 ppb	0.05470	141.60%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	5.8	2.2594 ug/L	1.87131	2.2594 ppb	1.87131	82.82%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	32.4	0.9826 ug/L	0.60400	0.9826 ppb	0.60400	61.47%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	-27.8	-0.2109 ug/L	0.36853	-0.2109 ppb	0.36853	174.72%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	117.0	1.4205 ug/L	0.07489	1.4205 ppb	0.07489	5.27%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	57.7	4.6974 ug/L	1.98072	4.6974 ppb	1.98072	42.17%
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: 3/19/2010 10:18:17

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	4308.1	4308.1	98.0 %		10:20:30
1	Y RADIAL	4796.2	4796.2	100.7 %		10:20:10
1	Al 396.153Radial†	5020.5	5200.0	5083.7 ug/L	5083.7 ppb	10:20:10
1	Ca 317.933Radial†	2703.2	2742.1	5188.6 ug/L	5188.6 ppb	10:20:30
1	Fe 238.204 Radial†	458.1	458.9	5332.4 ug/L	5332.4 ppb	10:20:30
1	K 766.490 Radial†	29265.8	27258.0	5186.8 ug/L	5186.8 ppb	10:20:10
1	Mg 279.077 IEC†	128.8	129.9	5357.8 ug/L	5357.8 ppb	10:20:30
1	Na 589.592 Radial†	28262.5	29708.3	10473 ug/L	10473 ppb	10:20:10
1	Sr 421.552†	64065.1	65338.0	523.69 ug/L	523.69 ppb	10:20:10
1	Sc 361.383	840877.0	840877.0	102.69 %		10:21:27
1	Y 371.029	700106.4	700106.4	101.22 %		10:21:27
1	Ag 328.068†	98277.1	95514.6	499.06 ug/L	499.06 ppb	10:21:32
1	As 188.979†	922.7	925.3	512.29 ug/L	512.29 ppb	10:21:52
1	B 249.677†	17605.6	17681.2	493.72 ug/L	493.72 ppb	10:21:32
1	Ba 233.527†	54539.2	53109.6	498.70 ug/L	498.70 ppb	10:21:32
1	Be 313.107†	1210018.3	1182016.3	504.42 ug/L	504.42 ppb	10:21:27
1	Cd 226.502†	35152.8	34401.5	499.02 ug/L	499.02 ppb	10:21:32
1	Co 228.616†	20041.6	19562.2	505.71 ug/L	505.71 ppb	10:21:32
1	Cr 267.716†	38225.6	37151.6	499.27 ug/L	499.27 ppb	10:21:32
1	Cu 324.752†	158350.9	148646.1	490.76 ug/L	490.76 ppb	10:21:32
1	Mn 257.610†	390746.5	380110.0	500.08 ug/L	500.08 ppb	10:21:27
1	Mo 202.031†	5748.3	5589.0	497.29 ug/L	497.29 ppb	10:21:52
1	Ni 231.604†	16393.2	15879.2	503.98 ug/L	503.98 ppb	10:21:32
1	P 214.914†	3610.4	3328.4	2383.6 ug/L	2383.6 ppb	10:21:52
1	Pb 220.353†	3267.4	3240.1	499.18 ug/L	499.18 ppb	10:21:52
1	S 181.975 Axial†	599.3	553.4	989.74 ug/L	989.74 ppb	10:21:52
1	Sb 206.836†	1241.7	1185.5	513.90 ug/L	513.90 ppb	10:21:52
1	Se 196.026†	601.0	602.2	520.13 ug/L	520.13 ppb	10:21:52
1	Si 251.611†	67756.7	65491.6	2480.1 ug/L	2480.1 ppb	10:21:32
1	Sn 189.927†	2265.7	2199.2	499.66 ug/L	499.66 ppb	10:21:52
1	Ti 334.940†	286425.2	280034.8	486.85 ug/L	486.85 ppb	10:21:32
1	Tl 190.801†	1289.6	1284.9	500.36 ug/L	500.36 ppb	10:21:52
1	U 409.014†	14815.8	16631.5	502.85 ug/L	502.85 ppb	10:21:32
1	V 292.402†	62323.9	62006.9	501.75 ug/L	501.75 ppb	10:21:32
1	Zn 213.857†	42998.2	41300.5	495.75 ug/L	495.75 ppb	10:21:32
1	SiO2†	68433.6	66139.6	5384.2 ug/L	5384.2 ppb	10:23:00
2	Sc Radial	4303.6	4303.6	97.9 %		10:20:55
2	Y RADIAL	4888.7	4888.7	102.7 %		10:20:35
2	Al 396.153Radial†	5077.0	5263.0	5145.6 ug/L	5145.6 ppb	10:20:35
2	Ca 317.933Radial†	2703.5	2745.3	5194.6 ug/L	5194.6 ppb	10:20:55
2	Fe 238.204 Radial†	454.5	455.7	5294.9 ug/L	5294.9 ppb	10:20:55
2	K 766.490 Radial†	29796.5	27831.0	5295.9 ug/L	5295.9 ppb	10:20:35
2	Mg 279.077 IEC†	129.3	130.5	5384.2 ug/L	5384.2 ppb	10:20:55
2	Na 589.592 Radial†	28793.9	30281.0	10675 ug/L	10675 ppb	10:20:35
2	Sr 421.552†	65177.3	66541.7	533.34 ug/L	533.34 ppb	10:20:35
2	Sc 361.383	841989.2	841989.2	102.83 %		10:21:58
2	Y 371.029	701176.2	701176.2	101.38 %		10:21:58
2	Ag 328.068†	98955.0	96047.5	501.82 ug/L	501.82 ppb	10:22:03
2	As 188.979†	911.1	912.8	505.43 ug/L	505.43 ppb	10:22:23
2	B 249.677†	17727.0	17776.7	496.40 ug/L	496.40 ppb	10:22:03
2	Ba 233.527†	54790.6	53284.0	500.33 ug/L	500.33 ppb	10:22:03
2	Be 313.107†	1215519.9	1185810.1	506.04 ug/L	506.04 ppb	10:21:58
2	Cd 226.502†	35405.2	34601.8	501.93 ug/L	501.93 ppb	10:22:03
2	Co 228.616†	20165.2	19656.6	508.15 ug/L	508.15 ppb	10:22:03
2	Cr 267.716†	38383.2	37255.7	500.66 ug/L	500.66 ppb	10:22:03
2	Cu 324.752†	159218.3	149285.9	492.87 ug/L	492.87 ppb	10:22:03
2	Mn 257.610†	392163.2	380985.2	501.23 ug/L	501.23 ppb	10:21:58
2	Mo 202.031†	5763.9	5596.8	497.98 ug/L	497.98 ppb	10:22:23
2	Ni 231.604†	16452.0	15915.3	505.12 ug/L	505.12 ppb	10:22:03

2	P 214.914†	3642.1	3354.6	2402.7 ug/L	2402.7 ppb	10:22:23
2	Pb 220.353†	3262.6	3231.1	497.83 ug/L	497.83 ppb	10:22:23
2	S 181.975 Axial†	607.5	560.6	1002.6 ug/L	1002.6 ppb	10:22:23
2	Sb 206.836†	1261.5	1203.1	521.27 ug/L	521.27 ppb	10:22:23
2	Se 196.026†	606.4	606.7	523.77 ug/L	523.77 ppb	10:22:23
2	Si 251.611†	68049.2	65688.9	2487.6 ug/L	2487.6 ppb	10:22:03
2	Sn 189.927†	2268.5	2198.9	499.61 ug/L	499.61 ppb	10:22:23
2	Ti 334.940†	288221.2	281413.1	489.25 ug/L	489.25 ppb	10:22:03
2	Tl 190.801†	1312.0	1305.0	508.15 ug/L	508.15 ppb	10:22:23
2	U 409.014†	14914.3	16708.1	505.18 ug/L	505.18 ppb	10:22:03
2	V 292.402†	62602.0	62197.1	503.29 ug/L	503.29 ppb	10:22:03
2	Zn 213.857†	43197.0	41438.5	497.42 ug/L	497.42 ppb	10:22:03
2	SiO2†	68330.5	65951.3	5368.8 ug/L	5368.8 ppb	10:23:05
3	Sc Radial	4308.5	4308.5	98.0 %		10:21:20
3	Y RADIAL	4759.8	4759.8	99.98 %		10:21:00
3	Al 396.153Radial†	4982.1	5160.3	5044.7 ug/L	5044.7 ppb	10:21:00
3	Ca 317.933Radial†	2717.2	2756.1	5215.0 ug/L	5215.0 ppb	10:21:20
3	Fe 238.204 Radial†	458.5	459.2	5336.0 ug/L	5336.0 ppb	10:21:20
3	K 766.490 Radial†	29151.9	27138.8	5164.1 ug/L	5164.1 ppb	10:21:00
3	Mg 279.077 IEC†	130.2	131.2	5413.8 ug/L	5413.8 ppb	10:21:20
3	Na 589.592 Radial†	27882.2	29317.5	10335 ug/L	10335 ppb	10:21:00
3	Sr 421.552†	63477.4	64731.9	518.84 ug/L	518.84 ppb	10:21:00
3	Sc 361.383	841584.9	841584.9	102.78 %		10:22:29
3	Y 371.029	700121.4	700121.4	101.23 %		10:22:29
3	Ag 328.068†	97908.8	95075.7	496.77 ug/L	496.77 ppb	10:22:34
3	As 188.979†	915.3	917.4	507.90 ug/L	507.90 ppb	10:22:54
3	B 249.677†	17549.2	17611.9	491.79 ug/L	491.79 ppb	10:22:34
3	Ba 233.527†	54162.2	52698.1	494.84 ug/L	494.84 ppb	10:22:34
3	Be 313.107†	1208532.2	1179579.3	503.37 ug/L	503.37 ppb	10:22:29
3	Cd 226.502†	34838.9	34067.3	494.17 ug/L	494.17 ppb	10:22:34
3	Co 228.616†	19861.8	19370.8	500.77 ug/L	500.77 ppb	10:22:34
3	Cr 267.716†	37945.5	36847.8	495.19 ug/L	495.19 ppb	10:22:34
3	Cu 324.752†	157797.9	147978.4	488.55 ug/L	488.55 ppb	10:22:34
3	Mn 257.610†	390735.5	379779.2	499.65 ug/L	499.65 ppb	10:22:29
3	Mo 202.031†	5752.3	5588.2	497.22 ug/L	497.22 ppb	10:22:54
3	Ni 231.604†	16284.0	15759.5	500.18 ug/L	500.18 ppb	10:22:34
3	P 214.914†	3613.2	3328.2	2383.8 ug/L	2383.8 ppb	10:22:54
3	Pb 220.353†	3273.8	3243.6	499.72 ug/L	499.72 ppb	10:22:54
3	S 181.975 Axial†	608.0	561.3	1004.0 ug/L	1004.0 ppb	10:22:54
3	Sb 206.836†	1261.0	1203.2	521.27 ug/L	521.27 ppb	10:22:54
3	Se 196.026†	609.0	609.5	526.24 ug/L	526.24 ppb	10:22:54
3	Si 251.611†	67209.5	64903.6	2457.8 ug/L	2457.8 ppb	10:22:34
3	Sn 189.927†	2261.1	2192.7	498.21 ug/L	498.21 ppb	10:22:54
3	Ti 334.940†	284900.4	278316.7	483.86 ug/L	483.86 ppb	10:22:34
3	Tl 190.801†	1308.4	1302.1	507.01 ug/L	507.01 ppb	10:22:54
3	U 409.014†	14819.6	16623.0	502.60 ug/L	502.60 ppb	10:22:34
3	V 292.402†	61893.7	61537.3	498.00 ug/L	498.00 ppb	10:22:34
3	Zn 213.857†	42671.0	40946.9	491.50 ug/L	491.50 ppb	10:22:34
3	SiO2†	68350.8	66003.0	5373.1 ug/L	5373.1 ppb	10:23:10

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	841483.7	102.77 %	0.069			0.07%
Sc Radial	4306.7	98.0 %	0.06			0.06%
Y 371.029	700468.0	101.28 %	0.089			0.09%
Y RADIAL	4814.9	101.1 %	1.40			1.38%
Ag 328.068†	95546.0	499.22 ug/L	2.529	499.22 ppb	2.529	0.51%
QC value within limits for Ag 328.068 Recovery = 99.84%						
Al 396.153Radial†	5207.8	5091.3 ug/L	50.85	5091.3 ppb	50.85	1.00%
QC value within limits for Al 396.153Radial Recovery = 101.83%						
As 188.979†	918.5	508.54 ug/L	3.473	508.54 ppb	3.473	0.68%
QC value within limits for As 188.979 Recovery = 101.71%						
B 249.677†	17689.9	493.97 ug/L	2.314	493.97 ppb	2.314	0.47%
QC value within limits for B 249.677 Recovery = 98.79%						
Ba 233.527†	53030.6	497.96 ug/L	2.823	497.96 ppb	2.823	0.57%
QC value within limits for Ba 233.527 Recovery = 99.59%						
Be 313.107†	1182468.6	504.61 ug/L	1.343	504.61 ppb	1.343	0.27%
QC value within limits for Be 313.107 Recovery = 100.92%						
Ca 317.933Radial†	2747.8	5199.4 ug/L	13.84	5199.4 ppb	13.84	0.27%

QC value within limits for Ca 317.933 Radial Recovery = 103.99%

Cd 226.502†	34356.9	498.37 ug/L	3.922	498.37 ppb	3.922	0.79%
QC value within limits for Cd 226.502 Recovery = 99.67%						
Co 228.616†	19529.9	504.88 ug/L	3.759	504.88 ppb	3.759	0.74%
QC value within limits for Co 228.616 Recovery = 100.98%						
Cr 267.716†	37085.1	498.38 ug/L	2.844	498.38 ppb	2.844	0.57%
QC value within limits for Cr 267.716 Recovery = 99.68%						
Cu 324.752†	148636.8	490.73 ug/L	2.157	490.73 ppb	2.157	0.44%
QC value within limits for Cu 324.752 Recovery = 98.15%						
Fe 238.204 Radial†	457.9	5321.1 ug/L	22.78	5321.1 ppb	22.78	0.43%
QC value within limits for Fe 238.204 Radial Recovery = 106.42%						
K 766.490 Radial†	27409.3	5215.6 ug/L	70.44	5215.6 ppb	70.44	1.35%
QC value within limits for K 766.490 Radial Recovery = 104.31%						
Mg 279.077 IEC†	130.6	5385.2 ug/L	28.03	5385.2 ppb	28.03	0.52%
QC value within limits for Mg 279.077 IEC Recovery = 107.70%						
Mn 257.610†	380291.5	500.32 ug/L	0.817	500.32 ppb	0.817	0.16%
QC value within limits for Mn 257.610 Recovery = 100.06%						
Mo 202.031†	5591.3	497.49 ug/L	0.422	497.49 ppb	0.422	0.08%
QC value within limits for Mo 202.031 Recovery = 99.50%						
Na 589.592 Radial†	29768.9	10494 ug/L	170.8	10494 ppb	170.8	1.63%
QC value within limits for Na 589.592 Radial Recovery = 104.94%						
Ni 231.604†	15851.3	503.09 ug/L	2.588	503.09 ppb	2.588	0.51%
QC value within limits for Ni 231.604 Recovery = 100.62%						
P 214.914†	3337.1	2390.0 ug/L	10.97	2390.0 ppb	10.97	0.46%
QC value within limits for P 214.914 Recovery = 95.60%						
Pb 220.353†	3238.3	498.91 ug/L	0.975	498.91 ppb	0.975	0.20%
QC value within limits for Pb 220.353 Recovery = 99.78%						
S 181.975 Axial†	558.4	998.75 ug/L	7.834	998.75 ppb	7.834	0.78%
QC value within limits for S 181.975 Axial Recovery = 99.88%						
Sb 206.836†	1197.3	518.82 ug/L	4.257	518.82 ppb	4.257	0.82%
QC value within limits for Sb 206.836 Recovery = 103.76%						
Se 196.026†	606.1	523.38 ug/L	3.070	523.38 ppb	3.070	0.59%
QC value within limits for Se 196.026 Recovery = 104.68%						
Si 251.611†	65361.4	2475.2 ug/L	15.50	2475.2 ppb	15.50	0.63%
QC value within limits for Si 251.611 Recovery = 99.01%						
Sn 189.927†	2196.9	499.16 ug/L	0.823	499.16 ppb	0.823	0.16%
QC value within limits for Sn 189.927 Recovery = 99.83%						
Sr 421.552†	65537.2	525.29 ug/L	7.384	525.29 ppb	7.384	1.41%
QC value within limits for Sr 421.552 Recovery = 105.06%						
Ti 334.940†	279921.5	486.65 ug/L	2.696	486.65 ppb	2.696	0.55%
QC value within limits for Ti 334.940 Recovery = 97.33%						
Tl 190.801†	1297.3	505.18 ug/L	4.211	505.18 ppb	4.211	0.83%
QC value within limits for Tl 190.801 Recovery = 101.04%						
U 409.014†	16654.2	503.54 ug/L	1.421	503.54 ppb	1.421	0.28%
QC value within limits for U 409.014 Recovery = 100.71%						
V 292.402†	61913.8	501.01 ug/L	2.717	501.01 ppb	2.717	0.54%
QC value within limits for V 292.402 Recovery = 100.20%						
Zn 213.857†	41228.6	494.89 ug/L	3.055	494.89 ppb	3.055	0.62%
QC value within limits for Zn 213.857 Recovery = 98.98%						
SiO2†	66031.3	5375.4 ug/L	7.95	5375.4 ppb	7.95	0.15%
QC value within limits for SiO2 Recovery = 100.52%						

All analyte(s) passed QC.

Sequence No.: 9

Sample ID: PQL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 11

Date Collected: 3/19/2010 10:25:21

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4401.9	4401.9	100 %		10:27:15
1	Y RADIAL	4788.6	4788.6	100.6 %		10:27:15
1	Al 396.153Radial†	146.5	224.3	219.87 ug/L	219.87 ppb	10:27:35
1	Ca 317.933Radial†	136.1	120.2	227.52 ug/L	227.52 ppb	10:27:35
1	Fe 238.204 Radial†	19.2	10.7	124.60 ug/L	124.60 ppb	10:27:35
1	K 766.490 Radial†	3512.0	907.8	172.76 ug/L	172.76 ppb	10:27:15
1	Mg 279.077 IEC†	10.2	8.7	357.89 ug/L	357.89 ppb	10:27:35
1	Na 589.592 Radial†	-57.8	817.4	288.14 ug/L	288.14 ppb	10:27:15
1	Sr 421.552†	647.2	625.4	5.0111 ug/L	5.0111 ppb	10:27:15
1	Sc 361.383	822284.0	822284.0	100.42 %		10:28:32
1	Y 371.029	695589.3	695589.3	100.57 %		10:28:32
1	Ag 328.068†	1144.7	954.7	4.9620 ug/L	4.9620 ppb	10:28:32
1	As 188.979†	36.5	63.1	34.698 ug/L	34.698 ppb	10:28:52
1	B 249.677†	1493.9	2025.0	56.772 ug/L	56.772 ppb	10:28:32
1	Ba 233.527†	582.9	581.2	5.4571 ug/L	5.4571 ppb	10:28:52
1	Be 313.107†	8407.8	12103.5	5.1650 ug/L	5.1650 ppb	10:28:32
1	Cd 226.502†	205.0	374.8	5.4403 ug/L	5.4403 ppb	10:28:52
1	Co 228.616†	171.5	216.9	5.6192 ug/L	5.6192 ppb	10:28:52
1	Cr 267.716†	442.0	368.7	4.9398 ug/L	4.9398 ppb	10:28:52
1	Cu 324.752†	8629.8	3041.5	10.015 ug/L	10.015 ppb	10:28:32
1	Mn 257.610†	8561.3	8136.2	10.695 ug/L	10.695 ppb	10:28:32
1	Mo 202.031†	123.8	114.8	10.213 ug/L	10.213 ppb	10:28:52
1	Ni 231.604†	263.1	177.9	5.6471 ug/L	5.6471 ppb	10:28:52
1	P 214.914†	398.2	209.3	153.94 ug/L	153.94 ppb	10:28:52
1	Pb 220.353†	22.2	80.4	12.408 ug/L	12.408 ppb	10:28:52
1	S 181.975 Axial†	91.1	60.5	108.34 ug/L	108.34 ppb	10:28:52
1	Sb 206.836†	52.8	28.9	12.468 ug/L	12.468 ppb	10:28:52
1	Se 196.026†	20.4	37.2	31.477 ug/L	31.477 ppb	10:28:52
1	Si 251.611†	3185.3	2683.8	101.76 ug/L	101.76 ppb	10:28:52
1	Sn 189.927†	52.1	44.7	10.174 ug/L	10.174 ppb	10:28:52
1	Ti 334.940†	1753.5	2867.3	4.9598 ug/L	4.9598 ppb	10:28:32
1	Tl 190.801†	14.1	43.1	16.750 ug/L	16.750 ppb	10:28:52
1	U 409.014†	-246.9	1958.4	59.388 ug/L	59.388 ppb	10:28:32
1	V 292.402†	-752.2	568.4	4.7786 ug/L	4.7786 ppb	10:28:32
1	Zn 213.857†	1728.5	1151.2	13.880 ug/L	13.880 ppb	10:28:52
1	SiO2†	3288.3	2775.2	226.21 ug/L	226.21 ppb	10:29:48
2	Sc Radial	4445.8	4445.8	101 %		10:27:40
2	Y RADIAL	4794.0	4794.0	100.7 %		10:27:40
2	Al 396.153Radial†	128.3	204.9	200.78 ug/L	200.78 ppb	10:28:00
2	Ca 317.933Radial†	134.8	117.6	222.53 ug/L	222.53 ppb	10:28:00
2	Fe 238.204 Radial†	17.2	8.5	99.164 ug/L	99.164 ppb	10:28:00
2	K 766.490 Radial†	3570.5	931.1	177.19 ug/L	177.19 ppb	10:27:40
2	Mg 279.077 IEC†	10.9	9.3	382.08 ug/L	382.08 ppb	10:28:00
2	Na 589.592 Radial†	-46.0	829.6	292.46 ug/L	292.46 ppb	10:27:40
2	Sr 421.552†	645.8	617.6	4.9488 ug/L	4.9488 ppb	10:27:40
2	Sc 361.383	837271.4	837271.4	102.25 %		10:28:57
2	Y 371.029	706698.5	706698.5	102.18 %		10:28:57
2	Ag 328.068†	1173.1	962.1	4.9980 ug/L	4.9980 ppb	10:28:57
2	As 188.979†	26.2	52.4	28.810 ug/L	28.810 ppb	10:29:17
2	B 249.677†	1558.8	2061.8	57.810 ug/L	57.810 ppb	10:28:57
2	Ba 233.527†	574.9	562.9	5.2872 ug/L	5.2872 ppb	10:29:17
2	Be 313.107†	8476.9	12021.1	5.1302 ug/L	5.1302 ppb	10:28:57
2	Cd 226.502†	192.3	358.7	5.2089 ug/L	5.2089 ppb	10:29:17
2	Co 228.616†	160.2	202.9	5.2573 ug/L	5.2573 ppb	10:29:17
2	Cr 267.716†	476.6	394.6	5.2868 ug/L	5.2868 ppb	10:29:17
2	Cu 324.752†	8870.3	3122.9	10.284 ug/L	10.284 ppb	10:28:57
2	Mn 257.610†	8683.2	8102.8	10.648 ug/L	10.648 ppb	10:28:57
2	Mo 202.031†	129.1	117.7	10.475 ug/L	10.475 ppb	10:29:17
2	Ni 231.604†	264.0	174.1	5.5251 ug/L	5.5251 ppb	10:29:17

2	P 214.914†	395.3	199.3	146.52 ug/L	146.52 ppb	10:29:17
2	Pb 220.353†	27.6	85.3	13.165 ug/L	13.165 ppb	10:29:17
2	S 181.975 Axial†	84.9	52.8	94.531 ug/L	94.531 ppb	10:29:17
2	Sb 206.836†	44.5	19.9	8.7098 ug/L	8.7098 ppb	10:29:17
2	Se 196.026†	19.1	35.7	30.097 ug/L	30.097 ppb	10:29:17
2	Si 251.611†	3158.6	2600.8	98.606 ug/L	98.606 ppb	10:29:17
2	Sn 189.927†	61.3	52.8	12.017 ug/L	12.017 ppb	10:29:17
2	Ti 334.940†	1832.6	2913.4	5.0386 ug/L	5.0386 ppb	10:28:57
2	Tl 190.801†	27.5	56.0	21.724 ug/L	21.724 ppb	10:29:17
2	U 409.014†	-357.4	1854.6	56.243 ug/L	56.243 ppb	10:28:57
2	V 292.402†	-677.4	654.9	5.4708 ug/L	5.4708 ppb	10:28:57
2	Zn 213.857†	1716.0	1108.1	13.363 ug/L	13.363 ppb	10:29:17
2	SiO2†	3289.2	2717.4	221.49 ug/L	221.49 ppb	10:29:53
3	Sc Radial	4483.3	4483.3	102 %		10:28:05
3	Y RADIAL	4841.5	4841.5	101.7 %		10:28:05
3	Al 396.153Radial†	141.9	217.2	212.85 ug/L	212.85 ppb	10:28:25
3	Ca 317.933Radial†	130.9	112.7	213.20 ug/L	213.20 ppb	10:28:25
3	Fe 238.204 Radial†	17.3	8.5	98.662 ug/L	98.662 ppb	10:28:25
3	K 766.490 Radial†	3517.4	849.4	161.64 ug/L	161.64 ppb	10:28:05
3	Mg 279.077 IEC†	11.7	10.0	411.68 ug/L	411.68 ppb	10:28:25
3	Na 589.592 Radial†	-82.3	794.4	280.04 ug/L	280.04 ppb	10:28:05
3	Sr 421.552†	670.9	636.9	5.1036 ug/L	5.1036 ppb	10:28:05
3	Sc 361.383	836240.4	836240.4	102.13 %		10:29:23
3	Y 371.029	705188.3	705188.3	101.96 %		10:29:23
3	Ag 328.068†	1229.5	1018.7	5.2884 ug/L	5.2884 ppb	10:29:23
3	As 188.979†	36.9	62.9	34.584 ug/L	34.584 ppb	10:29:43
3	B 249.677†	1533.7	2039.1	57.173 ug/L	57.173 ppb	10:29:23
3	Ba 233.527†	569.0	557.9	5.2383 ug/L	5.2383 ppb	10:29:43
3	Be 313.107†	8522.5	12076.1	5.1539 ug/L	5.1539 ppb	10:29:23
3	Cd 226.502†	187.5	354.2	5.1435 ug/L	5.1435 ppb	10:29:43
3	Co 228.616†	163.0	205.8	5.3306 ug/L	5.3306 ppb	10:29:43
3	Cr 267.716†	463.5	382.4	5.1218 ug/L	5.1218 ppb	10:29:43
3	Cu 324.752†	8786.4	3051.5	10.048 ug/L	10.048 ppb	10:29:23
3	Mn 257.610†	8625.6	8056.9	10.586 ug/L	10.586 ppb	10:29:23
3	Mo 202.031†	124.3	113.2	10.075 ug/L	10.075 ppb	10:29:43
3	Ni 231.604†	259.0	169.5	5.3803 ug/L	5.3803 ppb	10:29:43
3	P 214.914†	398.5	202.9	149.24 ug/L	149.24 ppb	10:29:43
3	Pb 220.353†	12.0	70.1	10.819 ug/L	10.819 ppb	10:29:43
3	S 181.975 Axial†	85.1	53.1	95.060 ug/L	95.060 ppb	10:29:43
3	Sb 206.836†	57.7	32.9	14.105 ug/L	14.105 ppb	10:29:43
3	Se 196.026†	20.8	37.3	31.498 ug/L	31.498 ppb	10:29:43
3	Si 251.611†	3182.8	2628.4	99.656 ug/L	99.656 ppb	10:29:43
3	Sn 189.927†	53.7	45.4	10.337 ug/L	10.337 ppb	10:29:43
3	Ti 334.940†	1907.5	2989.0	5.1660 ug/L	5.1660 ppb	10:29:23
3	Tl 190.801†	25.8	54.4	21.092 ug/L	21.092 ppb	10:29:43
3	U 409.014†	-327.0	1884.0	57.134 ug/L	57.134 ppb	10:29:23
3	V 292.402†	-763.5	569.9	4.7882 ug/L	4.7882 ppb	10:29:23
3	Zn 213.857†	1721.2	1115.3	13.451 ug/L	13.451 ppb	10:29:43
3	SiO2†	3260.7	2693.5	219.55 ug/L	219.55 ppb	10:29:58

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	831931.9	101.60 %	1.022			1.01%
Sc Radial	4443.7	101 %	0.9			0.92%
Y 371.029	702492.0	101.57 %	0.871			0.86%
Y RADIAL	4808.0	101.0 %	0.61			0.61%
Ag 328.068†	978.5	5.0828 ug/L	0.17895	5.0828 ppb	0.17895	3.52%
QC value within limits for Ag 328.068 Recovery = 101.66%						
Al 396.153Radial†	215.5	211.17 ug/L	9.660	211.17 ppb	9.660	4.57%
QC value within limits for Al 396.153Radial Recovery = 105.58%						
As 188.979†	59.5	32.697 ug/L	3.3670	32.697 ppb	3.3670	10.30%
QC value within limits for As 188.979 Recovery = 108.99%						
B 249.677†	2041.9	57.252 ug/L	0.5232	57.252 ppb	0.5232	0.91%
QC value within limits for B 249.677 Recovery = 114.50%						
Ba 233.527†	567.3	5.3275 ug/L	0.11484	5.3275 ppb	0.11484	2.16%
QC value within limits for Ba 233.527 Recovery = 106.55%						
Be 313.107†	12066.9	5.1497 ug/L	0.01781	5.1497 ppb	0.01781	0.35%
QC value within limits for Be 313.107 Recovery = 102.99%						
Ca 317.933Radial†	116.8	221.08 ug/L	7.270	221.08 ppb	7.270	3.29%

QC value within limits for Ca 317.933 Radial Recovery = 110.54%

Cd 226.502† 362.6 5.2642 ug/L 0.15594 5.2642 ppb 0.15594 2.96%

QC value within limits for Cd 226.502 Recovery = 105.28%

Co 228.616† 208.5 5.4024 ug/L 0.19132 5.4024 ppb 0.19132 3.54%

QC value within limits for Co 228.616 Recovery = 108.05%

Cr 267.716† 381.9 5.1161 ug/L 0.17357 5.1161 ppb 0.17357 3.39%

QC value within limits for Cr 267.716 Recovery = 102.32%

Cu 324.752† 3071.9 10.116 ug/L 0.1468 10.116 ppb 0.1468 1.45%

QC value within limits for Cu 324.752 Recovery = 101.16%

Fe 238.204 Radial† 9.3 107.47 ug/L 14.830 107.47 ppb 14.830 13.80%

QC value within limits for Fe 238.204 Radial Recovery = 107.47%

K 766.490 Radial† 896.1 170.53 ug/L 8.011 170.53 ppb 8.011 4.70%

QC value within limits for K 766.490 Radial Recovery = 113.69%

Mg 279.077 IEC† 9.3 383.89 ug/L 26.941 383.89 ppb 26.941 7.02%

QC value within limits for Mg 279.077 IEC Recovery = 127.96%

Mn 257.610† 8098.6 10.643 ug/L 0.0547 10.643 ppb 0.0547 0.51%

QC value within limits for Mn 257.610 Recovery = 106.43%

Mo 202.031† 115.2 10.254 ug/L 0.2030 10.254 ppb 0.2030 1.98%

QC value within limits for Mo 202.031 Recovery = 102.54%

Na 589.592 Radial† 813.8 286.88 ug/L 6.307 286.88 ppb 6.307 2.20%

QC value within limits for Na 589.592 Radial Recovery = 95.63%

Ni 231.604† 173.8 5.5175 ug/L 0.13352 5.5175 ppb 0.13352 2.42%

QC value within limits for Ni 231.604 Recovery = 110.35%

P 214.914† 203.8 149.90 ug/L 3.755 149.90 ppb 3.755 2.50%

QC value within limits for P 214.914 Recovery = 99.93%

Pb 220.353† 78.6 12.131 ug/L 1.1974 12.131 ppb 1.1974 9.87%

QC value within limits for Pb 220.353 Recovery = 121.31%

S 181.975 Axial† 55.5 99.309 ug/L 7.8229 99.309 ppb 7.8229 7.88%

QC value within limits for S 181.975 Axial Recovery = 99.31%

Sb 206.836† 27.2 11.761 ug/L 2.7662 11.761 ppb 2.7662 23.52%

QC value within limits for Sb 206.836 Recovery = 117.61%

Se 196.026† 36.8 31.024 ug/L 0.8032 31.024 ppb 0.8032 2.59%

QC value within limits for Se 196.026 Recovery = 103.41%

Si 251.611† 2637.7 100.01 ug/L 1.605 100.01 ppb 1.605 1.60%

QC value within limits for Si 251.611 Recovery = 100.01%

Sn 189.927† 47.6 10.843 ug/L 1.0204 10.843 ppb 1.0204 9.41%

QC value within limits for Sn 189.927 Recovery = 108.43%

Sr 421.552† 626.6 5.0212 ug/L 0.07790 5.0212 ppb 0.07790 1.55%

QC value within limits for Sr 421.552 Recovery = 100.42%

Ti 334.940† 2923.2 5.0548 ug/L 0.10406 5.0548 ppb 0.10406 2.06%

QC value within limits for Ti 334.940 Recovery = 101.10%

Tl 190.801† 51.2 19.855 ug/L 2.7075 19.855 ppb 2.7075 13.64%

QC value within limits for Tl 190.801 Recovery = 99.28%

U 409.014† 1899.0 57.588 ug/L 1.6212 57.588 ppb 1.6212 2.82%

QC value within limits for U 409.014 Recovery = 115.18%

V 292.402† 597.7 5.0125 ug/L 0.39690 5.0125 ppb 0.39690 7.92%

QC value within limits for V 292.402 Recovery = 100.25%

Zn 213.857† 1124.9 13.565 ug/L 0.2770 13.565 ppb 0.2770 2.04%

QC value greater than the upper limit for Zn 213.857 Recovery = 135.65%

SiO2† 2728.7 222.41 ug/L 3.427 222.41 ppb 3.427 1.54%

QC value within limits for SiO2 Recovery = 104.42%

QC Failed. Continue with analysis.

Sequence No.: 10

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/19/2010 10:32:10

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	4467.1	4467.1	102 %		10:34:02
1	Y RADIAL	4880.5	4880.5	102.5 %		10:34:02
1	Al 396.153Radial†	-80.8	-1.4	-1.4230 ug/L	-1.4230 ppb	10:34:22
1	Ca 317.933Radial†	21.9	5.8	11.020 ug/L	11.020 ppb	10:34:22
1	Fe 238.204 Radial†	9.9	1.3	14.506 ug/L	14.506 ppb	10:34:22
1	K 766.490 Radial†	2657.3	15.7	2.9980 ug/L	2.9980 ppb	10:34:02
1	Mg 279.077 IEC†	0.7	-0.8	-34.124 ug/L	-34.124 ppb	10:34:22
1	Na 589.592 Radial†	-924.0	-34.0	-11.981 ug/L	-11.981 ppb	10:34:02
1	Sr 421.552†	21.1	-0.1	-0.0006 ug/L	-0.0006 ppb	10:34:02
1	Sc 361.383	815849.0	815849.0	99.637 %		10:35:19
1	Y 371.029	689649.4	689649.4	99.711 %		10:35:19
1	Ag 328.068†	248.9	64.7	0.3382 ug/L	0.3382 ppb	10:35:19
1	As 188.979†	-18.2	8.5	4.6577 ug/L	4.6577 ppb	10:35:39
1	B 249.677†	-318.6	217.6	6.1019 ug/L	6.1019 ppb	10:35:39
1	Ba 233.527†	7.9	8.6	0.0808 ug/L	0.0808 ppb	10:35:39
1	Be 313.107†	-3623.2	94.6	0.0402 ug/L	0.0402 ppb	10:35:19
1	Cd 226.502†	-173.7	-3.7	-0.0547 ug/L	-0.0547 ppb	10:35:39
1	Co 228.616†	-45.6	0.5	0.0135 ug/L	0.0135 ppb	10:35:39
1	Cr 267.716†	76.1	4.9	0.0662 ug/L	0.0662 ppb	10:35:39
1	Cu 324.752†	5630.0	98.6	0.3251 ug/L	0.3251 ppb	10:35:19
1	Mn 257.610†	436.1	48.7	0.0668 ug/L	0.0668 ppb	10:35:39
1	Mo 202.031†	13.8	5.3	0.4709 ug/L	0.4709 ppb	10:35:39
1	Ni 231.604†	78.0	-5.8	-0.1828 ug/L	-0.1828 ppb	10:35:39
1	P 214.914†	190.4	3.8	2.7615 ug/L	2.7615 ppb	10:35:39
1	Pb 220.353†	-44.4	13.7	2.1042 ug/L	2.1042 ppb	10:35:39
1	S 181.975 Axial†	28.0	-2.1	-3.6725 ug/L	-3.6725 ppb	10:35:39
1	Sb 206.836†	44.0	20.5	8.5973 ug/L	8.5973 ppb	10:35:39
1	Se 196.026†	-15.0	1.9	1.6296 ug/L	1.6296 ppb	10:35:39
1	Si 251.611†	543.0	56.8	2.1517 ug/L	2.1517 ppb	10:35:39
1	Sn 189.927†	11.5	4.4	0.9946 ug/L	0.9946 ppb	10:35:39
1	Ti 334.940†	-1142.7	-25.7	-0.0413 ug/L	-0.0413 ppb	10:35:19
1	Tl 190.801†	-30.9	-1.9	-0.7441 ug/L	-0.7441 ppb	10:35:39
1	U 409.014†	-2131.9	64.5	1.9553 ug/L	1.9553 ppb	10:35:19
1	V 292.402†	-1328.1	-15.5	-0.1162 ug/L	-0.1162 ppb	10:35:19
1	Zn 213.857†	714.3	146.8	1.7773 ug/L	1.7773 ppb	10:35:39
1	SiO2†	550.1	52.8	4.2972 ug/L	4.2972 ppb	10:36:35
2	Sc Radial	4480.4	4480.4	102 %		10:34:27
2	Y RADIAL	4876.8	4876.8	102.4 %		10:34:27
2	Al 396.153Radial†	-82.1	-2.5	-2.4574 ug/L	-2.4574 ppb	10:34:47
2	Ca 317.933Radial†	28.0	11.8	22.307 ug/L	22.307 ppb	10:34:47
2	Fe 238.204 Radial†	8.1	-0.5	-5.7454 ug/L	-5.7454 ppb	10:34:47
2	K 766.490 Radial†	2699.4	49.2	9.3714 ug/L	9.3714 ppb	10:34:27
2	Mg 279.077 IEC†	0.5	-1.0	-40.966 ug/L	-40.966 ppb	10:34:47
2	Na 589.592 Radial†	-910.7	-18.3	-6.4367 ug/L	-6.4367 ppb	10:34:27
2	Sr 421.552†	-14.0	-34.6	-0.2774 ug/L	-0.2774 ppb	10:34:27
2	Sc 361.383	818594.5	818594.5	99.972 %		10:35:44
2	Y 371.029	691573.4	691573.4	99.989 %		10:35:44
2	Ag 328.068†	183.2	-1.9	-0.0151 ug/L	-0.0151 ppb	10:35:44
2	As 188.979†	-18.7	8.1	4.4279 ug/L	4.4279 ppb	10:36:04
2	B 249.677†	-356.2	181.1	5.0804 ug/L	5.0804 ppb	10:36:04
2	Ba 233.527†	12.6	13.3	0.1235 ug/L	0.1235 ppb	10:36:04
2	Be 313.107†	-3656.6	73.3	0.0312 ug/L	0.0312 ppb	10:35:44
2	Cd 226.502†	-161.3	9.3	0.1357 ug/L	0.1357 ppb	10:36:04
2	Co 228.616†	-43.0	3.2	0.0842 ug/L	0.0842 ppb	10:36:04
2	Cr 267.716†	47.3	-24.2	-0.3265 ug/L	-0.3265 ppb	10:36:04
2	Cu 324.752†	5641.1	90.7	0.2980 ug/L	0.2980 ppb	10:35:44
2	Mn 257.610†	423.6	34.6	0.0466 ug/L	0.0466 ppb	10:36:04
2	Mo 202.031†	11.0	2.5	0.2183 ug/L	0.2183 ppb	10:36:04
2	Ni 231.604†	94.5	10.4	0.3309 ug/L	0.3309 ppb	10:36:04

2	P 214.914†	171.8	-15.5	-11.576 ug/L	-11.576 ppb	10:36:04
2	Pb 220.353†	-62.1	-3.8	-0.5818 ug/L	-0.5818 ppb	10:36:04
2	S 181.975 Axial†	28.6	-1.6	-2.8708 ug/L	-2.8708 ppb	10:36:04
2	Sb 206.836†	32.1	8.4	3.5319 ug/L	3.5319 ppb	10:36:04
2	Se 196.026†	-19.4	-2.4	-2.0415 ug/L	-2.0415 ppb	10:36:04
2	Si 251.611†	545.7	57.7	2.1873 ug/L	2.1873 ppb	10:36:04
2	Sn 189.927†	7.4	0.3	0.0664 ug/L	0.0664 ppb	10:36:04
2	Ti 334.940†	-1137.7	-16.8	-0.0238 ug/L	-0.0238 ppb	10:35:44
2	Tl 190.801†	-27.1	1.9	0.7540 ug/L	0.7540 ppb	10:36:04
2	U 409.014†	-2129.2	74.5	2.2602 ug/L	2.2602 ppb	10:35:44
2	V 292.402†	-1364.3	-47.2	-0.3696 ug/L	-0.3696 ppb	10:35:44
2	Zn 213.857†	727.3	157.4	1.9055 ug/L	1.9055 ppb	10:36:04
2	SiO2†	549.9	50.7	4.1340 ug/L	4.1340 ppb	10:36:40
3	Sc Radial	4415.9	4415.9	100 %		10:34:52
3	Y RADIAL	4804.7	4804.7	100.9 %		10:34:52
3	Al 396.153Radial†	-69.6	8.8	8.6302 ug/L	8.6302 ppb	10:35:12
3	Ca 317.933Radial†	26.4	10.6	19.996 ug/L	19.996 ppb	10:35:12
3	Fe 238.204 Radial†	7.2	-1.3	-14.518 ug/L	-14.518 ppb	10:35:12
3	K 766.490 Radial†	2636.1	25.0	4.7603 ug/L	4.7603 ppb	10:34:52
3	Mg 279.077 IEC†	1.4	-0.2	-6.9036 ug/L	-6.9036 ppb	10:35:12
3	Na 589.592 Radial†	-934.4	-54.9	-19.340 ug/L	-19.340 ppb	10:34:52
3	Sr 421.552†	23.2	2.2	0.0179 ug/L	0.0179 ppb	10:34:52
3	Sc 361.383	837815.6	837815.6	102.32 %		10:36:09
3	Y 371.029	707201.2	707201.2	102.25 %		10:36:09
3	Ag 328.068†	256.6	65.6	0.3313 ug/L	0.3313 ppb	10:36:09
3	As 188.979†	-21.0	6.2	3.4192 ug/L	3.4192 ppb	10:36:29
3	B 249.677†	-354.2	191.2	5.3659 ug/L	5.3659 ppb	10:36:29
3	Ba 233.527†	13.5	13.9	0.1289 ug/L	0.1289 ppb	10:36:29
3	Be 313.107†	-3751.0	65.0	0.0280 ug/L	0.0280 ppb	10:36:09
3	Cd 226.502†	-171.4	3.1	0.0472 ug/L	0.0472 ppb	10:36:29
3	Co 228.616†	-49.6	-2.3	-0.0579 ug/L	-0.0579 ppb	10:36:29
3	Cr 267.716†	79.9	6.6	0.0846 ug/L	0.0846 ppb	10:36:29
3	Cu 324.752†	5709.2	27.8	0.0887 ug/L	0.0887 ppb	10:36:09
3	Mn 257.610†	417.8	19.2	0.0241 ug/L	0.0241 ppb	10:36:29
3	Mo 202.031†	15.3	6.4	0.5693 ug/L	0.5693 ppb	10:36:29
3	Ni 231.604†	91.9	5.8	0.1838 ug/L	0.1838 ppb	10:36:29
3	P 214.914†	172.1	-19.0	-14.192 ug/L	-14.192 ppb	10:36:29
3	Pb 220.353†	-53.9	5.6	0.8719 ug/L	0.8719 ppb	10:36:29
3	S 181.975 Axial†	27.2	-3.6	-6.5009 ug/L	-6.5009 ppb	10:36:29
3	Sb 206.836†	31.6	7.2	3.0043 ug/L	3.0043 ppb	10:36:29
3	Se 196.026†	-18.2	-0.8	-0.7030 ug/L	-0.7030 ppb	10:36:29
3	Si 251.611†	521.0	21.0	0.7911 ug/L	0.7911 ppb	10:36:29
3	Sn 189.927†	4.8	-2.5	-0.5546 ug/L	-0.5546 ppb	10:36:29
3	Ti 334.940†	-1064.9	80.4	0.1412 ug/L	0.1412 ppb	10:36:09
3	Tl 190.801†	-27.7	2.1	0.7968 ug/L	0.7968 ppb	10:36:29
3	U 409.014†	-2109.5	142.5	4.3242 ug/L	4.3242 ppb	10:36:09
3	V 292.402†	-1381.1	-32.4	-0.2403 ug/L	-0.2403 ppb	10:36:09
3	Zn 213.857†	738.5	151.7	1.8389 ug/L	1.8389 ppb	10:36:29
3	SiO2†	535.3	23.8	1.9278 ug/L	1.9278 ppb	10:36:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	824086.4	100.64 %	1.462			1.45%
Sc Radial	4454.5	101 %	0.8			0.77%
Y 371.029	696141.3	100.65 %	1.392			1.38%
Y RADIAL	4854.0	102.0 %	0.90			0.88%
Ag 328.068†	42.8	0.2181 ug/L	0.20203	0.2181 ppb	0.20203	92.62%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	1.6	1.5833 ug/L	6.12472	1.5833 ppb	6.12472	386.84%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	7.6	4.1683 ug/L	0.65881	4.1683 ppb	0.65881	15.81%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	196.6	5.5161 ug/L	0.52706	5.5161 ppb	0.52706	9.56%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	11.9	0.1111 ug/L	0.02632	0.1111 ppb	0.02632	23.70%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	77.6	0.0331 ug/L	0.00631	0.0331 ppb	0.00631	19.05%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	9.4	17.774 ug/L	5.9625	17.774 ppb	5.9625	33.55%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	2.9	0.0427 ug/L	0.09529	0.0427 ppb	0.09529	222.93%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	0.5	0.0133 ug/L	0.07108	0.0133 ppb	0.07108	535.29%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-4.2	-0.0586 ug/L	0.23221	-0.0586 ppb	0.23221	396.54%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	72.4	0.2373 ug/L	0.12938	0.2373 ppb	0.12938	54.53%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-0.2	-1.9190 ug/L	14.88554	-1.9190 ppb	14.88554	775.71%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	30.0	5.7099 ug/L	3.29108	5.7099 ppb	3.29108	57.64%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	-0.7	-27.331 ug/L	18.0188	-27.331 ppb	18.0188	65.93%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	34.2	0.0459 ug/L	0.02135	0.0459 ppb	0.02135	46.54%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	4.7	0.4195 ug/L	0.18103	0.4195 ppb	0.18103	43.15%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-35.7	-12.586 ug/L	6.4730	-12.586 ppb	6.4730	51.43%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	3.5	0.1106 ug/L	0.26452	0.1106 ppb	0.26452	239.14%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-10.2	-7.6690 ug/L	9.12731	-7.6690 ppb	9.12731	119.02%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	5.2	0.7981 ug/L	1.34456	0.7981 ppb	1.34456	168.47%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-2.4	-4.3480 ug/L	1.90700	-4.3480 ppb	1.90700	43.86%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	12.0	5.0445 ug/L	3.08810	5.0445 ppb	3.08810	61.22%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-0.4	-0.3716 ug/L	1.85785	-0.3716 ppb	1.85785	499.98%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	45.2	1.7101 ug/L	0.79602	1.7101 ppb	0.79602	46.55%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	0.7	0.1688 ug/L	0.77966	0.1688 ppb	0.77966	461.89%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	-10.8	-0.0867 ug/L	0.16540	-0.0867 ppb	0.16540	190.77%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	12.7	0.0254 ug/L	0.10069	0.0254 ppb	0.10069	396.59%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	0.7	0.2689 ug/L	0.87754	0.2689 ppb	0.87754	326.36%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	93.8	2.8466 ug/L	1.28871	2.8466 ppb	1.28871	45.27%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-31.7	-0.2420 ug/L	0.12674	-0.2420 ppb	0.12674	52.37%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	152.0	1.8406 ug/L	0.06408	1.8406 ppb	0.06408	3.48%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	42.4	3.4530 ug/L	1.32338	3.4530 ppb	1.32338	38.33%	
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

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Analysis Begun

Start Time: 3/19/2010 10:42:27 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\031910.sif

Batch ID:

Results Data Set: 031910

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

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Sequence No.: 1 Autosampler Location: 38
 Sample ID: 1202049290|955820|1 Date Collected: 3/19/2010 10:42:28
 Analyst: HSC Data Type: Original
 Initial Sample Wt: Initial Sample Vol:
 Dilution: Sample Prep Vol:

Replicate Data: 1202049290|955820|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4574.0	4574.0	104 %		10:44:21
1	Y RADIAL	4962.4	4962.4	104.2 %		10:44:21
1	Al 396.153Radial†	-61.5	19.0	18.724 ug/L	18.724 ppb	10:44:41
1	Ca 317.933Radial†	26.6	9.9	18.729 ug/L	18.729 ppb	10:44:41
1	Fe 238.204 Radial†	8.7	-0.1	-1.4277 ug/L	-1.4277 ppb	10:44:41
1	K 766.490 Radial†	2681.0	-22.6	-4.3232 ug/L	-4.3232 ppb	10:44:21
1	Mg 279.077 IEC†	1.4	-0.2	-8.2891 ug/L	-8.2891 ppb	10:44:41
1	Na 589.592 Radial†	-882.4	27.3	9.6095 ug/L	9.6095 ppb	10:44:21
1	Sr 421.552†	26.7	4.8	0.0385 ug/L	0.0385 ppb	10:44:21
1	Sc 361.383	837625.4	837625.4	102.30 %		10:45:37
1	Y 371.029	707541.3	707541.3	102.30 %		10:45:37
1	Ag 328.068†	177.7	-11.4	-0.0651 ug/L	-0.0651 ppb	10:45:37
1	As 188.979†	-17.8	9.4	5.1732 ug/L	5.1732 ppb	10:45:57
1	B 249.677†	-378.3	167.5	4.7002 ug/L	4.7002 ppb	10:45:57
1	Ba 233.527†	31.0	31.0	0.2894 ug/L	0.2894 ppb	10:45:57
1	Be 313.107†	-3732.0	82.7	0.0360 ug/L	0.0360 ppb	10:45:37
1	Cd 226.502†	-167.4	7.0	0.1021 ug/L	0.1021 ppb	10:45:57
1	Co 228.616†	-44.3	2.9	0.0732 ug/L	0.0732 ppb	10:45:57
1	Cr 267.716†	112.1	38.1	0.5081 ug/L	0.5081 ppb	10:45:57
1	Cu 324.752†	5563.4	-113.5	-0.3771 ug/L	-0.3771 ppb	10:45:37
1	Mn 257.610†	600.7	198.2	0.2608 ug/L	0.2608 ppb	10:45:57
1	Mo 202.031†	2.3	-6.3	-0.5585 ug/L	-0.5585 ppb	10:45:57
1	Ni 231.604†	88.4	2.4	0.0757 ug/L	0.0757 ppb	10:45:57
1	P 214.914†	189.5	-2.1	-1.4648 ug/L	-1.4648 ppb	10:45:57
1	Pb 220.353†	-50.3	9.2	1.4114 ug/L	1.4114 ppb	10:45:57
1	S 181.975 Axial†	27.9	-2.9	-5.1555 ug/L	-5.1555 ppb	10:45:57
1	Sb 206.836†	32.4	8.0	3.3294 ug/L	3.3294 ppb	10:45:57
1	Se 196.026†	-24.2	-6.6	-5.5371 ug/L	-5.5371 ppb	10:45:57
1	Si 251.611†	934.9	425.7	16.169 ug/L	16.169 ppb	10:45:57
1	Sn 189.927†	4.0	-3.2	-0.7271 ug/L	-0.7271 ppb	10:45:57
1	Ti 334.940†	-951.9	190.7	0.3327 ug/L	0.3327 ppb	10:45:37
1	Tl 190.801†	-32.2	-2.4	-0.9249 ug/L	-0.9249 ppb	10:45:57
1	U 409.014†	-2107.1	144.4	4.3806 ug/L	4.3806 ppb	10:45:37
1	V 292.402†	-1394.8	-46.1	-0.3678 ug/L	-0.3678 ppb	10:45:37
1	Zn 213.857†	705.8	119.8	1.4524 ug/L	1.4524 ppb	10:45:57
1	SiO2†	949.4	428.8	35.006 ug/L	35.006 ppb	10:46:53
2	Sc Radial	4472.0	4472.0	102 %		10:44:46
2	Y RADIAL	4869.6	4869.6	102.3 %		10:44:46
2	Al 396.153Radial†	-76.9	2.5	2.4256 ug/L	2.4256 ppb	10:45:06
2	Ca 317.933Radial†	22.0	5.9	11.164 ug/L	11.164 ppb	10:45:06
2	Fe 238.204 Radial†	10.9	2.3	26.195 ug/L	26.195 ppb	10:45:06
2	K 766.490 Radial†	2604.9	-38.6	-7.3694 ug/L	-7.3694 ppb	10:44:46
2	Mg 279.077 IEC†	2.2	0.6	25.303 ug/L	25.303 ppb	10:45:06
2	Na 589.592 Radial†	-877.8	12.4	4.3785 ug/L	4.3785 ppb	10:44:46
2	Sr 421.552†	31.1	9.7	0.0777 ug/L	0.0777 ppb	10:44:46
2	Sc 361.383	835785.9	835785.9	102.07 %		10:46:03
2	Y 371.029	705014.4	705014.4	101.93 %		10:46:03

2	Ag 328.068†	142.8	-45.2	-0.2301 ug/L	-0.2301 ppb	10:46:03
2	As 188.979†	-26.3	1.0	0.5737 ug/L	0.5737 ppb	10:46:23
2	B 249.677†	-373.1	171.8	4.8160 ug/L	4.8160 ppb	10:46:23
2	Ba 233.527†	29.2	29.3	0.2747 ug/L	0.2747 ppb	10:46:23
2	Be 313.107†	-3753.9	53.3	0.0234 ug/L	0.0234 ppb	10:46:03
2	Cd 226.502†	-167.0	7.0	0.0992 ug/L	0.0992 ppb	10:46:23
2	Co 228.616†	-39.3	7.7	0.2003 ug/L	0.2003 ppb	10:46:23
2	Cr 267.716†	116.8	42.9	0.5764 ug/L	0.5764 ppb	10:46:23
2	Cu 324.752†	5631.4	-34.9	-0.1153 ug/L	-0.1153 ppb	10:46:03
2	Mn 257.610†	609.4	208.0	0.2750 ug/L	0.2750 ppb	10:46:23
2	Mo 202.031†	20.0	11.1	0.9875 ug/L	0.9875 ppb	10:46:23
2	Ni 231.604†	92.3	6.3	0.2014 ug/L	0.2014 ppb	10:46:23
2	P 214.914†	187.6	-3.5	-2.5759 ug/L	-2.5759 ppb	10:46:23
2	Pb 220.353†	-41.1	18.1	2.7775 ug/L	2.7775 ppb	10:46:23
2	S 181.975 Axial†	31.3	0.5	0.9455 ug/L	0.9455 ppb	10:46:23
2	Sb 206.836†	25.3	1.2	0.5228 ug/L	0.5228 ppb	10:46:23
2	Se 196.026†	-20.0	-2.7	-2.1453 ug/L	-2.1453 ppb	10:46:23
2	Si 251.611†	923.0	416.1	15.785 ug/L	15.785 ppb	10:46:23
2	Sn 189.927†	13.3	5.8	1.3274 ug/L	1.3274 ppb	10:46:23
2	Ti 334.940†	-969.3	171.6	0.2964 ug/L	0.2964 ppb	10:46:03
2	Tl 190.801†	-33.0	-3.2	-1.2329 ug/L	-1.2329 ppb	10:46:23
2	U 409.014†	-2150.0	97.8	2.9638 ug/L	2.9638 ppb	10:46:03
2	V 292.402†	-1376.3	-31.0	-0.2315 ug/L	-0.2315 ppb	10:46:03
2	Zn 213.857†	710.1	125.6	1.5174 ug/L	1.5174 ppb	10:46:23
2	SiO2†	1020.5	500.4	40.814 ug/L	40.814 ppb	10:46:58
3	Sc Radial	4513.5	4513.5	103 %		10:45:11
3	Y RADIAL	4892.2	4892.2	102.8 %		10:45:11
3	Al 396.153Radial†	-67.1	12.7	12.472 ug/L	12.472 ppb	10:45:31
3	Ca 317.933Radial†	24.8	8.5	16.081 ug/L	16.081 ppb	10:45:31
3	Fe 238.204 Radial†	10.1	1.4	15.753 ug/L	15.753 ppb	10:45:31
3	K 766.490 Radial†	2685.8	16.6	3.1549 ug/L	3.1549 ppb	10:45:11
3	Mg 279.077 IEC†	5.2	3.5	144.98 ug/L	144.98 ppb	10:45:31
3	Na 589.592 Radial†	-903.0	-4.2	-1.4858 ug/L	-1.4858 ppb	10:45:11
3	Sr 421.552†	16.4	-4.9	-0.0392 ug/L	-0.0392 ppb	10:45:11
3	Sc 361.383	843134.6	843134.6	102.97 %		10:46:28
3	Y 371.029	711332.4	711332.4	102.85 %		10:46:28
3	Ag 328.068†	205.6	14.5	0.0772 ug/L	0.0772 ppb	10:46:28
3	As 188.979†	-17.6	9.7	5.3467 ug/L	5.3467 ppb	10:46:48
3	B 249.677†	-352.2	195.3	5.4754 ug/L	5.4754 ppb	10:46:48
3	Ba 233.527†	34.1	33.8	0.3174 ug/L	0.3174 ppb	10:46:48
3	Be 313.107†	-3756.3	83.1	0.0363 ug/L	0.0363 ppb	10:46:28
3	Cd 226.502†	-169.4	6.1	0.0874 ug/L	0.0874 ppb	10:46:48
3	Co 228.616†	-39.6	7.7	0.2010 ug/L	0.2010 ppb	10:46:48
3	Cr 267.716†	102.5	28.1	0.3768 ug/L	0.3768 ppb	10:46:48
3	Cu 324.752†	5698.2	-18.1	-0.0613 ug/L	-0.0613 ppb	10:46:28
3	Mn 257.610†	593.8	187.6	0.2423 ug/L	0.2423 ppb	10:46:48
3	Mo 202.031†	17.8	8.8	0.7818 ug/L	0.7818 ppb	10:46:48
3	Ni 231.604†	71.7	-14.5	-0.4594 ug/L	-0.4594 ppb	10:46:48
3	P 214.914†	190.2	-2.6	-1.9254 ug/L	-1.9254 ppb	10:46:48
3	Pb 220.353†	-49.8	9.9	1.5304 ug/L	1.5304 ppb	10:46:48
3	S 181.975 Axial†	24.2	-6.7	-11.950 ug/L	-11.950 ppb	10:46:48
3	Sb 206.836†	30.3	5.7	2.4276 ug/L	2.4276 ppb	10:46:48
3	Se 196.026†	-14.0	3.3	2.8189 ug/L	2.8189 ppb	10:46:48
3	Si 251.611†	958.6	442.8	16.800 ug/L	16.800 ppb	10:46:48
3	Sn 189.927†	12.6	5.1	1.1634 ug/L	1.1634 ppb	10:46:48
3	Ti 334.940†	-902.5	244.8	0.4140 ug/L	0.4140 ppb	10:46:28
3	Tl 190.801†	-28.2	1.7	0.6652 ug/L	0.6652 ppb	10:46:48
3	U 409.014†	-2130.5	135.1	4.0964 ug/L	4.0964 ppb	10:46:28
3	V 292.402†	-1339.4	16.7	0.1519 ug/L	0.1519 ppb	10:46:28
3	Zn 213.857†	692.6	102.6	1.2434 ug/L	1.2434 ppb	10:46:48
3	SiO2†	990.4	462.6	37.729 ug/L	37.729 ppb	10:47:03

Mean Data: 1202049290|955820|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	838848.6	102.45	%	0.467			0.46%
Sc Radial	4519.8	103	%	1.2			1.13%
Y 371.029	707962.7	102.36	%	0.460			0.45%
Y RADIAL	4908.0	103.1	%	1.02			0.99%
Ag 328.068†	-14.0	-0.0727	ug/L	0.15379	-0.0727 ppb	0.15379	211.58%

Al 396.153Radial†	11.4	11.207 ug/L	8.2224	11.207 ppb	8.2224	73.37%
As 188.979†	6.7	3.6979 ug/L	2.70700	3.6979 ppb	2.70700	73.20%
B 249.677†	178.2	4.9972 ug/L	0.41816	4.9972 ppb	0.41816	8.37%
Ba 233.527†	31.4	0.2938 ug/L	0.02170	0.2938 ppb	0.02170	7.38%
Be 313.107†	73.0	0.0319 ug/L	0.00739	0.0319 ppb	0.00739	23.19%
Ca 317.933Radial†	8.1	15.325 ug/L	3.8386	15.325 ppb	3.8386	25.05%
Cd 226.502†	6.7	0.0963 ug/L	0.00778	0.0963 ppb	0.00778	8.09%
Co 228.616†	6.1	0.1582 ug/L	0.07354	0.1582 ppb	0.07354	46.50%
Cr 267.716†	36.3	0.4871 ug/L	0.10143	0.4871 ppb	0.10143	20.82%
Cu 324.752†	-55.5	-0.1846 ug/L	0.16887	-0.1846 ppb	0.16887	91.49%
Fe 238.204 Radial†	1.2	13.507 ug/L	13.9475	13.507 ppb	13.9475	103.26%
K 766.490 Radial†	-14.9	-2.8459 ug/L	5.41547	-2.8459 ppb	5.41547	190.29%
Mg 279.077 IEC†	1.3	53.999 ug/L	80.5656	53.999 ppb	80.5656	149.20%
Mn 257.610†	197.9	0.2594 ug/L	0.01641	0.2594 ppb	0.01641	6.33%
Mo 202.031†	4.5	0.4036 ug/L	0.83951	0.4036 ppb	0.83951	208.00%
Na 589.592 Radial†	11.8	4.1674 ug/L	5.55065	4.1674 ppb	5.55065	133.19%
Ni 231.604†	-1.9	-0.0608 ug/L	0.35090	-0.0608 ppb	0.35090	577.25%
P 214.914†	-2.7	-1.9887 ug/L	0.55824	-1.9887 ppb	0.55824	28.07%
Pb 220.353†	12.4	1.9064 ug/L	0.75671	1.9064 ppb	0.75671	39.69%
S 181.975 Axial†	-3.0	-5.3867 ug/L	6.45092	-5.3867 ppb	6.45092	119.76%
Sb 206.836†	5.0	2.0933 ug/L	1.43285	2.0933 ppb	1.43285	68.45%
Se 196.026†	-2.0	-1.6212 ug/L	4.20259	-1.6212 ppb	4.20259	259.23%
Si 251.611†	428.2	16.252 ug/L	0.5126	16.252 ppb	0.5126	3.15%
Sn 189.927†	2.6	0.5879 ug/L	1.14176	0.5879 ppb	1.14176	194.20%
Sr 421.552†	3.2	0.0257 ug/L	0.05949	0.0257 ppb	0.05949	231.67%
Ti 334.940†	202.3	0.3477 ug/L	0.06024	0.3477 ppb	0.06024	17.33%
Tl 190.801†	-1.3	-0.4975 ug/L	1.01869	-0.4975 ppb	1.01869	204.75%
U 409.014†	125.8	3.8136 ug/L	0.74956	3.8136 ppb	0.74956	19.66%
V 292.402†	-20.1	-0.1492 ug/L	0.26947	-0.1492 ppb	0.26947	180.67%
Zn 213.857†	116.0	1.4044 ug/L	0.14318	1.4044 ppb	0.14318	10.20%
SiO2†	463.9	37.850 ug/L	2.9059	37.850 ppb	2.9059	7.68%

Sequence No.: 2

Sample ID: 1202049295|955820|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 39

Date Collected: 3/19/2010 10:49:14

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202049295|955820|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4583.9	4583.9	104 %		10:51:27
1	Y RADIAL	5394.1	5394.1	113.3 %		10:51:27
1	Al 396.153Radial†	100405.6	96346.8	94614 ug/L	94614 ppb	10:51:07
1	Ca 317.933Radial†	54615.5	52349.5	99056 ug/L	99056 ppb	10:51:07
1	Fe 238.204 Radial†	17591.7	16858.4	195360 ug/L	195360 ppb	10:51:07
1	K 766.490 Radial†	238191.8	225779.1	42977 ug/L	42977 ppb	10:51:07
1	Mg 279.077 IEC†	998.2	955.5	39218 ug/L	39218 ppb	10:51:27
1	Na 589.592 Radial†	30298.8	29925.5	10549 ug/L	10549 ppb	10:51:07
1	Sr 421.552†	308232.0	295511.4	2368.0 ug/L	2368.0 ppb	10:51:07
1	Sc 361.383	826866.4	826866.4	100.98 %		10:52:31
1	Y 371.029	748553.9	748553.9	108.23 %		10:52:31
1	Ag 328.068†	51621.4	50934.2	328.93 ug/L	328.93 ppb	10:52:31
1	As 188.979†	1889.7	1898.2	1139.4 ug/L	1139.4 ppb	10:52:51
1	B 249.677†	56655.6	56641.9	1554.6 ug/L	1554.6 ppb	10:52:31
1	Ba 233.527†	221879.3	219722.2	2066.8 ug/L	2066.8 ppb	10:52:31
1	Be 313.107†	1930484.0	1915440.2	829.42 ug/L	829.42 ppb	10:52:26
1	Cd 226.502†	42595.0	42351.4	595.17 ug/L	595.17 ppb	10:52:51
1	Co 228.616†	36617.1	36307.2	923.94 ug/L	923.94 ppb	10:52:51
1	Cr 267.716†	185215.3	183342.5	2481.3 ug/L	2481.3 ppb	10:52:31
1	Cu 324.752†	589488.1	578203.1	1919.4 ug/L	1919.4 ppb	10:52:31
1	Mn 257.610†	4200753.3	4159510.0	5486.7 ug/L	5486.7 ppb	10:52:26
1	Mo 202.031†	5698.6	5634.6	517.21 ug/L	517.21 ppb	10:52:51
1	Ni 231.604†	44157.3	43643.7	1385.4 ug/L	1385.4 ppb	10:52:31
1	P 214.914†	11198.7	10902.5	7618.3 ug/L	7618.3 ppb	10:52:51
1	Pb 220.353†	5508.0	5512.7	841.62 ug/L	841.62 ppb	10:52:51
1	S 181.975 Axial†	2309.5	2256.9	4022.5 ug/L	4022.5 ppb	10:52:51
1	Sb 206.836†	3043.9	2990.6	1257.8 ug/L	1257.8 ppb	10:52:51
1	Se 196.026†	3010.4	2998.1	3091.0 ug/L	3091.0 ppb	10:52:51
1	Si 251.611†	1217555.1	1205225.6	45748 ug/L	45748 ppb	10:52:26
1	Sn 189.927†	4701.6	4648.7	1061.3 ug/L	1061.3 ppb	10:52:51
1	Ti 334.940†	3532052.8	3498823.2	6093.9 ug/L	6093.9 ppb	10:52:26
1	Tl 190.801†	3105.0	3103.9	1270.9 ug/L	1270.9 ppb	10:52:51
1	U 409.014†	-7550.4	-5272.8	-187.74 ug/L	-187.74 ppb	10:52:31
1	V 292.402†	164145.8	163866.8	1280.2 ug/L	1280.2 ppb	10:52:31
1	Zn 213.857†	504715.3	499236.6	6008.5 ug/L	6008.5 ppb	10:52:31
1	SiO2†	1224339.2	1211932.6	98894 ug/L	98894 ppb	10:54:02
2	Sc Radial	4595.4	4595.4	105 %		10:51:52
2	Y RADIAL	5408.1	5408.1	113.6 %		10:51:52
2	Al 396.153Radial†	100465.6	96164.5	94435 ug/L	94435 ppb	10:51:32
2	Ca 317.933Radial†	54512.3	52120.5	98623 ug/L	98623 ppb	10:51:32
2	Fe 238.204 Radial†	17591.4	16816.2	194870 ug/L	194870 ppb	10:51:32
2	K 766.490 Radial†	238393.9	225403.8	42906 ug/L	42906 ppb	10:51:32
2	Mg 279.077 IEC†	1004.0	958.7	39351 ug/L	39351 ppb	10:51:52
2	Na 589.592 Radial†	30208.0	29766.3	10493 ug/L	10493 ppb	10:51:32
2	Sr 421.552†	308155.6	294702.6	2361.5 ug/L	2361.5 ppb	10:51:32
2	Sc 361.383	831518.8	831518.8	101.55 %		10:53:03
2	Y 371.029	751431.1	751431.1	108.64 %		10:53:03
2	Ag 328.068†	51735.1	50760.2	327.87 ug/L	327.87 ppb	10:53:03
2	As 188.979†	1882.0	1880.0	1129.5 ug/L	1129.5 ppb	10:53:23
2	B 249.677†	57229.7	56893.4	1561.8 ug/L	1561.8 ppb	10:53:03
2	Ba 233.527†	223152.4	219746.4	2067.0 ug/L	2067.0 ppb	10:53:03
2	Be 313.107†	1942933.1	1917003.1	830.11 ug/L	830.11 ppb	10:52:58
2	Cd 226.502†	42426.3	41949.3	589.39 ug/L	589.39 ppb	10:53:23
2	Co 228.616†	36430.5	35920.5	913.91 ug/L	913.91 ppb	10:53:23
2	Cr 267.716†	185919.4	183009.7	2476.7 ug/L	2476.7 ppb	10:53:03
2	Cu 324.752†	593824.2	579206.8	1922.7 ug/L	1922.7 ppb	10:53:03
2	Mn 257.610†	4231791.2	4166799.2	5496.2 ug/L	5496.2 ppb	10:52:58
2	Mo 202.031†	5652.8	5558.0	510.35 ug/L	510.35 ppb	10:53:23
2	Ni 231.604†	44412.5	43650.4	1385.7 ug/L	1385.7 ppb	10:53:03

2	P 214.914†	11145.2	10787.8	7532.5 ug/L	7532.5 ppb	10:53:23
2	Pb 220.353†	5474.8	5449.6	831.92 ug/L	831.92 ppb	10:53:23
2	S 181.975 Axial†	2279.2	2214.3	3946.3 ug/L	3946.3 ppb	10:53:23
2	Sb 206.836†	3035.6	2965.6	1246.9 ug/L	1246.9 ppb	10:53:23
2	Se 196.026†	2976.1	2947.6	3047.4 ug/L	3047.4 ppb	10:53:23
2	Si 251.611†	1228200.3	1208962.3	45890 ug/L	45890 ppb	10:52:58
2	Sn 189.927†	4655.9	4577.6	1045.1 ug/L	1045.1 ppb	10:53:23
2	Ti 334.940†	3559395.2	3506178.4	6106.6 ug/L	6106.6 ppb	10:52:58
2	Tl 190.801†	3097.7	3079.5	1261.6 ug/L	1261.6 ppb	10:53:23
2	U 409.014†	-7541.2	-5221.8	-186.13 ug/L	-186.13 ppb	10:53:03
2	V 292.402†	164982.9	163781.7	1279.5 ug/L	1279.5 ppb	10:53:03
2	Zn 213.857†	507798.5	499476.3	6011.4 ug/L	6011.4 ppb	10:53:03
2	SiO2†	1211680.5	1192683.5	97323 ug/L	97323 ppb	10:54:08
3	Sc Radial	4589.3	4589.3	104 %		10:52:18
3	Y RADIAL	5437.0	5437.0	114.2 %		10:52:18
3	Al 396.153Radial†	99232.1	95111.6	93401 ug/L	93401 ppb	10:51:58
3	Ca 317.933Radial†	53809.6	51517.2	97481 ug/L	97481 ppb	10:51:58
3	Fe 238.204 Radial†	17396.0	16651.5	192960 ug/L	192960 ppb	10:51:58
3	K 766.490 Radial†	235447.4	222886.6	42427 ug/L	42427 ppb	10:51:58
3	Mg 279.077 IEC†	998.6	954.8	39191 ug/L	39191 ppb	10:52:18
3	Na 589.592 Radial†	29780.8	29395.8	10363 ug/L	10363 ppb	10:51:58
3	Sr 421.552†	304214.9	291322.4	2334.4 ug/L	2334.4 ppb	10:51:58
3	Sc 361.383	819605.2	819605.2	100.10 %		10:53:35
3	Y 371.029	741657.4	741657.4	107.23 %		10:53:35
3	Ag 328.068†	50961.0	50727.4	327.12 ug/L	327.12 ppb	10:53:35
3	As 188.979†	1882.0	1907.0	1144.8 ug/L	1144.8 ppb	10:53:55
3	B 249.677†	55975.5	56459.5	1549.9 ug/L	1549.9 ppb	10:53:35
3	Ba 233.527†	220516.1	220306.8	2072.2 ug/L	2072.2 ppb	10:53:35
3	Be 313.107†	1949687.7	1951562.2	845.10 ug/L	845.10 ppb	10:53:30
3	Cd 226.502†	42527.4	42657.5	599.86 ug/L	599.86 ppb	10:53:55
3	Co 228.616†	36544.9	36556.4	930.15 ug/L	930.15 ppb	10:53:55
3	Cr 267.716†	183367.0	183120.9	2478.0 ug/L	2478.0 ppb	10:53:35
3	Cu 324.752†	581072.5	574967.2	1908.6 ug/L	1908.6 ppb	10:53:35
3	Mn 257.610†	4247440.9	4243007.4	5596.2 ug/L	5596.2 ppb	10:53:30
3	Mo 202.031†	5676.4	5662.4	519.48 ug/L	519.48 ppb	10:53:55
3	Ni 231.604†	43687.2	43561.5	1382.8 ug/L	1382.8 ppb	10:53:35
3	P 214.914†	11159.6	10961.7	7666.2 ug/L	7666.2 ppb	10:53:55
3	Pb 220.353†	5487.4	5540.5	845.95 ug/L	845.95 ppb	10:53:55
3	S 181.975 Axial†	2297.7	2265.3	4037.9 ug/L	4037.9 ppb	10:53:55
3	Sb 206.836†	3017.6	2991.1	1257.7 ug/L	1257.7 ppb	10:53:55
3	Se 196.026†	2979.4	2993.5	3079.9 ug/L	3079.9 ppb	10:53:55
3	Si 251.611†	1234918.9	1233254.9	46812 ug/L	46812 ppb	10:53:30
3	Sn 189.927†	4680.5	4668.8	1065.7 ug/L	1065.7 ppb	10:53:55
3	Ti 334.940†	3576698.1	3574413.6	6225.1 ug/L	6225.1 ppb	10:53:30
3	Tl 190.801†	3079.6	3105.8	1273.2 ug/L	1273.2 ppb	10:53:55
3	U 409.014†	-7390.0	-5178.7	-184.60 ug/L	-184.60 ppb	10:53:35
3	V 292.402†	162370.1	163532.9	1277.8 ug/L	1277.8 ppb	10:53:35
3	Zn 213.857†	499601.7	498555.9	6000.6 ug/L	6000.6 ppb	10:53:35
3	SiO2†	1216218.6	1214561.2	99109 ug/L	99109 ppb	10:54:14

Mean Data: 1202049295|955820|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	825996.8	100.88 %	0.733			0.73%
Sc Radial	4589.5	104 %	0.1			0.12%
Y 371.029	747214.2	108.03 %	0.726			0.67%
Y RADIAL	5413.1	113.7 %	0.46			0.40%
Ag 328.068†	50807.2	327.97 ug/L	0.908	327.97 ppb	0.908	0.28%
Al 396.153Radial†	95874.3	94150 ug/L	655.1	94150 ppb	655.1	0.70%
As 188.979†	1895.1	1137.9 ug/L	7.79	1137.9 ppb	7.79	0.68%
B 249.677†	56664.9	1555.4 ug/L	5.99	1555.4 ppb	5.99	0.39%
Ba 233.527†	219925.1	2068.7 ug/L	3.06	2068.7 ppb	3.06	0.15%
Be 313.107†	1928001.8	834.88 ug/L	8.859	834.88 ppb	8.859	1.06%
Ca 317.933Radial†	51995.7	98387 ug/L	813.6	98387 ppb	813.6	0.83%
Cd 226.502†	42319.4	594.81 ug/L	5.245	594.81 ppb	5.245	0.88%
Co 228.616†	36261.3	922.67 ug/L	8.193	922.67 ppb	8.193	0.89%
Cr 267.716†	183157.7	2478.7 ug/L	2.33	2478.7 ppb	2.33	0.09%
Cu 324.752†	577459.1	1916.9 ug/L	7.38	1916.9 ppb	7.38	0.38%
Fe 238.204 Radial†	16775.4	194400 ug/L	1266.6	194400 ppb	1266.6	0.65%
K 766.490 Radial†	224689.8	42770 ug/L	299.4	42770 ppb	299.4	0.70%

Mg 279.077 IEC†	956.4	39253 ug/L	85.7	39253 ppb	85.7	0.22%
Mn 257.610†	4189772.2	5526.4 ug/L	60.68	5526.4 ppb	60.68	1.10%
Mo 202.031†	5618.3	515.68 ug/L	4.751	515.68 ppb	4.751	0.92%
Na 589.592 Radial†	29695.9	10468 ug/L	95.8	10468 ppb	95.8	0.92%
Ni 231.604†	43618.6	1384.6 ug/L	1.58	1384.6 ppb	1.58	0.11%
P 214.914†	10884.0	7605.7 ug/L	67.78	7605.7 ppb	67.78	0.89%
Pb 220.353†	5500.9	839.83 ug/L	7.182	839.83 ppb	7.182	0.86%
S 181.975 Axial†	2245.5	4002.2 ug/L	49.03	4002.2 ppb	49.03	1.23%
Sb 206.836†	2982.4	1254.1 ug/L	6.28	1254.1 ppb	6.28	0.50%
Se 196.026†	2979.7	3072.8 ug/L	22.64	3072.8 ppb	22.64	0.74%
Si 251.611†	1215814.3	46150 ug/L	577.7	46150 ppb	577.7	1.25%
Sn 189.927†	4631.7	1057.4 ug/L	10.84	1057.4 ppb	10.84	1.03%
Sr 421.552†	293845.5	2354.7 ug/L	17.81	2354.7 ppb	17.81	0.76%
Ti 334.940†	3526471.7	6141.9 ug/L	72.38	6141.9 ppb	72.38	1.18%
Tl 190.801†	3096.4	1268.6 ug/L	6.11	1268.6 ppb	6.11	0.48%
U 409.014†	-5224.4	-186.16 ug/L	1.567	-186.16 ppb	1.567	0.84%
V 292.402†	163727.1	1279.2 ug/L	1.24	1279.2 ppb	1.24	0.10%
Zn 213.857†	499089.6	6006.8 ug/L	5.60	6006.8 ppb	5.60	0.09%
SiO2†	1206392.4	98442 ug/L	974.7	98442 ppb	974.7	0.99%

Sequence No.: 3

Sample ID: 247566001|955820|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 40

Date Collected: 3/19/2010 10:56:24

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 247566001|955820|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4554.0	4554.0	104 %		10:58:17
1	Y RADIAL	6004.8	6004.8	126.1 %		10:58:17
1	Al 396.153Radial†	15173.2	14721.8	14461 ug/L	14461 ppb	10:58:17
1	Ca 317.933Radial†	2515.3	2411.8	4563.6 ug/L	4563.6 ppb	10:58:37
1	Fe 238.204 Radial†	6055.4	5835.6	67615 ug/L	67615 ppb	10:58:17
1	K 766.490 Radial†	33583.5	29812.7	5676.0 ug/L	5676.0 ppb	10:58:17
1	Mg 279.077 IEC†	46.9	43.7	1731.9 ug/L	1731.9 ppb	10:58:37
1	Na 589.592 Radial†	12329.2	12774.0	4503.1 ug/L	4503.1 ppb	10:58:17
1	Sr 421.552†	4106.7	3942.6	31.568 ug/L	31.568 ppb	10:58:17
1	Sc 361.383	855781.9	855781.9	104.51 %		10:59:34
1	Y 371.029	873148.4	873148.4	126.24 %		10:59:34
1	Ag 328.068†	-3737.1	-3760.8	1.6928 ug/L	1.6928 ppb	10:59:39
1	As 188.979†	-38.7	-10.2	32.439 ug/L	32.439 ppb	10:59:59
1	B 249.677†	312.6	836.4	12.458 ug/L	12.458 ppb	10:59:39
1	Ba 233.527†	22859.9	21873.4	207.02 ug/L	207.02 ppb	10:59:39
1	Be 313.107†	-10074.0	-5907.9	3.3076 ug/L	3.3076 ppb	10:59:39
1	Cd 226.502†	361.6	516.6	0.4719 ug/L	0.4719 ppb	10:59:59
1	Co 228.616†	338.7	370.3	3.3177 ug/L	3.3177 ppb	10:59:59
1	Cr 267.716†	1124.3	1004.2	20.789 ug/L	20.789 ppb	10:59:39
1	Cu 324.752†	7770.2	1882.6	9.9379 ug/L	9.9379 ppb	10:59:39
1	Mn 257.610†	1699515.2	1625732.3	2144.2 ug/L	2144.2 ppb	10:59:34
1	Mo 202.031†	33.6	23.6	7.4026 ug/L	7.4026 ppb	10:59:59
1	Ni 231.604†	638.8	527.2	16.736 ug/L	16.736 ppb	10:59:59
1	P 214.914†	883.9	658.5	438.47 ug/L	438.47 ppb	10:59:59
1	Pb 220.353†	166.8	217.9	27.116 ug/L	27.116 ppb	10:59:59
1	S 181.975 Axial†	45.2	13.0	20.606 ug/L	20.606 ppb	10:59:59
1	Sb 206.836†	48.0	22.2	-0.0866 ug/L	-0.0866 ppb	10:59:59
1	Se 196.026†	-321.0	-290.2	-42.743 ug/L	-42.743 ppb	10:59:59
1	Si 251.611†	904187.6	864651.9	32825 ug/L	32825 ppb	10:59:34
1	Sn 189.927†	28.8	20.4	1.5562 ug/L	1.5562 ppb	10:59:59
1	Ti 334.940†	1540325.0	1474927.1	2565.6 ug/L	2565.6 ppb	10:59:34
1	Tl 190.801†	-111.5	-77.6	1.3582 ug/L	1.3582 ppb	10:59:59
1	U 409.014†	-11234.9	-8545.6	-267.00 ug/L	-267.00 ppb	10:59:34
1	V 292.402†	3771.3	4925.9	26.332 ug/L	26.332 ppb	10:59:39
1	Zn 213.857†	30410.7	28527.3	335.42 ug/L	335.42 ppb	10:59:39
1	SiO2†	903197.7	863693.6	70487 ug/L	70487 ppb	11:01:08
2	Sc Radial	4632.0	4632.0	105 %		10:58:42
2	Y RADIAL	6097.1	6097.1	128.1 %		10:58:42
2	Al 396.153Radial†	15377.1	14668.7	14409 ug/L	14409 ppb	10:58:42
2	Ca 317.933Radial†	2531.4	2386.2	4515.3 ug/L	4515.3 ppb	10:59:02
2	Fe 238.204 Radial†	6142.3	5819.7	67431 ug/L	67431 ppb	10:58:42
2	K 766.490 Radial†	33794.0	29466.9	5610.2 ug/L	5610.2 ppb	10:58:42
2	Mg 279.077 IEC†	42.7	39.0	1538.7 ug/L	1538.7 ppb	10:59:02
2	Na 589.592 Radial†	12418.1	12658.1	4462.2 ug/L	4462.2 ppb	10:58:42
2	Sr 421.552†	4166.5	3932.6	31.489 ug/L	31.489 ppb	10:58:42
2	Sc 361.383	850228.5	850228.5	103.84 %		11:00:05
2	Y 371.029	867680.6	867680.6	125.45 %		11:00:05
2	Ag 328.068†	-3757.5	-3803.9	1.4169 ug/L	1.4169 ppb	11:00:10
2	As 188.979†	-38.1	-9.9	32.625 ug/L	32.625 ppb	11:00:30
2	B 249.677†	308.9	834.8	12.444 ug/L	12.444 ppb	11:00:10
2	Ba 233.527†	23284.8	22425.5	212.19 ug/L	212.19 ppb	11:00:10
2	Be 313.107†	-10122.5	-6017.6	3.2764 ug/L	3.2764 ppb	11:00:10
2	Cd 226.502†	335.3	493.6	0.1566 ug/L	0.1566 ppb	11:00:30
2	Co 228.616†	325.8	360.0	3.0427 ug/L	3.0427 ppb	11:00:30
2	Cr 267.716†	1162.1	1047.7	21.353 ug/L	21.353 ppb	11:00:10
2	Cu 324.752†	7809.6	1969.1	10.213 ug/L	10.213 ppb	11:00:10
2	Mn 257.610†	1693175.3	1630247.8	2150.1 ug/L	2150.1 ppb	11:00:05
2	Mo 202.031†	35.9	26.0	7.5993 ug/L	7.5993 ppb	11:00:30
2	Ni 231.604†	640.1	532.4	16.901 ug/L	16.901 ppb	11:00:30

2	P 214.914†	874.5	654.9	435.85 ug/L	435.85 ppb	11:00:30
2	Pb 220.353†	153.0	205.7	25.257 ug/L	25.257 ppb	11:00:30
2	S 181.975 Axial†	55.1	22.9	38.215 ug/L	38.215 ppb	11:00:30
2	Sb 206.836†	37.3	12.2	-4.2998 ug/L	-4.2998 ppb	11:00:30
2	Se 196.026†	-303.7	-275.5	-31.058 ug/L	-31.058 ppb	11:00:30
2	Si 251.611†	900338.2	866595.5	32898 ug/L	32898 ppb	11:00:05
2	Sn 189.927†	21.7	13.7	0.0437 ug/L	0.0437 ppb	11:00:30
2	Ti 334.940†	1534428.3	1478874.5	2572.4 ug/L	2572.4 ppb	11:00:05
2	Tl 190.801†	-108.8	-75.7	2.1789 ug/L	2.1789 ppb	11:00:30
2	U 409.014†	-11130.2	-8514.9	-266.05 ug/L	-266.05 ppb	11:00:05
2	V 292.402†	3903.2	5076.5	27.555 ug/L	27.555 ppb	11:00:10
2	Zn 213.857†	30895.3	29184.0	343.41 ug/L	343.41 ppb	11:00:10
2	SiO2†	900672.3	866906.1	70750 ug/L	70750 ppb	11:01:14
3	Sc Radial	4609.1	4609.1	105 %		10:59:07
3	Y RADIAL	6106.9	6106.9	128.3 %		10:59:07
3	Al 396.153Radial†	15336.5	14702.6	14442 ug/L	14442 ppb	10:59:07
3	Ca 317.933Radial†	2530.1	2396.9	4535.4 ug/L	4535.4 ppb	10:59:27
3	Fe 238.204 Radial†	6141.4	5847.8	67758 ug/L	67758 ppb	10:59:07
3	K 766.490 Radial†	33847.8	29677.6	5650.3 ug/L	5650.3 ppb	10:59:07
3	Mg 279.077 IEC†	43.9	40.4	1593.8 ug/L	1593.8 ppb	10:59:27
3	Na 589.592 Radial†	12229.9	12537.2	4419.6 ug/L	4419.6 ppb	10:59:07
3	Sr 421.552†	4137.9	3925.0	31.428 ug/L	31.428 ppb	10:59:07
3	Sc 361.383	862696.1	862696.1	105.36 %		11:00:36
3	Y 371.029	879767.2	879767.2	127.20 %		11:00:36
3	Ag 328.068†	-3652.0	-3651.4	2.3007 ug/L	2.3007 ppb	11:00:41
3	As 188.979†	-46.0	-16.9	28.721 ug/L	28.721 ppb	11:01:01
3	B 249.677†	233.7	759.2	10.268 ug/L	10.268 ppb	11:00:41
3	Ba 233.527†	22916.9	21752.2	205.89 ug/L	205.89 ppb	11:00:41
3	Be 313.107†	-10174.6	-5926.2	3.2793 ug/L	3.2793 ppb	11:00:41
3	Cd 226.502†	350.2	503.0	0.2619 ug/L	0.2619 ppb	11:01:01
3	Co 228.616†	340.6	369.5	3.3151 ug/L	3.3151 ppb	11:01:01
3	Cr 267.716†	1118.5	990.1	20.613 ug/L	20.613 ppb	11:00:41
3	Cu 324.752†	7713.6	1769.3	9.5686 ug/L	9.5686 ppb	11:00:41
3	Mn 257.610†	1705193.8	1618089.3	2134.1 ug/L	2134.1 ppb	11:00:36
3	Mo 202.031†	39.1	28.6	7.8542 ug/L	7.8542 ppb	11:01:01
3	Ni 231.604†	677.9	559.4	17.758 ug/L	17.758 ppb	11:01:01
3	P 214.914†	887.7	655.2	435.96 ug/L	435.96 ppb	11:01:01
3	Pb 220.353†	157.0	207.4	25.478 ug/L	25.478 ppb	11:01:01
3	S 181.975 Axial†	37.0	4.9	6.0601 ug/L	6.0601 ppb	11:01:01
3	Sb 206.836†	41.2	15.5	-2.9303 ug/L	-2.9303 ppb	11:01:01
3	Se 196.026†	-301.8	-269.5	-25.078 ug/L	-25.078 ppb	11:01:01
3	Si 251.611†	908484.6	861796.6	32716 ug/L	32716 ppb	11:00:36
3	Sn 189.927†	10.4	2.7	-2.4683 ug/L	-2.4683 ppb	11:01:01
3	Ti 334.940†	1547305.5	1469740.5	2556.5 ug/L	2556.5 ppb	11:00:36
3	Tl 190.801†	-120.1	-84.9	-1.5740 ug/L	-1.5740 ppb	11:01:01
3	U 409.014†	-11152.1	-8380.8	-262.01 ug/L	-262.01 ppb	11:00:36
3	V 292.402†	3788.5	4913.3	26.234 ug/L	26.234 ppb	11:00:41
3	Zn 213.857†	30396.0	28280.2	332.40 ug/L	332.40 ppb	11:00:41
3	SiO2†	902841.3	856429.1	69895 ug/L	69895 ppb	11:01:19

Mean Data: 247566001|955820|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	856235.5	104.57 %	0.763			0.73%
Sc Radial	4598.4	105 %	0.9			0.87%
Y 371.029	873532.1	126.30 %	0.875			0.69%
Y RADIAL	6069.6	127.5 %	1.18			0.93%
Ag 328.068†	-3738.7	1.8035 ug/L	0.45218	1.8035 ppb	0.45218	25.07%
Al 396.153Radial†	14697.7	14437 ug/L	26.4	14437 ppb	26.4	0.18%
As 188.979†	-12.4	31.262 ug/L	2.2020	31.262 ppb	2.2020	7.04%
B 249.677†	810.2	11.723 ug/L	1.2602	11.723 ppb	1.2602	10.75%
Ba 233.527†	22017.0	208.36 ug/L	3.358	208.36 ppb	3.358	1.61%
Be 313.107†	-5950.6	3.2878 ug/L	0.01720	3.2878 ppb	0.01720	0.52%
Ca 317.933Radial†	2398.3	4538.1 ug/L	24.29	4538.1 ppb	24.29	0.54%
Cd 226.502†	504.4	0.2968 ug/L	0.16051	0.2968 ppb	0.16051	54.08%
Co 228.616†	366.6	3.2252 ug/L	0.15803	3.2252 ppb	0.15803	4.90%
Cr 267.716†	1014.0	20.918 ug/L	0.3867	20.918 ppb	0.3867	1.85%
Cu 324.752†	1873.7	9.9066 ug/L	0.32343	9.9066 ppb	0.32343	3.26%
Fe 238.204 Radial†	5834.4	67601 ug/L	163.8	67601 ppb	163.8	0.24%
K 766.490 Radial†	29652.4	5645.5 ug/L	33.19	5645.5 ppb	33.19	0.59%

Mg 279.077 IEC†	41.0	1621.4 ug/L	99.53	1621.4 ppb	99.53	6.14%
Mn 257.610†	1624689.8	2142.8 ug/L	8.07	2142.8 ppb	8.07	0.38%
Mo 202.031†	26.1	7.6187 ug/L	0.22641	7.6187 ppb	0.22641	2.97%
Na 589.592 Radial†	12656.4	4461.7 ug/L	41.74	4461.7 ppb	41.74	0.94%
Ni 231.604†	539.6	17.132 ug/L	0.5487	17.132 ppb	0.5487	3.20%
P 214.914†	656.2	436.76 ug/L	1.480	436.76 ppb	1.480	0.34%
Pb 220.353†	210.3	25.950 ug/L	1.0156	25.950 ppb	1.0156	3.91%
S 181.975 Axial†	13.6	21.627 ug/L	16.1017	21.627 ppb	16.1017	74.45%
Sb 206.836†	16.6	-2.4389 ug/L	2.14914	-2.4389 ppb	2.14914	88.12%
Se 196.026†	-278.4	-32.960 ug/L	8.9852	-32.960 ppb	8.9852	27.26%
Si 251.611†	864348.0	32813 ug/L	91.6	32813 ppb	91.6	0.28%
Sn 189.927†	12.3	-0.2895 ug/L	2.03281	-0.2895 ppb	2.03281	702.26%
Sr 421.552†	3933.4	31.495 ug/L	0.0706	31.495 ppb	0.0706	0.22%
Ti 334.940†	1474514.0	2564.8 ug/L	7.97	2564.8 ppb	7.97	0.31%
Tl 190.801†	-79.4	0.6544 ug/L	1.97296	0.6544 ppb	1.97296	301.50%
U 409.014†	-8480.4	-265.02 ug/L	2.646	-265.02 ppb	2.646	1.00%
V 292.402†	4971.9	26.707 ug/L	0.7362	26.707 ppb	0.7362	2.76%
Zn 213.857†	28663.8	337.08 ug/L	5.686	337.08 ppb	5.686	1.69%
SiO2†	862342.9	70377 ug/L	438.1	70377 ppb	438.1	0.62%

Sequence No.: 4
 Sample ID: 1202049291|955820|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 41
 Date Collected: 3/19/2010 11:03:30
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 1202049291|955820|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4594.7	4594.7	105 %		11:05:22
1	Y RADIAL	6086.1	6086.1	127.8 %		11:05:22
1	Al 396.153Radial†	15761.5	15154.8	14886 ug/L	14886 ppb	11:05:22
1	Ca 317.933Radial†	3084.6	2934.9	5553.4 ug/L	5553.4 ppb	11:05:42
1	Fe 238.204 Radial†	7340.9	7013.5	81264 ug/L	81264 ppb	11:05:22
1	K 766.490 Radial†	32591.8	28577.1	5439.9 ug/L	5439.9 ppb	11:05:22
1	Mg 279.077 IEC†	54.2	50.3	1991.5 ug/L	1991.5 ppb	11:05:42
1	Na 589.592 Radial†	11894.6	12253.0	4319.4 ug/L	4319.4 ppb	11:05:22
1	Sr 421.552†	4749.6	4522.5	36.210 ug/L	36.210 ppb	11:05:22
1	Sc 361.383	859366.7	859366.7	104.95 %		11:06:40
1	Y 371.029	888226.6	888226.6	128.42 %		11:06:40
1	Ag 328.068†	-4491.9	-4465.1	2.3261 ug/L	2.3261 ppb	11:06:45
1	As 188.979†	-52.5	-23.2	34.609 ug/L	34.609 ppb	11:07:05
1	B 249.677†	122.6	654.2	5.1173 ug/L	5.1173 ppb	11:06:45
1	Ba 233.527†	30859.4	29404.3	278.01 ug/L	278.01 ppb	11:06:45
1	Be 313.107†	-14434.2	-10022.3	3.1506 ug/L	3.1506 ppb	11:06:45
1	Cd 226.502†	456.0	605.1	0.3483 ug/L	0.3483 ppb	11:07:05
1	Co 228.616†	484.1	507.5	5.2251 ug/L	5.2251 ppb	11:07:05
1	Cr 267.716†	1707.9	1555.8	29.663 ug/L	29.663 ppb	11:06:45
1	Cu 324.752†	7677.1	1762.9	10.278 ug/L	10.278 ppb	11:06:45
1	Mn 257.610†	2667018.7	2540809.1	3348.7 ug/L	3348.7 ppb	11:06:40
1	Mo 202.031†	24.8	15.1	7.7147 ug/L	7.7147 ppb	11:07:05
1	Ni 231.604†	987.4	856.8	27.201 ug/L	27.201 ppb	11:07:05
1	P 214.914†	1093.7	854.8	573.87 ug/L	573.87 ppb	11:07:05
1	Pb 220.353†	173.9	224.0	26.225 ug/L	26.225 ppb	11:07:05
1	S 181.975 Axial†	54.1	21.3	35.405 ug/L	35.405 ppb	11:07:05
1	Sb 206.836†	48.4	22.4	-2.5247 ug/L	-2.5247 ppb	11:07:05
1	Se 196.026†	-367.3	-333.0	-39.025 ug/L	-39.025 ppb	11:07:05
1	Si 251.611†	892086.0	849512.3	32250 ug/L	32250 ppb	11:06:40
1	Sn 189.927†	3.3	-4.0	-4.5914 ug/L	-4.5914 ppb	11:07:05
1	Ti 334.940†	1970765.5	1878912.9	3268.2 ug/L	3268.2 ppb	11:06:40
1	Tl 190.801†	-149.9	-113.8	-1.1002 ug/L	-1.1002 ppb	11:07:05
1	U 409.014†	-12071.6	-9297.9	-291.39 ug/L	-291.39 ppb	11:06:40
1	V 292.402†	5856.5	6897.7	39.293 ug/L	39.293 ppb	11:06:45
1	Zn 213.857†	38897.3	36492.1	429.82 ug/L	429.82 ppb	11:06:45
1	SiO2†	888056.7	845662.0	69016 ug/L	69016 ppb	11:08:13
2	Sc Radial	4593.1	4593.1	105 %		11:05:47
2	Y RADIAL	6187.7	6187.7	130.0 %		11:05:47
2	Al 396.153Radial†	15870.7	15264.4	14994 ug/L	14994 ppb	11:05:47
2	Ca 317.933Radial†	3081.8	2933.2	5550.3 ug/L	5550.3 ppb	11:06:07
2	Fe 238.204 Radial†	7369.2	7043.0	81606 ug/L	81606 ppb	11:05:47
2	K 766.490 Radial†	32522.5	28521.4	5429.3 ug/L	5429.3 ppb	11:05:47
2	Mg 279.077 IEC†	53.5	49.7	1963.2 ug/L	1963.2 ppb	11:06:07
2	Na 589.592 Radial†	11909.8	12271.4	4325.9 ug/L	4325.9 ppb	11:05:47
2	Sr 421.552†	4788.9	4561.6	36.523 ug/L	36.523 ppb	11:05:47
2	Sc 361.383	859363.7	859363.7	104.95 %		11:07:11
2	Y 371.029	889285.2	889285.2	128.58 %		11:07:11
2	Ag 328.068†	-4593.6	-4562.1	1.9312 ug/L	1.9312 ppb	11:07:16
2	As 188.979†	-52.9	-23.6	34.521 ug/L	34.521 ppb	11:07:36
2	B 249.677†	177.8	706.8	6.5386 ug/L	6.5386 ppb	11:07:16
2	Ba 233.527†	31174.9	29704.9	280.83 ug/L	280.83 ppb	11:07:16
2	Be 313.107†	-14479.9	-10065.9	3.1443 ug/L	3.1443 ppb	11:07:16
2	Cd 226.502†	448.9	598.4	0.2137 ug/L	0.2137 ppb	11:07:36
2	Co 228.616†	488.5	511.6	5.3162 ug/L	5.3162 ppb	11:07:36
2	Cr 267.716†	1687.8	1536.7	29.444 ug/L	29.444 ppb	11:07:16
2	Cu 324.752†	7649.3	1736.5	10.212 ug/L	10.212 ppb	11:07:16
2	Mn 257.610†	2671063.1	2544671.7	3353.8 ug/L	3353.8 ppb	11:07:11
2	Mo 202.031†	21.9	12.4	7.5010 ug/L	7.5010 ppb	11:07:36
2	Ni 231.604†	971.8	841.9	26.728 ug/L	26.728 ppb	11:07:36

2	P 214.914†	1077.0	838.9	561.77 ug/L	561.77 ppb	11:07:36
2	Pb 220.353†	168.8	219.1	25.449 ug/L	25.449 ppb	11:07:36
2	S 181.975 Axial†	46.0	13.6	21.547 ug/L	21.547 ppb	11:07:36
2	Sb 206.836†	45.1	19.3	-3.8426 ug/L	-3.8426 ppb	11:07:36
2	Se 196.026†	-357.2	-323.3	-29.985 ug/L	-29.985 ppb	11:07:36
2	Si 251.611†	892880.7	850272.6	32279 ug/L	32279 ppb	11:07:11
2	Sn 189.927†	6.4	-1.0	-3.9304 ug/L	-3.9304 ppb	11:07:36
2	Ti 334.940†	1974004.5	1882005.8	3273.6 ug/L	3273.6 ppb	11:07:11
2	Tl 190.801†	-153.6	-117.3	-2.3759 ug/L	-2.3759 ppb	11:07:36
2	U 409.014†	-12257.1	-9474.7	-296.79 ug/L	-296.79 ppb	11:07:11
2	V 292.402†	5811.8	6855.1	38.884 ug/L	38.884 ppb	11:07:16
2	Zn 213.857†	39137.1	36720.8	432.54 ug/L	432.54 ppb	11:07:16
2	SiO2†	886826.2	844492.5	68920 ug/L	68920 ppb	11:08:19
3	Sc Radial	4575.5	4575.5	104 %		11:06:13
3	Y RADIAL	6121.8	6121.8	128.6 %		11:06:13
3	Al 396.153Radial†	15764.9	15221.3	14951 ug/L	14951 ppb	11:06:13
3	Ca 317.933Radial†	3102.5	2964.4	5609.3 ug/L	5609.3 ppb	11:06:33
3	Fe 238.204 Radial†	7324.4	7027.1	81421 ug/L	81421 ppb	11:06:13
3	K 766.490 Radial†	32538.6	28656.5	5455.0 ug/L	5455.0 ppb	11:06:13
3	Mg 279.077 IEC†	56.2	52.4	2077.3 ug/L	2077.3 ppb	11:06:33
3	Na 589.592 Radial†	11768.7	12179.7	4293.6 ug/L	4293.6 ppb	11:06:13
3	Sr 421.552†	4712.0	4505.4	36.072 ug/L	36.072 ppb	11:06:13
3	Sc 361.383	867162.2	867162.2	105.90 %		11:07:42
3	Y 371.029	896489.5	896489.5	129.62 %		11:07:42
3	Ag 328.068†	-4550.9	-4482.4	2.2867 ug/L	2.2867 ppb	11:07:47
3	As 188.979†	-47.8	-18.4	37.287 ug/L	37.287 ppb	11:08:07
3	B 249.677†	132.9	662.8	5.3357 ug/L	5.3357 ppb	11:07:47
3	Ba 233.527†	31268.2	29526.0	279.15 ug/L	279.15 ppb	11:07:47
3	Be 313.107†	-14667.8	-10119.2	3.1110 ug/L	3.1110 ppb	11:07:47
3	Cd 226.502†	478.1	622.1	0.5783 ug/L	0.5783 ppb	11:08:07
3	Co 228.616†	486.7	505.7	5.1754 ug/L	5.1754 ppb	11:08:07
3	Cr 267.716†	1712.8	1545.8	29.547 ug/L	29.547 ppb	11:07:47
3	Cu 324.752†	7767.6	1782.6	10.351 ug/L	10.351 ppb	11:07:47
3	Mn 257.610†	2684038.4	2534035.6	3339.8 ug/L	3339.8 ppb	11:07:42
3	Mo 202.031†	21.0	11.3	7.3919 ug/L	7.3919 ppb	11:08:07
3	Ni 231.604†	975.2	836.8	26.567 ug/L	26.567 ppb	11:08:07
3	P 214.914†	1064.8	818.2	546.43 ug/L	546.43 ppb	11:08:07
3	Pb 220.353†	183.0	231.1	27.305 ug/L	27.305 ppb	11:08:07
3	S 181.975 Axial†	56.9	23.6	39.387 ug/L	39.387 ppb	11:08:07
3	Sb 206.836†	47.3	21.0	-3.1290 ug/L	-3.1290 ppb	11:08:07
3	Se 196.026†	-368.4	-330.9	-36.807 ug/L	-36.807 ppb	11:08:07
3	Si 251.611†	900175.1	849509.4	32250 ug/L	32250 ppb	11:07:42
3	Sn 189.927†	5.2	-2.3	-4.1902 ug/L	-4.1902 ppb	11:08:07
3	Ti 334.940†	1989091.9	1879337.2	3269.0 ug/L	3269.0 ppb	11:07:42
3	Tl 190.801†	-155.1	-117.4	-2.5260 ug/L	-2.5260 ppb	11:08:07
3	U 409.014†	-12179.2	-9296.1	-291.35 ug/L	-291.35 ppb	11:07:42
3	V 292.402†	6001.0	6983.9	39.955 ug/L	39.955 ppb	11:07:47
3	Zn 213.857†	39380.0	36614.8	431.29 ug/L	431.29 ppb	11:07:47
3	SiO2†	896706.6	846223.0	69062 ug/L	69062 ppb	11:08:25

Mean Data: 1202049291|955820|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	861964.2	105.27 %		0.550				0.52%
Sc Radial	4587.8	104 %		0.2				0.23%
Y 371.029	891333.8	128.87 %		0.650				0.50%
Y RADIAL	6131.9	128.8 %		1.08				0.84%
Ag 328.068†	-4503.2	2.1813 ug/L		0.21754	2.1813 ppb		0.21754	9.97%
Al 396.153Radial†	15213.5	14944 ug/L		54.2	14944 ppb		54.2	0.36%
As 188.979†	-21.7	35.472 ug/L		1.5723	35.472 ppb		1.5723	4.43%
B 249.677†	674.6	5.6639 ug/L		0.76538	5.6639 ppb		0.76538	13.51%
Ba 233.527†	29545.1	279.33 ug/L		1.421	279.33 ppb		1.421	0.51%
Be 313.107†	-10069.1	3.1353 ug/L		0.02127	3.1353 ppb		0.02127	0.68%
Ca 317.933Radial†	2944.2	5571.0 ug/L		33.24	5571.0 ppb		33.24	0.60%
Cd 226.502†	608.5	0.3801 ug/L		0.18437	0.3801 ppb		0.18437	48.50%
Co 228.616†	508.3	5.2389 ug/L		0.07140	5.2389 ppb		0.07140	1.36%
Cr 267.716†	1546.1	29.551 ug/L		0.1096	29.551 ppb		0.1096	0.37%
Cu 324.752†	1760.7	10.280 ug/L		0.0697	10.280 ppb		0.0697	0.68%
Fe 238.204 Radial†	7027.9	81430 ug/L		171.0	81430 ppb		171.0	0.21%
K 766.490 Radial†	28585.0	5441.4 ug/L		12.94	5441.4 ppb		12.94	0.24%

Mg 279.077 IEC†	50.8	2010.7 ug/L	59.43	2010.7 ppb	59.43	2.96%
Mn 257.610†	2539838.8	3347.4 ug/L	7.09	3347.4 ppb	7.09	0.21%
Mo 202.031†	12.9	7.5359 ug/L	0.16419	7.5359 ppb	0.16419	2.18%
Na 589.592 Radial†	12234.7	4313.0 ug/L	17.11	4313.0 ppb	17.11	0.40%
Ni 231.604†	845.2	26.832 ug/L	0.3297	26.832 ppb	0.3297	1.23%
P 214.914†	837.3	560.69 ug/L	13.753	560.69 ppb	13.753	2.45%
Pb 220.353†	224.7	26.326 ug/L	0.9321	26.326 ppb	0.9321	3.54%
S 181.975 Axial†	19.5	32.113 ug/L	9.3646	32.113 ppb	9.3646	29.16%
Sb 206.836†	20.9	-3.1654 ug/L	0.65970	-3.1654 ppb	0.65970	20.84%
Se 196.026†	-329.1	-35.272 ug/L	4.7115	-35.272 ppb	4.7115	13.36%
Si 251.611†	849764.8	32260 ug/L	16.7	32260 ppb	16.7	0.05%
Sn 189.927†	-2.4	-4.2373 ug/L	0.33298	-4.2373 ppb	0.33298	7.86%
Sr 421.552†	4529.8	36.268 ug/L	0.2311	36.268 ppb	0.2311	0.64%
Ti 334.940†	1880085.3	3270.3 ug/L	2.92	3270.3 ppb	2.92	0.09%
Tl 190.801†	-116.1	-2.0007 ug/L	0.78345	-2.0007 ppb	0.78345	39.16%
U 409.014†	-9356.2	-293.18 ug/L	3.130	-293.18 ppb	3.130	1.07%
V 292.402†	6912.2	39.377 ug/L	0.5408	39.377 ppb	0.5408	1.37%
Zn 213.857†	36609.2	431.22 ug/L	1.362	431.22 ppb	1.362	0.32%
SiO2†	845459.2	68999 ug/L	72.1	68999 ppb	72.1	0.10%

Sequence No.: 5

Sample ID: 1202049293|955820|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 42

Date Collected: 3/19/2010 11:10:36

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202049293|955820|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4362.6	4362.6	99.3 %		11:12:49
1	Y RADIAL	6516.4	6516.4	136.9 %		11:12:29
1	Al 396.153Radial†	29532.7	29830.8	29278 ug/L	29278 ppb	11:12:29
1	Ca 317.933Radial†	7930.1	7973.5	15088 ug/L	15088 ppb	11:12:29
1	Fe 238.204 Radial†	6029.0	6065.5	70294 ug/L	70294 ppb	11:12:29
1	K 766.490 Radial†	78564.8	76551.5	14573 ug/L	14573 ppb	11:12:29
1	Mg 279.077 IEC†	181.3	181.1	7403.4 ug/L	7403.4 ppb	11:12:49
1	Na 589.592 Radial†	37207.4	38359.8	13523 ug/L	13523 ppb	11:12:29
1	Sr 421.552†	67874.0	68358.9	547.83 ug/L	547.83 ppb	11:12:29
1	Sc 361.383	847093.1	847093.1	103.45 %		11:13:48
1	Y 371.029	942891.1	942891.1	136.33 %		11:13:48
1	Ag 328.068†	92767.3	89486.4	488.10 ug/L	488.10 ppb	11:13:48
1	As 188.979†	875.9	873.4	521.96 ug/L	521.96 ppb	11:14:08
1	B 249.677†	17990.4	17927.4	490.12 ug/L	490.12 ppb	11:13:48
1	Ba 233.527†	76899.8	74334.3	699.54 ug/L	699.54 ppb	11:13:48
1	Be 313.107†	1220835.5	1183826.0	511.19 ug/L	511.19 ppb	11:13:48
1	Cd 226.502†	34666.0	33679.8	481.78 ug/L	481.78 ppb	11:14:08
1	Co 228.616†	19604.3	18996.3	484.67 ug/L	484.67 ppb	11:14:08
1	Cr 267.716†	39130.9	37753.6	514.39 ug/L	514.39 ppb	11:13:48
1	Cu 324.752†	172494.3	161186.0	535.77 ug/L	535.77 ppb	11:13:48
1	Mn 257.610†	1952528.9	1886982.0	2487.7 ug/L	2487.7 ppb	11:13:48
1	Mo 202.031†	5669.9	5472.1	492.06 ug/L	492.06 ppb	11:14:08
1	Ni 231.604†	16859.2	16212.6	514.57 ug/L	514.57 ppb	11:14:08
1	P 214.914†	1428.9	1194.0	738.99 ug/L	738.99 ppb	11:14:08
1	Pb 220.353†	3500.1	3441.6	526.34 ug/L	526.34 ppb	11:14:08
1	S 181.975 Axial†	3027.9	2896.7	5180.2 ug/L	5180.2 ppb	11:14:08
1	Sb 206.836†	1255.4	1189.8	505.31 ug/L	505.31 ppb	11:14:08
1	Se 196.026†	361.8	366.7	518.35 ug/L	518.35 ppb	11:14:08
1	Si 251.611†	1365233.3	1319186.0	50074 ug/L	50074 ppb	11:13:48
1	Sn 189.927†	2240.7	2158.8	488.53 ug/L	488.53 ppb	11:14:08
1	Ti 334.940†	1862469.0	1801437.8	3133.9 ug/L	3133.9 ppb	11:13:48
1	Tl 190.801†	1203.7	1192.6	496.10 ug/L	496.10 ppb	11:14:08
1	U 409.014†	4164.0	6229.2	179.84 ug/L	179.84 ppb	11:13:48
1	V 292.402†	66611.7	65706.2	518.31 ug/L	518.31 ppb	11:13:48
1	Zn 213.857†	72395.5	69409.6	826.50 ug/L	826.50 ppb	11:13:48
1	SiO2†	1361606.0	1315668.5	107360 ug/L	107360 ppb	11:15:09
2	Sc Radial	4363.7	4363.7	99.3 %		11:13:14
2	Y RADIAL	6537.4	6537.4	137.3 %		11:12:54
2	Al 396.153Radial†	29674.4	29966.0	29411 ug/L	29411 ppb	11:12:54
2	Ca 317.933Radial†	7944.1	7985.6	15110 ug/L	15110 ppb	11:12:54
2	Fe 238.204 Radial†	6060.7	6095.8	70645 ug/L	70645 ppb	11:12:54
2	K 766.490 Radial†	78606.2	76573.1	14577 ug/L	14577 ppb	11:12:54
2	Mg 279.077 IEC†	183.4	183.2	7486.6 ug/L	7486.6 ppb	11:13:14
2	Na 589.592 Radial†	36982.0	38123.3	13439 ug/L	13439 ppb	11:12:54
2	Sr 421.552†	68123.4	68592.8	549.71 ug/L	549.71 ppb	11:12:54
2	Sc 361.383	840797.0	840797.0	102.68 %		11:14:15
2	Y 371.029	934890.9	934890.9	135.17 %		11:14:15
2	Ag 328.068†	92043.3	89452.8	488.03 ug/L	488.03 ppb	11:14:15
2	As 188.979†	883.4	887.1	529.51 ug/L	529.51 ppb	11:14:35
2	B 249.677†	17764.7	17837.8	487.54 ug/L	487.54 ppb	11:14:15
2	Ba 233.527†	76423.9	74427.4	700.42 ug/L	700.42 ppb	11:14:15
2	Be 313.107†	1208793.4	1180935.5	509.95 ug/L	509.95 ppb	11:14:15
2	Cd 226.502†	34564.8	33832.2	483.96 ug/L	483.96 ppb	11:14:35
2	Co 228.616†	19547.8	19083.1	486.92 ug/L	486.92 ppb	11:14:35
2	Cr 267.716†	38802.5	37717.0	513.94 ug/L	513.94 ppb	11:14:15
2	Cu 324.752†	170560.4	160551.2	533.69 ug/L	533.69 ppb	11:14:15
2	Mn 257.610†	1937439.6	1886420.2	2487.0 ug/L	2487.0 ppb	11:14:15
2	Mo 202.031†	5638.9	5483.0	493.06 ug/L	493.06 ppb	11:14:35
2	Ni 231.604†	16786.7	16264.0	516.20 ug/L	516.20 ppb	11:14:35

2	P 214.914†	1416.5	1192.2	737.84 ug/L	737.84 ppb	11:14:35
2	Pb 220.353†	3485.3	3452.5	528.01 ug/L	528.01 ppb	11:14:35
2	S 181.975 Axial†	3003.1	2894.4	5176.1 ug/L	5176.1 ppb	11:14:35
2	Sb 206.836†	1257.6	1201.0	510.06 ug/L	510.06 ppb	11:14:35
2	Se 196.026†	349.0	356.8	511.20 ug/L	511.20 ppb	11:14:35
2	Si 251.611†	1351687.8	1315876.5	49949 ug/L	49949 ppb	11:14:15
2	Sn 189.927†	2232.2	2166.7	490.32 ug/L	490.32 ppb	11:14:35
2	Ti 334.940†	1846346.8	1799218.2	3130.1 ug/L	3130.1 ppb	11:14:15
2	Tl 190.801†	1203.9	1201.5	499.51 ug/L	499.51 ppb	11:14:35
2	U 409.014†	4067.1	6165.1	177.85 ug/L	177.85 ppb	11:14:15
2	V 292.402†	66017.4	65609.6	517.51 ug/L	517.51 ppb	11:14:15
2	Zn 213.857†	71696.7	69253.0	824.54 ug/L	824.54 ppb	11:14:15
2	SiO2†	1374048.0	1337641.3	109150 ug/L	109150 ppb	11:15:15
3	Sc Radial	4352.5	4352.5	99.0 %		11:13:39
3	Y RADIAL	6494.9	6494.9	136.4 %		11:13:19
3	Al 396.153Radial†	29449.9	29815.8	29264 ug/L	29264 ppb	11:13:19
3	Ca 317.933Radial†	7869.9	7931.1	15007 ug/L	15007 ppb	11:13:19
3	Fe 238.204 Radial†	5969.9	6019.8	69764 ug/L	69764 ppb	11:13:19
3	K 766.490 Radial†	78193.2	76358.6	14537 ug/L	14537 ppb	11:13:19
3	Mg 279.077 IEC†	184.9	185.2	7570.4 ug/L	7570.4 ppb	11:13:39
3	Na 589.592 Radial†	36642.8	37876.0	13352 ug/L	13352 ppb	11:13:19
3	Sr 421.552†	67491.1	68129.8	546.00 ug/L	546.00 ppb	11:13:19
3	Sc 361.383	853319.9	853319.9	104.21 %		11:14:42
3	Y 371.029	949680.9	949680.9	137.31 %		11:14:42
3	Ag 328.068†	93264.1	89308.8	487.01 ug/L	487.01 ppb	11:14:42
3	As 188.979†	877.2	868.5	519.09 ug/L	519.09 ppb	11:15:03
3	B 249.677†	18201.1	18002.7	492.34 ug/L	492.34 ppb	11:14:42
3	Ba 233.527†	77325.1	74200.0	698.26 ug/L	698.26 ppb	11:14:42
3	Be 313.107†	1227948.2	1182039.9	510.41 ug/L	510.41 ppb	11:14:42
3	Cd 226.502†	34411.4	33190.9	474.74 ug/L	474.74 ppb	11:15:03
3	Co 228.616†	19424.5	18685.4	476.65 ug/L	476.65 ppb	11:15:03
3	Cr 267.716†	39210.6	37554.0	511.66 ug/L	511.66 ppb	11:14:42
3	Cu 324.752†	173350.2	160790.5	534.44 ug/L	534.44 ppb	11:14:42
3	Mn 257.610†	1959565.7	1879961.9	2478.4 ug/L	2478.4 ppb	11:14:42
3	Mo 202.031†	5642.4	5405.8	486.12 ug/L	486.12 ppb	11:15:03
3	Ni 231.604†	16757.5	15996.0	507.70 ug/L	507.70 ppb	11:15:03
3	P 214.914†	1408.8	1164.6	717.71 ug/L	717.71 ppb	11:15:03
3	Pb 220.353†	3474.5	3392.3	518.83 ug/L	518.83 ppb	11:15:03
3	S 181.975 Axial†	2982.2	2831.5	5063.5 ug/L	5063.5 ppb	11:15:03
3	Sb 206.836†	1259.7	1185.1	503.11 ug/L	503.11 ppb	11:15:03
3	Se 196.026†	357.4	359.9	511.19 ug/L	511.19 ppb	11:15:03
3	Si 251.611†	1369661.9	1313805.7	49870 ug/L	49870 ppb	11:14:42
3	Sn 189.927†	2218.6	2121.7	480.13 ug/L	480.13 ppb	11:15:03
3	Ti 334.940†	1871247.2	1796723.9	3125.7 ug/L	3125.7 ppb	11:14:42
3	Tl 190.801†	1209.1	1189.3	494.74 ug/L	494.74 ppb	11:15:03
3	U 409.014†	4162.2	6198.2	178.96 ug/L	178.96 ppb	11:14:42
3	V 292.402†	66900.1	65513.1	516.78 ug/L	516.78 ppb	11:14:42
3	Zn 213.857†	72622.8	69117.0	823.08 ug/L	823.08 ppb	11:14:42
3	SiO2†	1376746.4	1320592.6	107760 ug/L	107760 ppb	11:15:21

Mean Data: 1202049293|955820|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	847070.0	103.45 %	0.765			0.74%
Sc Radial	4359.6	99.2 %	0.14			0.14%
Y 371.029	942487.6	136.27 %	1.070			0.79%
Y RADIAL	6516.3	136.9 %	0.45			0.33%
Ag 328.068†	89416.0	487.71 ug/L	0.611	487.71 ppb	0.611	0.13%
Al 396.153Radial†	29870.9	29318 ug/L	81.2	29318 ppb	81.2	0.28%
As 188.979†	876.3	523.52 ug/L	5.381	523.52 ppb	5.381	1.03%
B 249.677†	17922.6	490.00 ug/L	2.401	490.00 ppb	2.401	0.49%
Ba 233.527†	74320.6	699.41 ug/L	1.086	699.41 ppb	1.086	0.16%
Be 313.107†	1182267.1	510.52 ug/L	0.627	510.52 ppb	0.627	0.12%
Ca 317.933Radial†	7963.4	15068 ug/L	54.1	15068 ppb	54.1	0.36%
Cd 226.502†	33567.6	480.16 ug/L	4.819	480.16 ppb	4.819	1.00%
Co 228.616†	18921.6	482.75 ug/L	5.401	482.75 ppb	5.401	1.12%
Cr 267.716†	37674.9	513.33 ug/L	1.465	513.33 ppb	1.465	0.29%
Cu 324.752†	160842.6	534.63 ug/L	1.052	534.63 ppb	1.052	0.20%
Fe 238.204 Radial†	6060.4	70234 ug/L	443.5	70234 ppb	443.5	0.63%
K 766.490 Radial†	76494.4	14562 ug/L	22.4	14562 ppb	22.4	0.15%

Mg 279.077 IEC†	183.1	7486.8 ug/L	83.52	7486.8 ppb	83.52	1.12%
Mn 257.610†	1884454.7	2484.3 ug/L	5.17	2484.3 ppb	5.17	0.21%
Mo 202.031†	5453.6	490.41 ug/L	3.751	490.41 ppb	3.751	0.76%
Na 589.592 Radial†	38119.7	13438 ug/L	85.3	13438 ppb	85.3	0.63%
Ni 231.604†	16157.5	512.82 ug/L	4.514	512.82 ppb	4.514	0.88%
P 214.914†	1183.6	731.52 ug/L	11.967	731.52 ppb	11.967	1.64%
Pb 220.353†	3428.8	524.39 ug/L	4.887	524.39 ppb	4.887	0.93%
S 181.975 Axial†	2874.2	5139.9 ug/L	66.21	5139.9 ppb	66.21	1.29%
Sb 206.836†	1192.0	506.16 ug/L	3.553	506.16 ppb	3.553	0.70%
Se 196.026†	361.1	513.58 ug/L	4.130	513.58 ppb	4.130	0.80%
Si 251.611†	1316289.4	49964 ug/L	103.0	49964 ppb	103.0	0.21%
Sn 189.927†	2149.1	486.33 ug/L	5.438	486.33 ppb	5.438	1.12%
Sr 421.552†	68360.5	547.85 ug/L	1.855	547.85 ppb	1.855	0.34%
Ti 334.940†	1799126.6	3129.9 ug/L	4.11	3129.9 ppb	4.11	0.13%
Tl 190.801†	1194.5	496.78 ug/L	2.456	496.78 ppb	2.456	0.49%
U 409.014†	6197.5	178.88 ug/L	0.995	178.88 ppb	0.995	0.56%
V 292.402†	65609.7	517.53 ug/L	0.769	517.53 ppb	0.769	0.15%
Zn 213.857†	69259.9	824.71 ug/L	1.716	824.71 ppb	1.716	0.21%
SiO2†	1324634.1	108090 ug/L	941.0	108090 ppb	941.0	0.87%

Sequence No.: 6

Sample ID: 1202049294|955820|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 43

Date Collected: 3/19/2010 11:17:31

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202049294|955820|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4345.9	4345.9	98.9 %		11:19:43
1	Y RADIAL	6446.0	6446.0	135.4 %		11:19:23
1	Al 396.153Radial†	30585.2	31009.4	30436 ug/L	30436 ppb	11:19:23
1	Ca 317.933Radial†	5985.0	6037.0	11423 ug/L	11423 ppb	11:19:23
1	Fe 238.204 Radial†	6825.7	6894.5	79900 ug/L	79900 ppb	11:19:23
1	K 766.490 Radial†	80214.5	78523.4	14950 ug/L	14950 ppb	11:19:23
1	Mg 279.077 IEC†	184.3	184.8	7546.0 ug/L	7546.0 ppb	11:19:43
1	Na 589.592 Radial†	35363.5	36638.8	12916 ug/L	12916 ppb	11:19:23
1	Sr 421.552†	68445.5	69199.2	554.60 ug/L	554.60 ppb	11:19:23
1	Sc 361.383	847582.9	847582.9	103.51 %		11:20:42
1	Y 371.029	948401.6	948401.6	137.12 %		11:20:42
1	Ag 328.068†	96893.1	93420.5	511.60 ug/L	511.60 ppb	11:20:42
1	As 188.979†	924.3	919.7	553.28 ug/L	553.28 ppb	11:21:02
1	B 249.677†	19295.6	19178.2	523.59 ug/L	523.59 ppb	11:20:42
1	Ba 233.527†	79271.8	76582.9	720.92 ug/L	720.92 ppb	11:20:42
1	Be 313.107†	1281075.1	1241339.9	536.64 ug/L	536.64 ppb	11:20:42
1	Cd 226.502†	36230.0	35171.4	502.44 ug/L	502.44 ppb	11:21:02
1	Co 228.616†	20391.4	19745.8	503.04 ug/L	503.04 ppb	11:21:02
1	Cr 267.716†	40085.9	38654.3	527.51 ug/L	527.51 ppb	11:20:42
1	Cu 324.752†	176650.8	165105.1	549.21 ug/L	549.21 ppb	11:20:42
1	Mn 257.610†	2081262.7	2010257.4	2650.7 ug/L	2650.7 ppb	11:20:42
1	Mo 202.031†	5765.3	5561.1	500.67 ug/L	500.67 ppb	11:21:02
1	Ni 231.604†	17150.7	16484.7	523.20 ug/L	523.20 ppb	11:21:02
1	P 214.914†	1736.6	1490.4	949.95 ug/L	949.95 ppb	11:21:02
1	Pb 220.353†	3644.6	3579.2	546.34 ug/L	546.34 ppb	11:21:02
1	S 181.975 Axial†	3064.3	2930.2	5240.0 ug/L	5240.0 ppb	11:21:02
1	Sb 206.836†	1291.1	1223.6	518.38 ug/L	518.38 ppb	11:21:02
1	Se 196.026†	335.1	340.7	524.76 ug/L	524.76 ppb	11:21:02
1	Si 251.611†	1358392.1	1311814.3	49794 ug/L	49794 ppb	11:20:42
1	Sn 189.927†	2308.8	2223.3	501.97 ug/L	501.97 ppb	11:21:02
1	Ti 334.940†	2115366.0	2044713.9	3556.5 ug/L	3556.5 ppb	11:20:42
1	Tl 190.801†	1212.4	1200.3	503.26 ug/L	503.26 ppb	11:21:02
1	U 409.014†	4485.0	6537.0	188.06 ug/L	188.06 ppb	11:20:42
1	V 292.402†	68565.3	67556.3	531.37 ug/L	531.37 ppb	11:20:42
1	Zn 213.857†	77522.9	74322.5	884.52 ug/L	884.52 ppb	11:20:42
1	SiO2†	1365952.1	1319106.7	107640 ug/L	107640 ppb	11:22:03
2	Sc Radial	4357.6	4357.6	99.1 %		11:20:09
2	Y RADIAL	6611.0	6611.0	138.9 %		11:19:48
2	Al 396.153Radial†	30455.4	30795.5	30225 ug/L	30225 ppb	11:19:48
2	Ca 317.933Radial†	5958.1	5993.6	11341 ug/L	11341 ppb	11:19:48
2	Fe 238.204 Radial†	6792.8	6842.8	79301 ug/L	79301 ppb	11:19:48
2	K 766.490 Radial†	79960.0	78049.0	14860 ug/L	14860 ppb	11:19:48
2	Mg 279.077 IEC†	181.4	181.5	7407.9 ug/L	7407.9 ppb	11:20:09
2	Na 589.592 Radial†	35112.4	36289.5	12793 ug/L	12793 ppb	11:19:48
2	Sr 421.552†	68139.6	68704.8	550.64 ug/L	550.64 ppb	11:19:48
2	Sc 361.383	844439.2	844439.2	103.13 %		11:21:10
2	Y 371.029	946525.3	946525.3	136.85 %		11:21:10
2	Ag 328.068†	96843.5	93720.8	512.98 ug/L	512.98 ppb	11:21:10
2	As 188.979†	919.8	918.7	552.70 ug/L	552.70 ppb	11:21:30
2	B 249.677†	19201.4	19156.3	523.08 ug/L	523.08 ppb	11:21:10
2	Ba 233.527†	79369.3	76962.5	724.47 ug/L	724.47 ppb	11:21:10
2	Be 313.107†	1280223.9	1245121.8	538.29 ug/L	538.29 ppb	11:21:10
2	Cd 226.502†	35974.0	35053.4	500.79 ug/L	500.79 ppb	11:21:30
2	Co 228.616†	20300.0	19730.4	502.62 ug/L	502.62 ppb	11:21:30
2	Cr 267.716†	39975.7	38691.6	527.95 ug/L	527.95 ppb	11:21:10
2	Cu 324.752†	176586.5	165678.1	551.07 ug/L	551.07 ppb	11:21:10
2	Mn 257.610†	2082499.2	2018941.6	2662.1 ug/L	2662.1 ppb	11:21:10
2	Mo 202.031†	5748.0	5565.1	500.98 ug/L	500.98 ppb	11:21:30
2	Ni 231.604†	17098.9	16496.2	523.57 ug/L	523.57 ppb	11:21:30

2	P 214.914†	1727.6	1487.9	948.09 ug/L	948.09 ppb	11:21:30
2	Pb 220.353†	3599.1	3548.2	541.62 ug/L	541.62 ppb	11:21:30
2	S 181.975 Axial†	3064.4	2941.3	5259.8 ug/L	5259.8 ppb	11:21:30
2	Sb 206.836†	1257.4	1195.6	506.56 ug/L	506.56 ppb	11:21:30
2	Se 196.026†	336.3	343.1	524.92 ug/L	524.92 ppb	11:21:30
2	Si 251.611†	1357634.0	1315964.6	49952 ug/L	49952 ppb	11:21:10
2	Sn 189.927†	2281.0	2204.6	497.75 ug/L	497.75 ppb	11:21:30
2	Ti 334.940†	2117393.9	2054288.1	3573.2 ug/L	3573.2 ppb	11:21:10
2	Tl 190.801†	1223.5	1215.5	509.32 ug/L	509.32 ppb	11:21:30
2	U 409.014†	4589.7	6654.7	191.69 ug/L	191.69 ppb	11:21:10
2	V 292.402†	68663.9	67898.5	534.18 ug/L	534.18 ppb	11:21:10
2	Zn 213.857†	77740.8	74812.6	890.54 ug/L	890.54 ppb	11:21:10
2	SiO2†	1385825.7	1343290.0	109610 ug/L	109610 ppb	11:22:09
3	Sc Radial	4333.8	4333.8	98.6 %		11:20:34
3	Y RADIAL	6610.3	6610.3	138.9 %		11:20:14
3	Al 396.153Radial†	30636.2	31147.8	30571 ug/L	30571 ppb	11:20:14
3	Ca 317.933Radial†	5981.4	6050.3	11448 ug/L	11448 ppb	11:20:14
3	Fe 238.204 Radial†	6813.3	6901.2	79978 ug/L	79978 ppb	11:20:14
3	K 766.490 Radial†	80533.3	79074.0	15055 ug/L	15055 ppb	11:20:14
3	Mg 279.077 IEC†	185.5	186.6	7617.7 ug/L	7617.7 ppb	11:20:34
3	Na 589.592 Radial†	35100.0	36471.7	12857 ug/L	12857 ppb	11:20:14
3	Sr 421.552†	68387.2	69334.0	555.68 ug/L	555.68 ppb	11:20:14
3	Sc 361.383	835973.2	835973.2	102.09 %		11:21:37
3	Y 371.029	937537.7	937537.7	135.55 %		11:21:37
3	Ag 328.068†	95454.7	93311.5	511.06 ug/L	511.06 ppb	11:21:37
3	As 188.979†	928.0	935.7	562.07 ug/L	562.07 ppb	11:21:57
3	B 249.677†	18857.4	19007.9	518.79 ug/L	518.79 ppb	11:21:37
3	Ba 233.527†	78336.5	76730.3	722.31 ug/L	722.31 ppb	11:21:37
3	Be 313.107†	1265904.7	1243668.1	537.64 ug/L	537.64 ppb	11:21:37
3	Cd 226.502†	36136.6	35566.0	508.16 ug/L	508.16 ppb	11:21:57
3	Co 228.616†	20317.5	19946.9	508.25 ug/L	508.25 ppb	11:21:57
3	Cr 267.716†	39579.1	38695.7	528.07 ug/L	528.07 ppb	11:21:37
3	Cu 324.752†	173787.7	164670.7	547.78 ug/L	547.78 ppb	11:21:37
3	Mn 257.610†	2054429.8	2011898.0	2652.9 ug/L	2652.9 ppb	11:21:37
3	Mo 202.031†	5773.9	5646.9	508.30 ug/L	508.30 ppb	11:21:57
3	Ni 231.604†	17117.2	16682.0	529.47 ug/L	529.47 ppb	11:21:57
3	P 214.914†	1742.9	1519.8	972.13 ug/L	972.13 ppb	11:21:57
3	Pb 220.353†	3618.6	3602.6	549.98 ug/L	549.98 ppb	11:21:57
3	S 181.975 Axial†	3087.9	2994.4	5354.9 ug/L	5354.9 ppb	11:21:57
3	Sb 206.836†	1262.1	1212.5	513.92 ug/L	513.92 ppb	11:21:57
3	Se 196.026†	347.1	357.0	538.56 ug/L	538.56 ppb	11:21:57
3	Si 251.611†	1340254.0	1312273.1	49812 ug/L	49812 ppb	11:21:37
3	Sn 189.927†	2289.0	2234.9	504.59 ug/L	504.59 ppb	11:21:57
3	Ti 334.940†	2086930.2	2045242.0	3557.4 ug/L	3557.4 ppb	11:21:37
3	Tl 190.801†	1220.8	1224.8	512.74 ug/L	512.74 ppb	11:21:57
3	U 409.014†	4424.9	6538.3	188.08 ug/L	188.08 ppb	11:21:37
3	V 292.402†	67938.6	67862.4	533.91 ug/L	533.91 ppb	11:21:37
3	Zn 213.857†	76557.5	74417.0	885.61 ug/L	885.61 ppb	11:21:37
3	SiO2†	1355485.1	1327180.6	108300 ug/L	108300 ppb	11:22:15

Mean Data: 1202049294|955820|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	842665.1	102.91 %	0.733			0.71%
Sc Radial	4345.8	98.9 %	0.27			0.27%
Y 371.029	944154.9	136.51 %	0.840			0.62%
Y RADIAL	6555.8	137.7 %	2.00			1.45%
Ag 328.068†	93484.2	511.88 ug/L	0.989	511.88 ppb	0.989	0.19%
Al 396.153Radial†	30984.2	30411 ug/L	174.2	30411 ppb	174.2	0.57%
As 188.979†	924.7	556.02 ug/L	5.249	556.02 ppb	5.249	0.94%
B 249.677†	19114.2	521.82 ug/L	2.637	521.82 ppb	2.637	0.51%
Ba 233.527†	76758.6	722.57 ug/L	1.786	722.57 ppb	1.786	0.25%
Be 313.107†	1243376.6	537.52 ug/L	0.830	537.52 ppb	0.830	0.15%
Ca 317.933Radial†	6027.0	11404 ug/L	56.1	11404 ppb	56.1	0.49%
Cd 226.502†	35263.6	503.80 ug/L	3.868	503.80 ppb	3.868	0.77%
Co 228.616†	19807.7	504.64 ug/L	3.139	504.64 ppb	3.139	0.62%
Cr 267.716†	38680.5	527.84 ug/L	0.297	527.84 ppb	0.297	0.06%
Cu 324.752†	165151.3	549.36 ug/L	1.649	549.36 ppb	1.649	0.30%
Fe 238.204 Radial†	6879.5	79726 ug/L	370.4	79726 ppb	370.4	0.46%
K 766.490 Radial†	78548.8	14955 ug/L	97.7	14955 ppb	97.7	0.65%

Mg 279.077 IEC†	184.3	7523.9 ug/L	106.65	7523.9 ppb	106.65	1.42%
Mn 257.610†	2013699.0	2655.2 ug/L	6.03	2655.2 ppb	6.03	0.23%
Mo 202.031†	5591.0	503.32 ug/L	4.320	503.32 ppb	4.320	0.86%
Na 589.592 Radial†	36466.7	12855 ug/L	61.6	12855 ppb	61.6	0.48%
Ni 231.604†	16554.3	525.41 ug/L	3.515	525.41 ppb	3.515	0.67%
P 214.914†	1499.4	956.72 ug/L	13.375	956.72 ppb	13.375	1.40%
Pb 220.353†	3576.7	545.98 ug/L	4.192	545.98 ppb	4.192	0.77%
S 181.975 Axial†	2955.3	5284.9 ug/L	61.43	5284.9 ppb	61.43	1.16%
Sb 206.836†	1210.6	512.95 ug/L	5.970	512.95 ppb	5.970	1.16%
Se 196.026†	346.9	529.41 ug/L	7.922	529.41 ppb	7.922	1.50%
Si 251.611†	1313350.7	49853 ug/L	86.4	49853 ppb	86.4	0.17%
Sn 189.927†	2220.9	501.44 ug/L	3.451	501.44 ppb	3.451	0.69%
Sr 421.552†	69079.3	553.64 ug/L	2.655	553.64 ppb	2.655	0.48%
Ti 334.940†	2048081.3	3562.4 ug/L	9.36	3562.4 ppb	9.36	0.26%
Tl 190.801†	1213.6	508.44 ug/L	4.798	508.44 ppb	4.798	0.94%
U 409.014†	6576.7	189.28 ug/L	2.091	189.28 ppb	2.091	1.10%
V 292.402†	67772.4	533.15 ug/L	1.551	533.15 ppb	1.551	0.29%
Zn 213.857†	74517.4	886.89 ug/L	3.209	886.89 ppb	3.209	0.36%
SiO2†	1329859.1	108520 ug/L	1004.8	108520 ppb	1004.8	0.93%

Sequence No.: 7

Sample ID: 1202049292|955820|5

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 44

Date Collected: 3/19/2010 11:24:26

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202049292|955820|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4605.2	4605.2	105 %		11:26:19
1	Y RADIAL	5194.4	5194.4	109.1 %		11:26:19
1	Al 396.153Radial†	2999.5	2940.7	2888.5 ug/L	2888.5 ppb	11:26:19
1	Ca 317.933Radial†	528.2	488.4	924.11 ug/L	924.11 ppb	11:26:39
1	Fe 238.204 Radial†	1239.5	1174.5	13608 ug/L	13608 ppb	11:26:39
1	K 766.490 Radial†	8989.9	5981.1	1138.7 ug/L	1138.7 ppb	11:26:19
1	Mg 279.077 IEC†	12.1	10.0	400.16 ug/L	400.16 ppb	11:26:39
1	Na 589.592 Radial†	1635.1	2435.6	858.61 ug/L	858.61 ppb	11:26:19
1	Sr 421.552†	815.1	757.1	6.0616 ug/L	6.0616 ppb	11:26:19
1	Sc 361.383	827980.6	827980.6	101.12 %		11:27:36
1	Y 371.029	731932.0	731932.0	105.82 %		11:27:36
1	Ag 328.068†	-588.8	-767.4	0.2811 ug/L	0.2811 ppb	11:27:36
1	As 188.979†	-24.2	2.9	9.3644 ug/L	9.3644 ppb	11:27:56
1	B 249.677†	-165.4	373.7	8.2686 ug/L	8.2686 ppb	11:27:36
1	Ba 233.527†	4649.2	4598.5	43.502 ug/L	43.502 ppb	11:27:36
1	Be 313.107†	-5027.2	-1240.6	0.6750 ug/L	0.6750 ppb	11:27:36
1	Cd 226.502†	-67.5	103.8	0.0941 ug/L	0.0941 ppb	11:27:56
1	Co 228.616†	40.7	86.4	0.9489 ug/L	0.9489 ppb	11:27:56
1	Cr 267.716†	278.3	203.7	4.2033 ug/L	4.2033 ppb	11:27:56
1	Cu 324.752†	6098.7	479.3	2.3294 ug/L	2.3294 ppb	11:27:36
1	Mn 257.610†	346997.4	342771.3	452.01 ug/L	452.01 ppb	11:27:36
1	Mo 202.031†	21.7	12.9	2.2144 ug/L	2.2144 ppb	11:27:56
1	Ni 231.604†	205.7	119.4	3.7892 ug/L	3.7892 ppb	11:27:56
1	P 214.914†	333.3	142.4	95.510 ug/L	95.510 ppb	11:27:56
1	Pb 220.353†	-6.2	52.2	6.7314 ug/L	6.7314 ppb	11:27:56
1	S 181.975 Axial†	27.7	-2.8	-5.6220 ug/L	-5.6220 ppb	11:27:56
1	Sb 206.836†	31.4	7.4	1.1855 ug/L	1.1855 ppb	11:27:56
1	Se 196.026†	-69.1	-51.4	-2.7451 ug/L	-2.7451 ppb	11:27:56
1	Si 251.611†	180997.4	178507.8	6776.7 ug/L	6776.7 ppb	11:27:36
1	Sn 189.927†	11.0	3.7	0.2318 ug/L	0.2318 ppb	11:27:56
1	Ti 334.940†	307033.1	304759.2	530.10 ug/L	530.10 ppb	11:27:36
1	Tl 190.801†	-43.4	-13.9	1.1586 ug/L	1.1586 ppb	11:27:56
1	U 409.014†	-3840.7	-1594.0	-49.916 ug/L	-49.916 ppb	11:27:36
1	V 292.402†	-390.3	931.5	4.8251 ug/L	4.8251 ppb	11:27:36
1	Zn 213.857†	6624.0	5980.6	70.403 ug/L	70.403 ppb	11:27:36
1	SiO2†	179594.9	177109.7	14454 ug/L	14454 ppb	11:28:52
2	Sc Radial	4551.7	4551.7	104 %		11:26:44
2	Y RADIAL	5168.8	5168.8	108.6 %		11:26:44
2	Al 396.153Radial†	3039.4	3012.9	2959.4 ug/L	2959.4 ppb	11:26:44
2	Ca 317.933Radial†	537.2	503.1	951.91 ug/L	951.91 ppb	11:27:04
2	Fe 238.204 Radial†	1245.9	1194.6	13841 ug/L	13841 ppb	11:27:04
2	K 766.490 Radial†	9030.6	6121.2	1165.4 ug/L	1165.4 ppb	11:26:44
2	Mg 279.077 IEC†	7.9	6.1	239.10 ug/L	239.10 ppb	11:27:04
2	Na 589.592 Radial†	1600.4	2420.5	853.27 ug/L	853.27 ppb	11:26:44
2	Sr 421.552†	864.3	813.7	6.5155 ug/L	6.5155 ppb	11:26:44
2	Sc 361.383	835949.5	835949.5	102.09 %		11:28:01
2	Y 371.029	739373.5	739373.5	106.90 %		11:28:01
2	Ag 328.068†	-621.7	-794.1	0.2147 ug/L	0.2147 ppb	11:28:01
2	As 188.979†	-30.5	-3.1	6.1295 ug/L	6.1295 ppb	11:28:21
2	B 249.677†	-167.1	373.7	8.2296 ug/L	8.2296 ppb	11:28:01
2	Ba 233.527†	4705.0	4609.4	43.611 ug/L	43.611 ppb	11:28:01
2	Be 313.107†	-5057.3	-1222.6	0.6842 ug/L	0.6842 ppb	11:28:01
2	Cd 226.502†	-53.6	118.2	0.2778 ug/L	0.2778 ppb	11:28:21
2	Co 228.616†	39.8	85.2	0.9126 ug/L	0.9126 ppb	11:28:21
2	Cr 267.716†	278.5	201.3	4.1957 ug/L	4.1957 ppb	11:28:21
2	Cu 324.752†	6142.0	464.2	2.2917 ug/L	2.2917 ppb	11:28:01
2	Mn 257.610†	350945.8	343367.5	452.82 ug/L	452.82 ppb	11:28:01
2	Mo 202.031†	23.7	14.7	2.3942 ug/L	2.3942 ppb	11:28:21
2	Ni 231.604†	206.8	118.5	3.7622 ug/L	3.7622 ppb	11:28:21

2	P 214.914†	337.8	143.6	96.247 ug/L	96.247 ppb	11:28:21
2	Pb 220.353†	-0.1	58.2	7.6452 ug/L	7.6452 ppb	11:28:21
2	S 181.975 Axial†	36.5	5.6	9.4835 ug/L	9.4835 ppb	11:28:21
2	Sb 206.836†	26.2	2.0	-1.0745 ug/L	-1.0745 ppb	11:28:21
2	Se 196.026†	-72.8	-54.3	-4.5354 ug/L	-4.5354 ppb	11:28:21
2	Si 251.611†	182979.8	178743.2	6785.6 ug/L	6785.6 ppb	11:28:01
2	Sn 189.927†	16.1	8.6	1.3187 ug/L	1.3187 ppb	11:28:21
2	Ti 334.940†	310409.7	305172.0	530.84 ug/L	530.84 ppb	11:28:01
2	Tl 190.801†	-47.9	-17.8	-0.3668 ug/L	-0.3668 ppb	11:28:21
2	U 409.014†	-3865.2	-1581.8	-49.573 ug/L	-49.573 ppb	11:28:01
2	V 292.402†	-359.1	965.7	5.0635 ug/L	5.0635 ppb	11:28:01
2	Zn 213.857†	6675.4	5968.6	70.222 ug/L	70.222 ppb	11:28:01
2	SiO2†	182018.2	177790.2	14510 ug/L	14510 ppb	11:28:57
3	Sc Radial	4466.1	4466.1	102 %		11:27:09
3	Y RADIAL	5072.2	5072.2	106.5 %		11:27:09
3	Al 396.153Radial†	2966.6	2997.5	2944.3 ug/L	2944.3 ppb	11:27:09
3	Ca 317.933Radial†	539.5	515.2	974.87 ug/L	974.87 ppb	11:27:29
3	Fe 238.204 Radial†	1240.8	1212.6	14050 ug/L	14050 ppb	11:27:29
3	K 766.490 Radial†	8846.5	6107.0	1162.7 ug/L	1162.7 ppb	11:27:09
3	Mg 279.077 IEC†	11.4	9.7	385.70 ug/L	385.70 ppb	11:27:29
3	Na 589.592 Radial†	1607.6	2457.2	866.20 ug/L	866.20 ppb	11:27:09
3	Sr 421.552†	820.8	787.0	6.3008 ug/L	6.3008 ppb	11:27:09
3	Sc 361.383	825825.1	825825.1	100.85 %		11:28:27
3	Y 371.029	731045.4	731045.4	105.70 %		11:28:27
3	Ag 328.068†	-574.2	-754.4	0.4902 ug/L	0.4902 ppb	11:28:27
3	As 188.979†	-24.6	2.4	9.1646 ug/L	9.1646 ppb	11:28:47
3	B 249.677†	-185.4	353.6	7.6324 ug/L	7.6324 ppb	11:28:27
3	Ba 233.527†	4628.3	4589.8	43.436 ug/L	43.436 ppb	11:28:27
3	Be 313.107†	-4988.0	-1214.7	0.6828 ug/L	0.6828 ppb	11:28:27
3	Cd 226.502†	-58.6	112.5	0.1739 ug/L	0.1739 ppb	11:28:47
3	Co 228.616†	18.0	64.1	0.3692 ug/L	0.3692 ppb	11:28:47
3	Cr 267.716†	297.0	223.0	4.5108 ug/L	4.5108 ppb	11:28:47
3	Cu 324.752†	5995.0	392.1	2.0663 ug/L	2.0663 ppb	11:28:27
3	Mn 257.610†	345191.5	341876.4	450.88 ug/L	450.88 ppb	11:28:27
3	Mo 202.031†	30.1	21.3	2.9979 ug/L	2.9979 ppb	11:28:47
3	Ni 231.604†	207.5	121.6	3.8623 ug/L	3.8623 ppb	11:28:47
3	P 214.914†	317.7	127.7	84.320 ug/L	84.320 ppb	11:28:47
3	Pb 220.353†	-11.4	47.0	5.8887 ug/L	5.8887 ppb	11:28:47
3	S 181.975 Axial†	32.8	2.3	3.5673 ug/L	3.5673 ppb	11:28:47
3	Sb 206.836†	20.2	-3.7	-3.4424 ug/L	-3.4424 ppb	11:28:47
3	Se 196.026†	-82.9	-65.2	-12.983 ug/L	-12.983 ppb	11:28:47
3	Si 251.611†	179880.5	177867.5	6752.3 ug/L	6752.3 ppb	11:28:27
3	Sn 189.927†	9.7	2.5	-0.0674 ug/L	-0.0674 ppb	11:28:47
3	Ti 334.940†	305406.8	303939.2	528.69 ug/L	528.69 ppb	11:28:27
3	Tl 190.801†	-49.0	-19.5	-1.0209 ug/L	-1.0209 ppb	11:28:47
3	U 409.014†	-3903.5	-1666.2	-52.159 ug/L	-52.159 ppb	11:28:27
3	V 292.402†	-261.7	1057.9	5.7779 ug/L	5.7779 ppb	11:28:27
3	Zn 213.857†	6545.8	5920.2	69.605 ug/L	69.605 ppb	11:28:27
3	SiO2†	181501.0	179463.1	14646 ug/L	14646 ppb	11:29:03

Mean Data: 1202049292|955820|5

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	829918.4	101.35 %	0.651			0.64%
Sc Radial	4541.0	103 %	1.6			1.54%
Y 371.029	734117.0	106.14 %	0.661			0.62%
Y RADIAL	5145.1	108.1 %	1.35			1.25%
Ag 328.068†	-772.0	0.3287 ug/L	0.14378	0.3287 ppb	0.14378	43.75%
Al 396.153Radial†	2983.7	2930.7 ug/L	37.32	2930.7 ppb	37.32	1.27%
As 188.979†	0.7	8.2195 ug/L	1.81278	8.2195 ppb	1.81278	22.05%
B 249.677†	367.0	8.0435 ug/L	0.35659	8.0435 ppb	0.35659	4.43%
Ba 233.527†	4599.2	43.516 ug/L	0.0885	43.516 ppb	0.0885	0.20%
Be 313.107†	-1226.0	0.6807 ug/L	0.00498	0.6807 ppb	0.00498	0.73%
Ca 317.933Radial†	502.2	950.30 ug/L	25.417	950.30 ppb	25.417	2.67%
Cd 226.502†	111.5	0.1819 ug/L	0.09212	0.1819 ppb	0.09212	50.64%
Co 228.616†	78.6	0.7436 ug/L	0.32476	0.7436 ppb	0.32476	43.68%
Cr 267.716†	209.3	4.3033 ug/L	0.17978	4.3033 ppb	0.17978	4.18%
Cu 324.752†	445.2	2.2292 ug/L	0.14226	2.2292 ppb	0.14226	6.38%
Fe 238.204 Radial†	1193.9	13833 ug/L	221.2	13833 ppb	221.2	1.60%
K 766.490 Radial†	6069.8	1155.6 ug/L	14.69	1155.6 ppb	14.69	1.27%

Mg 279.077 IEC†	8.6	341.65 ug/L	89.108	341.65 ppb	89.108	26.08%
Mn 257.610†	342671.7	451.90 ug/L	0.977	451.90 ppb	0.977	0.22%
Mo 202.031†	16.3	2.5355 ug/L	0.41042	2.5355 ppb	0.41042	16.19%
Na 589.592 Radial†	2437.7	859.36 ug/L	6.499	859.36 ppb	6.499	0.76%
Ni 231.604†	119.8	3.8045 ug/L	0.05177	3.8045 ppb	0.05177	1.36%
P 214.914†	137.9	92.025 ug/L	6.6836	92.025 ppb	6.6836	7.26%
Pb 220.353†	52.5	6.7551 ug/L	0.87846	6.7551 ppb	0.87846	13.00%
S 181.975 Axial†	1.7	2.4762 ug/L	7.61163	2.4762 ppb	7.61163	307.39%
Sb 206.836†	1.9	-1.1105 ug/L	2.31417	-1.1105 ppb	2.31417	208.40%
Se 196.026†	-57.0	-6.7547 ug/L	5.46803	-6.7547 ppb	5.46803	80.95%
Si 251.611†	178372.8	6771.5 ug/L	17.21	6771.5 ppb	17.21	0.25%
Sn 189.927†	4.9	0.4944 ug/L	0.72937	0.4944 ppb	0.72937	147.54%
Sr 421.552†	785.9	6.2926 ug/L	0.22706	6.2926 ppb	0.22706	3.61%
Ti 334.940†	304623.5	529.88 ug/L	1.094	529.88 ppb	1.094	0.21%
Tl 190.801†	-17.1	-0.0763 ug/L	1.11841	-0.0763 ppb	1.11841	>999.9%
U 409.014†	-1614.0	-50.549 ug/L	1.4042	-50.549 ppb	1.4042	2.78%
V 292.402†	985.0	5.2222 ug/L	0.49582	5.2222 ppb	0.49582	9.49%
Zn 213.857†	5956.5	70.076 ug/L	0.4186	70.076 ppb	0.4186	0.60%
SiO2†	178121.0	14537 ug/L	98.8	14537 ppb	98.8	0.68%

Sequence No.: 8

Sample ID: 247566002|955820|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 45

Date Collected: 3/19/2010 11:31:13

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 247566002|955820|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4352.0	4352.0	99.0 %		11:33:26
1	Y RADIAL	6050.9	6050.9	127.1 %		11:33:06
1	Al 396.153Radial†	15172.7	15400.9	15128 ug/L	15128 ppb	11:33:06
1	Ca 317.933Radial†	2034.7	2039.1	3858.4 ug/L	3858.4 ppb	11:33:26
1	Fe 238.204 Radial†	6152.7	6205.1	71898 ug/L	71898 ppb	11:33:06
1	K 766.490 Radial†	27534.5	25208.2	4798.7 ug/L	4798.7 ppb	11:33:06
1	Mg 279.077 IEC†	72.4	71.5	2876.0 ug/L	2876.0 ppb	11:33:26
1	Na 589.592 Radial†	12207.1	13203.0	4654.3 ug/L	4654.3 ppb	11:33:06
1	Sr 421.552†	3043.5	3052.8	24.441 ug/L	24.441 ppb	11:33:06
1	Sc 361.383	858035.6	858035.6	104.79 %		11:34:23
1	Y 371.029	897318.1	897318.1	129.74 %		11:34:23
1	Ag 328.068†	-3865.5	-3874.0	2.4858 ug/L	2.4858 ppb	11:34:28
1	As 188.979†	-46.8	-17.9	33.372 ug/L	33.372 ppb	11:34:48
1	B 249.677†	122.4	654.2	6.6395 ug/L	6.6395 ppb	11:34:28
1	Ba 233.527†	19030.5	18161.6	172.40 ug/L	172.40 ppb	11:34:28
1	Be 313.107†	-12292.2	-7999.5	3.4984 ug/L	3.4984 ppb	11:34:28
1	Cd 226.502†	394.4	547.0	0.4668 ug/L	0.4668 ppb	11:34:48
1	Co 228.616†	473.3	497.9	5.5357 ug/L	5.5357 ppb	11:34:48
1	Cr 267.716†	2172.4	2001.6	34.635 ug/L	34.635 ppb	11:34:48
1	Cu 324.752†	8662.7	2714.9	12.917 ug/L	12.917 ppb	11:34:28
1	Mn 257.610†	2160116.2	2061013.4	2716.8 ug/L	2716.8 ppb	11:34:23
1	Mo 202.031†	45.2	34.6	8.7068 ug/L	8.7068 ppb	11:34:48
1	Ni 231.604†	516.9	409.2	12.988 ug/L	12.988 ppb	11:34:48
1	P 214.914†	1321.7	1074.0	744.18 ug/L	744.18 ppb	11:34:48
1	Pb 220.353†	153.3	204.6	24.615 ug/L	24.615 ppb	11:34:48
1	S 181.975 Axial†	170.9	132.9	235.11 ug/L	235.11 ppb	11:34:48
1	Sb 206.836†	48.6	22.7	-1.4191 ug/L	-1.4191 ppb	11:34:48
1	Se 196.026†	-313.9	-282.5	-23.859 ug/L	-23.859 ppb	11:34:48
1	Si 251.611†	779068.7	742978.4	28206 ug/L	28206 ppb	11:34:23
1	Sn 189.927†	49.7	40.3	5.6932 ug/L	5.6932 ppb	11:34:48
1	Ti 334.940†	1831412.7	1748841.4	3041.7 ug/L	3041.7 ppb	11:34:23
1	Tl 190.801†	-127.7	-92.8	2.1283 ug/L	2.1283 ppb	11:34:48
1	U 409.014†	-11548.8	-8816.8	-275.74 ug/L	-275.74 ppb	11:34:23
1	V 292.402†	5075.9	6161.3	35.084 ug/L	35.084 ppb	11:34:48
1	Zn 213.857†	35806.0	33599.6	396.26 ug/L	396.26 ppb	11:34:28
1	SiO2†	765011.2	729552.1	59540 ug/L	59540 ppb	11:35:57
2	Sc Radial	4318.8	4318.8	98.3 %		11:33:51
2	Y RADIAL	6140.7	6140.7	129.0 %		11:33:31
2	Al 396.153Radial†	15279.6	15627.7	15350 ug/L	15350 ppb	11:33:31
2	Ca 317.933Radial†	2048.3	2068.8	3914.6 ug/L	3914.6 ppb	11:33:51
2	Fe 238.204 Radial†	6174.2	6274.9	72706 ug/L	72706 ppb	11:33:31
2	K 766.490 Radial†	27605.8	25494.9	4853.3 ug/L	4853.3 ppb	11:33:31
2	Mg 279.077 IEC†	71.4	71.1	2858.1 ug/L	2858.1 ppb	11:33:51
2	Na 589.592 Radial†	12194.7	13285.3	4683.4 ug/L	4683.4 ppb	11:33:31
2	Sr 421.552†	3073.4	3106.9	24.875 ug/L	24.875 ppb	11:33:31
2	Sc 361.383	847073.0	847073.0	103.45 %		11:34:54
2	Y 371.029	885789.1	885789.1	128.07 %		11:34:54
2	Ag 328.068†	-3967.6	-4020.4	1.9737 ug/L	1.9737 ppb	11:34:59
2	As 188.979†	-53.0	-24.4	30.062 ug/L	30.062 ppb	11:35:19
2	B 249.677†	296.1	823.6	11.261 ug/L	11.261 ppb	11:34:59
2	Ba 233.527†	18902.8	18273.1	173.47 ug/L	173.47 ppb	11:34:59
2	Be 313.107†	-12230.1	-8091.3	3.4841 ug/L	3.4841 ppb	11:34:59
2	Cd 226.502†	378.2	536.3	0.2279 ug/L	0.2279 ppb	11:35:19
2	Co 228.616†	461.1	491.9	5.3488 ug/L	5.3488 ppb	11:35:19
2	Cr 267.716†	2192.5	2047.9	35.340 ug/L	35.340 ppb	11:35:19
2	Cu 324.752†	8604.8	2765.8	13.126 ug/L	13.126 ppb	11:34:59
2	Mn 257.610†	2140950.4	2069164.9	2727.6 ug/L	2727.6 ppb	11:34:54
2	Mo 202.031†	47.4	37.3	9.0022 ug/L	9.0022 ppb	11:35:19
2	Ni 231.604†	519.2	417.9	13.263 ug/L	13.263 ppb	11:35:19

2	P 214.914†	1313.7	1082.6	749.97 ug/L	749.97 ppb	11:35:19
2	Pb 220.353†	142.3	195.8	23.195 ug/L	23.195 ppb	11:35:19
2	S 181.975 Axial†	167.4	131.6	232.75 ug/L	232.75 ppb	11:35:19
2	Sb 206.836†	52.5	27.1	0.3372 ug/L	0.3372 ppb	11:35:19
2	Se 196.026†	-314.1	-286.7	-24.884 ug/L	-24.884 ppb	11:35:19
2	Si 251.611†	772229.5	745989.0	28320 ug/L	28320 ppb	11:34:54
2	Sn 189.927†	33.6	25.3	2.2643 ug/L	2.2643 ppb	11:35:19
2	Ti 334.940†	1814497.9	1755109.2	3052.6 ug/L	3052.6 ppb	11:34:54
2	Tl 190.801†	-137.3	-103.6	-1.9028 ug/L	-1.9028 ppb	11:35:19
2	U 409.014†	-11280.9	-8700.5	-272.31 ug/L	-272.31 ppb	11:34:54
2	V 292.402†	5067.6	6216.0	35.401 ug/L	35.401 ppb	11:35:19
2	Zn 213.857†	35423.6	33672.2	397.02 ug/L	397.02 ppb	11:34:59
2	SiO2†	763632.5	737667.6	60202 ug/L	60202 ppb	11:36:03
3	Sc Radial	4298.5	4298.5	97.8 %		11:34:16
3	Y RADIAL	6072.4	6072.4	127.6 %		11:33:56
3	Al 396.153Radial†	15199.3	15618.9	15342 ug/L	15342 ppb	11:33:56
3	Ca 317.933Radial†	2016.3	2045.9	3871.2 ug/L	3871.2 ppb	11:34:16
3	Fe 238.204 Radial†	6158.1	6288.0	72858 ug/L	72858 ppb	11:33:56
3	K 766.490 Radial†	27498.1	25517.1	4857.5 ug/L	4857.5 ppb	11:33:56
3	Mg 279.077 IEC†	66.8	66.8	2678.8 ug/L	2678.8 ppb	11:34:16
3	Na 589.592 Radial†	12104.0	13251.0	4671.3 ug/L	4671.3 ppb	11:33:56
3	Sr 421.552†	3039.4	3086.8	24.714 ug/L	24.714 ppb	11:33:56
3	Sc 361.383	844366.3	844366.3	103.12 %		11:35:25
3	Y 371.029	883420.5	883420.5	127.73 %		11:35:25
3	Ag 328.068†	-3915.5	-3982.2	2.2207 ug/L	2.2207 ppb	11:35:30
3	As 188.979†	-45.1	-16.9	34.015 ug/L	34.015 ppb	11:35:50
3	B 249.677†	144.5	677.5	7.1382 ug/L	7.1382 ppb	11:35:30
3	Ba 233.527†	18786.9	18219.3	172.98 ug/L	172.98 ppb	11:35:30
3	Be 313.107†	-12274.8	-8172.5	3.4011 ug/L	3.4011 ppb	11:35:30
3	Cd 226.502†	388.5	547.4	0.3732 ug/L	0.3732 ppb	11:35:50
3	Co 228.616†	455.9	488.3	5.2989 ug/L	5.2989 ppb	11:35:50
3	Cr 267.716†	2175.7	2038.4	35.230 ug/L	35.230 ppb	11:35:50
3	Cu 324.752†	8503.4	2694.2	12.897 ug/L	12.897 ppb	11:35:30
3	Mn 257.610†	2116266.7	2051861.9	2704.9 ug/L	2704.9 ppb	11:35:25
3	Mo 202.031†	53.3	43.1	9.5353 ug/L	9.5353 ppb	11:35:50
3	Ni 231.604†	501.4	402.2	12.765 ug/L	12.765 ppb	11:35:50
3	P 214.914†	1309.3	1082.4	749.76 ug/L	749.76 ppb	11:35:50
3	Pb 220.353†	160.6	214.0	25.967 ug/L	25.967 ppb	11:35:50
3	S 181.975 Axial†	172.6	137.2	242.66 ug/L	242.66 ppb	11:35:50
3	Sb 206.836†	54.6	29.3	1.3485 ug/L	1.3485 ppb	11:35:50
3	Se 196.026†	-319.4	-292.8	-29.565 ug/L	-29.565 ppb	11:35:50
3	Si 251.611†	764152.3	740549.0	28113 ug/L	28113 ppb	11:35:25
3	Sn 189.927†	38.7	30.3	3.3913 ug/L	3.3913 ppb	11:35:50
3	Ti 334.940†	1796060.6	1742852.1	3031.3 ug/L	3031.3 ppb	11:35:25
3	Tl 190.801†	-132.3	-99.2	-0.4898 ug/L	-0.4898 ppb	11:35:50
3	U 409.014†	-11231.6	-8687.6	-271.93 ug/L	-271.93 ppb	11:35:25
3	V 292.402†	5093.4	6256.8	35.732 ug/L	35.732 ppb	11:35:50
3	Zn 213.857†	35320.5	33681.9	397.12 ug/L	397.12 ppb	11:35:30
3	SiO2†	780045.6	755950.4	61694 ug/L	61694 ppb	11:36:09

Mean Data: 247566002|955820|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	849825.0	103.79 %	0.884			0.85%
Sc Radial	4323.1	98.4 %	0.61			0.62%
Y 371.029	888842.6	128.51 %	1.075			0.84%
Y RADIAL	6088.0	127.9 %	0.98			0.77%
Ag 328.068†	-3958.8	2.2267 ug/L	0.25610	2.2267 ppb	0.25610	11.50%
Al 396.153Radial†	15549.2	15273 ug/L	126.2	15273 ppb	126.2	0.83%
As 188.979†	-19.7	32.483 ug/L	2.1214	32.483 ppb	2.1214	6.53%
B 249.677†	718.4	8.3461 ug/L	2.53632	8.3461 ppb	2.53632	30.39%
Ba 233.527†	18218.0	172.95 ug/L	0.536	172.95 ppb	0.536	0.31%
Be 313.107†	-8087.7	3.4612 ug/L	0.05254	3.4612 ppb	0.05254	1.52%
Ca 317.933Radial†	2051.3	3881.4 ug/L	29.45	3881.4 ppb	29.45	0.76%
Cd 226.502†	543.5	0.3559 ug/L	0.12038	0.3559 ppb	0.12038	33.82%
Co 228.616†	492.7	5.3944 ug/L	0.12486	5.3944 ppb	0.12486	2.31%
Cr 267.716†	2029.3	35.068 ug/L	0.3792	35.068 ppb	0.3792	1.08%
Cu 324.752†	7255.0	12.980 ug/L	0.1268	12.980 ppb	0.1268	0.98%
Fe 238.204 Radial†	6256.0	72487 ug/L	516.0	72487 ppb	516.0	0.71%
K 766.490 Radial†	25406.8	4836.5 ug/L	32.82	4836.5 ppb	32.82	0.68%

Mg 279.077 IEC†	69.8	2804.3 ug/L	109.07	2804.3 ppb	109.07	3.89%
Mn 257.610†	2060680.0	2716.5 ug/L	11.37	2716.5 ppb	11.37	0.42%
Mo 202.031†	38.3	9.0815 ug/L	0.41986	9.0815 ppb	0.41986	4.62%
Na 589.592 Radial†	13246.5	4669.7 ug/L	14.58	4669.7 ppb	14.58	0.31%
Ni 231.604†	409.8	13.005 ug/L	0.2492	13.005 ppb	0.2492	1.92%
P 214.914†	1079.7	747.97 ug/L	3.282	747.97 ppb	3.282	0.44%
Pb 220.353†	204.8	24.592 ug/L	1.3861	24.592 ppb	1.3861	5.64%
S 181.975 Axial†	133.9	236.84 ug/L	5.173	236.84 ppb	5.173	2.18%
Sb 206.836†	26.4	0.0889 ug/L	1.40040	0.0889 ppb	1.40040	>999.9%
Se 196.026†	-287.3	-26.103 ug/L	3.0419	-26.103 ppb	3.0419	11.65%
Si 251.611†	743172.1	28213 ug/L	103.5	28213 ppb	103.5	0.37%
Sn 189.927†	32.0	3.7829 ug/L	1.74765	3.7829 ppb	1.74765	46.20%
Sr 421.552†	3082.2	24.677 ug/L	0.2192	24.677 ppb	0.2192	0.89%
Ti 334.940†	1748934.2	3041.9 ug/L	10.65	3041.9 ppb	10.65	0.35%
Tl 190.801†	-98.5	-0.0881 ug/L	2.04533	-0.0881 ppb	2.04533	>999.9%
U 409.014†	-8735.0	-273.33 ug/L	2.100	-273.33 ppb	2.100	0.77%
V 292.402†	6211.4	35.406 ug/L	0.3238	35.406 ppb	0.3238	0.91%
Zn 213.857†	33651.3	396.80 ug/L	0.468	396.80 ppb	0.468	0.12%
Sio2†	741056.7	60479 ug/L	1103.5	60479 ppb	1103.5	1.82%

Sequence No.: 9

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/19/2010 11:38:19

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4231.5	4231.5	96.3 %		11:40:31
1	Y RADIAL	4688.3	4688.3	98.48 %		11:40:11
1	Al 396.153Radial†	5078.5	5352.8	5233.5 ug/L	5233.5 ppb	11:40:11
1	Ca 317.933Radial†	2683.8	2771.8	5244.9 ug/L	5244.9 ppb	11:40:31
1	Fe 238.204 Radial†	447.0	455.9	5297.3 ug/L	5297.3 ppb	11:40:31
1	K 766.490 Radial†	29712.9	28262.5	5378.2 ug/L	5378.2 ppb	11:40:11
1	Mg 279.077 IEC†	125.8	129.1	5327.4 ug/L	5327.4 ppb	11:40:31
1	Na 589.592 Radial†	27281.4	29210.9	10297 ug/L	10297 ppb	11:40:11
1	Sr 421.552†	63681.7	66122.0	529.98 ug/L	529.98 ppb	11:40:11
1	Sc 361.383	836694.1	836694.1	102.18 %		11:41:28
1	Y 371.029	695496.4	695496.4	100.56 %		11:41:28
1	Ag 328.068†	99816.9	97499.9	509.39 ug/L	509.39 ppb	11:41:34
1	As 188.979†	930.2	937.1	518.83 ug/L	518.83 ppb	11:41:54
1	B 249.677†	17942.6	18096.7	505.35 ug/L	505.35 ppb	11:41:34
1	Ba 233.527†	55244.6	54065.5	507.67 ug/L	507.67 ppb	11:41:34
1	Be 313.107†	1219044.5	1196740.3	510.71 ug/L	510.71 ppb	11:41:28
1	Cd 226.502†	35788.8	35195.1	510.55 ug/L	510.55 ppb	11:41:34
1	Co 228.616†	20347.1	19958.7	515.95 ug/L	515.95 ppb	11:41:34
1	Cr 267.716†	38697.3	37799.4	507.96 ug/L	507.96 ppb	11:41:34
1	Cu 324.752†	160727.0	151742.3	500.97 ug/L	500.97 ppb	11:41:34
1	Mn 257.610†	387247.8	378588.3	498.08 ug/L	498.08 ppb	11:41:34
1	Mo 202.031†	5787.3	5655.2	503.17 ug/L	503.17 ppb	11:41:54
1	Ni 231.604†	16666.6	16226.6	515.00 ug/L	515.00 ppb	11:41:34
1	P 214.914†	3658.7	3393.2	2429.9 ug/L	2429.9 ppb	11:41:54
1	Pb 220.353†	3286.4	3274.5	504.53 ug/L	504.53 ppb	11:41:54
1	S 181.975 Axial†	609.8	566.5	1013.3 ug/L	1013.3 ppb	11:41:54
1	Sb 206.836†	1273.0	1222.2	529.40 ug/L	529.40 ppb	11:41:54
1	Se 196.026†	607.6	611.6	527.92 ug/L	527.92 ppb	11:41:54
1	Si 251.611†	69000.0	67038.2	2538.8 ug/L	2538.8 ppb	11:41:34
1	Sn 189.927†	2266.5	2210.9	502.34 ug/L	502.34 ppb	11:41:54
1	Ti 334.940†	290738.2	285650.1	496.62 ug/L	496.62 ppb	11:41:34
1	Tl 190.801†	1309.7	1310.8	510.40 ug/L	510.40 ppb	11:41:54
1	U 409.014†	15042.5	16925.4	511.75 ug/L	511.75 ppb	11:41:34
1	V 292.402†	63168.1	63136.4	510.86 ug/L	510.86 ppb	11:41:34
1	Zn 213.857†	43730.0	42225.9	506.89 ug/L	506.89 ppb	11:41:34
1	SiO2†	68926.3	66954.9	5450.6 ug/L	5450.6 ppb	11:43:01
2	Sc Radial	4265.7	4265.7	97.1 %		11:40:56
2	Y RADIAL	4839.5	4839.5	101.7 %		11:40:36
2	Al 396.153Radial†	5150.2	5384.5	5265.0 ug/L	5265.0 ppb	11:40:36
2	Ca 317.933Radial†	2698.8	2764.9	5231.8 ug/L	5231.8 ppb	11:40:56
2	Fe 238.204 Radial†	449.8	455.0	5286.7 ug/L	5286.7 ppb	11:40:56
2	K 766.490 Radial†	29893.9	28201.7	5366.7 ug/L	5366.7 ppb	11:40:36
2	Mg 279.077 IEC†	131.2	133.7	5513.6 ug/L	5513.6 ppb	11:40:56
2	Na 589.592 Radial†	27374.6	29079.9	10251 ug/L	10251 ppb	11:40:36
2	Sr 421.552†	64071.5	65993.7	528.95 ug/L	528.95 ppb	11:40:36
2	Sc 361.383	848819.8	848819.8	103.66 %		11:41:59
2	Y 371.029	706333.9	706333.9	102.12 %		11:41:59
2	Ag 328.068†	99812.0	96099.8	502.10 ug/L	502.10 ppb	11:42:04
2	As 188.979†	913.1	907.6	502.60 ug/L	502.60 ppb	11:42:25
2	B 249.677†	17949.1	17852.2	498.51 ug/L	498.51 ppb	11:42:04
2	Ba 233.527†	55297.9	53344.6	500.90 ug/L	500.90 ppb	11:42:04
2	Be 313.107†	1237185.8	1197198.0	510.89 ug/L	510.89 ppb	11:41:59
2	Cd 226.502†	35790.9	34696.8	503.31 ug/L	503.31 ppb	11:42:04
2	Co 228.616†	20379.5	19705.5	509.40 ug/L	509.40 ppb	11:42:04
2	Cr 267.716†	38754.5	37313.5	501.44 ug/L	501.44 ppb	11:42:04
2	Cu 324.752†	160790.4	149556.5	493.76 ug/L	493.76 ppb	11:42:04
2	Mn 257.610†	386901.3	372840.2	490.51 ug/L	490.51 ppb	11:42:04
2	Mo 202.031†	5780.9	5568.1	495.43 ug/L	495.43 ppb	11:42:25
2	Ni 231.604†	16669.3	15996.2	507.69 ug/L	507.69 ppb	11:42:04

2	P 214.914†	3643.5	3327.5	2382.3 ug/L	2382.3 ppb	11:42:25
2	Pb 220.353†	3274.7	3217.3	495.73 ug/L	495.73 ppb	11:42:25
2	S 181.975 Axial†	602.1	550.6	984.78 ug/L	984.78 ppb	11:42:25
2	Sb 206.836†	1250.5	1182.6	512.53 ug/L	512.53 ppb	11:42:25
2	Se 196.026†	602.0	597.7	516.28 ug/L	516.28 ppb	11:42:25
2	Si 251.611†	69005.4	66078.7	2502.5 ug/L	2502.5 ppb	11:42:04
2	Sn 189.927†	2253.2	2166.4	492.23 ug/L	492.23 ppb	11:42:25
2	Ti 334.940†	291171.1	282003.1	490.27 ug/L	490.27 ppb	11:42:04
2	Tl 190.801†	1306.3	1289.2	502.00 ug/L	502.00 ppb	11:42:25
2	U 409.014†	15074.6	16746.1	506.33 ug/L	506.33 ppb	11:42:04
2	V 292.402†	63254.1	62336.3	504.37 ug/L	504.37 ppb	11:42:04
2	Zn 213.857†	43730.3	41614.9	499.54 ug/L	499.54 ppb	11:42:04
2	SiO2†	68517.6	65597.0	5340.0 ug/L	5340.0 ppb	11:43:06
3	Sc Radial	4269.7	4269.7	97.1 %		11:41:22
3	Y RADIAL	4809.0	4809.0	101.0 %		11:41:01
3	Al 396.153Radial†	5136.6	5365.6	5246.2 ug/L	5246.2 ppb	11:41:01
3	Ca 317.933Radial†	2697.3	2760.8	5224.0 ug/L	5224.0 ppb	11:41:22
3	Fe 238.204 Radial†	445.9	450.6	5236.1 ug/L	5236.1 ppb	11:41:22
3	K 766.490 Radial†	29946.0	28226.7	5371.5 ug/L	5371.5 ppb	11:41:01
3	Mg 279.077 IEC†	122.8	124.9	5152.6 ug/L	5152.6 ppb	11:41:22
3	Na 589.592 Radial†	27228.5	28903.2	10189 ug/L	10189 ppb	11:41:01
3	Sr 421.552†	63894.3	65749.9	527.00 ug/L	527.00 ppb	11:41:01
3	Sc 361.383	838817.3	838817.3	102.44 %		11:42:30
3	Y 371.029	698716.9	698716.9	101.02 %		11:42:30
3	Ag 328.068†	99235.4	96685.1	505.14 ug/L	505.14 ppb	11:42:35
3	As 188.979†	918.9	923.8	511.49 ug/L	511.49 ppb	11:42:55
3	B 249.677†	17901.0	18011.7	502.99 ug/L	502.99 ppb	11:42:35
3	Ba 233.527†	55002.2	53691.9	504.16 ug/L	504.16 ppb	11:42:35
3	Be 313.107†	1222413.8	1197009.5	510.81 ug/L	510.81 ppb	11:42:30
3	Cd 226.502†	35634.8	34956.1	507.08 ug/L	507.08 ppb	11:42:35
3	Co 228.616†	20235.0	19798.9	511.82 ug/L	511.82 ppb	11:42:35
3	Cr 267.716†	38586.2	37595.0	505.22 ug/L	505.22 ppb	11:42:35
3	Cu 324.752†	160008.7	150643.0	497.34 ug/L	497.34 ppb	11:42:35
3	Mn 257.610†	385207.0	375636.8	494.20 ug/L	494.20 ppb	11:42:35
3	Mo 202.031†	5767.3	5621.3	500.15 ug/L	500.15 ppb	11:42:55
3	Ni 231.604†	16538.7	16060.4	509.73 ug/L	509.73 ppb	11:42:35
3	P 214.914†	3658.9	3384.4	2424.1 ug/L	2424.1 ppb	11:42:55
3	Pb 220.353†	3276.9	3257.1	501.86 ug/L	501.86 ppb	11:42:55
3	S 181.975 Axial†	611.1	566.4	1013.0 ug/L	1013.0 ppb	11:42:55
3	Sb 206.836†	1263.9	1210.1	524.31 ug/L	524.31 ppb	11:42:55
3	Se 196.026†	606.1	608.6	525.28 ug/L	525.28 ppb	11:42:55
3	Si 251.611†	68566.9	66444.5	2516.3 ug/L	2516.3 ppb	11:42:35
3	Sn 189.927†	2275.7	2214.3	503.11 ug/L	503.11 ppb	11:42:55
3	Ti 334.940†	289344.8	283569.7	493.02 ug/L	493.02 ppb	11:42:35
3	Tl 190.801†	1294.0	1292.3	503.22 ug/L	503.22 ppb	11:42:55
3	U 409.014†	14750.9	16603.5	502.00 ug/L	502.00 ppb	11:42:35
3	V 292.402†	62942.9	62760.1	507.80 ug/L	507.80 ppb	11:42:35
3	Zn 213.857†	43510.6	41903.4	503.03 ug/L	503.03 ppb	11:42:35
3	SiO2†	67364.1	65259.2	5312.3 ug/L	5312.3 ppb	11:43:11

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	841443.7	102.76 %	0.791			0.77%
Sc Radial	4255.6	96.8 %	0.48			0.49%
Y 371.029	700182.4	101.23 %	0.805			0.79%
Y RADIAL	4778.9	100.4 %	1.68			1.67%
Ag 328.068†	96761.6	505.54 ug/L	3.664	505.54 ppb	3.664	0.72%
QC value within limits for Ag 328.068 Recovery = 101.11%						
Al 396.153Radial†	5367.6	5248.3 ug/L	15.85	5248.3 ppb	15.85	0.30%
QC value within limits for Al 396.153Radial Recovery = 104.97%						
As 188.979†	922.8	510.97 ug/L	8.127	510.97 ppb	8.127	1.59%
QC value within limits for As 188.979 Recovery = 102.19%						
B 249.677†	17986.9	502.29 ug/L	3.474	502.29 ppb	3.474	0.69%
QC value within limits for B 249.677 Recovery = 100.46%						
Ba 233.527†	53700.7	504.25 ug/L	3.384	504.25 ppb	3.384	0.67%
QC value within limits for Ba 233.527 Recovery = 100.85%						
Be 313.107†	1196982.6	510.80 ug/L	0.091	510.80 ppb	0.091	0.02%
QC value within limits for Be 313.107 Recovery = 102.16%						
Ca 317.933Radial†	2765.8	5233.6 ug/L	10.57	5233.6 ppb	10.57	0.20%

QC value within limits for Ca 317.933 Radial Recovery = 104.67%

Cd 226.502†	34949.3	506.98 ug/L	3.619	506.98 ppb	3.619	0.71%
QC value within limits for Cd 226.502 Recovery = 101.40%						
Co 228.616†	19821.0	512.39 ug/L	3.312	512.39 ppb	3.312	0.65%
QC value within limits for Co 228.616 Recovery = 102.48%						
Cr 267.716†	37569.3	504.87 ug/L	3.275	504.87 ppb	3.275	0.65%
QC value within limits for Cr 267.716 Recovery = 100.97%						
Cu 324.752†	150647.3	497.36 ug/L	3.607	497.36 ppb	3.607	0.73%
QC value within limits for Cu 324.752 Recovery = 99.47%						
Fe 238.204 Radial†	453.8	5273.4 ug/L	32.71	5273.4 ppb	32.71	0.62%
QC value within limits for Fe 238.204 Radial Recovery = 105.47%						
K 766.490 Radial†	28230.3	5372.1 ug/L	5.80	5372.1 ppb	5.80	0.11%
QC value within limits for K 766.490 Radial Recovery = 107.44%						
Mg 279.077 IEC†	129.2	5331.2 ug/L	180.50	5331.2 ppb	180.50	3.39%
QC value within limits for Mg 279.077 IEC Recovery = 106.62%						
Mn 257.610†	375688.4	494.26 ug/L	3.784	494.26 ppb	3.784	0.77%
QC value within limits for Mn 257.610 Recovery = 98.85%						
Mo 202.031†	5614.9	499.58 ug/L	3.902	499.58 ppb	3.902	0.78%
QC value within limits for Mo 202.031 Recovery = 99.92%						
Na 589.592 Radial†	29064.7	10246 ug/L	54.4	10246 ppb	54.4	0.53%
QC value within limits for Na 589.592 Radial Recovery = 102.46%						
Ni 231.604†	16094.4	510.81 ug/L	3.773	510.81 ppb	3.773	0.74%
QC value within limits for Ni 231.604 Recovery = 102.16%						
P 214.914†	3368.4	2412.1 ug/L	25.99	2412.1 ppb	25.99	1.08%
QC value within limits for P 214.914 Recovery = 96.48%						
Pb 220.353†	3249.7	500.70 ug/L	4.513	500.70 ppb	4.513	0.90%
QC value within limits for Pb 220.353 Recovery = 100.14%						
S 181.975 Axial†	561.2	1003.7 ug/L	16.36	1003.7 ppb	16.36	1.63%
QC value within limits for S 181.975 Axial Recovery = 100.37%						
Sb 206.836†	1205.0	522.08 ug/L	8.656	522.08 ppb	8.656	1.66%
QC value within limits for Sb 206.836 Recovery = 104.42%						
Se 196.026†	606.0	523.16 ug/L	6.101	523.16 ppb	6.101	1.17%
QC value within limits for Se 196.026 Recovery = 104.63%						
Si 251.611†	66520.5	2519.2 ug/L	18.34	2519.2 ppb	18.34	0.73%
QC value within limits for Si 251.611 Recovery = 100.77%						
Sn 189.927†	2197.2	499.23 ug/L	6.070	499.23 ppb	6.070	1.22%
QC value within limits for Sn 189.927 Recovery = 99.85%						
Sr 421.552†	65955.2	528.64 ug/L	1.515	528.64 ppb	1.515	0.29%
QC value within limits for Sr 421.552 Recovery = 105.73%						
Ti 334.940†	283741.0	493.30 ug/L	3.187	493.30 ppb	3.187	0.65%
QC value within limits for Ti 334.940 Recovery = 98.66%						
Tl 190.801†	1297.4	505.20 ug/L	4.539	505.20 ppb	4.539	0.90%
QC value within limits for Tl 190.801 Recovery = 101.04%						
U 409.014†	16758.3	506.69 ug/L	4.887	506.69 ppb	4.887	0.96%
QC value within limits for U 409.014 Recovery = 101.34%						
V 292.402†	62744.3	507.68 ug/L	3.249	507.68 ppb	3.249	0.64%
QC value within limits for V 292.402 Recovery = 101.54%						
Zn 213.857†	41914.8	503.15 ug/L	3.675	503.15 ppb	3.675	0.73%
QC value within limits for Zn 213.857 Recovery = 100.63%						
SiO2†	65937.0	5367.6 ug/L	73.18	5367.6 ppb	73.18	1.36%
QC value within limits for SiO2 Recovery = 100.38%						

All analyte(s) passed QC.

Sequence No.: 10

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/19/2010 11:45:21

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	4343.7	4343.7	98.8 %		11:47:14
1	Y RADIAL	4752.6	4752.6	99.83 %		11:47:14
1	Al 396.153Radial†	-72.3	4.9	4.8133 ug/L	4.8133 ppb	11:47:34
1	Ca 317.933Radial†	26.1	10.7	20.319 ug/L	20.319 ppb	11:47:34
1	Fe 238.204 Radial†	7.8	-0.6	-6.4728 ug/L	-6.4728 ppb	11:47:34
1	K 766.490 Radial†	2857.2	292.2	55.678 ug/L	55.678 ppb	11:47:14
1	Mg 279.077 IEC†	3.4	1.9	79.741 ug/L	79.741 ppb	11:47:34
1	Na 589.592 Radial†	-927.8	-63.7	-22.449 ug/L	-22.449 ppb	11:47:14
1	Sr 421.552†	28.1	7.6	0.0605 ug/L	0.0605 ppb	11:47:14
1	Sc 361.383	828290.0	828290.0	101.16 %		11:48:31
1	Y 371.029	698408.7	698408.7	100.98 %		11:48:31
1	Ag 328.068†	104.7	-81.6	-0.4271 ug/L	-0.4271 ppb	11:48:31
1	As 188.979†	-31.6	-4.5	-2.4585 ug/L	-2.4585 ppb	11:48:51
1	B 249.677†	-193.4	346.2	9.7120 ug/L	9.7120 ppb	11:48:51
1	Ba 233.527†	14.1	14.7	0.1368 ug/L	0.1368 ppb	11:48:51
1	Be 313.107†	-3650.4	122.4	0.0523 ug/L	0.0523 ppb	11:48:31
1	Cd 226.502†	-158.0	14.5	0.2110 ug/L	0.2110 ppb	11:48:51
1	Co 228.616†	-45.0	1.8	0.0456 ug/L	0.0456 ppb	11:48:51
1	Cr 267.716†	83.6	11.2	0.1488 ug/L	0.1488 ppb	11:48:51
1	Cu 324.752†	5611.4	-4.7	-0.0160 ug/L	-0.0160 ppb	11:48:31
1	Mn 257.610†	476.0	81.5	0.1032 ug/L	0.1032 ppb	11:48:51
1	Mo 202.031†	9.0	0.3	0.0289 ug/L	0.0289 ppb	11:48:51
1	Ni 231.604†	93.0	7.8	0.2484 ug/L	0.2484 ppb	11:48:51
1	P 214.914†	189.1	-0.4	-0.2430 ug/L	-0.2430 ppb	11:48:51
1	Pb 220.353†	-55.8	3.1	0.4814 ug/L	0.4814 ppb	11:48:51
1	S 181.975 Axial†	32.8	2.2	3.9603 ug/L	3.9603 ppb	11:48:51
1	Sb 206.836†	25.8	1.8	0.7907 ug/L	0.7907 ppb	11:48:51
1	Se 196.026†	-13.3	3.9	3.1912 ug/L	3.1912 ppb	11:48:51
1	Si 251.611†	646.0	150.5	5.7129 ug/L	5.7129 ppb	11:48:51
1	Sn 189.927†	15.0	7.7	1.7470 ug/L	1.7470 ppb	11:48:51
1	Ti 334.940†	-1081.0	52.5	0.0874 ug/L	0.0874 ppb	11:48:31
1	Tl 190.801†	-17.1	12.2	4.7325 ug/L	4.7325 ppb	11:48:51
1	U 409.014†	-2223.2	6.4	0.1952 ug/L	0.1952 ppb	11:48:31
1	V 292.402†	-1356.9	-23.9	-0.1879 ug/L	-0.1879 ppb	11:48:31
1	Zn 213.857†	920.4	339.8	4.1165 ug/L	4.1165 ppb	11:48:51
1	SiO2†	681.4	174.2	14.218 ug/L	14.218 ppb	11:50:02
2	Sc Radial	4441.9	4441.9	101 %		11:47:39
2	Y RADIAL	4833.4	4833.4	101.5 %		11:47:39
2	Al 396.153Radial†	-89.0	-10.0	-9.8127 ug/L	-9.8127 ppb	11:47:59
2	Ca 317.933Radial†	25.8	9.9	18.681 ug/L	18.681 ppb	11:47:59
2	Fe 238.204 Radial†	8.3	-0.3	-3.2666 ug/L	-3.2666 ppb	11:47:59
2	K 766.490 Radial†	2698.1	70.9	13.499 ug/L	13.499 ppb	11:47:39
2	Mg 279.077 IEC†	4.0	2.4	99.388 ug/L	99.388 ppb	11:47:59
2	Na 589.592 Radial†	-871.7	12.7	4.4605 ug/L	4.4605 ppb	11:47:39
2	Sr 421.552†	31.8	10.7	0.0855 ug/L	0.0855 ppb	11:47:39
2	Sc 361.383	822220.7	822220.7	100.41 %		11:48:56
2	Y 371.029	694053.4	694053.4	100.35 %		11:48:56
2	Ag 328.068†	97.9	-87.6	-0.4532 ug/L	-0.4532 ppb	11:48:56
2	As 188.979†	-18.2	8.7	4.7808 ug/L	4.7808 ppb	11:49:16
2	B 249.677†	-207.3	330.9	9.2829 ug/L	9.2829 ppb	11:49:16
2	Ba 233.527†	8.6	9.2	0.0863 ug/L	0.0863 ppb	11:49:16
2	Be 313.107†	-3738.2	8.3	0.0032 ug/L	0.0032 ppb	11:48:56
2	Cd 226.502†	-172.2	-0.9	-0.0129 ug/L	-0.0129 ppb	11:49:16
2	Co 228.616†	-48.8	-2.4	-0.0611 ug/L	-0.0611 ppb	11:49:16
2	Cr 267.716†	62.0	-9.8	-0.1300 ug/L	-0.1300 ppb	11:49:16
2	Cu 324.752†	5614.1	38.9	0.1304 ug/L	0.1304 ppb	11:48:56
2	Mn 257.610†	501.3	110.2	0.1405 ug/L	0.1405 ppb	11:49:16
2	Mo 202.031†	10.8	2.2	0.1973 ug/L	0.1973 ppb	11:49:16
2	Ni 231.604†	90.3	5.9	0.1874 ug/L	0.1874 ppb	11:49:16

2	P 214.914†	180.7	-7.3	-5.4650 ug/L	-5.4650 ppb	11:49:16
2	Pb 220.353†	-39.7	18.7	2.8759 ug/L	2.8759 ppb	11:49:16
2	S 181.975 Axial†	29.8	-0.5	-0.8807 ug/L	-0.8807 ppb	11:49:16
2	Sb 206.836†	23.8	0.1	0.0562 ug/L	0.0562 ppb	11:49:16
2	Se 196.026†	-17.5	-0.5	-0.3920 ug/L	-0.3920 ppb	11:49:16
2	Si 251.611†	640.6	149.7	5.6822 ug/L	5.6822 ppb	11:49:16
2	Sn 189.927†	13.4	6.2	1.4045 ug/L	1.4045 ppb	11:49:16
2	Ti 334.940†	-1200.9	-74.7	-0.1338 ug/L	-0.1338 ppb	11:48:56
2	Tl 190.801†	-29.2	0.0	0.0028 ug/L	0.0028 ppb	11:49:16
2	U 409.014†	-2336.4	-122.6	-3.7174 ug/L	-3.7174 ppb	11:48:56
2	V 292.402†	-1326.4	-3.5	-0.0295 ug/L	-0.0295 ppb	11:48:56
2	Zn 213.857†	929.9	356.0	4.3122 ug/L	4.3122 ppb	11:49:16
2	SiO2†	659.8	157.7	12.866 ug/L	12.866 ppb	11:50:22
3	Sc Radial	4304.4	4304.4	97.9 %		11:48:04
3	Y RADIAL	4703.3	4703.3	98.80 %		11:48:04
3	Al 396.153Radial†	-76.9	-0.5	-0.4680 ug/L	-0.4680 ppb	11:48:24
3	Ca 317.933Radial†	24.4	9.2	17.441 ug/L	17.441 ppb	11:48:24
3	Fe 238.204 Radial†	8.1	-0.2	-2.3264 ug/L	-2.3264 ppb	11:48:24
3	K 766.490 Radial†	2757.5	216.8	41.316 ug/L	41.316 ppb	11:48:04
3	Mg 279.077 IEC†	-1.8	-3.4	-138.98 ug/L	-138.98 ppb	11:48:24
3	Na 589.592 Radial†	-956.3	-101.3	-35.712 ug/L	-35.712 ppb	11:48:04
3	Sr 421.552†	17.2	-3.2	-0.0261 ug/L	-0.0261 ppb	11:48:04
3	Sc 361.383	833215.2	833215.2	101.76 %		11:49:21
3	Y 371.029	704277.1	704277.1	101.83 %		11:49:21
3	Ag 328.068†	241.3	52.0	0.2686 ug/L	0.2686 ppb	11:49:21
3	As 188.979†	-21.5	5.7	3.1078 ug/L	3.1078 ppb	11:49:41
3	B 249.677†	-197.2	343.6	9.6384 ug/L	9.6384 ppb	11:49:41
3	Ba 233.527†	18.2	18.6	0.1741 ug/L	0.1741 ppb	11:49:41
3	Be 313.107†	-3699.6	95.4	0.0407 ug/L	0.0407 ppb	11:49:21
3	Cd 226.502†	-179.9	-6.1	-0.0885 ug/L	-0.0885 ppb	11:49:41
3	Co 228.616†	-44.9	2.1	0.0532 ug/L	0.0532 ppb	11:49:41
3	Cr 267.716†	100.4	27.1	0.3634 ug/L	0.3634 ppb	11:49:41
3	Cu 324.752†	5718.7	67.9	0.2234 ug/L	0.2234 ppb	11:49:21
3	Mn 257.610†	479.2	81.9	0.1131 ug/L	0.1131 ppb	11:49:41
3	Mo 202.031†	10.6	1.9	0.1659 ug/L	0.1659 ppb	11:49:41
3	Ni 231.604†	99.0	13.2	0.4195 ug/L	0.4195 ppb	11:49:41
3	P 214.914†	193.1	2.5	1.8356 ug/L	1.8356 ppb	11:49:41
3	Pb 220.353†	-58.2	1.1	0.1647 ug/L	0.1647 ppb	11:49:41
3	S 181.975 Axial†	28.0	-2.6	-4.7374 ug/L	-4.7374 ppb	11:49:41
3	Sb 206.836†	29.2	5.0	2.1114 ug/L	2.1114 ppb	11:49:41
3	Se 196.026†	-18.5	-1.2	-1.0177 ug/L	-1.0177 ppb	11:49:41
3	Si 251.611†	635.3	136.2	5.1683 ug/L	5.1683 ppb	11:49:41
3	Sn 189.927†	11.5	4.1	0.9329 ug/L	0.9329 ppb	11:49:41
3	Ti 334.940†	-1105.7	34.6	0.0732 ug/L	0.0732 ppb	11:49:21
3	Tl 190.801†	-32.3	-2.6	-1.0229 ug/L	-1.0229 ppb	11:49:41
3	U 409.014†	-2206.7	35.6	1.0801 ug/L	1.0801 ppb	11:49:21
3	V 292.402†	-1323.5	16.7	0.1356 ug/L	0.1356 ppb	11:49:21
3	Zn 213.857†	913.1	327.3	3.9630 ug/L	3.9630 ppb	11:49:41
3	SiO2†	667.1	156.3	12.748 ug/L	12.748 ppb	11:50:42

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	827908.6	101.11 %	0.673			0.67%
Sc Radial	4363.4	99.3 %	1.61			1.62%
Y 371.029	698913.0	101.05 %	0.742			0.73%
Y RADIAL	4763.1	100.1 %	1.38			1.38%
Ag 328.068†	-39.1	-0.2039 ug/L	0.40937	-0.2039 ppb	0.40937	200.79%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-1.8	-1.8225 ug/L	7.40648	-1.8225 ppb	7.40648	406.40%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	3.3	1.8100 ug/L	3.79014	1.8100 ppb	3.79014	209.40%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	340.2	9.5444 ug/L	0.22946	9.5444 ppb	0.22946	2.40%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	14.2	0.1324 ug/L	0.04406	0.1324 ppb	0.04406	33.28%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	75.3	0.0321 ug/L	0.02566	0.0321 ppb	0.02566	79.97%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	9.9	18.814 ug/L	1.4439	18.814 ppb	1.4439	7.67%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	2.5	0.0365 ug/L	0.15575	0.0365 ppb	0.15575	426.34%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	0.5	0.0126 ug/L	0.06393	0.0126 ppb	0.06393	508.85%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	9.5	0.1274 ug/L	0.24741	0.1274 ppb	0.24741	194.22%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	34.0	0.1126 ug/L	0.12073	0.1126 ppb	0.12073	107.22%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-0.3	-4.0220 ug/L	2.17392	-4.0220 ppb	2.17392	54.05%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	193.3	36.831 ug/L	21.4438	36.831 ppb	21.4438	58.22%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	0.3	13.382 ug/L	132.3172	13.382 ppb	132.3172	988.75%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	91.2	0.1189 ug/L	0.01931	0.1189 ppb	0.01931	16.23%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	1.5	0.1307 ug/L	0.08959	0.1307 ppb	0.08959	68.54%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-50.8	-17.900 ug/L	20.4690	-17.900 ppb	20.4690	114.35%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	9.0	0.2851 ug/L	0.12032	0.2851 ppb	0.12032	42.20%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-1.7	-1.2908 ug/L	3.76140	-1.2908 ppb	3.76140	291.40%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	7.6	1.1740 ug/L	1.48236	1.1740 ppb	1.48236	126.27%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-0.3	-0.5526 ug/L	4.35816	-0.5526 ppb	4.35816	788.67%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	2.3	0.9861 ug/L	1.04143	0.9861 ppb	1.04143	105.61%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	0.7	0.5938 ug/L	2.27102	0.5938 ppb	2.27102	382.45%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	145.5	5.5211 ug/L	0.30596	5.5211 ppb	0.30596	5.54%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	6.0	1.3615 ug/L	0.40877	1.3615 ppb	0.40877	30.02%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	5.0	0.0400 ug/L	0.05856	0.0400 ppb	0.05856	146.55%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	4.1	0.0089 ug/L	0.12382	0.0089 ppb	0.12382	>999.9%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	3.2	1.2375 ug/L	3.06995	1.2375 ppb	3.06995	248.08%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-26.8	-0.8140 ug/L	2.55300	-0.8140 ppb	2.55300	313.63%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-3.5	-0.0273 ug/L	0.16176	-0.0273 ppb	0.16176	593.25%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	341.0	4.1306 ug/L	0.17503	4.1306 ppb	0.17503	4.24%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	162.7	13.278 ug/L	0.8169	13.278 ppb	0.8169	6.15%	
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 11
 Sample ID: 247566003|955820|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 46
 Date Collected: 3/19/2010 11:52:52
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 247566003|955820|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4444.4	4444.4	101 %		11:54:45
1	Y RADIAL	6729.5	6729.5	141.4 %		11:54:45
1	Al 396.153Radial†	10727.2	10686.1	10496 ug/L	10496 ppb	11:54:45
1	Ca 317.933Radial†	1644.4	1610.4	3047.3 ug/L	3047.3 ppb	11:55:05
1	Fe 238.204 Radial†	5932.2	5857.8	67873 ug/L	67873 ppb	11:54:45
1	K 766.490 Radial†	30078.6	27145.8	5168.3 ug/L	5168.3 ppb	11:54:45
1	Mg 279.077 IEC†	37.2	35.3	1385.2 ug/L	1385.2 ppb	11:55:05
1	Na 589.592 Radial†	9426.0	10196.4	3594.5 ug/L	3594.5 ppb	11:54:45
1	Sr 421.552†	1777.5	1736.9	13.900 ug/L	13.900 ppb	11:54:45
1	Sc 361.383	850209.3	850209.3	103.83 %		11:56:02
1	Y 371.029	997387.1	997387.1	144.20 %		11:56:02
1	Ag 328.068†	-3887.7	-3929.3	0.9297 ug/L	0.9297 ppb	11:56:07
1	As 188.979†	-52.3	-23.6	30.858 ug/L	30.858 ppb	11:56:27
1	B 249.677†	168.0	699.1	8.5619 ug/L	8.5619 ppb	11:56:07
1	Ba 233.527†	12724.9	12255.9	116.94 ug/L	116.94 ppb	11:56:07
1	Be 313.107†	-10120.1	-6015.5	4.7579 ug/L	4.7579 ppb	11:56:07
1	Cd 226.502†	366.0	523.1	0.5285 ug/L	0.5285 ppb	11:56:27
1	Co 228.616†	356.3	389.4	2.3896 ug/L	2.3896 ppb	11:56:27
1	Cr 267.716†	1762.9	1626.3	29.166 ug/L	29.166 ppb	11:56:07
1	Cu 324.752†	8152.8	2299.9	11.344 ug/L	11.344 ppb	11:56:07
1	Mn 257.610†	2545656.4	2451297.4	3229.7 ug/L	3229.7 ppb	11:56:02
1	Mo 202.031†	82.4	70.8	11.601 ug/L	11.601 ppb	11:56:27
1	Ni 231.604†	325.6	229.5	7.2831 ug/L	7.2831 ppb	11:56:27
1	P 214.914†	864.7	645.5	427.30 ug/L	427.30 ppb	11:56:27
1	Pb 220.353†	280.5	328.5	43.182 ug/L	43.182 ppb	11:56:27
1	S 181.975 Axial†	47.4	15.5	25.772 ug/L	25.772 ppb	11:56:27
1	Sb 206.836†	41.9	16.7	-4.4003 ug/L	-4.4003 ppb	11:56:27
1	Se 196.026†	-301.3	-273.3	-29.154 ug/L	-29.154 ppb	11:56:27
1	Si 251.611†	734593.2	706988.4	26839 ug/L	26839 ppb	11:56:02
1	Sn 189.927†	29.5	21.2	1.4625 ug/L	1.4625 ppb	11:56:27
1	Ti 334.940†	1923781.2	1853888.3	3224.4 ug/L	3224.4 ppb	11:56:02
1	Tl 190.801†	-144.5	-110.1	-0.5396 ug/L	-0.5396 ppb	11:56:27
1	U 409.014†	-12070.5	-9420.7	-293.59 ug/L	-293.59 ppb	11:56:02
1	V 292.402†	3411.2	4602.8	23.015 ug/L	23.015 ppb	11:56:07
1	Zn 213.857†	43310.8	41142.0	488.29 ug/L	488.29 ppb	11:56:07
1	SiO2†	732932.7	705378.0	57567 ug/L	57567 ppb	11:57:35
2	Sc Radial	4507.3	4507.3	103 %		11:55:10
2	Y RADIAL	6865.9	6865.9	144.2 %		11:55:10
2	Al 396.153Radial†	10879.5	10686.7	10497 ug/L	10497 ppb	11:55:10
2	Ca 317.933Radial†	1634.8	1578.4	2986.7 ug/L	2986.7 ppb	11:55:30
2	Fe 238.204 Radial†	6066.6	5907.1	68445 ug/L	68445 ppb	11:55:10
2	K 766.490 Radial†	30501.9	27143.7	5168.0 ug/L	5168.0 ppb	11:55:10
2	Mg 279.077 IEC†	35.5	33.1	1295.4 ug/L	1295.4 ppb	11:55:30
2	Na 589.592 Radial†	9606.3	10242.3	3610.6 ug/L	3610.6 ppb	11:55:10
2	Sr 421.552†	1815.9	1749.8	14.004 ug/L	14.004 ppb	11:55:10
2	Sc 361.383	851402.6	851402.6	103.98 %		11:56:33
2	Y 371.029	995510.2	995510.2	143.93 %		11:56:33
2	Ag 328.068†	-3983.5	-4016.3	0.6562 ug/L	0.6562 ppb	11:56:38
2	As 188.979†	-50.9	-22.1	31.769 ug/L	31.769 ppb	11:56:58
2	B 249.677†	219.4	748.4	9.8514 ug/L	9.8514 ppb	11:56:38
2	Ba 233.527†	12755.5	12268.1	117.07 ug/L	117.07 ppb	11:56:38
2	Be 313.107†	-9877.8	-5768.8	4.8545 ug/L	4.8545 ppb	11:56:38
2	Cd 226.502†	385.8	541.7	0.7381 ug/L	0.7381 ppb	11:56:58
2	Co 228.616†	358.3	390.8	2.4276 ug/L	2.4276 ppb	11:56:58
2	Cr 267.716†	1779.8	1640.2	29.412 ug/L	29.412 ppb	11:56:38
2	Cu 324.752†	8235.2	2368.1	11.600 ug/L	11.600 ppb	11:56:38
2	Mn 257.610†	2546023.8	2448214.4	3225.7 ug/L	3225.7 ppb	11:56:33
2	Mo 202.031†	93.2	81.1	12.562 ug/L	12.562 ppb	11:56:58
2	Ni 231.604†	310.6	214.7	6.8114 ug/L	6.8114 ppb	11:56:58

2	P 214.914†	867.9	647.4	428.22 ug/L	428.22 ppb	11:56:58
2	Pb 220.353†	282.7	330.2	43.368 ug/L	43.368 ppb	11:56:58
2	S 181.975 Axial†	47.1	15.1	25.116 ug/L	25.116 ppb	11:56:58
2	Sb 206.836†	51.7	26.1	-0.4223 ug/L	-0.4223 ppb	11:56:58
2	Se 196.026†	-301.6	-273.1	-27.400 ug/L	-27.400 ppb	11:56:58
2	Si 251.611†	735602.5	706967.5	26838 ug/L	26838 ppb	11:56:33
2	Sn 189.927†	34.0	25.5	2.3944 ug/L	2.3944 ppb	11:56:58
2	Ti 334.940†	1924242.3	1851734.9	3220.7 ug/L	3220.7 ppb	11:56:33
2	Tl 190.801†	-149.3	-114.5	-2.3122 ug/L	-2.3122 ppb	11:56:58
2	U 409.014†	-12133.1	-9464.7	-294.99 ug/L	-294.99 ppb	11:56:33
2	V 292.402†	3394.7	4582.3	22.781 ug/L	22.781 ppb	11:56:38
2	Zn 213.857†	43376.8	41147.0	488.27 ug/L	488.27 ppb	11:56:38
2	SiO2†	736567.8	707884.7	57771 ug/L	57771 ppb	11:57:41
3	Sc Radial	4514.4	4514.4	103 %		11:55:35
3	Y RADIAL	6874.1	6874.1	144.4 %		11:55:35
3	Al 396.153Radial†	10928.6	10717.8	10527 ug/L	10527 ppb	11:55:35
3	Ca 317.933Radial†	1632.8	1573.9	2978.1 ug/L	2978.1 ppb	11:55:55
3	Fe 238.204 Radial†	6030.4	5862.5	67927 ug/L	67927 ppb	11:55:35
3	K 766.490 Radial†	30567.9	27161.0	5171.2 ug/L	5171.2 ppb	11:55:35
3	Mg 279.077 IEC†	32.8	30.4	1184.8 ug/L	1184.8 ppb	11:55:55
3	Na 589.592 Radial†	9606.6	10227.7	3605.5 ug/L	3605.5 ppb	11:55:35
3	Sr 421.552†	1792.8	1724.6	13.802 ug/L	13.802 ppb	11:55:35
3	Sc 361.383	841968.2	841968.2	102.83 %		11:57:04
3	Y 371.029	984493.4	984493.4	142.34 %		11:57:04
3	Ag 328.068†	-3882.2	-3960.7	0.7918 ug/L	0.7918 ppb	11:57:09
3	As 188.979†	-50.0	-21.8	31.752 ug/L	31.752 ppb	11:57:29
3	B 249.677†	189.5	721.7	9.1865 ug/L	9.1865 ppb	11:57:09
3	Ba 233.527†	12579.6	12234.5	116.74 ug/L	116.74 ppb	11:57:09
3	Be 313.107†	-9898.6	-5895.5	4.7841 ug/L	4.7841 ppb	11:57:09
3	Cd 226.502†	392.6	552.4	0.9452 ug/L	0.9452 ppb	11:57:29
3	Co 228.616†	347.5	384.1	2.2797 ug/L	2.2797 ppb	11:57:29
3	Cr 267.716†	1680.9	1563.1	28.328 ug/L	28.328 ppb	11:57:09
3	Cu 324.752†	8072.7	2298.8	11.349 ug/L	11.349 ppb	11:57:09
3	Mn 257.610†	2512878.0	2443416.7	3219.3 ug/L	3219.3 ppb	11:57:04
3	Mo 202.031†	98.0	86.8	13.023 ug/L	13.023 ppb	11:57:29
3	Ni 231.604†	295.8	203.6	6.4587 ug/L	6.4587 ppb	11:57:29
3	P 214.914†	852.5	641.8	424.56 ug/L	424.56 ppb	11:57:29
3	Pb 220.353†	279.1	329.7	43.379 ug/L	43.379 ppb	11:57:29
3	S 181.975 Axial†	41.4	10.1	16.063 ug/L	16.063 ppb	11:57:29
3	Sb 206.836†	40.5	15.7	-4.7290 ug/L	-4.7290 ppb	11:57:29
3	Se 196.026†	-299.6	-274.4	-29.934 ug/L	-29.934 ppb	11:57:29
3	Si 251.611†	726130.6	705683.1	26790 ug/L	26790 ppb	11:57:04
3	Sn 189.927†	35.4	27.3	2.8191 ug/L	2.8191 ppb	11:57:29
3	Ti 334.940†	1898652.4	1847584.8	3213.5 ug/L	3213.5 ppb	11:57:04
3	Tl 190.801†	-152.1	-118.8	-4.0736 ug/L	-4.0736 ppb	11:57:29
3	U 409.014†	-12303.9	-9761.5	-303.94 ug/L	-303.94 ppb	11:57:04
3	V 292.402†	3342.8	4568.3	22.741 ug/L	22.741 ppb	11:57:09
3	Zn 213.857†	42764.5	41018.9	486.80 ug/L	486.80 ppb	11:57:09
3	SiO2†	735661.0	714940.4	58347 ug/L	58347 ppb	11:57:46

Mean Data: 247566003|955820|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	847860.0	103.55 %	0.627			0.61%
Sc Radial	4488.7	102 %	0.9			0.86%
Y 371.029	992463.5	143.49 %	1.007			0.70%
Y RADIAL	6823.2	143.3 %	1.71			1.19%
Ag 328.068†	-3968.7	0.7926 ug/L	0.13675	0.7926 ppb	0.13675	17.25%
Al 396.153Radial†	10696.9	10507 ug/L	17.7	10507 ppb	17.7	0.17%
As 188.979†	-22.5	31.460 ug/L	0.5211	31.460 ppb	0.5211	1.66%
B 249.677†	723.1	9.1999 ug/L	0.64484	9.1999 ppb	0.64484	7.01%
Ba 233.527†	12252.8	116.92 ug/L	0.167	116.92 ppb	0.167	0.14%
Be 313.107†	-5893.3	4.7988 ug/L	0.04993	4.7988 ppb	0.04993	1.04%
Ca 317.933Radial†	1587.6	3004.0 ug/L	37.69	3004.0 ppb	37.69	1.25%
Cd 226.502†	539.1	0.7373 ug/L	0.20837	0.7373 ppb	0.20837	28.26%
Co 228.616†	388.1	2.3656 ug/L	0.07679	2.3656 ppb	0.07679	3.25%
Cr 267.716†	1609.9	28.968 ug/L	0.5686	28.968 ppb	0.5686	1.96%
Cu 324.752†	2322.2	11.431 ug/L	0.1464	11.431 ppb	0.1464	1.28%
Fe 238.204 Radial†	5875.8	68082 ug/L	315.5	68082 ppb	315.5	0.46%
K 766.490 Radial†	27150.2	5169.2 ug/L	1.80	5169.2 ppb	1.80	0.03%

Mg 279.077 IEC†	33.0	1288.5 ug/L	100.38	1288.5 ppb	100.38	7.79%
Mn 257.610†	2447642.8	3224.9 ug/L	5.22	3224.9 ppb	5.22	0.16%
Mo 202.031†	79.6	12.395 ug/L	0.7256	12.395 ppb	0.7256	5.85%
Na 589.592 Radial†	10222.2	3603.5 ug/L	8.26	3603.5 ppb	8.26	0.23%
Ni 231.604†	215.9	6.8511 ug/L	0.41364	6.8511 ppb	0.41364	6.04%
P 214.914†	644.9	426.69 ug/L	1.902	426.69 ppb	1.902	0.45%
Pb 220.353†	329.5	43.310 ug/L	0.1104	43.310 ppb	0.1104	0.26%
S 181.975 Axial†	13.6	22.317 ug/L	5.4262	22.317 ppb	5.4262	24.31%
Sb 206.836†	19.5	-3.1839 ug/L	2.39722	-3.1839 ppb	2.39722	75.29%
Se 196.026†	-273.6	-28.829 ug/L	1.2977	-28.829 ppb	1.2977	4.50%
Si 251.611†	706546.3	26822 ug/L	28.4	26822 ppb	28.4	0.11%
Sn 189.927†	24.7	2.2254 ug/L	0.69394	2.2254 ppb	0.69394	31.18%
Sr 421.552†	1737.1	13.902 ug/L	0.1011	13.902 ppb	0.1011	0.73%
Ti 334.940†	1851069.3	3219.5 ug/L	5.57	3219.5 ppb	5.57	0.17%
Tl 190.801†	-114.5	-2.3085 ug/L	1.76700	-2.3085 ppb	1.76700	76.54%
U 409.014†	-9549.0	-297.51 ug/L	5.611	-297.51 ppb	5.611	1.89%
V 292.402†	4584.4	22.845 ug/L	0.1482	22.845 ppb	0.1482	0.65%
Zn 213.857†	41102.6	487.79 ug/L	0.856	487.79 ppb	0.856	0.18%
SiO2†	709401.0	57895 ug/L	404.6	57895 ppb	404.6	0.70%

Sequence No.: 12

Sample ID: 247566004|955820|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 47

Date Collected: 3/19/2010 11:59:57

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 247566004|955820|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4314.2	4314.2	98.2 %		12:02:11
1	Y RADIAL	6515.3	6515.3	136.9 %		12:01:51
1	Al 396.153Radial†	12002.9	12305.9	12088 ug/L	12088 ppb	12:01:51
1	Ca 317.933Radial†	2373.1	2401.9	4544.9 ug/L	4544.9 ppb	12:02:11
1	Fe 238.204 Radial†	4881.1	4964.1	57518 ug/L	57518 ppb	12:01:51
1	K 766.490 Radial†	25619.7	23501.1	4473.8 ug/L	4473.8 ppb	12:01:51
1	Mg 279.077 IEC†	38.8	38.0	1506.8 ug/L	1506.8 ppb	12:02:11
1	Na 589.592 Radial†	7872.3	8894.9	3135.6 ug/L	3135.6 ppb	12:01:51
1	Sr 421.552†	1829.5	1843.0	14.739 ug/L	14.739 ppb	12:01:51
1	Sc 361.383	848052.6	848052.6	103.57 %		12:03:08
1	Y 371.029	957428.6	957428.6	138.43 %		12:03:08
1	Ag 328.068†	-3210.1	-3284.6	1.0038 ug/L	1.0038 ppb	12:03:13
1	As 188.979†	-41.9	-13.7	27.282 ug/L	27.282 ppb	12:03:33
1	B 249.677†	93.7	627.8	8.2494 ug/L	8.2494 ppb	12:03:13
1	Ba 233.527†	10516.0	10154.3	96.928 ug/L	96.928 ppb	12:03:13
1	Be 313.107†	-9417.9	-5362.3	3.3068 ug/L	3.3068 ppb	12:03:13
1	Cd 226.502†	254.8	416.7	0.0602 ug/L	0.0602 ppb	12:03:33
1	Co 228.616†	272.2	309.0	2.0439 ug/L	2.0439 ppb	12:03:33
1	Cr 267.716†	1332.2	1214.8	22.528 ug/L	22.528 ppb	12:03:13
1	Cu 324.752†	8376.9	2536.2	11.557 ug/L	11.557 ppb	12:03:13
1	Mn 257.610†	2059783.5	1988404.9	2620.0 ug/L	2620.0 ppb	12:03:08
1	Mo 202.031†	48.2	38.0	7.9003 ug/L	7.9003 ppb	12:03:33
1	Ni 231.604†	294.4	200.2	6.3527 ug/L	6.3527 ppb	12:03:33
1	P 214.914†	667.1	456.8	295.31 ug/L	295.31 ppb	12:03:33
1	Pb 220.353†	218.0	268.8	35.855 ug/L	35.855 ppb	12:03:33
1	S 181.975 Axial†	35.5	4.1	5.0594 ug/L	5.0594 ppb	12:03:33
1	Sb 206.836†	43.1	18.0	-1.3871 ug/L	-1.3871 ppb	12:03:33
1	Se 196.026†	-239.3	-214.1	-9.1028 ug/L	-9.1028 ppb	12:03:33
1	Si 251.611†	744906.6	718745.5	27286 ug/L	27286 ppb	12:03:08
1	Sn 189.927†	17.1	9.3	-0.3752 ug/L	-0.3752 ppb	12:03:33
1	Ti 334.940†	1465261.7	1415883.3	2462.9 ug/L	2462.9 ppb	12:03:08
1	Tl 190.801†	-121.0	-87.8	-1.1175 ug/L	-1.1175 ppb	12:03:33
1	U 409.014†	-10852.5	-8274.2	-257.62 ug/L	-257.62 ppb	12:03:08
1	V 292.402†	2693.0	3917.6	19.889 ug/L	19.889 ppb	12:03:13
1	Zn 213.857†	35580.1	33783.7	400.69 ug/L	400.69 ppb	12:03:13
1	SiO2†	741767.1	715703.1	58410 ug/L	58410 ppb	12:04:41
2	Sc Radial	4352.1	4352.1	99.0 %		12:02:36
2	Y RADIAL	6553.5	6553.5	137.7 %		12:02:16
2	Al 396.153Radial†	12025.4	12222.4	12005 ug/L	12005 ppb	12:02:16
2	Ca 317.933Radial†	2364.5	2372.2	4488.7 ug/L	4488.7 ppb	12:02:36
2	Fe 238.204 Radial†	4899.0	4939.0	57227 ug/L	57227 ppb	12:02:16
2	K 766.490 Radial†	25625.0	23279.4	4431.6 ug/L	4431.6 ppb	12:02:16
2	Mg 279.077 IEC†	38.8	37.6	1492.1 ug/L	1492.1 ppb	12:02:36
2	Na 589.592 Radial†	7971.0	8924.9	3146.2 ug/L	3146.2 ppb	12:02:16
2	Sr 421.552†	1795.4	1792.3	14.333 ug/L	14.333 ppb	12:02:16
2	Sc 361.383	847885.9	847885.9	103.55 %		12:03:39
2	Y 371.029	955990.8	955990.8	138.22 %		12:03:39
2	Ag 328.068†	-3135.8	-3213.4	1.2820 ug/L	1.2820 ppb	12:03:44
2	As 188.979†	-33.3	-5.4	31.711 ug/L	31.711 ppb	12:04:04
2	B 249.677†	-15.5	522.4	5.3402 ug/L	5.3402 ppb	12:03:44
2	Ba 233.527†	10414.6	10058.4	96.021 ug/L	96.021 ppb	12:03:44
2	Be 313.107†	-9235.6	-5188.1	3.3639 ug/L	3.3639 ppb	12:03:44
2	Cd 226.502†	265.3	426.8	0.2372 ug/L	0.2372 ppb	12:04:04
2	Co 228.616†	270.0	307.0	2.0118 ug/L	2.0118 ppb	12:04:04
2	Cr 267.716†	1357.5	1239.5	22.828 ug/L	22.828 ppb	12:03:44
2	Cu 324.752†	8425.0	2584.2	11.699 ug/L	11.699 ppb	12:03:44
2	Mn 257.610†	2052569.4	1981828.9	2611.3 ug/L	2611.3 ppb	12:03:39
2	Mo 202.031†	51.1	40.8	8.1258 ug/L	8.1258 ppb	12:04:04
2	Ni 231.604†	279.2	185.5	5.8876 ug/L	5.8876 ppb	12:04:04

2	P 214.914†	670.5	460.2	298.07 ug/L	298.07 ppb	12:04:04
2	Pb 220.353†	206.5	257.7	34.171 ug/L	34.171 ppb	12:04:04
2	S 181.975 Axial†	34.5	3.1	3.3820 ug/L	3.3820 ppb	12:04:04
2	Sb 206.836†	22.5	-1.9	-9.6593 ug/L	-9.6593 ppb	12:04:04
2	Se 196.026†	-249.7	-224.2	-18.409 ug/L	-18.409 ppb	12:04:04
2	Si 251.611†	742202.7	716275.7	27192 ug/L	27192 ppb	12:03:39
2	Sn 189.927†	20.1	12.2	0.2861 ug/L	0.2861 ppb	12:04:04
2	Ti 334.940†	1460510.3	1411572.8	2455.4 ug/L	2455.4 ppb	12:03:39
2	Tl 190.801†	-123.2	-89.9	-2.0647 ug/L	-2.0647 ppb	12:04:04
2	U 409.014†	-10773.6	-8200.1	-255.34 ug/L	-255.34 ppb	12:03:39
2	V 292.402†	2693.3	3918.5	19.953 ug/L	19.953 ppb	12:03:44
2	Zn 213.857†	35468.5	33682.7	399.51 ug/L	399.51 ppb	12:03:44
2	SiO2†	743968.0	717969.2	58595 ug/L	58595 ppb	12:04:47
3	Sc Radial	4311.6	4311.6	98.1 %		12:03:01
3	Y RADIAL	6656.2	6656.2	139.8 %		12:02:41
3	Al 396.153Radial†	12115.7	12428.3	12208 ug/L	12208 ppb	12:02:41
3	Ca 317.933Radial†	2349.0	2378.8	4501.2 ug/L	4501.2 ppb	12:03:01
3	Fe 238.204 Radial†	4933.4	5020.4	58170 ug/L	58170 ppb	12:02:41
3	K 766.490 Radial†	25949.6	23853.0	4540.9 ug/L	4540.9 ppb	12:02:41
3	Mg 279.077 IEC†	39.5	38.7	1536.4 ug/L	1536.4 ppb	12:03:01
3	Na 589.592 Radial†	8036.5	9067.1	3196.3 ug/L	3196.3 ppb	12:02:41
3	Sr 421.552†	1821.5	1835.9	14.683 ug/L	14.683 ppb	12:02:41
3	Sc 361.383	850251.1	850251.1	103.84 %		12:04:10
3	Y 371.029	957979.2	957979.2	138.51 %		12:04:10
3	Ag 328.068†	-3151.3	-3220.0	1.5392 ug/L	1.5392 ppb	12:04:15
3	As 188.979†	-39.8	-11.5	28.581 ug/L	28.581 ppb	12:04:35
3	B 249.677†	62.8	597.8	7.3040 ug/L	7.3040 ppb	12:04:15
3	Ba 233.527†	10349.1	9967.3	95.194 ug/L	95.194 ppb	12:04:15
3	Be 313.107†	-9170.5	-5100.5	3.4044 ug/L	3.4044 ppb	12:04:15
3	Cd 226.502†	270.3	430.9	0.1993 ug/L	0.1993 ppb	12:04:35
3	Co 228.616†	252.9	289.8	1.5506 ug/L	1.5506 ppb	12:04:35
3	Cr 267.716†	1353.9	1232.4	22.832 ug/L	22.832 ppb	12:04:15
3	Cu 324.752†	8397.1	2534.7	11.587 ug/L	11.587 ppb	12:04:15
3	Mn 257.610†	2058174.4	1981712.8	2611.3 ug/L	2611.3 ppb	12:04:10
3	Mo 202.031†	50.0	39.6	8.0906 ug/L	8.0906 ppb	12:04:35
3	Ni 231.604†	305.9	210.5	6.6812 ug/L	6.6812 ppb	12:04:35
3	P 214.914†	673.8	461.6	298.42 ug/L	298.42 ppb	12:04:35
3	Pb 220.353†	244.4	293.7	39.607 ug/L	39.607 ppb	12:04:35
3	S 181.975 Axial†	36.6	5.1	6.8253 ug/L	6.8253 ppb	12:04:35
3	Sb 206.836†	39.8	14.6	-2.7674 ug/L	-2.7674 ppb	12:04:35
3	Se 196.026†	-249.9	-223.7	-15.216 ug/L	-15.216 ppb	12:04:35
3	Si 251.611†	745353.2	717315.9	27231 ug/L	27231 ppb	12:04:10
3	Sn 189.927†	21.5	13.6	0.5441 ug/L	0.5441 ppb	12:04:35
3	Ti 334.940†	1465416.6	1412374.3	2456.8 ug/L	2456.8 ppb	12:04:10
3	Tl 190.801†	-122.0	-88.4	-1.4409 ug/L	-1.4409 ppb	12:04:35
3	U 409.014†	-10940.8	-8332.2	-259.45 ug/L	-259.45 ppb	12:04:10
3	V 292.402†	2580.5	3802.6	18.881 ug/L	18.881 ppb	12:04:15
3	Zn 213.857†	35054.3	33188.5	393.38 ug/L	393.38 ppb	12:04:15
3	SiO2†	757316.5	728825.8	59481 ug/L	59481 ppb	12:04:52

Mean Data: 247566004|955820|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	848729.9	103.65 %	0.161			0.16%
Sc Radial	4326.0	98.4 %	0.51			0.52%
Y 371.029	957132.9	138.38 %	0.148			0.11%
Y RADIAL	6575.0	138.1 %	1.53			1.11%
Ag 328.068†	-3239.3	1.2750 ug/L	0.26778	1.2750 ppb	0.26778	21.00%
Al 396.153Radial†	12318.9	12100 ug/L	101.7	12100 ppb	101.7	0.84%
As 188.979†	-10.2	29.191 ug/L	2.2765	29.191 ppb	2.2765	7.80%
B 249.677†	582.7	6.9645 ug/L	1.48398	6.9645 ppb	1.48398	21.31%
Ba 233.527†	10060.0	96.048 ug/L	0.8671	96.048 ppb	0.8671	0.90%
Be 313.107†	-5217.0	3.3584 ug/L	0.04905	3.3584 ppb	0.04905	1.46%
Ca 317.933Radial†	2384.3	4511.6 ug/L	29.51	4511.6 ppb	29.51	0.65%
Cd 226.502†	424.8	0.1656 ug/L	0.09323	0.1656 ppb	0.09323	56.31%
Co 228.616†	301.9	1.8688 ug/L	0.27597	1.8688 ppb	0.27597	14.77%
Cr 267.716†	1228.9	22.729 ug/L	0.1744	22.729 ppb	0.1744	0.77%
Cu 324.752†	2551.7	11.614 ug/L	0.0747	11.614 ppb	0.0747	0.64%
Fe 238.204 Radial†	4974.5	57638 ug/L	483.1	57638 ppb	483.1	0.84%
K 766.490 Radial†	23544.5	4482.1 ug/L	55.10	4482.1 ppb	55.10	1.23%

Mg 279.077 IEC†	38.1	1511.8 ug/L	22.54	1511.8 ppb	22.54	1.49%
Mn 257.610†	1983982.2	2614.2 ug/L	5.03	2614.2 ppb	5.03	0.19%
Mo 202.031†	39.5	8.0389 ug/L	0.12132	8.0389 ppb	0.12132	1.51%
Na 589.592 Radial†	8962.3	3159.4 ug/L	32.43	3159.4 ppb	32.43	1.03%
Ni 231.604†	198.8	6.3071 ug/L	0.39872	6.3071 ppb	0.39872	6.32%
P 214.914†	459.5	297.27 ug/L	1.703	297.27 ppb	1.703	0.57%
Pb 220.353†	273.4	36.544 ug/L	2.7832	36.544 ppb	2.7832	7.62%
S 181.975 Axial†	4.1	5.0889 ug/L	1.72183	5.0889 ppb	1.72183	33.83%
Sb 206.836†	10.2	-4.6046 ug/L	4.43160	-4.6046 ppb	4.43160	96.24%
Se 196.026†	-220.6	-14.243 ug/L	4.7290	-14.243 ppb	4.7290	33.20%
Si 251.611†	717445.7	27236 ug/L	47.1	27236 ppb	47.1	0.17%
Sn 189.927†	11.7	0.1517 ug/L	0.47415	0.1517 ppb	0.47415	312.59%
Sr 421.552†	1823.8	14.585 ug/L	0.2197	14.585 ppb	0.2197	1.51%
Ti 334.940†	1413276.8	2458.3 ug/L	3.99	2458.3 ppb	3.99	0.16%
Tl 190.801†	-88.7	-1.5410 ug/L	0.48148	-1.5410 ppb	0.48148	31.24%
U 409.014†	-8268.9	-257.47 ug/L	2.061	-257.47 ppb	2.061	0.80%
V 292.402†	3879.6	19.574 ug/L	0.6014	19.574 ppb	0.6014	3.07%
Zn 213.857†	33551.7	397.86 ug/L	3.926	397.86 ppb	3.926	0.99%
SiO2†	720832.7	58828 ug/L	572.5	58828 ppb	572.5	0.97%

Sequence No.: 13

Sample ID: 247566005|955820|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 48

Date Collected: 3/19/2010 12:07:04

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 247566005|955820|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4331.5	4331.5	98.6 %		12:09:17
1	Y RADIAL	7171.0	7171.0	150.6 %		12:08:57
1	Al 396.153Radial†	13930.0	14212.5	13960 ug/L	13960 ppb	12:08:57
1	Ca 317.933Radial†	3610.0	3647.3	6901.4 ug/L	6901.4 ppb	12:09:17
1	Fe 238.204 Radial†	5385.7	5456.2	63220 ug/L	63220 ppb	12:08:57
1	K 766.490 Radial†	45888.9	43963.3	8370.1 ug/L	8370.1 ppb	12:08:57
1	Mg 279.077 IEC†	30.9	29.8	1162.8 ug/L	1162.8 ppb	12:09:17
1	Na 589.592 Radial†	17312.3	18441.4	6501.0 ug/L	6501.0 ppb	12:08:57
1	Sr 421.552†	1830.2	1836.3	14.667 ug/L	14.667 ppb	12:08:57
1	Sc 361.383	842692.8	842692.8	102.91 %		12:10:15
1	Y 371.029	1027784.8	1027784.8	148.60 %		12:10:15
1	Ag 328.068†	-3391.7	-3480.7	1.7617 ug/L	1.7617 ppb	12:10:20
1	As 188.979†	-38.4	-10.5	31.831 ug/L	31.831 ppb	12:10:40
1	B 249.677†	2.5	539.8	4.8431 ug/L	4.8431 ppb	12:10:20
1	Ba 233.527†	15922.7	15472.4	146.91 ug/L	146.91 ppb	12:10:20
1	Be 313.107†	-8523.0	-4550.6	4.0364 ug/L	4.0364 ppb	12:10:20
1	Cd 226.502†	294.5	456.8	0.0381 ug/L	0.0381 ppb	12:10:40
1	Co 228.616†	437.5	471.3	5.8411 ug/L	5.8411 ppb	12:10:40
1	Cr 267.716†	1532.7	1417.8	25.877 ug/L	25.877 ppb	12:10:20
1	Cu 324.752†	7807.2	2034.1	10.237 ug/L	10.237 ppb	12:10:20
1	Mn 257.610†	2486425.7	2415612.4	3182.3 ug/L	3182.3 ppb	12:10:15
1	Mo 202.031†	125.8	113.7	15.100 ug/L	15.100 ppb	12:10:40
1	Ni 231.604†	209.6	119.6	3.7903 ug/L	3.7903 ppb	12:10:40
1	P 214.914†	739.1	530.8	346.63 ug/L	346.63 ppb	12:10:40
1	Pb 220.353†	247.0	298.3	40.045 ug/L	40.045 ppb	12:10:40
1	S 181.975 Axial†	32.7	1.6	0.2893 ug/L	0.2893 ppb	12:10:40
1	Sb 206.836†	32.9	8.3	-6.0472 ug/L	-6.0472 ppb	12:10:40
1	Se 196.026†	-267.5	-243.0	-16.179 ug/L	-16.179 ppb	12:10:40
1	Si 251.611†	904509.0	878402.0	33347 ug/L	33347 ppb	12:10:15
1	Sn 189.927†	-2.4	-9.5	-4.5652 ug/L	-4.5652 ppb	12:10:40
1	Ti 334.940†	1556088.2	1513135.5	2632.4 ug/L	2632.4 ppb	12:10:15
1	Tl 190.801†	-146.2	-112.9	-6.7882 ug/L	-6.7882 ppb	12:10:40
1	U 409.014†	-12983.4	-10411.4	-323.11 ug/L	-323.11 ppb	12:10:15
1	V 292.402†	2423.8	3672.6	16.886 ug/L	16.886 ppb	12:10:20
1	Zn 213.857†	37672.7	36035.6	427.14 ug/L	427.14 ppb	12:10:20
1	SiO2†	901536.2	875502.2	71451 ug/L	71451 ppb	12:11:48
2	Sc Radial	4422.6	4422.6	101 %		12:09:42
2	Y RADIAL	7121.3	7121.3	149.6 %		12:09:22
2	Al 396.153Radial†	13810.8	13802.9	13558 ug/L	13558 ppb	12:09:22
2	Ca 317.933Radial†	3602.4	3564.3	6744.4 ug/L	6744.4 ppb	12:09:42
2	Fe 238.204 Radial†	5360.0	5318.2	61621 ug/L	61621 ppb	12:09:22
2	K 766.490 Radial†	45778.9	42895.2	8166.8 ug/L	8166.8 ppb	12:09:22
2	Mg 279.077 IEC†	30.4	28.7	1118.2 ug/L	1118.2 ppb	12:09:42
2	Na 589.592 Radial†	17039.5	17808.6	6277.9 ug/L	6277.9 ppb	12:09:22
2	Sr 421.552†	1797.3	1765.3	14.099 ug/L	14.099 ppb	12:09:22
2	Sc 361.383	851819.3	851819.3	104.03 %		12:10:46
2	Y 371.029	1038335.1	1038335.1	150.13 %		12:10:46
2	Ag 328.068†	-3449.6	-3501.1	1.1643 ug/L	1.1643 ppb	12:10:51
2	As 188.979†	-37.9	-9.6	31.944 ug/L	31.944 ppb	12:11:11
2	B 249.677†	54.5	589.7	6.5033 ug/L	6.5033 ppb	12:10:51
2	Ba 233.527†	16063.2	15441.7	146.57 ug/L	146.57 ppb	12:10:51
2	Be 313.107†	-8571.5	-4508.4	4.0612 ug/L	4.0612 ppb	12:10:51
2	Cd 226.502†	308.6	467.3	0.3559 ug/L	0.3559 ppb	12:11:11
2	Co 228.616†	433.6	463.0	5.6443 ug/L	5.6443 ppb	12:11:11
2	Cr 267.716†	1520.5	1390.1	25.336 ug/L	25.336 ppb	12:10:51
2	Cu 324.752†	7851.0	1994.9	10.022 ug/L	10.022 ppb	12:10:51
2	Mn 257.610†	2511045.0	2413392.6	3179.2 ug/L	3179.2 ppb	12:10:46
2	Mo 202.031†	130.3	116.7	15.236 ug/L	15.236 ppb	12:11:11
2	Ni 231.604†	196.9	105.2	3.3324 ug/L	3.3324 ppb	12:11:11

2	P 214.914†	731.0	515.4	336.34 ug/L	336.34 ppb	12:11:11
2	Pb 220.353†	264.4	312.4	42.351 ug/L	42.351 ppb	12:11:11
2	S 181.975 Axial†	26.6	-4.6	-10.848 ug/L	-10.848 ppb	12:11:11
2	Sb 206.836†	41.4	16.1	-2.7113 ug/L	-2.7113 ppb	12:11:11
2	Se 196.026†	-267.8	-240.5	-18.826 ug/L	-18.826 ppb	12:11:11
2	Si 251.611†	915319.0	879376.6	33384 ug/L	33384 ppb	12:10:46
2	Sn 189.927†	7.9	0.4	-2.2418 ug/L	-2.2418 ppb	12:11:11
2	Ti 334.940†	1574755.8	1514880.2	2635.4 ug/L	2635.4 ppb	12:10:46
2	Tl 190.801†	-127.3	-93.3	0.8332 ug/L	0.8332 ppb	12:11:11
2	U 409.014†	-13109.5	-10397.5	-322.51 ug/L	-322.51 ppb	12:10:46
2	V 292.402†	2489.7	3710.7	17.424 ug/L	17.424 ppb	12:10:51
2	Zn 213.857†	38004.5	35962.3	426.49 ug/L	426.49 ppb	12:10:51
2	SiO2†	913296.9	877421.8	71608 ug/L	71608 ppb	12:11:54
3	Sc Radial	4386.5	4386.5	99.8 %		12:10:07
3	Y RADIAL	7391.2	7391.2	155.3 %		12:09:47
3	Al 396.153Radial†	13849.1	13954.4	13707 ug/L	13707 ppb	12:09:47
3	Ca 317.933Radial†	3581.0	3572.3	6759.6 ug/L	6759.6 ppb	12:10:07
3	Fe 238.204 Radial†	5339.7	5341.8	61894 ug/L	61894 ppb	12:09:47
3	K 766.490 Radial†	45896.6	43388.1	8260.7 ug/L	8260.7 ppb	12:09:47
3	Mg 279.077 IEC†	30.8	29.3	1143.9 ug/L	1143.9 ppb	12:10:07
3	Na 589.592 Radial†	16918.0	17826.3	6284.2 ug/L	6284.2 ppb	12:09:47
3	Sr 421.552†	1802.2	1784.9	14.257 ug/L	14.257 ppb	12:09:47
3	Sc 361.383	852857.7	852857.7	104.16 %		12:11:17
3	Y 371.029	1037821.7	1037821.7	150.05 %		12:11:17
3	Ag 328.068†	-3413.0	-3461.9	1.4487 ug/L	1.4487 ppb	12:11:22
3	As 188.979†	-36.6	-8.3	32.709 ug/L	32.709 ppb	12:11:42
3	B 249.677†	6.5	543.6	5.1645 ug/L	5.1645 ppb	12:11:22
3	Ba 233.527†	15935.1	15299.9	145.25 ug/L	145.25 ppb	12:11:22
3	Be 313.107†	-8514.8	-4444.0	4.0865 ug/L	4.0865 ppb	12:11:22
3	Cd 226.502†	304.1	462.6	0.2590 ug/L	0.2590 ppb	12:11:42
3	Co 228.616†	443.6	472.1	5.8751 ug/L	5.8751 ppb	12:11:42
3	Cr 267.716†	1447.2	1318.0	24.397 ug/L	24.397 ppb	12:11:22
3	Cu 324.752†	7799.9	1936.6	9.8445 ug/L	9.8445 ppb	12:11:22
3	Mn 257.610†	2511475.2	2410867.0	3175.9 ug/L	3175.9 ppb	12:11:17
3	Mo 202.031†	126.9	113.3	14.957 ug/L	14.957 ppb	12:11:42
3	Ni 231.604†	195.2	103.4	3.2748 ug/L	3.2748 ppb	12:11:42
3	P 214.914†	718.5	502.5	326.57 ug/L	326.57 ppb	12:11:42
3	Pb 220.353†	262.7	310.5	42.052 ug/L	42.052 ppb	12:11:42
3	S 181.975 Axial†	26.7	-4.5	-10.642 ug/L	-10.642 ppb	12:11:42
3	Sb 206.836†	40.1	14.8	-3.3611 ug/L	-3.3611 ppb	12:11:42
3	Se 196.026†	-271.6	-243.8	-20.736 ug/L	-20.736 ppb	12:11:42
3	Si 251.611†	915542.0	878519.5	33351 ug/L	33351 ppb	12:11:17
3	Sn 189.927†	-14.9	-21.5	-7.2344 ug/L	-7.2344 ppb	12:11:42
3	Ti 334.940†	1576122.3	1514349.1	2634.5 ug/L	2634.5 ppb	12:11:17
3	Tl 190.801†	-136.2	-101.7	-2.4567 ug/L	-2.4567 ppb	12:11:42
3	U 409.014†	-13129.0	-10400.9	-322.64 ug/L	-322.64 ppb	12:11:17
3	V 292.402†	2381.7	3604.1	16.530 ug/L	16.530 ppb	12:11:22
3	Zn 213.857†	37672.9	35599.5	422.06 ug/L	422.06 ppb	12:11:22
3	SiO2†	912731.9	875810.4	71476 ug/L	71476 ppb	12:12:00

Mean Data: 247566005|955820|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	849123.3	103.70 %	%	0.683			0.66%
Sc Radial	4380.2	99.7 %	%	1.04			1.05%
Y 371.029	1034647.2	149.59 %	%	0.860			0.57%
Y RADIAL	7227.8	151.8 %	%	3.02			1.99%
Ag 328.068†	-3481.2	1.4582 ug/L	ug/L	0.29881	1.4582 ppb	0.29881	20.49%
Al 396.153Radial†	13990.0	13741 ug/L	ug/L	203.4	13741 ppb	203.4	1.48%
As 188.979†	-9.5	32.161 ug/L	ug/L	0.4777	32.161 ppb	0.4777	1.49%
B 249.677†	557.7	5.5037 ug/L	ug/L	0.88055	5.5037 ppb	0.88055	16.00%
Ba 233.527†	15404.7	146.24 ug/L	ug/L	0.876	146.24 ppb	0.876	0.60%
Be 313.107†	-4501.0	4.0614 ug/L	ug/L	0.02507	4.0614 ppb	0.02507	0.62%
Ca 317.933Radial†	3594.6	6801.8 ug/L	ug/L	86.58	6801.8 ppb	86.58	1.27%
Cd 226.502†	462.2	0.2177 ug/L	ug/L	0.16292	0.2177 ppb	0.16292	74.85%
Co 228.616†	468.8	5.7868 ug/L	ug/L	0.12460	5.7868 ppb	0.12460	2.15%
Cr 267.716†	1375.3	25.204 ug/L	ug/L	0.7489	25.204 ppb	0.7489	2.97%
Cu 324.752†	1988.6	10.035 ug/L	ug/L	0.1964	10.035 ppb	0.1964	1.96%
Fe 238.204 Radial†	5372.0	62245 ug/L	ug/L	855.6	62245 ppb	855.6	1.37%
K 766.490 Radial†	43415.5	8265.9 ug/L	ug/L	101.79	8265.9 ppb	101.79	1.23%

Mg 279.077 IEC†	29.3	1141.6 ug/L	22.40	1141.6 ppb	22.40	1.96%
Mn 257.610†	2413290.6	3179.1 ug/L	3.19	3179.1 ppb	3.19	0.10%
Mo 202.031†	114.6	15.098 ug/L	0.1396	15.098 ppb	0.1396	0.92%
Na 589.592 Radial†	18025.5	6354.4 ug/L	127.03	6354.4 ppb	127.03	2.00%
Ni 231.604†	109.4	3.4658 ug/L	0.28248	3.4658 ppb	0.28248	8.15%
P 214.914†	516.2	336.51 ug/L	10.035	336.51 ppb	10.035	2.98%
Pb 220.353†	307.1	41.483 ug/L	1.2542	41.483 ppb	1.2542	3.02%
S 181.975 Axial†	-2.5	-7.0667 ug/L	6.37137	-7.0667 ppb	6.37137	90.16%
Sb 206.836†	13.1	-4.0399 ug/L	1.76851	-4.0399 ppb	1.76851	43.78%
Se 196.026†	-242.4	-18.580 ug/L	2.2881	-18.580 ppb	2.2881	12.31%
Si 251.611†	878766.1	33360 ug/L	20.2	33360 ppb	20.2	0.06%
Sn 189.927†	-10.2	-4.6805 ug/L	2.49830	-4.6805 ppb	2.49830	53.38%
Sr 421.552†	1795.5	14.341 ug/L	0.2932	14.341 ppb	0.2932	2.04%
Ti 334.940†	1514121.6	2634.1 ug/L	1.55	2634.1 ppb	1.55	0.06%
Tl 190.801†	-102.6	-2.8039 ug/L	3.82251	-2.8039 ppb	3.82251	136.33%
U 409.014†	-10403.3	-322.75 ug/L	0.319	-322.75 ppb	0.319	0.10%
V 292.402†	3662.4	16.946 ug/L	0.4501	16.946 ppb	0.4501	2.66%
Zn 213.857†	35865.8	425.23 ug/L	2.766	425.23 ppb	2.766	0.65%
SiO2†	876244.8	71512 ug/L	84.1	71512 ppb	84.1	0.12%

Sequence No.: 14

Sample ID: 247566006|955820|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 49

Date Collected: 3/19/2010 12:14:11

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 247566006|955820|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4311.1	4311.1	98.1 %		12:16:24
1	Y RADIAL	6431.8	6431.8	135.1 %		12:16:04
1	Al 396.153Radial†	10486.1	10768.4	10577 ug/L	10577 ppb	12:16:04
1	Ca 317.933Radial†	793.5	793.2	1500.9 ug/L	1500.9 ppb	12:16:24
1	Fe 238.204 Radial†	4731.9	4815.5	55797 ug/L	55797 ppb	12:16:04
1	K 766.490 Radial†	36527.3	34639.7	6596.4 ug/L	6596.4 ppb	12:16:04
1	Mg 279.077 IEC†	19.6	18.5	704.66 ug/L	704.66 ppb	12:16:24
1	Na 589.592 Radial†	12553.8	13673.3	4820.1 ug/L	4820.1 ppb	12:16:04
1	Sr 421.552†	1306.9	1311.6	10.502 ug/L	10.502 ppb	12:16:04
1	Sc 361.383	841603.4	841603.4	102.78 %		12:17:22
1	Y 371.029	936199.9	936199.9	135.36 %		12:17:22
1	Ag 328.068†	-2825.1	-2933.8	2.3024 ug/L	2.3024 ppb	12:17:27
1	As 188.979†	-43.9	-15.9	25.538 ug/L	25.538 ppb	12:17:47
1	B 249.677†	-10.2	527.4	5.6714 ug/L	5.6714 ppb	12:17:27
1	Ba 233.527†	9607.4	9348.1	89.312 ug/L	89.312 ppb	12:17:27
1	Be 313.107†	-8567.4	-4604.5	3.6043 ug/L	3.6043 ppb	12:17:27
1	Cd 226.502†	248.1	412.0	0.1714 ug/L	0.1714 ppb	12:17:47
1	Co 228.616†	833.3	857.0	16.233 ug/L	16.233 ppb	12:17:47
1	Cr 267.716†	7057.0	6794.5	97.158 ug/L	97.158 ppb	12:17:27
1	Cu 324.752†	7492.4	1737.6	8.8223 ug/L	8.8223 ppb	12:17:27
1	Mn 257.610†	2011415.3	1956585.9	2578.0 ug/L	2578.0 ppb	12:17:22
1	Mo 202.031†	115.7	104.1	13.599 ug/L	13.599 ppb	12:17:47
1	Ni 231.604†	235.2	144.8	4.5845 ug/L	4.5845 ppb	12:17:47
1	P 214.914†	638.5	433.9	279.84 ug/L	279.84 ppb	12:17:47
1	Pb 220.353†	197.6	250.5	32.935 ug/L	32.935 ppb	12:17:47
1	S 181.975 Axial†	30.8	-0.2	-2.3042 ug/L	-2.3042 ppb	12:17:47
1	Sb 206.836†	41.3	16.5	-1.7372 ug/L	-1.7372 ppb	12:17:47
1	Se 196.026†	-241.1	-217.6	-17.502 ug/L	-17.502 ppb	12:17:47
1	Si 251.611†	744702.8	724058.7	27487 ug/L	27487 ppb	12:17:22
1	Sn 189.927†	32.6	24.5	2.6342 ug/L	2.6342 ppb	12:17:47
1	Ti 334.940†	1447568.5	1409510.2	2451.4 ug/L	2451.4 ppb	12:17:22
1	Tl 190.801†	-119.6	-87.3	-1.2725 ug/L	-1.2725 ppb	12:17:47
1	U 409.014†	-10354.7	-7870.3	-245.34 ug/L	-245.34 ppb	12:17:22
1	V 292.402†	1987.2	3250.8	14.890 ug/L	14.890 ppb	12:17:27
1	Zn 213.857†	34717.4	33207.6	393.98 ug/L	393.98 ppb	12:17:27
1	SiO2†	739083.7	718580.5	58644 ug/L	58644 ppb	12:18:55
2	Sc Radial	4324.2	4324.2	98.4 %		12:16:49
2	Y RADIAL	6490.9	6490.9	136.3 %		12:16:29
2	Al 396.153Radial†	10654.2	10907.0	10713 ug/L	10713 ppb	12:16:29
2	Ca 317.933Radial†	796.5	793.9	1502.1 ug/L	1502.1 ppb	12:16:49
2	Fe 238.204 Radial†	4746.1	4815.5	55796 ug/L	55796 ppb	12:16:29
2	K 766.490 Radial†	36754.4	34758.2	6619.0 ug/L	6619.0 ppb	12:16:29
2	Mg 279.077 IEC†	17.7	16.5	622.76 ug/L	622.76 ppb	12:16:49
2	Na 589.592 Radial†	12582.3	13663.7	4816.7 ug/L	4816.7 ppb	12:16:29
2	Sr 421.552†	1332.0	1333.1	10.674 ug/L	10.674 ppb	12:16:29
2	Sc 361.383	844371.5	844371.5	103.12 %		12:17:53
2	Y 371.029	938410.9	938410.9	135.68 %		12:17:53
2	Ag 328.068†	-2802.4	-2902.8	2.4605 ug/L	2.4605 ppb	12:17:58
2	As 188.979†	-45.1	-16.9	24.985 ug/L	24.985 ppb	12:18:18
2	B 249.677†	58.6	594.2	7.5454 ug/L	7.5454 ppb	12:17:58
2	Ba 233.527†	9595.5	9305.9	88.916 ug/L	88.916 ppb	12:17:58
2	Be 313.107†	-8517.9	-4529.2	3.6347 ug/L	3.6347 ppb	12:17:58
2	Cd 226.502†	254.1	417.1	0.2452 ug/L	0.2452 ppb	12:18:18
2	Co 228.616†	836.5	857.4	16.245 ug/L	16.245 ppb	12:18:18
2	Cr 267.716†	7034.2	6749.9	96.558 ug/L	96.558 ppb	12:17:58
2	Cu 324.752†	7525.2	1745.5	8.8478 ug/L	8.8478 ppb	12:17:58
2	Mn 257.610†	2013280.7	1951979.3	2572.0 ug/L	2572.0 ppb	12:17:53
2	Mo 202.031†	118.6	106.5	13.816 ug/L	13.816 ppb	12:18:18
2	Ni 231.604†	240.6	149.3	4.7277 ug/L	4.7277 ppb	12:18:18

2	P 214.914†	640.1	433.4	279.50 ug/L	279.50 ppb	12:18:18
2	Pb 220.353†	217.0	268.8	35.763 ug/L	35.763 ppb	12:18:18
2	S 181.975 Axial†	33.1	1.9	1.3790 ug/L	1.3790 ppb	12:18:18
2	Sb 206.836†	47.0	21.9	0.4804 ug/L	0.4804 ppb	12:18:18
2	Se 196.026†	-236.4	-212.3	-13.023 ug/L	-13.023 ppb	12:18:18
2	Si 251.611†	746153.8	723090.5	27451 ug/L	27451 ppb	12:17:53
2	Sn 189.927†	28.1	20.1	1.6274 ug/L	1.6274 ppb	12:18:18
2	Ti 334.940†	1451895.6	1409089.3	2450.7 ug/L	2450.7 ppb	12:17:53
2	Tl 190.801†	-118.5	-85.9	-0.7662 ug/L	-0.7662 ppb	12:18:18
2	U 409.014†	-10360.6	-7842.9	-244.50 ug/L	-244.50 ppb	12:17:53
2	V 292.402†	1922.5	3181.8	14.343 ug/L	14.343 ppb	12:17:58
2	Zn 213.857†	34565.2	32949.4	390.85 ug/L	390.85 ppb	12:17:58
2	SiO2†	746073.1	723001.2	59005 ug/L	59005 ppb	12:19:00
3	Sc Radial	4297.7	4297.7	97.8 %		12:17:14
3	Y RADIAL	6490.5	6490.5	136.3 %		12:16:54
3	Al 396.153Radial†	10556.5	10873.9	10681 ug/L	10681 ppb	12:16:54
3	Ca 317.933Radial†	791.6	793.8	1502.0 ug/L	1502.0 ppb	12:17:14
3	Fe 238.204 Radial†	4735.7	4834.6	56018 ug/L	56018 ppb	12:16:54
3	K 766.490 Radial†	36647.5	34879.2	6642.1 ug/L	6642.1 ppb	12:16:54
3	Mg 279.077 IEC†	19.7	18.6	708.09 ug/L	708.09 ppb	12:17:14
3	Na 589.592 Radial†	12545.8	13705.2	4831.4 ug/L	4831.4 ppb	12:16:54
3	Sr 421.552†	1353.5	1363.3	10.917 ug/L	10.917 ppb	12:16:54
3	Sc 361.383	849015.2	849015.2	103.69 %		12:18:24
3	Y 371.029	944903.4	944903.4	136.62 %		12:18:24
3	Ag 328.068†	-2881.9	-2964.6	2.2040 ug/L	2.2040 ppb	12:18:29
3	As 188.979†	-43.9	-15.6	25.686 ug/L	25.686 ppb	12:18:49
3	B 249.677†	18.2	554.9	6.4079 ug/L	6.4079 ppb	12:18:29
3	Ba 233.527†	9476.9	9140.7	87.376 ug/L	87.376 ppb	12:18:29
3	Be 313.107†	-8590.7	-4554.2	3.5999 ug/L	3.5999 ppb	12:18:29
3	Cd 226.502†	242.9	404.9	0.0466 ug/L	0.0466 ppb	12:18:49
3	Co 228.616†	844.9	861.1	16.360 ug/L	16.360 ppb	12:18:49
3	Cr 267.716†	6950.7	6632.0	95.000 ug/L	95.000 ppb	12:18:29
3	Cu 324.752†	7514.7	1695.5	8.6909 ug/L	8.6909 ppb	12:18:29
3	Mn 257.610†	2014814.4	1942779.9	2559.9 ug/L	2559.9 ppb	12:18:24
3	Mo 202.031†	119.7	106.9	13.871 ug/L	13.871 ppb	12:18:49
3	Ni 231.604†	237.1	144.6	4.5777 ug/L	4.5777 ppb	12:18:49
3	P 214.914†	632.6	422.8	271.43 ug/L	271.43 ppb	12:18:49
3	Pb 220.353†	221.4	271.8	36.193 ug/L	36.193 ppb	12:18:49
3	S 181.975 Axial†	27.9	-3.3	-7.9398 ug/L	-7.9398 ppb	12:18:49
3	Sb 206.836†	42.2	17.0	-1.4890 ug/L	-1.4890 ppb	12:18:49
3	Se 196.026†	-240.9	-215.4	-14.964 ug/L	-14.964 ppb	12:18:49
3	Si 251.611†	745354.5	718362.0	27271 ug/L	27271 ppb	12:18:24
3	Sn 189.927†	35.1	26.6	3.0966 ug/L	3.0966 ppb	12:18:49
3	Ti 334.940†	1453535.9	1402970.4	2440.0 ug/L	2440.0 ppb	12:18:24
3	Tl 190.801†	-115.9	-82.6	0.3336 ug/L	0.3336 ppb	12:18:49
3	U 409.014†	-10201.8	-7634.8	-238.21 ug/L	-238.21 ppb	12:18:24
3	V 292.402†	1971.7	3219.0	14.634 ug/L	14.634 ppb	12:18:29
3	Zn 213.857†	34385.1	32592.3	386.49 ug/L	386.49 ppb	12:18:29
3	SiO2†	739669.8	712868.3	58178 ug/L	58178 ppb	12:19:06

Mean Data: 247566006|955820|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	844996.7	103.20 %	0.457			0.44%
Sc Radial	4311.0	98.1 %	0.30			0.31%
Y 371.029	939838.1	135.88 %	0.654			0.48%
Y RADIAL	6471.1	135.9 %	0.72			0.53%
Ag 328.068†	-2933.7	2.3223 ug/L	0.12941	2.3223 ppb	0.12941	5.57%
Al 396.153Radial†	10849.7	10657 ug/L	71.1	10657 ppb	71.1	0.67%
As 188.979†	-16.1	25.403 ug/L	0.3694	25.403 ppb	0.3694	1.45%
B 249.677†	558.8	6.5416 ug/L	0.94415	6.5416 ppb	0.94415	14.43%
Ba 233.527†	9264.9	88.535 ug/L	1.0230	88.535 ppb	1.0230	1.16%
Be 313.107†	-4562.6	3.6130 ug/L	0.01896	3.6130 ppb	0.01896	0.52%
Ca 317.933Radial†	793.6	1501.7 ug/L	0.67	1501.7 ppb	0.67	0.04%
Cd 226.502†	411.3	0.1544 ug/L	0.10042	0.1544 ppb	0.10042	65.05%
Co 228.616†	858.5	16.279 ug/L	0.0704	16.279 ppb	0.0704	0.43%
Cr 267.716†	6725.5	96.239 ug/L	1.1142	96.239 ppb	1.1142	1.16%
Cu 324.752†	1726.2	8.7870 ug/L	0.08421	8.7870 ppb	0.08421	0.96%
Fe 238.204 Radial†	4821.9	55870 ug/L	127.5	55870 ppb	127.5	0.23%
K 766.490 Radial†	34759.1	6619.2 ug/L	22.82	6619.2 ppb	22.82	0.34%

Mg 279.077 IEC†	17.9	678.51 ug/L	48.306	678.51 ppb	48.306	7.12%
Mn 257.610†	1950448.3	2570.0 ug/L	9.23	2570.0 ppb	9.23	0.36%
Mo 202.031†	105.8	13.762 ug/L	0.1439	13.762 ppb	0.1439	1.05%
Na 589.592 Radial†	13680.7	4822.8 ug/L	7.66	4822.8 ppb	7.66	0.16%
Ni 231.604†	146.2	4.6300 ug/L	0.08470	4.6300 ppb	0.08470	1.83%
P 214.914†	430.0	276.92 ug/L	4.758	276.92 ppb	4.758	1.72%
Pb 220.353†	263.7	34.964 ug/L	1.7698	34.964 ppb	1.7698	5.06%
S 181.975 Axial†	-0.5	-2.9550 ug/L	4.69339	-2.9550 ppb	4.69339	158.83%
Sb 206.836†	18.5	-0.9153 ug/L	1.21506	-0.9153 ppb	1.21506	132.75%
Se 196.026†	-215.1	-15.163 ug/L	2.2457	-15.163 ppb	2.2457	14.81%
Si 251.611†	721837.1	27403 ug/L	115.7	27403 ppb	115.7	0.42%
Sn 189.927†	23.8	2.4528 ug/L	0.75121	2.4528 ppb	0.75121	30.63%
Sr 421.552†	1336.0	10.698 ug/L	0.2085	10.698 ppb	0.2085	1.95%
Ti 334.940†	1407190.0	2447.4 ug/L	6.37	2447.4 ppb	6.37	0.26%
Tl 190.801†	-85.3	-0.5684 ug/L	0.82116	-0.5684 ppb	0.82116	144.47%
U 409.014†	-7782.7	-242.68 ug/L	3.895	-242.68 ppb	3.895	1.60%
V 292.402†	3217.2	14.622 ug/L	0.2738	14.622 ppb	0.2738	1.87%
Zn 213.857†	32916.4	390.44 ug/L	3.761	390.44 ppb	3.761	0.96%
SiO2†	718150.0	58609 ug/L	414.6	58609 ppb	414.6	0.71%

Sequence No.: 15

Sample ID: 247566007|955820|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 50

Date Collected: 3/19/2010 12:21:17

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 247566007|955820|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4352.9	4352.9	99.0 %		12:23:30
1	Y RADIAL	6154.1	6154.1	129.3 %		12:23:10
1	Al 396.153Radial†	8499.5	8660.0	8505.9 ug/L	8505.9 ppb	12:23:10
1	Ca 317.933Radial†	1721.8	1722.8	3259.9 ug/L	3259.9 ppb	12:23:30
1	Fe 238.204 Radial†	5347.1	5390.4	62458 ug/L	62458 ppb	12:23:10
1	K 766.490 Radial†	18025.3	15601.2	2969.4 ug/L	2969.4 ppb	12:23:10
1	Mg 279.077 IEC†	49.5	48.4	1932.0 ug/L	1932.0 ppb	12:23:30
1	Na 589.592 Radial†	5383.9	6311.2	2224.8 ug/L	2224.8 ppb	12:23:10
1	Sr 421.552†	1629.5	1624.4	12.997 ug/L	12.997 ppb	12:23:10
1	Sc 361.383	839692.8	839692.8	102.55 %		12:24:27
1	Y 371.029	871195.0	871195.0	125.96 %		12:24:27
1	Ag 328.068†	-3421.0	-3521.1	1.2861 ug/L	1.2861 ppb	12:24:32
1	As 188.979†	-51.0	-22.9	26.815 ug/L	26.815 ppb	12:24:52
1	B 249.677†	123.2	657.5	8.2757 ug/L	8.2757 ppb	12:24:32
1	Ba 233.527†	13899.7	13554.9	128.93 ug/L	128.93 ppb	12:24:32
1	Be 313.107†	-3373.2	441.7	6.6831 ug/L	6.6831 ppb	12:24:32
1	Cd 226.502†	313.6	476.5	0.4249 ug/L	0.4249 ppb	12:24:52
1	Co 228.616†	326.5	364.6	2.6132 ug/L	2.6132 ppb	12:24:52
1	Cr 267.716†	581.8	495.8	13.393 ug/L	13.393 ppb	12:24:32
1	Cu 324.752†	8212.9	2456.8	11.534 ug/L	11.534 ppb	12:24:32
1	Mn 257.610†	2109560.2	2056744.4	2710.3 ug/L	2710.3 ppb	12:24:27
1	Mo 202.031†	143.2	131.1	16.545 ug/L	16.545 ppb	12:24:52
1	Ni 231.604†	300.0	208.5	6.6141 ug/L	6.6141 ppb	12:24:52
1	P 214.914†	608.3	405.9	252.53 ug/L	252.53 ppb	12:24:52
1	Pb 220.353†	95.7	151.6	16.358 ug/L	16.358 ppb	12:24:52
1	S 181.975 Axial†	32.1	1.1	0.3234 ug/L	0.3234 ppb	12:24:52
1	Sb 206.836†	45.1	20.3	-1.5894 ug/L	-1.5894 ppb	12:24:52
1	Se 196.026†	-264.2	-240.7	-18.207 ug/L	-18.207 ppb	12:24:52
1	Si 251.611†	636542.7	620235.2	23546 ug/L	23546 ppb	12:24:27
1	Sn 189.927†	-5.5	-12.6	-5.8595 ug/L	-5.8595 ppb	12:24:52
1	Ti 334.940†	1685872.0	1645095.9	2861.3 ug/L	2861.3 ppb	12:24:27
1	Tl 190.801†	-123.7	-91.6	1.1443 ug/L	1.1443 ppb	12:24:52
1	U 409.014†	-9382.3	-6945.0	-217.83 ug/L	-217.83 ppb	12:24:27
1	V 292.402†	2619.0	3871.4	18.584 ug/L	18.584 ppb	12:24:32
1	Zn 213.857†	29813.5	28502.5	335.96 ug/L	335.96 ppb	12:24:32
1	SiO2†	635412.8	619122.2	50527 ug/L	50527 ppb	12:26:00
2	Sc Radial	4334.7	4334.7	98.6 %		12:23:55
2	Y RADIAL	6025.0	6025.0	126.6 %		12:23:35
2	Al 396.153Radial†	8663.2	8861.9	8704.2 ug/L	8704.2 ppb	12:23:35
2	Ca 317.933Radial†	1728.7	1737.0	3286.8 ug/L	3286.8 ppb	12:23:55
2	Fe 238.204 Radial†	5453.0	5520.4	63964 ug/L	63964 ppb	12:23:35
2	K 766.490 Radial†	18314.8	15971.0	3039.9 ug/L	3039.9 ppb	12:23:35
2	Mg 279.077 IEC†	46.2	45.4	1804.2 ug/L	1804.2 ppb	12:23:55
2	Na 589.592 Radial†	5472.7	6424.0	2264.6 ug/L	2264.6 ppb	12:23:35
2	Sr 421.552†	1617.8	1619.5	12.957 ug/L	12.957 ppb	12:23:35
2	Sc 361.383	841306.5	841306.5	102.75 %		12:24:58
2	Y 371.029	872867.5	872867.5	126.20 %		12:24:58
2	Ag 328.068†	-3301.9	-3398.8	2.3825 ug/L	2.3825 ppb	12:25:03
2	As 188.979†	-51.8	-23.7	26.695 ug/L	26.695 ppb	12:25:24
2	B 249.677†	59.4	595.1	6.2822 ug/L	6.2822 ppb	12:25:03
2	Ba 233.527†	13688.3	13323.2	126.80 ug/L	126.80 ppb	12:25:03
2	Be 313.107†	-3357.6	463.1	6.6774 ug/L	6.6774 ppb	12:25:03
2	Cd 226.502†	310.3	472.6	0.2141 ug/L	0.2141 ppb	12:25:24
2	Co 228.616†	320.7	358.3	2.4420 ug/L	2.4420 ppb	12:25:24
2	Cr 267.716†	615.8	527.9	13.981 ug/L	13.981 ppb	12:25:03
2	Cu 324.752†	8152.5	2382.7	11.366 ug/L	11.366 ppb	12:25:03
2	Mn 257.610†	2106275.7	2049602.0	2701.1 ug/L	2701.1 ppb	12:24:58
2	Mo 202.031†	141.6	129.3	16.500 ug/L	16.500 ppb	12:25:24
2	Ni 231.604†	284.5	192.9	6.1190 ug/L	6.1190 ppb	12:25:24

2	P 214.914†	594.1	391.0	240.33 ug/L	240.33 ppb	12:25:24
2	Pb 220.353†	107.0	162.5	17.856 ug/L	17.856 ppb	12:25:24
2	S 181.975 Axial†	38.3	7.1	11.128 ug/L	11.128 ppb	12:25:24
2	Sb 206.836†	41.8	17.0	-2.9582 ug/L	-2.9582 ppb	12:25:24
2	Se 196.026†	-260.7	-236.8	-10.576 ug/L	-10.576 ppb	12:25:24
2	Si 251.611†	635994.3	618510.8	23480 ug/L	23480 ppb	12:24:58
2	Sn 189.927†	1.1	-6.1	-4.4796 ug/L	-4.4796 ppb	12:25:24
2	Ti 334.940†	1685246.0	1641333.4	2854.7 ug/L	2854.7 ppb	12:24:58
2	Tl 190.801†	-125.2	-92.7	0.5938 ug/L	0.5938 ppb	12:25:24
2	U 409.014†	-9266.1	-6814.3	-214.04 ug/L	-214.04 ppb	12:24:58
2	V 292.402†	2591.7	3839.9	18.123 ug/L	18.123 ppb	12:25:03
2	Zn 213.857†	29300.9	27947.9	329.01 ug/L	329.01 ppb	12:25:03
2	SiO2†	643744.7	626042.9	51092 ug/L	51092 ppb	12:26:06
3	Sc Radial	4363.4	4363.4	99.3 %		12:24:20
3	Y RADIAL	6039.9	6039.9	126.9 %		12:24:00
3	Al 396.153Radial†	8683.2	8824.4	8667.3 ug/L	8667.3 ppb	12:24:00
3	Ca 317.933Radial†	1729.4	1726.3	3266.5 ug/L	3266.5 ppb	12:24:20
3	Fe 238.204 Radial†	5422.0	5453.0	63182 ug/L	63182 ppb	12:24:00
3	K 766.490 Radial†	18233.6	15767.3	3001.1 ug/L	3001.1 ppb	12:24:00
3	Mg 279.077 IEC†	47.7	46.6	1854.5 ug/L	1854.5 ppb	12:24:20
3	Na 589.592 Radial†	5395.6	6309.9	2224.4 ug/L	2224.4 ppb	12:24:00
3	Sr 421.552†	1591.8	1582.6	12.661 ug/L	12.661 ppb	12:24:00
3	Sc 361.383	848354.7	848354.7	103.61 %		12:25:29
3	Y 371.029	879865.7	879865.7	127.21 %		12:25:29
3	Ag 328.068†	-3355.2	-3423.5	2.0176 ug/L	2.0176 ppb	12:25:34
3	As 188.979†	-53.7	-25.1	25.522 ug/L	25.522 ppb	12:25:55
3	B 249.677†	110.9	644.4	7.7925 ug/L	7.7925 ppb	12:25:34
3	Ba 233.527†	13858.4	13376.7	127.28 ug/L	127.28 ppb	12:25:34
3	Be 313.107†	-3605.1	251.4	6.5304 ug/L	6.5304 ppb	12:25:34
3	Cd 226.502†	323.9	483.3	0.4492 ug/L	0.4492 ppb	12:25:55
3	Co 228.616†	301.2	337.0	1.9543 ug/L	1.9543 ppb	12:25:55
3	Cr 267.716†	597.3	505.0	13.594 ug/L	13.594 ppb	12:25:34
3	Cu 324.752†	8308.1	2466.9	11.605 ug/L	11.605 ppb	12:25:34
3	Mn 257.610†	2104555.4	2030910.1	2676.4 ug/L	2676.4 ppb	12:25:29
3	Mo 202.031†	146.1	132.5	16.721 ug/L	16.721 ppb	12:25:55
3	Ni 231.604†	303.6	209.0	6.6322 ug/L	6.6322 ppb	12:25:55
3	P 214.914†	599.0	390.9	240.85 ug/L	240.85 ppb	12:25:55
3	Pb 220.353†	103.3	158.0	17.278 ug/L	17.278 ppb	12:25:55
3	S 181.975 Axial†	30.8	-0.5	-2.4778 ug/L	-2.4778 ppb	12:25:55
3	Sb 206.836†	46.2	20.9	-1.2001 ug/L	-1.2001 ppb	12:25:55
3	Se 196.026†	-264.0	-237.9	-13.714 ug/L	-13.714 ppb	12:25:55
3	Si 251.611†	635336.5	612733.2	23261 ug/L	23261 ppb	12:25:29
3	Sn 189.927†	9.6	2.1	-2.5791 ug/L	-2.5791 ppb	12:25:55
3	Ti 334.940†	1684450.8	1626938.9	2829.7 ug/L	2829.7 ppb	12:25:29
3	Tl 190.801†	-139.1	-105.2	-4.5614 ug/L	-4.5614 ppb	12:25:55
3	U 409.014†	-9451.9	-6918.7	-217.12 ug/L	-217.12 ppb	12:25:29
3	V 292.402†	2684.3	3908.3	18.808 ug/L	18.808 ppb	12:25:34
3	Zn 213.857†	29876.8	28266.8	332.99 ug/L	332.99 ppb	12:25:34
3	SiO2†	642326.3	619468.6	50556 ug/L	50556 ppb	12:26:11

Mean Data: 247566007|955820|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	843118.0	102.97 %	0.563			0.55%
Sc Radial	4350.3	99.0 %	0.33			0.33%
Y 371.029	874642.7	126.46 %	0.665			0.53%
Y RADIAL	6073.0	127.6 %	1.48			1.16%
Ag 328.068†	-3447.8	1.8954 ug/L	0.55832	1.8954 ppb	0.55832	29.46%
Al 396.153Radial†	8782.1	8625.8 ug/L	105.50	8625.8 ppb	105.50	1.22%
As 188.979†	-23.9	26.344 ug/L	0.7144	26.344 ppb	0.7144	2.71%
B 249.677†	632.3	7.4501 ug/L	1.03993	7.4501 ppb	1.03993	13.96%
Ba 233.527†	13418.3	127.67 ug/L	1.115	127.67 ppb	1.115	0.87%
Be 313.107†	385.4	6.6303 ug/L	0.08655	6.6303 ppb	0.08655	1.31%
Ca 317.933Radial†	1728.7	3271.1 ug/L	14.06	3271.1 ppb	14.06	0.43%
Cd 226.502†	477.4	0.3627 ug/L	0.12932	0.3627 ppb	0.12932	35.65%
Co 228.616†	353.3	2.3365 ug/L	0.34190	2.3365 ppb	0.34190	14.63%
Cr 267.716†	509.6	13.656 ug/L	0.2986	13.656 ppb	0.2986	2.19%
Cu 324.752†	2435.5	11.502 ug/L	0.1224	11.502 ppb	0.1224	1.06%
Fe 238.204 Radial†	5454.6	63201 ug/L	753.4	63201 ppb	753.4	1.19%
K 766.490 Radial†	15779.8	3003.5 ug/L	35.28	3003.5 ppb	35.28	1.17%

Mg 279.077 IEC†	46.8	1863.5 ug/L	64.36	1863.5 ppb	64.36	3.45%
Mn 257.610†	2045752.1	2696.0 ug/L	17.52	2696.0 ppb	17.52	0.65%
Mo 202.031†	131.0	16.589 ug/L	0.1167	16.589 ppb	0.1167	0.70%
Na 589.592 Radial†	6348.3	2237.9 ug/L	23.10	2237.9 ppb	23.10	1.03%
Ni 231.604†	203.4	6.4551 ug/L	0.29122	6.4551 ppb	0.29122	4.51%
P 214.914†	395.9	244.57 ug/L	6.902	244.57 ppb	6.902	2.82%
Pb 220.353†	157.4	17.164 ug/L	0.7552	17.164 ppb	0.7552	4.40%
S 181.975 Axial†	2.6	2.9912 ug/L	7.18462	2.9912 ppb	7.18462	240.19%
Sb 206.836†	19.4	-1.9159 ug/L	0.92343	-1.9159 ppb	0.92343	48.20%
Se 196.026†	-238.4	-14.166 ug/L	3.8356	-14.166 ppb	3.8356	27.08%
Si 251.611†	617159.8	23429 ug/L	149.2	23429 ppb	149.2	0.64%
Sn 189.927†	-5.5	-4.3061 ug/L	1.64708	-4.3061 ppb	1.64708	38.25%
Sr 421.552†	1608.8	12.872 ug/L	0.1832	12.872 ppb	0.1832	1.42%
Ti 334.940†	1637789.4	2848.6 ug/L	16.66	2848.6 ppb	16.66	0.59%
Tl 190.801†	-96.5	-0.9411 ug/L	3.14733	-0.9411 ppb	3.14733	334.43%
U 409.014†	-6892.7	-216.33 ug/L	2.014	-216.33 ppb	2.014	0.93%
V 292.402†	3873.2	18.505 ug/L	0.3495	18.505 ppb	0.3495	1.89%
Zn 213.857†	28239.0	332.65 ug/L	3.483	332.65 ppb	3.483	1.05%
SiO2†	621544.6	50725 ug/L	318.3	50725 ppb	318.3	0.63%

Sequence No.: 16
 Sample ID: 247566008|955820|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 51
 Date Collected: 3/19/2010 12:28:22
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 247566008|955820|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4336.6	4336.6	98.7 %		12:30:35
1	Y RADIAL	6150.5	6150.5	129.2 %		12:30:15
1	Al 396.153Radial†	44482.6	45160.1	44359 ug/L	44359 ppb	12:30:15
1	Ca 317.933Radial†	3183.0	3210.2	6074.4 ug/L	6074.4 ppb	12:30:35
1	Fe 238.204 Radial†	6731.4	6813.6	78948 ug/L	78948 ppb	12:30:15
1	K 766.490 Radial†	29228.1	27023.3	5144.4 ug/L	5144.4 ppb	12:30:15
1	Mg 279.077 IEC†	99.5	99.3	4012.4 ug/L	4012.4 ppb	12:30:35
1	Na 589.592 Radial†	9765.4	10772.1	3797.4 ug/L	3797.4 ppb	12:30:15
1	Sr 421.552†	4740.6	4783.7	38.299 ug/L	38.299 ppb	12:30:15
1	Sc 361.383	849717.6	849717.6	103.77 %		12:31:33
1	Y 371.029	893045.3	893045.3	129.12 %		12:31:33
1	Ag 328.068†	-4347.2	-4374.3	2.0620 ug/L	2.0620 ppb	12:31:38
1	As 188.979†	-57.8	-28.9	34.407 ug/L	34.407 ppb	12:31:58
1	B 249.677†	121.3	654.2	5.4913 ug/L	5.4913 ppb	12:31:38
1	Ba 233.527†	21461.2	20681.6	196.24 ug/L	196.24 ppb	12:31:38
1	Be 313.107†	33055.4	35584.7	23.485 ug/L	23.485 ppb	12:31:38
1	Cd 226.502†	413.6	569.2	0.0640 ug/L	0.0640 ppb	12:31:58
1	Co 228.616†	537.3	564.0	5.8284 ug/L	5.8284 ppb	12:31:58
1	Cr 267.716†	3374.9	3180.7	51.200 ug/L	51.200 ppb	12:31:58
1	Cu 324.752†	12047.0	6057.0	24.316 ug/L	24.316 ppb	12:31:38
1	Mn 257.610†	1514825.3	1459362.3	1926.4 ug/L	1926.4 ppb	12:31:33
1	Mo 202.031†	40.0	30.0	8.8708 ug/L	8.8708 ppb	12:31:58
1	Ni 231.604†	543.7	439.8	13.959 ug/L	13.959 ppb	12:31:58
1	P 214.914†	1228.8	996.8	686.09 ug/L	686.09 ppb	12:31:58
1	Pb 220.353†	177.1	229.0	33.841 ug/L	33.841 ppb	12:31:58
1	S 181.975 Axial†	135.0	99.9	170.60 ug/L	170.60 ppb	12:31:58
1	Sb 206.836†	49.2	23.7	-3.9718 ug/L	-3.9718 ppb	12:31:58
1	Se 196.026†	-325.7	-296.9	-6.2441 ug/L	-6.2441 ppb	12:31:58
1	Si 251.611†	970299.0	934534.1	35478 ug/L	35478 ppb	12:31:33
1	Sn 189.927†	30.1	21.8	1.4930 ug/L	1.4930 ppb	12:31:58
1	Ti 334.940†	2189031.2	2110566.7	3671.0 ug/L	3671.0 ppb	12:31:33
1	Tl 190.801†	-122.6	-89.0	5.0117 ug/L	5.0117 ppb	12:31:58
1	U 409.014†	-10928.9	-8327.3	-261.73 ug/L	-261.73 ppb	12:31:33
1	V 292.402†	6168.9	7262.1	42.220 ug/L	42.220 ppb	12:31:38
1	Zn 213.857†	34046.1	32238.2	378.69 ug/L	378.69 ppb	12:31:38
1	SiO2†	967345.3	931676.6	76036 ug/L	76036 ppb	12:33:06
2	Sc Radial	4324.4	4324.4	98.4 %		12:31:00
2	Y RADIAL	6177.4	6177.4	129.8 %		12:30:40
2	Al 396.153Radial†	44542.4	45348.1	44544 ug/L	44544 ppb	12:30:40
2	Ca 317.933Radial†	3184.3	3220.6	6094.1 ug/L	6094.1 ppb	12:31:00
2	Fe 238.204 Radial†	6736.5	6838.1	79232 ug/L	79232 ppb	12:30:40
2	K 766.490 Radial†	29207.0	27085.3	5156.2 ug/L	5156.2 ppb	12:30:40
2	Mg 279.077 IEC†	100.8	100.9	4079.5 ug/L	4079.5 ppb	12:31:00
2	Na 589.592 Radial†	9789.1	10824.1	3815.7 ug/L	3815.7 ppb	12:30:40
2	Sr 421.552†	4757.3	4814.2	38.544 ug/L	38.544 ppb	12:30:40
2	Sc 361.383	845865.5	845865.5	103.30 %		12:32:04
2	Y 371.029	890164.1	890164.1	128.70 %		12:32:04
2	Ag 328.068†	-4283.4	-4331.6	2.3723 ug/L	2.3723 ppb	12:32:09
2	As 188.979†	-57.9	-29.3	34.251 ug/L	34.251 ppb	12:32:29
2	B 249.677†	183.4	714.9	7.1474 ug/L	7.1474 ppb	12:32:09
2	Ba 233.527†	21220.3	20542.6	194.95 ug/L	194.95 ppb	12:32:09
2	Be 313.107†	32647.0	35334.4	23.373 ug/L	23.373 ppb	12:32:09
2	Cd 226.502†	426.7	583.7	0.2446 ug/L	0.2446 ppb	12:32:29
2	Co 228.616†	524.3	553.7	5.5632 ug/L	5.5632 ppb	12:32:29
2	Cr 267.716†	3391.3	3211.4	51.642 ug/L	51.642 ppb	12:32:29
2	Cu 324.752†	11963.7	6029.2	24.239 ug/L	24.239 ppb	12:32:09
2	Mn 257.610†	1505632.4	1457111.2	1923.5 ug/L	1923.5 ppb	12:32:04
2	Mo 202.031†	36.6	26.9	8.6163 ug/L	8.6163 ppb	12:32:29
2	Ni 231.604†	555.5	453.7	14.399 ug/L	14.399 ppb	12:32:29

2	P 214.914†	1249.5	1022.3	704.87 ug/L	704.87 ppb	12:32:29
2	Pb 220.353†	178.2	230.8	34.124 ug/L	34.124 ppb	12:32:29
2	S 181.975 Axial†	133.8	99.3	169.51 ug/L	169.51 ppb	12:32:29
2	Sb 206.836†	52.8	27.4	-2.4491 ug/L	-2.4491 ppb	12:32:29
2	Se 196.026†	-341.8	-313.9	-19.531 ug/L	-19.531 ppb	12:32:29
2	Si 251.611†	964182.4	932871.2	35414 ug/L	35414 ppb	12:32:04
2	Sn 189.927†	27.5	19.5	0.9563 ug/L	0.9563 ppb	12:32:29
2	Ti 334.940†	2177579.7	2109087.9	3668.4 ug/L	3668.4 ppb	12:32:04
2	Tl 190.801†	-148.1	-114.2	-4.7790 ug/L	-4.7790 ppb	12:32:29
2	U 409.014†	-10854.1	-8302.9	-261.02 ug/L	-261.02 ppb	12:32:04
2	V 292.402†	6208.3	7327.3	42.700 ug/L	42.700 ppb	12:32:09
2	Zn 213.857†	33655.7	32009.7	375.88 ug/L	375.88 ppb	12:32:09
2	SiO2†	963130.7	931842.0	76049 ug/L	76049 ppb	12:33:12
3	Sc Radial	4340.7	4340.7	98.8 %		12:31:25
3	Y RADIAL	6117.7	6117.7	128.5 %		12:31:05
3	Al 396.153Radial†	44284.4	44917.7	44121 ug/L	44121 ppb	12:31:05
3	Ca 317.933Radial†	3193.0	3217.4	6087.9 ug/L	6087.9 ppb	12:31:25
3	Fe 238.204 Radial†	6689.7	6765.2	78386 ug/L	78386 ppb	12:31:05
3	K 766.490 Radial†	28952.8	26717.0	5086.1 ug/L	5086.1 ppb	12:31:05
3	Mg 279.077 IEC†	103.0	102.8	4157.1 ug/L	4157.1 ppb	12:31:25
3	Na 589.592 Radial†	9711.3	10708.2	3774.9 ug/L	3774.9 ppb	12:31:05
3	Sr 421.552†	4699.9	4738.0	37.933 ug/L	37.933 ppb	12:31:05
3	Sc 361.383	847634.2	847634.2	103.52 %		12:32:35
3	Y 371.029	891604.5	891604.5	128.91 %		12:32:35
3	Ag 328.068†	-4293.7	-4332.9	2.1087 ug/L	2.1087 ppb	12:32:40
3	As 188.979†	-57.2	-28.5	34.510 ug/L	34.510 ppb	12:33:00
3	B 249.677†	32.8	569.1	3.1950 ug/L	3.1950 ppb	12:32:40
3	Ba 233.527†	21198.6	20478.8	194.33 ug/L	194.33 ppb	12:32:40
3	Be 313.107†	32766.4	35383.8	23.394 ug/L	23.394 ppb	12:32:40
3	Cd 226.502†	433.1	589.0	0.4083 ug/L	0.4083 ppb	12:33:00
3	Co 228.616†	517.0	545.7	5.3665 ug/L	5.3665 ppb	12:33:00
3	Cr 267.716†	3369.5	3183.5	51.181 ug/L	51.181 ppb	12:33:00
3	Cu 324.752†	11893.6	5937.3	23.895 ug/L	23.895 ppb	12:32:40
3	Mn 257.610†	1507719.0	1456085.7	1922.1 ug/L	1922.1 ppb	12:32:35
3	Mo 202.031†	38.7	28.9	8.7246 ug/L	8.7246 ppb	12:33:00
3	Ni 231.604†	546.5	443.8	14.086 ug/L	14.086 ppb	12:33:00
3	P 214.914†	1224.0	995.2	685.29 ug/L	685.29 ppb	12:33:00
3	Pb 220.353†	179.9	232.1	34.351 ug/L	34.351 ppb	12:33:00
3	S 181.975 Axial†	138.4	103.5	177.09 ug/L	177.09 ppb	12:33:00
3	Sb 206.836†	61.3	35.6	0.9693 ug/L	0.9693 ppb	12:33:00
3	Se 196.026†	-333.0	-304.7	-14.404 ug/L	-14.404 ppb	12:33:00
3	Si 251.611†	965747.3	932435.3	35398 ug/L	35398 ppb	12:32:35
3	Sn 189.927†	18.2	10.4	-1.0566 ug/L	-1.0566 ppb	12:33:00
3	Ti 334.940†	2182252.5	2109203.3	3668.6 ug/L	3668.6 ppb	12:32:35
3	Tl 190.801†	-138.5	-104.7	-1.1001 ug/L	-1.1001 ppb	12:33:00
3	U 409.014†	-11144.8	-8561.8	-268.78 ug/L	-268.78 ppb	12:32:35
3	V 292.402†	6157.8	7265.9	42.323 ug/L	42.323 ppb	12:32:40
3	Zn 213.857†	33722.8	32006.5	375.97 ug/L	375.97 ppb	12:32:40
3	SiO2†	976933.1	943229.8	76979 ug/L	76979 ppb	12:33:18

Mean Data: 247566008|955820|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	847739.1	103.53 %	0.235			0.23%
Sc Radial	4333.9	98.6 %	0.19			0.19%
Y 371.029	891604.7	128.91 %	0.208			0.16%
Y RADIAL	6148.5	129.2 %	0.63			0.49%
Ag 328.068†	-4346.3	2.1810 ug/L	0.16733	2.1810 ppb	0.16733	7.67%
Al 396.153Radial†	45142.0	44341 ug/L	212.0	44341 ppb	212.0	0.48%
As 188.979†	-28.9	34.389 ug/L	0.1301	34.389 ppb	0.1301	0.38%
B 249.677†	646.1	5.2779 ug/L	1.98481	5.2779 ppb	1.98481	37.61%
Ba 233.527†	20567.7	195.17 ug/L	0.978	195.17 ppb	0.978	0.50%
Be 313.107†	35434.3	23.417 ug/L	0.0597	23.417 ppb	0.0597	0.25%
Ca 317.933Radial†	3216.1	6085.5 ug/L	10.07	6085.5 ppb	10.07	0.17%
Cd 226.502†	580.6	0.2389 ug/L	0.17224	0.2389 ppb	0.17224	72.08%
Co 228.616†	554.5	5.5860 ug/L	0.23184	5.5860 ppb	0.23184	4.15%
Cr 267.716†	3191.9	51.341 ug/L	0.2608	51.341 ppb	0.2608	0.51%
Cu 324.752†	6007.8	24.150 ug/L	0.2240	24.150 ppb	0.2240	0.93%
Fe 238.204 Radial†	6805.6	78855 ug/L	430.2	78855 ppb	430.2	0.55%
K 766.490 Radial†	26941.9	5128.9 ug/L	37.56	5128.9 ppb	37.56	0.73%

Mg 279.077 IEC†	101.0	4083.0 ug/L	72.40	4083.0 ppb	72.40	1.77%
Mn 257.610†	1457519.7	1924.0 ug/L	2.23	1924.0 ppb	2.23	0.12%
Mo 202.031†	28.6	8.7372 ug/L	0.12773	8.7372 ppb	0.12773	1.46%
Na 589.592 Radial†	10768.1	3796.0 ug/L	20.47	3796.0 ppb	20.47	0.54%
Ni 231.604†	445.8	14.148 ug/L	0.2267	14.148 ppb	0.2267	1.60%
P 214.914†	1004.7	692.09 ug/L	11.081	692.09 ppb	11.081	1.60%
Pb 220.353†	230.6	34.106 ug/L	0.2558	34.106 ppb	0.2558	0.75%
S 181.975 Axial†	100.9	172.40 ug/L	4.099	172.40 ppb	4.099	2.38%
Sb 206.836†	28.9	-1.8172 ug/L	2.53043	-1.8172 ppb	2.53043	139.25%
Se 196.026†	-305.2	-13.393 ug/L	6.7007	-13.393 ppb	6.7007	50.03%
Si 251.611†	933280.2	35430 ug/L	42.0	35430 ppb	42.0	0.12%
Sn 189.927†	17.2	0.4642 ug/L	1.34411	0.4642 ppb	1.34411	289.53%
Sr 421.552†	4778.6	38.259 ug/L	0.3074	38.259 ppb	0.3074	0.80%
Ti 334.940†	2109619.3	3669.3 ug/L	1.43	3669.3 ppb	1.43	0.04%
Tl 190.801†	-102.7	-0.2891 ug/L	4.94549	-0.2891 ppb	4.94549	>999.9%
U 409.014†	-8397.3	-263.85 ug/L	4.289	-263.85 ppb	4.289	1.63%
V 292.402†	7285.1	42.414 ug/L	0.2531	42.414 ppb	0.2531	0.60%
Zn 213.857†	32084.8	376.84 ug/L	1.599	376.84 ppb	1.599	0.42%
Sio2†	935582.8	76354 ug/L	540.5	76354 ppb	540.5	0.71%

Sequence No.: 17

Sample ID: 247566009|955820|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 52

Date Collected: 3/19/2010 12:35:29

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 247566009|955820|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4536.1	4536.1	103 %		12:37:22
1	Y RADIAL	6173.3	6173.3	129.7 %		12:37:22
1	Al 396.153Radial†	14042.7	13684.2	13441 ug/L	13441 ppb	12:37:22
1	Ca 317.933Radial†	1601.0	1535.5	2905.5 ug/L	2905.5 ppb	12:37:42
1	Fe 238.204 Radial†	6161.5	5961.5	69075 ug/L	69075 ppb	12:37:22
1	K 766.490 Radial†	28279.2	24801.3	4721.7 ug/L	4721.7 ppb	12:37:22
1	Mg 279.077 IEC†	56.3	53.0	2114.0 ug/L	2114.0 ppb	12:37:42
1	Na 589.592 Radial†	12610.0	13093.1	4615.6 ug/L	4615.6 ppb	12:37:22
1	Sr 421.552†	2187.7	2098.9	16.802 ug/L	16.802 ppb	12:37:22
1	Sc 361.383	847413.2	847413.2	103.49 %		12:38:39
1	Y 371.029	892274.3	892274.3	129.01 %		12:38:39
1	Ag 328.068†	-3803.8	-3860.6	1.6527 ug/L	1.6527 ppb	12:38:44
1	As 188.979†	-47.8	-19.4	33.380 ug/L	33.380 ppb	12:39:04
1	B 249.677†	-68.0	471.6	1.9788 ug/L	1.9788 ppb	12:38:44
1	Ba 233.527†	11530.2	11141.9	106.55 ug/L	106.55 ppb	12:38:44
1	Be 313.107†	-14768.2	-10539.0	2.8193 ug/L	2.8193 ppb	12:38:44
1	Cd 226.502†	376.3	534.3	0.5725 ug/L	0.5725 ppb	12:39:04
1	Co 228.616†	441.6	472.9	4.5238 ug/L	4.5238 ppb	12:39:04
1	Cr 267.716†	3325.3	3141.6	49.607 ug/L	49.607 ppb	12:38:44
1	Cu 324.752†	7586.4	1778.5	9.6721 ug/L	9.6721 ppb	12:38:44
1	Mn 257.610†	1750492.0	1691048.3	2230.2 ug/L	2230.2 ppb	12:38:39
1	Mo 202.031†	60.8	50.2	9.8631 ug/L	9.8631 ppb	12:39:04
1	Ni 231.604†	403.8	306.1	9.7133 ug/L	9.7133 ppb	12:39:04
1	P 214.914†	1017.2	795.6	539.25 ug/L	539.25 ppb	12:39:04
1	Pb 220.353†	135.7	189.4	22.294 ug/L	22.294 ppb	12:39:04
1	S 181.975 Axial†	143.4	108.4	191.56 ug/L	191.56 ppb	12:39:04
1	Sb 206.836†	45.1	19.9	-3.1188 ug/L	-3.1188 ppb	12:39:04
1	Se 196.026†	-310.9	-283.4	-33.237 ug/L	-33.237 ppb	12:39:04
1	Si 251.611†	764944.3	738650.0	28041 ug/L	28041 ppb	12:38:39
1	Sn 189.927†	42.1	33.5	4.1525 ug/L	4.1525 ppb	12:39:04
1	Ti 334.940†	1914172.2	1850716.8	3218.8 ug/L	3218.8 ppb	12:38:39
1	Tl 190.801†	-126.4	-93.1	1.1994 ug/L	1.1994 ppb	12:39:04
1	U 409.014†	-11180.8	-8599.4	-268.86 ug/L	-268.86 ppb	12:38:39
1	V 292.402†	3823.3	5011.7	26.140 ug/L	26.140 ppb	12:38:44
1	Zn 213.857†	36359.0	34562.3	408.37 ug/L	408.37 ppb	12:38:44
1	SiO2†	761665.8	735470.8	60023 ug/L	60023 ppb	12:40:13
2	Sc Radial	4503.7	4503.7	102 %		12:37:47
2	Y RADIAL	6140.3	6140.3	129.0 %		12:37:47
2	Al 396.153Radial†	13793.7	13539.1	13299 ug/L	13299 ppb	12:37:47
2	Ca 317.933Radial†	1613.4	1558.8	2949.5 ug/L	2949.5 ppb	12:38:07
2	Fe 238.204 Radial†	6016.8	5863.2	67936 ug/L	67936 ppb	12:37:47
2	K 766.490 Radial†	27908.0	24636.0	4690.2 ug/L	4690.2 ppb	12:37:47
2	Mg 279.077 IEC†	57.5	54.5	2178.9 ug/L	2178.9 ppb	12:38:07
2	Na 589.592 Radial†	12154.1	12736.0	4489.7 ug/L	4489.7 ppb	12:37:47
2	Sr 421.552†	2177.5	2104.2	16.845 ug/L	16.845 ppb	12:37:47
2	Sc 361.383	852121.0	852121.0	104.07 %		12:39:10
2	Y 371.029	897819.1	897819.1	129.81 %		12:39:10
2	Ag 328.068†	-3964.4	-3994.6	0.6019 ug/L	0.6019 ppb	12:39:15
2	As 188.979†	-51.5	-22.7	31.271 ug/L	31.271 ppb	12:39:35
2	B 249.677†	52.0	587.3	5.4081 ug/L	5.4081 ppb	12:39:15
2	Ba 233.527†	11699.5	11243.0	107.46 ug/L	107.46 ppb	12:39:15
2	Be 313.107†	-15047.8	-10728.8	2.7206 ug/L	2.7206 ppb	12:39:15
2	Cd 226.502†	377.7	533.6	0.6815 ug/L	0.6815 ppb	12:39:35
2	Co 228.616†	471.3	499.1	5.2358 ug/L	5.2358 ppb	12:39:35
2	Cr 267.716†	3343.2	3141.1	49.479 ug/L	49.479 ppb	12:39:15
2	Cu 324.752†	7679.8	1827.7	9.7728 ug/L	9.7728 ppb	12:39:15
2	Mn 257.610†	1755601.5	1686613.2	2224.2 ug/L	2224.2 ppb	12:39:10
2	Mo 202.031†	61.2	50.2	9.7749 ug/L	9.7749 ppb	12:39:35
2	Ni 231.604†	427.7	326.9	10.374 ug/L	10.374 ppb	12:39:35

2	P 214.914†	1014.9	787.9	534.42 ug/L	534.42 ppb	12:39:35
2	Pb 220.353†	146.8	199.4	23.960 ug/L	23.960 ppb	12:39:35
2	S 181.975 Axial†	139.1	103.5	182.82 ug/L	182.82 ppb	12:39:35
2	Sb 206.836†	39.3	14.1	-5.4566 ug/L	-5.4566 ppb	12:39:35
2	Se 196.026†	-302.5	-273.7	-28.440 ug/L	-28.440 ppb	12:39:35
2	Si 251.611†	767719.5	737233.1	27987 ug/L	27987 ppb	12:39:10
2	Sn 189.927†	52.1	42.9	6.3623 ug/L	6.3623 ppb	12:39:35
2	Ti 334.940†	1920105.1	1846199.1	3210.9 ug/L	3210.9 ppb	12:39:10
2	Tl 190.801†	-129.3	-95.2	0.2807 ug/L	0.2807 ppb	12:39:35
2	U 409.014†	-11137.7	-8498.3	-265.66 ug/L	-265.66 ppb	12:39:10
2	V 292.402†	3857.2	5024.0	26.419 ug/L	26.419 ppb	12:39:15
2	Zn 213.857†	36842.7	34833.0	411.82 ug/L	411.82 ppb	12:39:15
2	SiO2†	762145.2	731865.5	59729 ug/L	59729 ppb	12:40:19
3	Sc Radial	4379.5	4379.5	99.6 %		12:38:12
3	Y RADIAL	6016.4	6016.4	126.4 %		12:38:12
3	Al 396.153Radial†	13969.4	14097.2	13847 ug/L	13847 ppb	12:38:12
3	Ca 317.933Radial†	1616.7	1606.8	3040.3 ug/L	3040.3 ppb	12:38:32
3	Fe 238.204 Radial†	6133.0	6146.3	71216 ug/L	71216 ppb	12:38:12
3	K 766.490 Radial†	28182.5	25684.0	4889.8 ug/L	4889.8 ppb	12:38:12
3	Mg 279.077 IEC†	57.1	55.8	2227.5 ug/L	2227.5 ppb	12:38:32
3	Na 589.592 Radial†	12472.5	13392.0	4721.0 ug/L	4721.0 ppb	12:38:12
3	Sr 421.552†	2207.2	2194.2	17.565 ug/L	17.565 ppb	12:38:12
3	Sc 361.383	847820.0	847820.0	103.54 %		12:39:41
3	Y 371.029	894071.0	894071.0	129.27 %		12:39:41
3	Ag 328.068†	-3937.9	-3988.4	1.6441 ug/L	1.6441 ppb	12:39:46
3	As 188.979†	-54.0	-25.4	30.588 ug/L	30.588 ppb	12:40:06
3	B 249.677†	41.4	577.3	4.5954 ug/L	4.5954 ppb	12:39:46
3	Ba 233.527†	11548.1	11153.8	106.73 ug/L	106.73 ppb	12:39:46
3	Be 313.107†	-14704.0	-10470.1	2.8432 ug/L	2.8432 ppb	12:39:46
3	Cd 226.502†	362.3	520.5	0.1536 ug/L	0.1536 ppb	12:40:06
3	Co 228.616†	450.4	481.2	4.7133 ug/L	4.7133 ppb	12:40:06
3	Cr 267.716†	3345.6	3159.7	50.074 ug/L	50.074 ppb	12:39:46
3	Cu 324.752†	7703.4	1887.9	10.143 ug/L	10.143 ppb	12:39:46
3	Mn 257.610†	1751029.6	1690755.9	2230.0 ug/L	2230.0 ppb	12:39:41
3	Mo 202.031†	60.1	49.5	9.9654 ug/L	9.9654 ppb	12:40:06
3	Ni 231.604†	425.5	326.9	10.374 ug/L	10.374 ppb	12:40:06
3	P 214.914†	1022.1	799.9	540.80 ug/L	540.80 ppb	12:40:06
3	Pb 220.353†	127.9	181.8	20.916 ug/L	20.916 ppb	12:40:06
3	S 181.975 Axial†	148.7	113.5	200.53 ug/L	200.53 ppb	12:40:06
3	Sb 206.836†	50.7	25.3	-0.8223 ug/L	-0.8223 ppb	12:40:06
3	Se 196.026†	-305.4	-278.0	-22.427 ug/L	-22.427 ppb	12:40:06
3	Si 251.611†	764882.1	738235.2	28026 ug/L	28026 ppb	12:39:41
3	Sn 189.927†	55.0	45.9	6.8743 ug/L	6.8743 ppb	12:40:06
3	Ti 334.940†	1913670.1	1849344.4	3216.4 ug/L	3216.4 ppb	12:39:41
3	Tl 190.801†	-131.5	-97.9	-0.6948 ug/L	-0.6948 ppb	12:40:06
3	U 409.014†	-10961.7	-8382.6	-262.53 ug/L	-262.53 ppb	12:39:41
3	V 292.402†	3814.9	5001.9	25.766 ug/L	25.766 ppb	12:39:46
3	Zn 213.857†	36610.8	34788.6	410.79 ug/L	410.79 ppb	12:39:46
3	SiO2†	767042.1	740310.2	60418 ug/L	60418 ppb	12:40:25

Mean Data: 247566009|955820|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	849118.0	103.70 %	0.319			0.31%
Sc Radial	4473.1	102 %	1.9			1.85%
Y 371.029	894721.5	129.36 %	0.409			0.32%
Y RADIAL	6110.0	128.3 %	1.74			1.35%
Ag 328.068†	-3947.9	1.2996 ug/L	0.60421	1.2996 ppb	0.60421	46.49%
Al 396.153Radial†	13773.5	13529 ug/L	284.4	13529 ppb	284.4	2.10%
As 188.979†	-22.5	31.746 ug/L	1.4554	31.746 ppb	1.4554	4.58%
B 249.677†	545.4	3.9941 ug/L	1.79198	3.9941 ppb	1.79198	44.87%
Ba 233.527†	11179.6	106.91 ug/L	0.484	106.91 ppb	0.484	0.45%
Be 313.107†	-10579.3	2.7944 ug/L	0.06498	2.7944 ppb	0.06498	2.33%
Ca 317.933Radial†	1567.0	2965.1 ug/L	68.75	2965.1 ppb	68.75	2.32%
Cd 226.502†	529.5	0.4692 ug/L	0.27871	0.4692 ppb	0.27871	59.40%
Co 228.616†	484.4	4.8243 ug/L	0.36877	4.8243 ppb	0.36877	7.64%
Cr 267.716†	3147.4	49.720 ug/L	0.3132	49.720 ppb	0.3132	0.63%
Cu 324.752†	1831.4	9.8627 ug/L	0.24812	9.8627 ppb	0.24812	2.52%
Fe 238.204 Radial†	5990.3	69409 ug/L	1665.6	69409 ppb	1665.6	2.40%
K 766.490 Radial†	25040.4	4767.2 ug/L	107.29	4767.2 ppb	107.29	2.25%

Mg 279.077 IEC†	54.4	2173.4 ug/L	56.95	2173.4 ppb	56.95	2.62%
Mn 257.610†	1689472.4	2228.1 ug/L	3.38	2228.1 ppb	3.38	0.15%
Mo 202.031†	50.0	9.8678 ug/L	0.09532	9.8678 ppb	0.09532	0.97%
Na 589.592 Radial†	13073.7	4608.8 ug/L	115.78	4608.8 ppb	115.78	2.51%
Ni 231.604†	320.0	10.154 ug/L	0.3814	10.154 ppb	0.3814	3.76%
P 214.914†	794.5	538.16 ug/L	3.328	538.16 ppb	3.328	0.62%
Pb 220.353†	190.2	22.390 ug/L	1.5244	22.390 ppb	1.5244	6.81%
S 181.975 Axial†	108.5	191.63 ug/L	8.855	191.63 ppb	8.855	4.62%
Sb 206.836†	19.8	-3.1326 ug/L	2.31721	-3.1326 ppb	2.31721	73.97%
Se 196.026†	-278.4	-28.035 ug/L	5.4164	-28.035 ppb	5.4164	19.32%
Si 251.611†	738039.4	28018 ug/L	27.7	28018 ppb	27.7	0.10%
Sn 189.927†	40.8	5.7964 ug/L	1.44646	5.7964 ppb	1.44646	24.95%
Sr 421.552†	2132.4	17.071 ug/L	0.4290	17.071 ppb	0.4290	2.51%
Ti 334.940†	1848753.4	3215.4 ug/L	4.03	3215.4 ppb	4.03	0.13%
Tl 190.801†	-95.4	0.2618 ug/L	0.94726	0.2618 ppb	0.94726	361.86%
U 409.014†	-8493.4	-265.68 ug/L	3.165	-265.68 ppb	3.165	1.19%
V 292.402†	5012.5	26.108 ug/L	0.3278	26.108 ppb	0.3278	1.26%
Zn 213.857†	34728.0	410.33 ug/L	1.769	410.33 ppb	1.769	0.43%
SiO2†	735882.2	60056 ug/L	345.8	60056 ppb	345.8	0.58%

Sequence No.: 18

Sample ID: 247566010|955820|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 53

Date Collected: 3/19/2010 12:42:35

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 247566010|955820|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4512.9	4512.9	103 %		12:44:28
1	Y RADIAL	6699.6	6699.6	140.7 %		12:44:28
1	Al 396.153Radial†	11203.9	10989.4	10794 ug/L	10794 ppb	12:44:28
1	Ca 317.933Radial†	2392.5	2314.3	4379.2 ug/L	4379.2 ppb	12:44:48
1	Fe 238.204 Radial†	5197.6	5053.5	58553 ug/L	58553 ppb	12:44:28
1	K 766.490 Radial†	27285.0	23973.8	4563.7 ug/L	4563.7 ppb	12:44:28
1	Mg 279.077 IEC†	29.3	27.0	1052.4 ug/L	1052.4 ppb	12:44:48
1	Na 589.592 Radial†	9471.0	10098.8	3560.0 ug/L	3560.0 ppb	12:44:28
1	Sr 421.552†	1818.2	1749.9	13.994 ug/L	13.994 ppb	12:44:28
1	Sc 361.383	851328.3	851328.3	103.97 %		12:45:45
1	Y 371.029	971896.4	971896.4	140.52 %		12:45:45
1	Ag 328.068†	-3229.8	-3291.7	1.3049 ug/L	1.3049 ppb	12:45:50
1	As 188.979†	-40.5	-12.2	29.277 ug/L	29.277 ppb	12:46:10
1	B 249.677†	-99.1	442.0	2.8634 ug/L	2.8634 ppb	12:45:50
1	Ba 233.527†	11086.8	10664.2	101.74 ug/L	101.74 ppb	12:45:50
1	Be 313.107†	-11076.0	-6922.1	2.8889 ug/L	2.8889 ppb	12:45:50
1	Cd 226.502†	268.7	429.1	0.1303 ug/L	0.1303 ppb	12:46:10
1	Co 228.616†	340.1	373.3	3.4666 ug/L	3.4666 ppb	12:46:10
1	Cr 267.716†	1201.4	1084.0	20.891 ug/L	20.891 ppb	12:45:50
1	Cu 324.752†	8388.7	2516.5	11.555 ug/L	11.555 ppb	12:45:50
1	Mn 257.610†	2200767.6	2116353.7	2788.4 ug/L	2788.4 ppb	12:45:45
1	Mo 202.031†	47.5	37.1	7.8991 ug/L	7.8991 ppb	12:46:10
1	Ni 231.604†	307.5	211.7	6.7170 ug/L	6.7170 ppb	12:46:10
1	P 214.914†	727.3	512.2	335.44 ug/L	335.44 ppb	12:46:10
1	Pb 220.353†	248.7	297.6	39.837 ug/L	39.837 ppb	12:46:10
1	S 181.975 Axial†	28.6	-2.7	-6.9018 ug/L	-6.9018 ppb	12:46:10
1	Sb 206.836†	45.2	19.8	-0.9995 ug/L	-0.9995 ppb	12:46:10
1	Se 196.026†	-257.1	-230.4	-20.134 ug/L	-20.134 ppb	12:46:10
1	Si 251.611†	746597.6	717604.5	27242 ug/L	27242 ppb	12:45:45
1	Sn 189.927†	3.0	-4.3	-3.5512 ug/L	-3.5512 ppb	12:46:10
1	Ti 334.940†	1535781.4	1478266.9	2571.4 ug/L	2571.4 ppb	12:45:45
1	Tl 190.801†	-126.1	-92.2	-1.1356 ug/L	-1.1356 ppb	12:46:10
1	U 409.014†	-11415.5	-8775.5	-272.94 ug/L	-272.94 ppb	12:45:45
1	V 292.402†	2800.4	4011.0	20.330 ug/L	20.330 ppb	12:45:50
1	Zn 213.857†	37156.9	35168.2	417.31 ug/L	417.31 ppb	12:45:50
1	SiO2†	743834.5	714935.7	58347 ug/L	58347 ppb	12:47:18
2	Sc Radial	4492.3	4492.3	102 %		12:44:53
2	Y RADIAL	6634.4	6634.4	139.4 %		12:44:53
2	Al 396.153Radial†	11155.7	10992.5	10797 ug/L	10797 ppb	12:44:53
2	Ca 317.933Radial†	2406.8	2339.0	4425.9 ug/L	4425.9 ppb	12:45:13
2	Fe 238.204 Radial†	5175.2	5054.8	58569 ug/L	58569 ppb	12:44:53
2	K 766.490 Radial†	27090.7	23905.9	4550.8 ug/L	4550.8 ppb	12:44:53
2	Mg 279.077 IEC†	35.0	32.7	1287.9 ug/L	1287.9 ppb	12:45:13
2	Na 589.592 Radial†	9430.3	10101.4	3561.0 ug/L	3561.0 ppb	12:44:53
2	Sr 421.552†	1823.4	1763.1	14.100 ug/L	14.100 ppb	12:44:53
2	Sc 361.383	843615.5	843615.5	103.03 %		12:46:16
2	Y 371.029	964908.6	964908.6	139.51 %		12:46:16
2	Ag 328.068†	-3271.8	-3360.7	0.9516 ug/L	0.9516 ppb	12:46:21
2	As 188.979†	-49.6	-21.3	24.298 ug/L	24.298 ppb	12:46:41
2	B 249.677†	-47.6	491.1	4.2397 ug/L	4.2397 ppb	12:46:21
2	Ba 233.527†	11236.7	10907.2	104.02 ug/L	104.02 ppb	12:46:21
2	Be 313.107†	-11290.4	-7227.6	2.7626 ug/L	2.7626 ppb	12:46:21
2	Cd 226.502†	282.6	445.0	0.3595 ug/L	0.3595 ppb	12:46:41
2	Co 228.616†	328.9	365.4	3.2602 ug/L	3.2602 ppb	12:46:41
2	Cr 267.716†	1218.4	1111.1	21.256 ug/L	21.256 ppb	12:46:21
2	Cu 324.752†	8353.4	2556.0	11.684 ug/L	11.684 ppb	12:46:21
2	Mn 257.610†	2185294.5	2120687.8	2794.1 ug/L	2794.1 ppb	12:46:16
2	Mo 202.031†	48.7	38.7	8.0400 ug/L	8.0400 ppb	12:46:41
2	Ni 231.604†	302.8	209.8	6.6568 ug/L	6.6568 ppb	12:46:41

2	P 214.914†	727.3	518.7	340.20 ug/L	340.20 ppb	12:46:41
2	Pb 220.353†	255.0	305.8	41.109 ug/L	41.109 ppb	12:46:41
2	S 181.975 Axial†	33.4	2.2	1.9799 ug/L	1.9799 ppb	12:46:41
2	Sb 206.836†	35.8	11.1	-4.6688 ug/L	-4.6688 ppb	12:46:41
2	Se 196.026†	-261.2	-236.5	-25.236 ug/L	-25.236 ppb	12:46:41
2	Si 251.611†	738284.6	716101.0	27185 ug/L	27185 ppb	12:46:16
2	Sn 189.927†	-0.9	-8.0	-4.3970 ug/L	-4.3970 ppb	12:46:41
2	Ti 334.940†	1522862.7	1479232.7	2573.1 ug/L	2573.1 ppb	12:46:16
2	Tl 190.801†	-143.0	-109.7	-7.8609 ug/L	-7.8609 ppb	12:46:41
2	U 409.014†	-11220.3	-8686.4	-270.24 ug/L	-270.24 ppb	12:46:16
2	V 292.402†	2886.1	4118.7	21.198 ug/L	21.198 ppb	12:46:21
2	Zn 213.857†	37514.9	35842.4	425.47 ug/L	425.47 ppb	12:46:21
2	SiO2†	741167.9	718888.4	58670 ug/L	58670 ppb	12:47:24
3	Sc Radial	4435.6	4435.6	101 %		12:45:18
3	Y RADIAL	6520.3	6520.3	137.0 %		12:45:18
3	Al 396.153Radial†	10990.7	10968.3	10774 ug/L	10774 ppb	12:45:18
3	Ca 317.933Radial†	2394.7	2357.1	4460.1 ug/L	4460.1 ppb	12:45:38
3	Fe 238.204 Radial†	5083.5	5028.6	58265 ug/L	58265 ppb	12:45:18
3	K 766.490 Radial†	26707.4	23864.6	4542.9 ug/L	4542.9 ppb	12:45:18
3	Mg 279.077 IEC†	37.6	35.8	1414.5 ug/L	1414.5 ppb	12:45:38
3	Na 589.592 Radial†	9257.8	10048.3	3542.2 ug/L	3542.2 ppb	12:45:18
3	Sr 421.552†	1802.2	1764.9	14.114 ug/L	14.114 ppb	12:45:18
3	Sc 361.383	844437.8	844437.8	103.13 %		12:46:47
3	Y 371.029	962924.1	962924.1	139.22 %		12:46:47
3	Ag 328.068†	-3293.4	-3378.7	0.7669 ug/L	0.7669 ppb	12:46:52
3	As 188.979†	-51.8	-23.4	23.038 ug/L	23.038 ppb	12:47:12
3	B 249.677†	-73.1	466.4	3.5968 ug/L	3.5968 ppb	12:46:52
3	Ba 233.527†	11076.7	10741.5	102.45 ug/L	102.45 ppb	12:46:52
3	Be 313.107†	-10974.9	-6911.0	2.8935 ug/L	2.8935 ppb	12:46:52
3	Cd 226.502†	285.1	447.1	0.4206 ug/L	0.4206 ppb	12:47:12
3	Co 228.616†	329.5	365.7	3.2745 ug/L	3.2745 ppb	12:47:12
3	Cr 267.716†	1183.2	1075.8	20.752 ug/L	20.752 ppb	12:46:52
3	Cu 324.752†	8330.8	2526.1	11.574 ug/L	11.574 ppb	12:46:52
3	Mn 257.610†	2191647.8	2124782.9	2799.4 ug/L	2799.4 ppb	12:46:47
3	Mo 202.031†	48.1	38.1	7.9663 ug/L	7.9663 ppb	12:47:12
3	Ni 231.604†	302.7	209.5	6.6472 ug/L	6.6472 ppb	12:47:12
3	P 214.914†	742.9	533.0	351.17 ug/L	351.17 ppb	12:47:12
3	Pb 220.353†	231.3	282.6	37.576 ug/L	37.576 ppb	12:47:12
3	S 181.975 Axial†	33.8	2.6	2.6592 ug/L	2.6592 ppb	12:47:12
3	Sb 206.836†	37.9	13.1	-3.7901 ug/L	-3.7901 ppb	12:47:12
3	Se 196.026†	-257.0	-232.3	-22.550 ug/L	-22.550 ppb	12:47:12
3	Si 251.611†	740769.9	717813.1	27250 ug/L	27250 ppb	12:46:47
3	Sn 189.927†	8.6	1.2	-2.2790 ug/L	-2.2790 ppb	12:47:12
3	Ti 334.940†	1523323.4	1478240.0	2571.3 ug/L	2571.3 ppb	12:46:47
3	Tl 190.801†	-128.7	-95.7	-2.4595 ug/L	-2.4595 ppb	12:47:12
3	U 409.014†	-11514.2	-8960.8	-278.53 ug/L	-278.53 ppb	12:46:47
3	V 292.402†	2763.0	3996.6	20.255 ug/L	20.255 ppb	12:46:52
3	Zn 213.857†	37018.4	35325.5	419.25 ug/L	419.25 ppb	12:46:52
3	SiO2†	741678.6	718683.1	58653 ug/L	58653 ppb	12:47:29

Mean Data: 247566010|955820|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	846460.5	103.38 %	0.517			0.50%
Sc Radial	4480.3	102 %	0.9			0.89%
Y 371.029	966576.4	139.75 %	0.681			0.49%
Y RADIAL	6618.1	139.0 %	1.91			1.37%
Ag 328.068†	-3343.7	1.0078 ug/L	0.27334	1.0078 ppb	0.27334	27.12%
Al 396.153Radial†	10983.4	10789 ug/L	12.9	10789 ppb	12.9	0.12%
As 188.979†	-19.0	25.538 ug/L	3.2994	25.538 ppb	3.2994	12.92%
B 249.677†	466.5	3.5666 ug/L	0.68865	3.5666 ppb	0.68865	19.31%
Ba 233.527†	10771.0	102.74 ug/L	1.165	102.74 ppb	1.165	1.13%
Be 313.107†	-7020.2	2.8483 ug/L	0.07427	2.8483 ppb	0.07427	2.61%
Ca 317.933Radial†	2336.8	4421.7 ug/L	40.63	4421.7 ppb	40.63	0.92%
Cd 226.502†	440.4	0.3035 ug/L	0.15308	0.3035 ppb	0.15308	50.44%
Co 228.616†	368.1	3.3338 ug/L	0.11524	3.3338 ppb	0.11524	3.46%
Cr 267.716†	1090.3	20.967 ug/L	0.2603	20.967 ppb	0.2603	1.24%
Cu 324.752†	2532.9	11.605 ug/L	0.0699	11.605 ppb	0.0699	0.60%
Fe 238.204 Radial†	5045.6	58462 ug/L	171.3	58462 ppb	171.3	0.29%
K 766.490 Radial†	23914.8	4552.5 ug/L	10.52	4552.5 ppb	10.52	0.23%

Mg 279.077 IEC†	31.8	1251.6 ug/L	183.74	1251.6 ppb	183.74	14.68%
Mn 257.610†	2120608.2	2793.9 ug/L	5.52	2793.9 ppb	5.52	0.20%
Mo 202.031†	38.0	7.9685 ug/L	0.07048	7.9685 ppb	0.07048	0.88%
Na 589.592 Radial†	10082.8	3554.4 ug/L	10.55	3554.4 ppb	10.55	0.30%
Ni 231.604†	210.3	6.6737 ug/L	0.03785	6.6737 ppb	0.03785	0.57%
P 214.914†	521.3	342.27 ug/L	8.068	342.27 ppb	8.068	2.36%
Pb 220.353†	295.3	39.508 ug/L	1.7894	39.508 ppb	1.7894	4.53%
S 181.975 Axial†	0.7	-0.7542 ug/L	5.33480	-0.7542 ppb	5.33480	707.31%
Sb 206.836†	14.7	-3.1528 ug/L	1.91586	-3.1528 ppb	1.91586	60.77%
Se 196.026†	-233.1	-22.640 ug/L	2.5524	-22.640 ppb	2.5524	11.27%
Si 251.611†	717172.9	27226 ug/L	35.5	27226 ppb	35.5	0.13%
Sn 189.927†	-3.7	-3.4091 ug/L	1.06616	-3.4091 ppb	1.06616	31.27%
Sr 421.552†	1759.3	14.069 ug/L	0.0652	14.069 ppb	0.0652	0.46%
Ti 334.940†	1478579.9	2571.9 ug/L	0.98	2571.9 ppb	0.98	0.04%
Tl 190.801†	-99.2	-3.8187 ug/L	3.56268	-3.8187 ppb	3.56268	93.30%
U 409.014†	-8807.5	-273.90 ug/L	4.227	-273.90 ppb	4.227	1.54%
V 292.402†	4042.1	20.594 ug/L	0.5239	20.594 ppb	0.5239	2.54%
Zn 213.857†	35445.3	420.68 ug/L	4.266	420.68 ppb	4.266	1.01%
SiO2†	717502.4	58557 ug/L	181.6	58557 ppb	181.6	0.31%

Sequence No.: 19

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/19/2010 12:49:40

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	4261.9	4261.9	97.0 %		12:51:52
1	Y RADIAL	4786.4	4786.4	100.5 %		12:51:32
1	Al 396.153Radial†	5093.9	5331.2	5212.3 ug/L	5212.3 ppb	12:51:32
1	Ca 317.933Radial†	2683.5	2751.7	5206.8 ug/L	5206.8 ppb	12:51:52
1	Fe 238.204 Radial†	446.8	452.3	5256.6 ug/L	5256.6 ppb	12:51:52
1	K 766.490 Radial†	29720.1	28050.1	5337.7 ug/L	5337.7 ppb	12:51:32
1	Mg 279.077 IEC†	127.0	129.4	5338.2 ug/L	5338.2 ppb	12:51:52
1	Na 589.592 Radial†	28222.6	29979.7	10568 ug/L	10568 ppb	12:51:32
1	Sr 421.552†	64501.3	66496.3	532.98 ug/L	532.98 ppb	12:51:32
1	Sc 361.383	828749.8	828749.8	101.21 %		12:52:49
1	Y 371.029	689872.4	689872.4	99.743 %		12:52:49
1	Ag 328.068†	99303.8	97929.4	511.61 ug/L	511.61 ppb	12:52:54
1	As 188.979†	907.6	923.5	511.35 ug/L	511.35 ppb	12:53:14
1	B 249.677†	17583.9	17910.7	500.15 ug/L	500.15 ppb	12:52:54
1	Ba 233.527†	54830.6	54174.7	508.70 ug/L	508.70 ppb	12:52:54
1	Be 313.107†	1202781.6	1192108.2	508.74 ug/L	508.74 ppb	12:52:49
1	Cd 226.502†	35321.1	35068.8	508.72 ug/L	508.72 ppb	12:52:54
1	Co 228.616†	20083.2	19888.9	514.15 ug/L	514.15 ppb	12:52:54
1	Cr 267.716†	38399.6	37868.2	508.88 ug/L	508.88 ppb	12:52:54
1	Cu 324.752†	159658.3	152194.2	502.46 ug/L	502.46 ppb	12:52:54
1	Mn 257.610†	384664.4	379668.6	499.50 ug/L	499.50 ppb	12:52:54
1	Mo 202.031†	5739.0	5661.7	503.75 ug/L	503.75 ppb	12:53:14
1	Ni 231.604†	16468.1	16186.9	513.74 ug/L	513.74 ppb	12:52:54
1	P 214.914†	3605.0	3374.5	2415.7 ug/L	2415.7 ppb	12:53:14
1	Pb 220.353†	3261.4	3280.6	505.46 ug/L	505.46 ppb	12:53:14
1	S 181.975 Axial†	600.7	563.3	1007.5 ug/L	1007.5 ppb	12:53:14
1	Sb 206.836†	1234.1	1195.7	518.37 ug/L	518.37 ppb	12:53:14
1	Se 196.026†	590.6	600.5	518.57 ug/L	518.57 ppb	12:53:14
1	Si 251.611†	68245.0	66939.6	2535.0 ug/L	2535.0 ppb	12:52:54
1	Sn 189.927†	2253.1	2219.0	504.17 ug/L	504.17 ppb	12:53:14
1	Ti 334.940†	288608.1	286273.0	497.70 ug/L	497.70 ppb	12:52:54
1	Tl 190.801†	1286.6	1300.3	506.37 ug/L	506.37 ppb	12:53:14
1	U 409.014†	14990.3	17015.0	514.47 ug/L	514.47 ppb	12:52:54
1	V 292.402†	62830.4	63395.4	512.95 ug/L	512.95 ppb	12:52:54
1	Zn 213.857†	43245.4	42157.4	506.07 ug/L	506.07 ppb	12:52:54
1	SiO2†	68507.2	67187.4	5469.6 ug/L	5469.6 ppb	12:54:21
2	Sc Radial	4304.5	4304.5	97.9 %		12:52:17
2	Y RADIAL	4714.5	4714.5	99.03 %		12:51:57
2	Al 396.153Radial†	4972.9	5155.6	5039.8 ug/L	5039.8 ppb	12:51:57
2	Ca 317.933Radial†	2695.0	2736.0	5177.2 ug/L	5177.2 ppb	12:52:17
2	Fe 238.204 Radial†	451.1	452.1	5254.2 ug/L	5254.2 ppb	12:52:17
2	K 766.490 Radial†	29193.9	27209.2	5177.6 ug/L	5177.6 ppb	12:51:57
2	Mg 279.077 IEC†	128.3	129.4	5339.6 ug/L	5339.6 ppb	12:52:17
2	Na 589.592 Radial†	27372.0	28822.9	10161 ug/L	10161 ppb	12:51:57
2	Sr 421.552†	62671.0	63968.4	512.72 ug/L	512.72 ppb	12:51:57
2	Sc 361.383	832371.4	832371.4	101.65 %		12:53:20
2	Y 371.029	695164.8	695164.8	100.51 %		12:53:20
2	Ag 328.068†	99890.0	98079.2	512.40 ug/L	512.40 ppb	12:53:25
2	As 188.979†	910.5	922.5	510.80 ug/L	510.80 ppb	12:53:45
2	B 249.677†	17865.0	18111.6	505.77 ug/L	505.77 ppb	12:53:25
2	Ba 233.527†	55189.0	54291.6	509.80 ug/L	509.80 ppb	12:53:25
2	Be 313.107†	1218747.3	1202643.5	513.23 ug/L	513.23 ppb	12:53:20
2	Cd 226.502†	35688.8	35278.6	511.76 ug/L	511.76 ppb	12:53:25
2	Co 228.616†	20324.8	20040.3	518.06 ug/L	518.06 ppb	12:53:25
2	Cr 267.716†	38700.7	37999.3	510.64 ug/L	510.64 ppb	12:53:25
2	Cu 324.752†	160866.7	152696.7	504.12 ug/L	504.12 ppb	12:53:25
2	Mn 257.610†	387332.0	380639.2	500.77 ug/L	500.77 ppb	12:53:25
2	Mo 202.031†	5751.8	5649.6	502.67 ug/L	502.67 ppb	12:53:45
2	Ni 231.604†	16569.9	16216.2	514.67 ug/L	514.67 ppb	12:53:25

2	P 214.914†	3628.3	3381.9	2420.9 ug/L	2420.9 ppb	12:53:45
2	Pb 220.353†	3281.8	3286.7	506.36 ug/L	506.36 ppb	12:53:45
2	S 181.975 Axial†	602.5	562.5	1006.1 ug/L	1006.1 ppb	12:53:45
2	Sb 206.836†	1262.4	1218.2	527.79 ug/L	527.79 ppb	12:53:45
2	Se 196.026†	608.2	615.3	530.79 ug/L	530.79 ppb	12:53:45
2	Si 251.611†	68655.1	67049.6	2539.2 ug/L	2539.2 ppb	12:53:25
2	Sn 189.927†	2273.0	2228.8	506.39 ug/L	506.39 ppb	12:53:45
2	Ti 334.940†	290598.2	286990.0	498.94 ug/L	498.94 ppb	12:53:25
2	Tl 190.801†	1294.9	1302.9	507.38 ug/L	507.38 ppb	12:53:45
2	U 409.014†	15118.1	17076.2	516.32 ug/L	516.32 ppb	12:53:25
2	V 292.402†	63417.0	63702.4	515.38 ug/L	515.38 ppb	12:53:25
2	Zn 213.857†	43539.1	42260.5	507.31 ug/L	507.31 ppb	12:53:25
2	SiO2†	68156.5	66548.0	5417.4 ug/L	5417.4 ppb	12:54:27
3	Sc Radial	4246.7	4246.7	96.6 %		12:52:42
3	Y RADIAL	4814.1	4814.1	101.1 %		12:52:22
3	Al 396.153Radial†	5061.9	5316.9	5198.5 ug/L	5198.5 ppb	12:52:22
3	Ca 317.933Radial†	2688.3	2766.6	5234.9 ug/L	5234.9 ppb	12:52:42
3	Fe 238.204 Radial†	454.8	462.2	5370.5 ug/L	5370.5 ppb	12:52:42
3	K 766.490 Radial†	29670.6	28108.9	5348.9 ug/L	5348.9 ppb	12:52:22
3	Mg 279.077 IEC†	125.5	128.4	5294.8 ug/L	5294.8 ppb	12:52:42
3	Na 589.592 Radial†	28072.0	29928.3	10550 ug/L	10550 ppb	12:52:22
3	Sr 421.552†	64332.8	66560.5	533.49 ug/L	533.49 ppb	12:52:22
3	Sc 361.383	837178.6	837178.6	102.24 %		12:53:51
3	Y 371.029	698029.1	698029.1	100.92 %		12:53:51
3	Ag 328.068†	98356.8	96015.3	501.68 ug/L	501.68 ppb	12:53:56
3	As 188.979†	909.8	916.6	507.54 ug/L	507.54 ppb	12:54:16
3	B 249.677†	17499.0	17652.8	492.92 ug/L	492.92 ppb	12:53:56
3	Ba 233.527†	54300.7	53110.9	498.72 ug/L	498.72 ppb	12:53:56
3	Be 313.107†	1209735.4	1186944.8	506.52 ug/L	506.52 ppb	12:53:51
3	Cd 226.502†	35124.3	34524.9	500.81 ug/L	500.81 ppb	12:53:56
3	Co 228.616†	19951.5	19560.3	505.66 ug/L	505.66 ppb	12:53:56
3	Cr 267.716†	38093.5	37186.8	499.75 ug/L	499.75 ppb	12:53:56
3	Cu 324.752†	157873.2	148860.1	491.46 ug/L	491.46 ppb	12:53:56
3	Mn 257.610†	381533.0	372779.4	490.45 ug/L	490.45 ppb	12:53:56
3	Mo 202.031†	5739.4	5605.0	498.72 ug/L	498.72 ppb	12:54:16
3	Ni 231.604†	16305.4	15863.9	503.49 ug/L	503.49 ppb	12:53:56
3	P 214.914†	3597.0	3330.9	2385.2 ug/L	2385.2 ppb	12:54:16
3	Pb 220.353†	3275.3	3261.8	502.55 ug/L	502.55 ppb	12:54:16
3	S 181.975 Axial†	599.8	556.4	995.14 ug/L	995.14 ppb	12:54:16
3	Sb 206.836†	1256.7	1205.4	522.26 ug/L	522.26 ppb	12:54:16
3	Se 196.026†	602.6	606.3	523.72 ug/L	523.72 ppb	12:54:16
3	Si 251.611†	67639.5	65668.4	2486.8 ug/L	2486.8 ppb	12:53:56
3	Sn 189.927†	2253.0	2196.4	499.04 ug/L	499.04 ppb	12:54:16
3	Ti 334.940†	285965.2	280817.1	488.22 ug/L	488.22 ppb	12:53:56
3	Tl 190.801†	1292.6	1293.3	503.60 ug/L	503.60 ppb	12:54:16
3	U 409.014†	14765.8	16646.3	503.29 ug/L	503.29 ppb	12:53:56
3	V 292.402†	62348.1	62298.6	504.09 ug/L	504.09 ppb	12:53:56
3	Zn 213.857†	42944.7	41433.1	497.36 ug/L	497.36 ppb	12:53:56
3	SiO2†	68149.5	66156.1	5385.5 ug/L	5385.5 ppb	12:54:32

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	832766.6	101.70 %	0.516			0.51%
Sc Radial	4271.0	97.2 %	0.68			0.70%
Y 371.029	694355.4	100.39 %	0.598			0.60%
Y RADIAL	4771.7	100.2 %	1.08			1.08%
Ag 328.068†	97341.3	508.57 ug/L	5.972	508.57 ppb	5.972	1.17%
QC value within limits for Ag 328.068 Recovery = 101.71%						
Al 396.153Radial†	5267.9	5150.2 ug/L	95.84	5150.2 ppb	95.84	1.86%
QC value within limits for Al 396.153Radial Recovery = 103.00%						
As 188.979†	920.9	509.90 ug/L	2.058	509.90 ppb	2.058	0.40%
QC value within limits for As 188.979 Recovery = 101.98%						
B 249.677†	17891.7	499.61 ug/L	6.445	499.61 ppb	6.445	1.29%
QC value within limits for B 249.677 Recovery = 99.92%						
Ba 233.527†	53859.0	505.74 ug/L	6.104	505.74 ppb	6.104	1.21%
QC value within limits for Ba 233.527 Recovery = 101.15%						
Be 313.107†	1193898.8	509.49 ug/L	3.418	509.49 ppb	3.418	0.67%
QC value within limits for Be 313.107 Recovery = 101.90%						
Ca 317.933Radial†	2751.4	5206.3 ug/L	28.88	5206.3 ppb	28.88	0.55%

QC value within limits for Ca 317.933 Radial Recovery = 104.13%

Cd 226.502†	34957.4	507.10 ug/L	5.656	507.10 ppb	5.656	1.12%
QC value within limits for Cd 226.502 Recovery = 101.42%						
Co 228.616†	19829.8	512.62 ug/L	6.337	512.62 ppb	6.337	1.24%
QC value within limits for Co 228.616 Recovery = 102.52%						
Cr 267.716†	37684.8	506.43 ug/L	5.848	506.43 ppb	5.848	1.15%
QC value within limits for Cr 267.716 Recovery = 101.29%						
Cu 324.752†	151250.3	499.35 ug/L	6.877	499.35 ppb	6.877	1.38%
QC value within limits for Cu 324.752 Recovery = 99.87%						
Fe 238.204 Radial†	455.6	5293.8 ug/L	66.47	5293.8 ppb	66.47	1.26%
QC value within limits for Fe 238.204 Radial Recovery = 105.88%						
K 766.490 Radial†	27789.4	5288.1 ug/L	95.80	5288.1 ppb	95.80	1.81%
QC value within limits for K 766.490 Radial Recovery = 105.76%						
Mg 279.077 IEC†	129.1	5324.2 ug/L	25.49	5324.2 ppb	25.49	0.48%
QC value within limits for Mg 279.077 IEC Recovery = 106.48%						
Mn 257.610†	377695.8	496.91 ug/L	5.627	496.91 ppb	5.627	1.13%
QC value within limits for Mn 257.610 Recovery = 99.38%						
Mo 202.031†	5638.8	501.71 ug/L	2.649	501.71 ppb	2.649	0.53%
QC value within limits for Mo 202.031 Recovery = 100.34%						
Na 589.592 Radial†	29576.9	10427 ug/L	230.4	10427 ppb	230.4	2.21%
QC value within limits for Na 589.592 Radial Recovery = 104.27%						
Ni 231.604†	16089.0	510.63 ug/L	6.204	510.63 ppb	6.204	1.21%
QC value within limits for Ni 231.604 Recovery = 102.13%						
P 214.914†	3362.4	2407.3 ug/L	19.27	2407.3 ppb	19.27	0.80%
QC value within limits for P 214.914 Recovery = 96.29%						
Pb 220.353†	3276.4	504.79 ug/L	1.993	504.79 ppb	1.993	0.39%
QC value within limits for Pb 220.353 Recovery = 100.96%						
S 181.975 Axial†	560.8	1002.9 ug/L	6.76	1002.9 ppb	6.76	0.67%
QC value within limits for S 181.975 Axial Recovery = 100.29%						
Sb 206.836†	1206.4	522.80 ug/L	4.735	522.80 ppb	4.735	0.91%
QC value within limits for Sb 206.836 Recovery = 104.56%						
Se 196.026†	607.4	524.36 ug/L	6.133	524.36 ppb	6.133	1.17%
QC value within limits for Se 196.026 Recovery = 104.87%						
Si 251.611†	66552.5	2520.4 ug/L	29.11	2520.4 ppb	29.11	1.15%
QC value within limits for Si 251.611 Recovery = 100.81%						
Sn 189.927†	2214.7	503.20 ug/L	3.770	503.20 ppb	3.770	0.75%
QC value within limits for Sn 189.927 Recovery = 100.64%						
Sr 421.552†	65675.1	526.40 ug/L	11.850	526.40 ppb	11.850	2.25%
QC value within limits for Sr 421.552 Recovery = 105.28%						
Ti 334.940†	284693.4	494.95 ug/L	5.860	494.95 ppb	5.860	1.18%
QC value within limits for Ti 334.940 Recovery = 98.99%						
Tl 190.801†	1298.9	505.78 ug/L	1.953	505.78 ppb	1.953	0.39%
QC value within limits for Tl 190.801 Recovery = 101.16%						
U 409.014†	16912.5	511.36 ug/L	7.050	511.36 ppb	7.050	1.38%
QC value within limits for U 409.014 Recovery = 102.27%						
V 292.402†	63132.1	510.81 ug/L	5.942	510.81 ppb	5.942	1.16%
QC value within limits for V 292.402 Recovery = 102.16%						
Zn 213.857†	41950.3	503.58 ug/L	5.424	503.58 ppb	5.424	1.08%
QC value within limits for Zn 213.857 Recovery = 100.72%						
SiO2†	66630.5	5424.2 ug/L	42.42	5424.2 ppb	42.42	0.78%
QC value within limits for SiO2 Recovery = 101.43%						

All analyte(s) passed QC.

Sequence No.: 20
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 8
 Date Collected: 3/19/2010 12:56:41
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4122.8	4122.8	93.8 %		12:58:54
1	Y RADIAL	4237.6	4237.6	89.01 %		12:58:34
1	Al 396.153Radial†	-72.2	1.1	1.0140 ug/L	1.0140 ppb	12:58:54
1	Ca 317.933Radial†	19.5	5.1	9.5949 ug/L	9.5949 ppb	12:58:54
1	Fe 238.204 Radial†	6.3	-1.8	-20.749 ug/L	-20.749 ppb	12:58:54
1	K 766.490 Radial†	2742.0	324.3	61.784 ug/L	61.784 ppb	12:58:34
1	Mg 279.077 IEC†	1.8	0.4	16.217 ug/L	16.217 ppb	12:58:54
1	Na 589.592 Radial†	-841.8	-22.3	-7.8636 ug/L	-7.8636 ppb	12:58:34
1	Sr 421.552†	22.9	3.5	0.0283 ug/L	0.0283 ppb	12:58:34
1	Sc 361.383	820286.5	820286.5	100.18 %		12:59:51
1	Y 371.029	693929.7	693929.7	100.33 %		12:59:51
1	Ag 328.068†	165.9	-19.6	-0.1098 ug/L	-0.1098 ppb	12:59:51
1	As 188.979†	-22.3	4.5	2.4690 ug/L	2.4690 ppb	13:00:11
1	B 249.677†	-310.7	227.2	6.3770 ug/L	6.3770 ppb	13:00:11
1	Ba 233.527†	3.2	3.9	0.0347 ug/L	0.0347 ppb	13:00:11
1	Be 313.107†	-3607.0	130.5	0.0559 ug/L	0.0559 ppb	12:59:51
1	Cd 226.502†	-163.0	7.9	0.1166 ug/L	0.1166 ppb	13:00:11
1	Co 228.616†	-31.6	14.7	0.3824 ug/L	0.3824 ppb	13:00:11
1	Cr 267.716†	71.5	-0.2	-0.0048 ug/L	-0.0048 ppb	13:00:11
1	Cu 324.752†	5624.1	62.1	0.2040 ug/L	0.2040 ppb	12:59:51
1	Mn 257.610†	486.4	96.5	0.1241 ug/L	0.1241 ppb	13:00:11
1	Mo 202.031†	19.0	10.5	0.9285 ug/L	0.9285 ppb	13:00:11
1	Ni 231.604†	92.7	8.4	0.2679 ug/L	0.2679 ppb	13:00:11
1	P 214.914†	184.0	-3.6	-2.7086 ug/L	-2.7086 ppb	13:00:11
1	Pb 220.353†	-51.3	7.1	1.0952 ug/L	1.0952 ppb	13:00:11
1	S 181.975 Axial†	27.2	-3.0	-5.4258 ug/L	-5.4258 ppb	13:00:11
1	Sb 206.836†	23.9	0.2	0.0873 ug/L	0.0873 ppb	13:00:11
1	Se 196.026†	-13.7	3.3	2.6542 ug/L	2.6542 ppb	13:00:11
1	Si 251.611†	636.7	147.4	5.5832 ug/L	5.5832 ppb	13:00:11
1	Sn 189.927†	6.6	-0.6	-0.1354 ug/L	-0.1354 ppb	13:00:11
1	Ti 334.940†	-1033.3	89.8	0.1561 ug/L	0.1561 ppb	12:59:51
1	Tl 190.801†	-27.9	1.2	0.4639 ug/L	0.4639 ppb	13:00:11
1	U 409.014†	-2215.6	-7.5	-0.2238 ug/L	-0.2238 ppb	12:59:51
1	V 292.402†	-1375.0	-55.2	-0.4246 ug/L	-0.4246 ppb	12:59:51
1	Zn 213.857†	851.6	280.0	3.3939 ug/L	3.3939 ppb	13:00:11
1	SiO2†	638.6	138.1	11.247 ug/L	11.247 ppb	13:01:22
2	Sc Radial	4186.6	4186.6	95.3 %		12:59:19
2	Y RADIAL	4679.1	4679.1	98.29 %		12:58:59
2	Al 396.153Radial†	-87.4	-13.7	-13.461 ug/L	-13.461 ppb	12:59:19
2	Ca 317.933Radial†	22.7	8.1	15.366 ug/L	15.366 ppb	12:59:19
2	Fe 238.204 Radial†	7.5	-0.6	-6.4238 ug/L	-6.4238 ppb	12:59:19
2	K 766.490 Radial†	2754.6	293.0	55.823 ug/L	55.823 ppb	12:58:59
2	Mg 279.077 IEC†	0.8	-0.7	-27.119 ug/L	-27.119 ppb	12:59:19
2	Na 589.592 Radial†	-886.4	-55.5	-19.549 ug/L	-19.549 ppb	12:58:59
2	Sr 421.552†	21.0	1.2	0.0097 ug/L	0.0097 ppb	12:58:59
2	Sc 361.383	820591.8	820591.8	100.22 %		13:00:16
2	Y 371.029	693619.7	693619.7	100.29 %		13:00:16
2	Ag 328.068†	137.4	-48.0	-0.2526 ug/L	-0.2526 ppb	13:00:16
2	As 188.979†	-25.6	1.3	0.6986 ug/L	0.6986 ppb	13:00:36
2	B 249.677†	-293.6	244.4	6.8564 ug/L	6.8564 ppb	13:00:36
2	Ba 233.527†	9.0	9.7	0.0893 ug/L	0.0893 ppb	13:00:36
2	Be 313.107†	-3652.3	86.6	0.0372 ug/L	0.0372 ppb	13:00:16
2	Cd 226.502†	-166.4	4.6	0.0669 ug/L	0.0669 ppb	13:00:36
2	Co 228.616†	-41.3	5.0	0.1287 ug/L	0.1287 ppb	13:00:36
2	Cr 267.716†	79.9	8.2	0.1090 ug/L	0.1090 ppb	13:00:36
2	Cu 324.752†	5675.4	111.2	0.3674 ug/L	0.3674 ppb	13:00:16
2	Mn 257.610†	483.2	93.1	0.1229 ug/L	0.1229 ppb	13:00:36
2	Mo 202.031†	10.6	2.1	0.1845 ug/L	0.1845 ppb	13:00:36
2	Ni 231.604†	97.8	13.5	0.4294 ug/L	0.4294 ppb	13:00:36

2	P 214.914†	186.5	-1.2	-0.9377 ug/L	-0.9377 ppb	13:00:36
2	Pb 220.353†	-61.1	-2.6	-0.4083 ug/L	-0.4083 ppb	13:00:36
2	S 181.975 Axial†	29.3	-0.9	-1.6210 ug/L	-1.6210 ppb	13:00:36
2	Sb 206.836†	26.0	2.3	0.9839 ug/L	0.9839 ppb	13:00:36
2	Se 196.026†	-13.8	3.2	2.6731 ug/L	2.6731 ppb	13:00:36
2	Si 251.611†	652.9	163.3	6.1968 ug/L	6.1968 ppb	13:00:36
2	Sn 189.927†	12.5	5.3	1.2124 ug/L	1.2124 ppb	13:00:36
2	Ti 334.940†	-1036.2	87.3	0.1565 ug/L	0.1565 ppb	13:00:16
2	Tl 190.801†	-29.8	-0.7	-0.2529 ug/L	-0.2529 ppb	13:00:36
2	U 409.014†	-2247.7	-38.6	-1.1711 ug/L	-1.1711 ppb	13:00:16
2	V 292.402†	-1381.9	-61.5	-0.4908 ug/L	-0.4908 ppb	13:00:16
2	Zn 213.857†	850.6	278.7	3.3742 ug/L	3.3742 ppb	13:00:36
2	SiO2†	638.7	138.0	11.256 ug/L	11.256 ppb	13:01:42
3	Sc Radial	4228.2	4228.2	96.2 %		12:59:44
3	Y RADIAL	4655.5	4655.5	97.79 %		12:59:24
3	Al 396.153Radial†	-73.3	1.9	1.8952 ug/L	1.8952 ppb	12:59:44
3	Ca 317.933Radial†	27.0	12.4	23.461 ug/L	23.461 ppb	12:59:44
3	Fe 238.204 Radial†	6.2	-2.0	-23.574 ug/L	-23.574 ppb	12:59:44
3	K 766.490 Radial†	2678.8	185.7	35.373 ug/L	35.373 ppb	12:59:24
3	Mg 279.077 IEC†	3.6	2.2	90.892 ug/L	90.892 ppb	12:59:44
3	Na 589.592 Radial†	-859.2	-18.0	-6.3412 ug/L	-6.3412 ppb	12:59:24
3	Sr 421.552†	27.4	7.6	0.0609 ug/L	0.0609 ppb	12:59:24
3	Sc 361.383	819441.0	819441.0	100.08 %		13:00:41
3	Y 371.029	693279.0	693279.0	100.24 %		13:00:41
3	Ag 328.068†	227.2	41.9	0.2062 ug/L	0.2062 ppb	13:00:41
3	As 188.979†	-19.4	7.4	4.0824 ug/L	4.0824 ppb	13:01:01
3	B 249.677†	-335.2	202.4	5.6818 ug/L	5.6818 ppb	13:01:01
3	Ba 233.527†	13.3	14.0	0.1308 ug/L	0.1308 ppb	13:01:01
3	Be 313.107†	-3646.0	87.7	0.0377 ug/L	0.0377 ppb	13:00:41
3	Cd 226.502†	-169.5	1.3	0.0222 ug/L	0.0222 ppb	13:01:01
3	Co 228.616†	-41.7	4.6	0.1177 ug/L	0.1177 ppb	13:01:01
3	Cr 267.716†	71.9	0.3	0.0001 ug/L	0.0001 ppb	13:01:01
3	Cu 324.752†	5660.5	104.2	0.3398 ug/L	0.3398 ppb	13:00:41
3	Mn 257.610†	483.4	94.0	0.1175 ug/L	0.1175 ppb	13:01:01
3	Mo 202.031†	5.8	-2.7	-0.2418 ug/L	-0.2418 ppb	13:01:01
3	Ni 231.604†	81.9	-2.2	-0.0710 ug/L	-0.0710 ppb	13:01:01
3	P 214.914†	187.3	-0.1	-0.1132 ug/L	-0.1132 ppb	13:01:01
3	Pb 220.353†	-50.0	8.3	1.2784 ug/L	1.2784 ppb	13:01:01
3	S 181.975 Axial†	34.3	4.0	7.2446 ug/L	7.2446 ppb	13:01:01
3	Sb 206.836†	28.6	4.9	2.0605 ug/L	2.0605 ppb	13:01:01
3	Se 196.026†	-21.1	-4.1	-3.4948 ug/L	-3.4948 ppb	13:01:01
3	Si 251.611†	646.5	157.9	5.9962 ug/L	5.9962 ppb	13:01:01
3	Sn 189.927†	12.3	5.1	1.1633 ug/L	1.1633 ppb	13:01:01
3	Ti 334.940†	-1046.5	75.5	0.1245 ug/L	0.1245 ppb	13:00:41
3	Tl 190.801†	-30.8	-1.7	-0.6569 ug/L	-0.6569 ppb	13:01:01
3	U 409.014†	-2022.8	183.0	5.5531 ug/L	5.5531 ppb	13:00:41
3	V 292.402†	-1297.7	20.7	0.1779 ug/L	0.1779 ppb	13:00:41
3	Zn 213.857†	843.6	272.9	3.3102 ug/L	3.3102 ppb	13:01:01
3	SiO2†	641.2	141.4	11.549 ug/L	11.549 ppb	13:02:02

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	820106.4	100.16 %	0.073			0.07%
Sc Radial	4179.2	95.1 %	1.21			1.27%
Y 371.029	693609.5	100.28 %	0.047			0.05%
Y RADIAL	4524.1	95.03 %	5.217			5.49%
Ag 328.068†	-8.6	-0.0521 ug/L	0.23480	-0.0521 ppb	0.23480	450.92%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-3.6	-3.5172 ug/L	8.62256	-3.5172 ppb	8.62256	245.16%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	4.4	2.4167 ug/L	1.69248	2.4167 ppb	1.69248	70.03%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	224.7	6.3051 ug/L	0.59056	6.3051 ppb	0.59056	9.37%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	9.2	0.0849 ug/L	0.04816	0.0849 ppb	0.04816	56.71%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	101.6	0.0436 ug/L	0.01067	0.0436 ppb	0.01067	24.49%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	8.5	16.141 ug/L	6.9654	16.141 ppb	6.9654	43.15%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	4.6	0.0686 ug/L	0.04722	0.0686 ppb	0.04722	68.89%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	8.1	0.2096 ug/L	0.14974	0.2096 ppb	0.14974	71.44%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	2.8	0.0347 ug/L	0.06433	0.0347 ppb	0.06433	185.23%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	92.5	0.3037 ug/L	0.08749	0.3037 ppb	0.08749	28.81%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-1.5	-16.916 ug/L	9.1955	-16.916 ppb	9.1955	54.36%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	267.6	50.993 ug/L	13.8523	50.993 ppb	13.8523	27.17%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	0.6	26.663 ug/L	59.6950	26.663 ppb	59.6950	223.88%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	94.5	0.1215 ug/L	0.00352	0.1215 ppb	0.00352	2.90%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	3.3	0.2904 ug/L	0.59228	0.2904 ppb	0.59228	203.93%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	-31.9	-11.251 ug/L	7.2261	-11.251 ppb	7.2261	64.23%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	6.6	0.2088 ug/L	0.25541	0.2088 ppb	0.25541	122.34%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-1.6	-1.2532 ug/L	1.32612	-1.2532 ppb	1.32612	105.82%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	4.2	0.6551 ug/L	0.92549	0.6551 ppb	0.92549	141.28%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	0.0	0.0660 ug/L	6.50146	0.0660 ppb	6.50146	>999.9%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	2.5	1.0439 ug/L	0.98794	1.0439 ppb	0.98794	94.64%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	0.8	0.6108 ug/L	3.55557	0.6108 ppb	3.55557	582.11%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	156.2	5.9254 ug/L	0.31285	5.9254 ppb	0.31285	5.28%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	3.3	0.7467 ug/L	0.76437	0.7467 ppb	0.76437	102.36%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	4.1	0.0330 ug/L	0.02594	0.0330 ppb	0.02594	78.72%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	84.2	0.1457 ug/L	0.01835	0.1457 ppb	0.01835	12.59%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-0.4	-0.1486 ug/L	0.56763	-0.1486 ppb	0.56763	381.86%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	45.6	1.3860 ug/L	3.63969	1.3860 ppb	3.63969	262.60%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	-32.0	-0.2458 ug/L	0.36848	-0.2458 ppb	0.36848	149.89%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	277.2	3.3594 ug/L	0.04376	3.3594 ppb	0.04376	1.30%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	139.2	11.351 ug/L	0.1715	11.351 ppb	0.1715	1.51%	
QC value within limits for SiO2 Recovery = Not calculated							
All analyte(s) passed QC.							

ICPMS #6 Daily Performance Report

Sample ID: Sample

Sample Date/Time: Sunday, March 21, 2010 20:52:21

Sample Description:

Method File: C:\elandata\Method\Daily2.mth

Dataset File: c:\elandata\Dataset\100318\Sample.303

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	2508.0		2508.020		71.920		2.9	
Mg	24.0	27629.9		27629.895		255.195		0.9	
Co	58.9	38623.3		38623.346		405.098		1.0	
Rh	102.9	72776.3		72776.315		671.805		0.9	
In	114.9	86983.6		86983.648		1141.387		1.3	
Pb	208.0	42015.7		42015.701		451.473		1.1	
[> Ba	137.9	82414.0		82414.013		1097.744		1.3	
[Ba++	69.0	2310.3		0.028		0.000		0.8	
[> Ce	139.9	100763.4		100763.351		1144.341		1.1	
[CeO	155.9	1671.9		0.017		0.000		2.2	
Bkgd	220.0	21.5		21.500		3.102		14.4	

Current Optimization File Data

Current Value	Description
0.78	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	6.0	2955.0
Co	59	21	6.5	38891.9
In	115	21	7.3	82518.3

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	588	2080	0.648
Be	9.0	9.0	2054	2080	0.657
Mg	24.0	24.0	5682	2120	0.653
Mg	25.0	25.0	5914	2080	0.740
Mg	26.0	26.0	6158	2120	0.699
Co	58.9	59.0	14168	2170	0.656
Rh	102.9	102.8	24851	2230	0.714
In	114.9	114.8	27768	2260	0.701
Ce	139.9	139.9	33852	2280	0.754
Pb	206.0	206.0	49948	2420	0.733
Pb	207.0	207.0	50135	2385	0.699
Pb	208.0	208.0	50439	2430	0.723
U	238.1	238.1	57729	2470	0.706

ICPMS#6 - Summary Report

Sample ID: Blank

Sample Date/Time: Monday, March 22, 2010 16:16:55

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beniasset1.mth

Dataset File: C:\elandata\Dataset\100321\Blank.272

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	ug/L		7	
|>	Sc	45	ug/L		1152775	
[	Ni	60	ug/L		147	
[>	Ge	74	ug/L		179261	
|	As	75	ug/L		-70	
|	Se	77	ug/L		4260	
|	Se	82	ug/L		-19	
[	Kr	83	ug/L		104	
[>	Lu	175	ug/L		112167	
[	Tl	205	ug/L		248	

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

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 MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: Blank

ICPMS#6 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Monday, March 22, 2010 16:20:58

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beniasset1.mth

Dataset File: C:\elandata\Dataset\100321\Standard 1.273

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	10.000	ug/L	1.241	2653	0.002
[>	Sc 45		ug/L		1158456	1158456.059
[	Ni 60	10.000	ug/L	1.358	6358	0.005
[>	Ge 74		ug/L		178228	178227.848
[	As 75	10.000	ug/L	3.815	5101	0.029
[	Se 77		ug/L		3825	-0.002
[	Se 82	10.000	ug/L	2.727	390	0.002
[	Kr 83		ug/L		107	0.000
[>	Lu 175		ug/L		112320	112319.985
[	Tl 205	10.000	ug/L	1.620	36664	0.324

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

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 MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: Standard 1

ICPMS#6 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Monday, March 22, 2010 16:24:58

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beniasset1.mth

Dataset File: C:\elandata\Dataset\100321\Standard 2.274

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	99.983	ug/L	2.236	25522	0.022
[>	Sc 45		ug/L		1136341	1136340.755
[	Ni 60	99.999	ug/L	3.402	60989	0.054
[>	Ge 74		ug/L		177654	177653.621
[	As 75	99.970	ug/L	0.531	49962	0.282
[	Se 77		ug/L		6588	0.013
[	Se 82	100.012	ug/L	3.579	4100	0.023
[	Kr 83		ug/L		136	0.000
[>	Lu 175		ug/L		111666	111665.679
[	Tl 205	99.983	ug/L	1.181	356216	3.188

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

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 2

ICPMS#6 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Monday, March 22, 2010 16:28:59

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beniasset1.mth

Dataset File: C:\elandata\Dataset\100321\QC Std 1.275

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	49.728	ug/L	1.727	12763	0.011
> Sc	45		ug/L		1141849	1141848.698
[Ni	60	51.480	ug/L	0.986	31637	0.028
[> Ge	74		ug/L		177297	177296.604
| As	75	50.894	ug/L	2.255	25347	0.143
| Se	77		ug/L		5037	0.005
| Se	82	52.934	ug/L	3.769	2157	0.012
[Kr	83		ug/L		119	0.000
[> Lu	175		ug/L		111462	111462.299
[Tl	205	49.804	ug/L	1.548	177274	1.588

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

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9	99.455					
> Sc	45		99.1				
[Ni	60	102.959					
[> Ge	74		98.9				
| As	75	101.789					
| Se	77						
| Se	82	105.868					
[Kr	83						
[> Lu	175		99.4				
[Tl	205	99.607					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 1

ICPMS#6 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Monday, March 22, 2010 16:33:01

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beniassetl.mth

Dataset File: C:\elandata\Dataset\100321\QC Std 2.276

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	-0.005	ug/L	119.833	6	-0.000
[> Sc	45		ug/L		1131411	1131410.694
[Ni	60	0.008	ug/L	367.243	149	0.000
[> Ge	74		ug/L		178451	178450.953
[As	75	0.259	ug/L	120.590	60	0.001
[Se	77		ug/L		4266	0.000
[Se	82	-0.394	ug/L	97.058	-35	-0.000
[Kr	83		ug/L		115	0.000
[> Lu	175		ug/L		112237	112236.683
[Tl	205	0.132	ug/L	6.226	721	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	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		99.5				
[As	75						
[Se	77						
[Se	82						
[Kr	83						
[> Lu	175		100.1				
[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 2

Report Date/Time: Monday, March 22, 2010 16:33:41

ICPMS#6 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Monday, March 22, 2010 16:37:05

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beniasset1.mth

Dataset File: C:\elandata\Dataset\100321\QC Std 3.277

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	0.554	ug/L	3.589	153	0.000
[> Sc	45		ug/L		1169347	1169347.307
[Ni	60	2.240	ug/L	2.376	1552	0.001
[> Ge	74		ug/L		177298	177297.528
[As	75	5.987	ug/L	13.687	2921	0.017
[Se	77		ug/L		3669	-0.003
[Se	82	5.640	ug/L	4.575	213	0.001
[Kr	83		ug/L		110	0.000
[> Lu	175		ug/L		112118	112118.060
[Tl	205	1.167	ug/L	1.782	4422	0.037

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

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[Be	9	110.793					
[> Sc	45		101.4				
[Ni	60	111.993					
[> Ge	74		98.9				
[As	75	119.738					
[Se	77						
[Se	82	112.798					
[Kr	83						
[> Lu	175		100.0				
[Tl	205	116.744					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 3

Report Date/Time: Monday, March 22, 2010 16:37:43

ICPMS#6 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Monday, March 22, 2010 16:41:06

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beniassetl.mth

Dataset File: C:\elandata\Dataset\100321\QC Std 4.278

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.104	ug/L	12.745	33	0.000
> Sc	45		ug/L		1119996	1119995.620
[Ni	60	2.592	ug/L	2.582	1697	0.001
> Ge	74		ug/L		169612	169611.669
| As	75	0.315	ug/L	98.997	84	0.001
| Se	77		ug/L		4085	0.000
| Se	82	-0.278	ug/L	173.465	-29	-0.000
[Kr	83		ug/L		136	0.000
> Lu	175		ug/L		111442	111442.470
[Tl	205	0.060	ug/L	29.515	459	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	1.0000

QC Calculated Values

Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike	% Recov	Dilution	% Dil	Duplicate	Rel. % Difference
Be	9										
> Sc	45				97.2						
[Ni	60		95.996								
> Ge	74				94.6						
| 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: QC Std 4

Report Date/Time: Monday, March 22, 2010 16:41:45

ICPMS#6 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Monday, March 22, 2010 16:45:08

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beniassetl.mth

Dataset File: C:\elandata\Dataset\100321\QC Std 5.279

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	22.403	ug/L	1.576	5668	0.005
[> Sc	45		ug/L		1124859	1124859.167
[Ni	60	24.176	ug/L	1.763	14711	0.013
[> Ge	74		ug/L		171159	171159.300
[As	75	24.816	ug/L	2.445	11899	0.070
[Se	77		ug/L		4695	0.004
[Se	82	26.803	ug/L	4.614	1046	0.006
[Kr	83		ug/L		130	0.000
[> Lu	175		ug/L		113892	113892.341
[Tl	205	20.026	ug/L	0.605	72982	0.639

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		112.017								
[> Sc	45				97.6						
[Ni	60		106.502								
[> Ge	74				95.5						
[As	75		124.082								
[Se	77										
[Se	82		134.014								
[Kr	83										
[> Lu	175				101.5						
[Tl	205		100.132								

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	As	75	ICSAB is out of limits
QC Std 5	Se	82	ICSAB is out of limits

QC Action

QC Action Line: Continue

Sample ID: QC Std 5

Report Date/Time: Monday, March 22, 2010 16:45:47

ICPMS#6 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Monday, March 22, 2010 16:49:10

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beniassetl.mth

Dataset File: C:\elandata\Dataset\100321\QC Std 6.280

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	49.550	ug/L	2.097	12809	0.011
>	Sc 45		ug/L		1150050	1150049.887
[	Ni 60	51.807	ug/L	2.254	32062	0.028
>	Ge 74		ug/L		182280	182279.517
|	As 75	50.558	ug/L	1.741	25888	0.142
|	Se 77		ug/L		4824	0.003
|	Se 82	51.530	ug/L	3.753	2157	0.012
[	Kr 83		ug/L		96	-0.000
>	Lu 175		ug/L		115385	115384.706
[	Tl 205	50.033	ug/L	1.293	184333	1.595

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

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[	Be 9	99.101				
>	Sc 45		99.8			
[	Ni 60	103.613				
>	Ge 74		101.7			
|	As 75	101.116				
|	Se 77					
|	Se 82	103.061				
[	Kr 83					
>	Lu 175		102.9			
[	Tl 205	100.067				

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: Monday, March 22, 2010 16:49:48

ICPMS#6 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Monday, March 22, 2010 16:53:13

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beniassetl.mth

Dataset File: C:\elandata\Dataset\100321\QC Std 7.281

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	0.010	ug/L	154.815	10	0.000
>	Sc 45		ug/L		1160873	1160873.262
[	Ni 60	0.019	ug/L	13.463	159	0.000
>	Ge 74		ug/L		180519	180518.600
[	As 75	0.834	ug/L	68.570	355	0.002
|	Se 77		ug/L		4064	-0.001
|	Se 82	0.094	ug/L	452.695	-15	0.000
[	Kr 83		ug/L		91	-0.000
>	Lu 175		ug/L		114774	114773.788
[	Tl 205	0.496	ug/L	20.592	2069	0.016

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

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[	Be 9					
>	Sc 45		100.7			
[	Ni 60					
>	Ge 74		100.7			
|	As 75					
|	Se 77					
|	Se 82					
[	Kr 83					
>	Lu 175		102.3			
[	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 7

Report Date/Time: Monday, March 22, 2010 16:53:53

ICPMS#6 - Summary Report

Sample ID: 1202049296

Sample Date/Time: Monday, March 22, 2010 16:57:17

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 955822|2|rmj

Method File: c:\elandata\Method\beniasset1.mth

Dataset File: C:\elandata\Dataset\100321\1202049296.282

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	-0.000	ug/L	1900.651	7	-0.000
Sc	45		ug/L		1170053	1170052.925
Ni	60	0.042	ug/L	101.674	175	0.000
Ge	74		ug/L		180779	180779.464
As	75	0.212	ug/L	94.064	37	0.001
Se	77		ug/L		2636	-0.009
Se	82	0.004	ug/L	8913.578	-19	0.000
Kr	83		ug/L		99	-0.000
Lu	175		ug/L		115310	115310.024
Tl	205	0.237	ug/L	22.604	1128	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	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		101.5			
Ni	60					
Ge	74		100.8			
As	75					
Se	77					
Se	82					
Kr	83					
Lu	175		102.8			
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: 1202049296

Report Date/Time: Monday, March 22, 2010 16:57:56

ICPMS#6 - Summary Report

Sample ID: 1202049301

Sample Date/Time: Monday, March 22, 2010 17:01:20

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 955822|40|rmj

Method File: c:\elandata\Method\beniassetl.mth

Dataset File: C:\elandata\Dataset\100321\1202049301.283

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	17.952	ug/L	3.211	4747	0.004
> Sc	45		ug/L		1176001	1176001.258
[Ni	60	34.333	ug/L	1.896	21775	0.018
> Ge	74		ug/L		184616	184616.070
[As	75	26.551	ug/L	2.275	13739	0.075
| Se	77		ug/L		5384	0.005
| Se	82	71.756	ug/L	1.081	3052	0.017
[Kr	83		ug/L		92	-0.000
> Lu	175		ug/L		117903	117903.398
[Tl	205	29.892	ug/L	1.871	112635	0.953

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 %	Recovery	Dilution %	Dil	Duplicate	Rel. % Difference
[Be	9										
> Sc	45				102.0						
[Ni	60										
> Ge	74				103.0						
[As	75										
| Se	77										
| Se	82										
[Kr	83										
> Lu	175				105.1						
[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

ICPMS#6 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Monday, March 22, 2010 17:05:22

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beniassetl.mth

Dataset File: C:\elandata\Dataset\100321\QC Std 6.284

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	47.442	ug/L	3.069	12399	0.011
>	Sc 45		ug/L		1163253	1163252.999
[	Ni 60	51.771	ug/L	1.372	32404	0.028
>	Ge 74		ug/L		182447	182447.224
|	As 75	52.029	ug/L	1.440	26667	0.147
|	Se 77		ug/L		4939	0.003
|	Se 82	54.038	ug/L	3.143	2266	0.013
[	Kr 83		ug/L		98	-0.000
>	Lu 175		ug/L		116246	116245.535
[	Tl 205	49.763	ug/L	0.619	184717	1.587

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

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[	Be 9	94.884					
>	Sc 45		100.9				
[	Ni 60	103.543					
>	Ge 74		101.8				
|	As 75	104.059					
|	Se 77						
|	Se 82	108.076					
[	Kr 83						
>	Lu 175		103.6				
[	Tl 205	99.526					

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: Monday, March 22, 2010 17:06:00

ICPMS#6 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Monday, March 22, 2010 17:09:25

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beniassetl.mth

Dataset File: C:\elandata\Dataset\100321\QC Std 7.285

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.030	ug/L	49.026	15	0.000
>	Sc	45		ug/L		1151552	1151551.557
[	Ni	60	0.019	ug/L	194.633	158	0.000
>	Ge	74		ug/L		182227	182227.210
|	As	75	0.445	ug/L	69.899	156	0.001
|	Se	77		ug/L		4143	-0.001
|	Se	82	0.389	ug/L	120.251	-2	0.000
[	Kr	83		ug/L		89	-0.000
>	Lu	175		ug/L		115086	115085.866
[	Tl	205	0.577	ug/L	24.113	2373	0.018

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 % Recovery	Dilution % Dil	Duplicate Rel.	% Difference
[	Be	9						
>	Sc	45		99.9				
[	Ni	60						
>	Ge	74		101.7				
|	As	75						
|	Se	77						
|	Se	82						
[	Kr	83						
>	Lu	175		102.6				
[	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

ICPMS#6 - Summary Report

Sample ID: 247566001

Sample Date/Time: Monday, March 22, 2010 17:13:29

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955822|2|rmj

Method File: c:\elandata\Method\beniasset1.mth

Dataset File: C:\elandata\Dataset\100321\247566001.286

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	1.409	ug/L	5.704	371	0.000
>	Sc 45		ug/L		1151995	1151995.448
[	Ni 60	8.161	ug/L	1.250	5183	0.004
>	Ge 74		ug/L		181310	181310.196
|	As 75	2.411	ug/L	16.689	1160	0.007
|	Se 77		ug/L		2550	-0.010
|	Se 82	1.237	ug/L	22.015	33	0.000
[	Kr 83		ug/L		137	0.000
>	Lu 175		ug/L		123205	123204.590
[	Tl 205	0.334	ug/L	26.902	1587	0.011

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

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
[	Be 9					
>	Sc 45		99.9			
[	Ni 60					
>	Ge 74		101.1			
|	As 75					
|	Se 77					
|	Se 82					
[	Kr 83					
>	Lu 175		109.8			
[	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: 247566001

Report Date/Time: Monday, March 22, 2010 17:14:08

ICPMS#6 - Summary Report

Sample ID: 1202049297

Sample Date/Time: Monday, March 22, 2010 17:17:32

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 955822|2|rmj

Method File: c:\elandata\Method\beniasetl.mth

Dataset File: C:\elandata\Dataset\100321\1202049297.287

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	1.698	ug/L	4.200	450	0.000
[>	Sc 45		ug/L		1160011	1160011.090
[	Ni 60	8.348	ug/L	0.942	5335	0.004
[>	Ge 74		ug/L		178018	178018.219
[	As 75	2.249	ug/L	19.116	1060	0.006
[	Se 77		ug/L		2405	-0.010
[	Se 82	0.874	ug/L	19.510	18	0.000
[	Kr 83		ug/L		157	0.000
[>	Lu 175		ug/L		123585	123585.175
[	Tl 205	0.225	ug/L	5.131	1160	0.007

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	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		99.3				
[	As 75						
[	Se 77						
[	Se 82						
[	Kr 83						
[>	Lu 175		110.2				
[	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: 1202049297

Report Date/Time: Monday, March 22, 2010 17:18:12

ICPMS#6 - Summary Report

Sample ID: 1202049299

Sample Date/Time: Monday, March 22, 2010 17:21:36

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 955822|2|rmj

Method File: c:\elandata\Method\benlassetl.mth

Dataset File: C:\elandata\Dataset\100321\1202049299.288

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	25.242	ug/L	3.708	6747	0.006
[> Sc	45		ug/L		1189458	1189458.333
[Ni	60	35.768	ug/L	2.775	22931	0.019
[> Ge	74		ug/L		179287	179287.386
[As	75	41.563	ug/L	2.618	20916	0.117
[Se	77		ug/L		2663	-0.009
[Se	82	11.847	ug/L	8.664	473	0.003
[Kr	83		ug/L		170	0.000
[> Lu	175		ug/L		126906	126906.216
[Tl	205	44.587	ug/L	2.699	180665	1.422

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

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[Be	9					
[> Sc	45		103.2			
[Ni	60					
[> Ge	74		100.0			
[As	75					
[Se	77					
[Se	82					
[Kr	83					
[> Lu	175		113.1			
[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: 1202049299

ICPMS#6 - Summary Report

Sample ID: 1202049300

Sample Date/Time: Monday, March 22, 2010 17:25:39

Sample Type:

Sample Description: LANL 6020 MSD

Number of Replicates: 3

Batch ID: 955822[2]rmj

Method File: c:\elandata\Method\beniassetl.mth

Dataset File: C:\elandata\Dataset\100321\1202049300.289

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	26.098	ug/L	1.799	6893	0.006
[> Sc	45		ug/L		1174770	1174770.243
[Ni	60	40.814	ug/L	0.979	25833	0.022
[> Ge	74		ug/L		178545	178544.582
[As	75	42.637	ug/L	1.843	21375	0.120
[Se	77		ug/L		2587	-0.009
[Se	82	11.092	ug/L	6.914	441	0.003
[Kr	83		ug/L		174	0.000
[> Lu	175		ug/L		126592	126591.928
[Tl	205	46.039	ug/L	2.129	186065	1.468

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 %	Di	Duplicate	Rel. %	Difference
[Be	9											
[> Sc	45				101.9							
[Ni	60											
[> Ge	74				99.6							
[As	75											
[Se	77											
[Se	82											
[Kr	83											
[> Lu	175				112.9							
[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: 1202049300

Report Date/Time: Monday, March 22, 2010 17:26:19

ICPMS#6 - Summary Report

Sample ID: 1202049298

Sample Date/Time: Monday, March 22, 2010 17:29:43

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 955822|10|rmj

Method File: c:\elandata\Method\beniassetl.mth

Dataset File: C:\elandata\Dataset\100321\1202049298.290

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	0.350	ug/L	3.170	99	0.000
|>	Sc 45		ug/L		1168929	1168928.969
[	Ni 60	1.562	ug/L	10.987	1126	0.001
|>	Ge 74		ug/L		182965	182964.931
|	As 75	0.752	ug/L	74.470	314	0.002
|	Se 77		ug/L		2827	-0.008
|	Se 82	0.408	ug/L	94.030	-2	0.000
[	Kr 83		ug/L		96	-0.000
|>	Lu 175		ug/L		119012	119011.896
[	Tl 205	0.373	ug/L	22.519	1678	0.012

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

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[	Be 9					
|>	Sc 45		101.4			
[	Ni 60					
|>	Ge 74		102.1			
|	As 75					
|	Se 77					
|	Se 82					
[	Kr 83					
|>	Lu 175		106.1			
[	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: 1202049298

Report Date/Time: Monday, March 22, 2010 17:30:22

ICPMS#6 - Summary Report

Sample ID: 247566002

Sample Date/Time: Monday, March 22, 2010 17:33:47

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955822[2]rmj

Method File: c:\elandata\Method\beniasset1.mth

Dataset File: C:\elandata\Dataset\100321\247566002.291

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	1.718	ug/L	6.399	458	0.000
[> Sc	45		ug/L		1169575	1169575.077
[Ni	60	3.954	ug/L	1.635	2626	0.002
[> Ge	74		ug/L		180976	180975.713
[As	75	1.706	ug/L	18.107	799	0.005
[Se	77		ug/L		2385	-0.011
[Se	82	1.246	ug/L	42.368	34	0.000
[Kr	83		ug/L		155	0.000
[> Lu	175		ug/L		124297	124297.145
[Tl	205	0.206	ug/L	11.108	1091	0.007

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 %	Di	Duplicate	Rel. % Difference
[Be	9										
[> Sc	45				101.5						
[Ni	60										
[> Ge	74				101.0						
[As	75										
[Se	77										
[Se	82										
[Kr	83										
[> Lu	175				110.8						
[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

ICPMS#6 - Summary Report

Sample ID: 247566003

Sample Date/Time: Monday, March 22, 2010 17:37:50

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955822|2|rmj

Method File: c:\elandata\Method\beniassetl.mth

Dataset File: C:\elandata\Dataset\100321\247566003.292

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	2.790	ug/L	3.574	735	0.001
>	Sc 45		ug/L		1161487	1161487.170
[	Ni 60	2.227	ug/L	2.759	1533	0.001
>	Ge 74		ug/L		182272	182271.902
|	As 75	1.912	ug/L	32.057	913	0.005
|	Se 77		ug/L		2379	-0.011
|	Se 82	1.762	ug/L	22.060	56	0.000
[	Kr 83		ug/L		171	0.000
>	Lu 175		ug/L		128693	128692.746
[	Tl 205	0.142	ug/L	10.363	869	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	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[	Be 9					
>	Sc 45		100.8			
[	Ni 60					
>	Ge 74		101.7			
|	As 75					
|	Se 77					
|	Se 82					
[	Kr 83					
>	Lu 175		114.7			
[	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: 247566003

Report Date/Time: Monday, March 22, 2010 17:38:30

ICPMS#6 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Monday, March 22, 2010 17:41:52

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beniasset1.mth

Dataset File: C:\elandata\Dataset\100321\QC Std 6.293

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	49.046	ug/L	1.588	12735	0.011
[>	Sc	45		ug/L		1155480	1155479.996
[	Ni	60	52.158	ug/L	2.163	32424	0.028
[>	Ge	74		ug/L		183013	183013.039
[	As	75	50.866	ug/L	1.299	26152	0.143
[	Se	77		ug/L		4706	0.002
[	Se	82	53.179	ug/L	1.934	2237	0.012
[	Kr	83		ug/L		105	-0.000
[>	Lu	175		ug/L		117152	117151.640
[	Tl	205	49.757	ug/L	1.200	186130	1.587

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	98.092					
[>	Sc	45		100.2				
[	Ni	60	104.316					
[>	Ge	74		102.1				
[	As	75	101.732					
[	Se	77						
[	Se	82	106.358					
[	Kr	83						
[>	Lu	175		104.4				
[	Tl	205	99.514					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Monday, March 22, 2010 17:42:30

ICPMS#6 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Monday, March 22, 2010 17:45:55

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beniassetl.mth

Dataset File: C:\elandata\Dataset\100321\QC Std 7.294

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.015	ug/L	57.502	11	0.000
> Sc	45		ug/L		1137791	1137791.056
[Ni	60	0.026	ug/L	40.908	161	0.000
> Ge	74		ug/L		181003	181002.975
[As	75	0.293	ug/L	111.576	79	0.001
[Se	77		ug/L		3961	-0.002
[Se	82	0.160	ug/L	209.017	-12	0.000
[Kr	83		ug/L		91	-0.000
> Lu	175		ug/L		114605	114605.368
[Tl	205	0.348	ug/L	21.633	1527	0.011

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 %	Recovery	Dilution %	Dil	Duplicate	Rel. % Difference
Be	9										
> Sc	45				98.7						
[Ni	60										
> Ge	74				101.0						
[As	75										
[Se	77										
[Se	82										
[Kr	83										
> Lu	175				102.2						
[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: Monday, March 22, 2010 17:46:35

ICPMS#6 - Summary Report

Sample ID: 247566004

Sample Date/Time: Monday, March 22, 2010 17:49:58

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955822|2|rmj

Method File: c:\elandata\Method\beniassetl.mth

Dataset File: C:\elandata\Dataset\100321\247566004.295

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	2.871	ug/L	4.613	729	0.001
[>	Sc 45		ug/L		1120326	1120325.806
[	Ni 60	2.888	ug/L	4.817	1875	0.002
[>	Ge 74		ug/L		175685	175684.842
[	As 75	2.118	ug/L	25.881	981	0.006
[	Se 77		ug/L		2623	-0.009
[	Se 82	1.366	ug/L	62.187	37	0.000
[	Kr 83		ug/L		191	0.001
[>	Lu 175		ug/L		124002	124002.474
[	Tl 205	0.135	ug/L	5.917	810	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	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[	Be 9					
[>	Sc 45		97.2			
[	Ni 60					
[>	Ge 74		98.0			
[	As 75					
[	Se 77					
[	Se 82					
[	Kr 83					
[>	Lu 175		110.6			
[	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: 247566004

Report Date/Time: Monday, March 22, 2010 17:50:36

ICPMS#6 - Summary Report

Sample ID: 247566005

Sample Date/Time: Monday, March 22, 2010 17:53:58

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955822[2]rmj

Method File: c:\elandata\Method\beniassetl.mth

Dataset File: C:\elandata\Dataset\100321\247566005.296

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	2.480	ug/L	1.179	638	0.001
[> Sc	45		ug/L		1133579	1133579.360
[Ni	60	1.864	ug/L	5.410	1276	0.001
[> Ge	74		ug/L		171000	171000.455
[As	75	2.248	ug/L	23.277	1017	0.006
[Se	77		ug/L		2483	-0.009
[Se	82	1.682	ug/L	24.189	49	0.000
[Kr	83		ug/L		174	0.000
[> Lu	175		ug/L		122649	122648.653
[Tl	205	0.074	ug/L	8.573	562	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	1.0000

QC Calculated Values

Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike %	Recov	Dilution %	Dil	Duplicate	Rel. % Difference
[Be	9										
[> Sc	45				98.3						
[Ni	60										
[> Ge	74				95.4						
[As	75										
[Se	77										
[Se	82										
[Kr	83										
[> Lu	175				109.3						
[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

ICPMS#6 - Summary Report

Sample ID: 247566006

Sample Date/Time: Monday, March 22, 2010 17:57:59

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955822[2]rmj

Method File: c:\elandata\Method\beniassetl.mth

Dataset File: C:\elandata\Dataset\100321\247566006.297

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	2.469	ug/L	3.108	630	0.001
[> Sc	45		ug/L		1124746	1124746.363
[Ni	60	1.699	ug/L	3.963	1166	0.001
[> Ge	74		ug/L		172569	172569.446
[As	75	2.419	ug/L	18.351	1108	0.007
[Se	77		ug/L		2466	-0.009
[Se	82	1.754	ug/L	18.198	52	0.000
[Kr	83		ug/L		164	0.000
[> Lu	175		ug/L		123525	123524.692
[Tl	205	0.067	ug/L	10.222	537	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	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				96.3						
[As	75										
[Se	77										
[Se	82										
[Kr	83										
[> Lu	175				110.1						
[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: 247566006

Report Date/Time: Monday, March 22, 2010 17:58:38

ICPMS#6 - Summary Report

Sample ID: 247566007

Sample Date/Time: Monday, March 22, 2010 18:02:01

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955822[2]rmj

Method File: c:\elandata\Method\beniasset1.mth

Dataset File: C:\elandata\Dataset\100321\247566007.298

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	4.514	ug/L	3.578	1144	0.001
[> Sc	45		ug/L		1121382	1121382.055
[Ni	60	3.153	ug/L	3.484	2037	0.002
[> Ge	74		ug/L		173225	173224.690
[As	75	1.641	ug/L	29.851	733	0.005
[Se	77		ug/L		2443	-0.010
[Se	82	1.318	ug/L	23.344	35	0.000
[Kr	83		ug/L		151	0.000
[> Lu	175		ug/L		120690	120690.238
[Tl	205	0.068	ug/L	11.974	528	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	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[Be	9						
[> Sc	45		97.3				
[Ni	60						
[> Ge	74		96.6				
[As	75						
[Se	77						
[Se	82						
[Kr	83						
[> Lu	175		107.6				
[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: 247566007

Report Date/Time: Monday, March 22, 2010 18:02:39

ICPMS#6 - Summary Report

Sample ID: 247566008

Sample Date/Time: Monday, March 22, 2010 18:06:03

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955822[2]rmj

Method File: c:\elandata\Method\beniasetl.mth

Dataset File: C:\elandata\Dataset\100321\247566008.299

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	8.203	ug/L	5.304	2119	0.002
>	Sc 45		ug/L		1146602	1146602.270
[	Ni 60	6.125	ug/L	3.124	3906	0.003
>	Ge 74		ug/L		172268	172268.416
|	As 75	2.994	ug/L	8.138	1384	0.008
|	Se 77		ug/L		2306	-0.010
|	Se 82	0.878	ug/L	37.364	17	0.000
[	Kr 83		ug/L		154	0.000
>	Lu 175		ug/L		122040	122040.046
[	Tl 205	0.121	ug/L	6.434	739	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	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel.	% Difference
[	Be 9						
>	Sc 45		99.5				
[	Ni 60						
>	Ge 74		96.1				
|	As 75						
|	Se 77						
|	Se 82						
[	Kr 83						
>	Lu 175		108.8				
[	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: 247566008

Report Date/Time: Monday, March 22, 2010 18:06:42

ICPMS#6 - Summary Report

Sample ID: 247566009

Sample Date/Time: Monday, March 22, 2010 18:10:06

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955822[2]rmj

Method File: c:\elandata\Method\beniassetl.mth

Dataset File: C:\elandata\Dataset\100321\247566009.300

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	2.128	ug/L	1.165	535	0.000
[>	Sc 45		ug/L		1104432	1104431.679
[	Ni 60	4.828	ug/L	5.589	2995	0.003
[>	Ge 74		ug/L		170534	170534.280
[	As 75	2.185	ug/L	8.766	983	0.006
[	Se 77		ug/L		2382	-0.010
[	Se 82	1.150	ug/L	56.253	28	0.000
[	Kr 83		ug/L		156	0.000
[>	Lu 175		ug/L		120432	120431.717
[	Tl 205	0.091	ug/L	5.079	617	0.003

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

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[	Be 9					
[>	Sc 45		95.8			
[	Ni 60					
[>	Ge 74		95.1			
[	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

ICPMS#6 - Summary Report

Sample ID: 247566010

Sample Date/Time: Monday, March 22, 2010 18:14:07

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955822|2|rmj

Method File: c:\elandata\Method\beniassetl.mth

Dataset File: C:\elandata\Dataset\100321\247566010.301

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	1.860	ug/L	4.170	466	0.000
>	Sc 45		ug/L		1099219	1099219.484
[	Ni 60	2.025	ug/L	2.838	1332	0.001
>	Ge 74		ug/L		171696	171696.119
|	As 75	1.884	ug/L	14.556	844	0.005
|	Se 77		ug/L		2376	-0.010
|	Se 82	1.219	ug/L	40.336	31	0.000
[	Kr 83		ug/L		163	0.000
>	Lu 175		ug/L		121080	121079.516
[	Tl 205	0.042	ug/L	23.059	430	0.001

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

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[	Be 9						
>	Sc 45		95.4				
[	Ni 60						
>	Ge 74		95.8				
|	As 75						
|	Se 77						
|	Se 82						
[	Kr 83						
>	Lu 175		107.9				
[	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

ICPMS#6 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Monday, March 22, 2010 18:18:07

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beniassetl.mth

Dataset File: C:\elandata\Dataset\100321\QC Std 6.302

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	49.192	ug/L	1.990	12292	0.011
>	Sc 45		ug/L		1111749	1111748.585
[	Ni 60	51.708	ug/L	0.733	30939	0.028
>	Ge 74		ug/L		175222	175222.313
|	As 75	51.172	ug/L	2.388	25184	0.144
|	Se 77		ug/L		4477	0.002
|	Se 82	52.090	ug/L	1.877	2097	0.012
[	Kr 83		ug/L		105	0.000
>	Lu 175		ug/L		111971	111971.277
[	Tl 205	49.032	ug/L	1.836	175289	1.564

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

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel.	% Difference
[	Be 9	98.384					
>	Sc 45		96.4				
[	Ni 60	103.415					
>	Ge 74		97.7				
|	As 75	102.344					
|	Se 77						
|	Se 82	104.181					
[	Kr 83						
>	Lu 175		99.8				
[	Tl 205	98.064					

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: Monday, March 22, 2010 18:18:45

ICPMS#6 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Monday, March 22, 2010 18:22:10

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beniassetl.mth

Dataset File: C:\elandata\Dataset\100321\QC Std 7.303

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	0.004	ug/L	359.441	8	0.000
> Sc	45		ug/L		1102479	1102478.772
[Ni	60	-0.014	ug/L	105.464	132	-0.000
> Ge	74		ug/L		173427	173426.624
[As	75	0.114	ug/L	527.772	-15	0.000
| Se	77		ug/L		4007	-0.001
| Se	82	-0.323	ug/L	31.124	-31	-0.000
[Kr	83		ug/L		105	0.000
> Lu	175		ug/L		111172	111172.007
[Tl	205	0.085	ug/L	12.882	548	0.003

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

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[Be	9					
> Sc	45		95.6			
[Ni	60					
> Ge	74		96.7			
[As	75					
| Se	77					
| Se	82					
[Kr	83					
> Lu	175		99.1			
[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 7

Report Date/Time: Monday, March 22, 2010 18:22:50

ICPMS #6 Daily Performance Report

Sample ID: Sample

Sample Date/Time: Monday, March 22, 2010 19:45:25

Sample Description:

Method File: C:\elandata\Method\Daily2.mth

Dataset File: c:\elandata\Dataset\100318\Sample.304

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	1866.5	1866.522	52.077	2.8
Mg	24.0	24853.6	24853.602	221.900	0.9
Co	58.9	30463.0	30463.048	296.764	1.0
Rh	102.9	59870.2	59870.201	536.674	0.9
In	114.9	64141.7	64141.676	345.235	0.5
Pb	208.0	38726.4	38726.421	220.673	0.6
[> Ba	137.9	56592.8	56592.817	429.210	0.8
[Ba++	69.0	1589.5	0.028	0.001	2.0
[> Ce	139.9	73649.2	73649.163	401.983	0.5
[CeO	155.9	1165.7	0.016	0.000	1.6
Bkgd	220.0	5.9	5.900	1.597	27.1

Current Optimization File Data

Current Value	Description
0.78	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	4383.3
Co	59	21	7.8	50816.9
In	115	21	9.0	105814.8

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	589	2080	0.643
Be	9.0	8.9	2034	2080	0.649
Mg	24.0	24.0	5692	2120	0.620
Mg	25.0	25.0	5924	2080	0.687
Mg	26.0	26.0	6157	2120	0.679
Co	58.9	58.9	14154	2170	0.637
Rh	102.9	102.9	24856	2230	0.705
In	114.9	115.0	27785	2260	0.682
Ce	139.9	139.9	33845	2280	0.753
Pb	206.0	206.0	49948	2420	0.749
Pb	207.0	207.0	50135	2385	0.709
Pb	208.0	208.0	50439	2430	0.717
U	238.1	238.1	57735	2470	0.710

ICPMS#6 - Summary Report

Sample ID: Blank

Sample Date/Time: Monday, March 22, 2010 20:18:13

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\Blank.001

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	ug/L		7	
|>	Sc	45	ug/L		976710	
[	Ni	60	ug/L		694	
[>	Ge	74	ug/L		200302	
|	As	75	ug/L		108	
|	Se	77	ug/L		5428	
|	Se	82	ug/L		-136	
[	Kr	83	ug/L		225	
	Lu	175	ug/L		119992	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Simple Linear	
Sc	45	Simple Linear	
Ni	60	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Lu	175	Simple Linear	

QC Calculated Values

	Analyte Mass	QC Std	% Recovery	Int Std	% Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel.	% Difference
[	Be	9							
|>	Sc	45							
[	Ni	60							
[>	Ge	74							
|	As	75							
|	Se	77							
|	Se	82							
[	Kr	83							
	Lu	175							

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 1

Sample Date/Time: Monday, March 22, 2010 20:21:13

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\Standard 1.002

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	10.000	ug/L	9.505	2958	0.003
> Sc	45		ug/L		978467	978467.351
[Ni	60	10.000	ug/L	8.906	7533	0.007
> Ge	74		ug/L		200082	200082.199
[As	75	10.000	ug/L	4.962	6188	0.030
| Se	77		ug/L		3479	-0.010
| Se	82	10.000	ug/L	2.423	356	0.002
[Kr	83		ug/L		200	-0.000
Lu	175		ug/L		123356	3363.990

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	

QC Calculated Values

Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike	% Recov	Dilution	% Di	Duplicate	Rel. % Difference
Be	9										
> Sc	45										
[Ni	60										
> Ge	74										
[As	75										
| Se	77										
| Se	82										
[Kr	83										
Lu	175										

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: Monday, March 22, 2010 20:24:10

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\Standard 2.003

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	100.040 ug/L	6.258	31301	0.032
>	Sc	45	ug/L		991778	991777.949
[	Ni	60	100.015 ug/L	5.391	71294	0.071
>	Ge	74	ug/L		196914	196913.855
|	As	75	100.042 ug/L	3.955	62536	0.317
|	Se	77	ug/L		6835	0.008
|	Se	82	100.016 ug/L	2.528	4789	0.025
[	Kr	83	ug/L		236	0.000
	Lu	175	ug/L		121210	1217.694

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	

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							

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 1

Sample Date/Time: Monday, March 22, 2010 20:27:07

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\QC Std 1.004

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	49.644	ug/L	3.363	16188	0.016
> Sc	45		ug/L		1032154	1032154.191
Ni	60	49.325	ug/L	5.255	36984	0.035
> Ge	74		ug/L		194915	194915.012
As	75	50.492	ug/L	4.951	31320	0.160
Se	77		ug/L		6483	0.006
Se	82	50.146	ug/L	5.444	2310	0.013
Kr	83		ug/L		214	-0.000
Lu	175		ug/L		119200	-791.845

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	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
Be	9	99.288				
> Sc	45		105.7			
Ni	60	98.650				
> Ge	74		97.3			
As	75	100.983				
Se	77					
Se	82	100.292				
Kr	83					
Lu	175					

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 2

Sample Date/Time: Monday, March 22, 2010 20:30:07

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\QC Std 2.005

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	-0.001	ug/L	763.778	7	-0.000
> Sc	45		ug/L		1035715	1035714.858
Ni	60	-0.055	ug/L	128.157	694	-0.000
> Ge	74		ug/L		195200	195199.583
As	75	0.087	ug/L	440.737	164	0.000
Se	77		ug/L		5535	0.001
Se	82	0.586	ug/L	34.303	-104	0.000
Kr	83		ug/L		191	-0.000
Lu	175		ug/L		116871	-3121.126

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	

QC Calculated Values

Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike %	Recov	Dilution %	Dil	Duplicate	Rel. % Difference
Be	9										
> Sc	45				106.0						
Ni	60										
> Ge	74				97.5						
As	75										
Se	77										
Se	82										
Kr	83										
Lu	175										

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 3

Sample Date/Time: Monday, March 22, 2010 20:33:07

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\QC Std 3.006

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.600 ug/L	7.511	193	0.000
>	Sc	45	ug/L		983582	983582.319
[	Ni	60	2.279 ug/L	6.925	2293	0.002
>	Ge	74	ug/L		195777	195776.566
[	As	75	6.103 ug/L	13.966	3904	0.019
|	Se	77	ug/L		3250	-0.010
|	Se	82	6.296 ug/L	1.556	175	0.002
|	Kr	83	ug/L		192	-0.000
|	Lu	175	ug/L		119826	-165.918

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	

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[	Be	9	119.940			
>	Sc	45		100.7		
[	Ni	60	113.974			
>	Ge	74		97.7		
|	As	75	122.060			
|	Se	77				
|	Se	82	125.915			
|	Kr	83				
|	Lu	175				

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 4

Sample Date/Time: Monday, March 22, 2010 20:36:06

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\QC Std 4.007

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.131	ug/L	18.867	47	0.000
> Sc	45		ug/L		979163	979163.231
Ni	60	2.500	ug/L	11.030	2435	0.002
> Ge	74		ug/L		184077	184077.492
As	75	0.306	ug/L	187.841	283	0.001
Se	77		ug/L		3854	-0.006
Se	82	0.338	ug/L	55.751	-110	0.000
Kr	83		ug/L		203	-0.000
Lu	175		ug/L		118274	-1718.295

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	

QC Calculated Values

Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike %	Recovery	Dilution %	Dil	Duplicate	Rel. % Difference
Be	9										
> Sc	45					100.3					
Ni	60		92.578								
> Ge	74					91.9					
As	75										
Se	77										
Se	82										
Kr	83										
Lu	175										

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 5

Sample Date/Time: Monday, March 22, 2010 20:39:05

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\QC Std 5.008

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	21.732	ug/L	3.945	6635	0.007
>	Sc 45		ug/L		965243	965243.103
[	Ni 60	21.629	ug/L	5.120	15558	0.015
>	Ge 74		ug/L		180525	180524.843
|	As 75	21.662	ug/L	8.036	12509	0.069
|	Se 77		ug/L		4459	-0.002
|	Se 82	22.511	ug/L	1.169	893	0.006
[	Kr 83		ug/L		203	-0.000
	Lu 175		ug/L		117260	-2732.691

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	

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[	Be 9	108.662					
>	Sc 45		98.8				
[	Ni 60	95.283					
>	Ge 74		90.1				
|	As 75	108.310					
|	Se 77						
|	Se 82	112.554					
[	Kr 83						
	Lu 175						

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: Monday, March 22, 2010 20:42:03

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\QC Std 6.009

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	51.233	ug/L	3.912	16337	0.016
> Sc	45		ug/L		1009012	1009012.392
Ni	60	48.997	ug/L	2.053	35951	0.035
> Ge	74		ug/L		189013	189013.181
As	75	50.539	ug/L	2.577	30391	0.160
Se	77		ug/L		6214	0.006
Se	82	53.196	ug/L	1.062	2385	0.013
Kr	83		ug/L		161	-0.000
Lu	175		ug/L		114431	-5560.862

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	

QC Calculated Values

Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike %	Recovery	Dilution %	Dilution	Duplicate Rel.	% Difference
Be	9		102.466								
> Sc	45			103.3							
Ni	60		97.995								
> Ge	74			94.4							
As	75		101.078								
Se	77										
Se	82		106.393								
Kr	83										
Lu	175										

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Monday, March 22, 2010 20:42:38

ICPMS#6 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Monday, March 22, 2010 20:45:03

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\QC Std 7.010

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.013	ug/L	30.370	11	0.000
> Sc	45		ug/L		1022361	1022361.086
[Ni	60	-0.108	ug/L	119.700	640	-0.000
> Ge	74		ug/L		188361	188360.946
[As	75	0.003	ug/L	46570.075	118	0.000
| Se	77		ug/L		5393	0.002
| Se	82	1.161	ug/L	56.626	-74	0.000
[Kr	83		ug/L		154	-0.000
| Lu	175		ug/L		113116	-6876.690

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	

QC Calculated Values

Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike %	Recovery	Dilution %	Dil	Duplicate	Rel. % Difference
Be	9										
> Sc	45				104.7						
[Ni	60										
> Ge	74				94.0						
[As	75										
| Se	77										
| Se	82										
[Kr	83										
| Lu	175										

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: 1202049296

Sample Date/Time: Monday, March 22, 2010 20:48:04

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 955822[2]rmj

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\1202049296.011

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	0.012	ug/L	89.663	11	0.000
|> Sc	45		ug/L		1029696	1029695.756
[Ni	60	-0.067	ug/L	87.964	681	-0.000
|> Ge	74		ug/L		186929	186929.355
| As	75	0.158	ug/L	237.654	198	0.001
| Se	77		ug/L		2425	-0.014
| Se	82	1.473	ug/L	29.766	-58	0.000
[Kr	83		ug/L		131	-0.000
| Lu	175		ug/L		116968	-3024.514

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	

QC Calculated Values

Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike %	Recov	Dilution %	Dil	Duplicate	Rel. % Difference
[Be	9										
|> Sc	45				105.4						
[Ni	60										
|> Ge	74				93.3						
| As	75										
| Se	77										
| Se	82										
[Kr	83										
| Lu	175										

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: 1202049301

Sample Date/Time: Monday, March 22, 2010 20:52:03

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 955822|40|rmj

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\1202049301.012

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	18.319	ug/L	4.116	6206	0.006
> Sc	45		ug/L		1071763	1071763.442
Ni	60	31.226	ug/L	6.791	24563	0.022
> Ge	74		ug/L		192935	192934.663
As	75	26.285	ug/L	4.467	16183	0.083
Se	77		ug/L		5440	0.001
Se	82	71.773	ug/L	1.189	3331	0.018
Kr	83		ug/L		141	-0.000
Lu	175		ug/L		115583	-4409.117

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	

QC Calculated Values

Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike %	Recovery	Dilution %	Dil	Duplicate	Rel. % Difference
Be	9										
> Sc	45				109.7						
Ni	60										
> Ge	74				96.3						
As	75										
Se	77										
Se	82										
Kr	83										
Lu	175										

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: 1202049301

Report Date/Time: Monday, March 22, 2010 20:52:39

ICPMS#6 - Summary Report

Sample ID: 247566001

Sample Date/Time: Monday, March 22, 2010 20:56:03

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955822|2|rmj

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\247566001.013

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	1.483	ug/L	8.863	498	0.000
> Sc	45		ug/L		1046328	1046328.289
Ni	60	7.333	ug/L	7.547	6204	0.005
> Ge	74		ug/L		186668	186667.851
As	75	1.719	ug/L	11.442	1120	0.005
Se	77		ug/L		2218	-0.015
Se	82	1.696	ug/L	26.091	-48	0.000
Kr	83		ug/L		213	0.000
Lu	175		ug/L		125366	5374.045

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	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
> Sc	45		107.1				
Ni	60						
> Ge	74		93.2				
As	75						
Se	77						
Se	82						
Kr	83						
Lu	175						

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: 1202049297

Sample Date/Time: Monday, March 22, 2010 21:00:04

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 955822|2|rmj

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\1202049297.014

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	1.687	ug/L	2.385	586	0.001
> Sc	45		ug/L		1085684	1085683.569
Ni	60	7.428	ug/L	0.334	6520	0.005
> Ge	74		ug/L		185815	185814.563
As	75	1.809	ug/L	7.957	1166	0.006
Se	77		ug/L		2151	-0.016
Se	82	2.187	ug/L	28.775	-25	0.001
Kr	83		ug/L		190	-0.000
Lu	175		ug/L		126107	6114.428

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	

QC Calculated Values

Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike %	Recov	Dilution %	Di	Duplicate	Rel. % Difference
Be	9										
> Sc	45				111.2						
Ni	60										
> Ge	74				92.8						
As	75										
Se	77										
Se	82										
Kr	83										
Lu	175										

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: 1202049299

Sample Date/Time: Monday, March 22, 2010 21:04:04

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 955822[2]rmj

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\1202049299.015

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	26.005	ug/L	4.991	8834	0.008
[> Sc	45		ug/L		1075553	1075552.683
[Ni	60	31.968	ug/L	3.511	25254	0.023
[> Ge	74		ug/L		182767	182767.392
[As	75	41.979	ug/L	3.208	24425	0.133
[Se	77		ug/L		2473	-0.014
[Se	82	12.512	ug/L	0.957	447	0.003
[Kr	83		ug/L		226	0.000
[Lu	175		ug/L		126443	6450.740

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	

QC Calculated Values

Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike %	Recov	Dilution %	Dil	Duplicate Rel.	% Difference
[Be	9										
[> Sc	45				110.1						
[Ni	60										
[> Ge	74				91.2						
[As	75										
[Se	77										
[Se	82										
[Kr	83										
[Lu	175										

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: 1202049300

Sample Date/Time: Monday, March 22, 2010 21:08:05

Sample Type:

Sample Description: LANL 6020 MSD

Number of Replicates: 3

Batch ID: 955822|2|rmj

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\1202049300.016

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	25.667	ug/L	4.828	8973	0.008
>	Sc	45		ug/L		1105768	1105767.562
[	Ni	60	34.928	ug/L	1.499	28321	0.025
>	Ge	74		ug/L		181176	181176.190
|	As	75	43.037	ug/L	3.269	24816	0.136
|	Se	77		ug/L		2400	-0.014
|	Se	82	11.652	ug/L	1.283	404	0.003
|	Kr	83		ug/L		223	0.000
|	Lu	175		ug/L		124315	4322.193

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	

QC Calculated Values

	Analyte Mass	QC Std	% Recovery	Int Std	% Recovery	Spike %	Recov	Dilution %	Dil	Duplicate	Rel. % Difference
[	Be	9									
>	Sc	45			113.2						
[	Ni	60									
>	Ge	74			90.5						
|	As	75									
|	Se	77									
|	Se	82									
|	Kr	83									
|	Lu	175									

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: 1202049298

Sample Date/Time: Monday, March 22, 2010 21:12:05

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 955822|10|rmj

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\1202049298.017

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.289	ug/L	13.815	101	0.000
> Sc	45		ug/L		1028693	1028692.572
Ni	60	1.349	ug/L	12.930	1716	0.001
> Ge	74		ug/L		184458	184458.147
As	75	0.493	ug/L	87.861	392	0.002
Se	77		ug/L		2458	-0.014
Se	82	0.628	ug/L	253.311	-96	0.000
Kr	83		ug/L		180	-0.000
Lu	175		ug/L		114208	-5784.704

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	

QC Calculated Values

Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike %	Recov	Dilution %	Dil	Duplicate Rel.	% Difference
Be	9										
> Sc	45				105.3						
Ni	60										
> Ge	74				92.1						
As	75										
Se	77										
Se	82										
Kr	83										
Lu	175										

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: 247566002

Sample Date/Time: Monday, March 22, 2010 21:16:06

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955822|2|rmj

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\247566002.018

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	1.741	ug/L	4.705	597	0.001
> Sc	45		ug/L		1073038	1073038.374
Ni	60	3.352	ug/L	6.520	3325	0.002
> Ge	74		ug/L		181888	181888.346
As	75	1.198	ug/L	18.623	790	0.004
Se	77		ug/L		2026	-0.016
Se	82	1.957	ug/L	18.952	-35	0.000
Kr	83		ug/L		191	-0.000
Lu	175		ug/L		119671	-320.963

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	

QC Calculated Values

Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike %	Recov	Dilution %	Dil	Duplicate	Rel. % Difference
Be	9										
> Sc	45				109.9						
Ni	60										
> Ge	74				90.8						
As	75										
Se	77										
Se	82										
Kr	83										
Lu	175										

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: 247566003

Sample Date/Time: Monday, March 22, 2010 21:20:06

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955822[2]rmj

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\247566003.019

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	2.869	ug/L	8.192	1003	0.001
> Sc	45		ug/L		1101328	1101328.156
[Ni	60	1.719	ug/L	8.087	2127	0.001
> Ge	74		ug/L		180697	180697.048
[As	75	1.823	ug/L	24.494	1143	0.006
| Se	77		ug/L		2019	-0.016
| Se	82	-0.758	ug/L	702.825	-154	-0.000
[Kr	83		ug/L		349	0.001
| Lu	175		ug/L		122280	2287.307

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	

QC Calculated Values

Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike %	Recovery	Dilution %	Dil	Duplicate	Rel. % Difference
Be	9										
> Sc	45				112.8						
[Ni	60										
> Ge	74				90.2						
| As	75										
| Se	77										
| Se	82										
[Kr	83										
| Lu	175										

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 6

Sample Date/Time: Monday, March 22, 2010 21:24:05

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\QC Std 6.020

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be 9	50.829	ug/L	2.439	16917	0.016
>	Sc 45		ug/L		1053767	1053767.087
[	Ni 60	45.495	ug/L	8.602	34816	0.032
>	Ge 74		ug/L		182042	182042.287
|	As 75	50.226	ug/L	2.317	29094	0.159
|	Se 77		ug/L		5754	0.005
|	Se 82	53.077	ug/L	3.061	2292	0.013
[	Kr 83		ug/L		157	-0.000
	Lu 175		ug/L		109710	-10282.436

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	

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[	Be 9	101.658					
>	Sc 45		107.9				
[	Ni 60	90.989					
>	Ge 74		90.9				
|	As 75	100.451					
|	Se 77						
|	Se 82	106.155					
[	Kr 83						
	Lu 175						

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 7

Sample Date/Time: Monday, March 22, 2010 21:27:05

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\QC Std 7.021

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.006 ug/L	32.443	9	0.000
>	Sc	45	ug/L		1086125	1086125.478
[	Ni	60	-0.131 ug/L	35.843	670	-0.000
>	Ge	74	ug/L		179897	179897.032
|	As	75	-0.725 ug/L	79.393	-317	-0.002
|	Se	77	ug/L		4971	0.001
|	Se	82	0.987 ug/L	47.349	-78	0.000
|	Kr	83	ug/L		147	-0.000
|	Lu	175	ug/L		107534	-12458.263

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	

QC Calculated Values

	Analyte Mass	QC Std	% Recovery	Int Std	% Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[	Be	9							
>	Sc	45			111.2				
[	Ni	60							
>	Ge	74			89.8				
|	As	75							
|	Se	77							
|	Se	82							
|	Kr	83							
|	Lu	175							

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: Monday, March 22, 2010 21:27:42

ICPMS#6 - Summary Report

Sample ID: 247566004

Sample Date/Time: Monday, March 22, 2010 21:30:04

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955822[2]rmj

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\247566004.022

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	2.890	ug/L	8.955	1007	0.001
[> Sc	45		ug/L		1096048	1096048.108
[Ni	60	2.222	ug/L	6.162	2513	0.002
[> Ge	74		ug/L		181914	181913.716
| As	75	1.960	ug/L	14.649	1232	0.006
| Se	77		ug/L		2240	-0.015
| Se	82	1.877	ug/L	29.568	-38	0.000
[Kr	83		ug/L		223	0.000
Lu	175		ug/L		122421	2428.329

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	

QC Calculated Values

Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike %	Recov	Dilution %	Dil	Duplicate Rel.	% Difference
[Be	9										
[> Sc	45				112.2						
[Ni	60										
[> Ge	74				90.8						
| As	75										
| Se	77										
| Se	82										
[Kr	83										
Lu	175										

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: 247566005

Sample Date/Time: Monday, March 22, 2010 21:34:02

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955822[2]rmj

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\247566005.023

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	2.419	ug/L	1.788	838	0.001
> Sc	45		ug/L		1086324	1086323.575
[Ni	60	1.421	ug/L	9.312	1868	0.001
> Ge	74		ug/L		179937	179937.125
[As	75	1.931	ug/L	19.823	1201	0.006
[Se	77		ug/L		2046	-0.016
[Se	82	2.145	ug/L	11.823	-26	0.001
[Kr	83		ug/L		224	0.000
[Lu	175		ug/L		122682	2690.148

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	

QC Calculated Values

Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[Be	9								
> Sc	45				111.2				
[Ni	60								
> Ge	74				89.8				
[As	75								
[Se	77								
[Se	82								
[Kr	83								
[Lu	175								

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: 247566006

Sample Date/Time: Monday, March 22, 2010 21:38:00

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955822[2|rm]

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\247566006.024

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	2.393	ug/L	8.097	827	0.001
> Sc	45		ug/L		1086875	1086874.691
[Ni	60	1.216	ug/L	12.646	1711	0.001
> Ge	74		ug/L		178527	178527.225
[As	75	1.923	ug/L	12.188	1187	0.006
| Se	77		ug/L		1962	-0.016
| Se	82	2.739	ug/L	12.719	1	0.001
[Kr	83		ug/L		188	-0.000
| Lu	175		ug/L		120211	218.931

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	

QC Calculated Values

Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike %	Recov	Dilution %	Dil	Duplicate	Rel. % Difference
Be	9										
> Sc	45				111.3						
[Ni	60										
> Ge	74				89.1						
[As	75										
| Se	77										
| Se	82										
[Kr	83										
| Lu	175										

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: 247566007

Sample Date/Time: Monday, March 22, 2010 21:41:59

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955822|2|rmj

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\247566007.025

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	4.647	ug/L	3.297	1587	0.001
> Sc	45		ug/L		1076190	1076190.149
Ni	60	2.558	ug/L	0.521	2727	0.002
> Ge	74		ug/L		176426	176426.178
As	75	0.847	ug/L	57.650	569	0.003
Se	77		ug/L		1898	-0.016
Se	82	2.237	ug/L	17.055	-22	0.001
Kr	83		ug/L		190	-0.000
Lu	175		ug/L		118858	-1134.709

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	

QC Calculated Values

Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike %	Recov	Dilution %	Dil	Duplicate	Rel. % Difference
Be	9										
> Sc	45				110.2						
Ni	60										
> Ge	74				88.1						
As	75										
Se	77										
Se	82										
Kr	83										
Lu	175										

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: 247566008

Sample Date/Time: Monday, March 22, 2010 21:45:58

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955822[2]rmj

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\247566008.026

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	8.416	ug/L	4.094	2891	0.003
[> Sc	45		ug/L		1084703	1084703.242
[Ni	60	5.079	ug/L	2.590	4697	0.004
[> Ge	74		ug/L		176334	176334.218
| As	75	2.703	ug/L	12.951	1608	0.009
| Se	77		ug/L		1861	-0.017
| Se	82	1.715	ug/L	18.238	-44	0.000
[Kr	83		ug/L		206	0.000
| Lu	175		ug/L		117568	-2424.672

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	

QC Calculated Values

Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike %	Recov	Dilution %	Dil	Duplicate Rel.	% Difference
[Be	9										
[> Sc	45				111.1						
[Ni	60										
[> Ge	74				88.0						
| As	75										
| Se	77										
| Se	82										
[Kr	83										
| Lu	175										

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: 247566009

Sample Date/Time: Monday, March 22, 2010 21:49:56

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955822[2]rmj

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\247566009.027

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	2.075	4.647	726	0.001
>	Sc	45	ug/L		1098405	1098404.955
[	Ni	60	3.865	7.051	3801	0.003
>	Ge	74	ug/L		172543	172542.844
|	As	75	1.466	17.441	897	0.005
|	Se	77	ug/L		1830	-0.016
|	Se	82	2.354	9.349	-16	0.001
[	Kr	83	ug/L		185	-0.000
	Lu	175	ug/L		115036	-4956.221

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	

QC Calculated Values

	Analyte Mass	QC Std	% Recovery	Int Std	% Recovery	Spike %	Recov	Dilution %	Dil	Duplicate Rel.	% Difference
[	Be	9									
>	Sc	45			112.5						
[	Ni	60									
>	Ge	74			86.1						
|	As	75									
|	Se	77									
|	Se	82									
[	Kr	83									
	Lu	175									

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: 247566010

Sample Date/Time: Monday, March 22, 2010 21:52:55

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955822[2]rmj

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\247566010.028

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	1.821	ug/L	2.840	638	0.001
>	Sc	45		ug/L		1096216	1096215.728
[	Ni	60	1.501	ug/L	8.165	1950	0.001
>	Ge	74		ug/L		174007	174006.796
|	As	75	1.368	ug/L	19.125	848	0.004
|	Se	77		ug/L		1884	-0.016
|	Se	82	2.693	ug/L	1.704	-1	0.001
|	Kr	83		ug/L		186	-0.000
|	Lu	175		ug/L		117055	-2936.880

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	

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[	Be	9					
>	Sc	45	112.2				
[	Ni	60					
>	Ge	74	86.9				
|	As	75					
|	Se	77					
|	Se	82					
|	Kr	83					
|	Lu	175					

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: Monday, March 22, 2010 21:55:52

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\QC Std 6.029

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	50.595	1.095	17277	0.016
>	Sc	45	ug/L		1080353	1080352.726
[	Ni	60	43.045	3.452	33901	0.031
>	Ge	74	ug/L		175043	175042.735
|	As	75	50.887	3.742	28331	0.161
|	Se	77	ug/L		5468	0.004
|	Se	82	51.483	3.333	2132	0.013
|	Kr	83	ug/L		157	-0.000
|	Lu	175	ug/L		105705	-14287.586

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	

QC Calculated Values

	Analyte Mass	QC Std	% Recovery	Int Std	% Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[	Be	9	101.190						
>	Sc	45		110.6					
[	Ni	60	86.090						
>	Ge	74		87.4					
|	As	75	101.775						
|	Se	77							
|	Se	82	102.966						
|	Kr	83							
|	Lu	175							

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: Monday, March 22, 2010 21:56:27

ICPMS#6 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Monday, March 22, 2010 21:58:52

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\beasnise.mth

Dataset File: C:\elandata\Dataset\100322\QC Std 7.030

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.001	ug/L	1211.134	7	0.000
> Sc	45		ug/L		1057853	1057853.473
Ni	60	-0.149	ug/L	50.636	637	-0.000
> Ge	74		ug/L		175678	175677.689
As	75	-0.533	ug/L	123.342	-194	-0.002
Se	77		ug/L		4638	-0.001
Se	82	1.756	ug/L	18.235	-42	0.000
Kr	83		ug/L		124	-0.000
Lu	175		ug/L		104322	-15670.385

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	

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				87.7						
As	75										
Se	77										
Se	82										
Kr	83										
Lu	175										

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

=====
Analysis BegunLogged In Analyst: Administrator
Spectrometer Model: FIMS-100, S/N B050-9550Technique: AA FIMS-MHS
Autosampler Model: S10

Sample Information File: C:\data-AA\Administrator\Sample Information\030910S1.SIF

Batch ID:

Results Data Set: 030910S1

Results Library: C:\data-AA\Administrator\Results\Results.mdb

=====
Method Loaded

Method Name: SOIL

Method Last Saved: 1/4/2010 13:53:20

Method Description: 7471A, ILM04 ANALYST JXL

=====
Sequence No.: 1

Autosampler Location: 1

Sample ID: Calib Blank

Date Collected: 3/9/2010 13:11:27

Analyst:

Data Type: Original

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0003	0.0020	0.0003	13:12:17	Yes
2		[0.00]	0.0002	-0.0000	0.0002	13:12:47	Yes
Mean:		[0.00]	0.0003				
SD:		0.00	0.0001				
%RSD:		0.00	22.77				

Auto-zero performed.=====
Sequence No.: 2

Autosampler Location: 2

Sample ID: S0.2

Date Collected: 3/9/2010 13:13:06

Analyst:

Data Type: Original

Replicate Data: S0.2

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0024	0.0127	0.0027	13:13:56	Yes
2		[0.2]	0.0024	0.0121	0.0027	13:14:26	Yes
Mean:		[0.2]	0.0024				
SD:		0.0	0.0000				
%RSD:		0.0	1.16				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01193 Intercept: 0.00000=====
Sequence No.: 3

Autosampler Location: 3

Sample ID: S0.5

Date Collected: 3/9/2010 13:14:45

Analyst:

Data Type: Original

Replicate Data: S0.5

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0059	0.0273	0.0062	13:15:36	Yes
2		[0.5]	0.0061	0.0299	0.0064	13:16:06	Yes
Mean:		[0.5]	0.0060				
SD:		0.0	0.0002				
%RSD:		0.0	2.61				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999999 Slope: 0.01198 Intercept: -0.00000=====
Sequence No.: 4

Autosampler Location: 4

Sample ID: S2.0

Date Collected: 3/9/2010 13:16:25

Analyst:

Data Type: Original

Replicate Data: S2.0

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0243	0.1144	0.0246	13:17:16	Yes
2		[2.0]	0.0243	0.1142	0.0246	13:17:46	Yes
Mean:		[2.0]	0.0243				
SD:		0.0	0.0000				
%RSD:		0.0	0.11				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999994 Slope: 0.01216 Intercept: -0.00004

=====

Sequence No.: 5

Autosampler Location: 5

Sample ID: S5.0

Date Collected: 3/9/2010 13:18:06

Analyst:

Data Type: Original

Replicate Data: S5.0

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0615	0.2862	0.0618	13:18:58	Yes
2		[5.0]	0.0613	0.2850	0.0616	13:19:28	Yes
Mean:		[5.0]	0.0614				
SD:		0.0	0.0001				
%RSD:		0.0	0.20				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999990 Slope: 0.01228 Intercept: -0.00011

=====

Sequence No.: 6

Autosampler Location: 6

Sample ID: S10.0

Date Collected: 3/9/2010 13:19:48

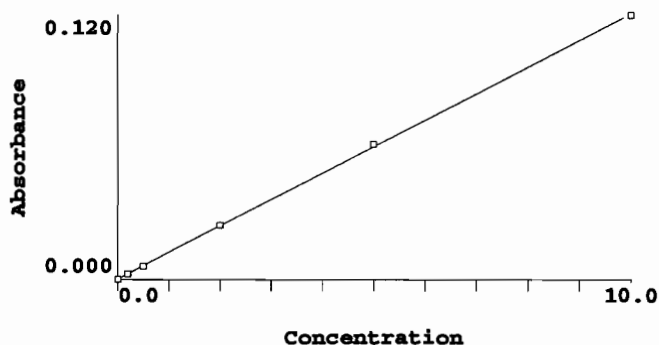
Analyst:

Data Type: Original

Replicate Data: S10.0

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1194	0.5581	0.1197	13:20:38	Yes
2		[10.0]	0.1200	0.5580	0.1203	13:21:08	Yes
Mean:		[10.0]	0.1197				
SD:		0.0	0.0004				
%RSD:		0.0	0.35				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999922 Slope: 0.01201 Intercept: 0.00020

-----
Calibration data for Hg 253.7

Equation: Linear, Calculated Intercept

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.017	0.00	22.8
S0.2	0.0024	0.2	0.182	0.00	1.2
S0.5	0.0060	0.5	0.482	0.00	2.6
S2.0	0.0243	2.0	2.005	0.00	0.1

S5.0	0.0614	5.0	5.094	0.00	0.2
S10.0	0.1197	10.0	9.953	0.00	0.3

Correlation Coef.: 0.999922 Slope: 0.01201 Intercept: 0.00020

Sequence No.: 7
Sample ID: ICV
Analyst:

Autosampler Location: 9
Date Collected: 3/9/2010 13:21:27
Data Type: Original

Replicate Data: ICV

Repl #	SampleConc ug/L	StdndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.223	5.223	0.0629	0.2914	0.0632	13:22:18	Yes
2	5.177	5.177	0.0624	0.2890	0.0627	13:22:48	Yes
Mean:	5.200	5.200	0.0626				
SD:	0.033	0.033	0.0004				
%RSD:	0.626	0.626	0.62				

QC value within limits for Hg 253.7 Recovery = 103.99%
All analyte(s) passed QC.

Sequence No.: 8
Sample ID: ICB
Analyst:

Autosampler Location: 10
Date Collected: 3/9/2010 13:23:07
Data Type: Original

Replicate Data: ICB

Repl #	SampleConc ug/L	StdndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.008	-0.008	0.0001	0.0009	0.0004	13:23:59	Yes
2	-0.004	-0.004	0.0002	0.0019	0.0005	13:24:29	Yes
Mean:	-0.006	-0.006	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	52.92	52.92	30.80				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 9
Sample ID: CRDL
Analyst:

Autosampler Location: 11
Date Collected: 3/9/2010 13:24:48
Data Type: Original

Replicate Data: CRDL

Repl #	SampleConc ug/L	StdndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.203	0.203	0.0026	0.0136	0.0029	13:25:40	Yes
2	0.198	0.198	0.0026	0.0126	0.0029	13:26:10	Yes
Mean:	0.200	0.200	0.0026				
SD:	0.004	0.004	0.0000				
%RSD:	1.879	1.879	1.73				

QC value within limits for Hg 253.7 Recovery = 100.10%
All analyte(s) passed QC.

Sequence No.: 10
Sample ID: CCV
Analyst:

Autosampler Location: 7
Date Collected: 3/9/2010 13:26:30
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StdndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.061	5.061	0.0610	0.2833	0.0613	13:27:20	Yes
2	5.061	5.061	0.0610	0.2822	0.0613	13:27:50	Yes
Mean:	5.061	5.061	0.0610				
SD:	0.000	0.000	0.0000				
%RSD:	0.005	0.005	0.01				

QC value within limits for Hg 253.7 Recovery = 101.22%
All analyte(s) passed QC.

Sequence No.: 11

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 3/9/2010 13:28:09

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.013	-0.013	0.0000	0.0014	0.0003	13:29:00	Yes
2	-0.019	-0.019	-0.0000	0.0002	0.0003	13:29:30	Yes
Mean:	-0.016	-0.016	0.0000				
SD:	0.004	0.004	0.0001				
%RSD:	27.48	27.48	535.70				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12

Sample ID: 1202055991|958664|1

Analyst: JXL

Autosampler Location: 12

Date Collected: 3/9/2010 13:29:49

Data Type: Original

Replicate Data: 1202055991|958664|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.019	-0.019	-0.0000	0.0006	0.0003	13:30:41	Yes
2	-0.021	-0.021	-0.0001	0.0006	0.0002	13:31:11	Yes
Mean:	-0.020	-0.020	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	7.208	7.208	42.52				

Sequence No.: 13

Sample ID: 1202055992|958664|10

Analyst: JXL

Autosampler Location: 13

Date Collected: 3/9/2010 13:31:31

Data Type: Original

Replicate Data: 1202055992|958664|10

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	3.587	3.587	0.0433	0.2001	0.0436	13:32:23	Yes
2	3.553	3.553	0.0429	0.1972	0.0432	13:32:53	Yes
Mean:	3.570	3.570	0.0431				
SD:	0.024	0.024	0.0003				
%RSD:	0.682	0.682	0.68				

Sequence No.: 14

Sample ID: 247544001|958664|1

Analyst: JXL

Autosampler Location: 14

Date Collected: 3/9/2010 13:33:13

Data Type: Original

Replicate Data: 247544001|958664|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.109	0.109	0.0015	0.0076	0.0018	13:34:03	Yes
2	0.106	0.106	0.0015	0.0074	0.0018	13:34:33	Yes
Mean:	0.108	0.108	0.0015				
SD:	0.002	0.002	0.0000				
%RSD:	1.845	1.845	1.60				

Sequence No.: 15

Sample ID: 1202055993|958664|1

Analyst: JXL

Autosampler Location: 15

Date Collected: 3/9/2010 13:34:52

Data Type: Original

Replicate Data: 1202055993|958664|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
------	------------	---------	---------	------	------	------	------

#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.118	0.118	0.0016	0.0087	0.0019	13:35:43	Yes
2	0.110	0.110	0.0015	0.0077	0.0018	13:36:13	Yes
Mean:	0.114	0.114	0.0016				
SD:	0.006	0.006	0.0001				
%RSD:	5.295	5.295	4.62				

Sequence No.: 16

Autosampler Location: 16

Sample ID: 1202055994|958664|1

Date Collected: 3/9/2010 13:36:32

Analyst: JXL

Data Type: Original

Replicate Data: 1202055994|958664|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.188	2.188	0.0265	0.1224	0.0268	13:37:22	Yes
2	2.183	2.183	0.0264	0.1227	0.0267	13:37:51	Yes
Mean:	2.185	2.185	0.0264				
SD:	0.003	0.003	0.0000				
%RSD:	0.156	0.156	0.15				

Sequence No.: 17

Autosampler Location: 17

Sample ID: 1202055996|958664|1

Date Collected: 3/9/2010 13:38:10

Analyst: JXL

Data Type: Original

Replicate Data: 1202055996|958664|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.306	2.306	0.0279	0.1287	0.0282	13:39:00	Yes
2	2.286	2.286	0.0277	0.1276	0.0280	13:39:30	Yes
Mean:	2.296	2.296	0.0278				
SD:	0.014	0.014	0.0002				
%RSD:	0.620	0.620	0.62				

Sequence No.: 18

Autosampler Location: 18

Sample ID: 1202055995|958664|5

Date Collected: 3/9/2010 13:39:49

Analyst: JXL

Data Type: Original

Replicate Data: 1202055995|958664|5

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.010	0.010	0.0003	0.0024	0.0006	13:40:39	Yes
2	0.011	0.011	0.0003	0.0024	0.0006	13:41:09	Yes
Mean:	0.011	0.011	0.0003				
SD:	0.000	0.000	0.0000				
%RSD:	2.031	2.031	0.79				

Sequence No.: 19

Autosampler Location: 19

Sample ID: 247544002|958664|1

Date Collected: 3/9/2010 13:41:28

Analyst: JXL

Data Type: Original

Replicate Data: 247544002|958664|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.207	0.207	0.0027	0.0132	0.0030	13:42:19	Yes
2	0.204	0.204	0.0027	0.0131	0.0029	13:42:49	Yes
Mean:	0.205	0.205	0.0027				
SD:	0.002	0.002	0.0000				
%RSD:	0.824	0.824	0.76				

Sequence No.: 20

Autosampler Location: 20

Sample ID: 247544003|958664|1

Date Collected: 3/9/2010 13:43:08

Analyst: JXL

Data Type: Original

Replicate Data: 247544003|958664|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.139	0.139	0.0019	0.0095	0.0022	13:43:59	Yes
2	0.143	0.143	0.0019	0.0101	0.0022	13:44:29	Yes
Mean:	0.141	0.141	0.0019				
SD:	0.003	0.003	0.0000				
%RSD:	1.968	1.968	1.76				

Sequence No.: 21

Sample ID: 247544004|958664|1

Analyst: JXL

Autosampler Location: 21

Date Collected: 3/9/2010 13:44:49

Data Type: Original

Replicate Data: 247544004|958664|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.217	0.217	0.0028	0.0141	0.0031	13:45:39	Yes
2	0.206	0.206	0.0027	0.0130	0.0030	13:46:09	Yes
Mean:	0.212	0.212	0.0027				
SD:	0.008	0.008	0.0001				
%RSD:	3.613	3.613	3.35				

Sequence No.: 22

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 3/9/2010 13:46:29

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.171	5.171	0.0623	0.2862	0.0626	13:47:19	Yes
2	5.158	5.158	0.0621	0.2853	0.0624	13:47:49	Yes
Mean:	5.165	5.165	0.0622				
SD:	0.009	0.009	0.0001				
%RSD:	0.182	0.182	0.18				

QC value within limits for Hg 253.7 Recovery = 103.29%

All analyte(s) passed QC.

Sequence No.: 23

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 3/9/2010 13:48:08

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.017	-0.017	-0.0000	0.0008	0.0003	13:48:59	Yes
2	-0.019	-0.019	-0.0000	0.0004	0.0003	13:49:29	Yes
Mean:	-0.018	-0.018	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	8.730	8.730	121.98				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 24

Sample ID: 247566001|958664|1

Analyst: JXL

Autosampler Location: 22

Date Collected: 3/9/2010 13:49:48

Data Type: Original

Replicate Data: 247566001|958664|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.066	0.066	0.0010	0.0051	0.0013	13:50:39	Yes
2	0.072	0.072	0.0011	0.0056	0.0014	13:51:09	Yes

Mean: 0.069 0.069 0.0010
SD: 0.004 0.004 0.0001
%RSD: 6.304 6.304 5.08

Sequence No.: 25

Sample ID: 247566002|958664|1

Analyst: JXL

Autosampler Location: 23

Date Collected: 3/9/2010 13:51:29

Data Type: Original

Replicate Data: 247566002|958664|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.016	0.016	0.0004	0.0025	0.0007	13:52:21	Yes
2	0.023	0.023	0.0005	0.0030	0.0008	13:52:51	Yes
Mean:	0.020	0.020	0.0004				
SD:	0.005	0.005	0.0001				
%RSD:	26.19	26.19	14.14				

Sequence No.: 26

Sample ID: 247566003|958664|1

Analyst: JXL

Autosampler Location: 24

Date Collected: 3/9/2010 13:53:11

Data Type: Original

Replicate Data: 247566003|958664|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.013	-0.013	0.0000	0.0002	0.0003	13:54:02	Yes
2	-0.020	-0.020	-0.0000	0.0004	0.0003	13:54:32	Yes
Mean:	-0.017	-0.017	0.0000				
SD:	0.004	0.004	0.0001				
%RSD:	25.80	25.80	>999.9%				

Sequence No.: 27

Sample ID: 247566004|958664|1

Analyst: JXL

Autosampler Location: 25

Date Collected: 3/9/2010 13:54:52

Data Type: Original

Replicate Data: 247566004|958664|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.011	-0.011	0.0001	0.0009	0.0004	13:55:44	Yes
2	-0.010	-0.010	0.0001	0.0015	0.0004	13:56:14	Yes
Mean:	-0.011	-0.011	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.813	0.813	1.39				

Sequence No.: 28

Sample ID: 247566005|958664|1

Analyst: JXL

Autosampler Location: 26

Date Collected: 3/9/2010 13:56:34

Data Type: Original

Replicate Data: 247566005|958664|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.025	-0.025	-0.0001	0.0005	0.0002	13:57:25	Yes
2	-0.025	-0.025	-0.0001	0.0002	0.0002	13:57:54	Yes
Mean:	-0.025	-0.025	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	2.157	2.157	6.52				

Sequence No.: 29

Sample ID: 247566006|958664|1

Analyst: JXL

Autosampler Location: 27

Date Collected: 3/9/2010 13:58:13

Data Type: Original

Replicate Data: 247566006|958664|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.023	-0.023	-0.0001	0.0005	0.0002	13:59:04	Yes
2	-0.028	-0.028	-0.0001	0.0000	0.0002	13:59:34	Yes
Mean:	-0.026	-0.026	-0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	13.68	13.68	38.86				

Sequence No.: 30
Sample ID: 247566007|958664|1
Analyst: JXL

Autosampler Location: 28
Date Collected: 3/9/2010 13:59:53
Data Type: Original

Replicate Data: 247566007|958664|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.012	-0.012	0.0001	0.0012	0.0004	14:00:44	Yes
2	-0.016	-0.016	0.0000	0.0006	0.0003	14:01:14	Yes
Mean:	-0.014	-0.014	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	22.57	22.57	107.76				

Sequence No.: 31
Sample ID: 247566008|958664|1
Analyst: JXL

Autosampler Location: 29
Date Collected: 3/9/2010 14:01:33
Data Type: Original

Replicate Data: 247566008|958664|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.036	0.036	0.0006	0.0040	0.0009	14:02:24	Yes
2	0.038	0.038	0.0007	0.0044	0.0010	14:02:54	Yes
Mean:	0.037	0.037	0.0006				
SD:	0.002	0.002	0.0000				
%RSD:	4.265	4.265	2.94				

Sequence No.: 32
Sample ID: 247566009|958664|1
Analyst: JXL

Autosampler Location: 30
Date Collected: 3/9/2010 14:03:13
Data Type: Original

Replicate Data: 247566009|958664|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.044	0.044	0.0007	0.0043	0.0010	14:04:04	Yes
2	0.044	0.044	0.0007	0.0044	0.0010	14:04:34	Yes
Mean:	0.044	0.044	0.0007				
SD:	0.000	0.000	0.0000				
%RSD:	0.251	0.251	0.18				

Sequence No.: 33
Sample ID: 247566010|958664|1
Analyst: JXL

Autosampler Location: 31
Date Collected: 3/9/2010 14:04:53
Data Type: Original

Replicate Data: 247566010|958664|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlndCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.022	-0.022	-0.0001	0.0001	0.0002	14:05:43	Yes
2	-0.015	-0.015	0.0000	0.0014	0.0003	14:06:13	Yes
Mean:	-0.018	-0.018	-0.0000				
SD:	0.005	0.005	0.0001				
%RSD:	26.26	26.26	319.20				

Sequence No.: 34
Sample ID: CCV

Autosampler Location: 7
Date Collected: 3/9/2010 14:06:32

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.206	5.206	0.0627	0.2871	0.0630	14:07:22	Yes
2	5.249	5.249	0.0632	0.2871	0.0635	14:07:52	Yes
Mean:	5.228	5.228	0.0630				
SD:	0.030	0.030	0.0004				
%RSD:	0.577	0.577	0.58				

QC value within limits for Hg 253.7 Recovery = 104.55%
All analyte(s) passed QC.

=====

Sequence No.: 35

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/9/2010 14:08:11

Analyst:

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.019	-0.019	-0.0000	0.0006	0.0003	14:09:02	Yes
2	-0.023	-0.023	-0.0001	0.0004	0.0002	14:09:31	Yes
Mean:	-0.021	-0.021	-0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	15.32	15.32	73.57				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

=====

Sequence No.: 36

Autosampler Location: 32

Sample ID: 1202062640|961661|1

Date Collected: 3/9/2010 14:09:51

Analyst: JXL

Data Type: Original

Replicate Data: 1202062640|961661|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.023	-0.023	-0.0001	0.0007	0.0002	14:10:41	Yes
2	-0.024	-0.024	-0.0001	0.0004	0.0002	14:11:11	Yes
Mean:	-0.024	-0.024	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	3.428	3.428	11.37				

=====

Sequence No.: 37

Autosampler Location: 33

Sample ID: 1202062641|961661|1

Date Collected: 3/9/2010 14:11:31

Analyst: JXL

Data Type: Original

Replicate Data: 1202062641|961661|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	1.602	1.602	0.0194	0.0933	0.0197	14:12:21	Yes
2	1.612	1.612	0.0196	0.0940	0.0199	14:12:51	Yes
Mean:	1.607	1.607	0.0195				
SD:	0.007	0.007	0.0001				
%RSD:	0.436	0.436	0.43				

=====

Sequence No.: 38

Autosampler Location: 34

Sample ID: 248616001|961661|1

Date Collected: 3/9/2010 14:13:11

Analyst: JXL

Data Type: Original

Replicate Data: 248616001|961661|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.340	0.340	0.0043	0.0207	0.0046	14:14:02	Yes

Miscellaneous

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: 958661.0
Analyst: Lamanuel Hightower
Method: SW846 7471A Prep
Lab SOP: GL-MA-E-010 REV# 23
Instrument: Sartorius Balance B-001

Verified by: _____

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1	Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
1202055991 MB	09-MAR-2010 11:00:00	Soil	0.543	30	55.24862		LCS	1202055992	Metals LCS Soil SRM	UI031809A	.207	g
1202055992 LCS	09-MAR-2010 11:00:00	Soil	0.207	30	144.92754		MS	1202055994	Mercury soil working intermediate standard for MS	WHG100308-14	.3	mL
247544001	09-MAR-2010 11:00:00	Soil	0.537	30	55.86592		MSD	1202055996	Mercury soil working intermediate standard for MS	WHG100308-14	.3	mL
1202055993 DUP (247544001)	09-MAR-2010 11:00:00	Soil	0.545	30	55.04587							
1202055994 MS (247544001)	09-MAR-2010 11:00:00	Soil	0.544	30	55.14706							
1202055996 MSD (247544001)	09-MAR-2010 11:00:00	Soil	0.519	30	57.80347							
1202055995 SDILT (247544001)	09-MAR-2010 11:00:00	Soil	0.537	30	55.86592							
247544002	09-MAR-2010 11:00:00	Soil	0.549	30	54.64481							
247544003	09-MAR-2010 11:00:00	Soil	0.528	30	56.81818							
247544004	09-MAR-2010 11:00:00	Soil	0.532	30	56.39098							
247566001	09-MAR-2010 11:00:00	Soil	0.515	30	58.25243							
247566002	09-MAR-2010 11:00:00	Soil	0.528	30	56.81818							
247566003	09-MAR-2010 11:00:00	Soil	0.521	30	57.58157							
247566004	09-MAR-2010 11:00:00	Soil	0.516	30	58.13953							
247566005	09-MAR-2010 11:00:00	Soil	0.503	30	59.64215							
247566006	09-MAR-2010 11:00:00	Soil	0.528	30	56.81818							
247566007	09-MAR-2010 11:00:00	Soil	0.533	30	56.28518							
247566008	09-MAR-2010 11:00:00	Soil	0.545	30	55.04587							
247566009	09-MAR-2010 11:00:00	Soil	0.547	30	54.84461							
247566010	09-MAR-2010 11:00:00	Soil	0.5	30	60							

Reagent/Solvent Lot ID	Description	Amount	Comments:
1255532-C	Hg reducing agent	2 mL	Sample is a tan-brown soil.
1274391-1	NITRIC ACID	.375 mL	Digestion Start Date: 09-MAR-10 11:00:13
1277235-A	Hydrochloric Acid Conc.	1.125 mL	Digestion End Date: 09-MAR-10 11:30:13
1277238-C	5% KMnO4 solution	7.5 mL	

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 955819.0	Verified by:	Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
Analyst: Anthony Green		LCS	1202049295	Metals Soil LCS SRM ICP/Hg	UI062540-I	.501	g
Method: SW846 3050B		MS	1202049293	Metals Spike Mix I	UI100205-01	.25	mL
Lab SOP: GL-MA-E-009 REV# 19		MS	1202049293	Metals Spike Mix II	UI100205-06	.25	mL
Instrument: BAL-001		MSD	1202049294	Metals Spike Mix I	UI100205-01	.25	mL
		MSD	1202049294	Metals Spike Mix II	UI100205-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202049290 MB	25-FEB-2010 08:00:00	Soil	0.555	50	90.09009	
1202049295 LCS	25-FEB-2010 08:00:00	Soil	0.501	50	99.8004	
247566001	25-FEB-2010 08:00:00	Soil	0.515	50	97.08738	
1202049291 DUP (247566001)	25-FEB-2010 08:00:00	Soil	0.52	50	96.15385	
1202049292 SDILT (247566001)	25-FEB-2010 08:00:00	Soil	0.515	50	97.08738	
1202049293 MS (247566001)	25-FEB-2010 08:00:00	Soil	0.525	50	95.2381	
1202049294 MSD (247566001)	25-FEB-2010 08:00:00	Soil	0.522	50	95.78544	
247566002	25-FEB-2010 08:00:00	Soil	0.542	50	92.25092	
247566003	25-FEB-2010 08:00:00	Soil	0.528	50	94.69697	
247566004	25-FEB-2010 08:00:00	Soil	0.501	50	99.8004	
247566005	25-FEB-2010 08:00:00	Soil	0.535	50	93.45794	
247566006	25-FEB-2010 08:00:00	Soil	0.528	50	94.69697	
247566007	25-FEB-2010 08:00:00	Soil	0.504	50	99.20635	
247566008	25-FEB-2010 08:00:00	Soil	0.529	50	94.51796	
247566009	25-FEB-2010 08:00:00	Soil	0.513	50	97.46589	
247566010	25-FEB-2010 08:00:00	Soil	0.516	50	96.89922	

Reagent/Solvent Lot ID	Description	Amount	Comments:
1265209	HYDROCHLORIC ACID	10 mL	Sample 247566001 consist of gray, clumpy soil.
1274969	Nitric Acid CONC.	1.25 mL	

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 955821.0

Verified by:

Analyst: Anthony Green

Lab SOP: GL-MA-E-009 REV# 19

Method: SW846 3050B

Instrument: BAL-001

Sample ID	Run Date	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check
1202049296 MB	25-FEB-2010 08:00:00	0.516	50	96.89922	1
1202049301 LCS	25-FEB-2010 08:00:00	0.504	50	99.20635	
247566001	25-FEB-2010 08:00:00	0.513	50	97.46589	
1202049297 DUP (247566001)	25-FEB-2010 08:00:00	0.517	50	96.71118	
1202049298 SDIL.T (247566001)	25-FEB-2010 08:00:00	0.513	50	97.46589	
1202049299 MS (247566001)	25-FEB-2010 08:00:00	0.52	50	96.15385	
1202049300 MSD (247566001)	25-FEB-2010 08:00:00	0.517	50	96.71118	
247566002	25-FEB-2010 08:00:00	0.51	50	98.03922	
247566003	25-FEB-2010 08:00:00	0.551	50	90.7441	
247566004	25-FEB-2010 08:00:00	0.512	50	97.65625	
247566005	25-FEB-2010 08:00:00	0.525	50	95.2381	
247566006	25-FEB-2010 08:00:00	0.507	50	98.61933	
247566007	25-FEB-2010 08:00:00	0.532	50	93.98496	
247566008	25-FEB-2010 08:00:00	0.5	50	100	
247566009	25-FEB-2010 08:00:00	0.52	50	96.15385	
247566010	25-FEB-2010 08:00:00	0.546	50	91.57509	

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1202049301	Metals Soil LCS SRM ICPMS	U1062540-MS	.504	g	
MS	1202049299	ICP-MS Spike for soil products.	U1090827-A	.5	mL	Sample 247566001 consist of gray, clumpy soil.
MS	1202049299	ICP-MS Spike for Soil Products	U1090827-B	.5	mL	
MSD	1202049300	ICP-MS Spike for soil products.	U1090827-A	.5	mL	
MSD	1202049300	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	

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: 955820	Sample Numbers: See Below		

Potentially affected work order(s)(SDG): 247566(10-1957)

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:	DER Disposition:
<p>1. Failed Recovery for MS/PS:</p> <p>QC 1202049293MS</p> <p>2. Failed RPD for DUP:</p> <p>QC 1202049291DUP</p> <p>3. Failed RPD for MS/MSD, or PS/PSD:</p> <p>QC 1202049294MSD</p> <p>4. Failed Recovery for MSD/PSD:</p> <p>QC 1202049294MSD</p>	<p>1./4. The matrix spike and matrix spike duplicate recovery failed outside of the control limits for aluminum,calcium,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.</p> <p>2. The sample and sample duplicate % RPD failed outside the control limits for barium,chromium,magnesium,manganese,vanadium 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.</p> <p>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.</p>

Originator's Name:

Helen Camello 19-MAR-10

Data Validator/Group Leader:

Christopher Louviere 19-MAR-10

DATA EXCEPTION REPORT

Mo.Day Yr. 23-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: 955822	Sample Numbers: See Below		
Potentially affected work order(s)(SDG): 247566(10-1957) Application Issues: Failed Recovery for MSD/PSD			
Specification and Requirements Exception Description:		DER Disposition:	
1. Failed Recovery for MSD/PSD: QC 1202049300MSD		The matrix spike duplicate recovery failed outside of the control limits for Ni 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:
Rose Jenkins 23-MAR-10

Data Validator/Group Leader:
Jamie Johnson 23-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: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L +/- 0.5% IN 5% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
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Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: 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

Standard Logbook

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

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

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: 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
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Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H2O/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H2O/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expres:** 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 **Expres:** 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
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Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100205-01 **Opened:** 05-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 05-FEB-10
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI100205-06 **Opened:** 05-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 05-FEB-10
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
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

Standard Logbook

Serial ID: UI100310-48 **Opened:** 19-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICSEA **Received:** 12-MAR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 19-MAR-11 **Lot Number :** 1019141
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: 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

Standard Logbook

Analyte	Concentration	Analyte	Concentration
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
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

Standard Logbook

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
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

Standard Logbook

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		

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: IHG100308-01 **Opened:** 08-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 08-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 09-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.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100308-02 **Opened:** 08-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 08-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 09-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100308-07 **Opened:** 08-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 08-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 15-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.
IHG100308-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100308-08 **Opened:** 08-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 08-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 15-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.
IHG100308-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100308-09 **Opened:** 08-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 08-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 15-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.
IHG100308-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100308-10 **Opened:** 08-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 08-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 15-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100308-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100308-11 Opened: 08-MAR-10 Pipet Id : Hg1289245
 Name: MHGWORKCALS10.0 Received: 08-MAR-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 15-MAR-10
 Employee: Tara Griffin
 Supplier: GEL
 Description: Mercury Working 1st Source CAL S 10.0
 Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100308-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100308-12 Opened: 08-MAR-10 Pipet Id : Hg1289245
 Name: MHGWORKS5.0ICV Received: 08-MAR-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 15-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.	Aliquot	Final Vol.	Final Conc.
IHG100308-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100308-14 Opened: 08-MAR-10 Pipet Id : Hg1289245
 Name: MHGSOILMSSPIKE Received: 08-MAR-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 15-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.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: W1100319-42 Opened: 19-MAR-10 Balance Id : 216
 Name: TRACE ICP 0.1 PPM 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 0.1 PPM CALIBRATION STD.
 Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100319-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100319-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100319-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100319-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100319-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100319-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100319-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100319-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100319-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100319-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100319-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100319-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100319-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100319-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100319-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100319-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100319-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100319-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100319-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100319-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100319-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100319-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100319-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100319-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100319-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100319-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100319-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100319-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100319-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100319-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100319-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100319-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100319-43 **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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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

Serial ID: WI100319-44 **Opened:** 19-MAR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-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.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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

Serial ID: WI100319-45 **Opened:** 19-MAR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-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 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

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.	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
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: WMS100321-04AB **Opened:** 21-MAR-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 21-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 22-MAR-10 **Solvent :** 2%HNO3/1%HCL - 1285348
Employee: Rose Jenkins
Supplier: GEL

Standard Logbook

Description: ICPMS Calibration Standard (10 ppb)

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100321-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100321-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100321-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100321-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100321-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100321-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100321-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100321-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100321-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100321-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100321-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100321-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100321-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100321-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100321-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100321-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100321-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100321-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100321-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100321-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100321-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100321-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100321-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100321-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100321-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100321-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100321-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100321-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100321-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100321-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100321-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100321-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100321-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100321-04B **Opened:** 21-MAR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 21-MAR-10 **Balance Id :** 40245216
Type: Working **Expires:** 22-MAR-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1285348
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100226-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS100226-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
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: WMS100321-05B **Opened:** 21-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 21-MAR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 22-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

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: WMS100321-06B **Opened:** 21-MAR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 21-MAR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 22-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

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: WMS100321-07B **Opened:** 21-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 21-MAR-10 **Lot Number :** 1010773
Type: Working **Expires:** 22-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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Alliquot	Final Vol.	Final Conc.
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: WMS100321-08B **Opened:** 21-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 21-MAR-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 22-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1285348
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Alliquot	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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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: WMS100322-04AB **Opened:** 22-MAR-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 22-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 23-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1289731
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100322-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100322-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100322-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100322-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100322-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100322-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100322-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100322-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100322-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100322-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100322-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100322-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100322-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100322-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100322-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100322-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100322-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100322-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100322-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100322-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100322-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100322-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100322-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100322-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100322-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100322-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100322-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100322-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100322-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100322-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100322-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100322-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100322-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100322-04B **Opened:** 22-MAR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 22-MAR-10 **Balance Id :** 40245216
Type: Working **Expires:** 23-MAR-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1289731
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100226-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS100226-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100226-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: <u>WMS100322-05B</u>	Opened: <u>22-MAR-10</u>	Balance Id : <u>40245216</u>
Name: <u>ICPMS ICV</u>	Received: <u>22-MAR-10</u>	Pipet Id : <u>1758088</u>
Type: <u>Working</u>	Expires: <u>23-MAR-10</u>	Solvent : <u>2%HNO3/1%HCl- 1289731</u>
Employee: <u>Rose Jenkins</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: WMS100322-06B **Opened:** 22-MAR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 22-MAR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 23-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1289731
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
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: WMS100322-07B **Opened:** 22-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 22-MAR-10 **Lot Number :** 1010773
Type: Working **Expires:** 23-MAR-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1289731
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: WMS100322-08B **Opened:** 22-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 22-MAR-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 23-MAR-10 **Solvent :** 2%HNO3/1%HCl- 1289731
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
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: 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: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCI-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxylamine Hydrochloride
Comments: None

Standard Logbook

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: 125532-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: 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

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

Standard Logbook

Serial ID: 1277235-A **Opened:** 01-MAR-10 **Lot Number :** J02039
Name: B-HCl-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 01-MAR-11
Employee: Tara Griffin
Supplier: J T Baker
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1277238-C **Opened:** 01-MAR-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 01-MAR-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: 1277916 **Opened:** 02-MAR-10 **Lot Number :** J02039
Name: I-HCL **Received:** 02-MAR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 02-MAR-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

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

Serial ID: 1289731 **Opened:** 22-MAR-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 22-MAR-10
Type: Reagent/Solvent **Expires:** 29-MAR-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1277916	I-HCL	36.5-38.0	90 mL	9 l	N/A

Metals Analysis

Case Narrative

**Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1957-1**

Sample Analysis

Sample ID	Client ID
247567001	RE15-10-8271
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 Pusey Date: 3/23/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1957-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 247567001

BASIS: As Received

DATE COLLECTED 15-FEB-10

CLIENT ID: RE15-10-8271

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 23:52	031710-1	955808
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	SKJ	03/19/10 02:15	100318-3	955810
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	03/17/10 23:52	031710-1	955808
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	03/17/10 23:52	031710-1	955808
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	SKJ	03/19/10 02:15	100318-3	955810
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	SKJ	03/19/10 02:15	100318-3	955810
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	03/17/10 23:52	031710-1	955808
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	03/17/10 23:52	031710-1	955808
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	03/17/10 23:52	031710-1	955808
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	03/17/10 23:52	031710-1	955808
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	03/17/10 23:52	031710-1	955808
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	PRB	03/20/10 18:13	100319-4	955810
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	03/17/10 23:52	031710-1	955808
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	SKJ	03/19/10 02:15	100318-3	955810
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/25/10 13:41	022510W1-5	957034
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	03/17/10 23:52	031710-1	955808
7440-09-7	Potassium	361	ug/L		50	150	150	1	P	HSC	03/17/10 23:52	031710-1	955808
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	03/17/10 23:52	031710-1	955808
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	03/17/10 23:52	031710-1	955808
7440-23-5	Sodium	243	ug/L	J	100	300	300	1	P	HSC	03/17/10 23:52	031710-1	955808
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	PRB	03/20/10 18:13	100319-4	955810
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	03/17/10 23:52	031710-1	955808
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	03/17/10 23:52	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: 10-1957-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: 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
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
	Chromium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	17-MAR-10 17:08	031710-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1957-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: 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>
	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
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
	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

METALS

-2a-

Initial and Continuing Calibration Verification

SDG No: 10-1957-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: 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	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
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
	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

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1957-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: 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>
	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
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
	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

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1957-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: 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>
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
	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

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1957-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: 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>
	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
	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

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1957-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: 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>
CCV08	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
	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
-2b-
CRDL Standard for AA & ICP

SDG No: 10-1957-1

Contract: LANL01004

Lab Code: GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: 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
	Beryllium	.53	ug/L	.5	ug/L	106	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
	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
PQL01										
	Aluminum	204	ug/L	200	ug/L	102.2	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
	Magnesium	315	ug/L	300	ug/L	105.1	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
	Potassium	125	ug/L	150	ug/L	83.4	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
	Sodium	300	ug/L	300	ug/L	99.9	70.0 – 130.0	P	17-MAR-10 16:34	031710-1
	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
	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
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1957-1

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	0.066	+/- .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
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
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	17-MAR-10 17:15	031710-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1957-1

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>
	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
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
	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

SW846

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1957-1

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>
	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
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
	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

SW846

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1957-1

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>
CCB04	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
	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
CCB05	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
	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

SW846

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1957-1

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>
	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
	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

SW846

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1957-1

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Potassium	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
	Thallium	0.772	+/-1	J	0.3	1.0	LIQ	MS	20-MAR-10 18:21	100319-4
CCB08										
	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

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1957-1

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result ng/L</u>	<u>Acceptance</u>	<u>Conc Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run</u>
	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. 10-1957-1
Contract: LANL01004
Matrix: WATER

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Acceptance Window</u>	<u>Conc Qual</u>	<u>M</u>	<u>MDL</u>	<u>RDL</u>
1202049256								
	Arsenic	5	ug/L	+/-30	U	P	5	30
	Barium	1	ug/L	+/-5	U	P	1	5
	Calcium	50	ug/L	+/-200	U	P	50	200
	Chromium	1	ug/L	+/-5	U	P	1	5
	Cobalt	1	ug/L	+/-5	U	P	1	5
	Copper	3	ug/L	+/-10	U	P	3	10
	Iron	30	ug/L	+/-100	U	P	30	100
	Magnesium	85	ug/L	+/-300	U	P	85	300
	Nickel	1.5	ug/L	+/-5	U	P	1.5	5
	Aluminum	68	ug/L	+/-200	U	P	68	200
	Potassium	50	ug/L	+/-150	U	P	50	150
	Selenium	5	ug/L	+/-30	U	P	5	30
	Silver	1	ug/L	+/-5	U	P	1	5
	Sodium	100	ug/L	+/-300	U	P	100	300
	Vanadium	1	ug/L	+/-5	U	P	1	5
	Zinc	3.3	ug/L	+/-10	U	P	3.3	10
1202049261								
	Antimony	1	ug/L	+/-3	U	MS	1	3
	Beryllium	0.1	ug/L	+/-0.5	U	MS	0.1	0.5
	Cadmium	0.11	ug/L	+/-1	U	MS	0.11	1
	Lead	0.5	ug/L	+/-2	U	MS	0.5	2
	Manganese	1	ug/L	+/-5	U	MS	1	5
	Thallium	0.3	ug/L	+/-1	U	MS	0.3	1
1202052034								
	Mercury	0.066	ug/L	+/-0.2	U	AV	0.066	0.2

METALS
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Interference Check Sample

SDG No: 10-1957-1

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
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: 10-1957-1

Contract: LANL01004

Lab Code: GEL

ICS:

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Silver	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: 10-1957-1

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: ICPMS5

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01									
	Antimony	0.1	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: 10-1957-1

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. 10-1957-1 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. 10-1957-1 **Client ID** RE46-10-13373S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 247548001 **Spike ID:** 1202049264

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
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

METALS

-5a-

Matrix Spike Summary

SDG NO. 10-1957-1 **Client ID** RE46-10-13373S**Contract:** LANL01004 **Level:** Low**Matrix:** WATER **% Solids:****Sample ID:** 247548001 **Spike ID:** 1202052037

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

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1957-1

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.: 10-1957-1

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

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1957-1

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. 10-1957-1

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								
	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
	Aluminum	ug/L	5000	5200		104	80-120	P
	Arsenic	ug/L	500	515		103	80-120	P

METALS

-7-

Laboratory Control Sample Summary

SDG NO. 10-1957-1

Contract: LANL01004

Aqueous LCS Source:O2si

Solid LCS Source:

<u>Sample ID</u>	<u>Analyte</u>	<u>Units</u>	<u>True Value</u>	<u>Result</u>	<u>C</u>	<u>% Recovery</u>	<u>Acceptance Limit</u>	<u>M</u>
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

METALS

-7-

Laboratory Control Sample Summary

SDG NO. 10-1957-1

Contract: LANL01004

Aqueous LCS Source:GEL

Solid LCS Source:

<u>Sample ID</u>	<u>Analyte</u>	<u>Units</u>	<u>True Value</u>	<u>Result</u>	<u>C</u>	<u>% Recovery</u>	<u>Acceptance Limit</u>	<u>M</u>
1202052035	Mercury	ug/L	2	2.34		117	80-120	AV

METALS

-9-

Serial Dilution Sample Summary

SDG NO. 10-1957-1

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. 10-1957-1 **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

METALS

-9-

Serial Dilution Sample Summary

SDG NO. 10-1957-1 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: 10-1957-1

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	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	
247567001	RE15-10-8271	SAMPLE	W	24-FEB-10	50mL	50mL	

SW846

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1957-1

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	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	
247567001	RE15-10-8271	SAMPLE	W	24-FEB-10	50mL	50mL	

SW846

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1957-1

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	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	
247567001	RE15-10-8271	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

End Date: 19-MAR-10

Client Sdg: 10-1957-1

Method MS

Data File: 100318-3

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	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									
I202049261	1	01:39	X				X	X								X									

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																			
ZZZZZZ	1	02:11																			
247567001	1	02:15	X			X	X							X							
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:** 10-1957-1**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	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

[illegible]

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: 10-1957-1

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	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
ZZZZZ	1	17:45																							
ZZZZZ	1	17:52																							
ZZZZZ	5	17:59																							
ZZZZZ	5	18:06																							
ZZZZZ	5	18:13																							
ZZZZZ	25	18:20																							
ZZZZZ	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
ZZZZZ	1	19:13																							
ZZZZZ	1	19:20																							
ZZZZZ	1	19:26																							
ZZZZZ	1	19:33																							
ZZZZZ	1	19:41																							
ZZZZZ	1	19:47																							
ZZZZZ	10	19:54																							
ZZZZZ	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
ZZZZZ	1	20:23																							
ZZZZZ	1	20:30																							

Metals
-14-
Analysis Run Log

[illegible]

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: 10-1957-1

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	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

[illegible]

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	13:33																							
CCV07	1	13:35															X								
CCB07	1	13:37															X								
ZZZZZZ	1	13:39																							
247567001	1	13:41															X								
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								

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1957-1

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>
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
	Vanadium		3.0	10
	Zinc		3.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1957-1

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

	<u>Analyte</u>	<u>Wavelength</u> (nm)	<u>MDL</u> ug/L	<u>RDL</u> ug/L
MERCURY				
LIQUID	Mercury		0.066	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1957-1

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>
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
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GELGEL Job No: **10-1957-1**

Contract: LANL01004

Instrument: OPTIMA3

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

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

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

METALS
-11-
Interelement Correction Factors

Lab Code: GEL

GEL Job No: 10-1957-1

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Boron	Cadmium	Chromium	Cobalt	Copper
Parmname	Wavelength					
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.85580	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.44491	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-29.9151	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.57616
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.60374	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	198.62
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	4.37985	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.36147	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	2.23785	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.36818	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.35273

METALS
-11-
Interelement Correction Factors

Lab Code: GEL

GEL Job No: 10-1957-1

Contract: LANL01004

Instrument: OPTIMA3

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	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: GEL

GEL Job No: 10-1957-1

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Nickel	Phosphorous	Potassium	Selenium	Silica
Parmname	Wavelength					
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-0.84443	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.63547	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.37026	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL

GEL Job No: 10-1957-1

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Silicon	Silver	Strontium	Sulfur	Thallium
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	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GELGEL Job No: **10-1957-1**

Contract: LANL01004

Instrument: OPTIMA3

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

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Tin	Titanium	Uranium	Vanadium	Zinc
Parmname	Wavelength					
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. 10-1957-1

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
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10

METALS
-12-
Linear Ranges

SDG NO. 10-1957-1

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>
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
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10

METALS
-12-
Linear Ranges

SDG NO. 10-1957-1

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>
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
Vanadium	20	10000	ug/L	01-FEB-10
Zinc	20	15000	ug/L	01-FEB-10
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

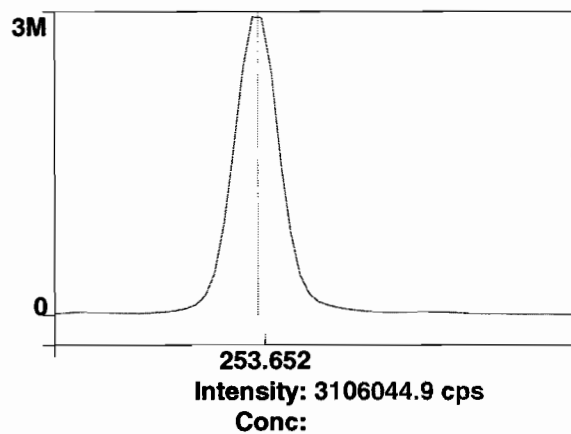
Raw Data

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 077C7090601Autosampler 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

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	Conc. Units	Calib. 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	15:49:18
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	Calib. Conc. Units	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	Conc. Units	Calib.	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	Calib Conc. 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	Conc. Units	Calib.	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	Conc. Units	Calib
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	Calib. Conc. Units	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 331.604†	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	Calib. Conc. Units	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	Calib. Conc. Units	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: ICSA

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	Calib. Conc. 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: LRL

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	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

Rep1#	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.	Sample Conc. Units	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.							

=====
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

Autosampler Location: 37

Sample ID: LR1

Date Collected: 3/17/2010 17:20:32

Analyst: HSC

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: LR1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	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: LRI

Analyte	Mean Corrected Intensity	Calib. Conc. Units	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	Calib. Conc. Units	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 317.933Radial 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 317.933Radial 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	Calib. Conc. Units	Std.Dev.	Sample 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.

=====
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 077C7090601Autosampler 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

Autosampler Location: 1

Sample ID: CCV

Date Collected: 3/17/2010 19:00:48

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	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 113.107†	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

Autosampler Location: 6

Sample ID: CCB

Date Collected: 3/17/2010 19:07:50

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

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	Calib. Conc. Units	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	Calib. Conc. Units	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	Calib. Conc. Units	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.	Sample Conc. Units	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	Calib. Conc. 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	3.129	499.73 ppb	3.129	0.63%
Al 396.153Radial†	5368.1	5195.1 ug/L	8.15	5195.1 ppb	8.15	0.16%
As 188.979†	947.3	515.43 ug/L	5.756	515.43 ppb	5.756	1.12%
B 249.677†	18351.5	498.70 ug/L	4.965	498.70 ppb	4.965	1.00%
Ba 233.527†	57295.9	522.10 ug/L	2.754	522.10 ppb	2.754	0.53%
Be 313.107†	1241725.8	514.79 ug/L	0.333	514.79 ppb	0.333	0.06%
Ca 317.933Radial†	2873.6	5274.2 ug/L	81.56	5274.2 ppb	81.56	1.55%
Cd 226.502†	36328.9	506.84 ug/L	2.574	506.84 ppb	2.574	0.51%
Co 228.616†	20389.8	517.22 ug/L	2.839	517.22 ppb	2.839	0.55%
Cr 267.716†	39601.8	511.10 ug/L	2.504	511.10 ppb	2.504	0.49%
Cu 324.752†	160603.2	517.18 ug/L	3.778	517.18 ppb	3.778	0.73%
Fe 238.204 Radial†	473.5	5300.8 ug/L	71.43	5300.8 ppb	71.43	1.35%
K 766.490 Radial†	26984.4	5232.9 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	Calib. Conc. Units	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.: 41

Sample ID: 247567001|955808|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 72

Date Collected: 3/17/2010 23:52:47

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 247567001|955808|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4606.4	4606.4	104 %		23:54:41
1	Y RADIAL	5018.6	5018.6	104.5 %		23:54:41
1	Al 396.153Radial†	-72.4	3.9	3.7718 ug/L	3.7718 ppb	23:55:01
1	Ca 317.933Radial†	42.9	20.0	36.765 ug/L	36.765 ppb	23:55:01
1	Fe 238.204 Radial†	7.1	-0.6	-6.4236 ug/L	-6.4236 ppb	23:55:01
1	K 766.490 Radial†	4509.3	1709.4	331.67 ug/L	331.67 ppb	23:54:41
1	Mg 279.077 IEC†	1.2	0.1	5.2146 ug/L	5.2146 ppb	23:55:01
1	Na 589.592 Radial†	-182.0	732.8	250.81 ug/L	250.81 ppb	23:54:41
1	Sr 421.552†	43.0	20.5	0.1582 ug/L	0.1582 ppb	23:54:41
1	Sc 361.383	828467.4	828467.4	100.16 %		23:55:58
1	Y 371.029	702910.1	702910.1	99.970 %		23:55:58
1	Ag 328.068†	173.2	-76.2	-0.3842 ug/L	-0.3842 ppb	23:55:58
1	As 188.979†	-25.0	-2.9	-1.5748 ug/L	-1.5748 ppb	23:56:18
1	B 249.677†	400.6	584.8	15.967 ug/L	15.967 ppb	23:56:18
1	Ba 233.527†	10.6	-1.8	-0.0175 ug/L	-0.0175 ppb	23:56:18
1	Be 313.107†	-3839.5	-61.1	-0.0248 ug/L	-0.0248 ppb	23:55:58
1	Cd 226.502†	-166.5	-9.4	-0.1306 ug/L	-0.1306 ppb	23:56:18
1	Co 228.616†	-49.2	-0.8	-0.0197 ug/L	-0.0197 ppb	23:56:18
1	Cr 267.716†	117.3	35.9	0.4604 ug/L	0.4604 ppb	23:56:18
1	Cu 324.752†	6005.9	212.2	0.6815 ug/L	0.6815 ppb	23:55:58
1	Mn 257.610†	682.2	255.3	0.3287 ug/L	0.3287 ppb	23:56:18
1	Mo 202.031†	13.3	2.4	0.2018 ug/L	0.2018 ppb	23:56:18
1	Ni 231.604†	79.0	-9.1	-0.2811 ug/L	-0.2811 ppb	23:56:18
1	P 214.914†	208.6	25.3	18.337 ug/L	18.337 ppb	23:56:18
1	Pb 220.353†	-50.4	-0.5	-0.0758 ug/L	-0.0758 ppb	23:56:18
1	S 181.975 Axial†	49.8	20.8	36.428 ug/L	36.428 ppb	23:56:18
1	Sb 206.836†	22.2	-6.4	-2.6100 ug/L	-2.6100 ppb	23:56:18
1	Se 196.026†	-13.3	6.5	5.1939 ug/L	5.1939 ppb	23:56:18
1	Si 251.611†	47961.7	47381.2	1728.9 ug/L	1728.9 ppb	23:55:58
1	Sn 189.927†	4.4	0.5	0.1054 ug/L	0.1054 ppb	23:56:18
1	Ti 334.940†	-996.0	115.7	0.2003 ug/L	0.2003 ppb	23:55:58
1	Tl 190.801†	-36.0	-10.1	-3.8094 ug/L	-3.8094 ppb	23:56:18
1	U 409.014†	-2160.5	91.7	2.6230 ug/L	2.6230 ppb	23:55:58
1	V 292.402†	-1331.4	-36.6	-0.2728 ug/L	-0.2728 ppb	23:55:58
1	Zn 213.857†	896.3	-27.2	-0.3167 ug/L	-0.3167 ppb	23:56:18
1	SiO2†	47779.1	47194.0	3677.8 ug/L	3677.8 ppb	23:57:14
2	Sc Radial	4595.1	4595.1	104 %		23:55:06
2	Y RADIAL	4968.0	4968.0	103.5 %		23:55:06
2	Al 396.153Radial†	-71.0	5.1	4.9628 ug/L	4.9628 ppb	23:55:26
2	Ca 317.933Radial†	43.1	20.3	37.317 ug/L	37.317 ppb	23:55:26
2	Fe 238.204 Radial†	8.9	1.1	12.321 ug/L	12.321 ppb	23:55:26
2	K 766.490 Radial†	4774.3	1974.9	383.21 ug/L	383.21 ppb	23:55:06
2	Mg 279.077 IEC†	3.8	2.7	105.64 ug/L	105.64 ppb	23:55:26
2	Na 589.592 Radial†	-248.8	668.2	228.68 ug/L	228.68 ppb	23:55:06
2	Sr 421.552†	72.3	48.8	0.3769 ug/L	0.3769 ppb	23:55:06
2	Sc 361.383	827754.6	827754.6	100.08 %		23:56:23
2	Y 371.029	703144.6	703144.6	100.00 %		23:56:23
2	Ag 328.068†	131.8	-117.4	-0.5853 ug/L	-0.5853 ppb	23:56:23
2	As 188.979†	-21.9	0.2	0.1321 ug/L	0.1321 ppb	23:56:43
2	B 249.677†	394.1	578.6	15.794 ug/L	15.794 ppb	23:56:43
2	Ba 233.527†	26.0	13.6	0.1235 ug/L	0.1235 ppb	23:56:43
2	Be 313.107†	-3806.5	-31.5	-0.0124 ug/L	-0.0124 ppb	23:56:23
2	Cd 226.502†	-170.2	-13.3	-0.1861 ug/L	-0.1861 ppb	23:56:43
2	Co 228.616†	-43.7	4.6	0.1178 ug/L	0.1178 ppb	23:56:43
2	Cr 267.716†	113.9	32.6	0.4184 ug/L	0.4184 ppb	23:56:43
2	Cu 324.752†	6035.4	246.8	0.7923 ug/L	0.7923 ppb	23:56:23
2	Mn 257.610†	714.8	288.4	0.3692 ug/L	0.3692 ppb	23:56:43
2	Mo 202.031†	15.8	4.9	0.4219 ug/L	0.4219 ppb	23:56:43
2	Ni 231.604†	81.0	-7.0	-0.2155 ug/L	-0.2155 ppb	23:56:43

2	P 214.914†	204.9	21.8	15.776 ug/L	15.776 ppb	23:56:43
2	Pb 220.353†	-45.1	4.8	0.7177 ug/L	0.7177 ppb	23:56:43
2	S 181.975 Axial†	50.7	21.7	38.096 ug/L	38.096 ppb	23:56:43
2	Sb 206.836†	28.0	-0.6	-0.2252 ug/L	-0.2252 ppb	23:56:43
2	Se 196.026†	-14.9	4.9	3.9185 ug/L	3.9185 ppb	23:56:43
2	Si 251.611†	47835.1	47296.0	1725.8 ug/L	1725.8 ppb	23:56:23
2	Sn 189.927†	6.9	2.9	0.6476 ug/L	0.6476 ppb	23:56:43
2	Ti 334.940†	-952.6	158.2	0.2634 ug/L	0.2634 ppb	23:56:23
2	Tl 190.801†	-9.6	16.2	6.1403 ug/L	6.1403 ppb	23:56:43
2	U 409.014†	-2051.6	198.6	5.6787 ug/L	5.6787 ppb	23:56:23
2	V 292.402†	-1316.1	-22.5	-0.1560 ug/L	-0.1560 ppb	23:56:23
2	Zn 213.857†	905.7	-17.0	-0.2008 ug/L	-0.2008 ppb	23:56:43
2	SiO2†	47998.4	47454.2	3698.0 ug/L	3698.0 ppb	23:57:19
3	Sc Radial	4535.7	4535.7	103 %		23:55:31
3	Y RADIAL	4897.4	4897.4	102.0 %		23:55:31
3	Al 396.153Radial†	-66.1	8.9	8.6378 ug/L	8.6378 ppb	23:55:51
3	Ca 317.933Radial†	41.4	19.2	35.183 ug/L	35.183 ppb	23:55:51
3	Fe 238.204 Radial†	8.5	0.9	9.8998 ug/L	9.8998 ppb	23:55:51
3	K 766.490 Radial†	4632.2	1896.6	368.01 ug/L	368.01 ppb	23:55:31
3	Mg 279.077 IEC†	2.9	1.8	72.203 ug/L	72.203 ppb	23:55:51
3	Na 589.592 Radial†	-182.8	729.3	249.60 ug/L	249.60 ppb	23:55:31
3	Sr 421.552†	46.5	24.5	0.1894 ug/L	0.1894 ppb	23:55:31
3	Sc 361.383	844310.4	844310.4	102.08 %		23:56:48
3	Y 371.029	717034.1	717034.1	101.98 %		23:56:48
3	Ag 328.068†	230.2	-23.6	-0.1185 ug/L	-0.1185 ppb	23:56:48
3	As 188.979†	-25.2	-2.6	-1.3901 ug/L	-1.3901 ppb	23:57:08
3	B 249.677†	395.9	572.6	15.632 ug/L	15.632 ppb	23:57:08
3	Ba 233.527†	8.4	-4.2	-0.0375 ug/L	-0.0375 ppb	23:57:08
3	Be 313.107†	-3855.4	-4.8	-0.0015 ug/L	-0.0015 ppb	23:56:48
3	Cd 226.502†	-179.1	-18.6	-0.2602 ug/L	-0.2602 ppb	23:57:08
3	Co 228.616†	-37.9	11.3	0.2869 ug/L	0.2869 ppb	23:57:08
3	Cr 267.716†	110.2	26.7	0.3435 ug/L	0.3435 ppb	23:57:08
3	Cu 324.752†	6130.9	222.2	0.7133 ug/L	0.7133 ppb	23:56:48
3	Mn 257.610†	707.9	267.7	0.3435 ug/L	0.3435 ppb	23:57:08
3	Mo 202.031†	21.9	10.6	0.9086 ug/L	0.9086 ppb	23:57:08
3	Ni 231.604†	76.3	-13.1	-0.4062 ug/L	-0.4062 ppb	23:57:08
3	P 214.914†	212.4	25.2	18.246 ug/L	18.246 ppb	23:57:08
3	Pb 220.353†	-52.1	-1.2	-0.1760 ug/L	-0.1760 ppb	23:57:08
3	S 181.975 Axial†	50.8	20.8	36.455 ug/L	36.455 ppb	23:57:08
3	Sb 206.836†	34.4	5.1	2.1086 ug/L	2.1086 ppb	23:57:08
3	Se 196.026†	-23.5	-3.2	-2.5555 ug/L	-2.5555 ppb	23:57:08
3	Si 251.611†	48614.8	47122.5	1719.5 ug/L	1719.5 ppb	23:56:48
3	Sn 189.927†	9.0	4.9	1.0756 ug/L	1.0756 ppb	23:57:08
3	Ti 334.940†	-1016.2	114.5	0.1917 ug/L	0.1917 ppb	23:56:48
3	Tl 190.801†	-23.9	2.4	0.9206 ug/L	0.9206 ppb	23:57:08
3	U 409.014†	-2122.2	169.6	4.8508 ug/L	4.8508 ppb	23:56:48
3	V 292.402†	-1313.6	5.8	0.0664 ug/L	0.0664 ppb	23:56:48
3	Zn 213.857†	926.7	-14.2	-0.1669 ug/L	-0.1669 ppb	23:57:08
3	SiO2†	48132.8	46645.3	3635.0 ug/L	3635.0 ppb	23:57:24

Mean Data: 247567001|955808|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Sc 361.383	833510.8	100.77 %		1.132			1.12%
Sc Radial	4579.1	104 %		0.9			0.83%
Y 371.029	707696.3	100.65 %		1.150			1.14%
Y RADIAL	4961.3	103.3 %		1.27			1.23%
Ag 328.068†	-72.4	-0.3626 ug/L		0.23415	-0.3626 ppb	0.23415	64.57%
Al 396.153Radial†	6.0	5.7908 ug/L		2.53649	5.7908 ppb	2.53649	43.80%
As 188.979†	-1.8	-0.9443 ug/L		0.93674	-0.9443 ppb	0.93674	99.20%
B 249.677†	578.7	15.798 ug/L		0.1674	15.798 ppb	0.1674	1.06%
Ba 233.527†	2.5	0.0228 ug/L		0.08777	0.0228 ppb	0.08777	384.21%
Be 313.107†	-32.5	-0.0129 ug/L		0.01166	-0.0129 ppb	0.01166	90.10%
Ca 317.933Radial†	19.8	36.422 ug/L		1.1080	36.422 ppb	1.1080	3.04%
Cd 226.502†	-13.8	-0.1923 ug/L		0.06504	-0.1923 ppb	0.06504	33.82%
Co 228.616†	5.0	0.1284 ug/L		0.15358	0.1284 ppb	0.15358	119.64%
Cr 267.716†	31.7	0.4074 ug/L		0.05921	0.4074 ppb	0.05921	14.53%
Cu 324.752†	227.1	0.7290 ug/L		0.05707	0.7290 ppb	0.05707	7.83%
Fe 238.204 Radial†	0.5	5.2656 ug/L		10.19526	5.2656 ppb	10.19526	193.62%
K 766.490 Radial†	1860.3	360.96 ug/L		26.481	360.96 ppb	26.481	7.34%

Mg 279.077 IEC†	1.5	61.020 ug/L	51.1399	61.020 ppb	51.1399	83.81%
Mn 257.610†	270.5	0.3471 ug/L	0.02051	0.3471 ppb	0.02051	5.91%
Mo 202.031†	6.0	0.5108 ug/L	0.36167	0.5108 ppb	0.36167	70.80%
Na 589.592 Radial†	710.1	243.03 ug/L	12.444	243.03 ppb	12.444	5.12%
Ni 231.604†	-9.7	-0.3009 ug/L	0.09688	-0.3009 ppb	0.09688	32.19%
P 214.914†	24.1	17.453 ug/L	1.4530	17.453 ppb	1.4530	8.33%
Pb 220.353†	1.0	0.1553 ug/L	0.48962	0.1553 ppb	0.48962	315.23%
S 181.975 Axial†	21.1	36.993 ug/L	0.9552	36.993 ppb	0.9552	2.58%
Sb 206.836†	-0.6	-0.2422 ug/L	2.35936	-0.2422 ppb	2.35936	974.07%
Se 196.026†	2.7	2.1856 ug/L	4.15514	2.1856 ppb	4.15514	190.11%
Si 251.611†	47266.6	1724.7 ug/L	4.81	1724.7 ppb	4.81	0.28%
Sn 189.927†	2.8	0.6095 ug/L	0.48621	0.6095 ppb	0.48621	79.77%
Sr 421.552†	31.3	0.2415 ug/L	0.11829	0.2415 ppb	0.11829	48.98%
Ti 334.940†	129.5	0.2185 ug/L	0.03912	0.2185 ppb	0.03912	17.91%
Tl 190.801†	2.9	1.0838 ug/L	4.97689	1.0838 ppb	4.97689	459.19%
U 409.014†	153.3	4.3842 ug/L	1.58042	4.3842 ppb	1.58042	36.05%
V 292.402†	-17.7	-0.1208 ug/L	0.17233	-0.1208 ppb	0.17233	142.67%
Zn 213.857†	-19.5	-0.2281 ug/L	0.07852	-0.2281 ppb	0.07852	34.42%
SiO2†	47097.8	3670.3 ug/L	32.18	3670.3 ppb	32.18	0.88%

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 #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

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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\anl 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 % 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	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\lanier.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 % Recovery	Dilution %	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

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\lanl 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 % Recovery	Dilution % Diff	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

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\lanl er.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 % Recov	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 Mass Out 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\lanl er.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	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		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 MassOut 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\lanl 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	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	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 MassOut 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\lanl 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	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 % 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\lanl 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

Mass Out 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\lanl 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	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	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 MassOut of Limits Message

Sample ID: QC Std 6

Report Date/Time: Thursday, March 18, 2010 23:37:08

Page 1

QC Std 6
QC Std 6

Tl
Pb

205CCV is out of limits (+/- 10%)
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\lanl 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 % Recov	Dilution % Dil	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	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	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
QC Std 8

Tl
Pb

205CCV is out of limits (+/- 10%)
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\ianl 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	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 % Di	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\lanier.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	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 % Di	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 MassOut 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\lanl er.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 % Di	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\anl 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\lanier.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	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		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 MassOut 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	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		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 Mass Out 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\lanl 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
L 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
L 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
L 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				
L Mn	55						
[Cd	111						
| Cd	114						
> In	115		86.1				
| Sb	121						
L Sb	123						
> Lu	175		89.5				
| Tl	205						
| Pb	208						
L 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|skj

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	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		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 MassOut 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	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		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	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		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 MassOut 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: 247567001

Sample Date/Time: Friday, March 19, 2010 02:15:58

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 955810|1|skj

Method File: c:\elandata\Method\lanl er.mth

Dataset File: C:\elandata\Dataset\100318\247567001.250

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	-0.001	ug/L	634.838	16	-0.000
> Sc	45		ug/L		271473	271473.264
Mn	55	0.451	ug/L	2.478	3946	0.011
Cd	111	-0.001	ug/L	430.924	23	-0.000
Cd	114		ug/L		35	-0.000
> In	115		ug/L		222918	222917.577
Sb	121	-0.009	ug/L	15.174	108	-0.000
Sb	123		ug/L		84	-0.000
> Lu	175		ug/L		473793	473792.893
Tl	205	0.201	ug/L	11.326	6078	0.007
Pb	208	0.050	ug/L	1.913	2210	0.003
U	238	-0.007	ug/L	1.456	87	-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		80.2			
Mn	55					
Cd	111					
Cd	114					
> In	115		80.4			
Sb	121					
Sb	123					
> Lu	175		83.0			
Tl	205					
Pb	208					
U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

Sample ID: 247567001

Report Date/Time: Friday, March 19, 2010 02:16:59

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\lanl 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	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	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

MassOut 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\lanl 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	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		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 % 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
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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	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 % Dif	Duplicate Rel.	% Difference
[>	In 115						
|	Sb 121						
|	Sb 123						
[>	Lu 175						
|	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: 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 % 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

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\11pbsb.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\tlpsb.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	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		96.5				
| Sb	121						
| Sb	123						
[> Lu	175		95.7				
| 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 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\tipbsb.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	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		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\lplbsb.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	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					
|	Sb 123					
[>	Lu 175		99.3			
|	Tl 205					
|	Pb 208	407.800				

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 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\1lpbsb.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	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		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	MassOut 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	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			97.7			
|	Sb 121						
|	Sb 123						
[>	Lu 175			98.1			
|	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 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 % Recov	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\ltpbsb.mth

Dataset File: C:\elandata\Dataset\100319\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 % Dil	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

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	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			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 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 15:37:46

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\1lpbsb.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 MassOut 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\1lpbsb.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	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		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 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 16:09:43

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\tlpsb.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	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		102.7				
|	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	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		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 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 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 % Recovery	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	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		104.2				
|	Sb 121						
|	Sb 123						
[>	Lu 175		106.9				
|	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: 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\1lprb.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	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 % Dif	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 Mass Out 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\lplbsb.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	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		101.8				
|	Sb 121						
|	Sb 123						
[>	Lu 175		102.9				
|	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: 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\1\lpsb.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	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		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

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\l\pbsb.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	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		102.4				
|	Sb 121						
|	Sb 123						
[>	Lu 175		105.5				
|	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: 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\ltpbsb.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	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		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: 247567001

Sample Date/Time: Saturday, March 20, 2010 18:13:50

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\247567001.336

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In 115		ug/L		116169	116169.365
|	Sb 121	0.054	ug/L	10.839	324	0.001
|	Sb 123		ug/L		271	0.001
[>	Lu 175		ug/L		154835	154834.926
|	Tl 205	0.107	ug/L	14.718	874	0.003
|	Pb 208	-0.095	ug/L	6.758	1129	-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 % Recovery	Dilution % Dil	Duplicate Rel.	% Difference
[>	In 115		104.2				
|	Sb 121						
|	Sb 123						
[>	Lu 175		106.5				
|	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: 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\tipbsb.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	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		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 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 18:21:51

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 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 % Dil	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

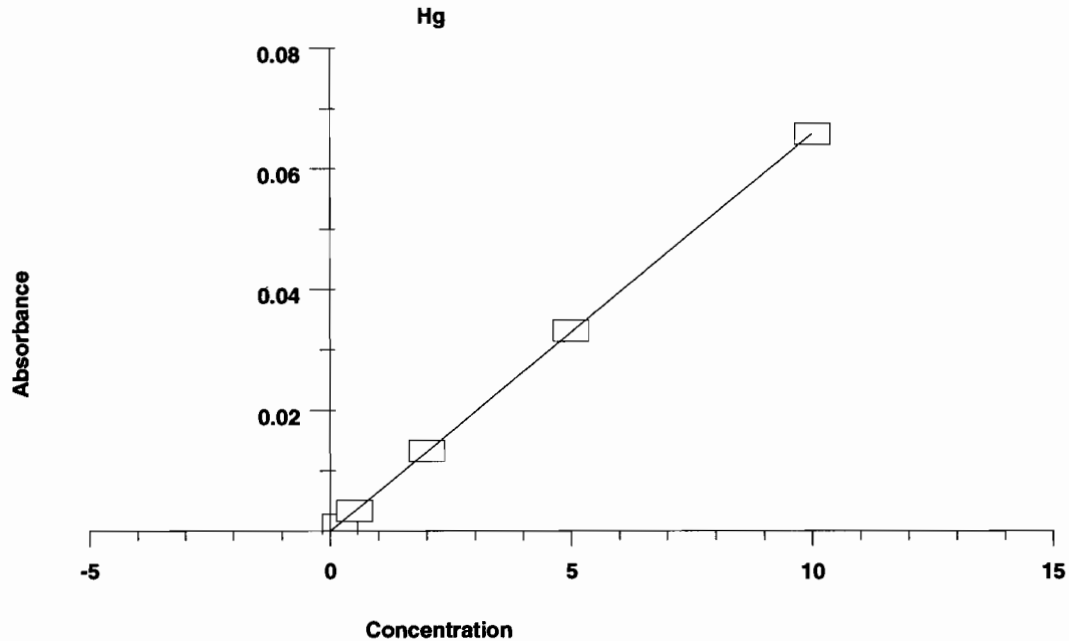
```
-----
Repl  SampleConc  StndConc  BlnkCorr  Peak      Time      Peak
#      µg/L       µg/L       Signal    Height    Height    Stored
1      0.0332     0.0332     0.0332    0.0346    11:02:31  No
2      0.0330     0.0330     0.0330    0.0345    11:03:06  No
Mean:      0.0331
SD :      0.0001
%RSD:      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  StndConc  BlnkCorr  Peak      Time      Peak
#      µg/L       µg/L       Signal    Height    Height    Stored
1      0.0658     0.0658     0.0658    0.0673    11:04:33  No
2      0.0657     0.0657     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	StdConc µg/L	BlncCorr 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	StdConc µg/L	BlncCorr 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	StdConc µg/L	BlncCorr 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	StdConc µg/L	BlkCorr 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	StdConc µg/L	BlkCorr 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	StdConc µg/L	BlkCorr 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	StdConc µg/L	BlkCorr 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	StdConc µg/L	BlkCorr 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	Blncorr 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	Blncorr 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	Blncorr 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	Blncorr 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	Blncorr 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	StdConc µg/L	BlkCorr 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	StdConc µg/L	BlkCorr 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	StdConc µg/L	BlkCorr 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	StdConc µg/L	BlkCorr 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	StdConc µg/L	BlkCorr 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	BlkCorr 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	BlkCorr 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	BlkCorr 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	BlkCorr 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	BlkCorr 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
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#	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	BlkCorr 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	BlkCorr 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	BlkCorr 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	BlkCorr 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	BlkCorr 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	StdConc µg/L	BlkCorr 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	StdConc µg/L	BlkCorr 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	StdConc µg/L	BlkCorr 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	StdConc µg/L	BlkCorr 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	StdConc µg/L	BlkCorr 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	StdConc	BlkCorr	Peak	Time	Peak
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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	StdConc µg/L	BlkCorr 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	StdConc µg/L	BlkCorr 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	StdConc µg/L	BlkCorr 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	StdConc µg/L	BlkCorr 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	StdConc µg/L	BlkCorr 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	StdConc µg/L	BlkCorr 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 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	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

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GEL Laboratories LLC

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	UI100205-A	.5	mL
LCS	1202049262	MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).	UI100205-B	.5	mL
MS	1202049264	ICP-MS DOE liquid Spike (Solution B).	UI090930-A	.5	mL
MS	1202049264	ICP-MS DOE Liquid Spike Solution A	UI090930-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	

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GEL Laboratories LLC

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:

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202052035	Mercury working intermediate standard for LCS/MS	WHG100224-13	.2	mL
MS	1202052037	Mercury working intermediate standard for LCS/MS	WHG100224-13	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202052034 MB	24-FEB-2010 12:10:00	Water	20	20	1	<2
1202052035 LCS	24-FEB-2010 12:10:00	Water	20	20	1	<2
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 111-04-2002		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:

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202052035	Mercury working intermediate standard for LCS/MS	WHG100224-13	.2	mL
MS	1202052037	Mercury working intermediate standard for LCS/MS	WHG100224-13	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1176183	Sulfuric Acid, Concentrated		1 mL			
1255532-C	Hg reducing agent		1 mL			
1261483-C	5% Potassium Persulfate		1.5 mL			
1274391-1	NITRIC ACID		.5 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 Std **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: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H2O/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091217-12 **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: 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
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

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: 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: 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

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: 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

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: 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		

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: 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 + TypeI 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.	Aliquot	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.	Aliquot	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.	Aliquot	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.	Aliquot	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: WI100317-44 **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.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: 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.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: 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.	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

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 **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
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.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100226-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS100226-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Uranium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100226-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS100226-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS100226-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100226-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS100226-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100226-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS100226-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100226-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100226-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS100226-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS100226-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS100226-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: 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: 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201
Name: I-HCL **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 02-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Standard Logbook

Serial ID: 1100721TCLP Opened: 16-APR-09 Lot Number : H02026 L
Name: I-HNO3 Received: 02-APR-09
Type: Reagent/Solvent Expires: 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

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

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

Standard Logbook

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 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.
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

Standard Logbook

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

General Chemistry Analysis

Case Narrative

**General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1957**

Method/Analysis Information

Product: Cyanide, Total

Analytical Batch: 955989 and 955992 **Method:** SW9012A Cyanide and Total

Prep Batch : 955988 and 955991 **Method:** SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
247566001	RE15-10-8252
247566002	RE15-10-8253
247566003	RE15-10-8250
247566004	RE15-10-8251
247566005	RE15-10-8248
247566006	RE15-10-8249
247566007	RE15-10-8247
247566008	RE15-10-8254
247566009	RE15-10-8268
247566010	RE15-10-8264
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)
1202049755	Method Blank (MB)
1202049756	247566003(RE15-10-8250) Sample Duplicate (DUP)
1202049757	247566004(RE15-10-8251) Sample Duplicate (DUP)
1202049758	247566003(RE15-10-8250) Matrix Spike (MS)
1202049759	247566004(RE15-10-8251) Matrix Spike (MS)
1202049760	247566003(RE15-10-8250) Matrix Spike Duplicate (MSD)
1202049761	247566004(RE15-10-8251) Matrix Spike Duplicate (MSD)
1202049762	Laboratory Control Sample (LCS)

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

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as

Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 247249003 (RE46-10-12665), 247249004 (RE46-10-12663)- Batch 955989, 247566003 (RE15-10-8250) and 247566004 (RE15-10-8251)- Batch 955992.

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)- Batch 955989. 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)- Batch 955989.

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)- Batch 955989.

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. 1202049757 (RE15-10-8251) and 247566004 (RE15-10-8251)- Batch 955992.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times

All samples in this SDG met the specified holding time.

Sample Preservation/Integrity

All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions

The following samples in this sample group were diluted due to high concentration: 1202049754 (LCS)- Batch 955989 and 1202049762 (LCS)- Batch 955992.

Sample Re-analysis

The following samples were re-analyzed due to instrument failure: 1202049760 (RE15-10-8250) and 1202049761 (RE15-10-8251)- Batch 955992.

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)- Batch 955989.

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: 17Mar10

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: 10-1957 GEL Work Order: 247566

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

Report Date: March 12, 2010

Client SDG: 10-1957

Client Sample ID: RE15-10-8252
Sample ID: 247566001
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 2.76%

Project: LANL01004
Client ID: LANL010

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

SW9012A Cyanide, Total "Dry Weight Corrected"

Cyanide, Total	U	ND	66.0	243	ug/kg	1	AXC2	03/01/10	1545	955989	1
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The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/26/10	1540	955988

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 12, 2010

Client SDG: 10-1957

Client Sample ID: RE15-10-8253
Sample ID: 247566002
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 2.63%

Project: LANL01004
Client ID: LANL010

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

SW9012A Cyanide, Total "Dry Weight Corrected"

Cyanide, Total	U	ND	64.7	238	ug/kg	1	AXC2	03/01/10	1545	955989	1
----------------	---	----	------	-----	-------	---	------	----------	------	--------	---

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/26/10	1540	955988

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: LANL ER Project

Report Date: March 12, 2010

Client SDG: 10-1957

Client Sample ID: RE15-10-8250
Sample ID: 247566003
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 2.2%

Project: LANL01004
Client ID: LANL010

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

SW9012A Cyanide, Total "Dry Weight Corrected"

Cyanide, Total	U	ND	63.2	232	ug/kg	1	AXC2	02/26/10	1104	955992	1
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The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	02/25/10	1700	955991

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: LANL ER Project

Report Date: March 12, 2010

Client SDG: 10-1957

Client Sample ID: RE15-10-8251
Sample ID: 247566004
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 2.59%

Project: LANL01004
Client ID: LANL010

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

SW9012A Cyanide, Total "Dry Weight Corrected"

Cyanide, Total	U	ND	69.8	257	ug/kg	1	AXC2	02/26/10	1108	955992	1
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The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	02/25/10	1700	955991

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Report Date: March 12, 2010

Client SDG: 10-1957

Client Sample ID: RE15-10-8248
Sample ID: 247566005
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 1.66%

Project: LANL01004
Client ID: LANL010

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

SW9012A Cyanide, Total "Dry Weight Corrected"

Cyanide, Total	U	ND	66.5	244	ug/kg	1	AXC2	02/26/10	1116	955992	1
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The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	02/25/10	1700	955991

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: LANL ER Project

Report Date: March 12, 2010

Client SDG: 10-1957

Client Sample ID: RE15-10-8249
Sample ID: 247566006
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 1.67%

Project: LANL01004
Client ID: LANL010

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

SW9012A Cyanide, Total "Dry Weight Corrected"

Cyanide, Total	U	ND	61.7	227	ug/kg	1	AXC2	02/26/10	1117	955992	1
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The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	02/25/10	1700	955991

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: LANL ER Project

Report Date: March 12, 2010

Client SDG: 10-1957

Client Sample ID: RE15-10-8247
Sample ID: 247566007
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 2.23%

Project: LANL01004
Client ID: LANL010

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

SW9012A Cyanide, Total "Dry Weight Corrected"

Cyanide, Total	U	ND	63.2	232	ug/kg	1	AXC2	02/26/10	1118	955992	1
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The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	02/25/10	1700	955991

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Report Date: March 12, 2010

Client SDG: 10-1957

Client Sample ID: RE15-10-8254
Sample ID: 247566008
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 1.95%

Project: LANL01004
Client ID: LANL010

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

SW9012A Cyanide, Total "Dry Weight Corrected"

Cyanide, Total	U	ND	65.4	241	ug/kg	1	AXC2	02/26/10	1119	955992	1
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The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	02/25/10	1700	955991

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: LANL ER Project

Report Date: March 12, 2010

Client SDG: 10-1957

Client Sample ID: RE15-10-8268
Sample ID: 247566009
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 2.72%

Project: LANL01004
Client ID: LANL010

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

Flow Injection Analysis

SW9012A Cyanide, Total "Dry Weight Corrected"

Cyanide, Total	U	ND	65.9	242	ug/kg	1	AXC2	02/26/10	1120	955992	1
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The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	02/25/10	1700	955991

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 12, 2010

Client SDG: 10-1957

Client Sample ID: RE15-10-8264
Sample ID: 247566010
Matrix: R
Collect Date: 15-FEB-10 12:00
Receive Date: 20-FEB-10
Collector: Client
Moisture: 3.87%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	69.3	255	ug/kg	1	AXC2	02/26/10	1120	955992	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	SXJ1	02/25/10	1700	955991

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

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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: 247566

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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
Batch	955992										
QC1202049756	247566003	DUP									
Cyanide, Total		U	ND	U	ND	ug/kg	N/A		AXC2	02/26/10	11:05
QC1202049757	247566004	DUP									
Cyanide, Total		U	ND	U	ND	ug/kg	N/A			02/26/10	11:09
QC1202049762	LCS										
Cyanide, Total	67900				54800	ug/kg	80.6	(32%-157%)		02/26/10	10:49
QC1202049755	MB										
Cyanide, Total			U		250	ug/kg				02/26/10	10:49
QC1202049758	247566003	MS									
Cyanide, Total	4820	U	ND		4760	ug/kg	98.8	(26%-158%)		02/26/10	11:06
QC1202049759	247566004	MS									
Cyanide, Total	4670	U	ND		5370	ug/kg	115	(26%-158%)		02/26/10	11:14
QC1202049760	247566003	MSD									
Cyanide, Total	4920	U	ND		4110	ug/kg	14.8	83.6	(0%-30%)	02/26/10	11:13
QC1202049761	247566004	MSD									
Cyanide, Total	4750	U	ND		4030	ug/kg	28.4	84.8	(0%-30%)	02/26/10	11:21

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

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QC Summary

Workorder: 247566

Page 2 of 2

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.									
BD	Results are either below the MDC or tracer recovery is low									
C	Analyte has been confirmed by GC/MS analysis									
D	Results are reported from a diluted aliquot of the sample									
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range									
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria									
E	Organics--Concentration of the target analyte exceeds the instrument calibration range									
F	Estimated Value									
H	Analytical holding time was exceeded									
J	Value is estimated									
M	M if above MDC and less than LLD									
M	Matrix Related Failure									
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor									
N/A	RPD or %Recovery limits do not apply.									
ND	Analyte concentration is not detected above the detection limit									
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier									
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%									
R	Sample results are rejected									
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.									
UI	Gamma Spectroscopy--Uncertain identification									
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									

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 #: 10-1957

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	26-FEB-2010 10:43:35	OM_2-26-2010_10-33-05	152	150	101	(90%-110%)	Yes
CCV	26-FEB-2010 10:57:52	OM_2-26-2010_10-33-05	98	100	98	(90%-110%)	Yes
CCV	26-FEB-2010 11:10:17	OM_2-26-2010_10-33-05	99.1	100	99.1	(90%-110%)	Yes
CCV	26-FEB-2010 11:22:43	OM_2-26-2010_10-33-05	99.1	100	99.1	(90%-110%)	Yes
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	26-FEB-2010 10:45:25	OM_2-26-2010_10-33-05	0.0333	10	Yes
CCB	26-FEB-2010 10:59:43	OM_2-26-2010_10-33-05	-0.366	10	Yes
CCB	26-FEB-2010 11:12:08	OM_2-26-2010_10-33-05	-0.599	10	Yes
CCB	26-FEB-2010 11:24:34	OM_2-26-2010_10-33-05	-0.172	10	Yes
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

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: 955991.0	Verified by:	Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
Analyst: Stephanie Jackson		LCS	1202049762	Total Cyanide Solid LCS	URF1200957-01	.25	g
Method: SW846 9010B Prep		MS	1202049758	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
Lab SOP: GL-GC-E-067 REV# 13		MS	1202049759	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
Instrument: Sartorius Balance B-001		MSD	1202049760	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
		MSD	1202049761	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
1202049755 MB	25-FEB-2010 17:00:00	Soil	0.5	25	50	<12
1202049762 LCS	25-FEB-2010 17:00:00	Soil	0.25	25	100	<12
247321001	25-FEB-2010 17:00:00	Soil	0.54	25	46.2963	<12
247321002	25-FEB-2010 17:00:00	Soil	0.53	25	47.16981	<12
247321003	25-FEB-2010 17:00:00	Soil	0.52	25	48.07692	<12
247321004	25-FEB-2010 17:00:00	Soil	0.5	25	50	<12
247321005	25-FEB-2010 17:00:00	Soil	0.57	25	43.85965	<12
247321006	25-FEB-2010 17:00:00	Soil	0.58	25	43.10345	<12
247427001	25-FEB-2010 17:00:00	Soil	0.54	25	46.2963	<12
247427002	25-FEB-2010 17:00:00	Soil	0.53	25	47.16981	<12
247427003	25-FEB-2010 17:00:00	Soil	0.5	25	50	<12
247427004	25-FEB-2010 17:00:00	Soil	0.5	25	50	<12
247427005	25-FEB-2010 17:00:00	Soil	0.54	25	46.2963	<12
247427006	25-FEB-2010 17:00:00	Soil	0.56	25	44.64286	<12
247566003	25-FEB-2010 17:00:00	Soil	0.55	25	45.45455	<12
1202049756 DUP (247566003)	25-FEB-2010 17:00:00	Soil	0.57	25	43.85965	<12
1202049758 MS (247566003)	25-FEB-2010 17:00:00	Soil	0.53	25	47.16981	<12
1202049760 MSD (247566003)	25-FEB-2010 17:00:00	Soil	0.52	25	48.07692	<12
247566004	25-FEB-2010 17:00:00	Soil	0.5	25	50	<12
1202049757 DUP (247566004)	25-FEB-2010 17:00:00	Soil	0.58	25	43.10345	<12
1202049759 MS (247566004)	25-FEB-2010 17:00:00	Soil	0.55	25	45.45455	<12

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC

Prep Logbook

Batch ID: 955991.0
Analyst: Stephanie Jackson
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	1202049762	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202049758	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202049759	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202049760	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202049761	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
1202049761 MSD (247566004)	25-FEB-2010 17:00:00	Soil	0.54	25	46.2963	<12
247566005	25-FEB-2010 17:00:00	Soil	0.52	25	48.07692	<12
247566006	25-FEB-2010 17:00:00	Soil	0.56	25	44.64286	<12
247566007	25-FEB-2010 17:00:00	Soil	0.55	25	45.45455	<12
247566008	25-FEB-2010 17:00:00	Soil	0.53	25	47.16981	<12
247566009	25-FEB-2010 17:00:00	Soil	0.53	25	47.16981	<12
247566010	25-FEB-2010 17:00:00	Soil	0.51	25	49.01961	<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

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC

Prep Logbook

Cyanide Sample Distillation

Batch ID: 955988.0	Verified by:	Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
Analyst: Alan Stanley		LCS	1202049754	Total Cyanide Solid LCS	URF1200957-01	.25	g
Method: SW846 9010B Prep		MS	1202049750	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
Lab SOP: GL-GC-E-067 REV# 13		MS	1202049751	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
Instrument: Sartorius Balance B-001		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

Verified by:

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
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

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
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	2/26/2010 10:36:26	OM_2-26-2010_10-33-05
150 ppb		1	axc2	2/26/2010 10:37:18	OM_2-26-2010_10-33-05
100 ppb		1	axc2	2/26/2010 10:38:10	OM_2-26-2010_10-33-05
50 ppb		1	axc2	2/26/2010 10:39:03	OM_2-26-2010_10-33-05
10 ppb		1	axc2	2/26/2010 10:39:57	OM_2-26-2010_10-33-05
CRDL 5.0 ppb		1	axc2	2/26/2010 10:40:50	OM_2-26-2010_10-33-05
ICAL-00		1	axc2	2/26/2010 10:41:44	OM_2-26-2010_10-33-05
ICV		1	axc2	2/26/2010 10:43:35	OM_2-26-2010_10-33-05
ICB		1	axc2	2/26/2010 10:45:25	OM_2-26-2010_10-33-05
CRDL		1	axc2	2/26/2010 10:47:15	OM_2-26-2010_10-33-05
1202049755	955992	1	axc2	2/26/2010 10:49:05	OM_2-26-2010_10-33-05
1202049762	955992	25	axc2	2/26/2010 10:49:58	OM_2-26-2010_10-33-05
247321001	955992	1	axc2	2/26/2010 10:50:51	OM_2-26-2010_10-33-05
247321002	955992	1	axc2	2/26/2010 10:51:44	OM_2-26-2010_10-33-05
247321003	955992	1	axc2	2/26/2010 10:52:37	OM_2-26-2010_10-33-05
247321004	955992	1	axc2	2/26/2010 10:53:30	OM_2-26-2010_10-33-05
247321005	955992	1	axc2	2/26/2010 10:54:23	OM_2-26-2010_10-33-05
247321006	955992	1	axc2	2/26/2010 10:55:15	OM_2-26-2010_10-33-05
247427001	955992	1	axc2	2/26/2010 10:56:08	OM_2-26-2010_10-33-05
247427002	955992	1	axc2	2/26/2010 10:57:00	OM_2-26-2010_10-33-05
CCV		1	axc2	2/26/2010 10:57:52	OM_2-26-2010_10-33-05
CCB		1	axc2	2/26/2010 10:59:43	OM_2-26-2010_10-33-05
247427003	955992	1	axc2	2/26/2010 11:01:31	OM_2-26-2010_10-33-05
247427004	955992	1	axc2	2/26/2010 11:02:23	OM_2-26-2010_10-33-05
247427005	955992	1	axc2	2/26/2010 11:03:15	OM_2-26-2010_10-33-05
247427006	955992	1	axc2	2/26/2010 11:04:07	OM_2-26-2010_10-33-05
247566003	955992	1	axc2	2/26/2010 11:04:58	OM_2-26-2010_10-33-05
1202049756	955992	1	axc2	2/26/2010 11:05:52	OM_2-26-2010_10-33-05
1202049758	955992	1	axc2	2/26/2010 11:06:46	OM_2-26-2010_10-33-05
1202049760*	955992	1	axc2	2/26/2010 11:07:39	OM_2-26-2010_10-33-05
247566004	955992	1	axc2	2/26/2010 11:08:32	OM_2-26-2010_10-33-05
1202049757	955992	1	axc2	2/26/2010 11:09:25	OM_2-26-2010_10-33-05
CCV		1	axc2	2/26/2010 11:10:17	OM_2-26-2010_10-33-05
CCB		1	axc2	2/26/2010 11:12:08	OM_2-26-2010_10-33-05
1202049760	955992	1	axc2	2/26/2010 11:13:57	OM_2-26-2010_10-33-05
1202049759	955992	1	axc2	2/26/2010 11:14:51	OM_2-26-2010_10-33-05
1202049761*	955992	1	axc2	2/26/2010 11:15:44	OM_2-26-2010_10-33-05
247566005	955992	1	axc2	2/26/2010 11:16:37	OM_2-26-2010_10-33-05
247566006	955992	1	axc2	2/26/2010 11:17:29	OM_2-26-2010_10-33-05
247566007	955992	1	axc2	2/26/2010 11:18:21	OM_2-26-2010_10-33-05
247566008	955992	1	axc2	2/26/2010 11:19:14	OM_2-26-2010_10-33-05
247566009	955992	1	axc2	2/26/2010 11:20:06	OM_2-26-2010_10-33-05
247566010	955992	1	axc2	2/26/2010 11:20:58	OM_2-26-2010_10-33-05
1202049761	955992	1	axc2	2/26/2010 11:21:51	OM_2-26-2010_10-33-05
CCV		1	axc2	2/26/2010 11:22:43	OM_2-26-2010_10-33-05
CCB		1	axc2	2/26/2010 11:24:34	OM_2-26-2010_10-33-05

Original Run Filename: OM_2-26-2010_10-33-05.OMN created 2/26/2010 10:33:05
 Original Run Author's Signature: [axc2]
 Current Run Filename: OM_2-26-2010_10-33-05.OMN last modified 2/26/2010 11:25:39
 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					
			Conc. (ug/L)	Area (Vs)				
WCN100226-01	1	S1	200	9.49	2/26/2010@10:36:26			200 ppb
WCN100226-02	1	S2	150	6.98	2/26/2010@10:37:18			150 ppb
WCN100226-03	1	S3	100	4.37	2/26/2010@10:38:10			100 ppb
WCN100226-04	1	S4	50.0	2.44	2/26/2010@10:39:03			50 ppb
WCN100226-05	1	S5	10.0	0.624	2/26/2010@10:39:57			10 ppb
WCN100226-06	1	S6	5.00	0.394	2/26/2010@10:40:50			CRDL 5.0 ppb
WCN100226-08	1	S7	0.00	0.00344	2/26/2010@10:41:44			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
Result:			0.99902 > 0.99500					
Message			Pass					
Action			Continue					
WCN100226-07	1	S8	152	7.12	2/26/2010@10:43:35			ICV
Known Conc:			150					
DQM Test: > + Percent Relative Difference								
Result:			1.4 < 10.0					
Message			ICV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			1.4 < 10.0					
Message			ICV Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
WCN100226-08	1	S7	0.0333	0.0602	2/26/2010@10:45:25			ICB/CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			0.0333 < 5.01					
Message			ICB/CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.0333 > -5.01					
Message			ICB/CCB Passed					
Action			Continue					
WCN100226-06	1	S6	7.18	0.392	2/26/2010@10:47:15			CRDL
Known Conc:			5.00					
DQM Test: > + Concentration Limit								
Result:			7.18 < 7.50					
Message			CRDL Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			7.18 > 2.50					
Message			Pass					
Action			None					
1202049755|955992|MB	1	1	-0.332	0.0432	2/26/2010@10:49:05			
1202049762|LCS	1	2	21.9	1.07	2/26/2010@10:49:58		25.00	
247321001	1	3	-0.0946	0.0542	2/26/2010@10:50:51			
247321002	1	4	1.51	0.129	2/26/2010@10:51:44			
247321003	1	5	0.827	0.0970	2/26/2010@10:52:37			
247321004	1	6	-0.129	0.0526	2/26/2010@10:53:30			
247321005	1	7	-0.131	0.0525	2/26/2010@10:54:23			
247321006	1	8	-0.0172	0.0578	2/26/2010@10:55:15			
247427001	1	9	-1.26	2.22e-4	2/26/2010@10:56:08			
247427002	1	10	-0.502	0.0353	2/26/2010@10:57:00			
WCN100226-03	1	S3	98.0	4.61	2/26/2010@10:57:52			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			-2.0 < 10.0					

			Message	CCV Passed					
			Action	Continue					
DQM Test: < - Percent Relative Difference									
			Result:	-2.0 < 10.0					
			Message	CCV Passed					
			Action	Continue					
WCN100226-08	1	S7		-0.366	0.0416	2/26/2010@10:59:43			CCB
			Known Conc:	0.00					
DQM Test: > + Concentration Limit									
			Result:	-0.366 < 5.00					
			Message	CCB Passed					
			Action	Continue					
DQM Test: < - Concentration Limit									
			Result:	-0.366 > -5.00					
			Message	CCB Passed					
			Action	Continue					
247427003	1	11		-0.859	0.0187	2/26/2010@11:01:31		25.00	
247427004	1	12		-0.484	0.0361	2/26/2010@11:02:23			
247427005	1	13		-0.891	0.0173	2/26/2010@11:03:15			
247427006	1	14		-0.298	0.0448	2/26/2010@11:04:07			
247566003	1	15		-0.990	0.0126	2/26/2010@11:04:58			
1202049756||DUP	1	16		-0.840	0.0196	2/26/2010@11:05:52			
1202049758||MS	1	17		98.8	4.64	2/26/2010@11:06:46			
1202049760||MSD	1	18		181	8.45	2/26/2010@11:07:39			
247566004	1	19		-0.195	0.0496	2/26/2010@11:08:32			
1202049757||DUP	1	20		-0.390	0.0405	2/26/2010@11:09:25			
WCN100226-03	1	S3		99.1	4.66	2/26/2010@11:10:17			CCV
			Known Conc:	100					
DQM Test: > + Percent Relative Difference									
			Result:	-0.9 < 10.0					
			Message	CCV Passed					
			Action	Continue					
DQM Test: < - Percent Relative Difference									
			Result:	-0.9 < 10.0					
			Message	CCV Passed					
			Action	Continue					
WCN100226-08	1	S7		-0.599	0.0308	2/26/2010@11:12:08			CCB
			Known Conc:	0.00					
DQM Test: > + Concentration Limit									
			Result:	-0.599 < 5.00					
			Message	CCB Passed					
			Action	Continue					
DQM Test: < - Concentration Limit									
			Result:	-0.599 > -5.00					
			Message	CCB Passed					
			Action	Continue					
1202049760||MSD	1	18		83.6	3.94	2/26/2010@11:13:57			
1202049759||MS	1	21		115	5.40	2/26/2010@11:14:51			
1202049761||MSD	1	22		65.8	3.11	2/26/2010@11:15:44			
247566005	1	23		-1.27	-3.95e-4	2/26/2010@11:16:37			
247566006	1	24		-0.699	0.0262	2/26/2010@11:17:29			
247566007	1	25		-1.27	-2.04e-4	2/26/2010@11:18:21			
247566008	1	26		-0.698	0.0262	2/26/2010@11:19:14			
247566009	1	27		-1.26	3.06e-4	2/26/2010@11:20:06			
247566010	1	28		-0.578	0.0318	2/26/2010@11:20:58			
1202049761||MSD	1	22		84.8	4.00	2/26/2010@11:21:51			
WCN100226-03	1	S3		99.1	4.66	2/26/2010@11:22:43			CCV
			Known Conc:	100					
DQM Test: > + Percent Relative Difference									
			Result:	-0.9 < 10.0					
			Message	CCV Passed					
			Action	Continue					
DQM Test: < - Percent Relative Difference									
			Result:	-0.9 < 10.0					
			Message	CCV Passed					
			Action	Continue					
WCN100226-08	1	S7		-0.172	0.0506	2/26/2010@11:24:34			CCB
			Known Conc:	0.00					

DQM Test: > + Concentration Limit						
Result:	-0.172 < 5.00					
Message	CCB Passed					
Action	Continue					
DQM Test: < - Concentration Limit						
Result:	-0.172 > -5.00					
Message	CCB Passed					
Action	Continue					

Analyte Properties Table for OM_2-26-2010_10-33-05.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

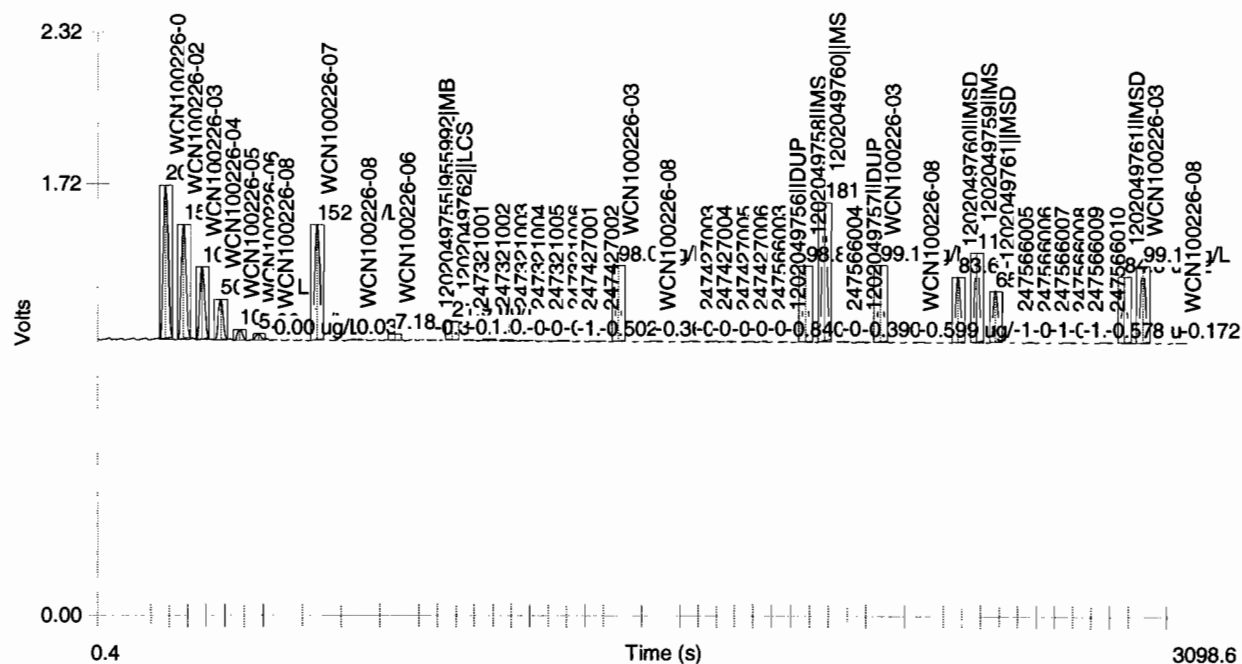
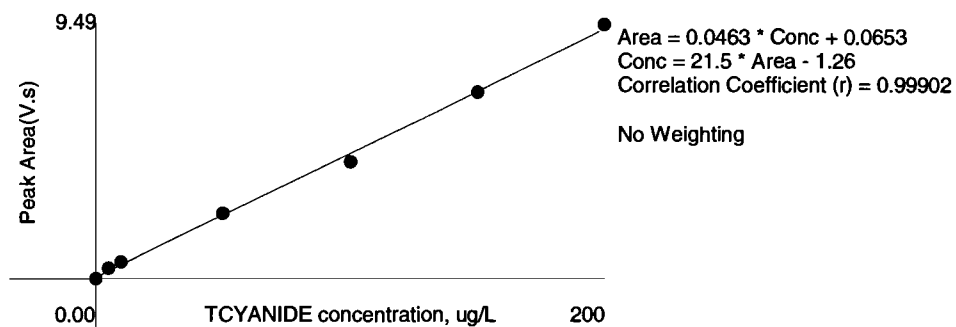


Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.49	0.608	-1.7	2/26/2010	10:37:29
2	150	1	6.98	0.452	0.4	2/26/2010	10:38:21
3	100	1	4.37	0.284	6.9	2/26/2010	10:39:13
4	50.0	1	2.44	0.158	-2.6	2/26/2010	10:40:06
5	10.0	1	0.624	0.0401	-18.1	2/26/2010	10:40:59
6	5.00	1	0.394	0.0242	-32.5	2/26/2010	10:41:53
7	0.00	1	0.00344	0.00252		2/26/2010	10:42:47

Figure 1: TCYANIDE



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		Detection Time	ADF	MDF	Description
			TCYANIDE 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

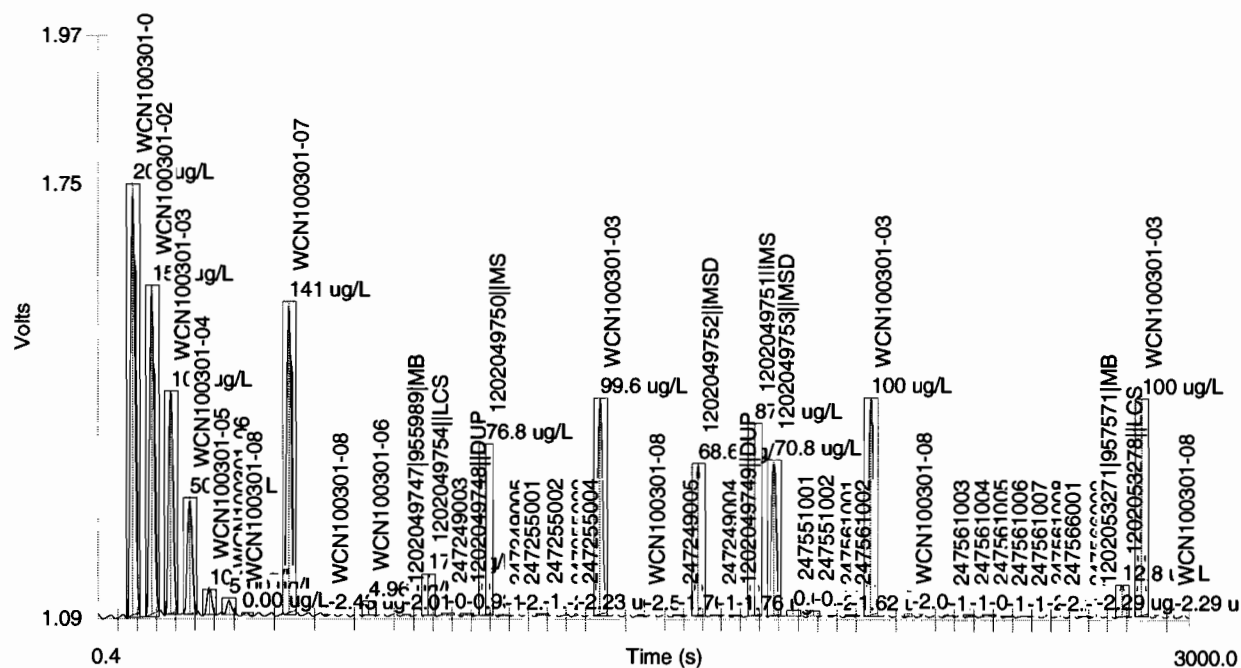
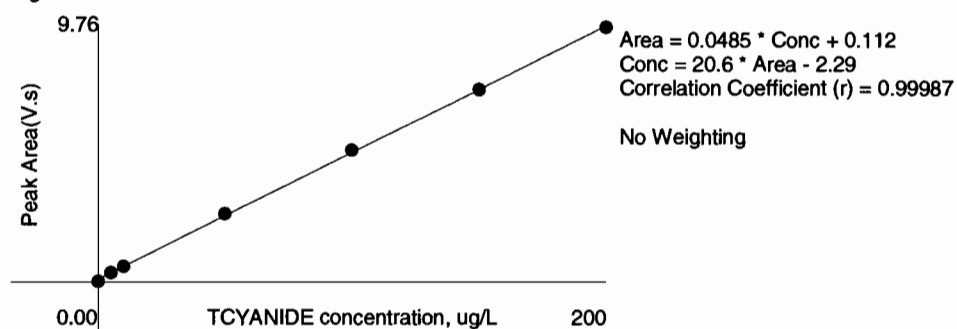


Table 1: TCYANIDE

	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



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 Exception Description:		DER Disposition:	
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

General Chemistry Analysis

Case Narrative

**General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1957-1**

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
247567001	RE15-10-8271
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.

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: 17Mar10

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: 10-1957-1 GEL Work Order: 247567

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



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: 10-1957-1

Client Sample ID: RE15-10-8271
Sample ID: 247567001
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

SW9012A Cyanide, Total "As Received"

Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2	02/23/10	1355	955981	1
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The following Prep Methods were performed

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

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: 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: 247567

Parmname	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

Notes:

RER is calculated at the 95% confidence level (2-sigma).

The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
- N/A RPD or %Recovery limits do not apply.
- 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.

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QC Summary

Workorder: 247567

Page 2 of 2

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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 #: 10-1957-1

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	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

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID:	955979.0	Verified by:	
Analyst:	Alan Stanley		
Method:	SW846 9010C Distillation	SW846 9010B Prep	
	P	E	
	A		
	33		
	5.		
	3		
	EPA 335.4		
Lab SOP:	GL-GC-E-067 REV# 13		
Instrument:	Sartorius Balance B-001		

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check	Serial Number	Spike Amount	Spike Units
1202049704 MB	23-FEB-2010 12:00:00	Water	25	25	1	>12	URF1269274-02	.0125	mL
1202049711 LCS	23-FEB-2010 12:00:00	Water	25	25	1	>12	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV		
246941002	23-FEB-2010 12:00:00	Water	25	25	1	>12	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	.025	mL
1202049705 DUP (246941002)	23-FEB-2010 12:00:00	Water	25	25	1	>12	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	.025	mL
1202049707 MS (246941002)	23-FEB-2010 12:00:00	Water	25	25	1	>12	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	.025	mL
1202049709 MSD (246941002)	23-FEB-2010 12:00:00	Water	25	25	1	>12	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	.025	mL
247203001	23-FEB-2010 12:00:00	Water	25	25	1	>12	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	.025	mL
1202049706 DUP (247203001)	23-FEB-2010 12:00:00	Water	25	25	1	>12	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	.025	mL
1202049708 MS (247203001)	23-FEB-2010 12:00:00	Water	25	25	1	>12	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	.025	mL
1202049710 MSD (247203001)	23-FEB-2010 12:00:00	Water	25	25	1	>12	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	.025	mL
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 E
 P
 A
 33
 5.
 3
 EPA 335.4
 Lab SOP: GL-GC-E-067 REV# 13
 Instrument: Sartorius Balance B-001

Verified by:

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	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

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/23/2010 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		Detection Time	ADF	MDF	Description
			TCYANIDE					
			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

Channel 1: Current View

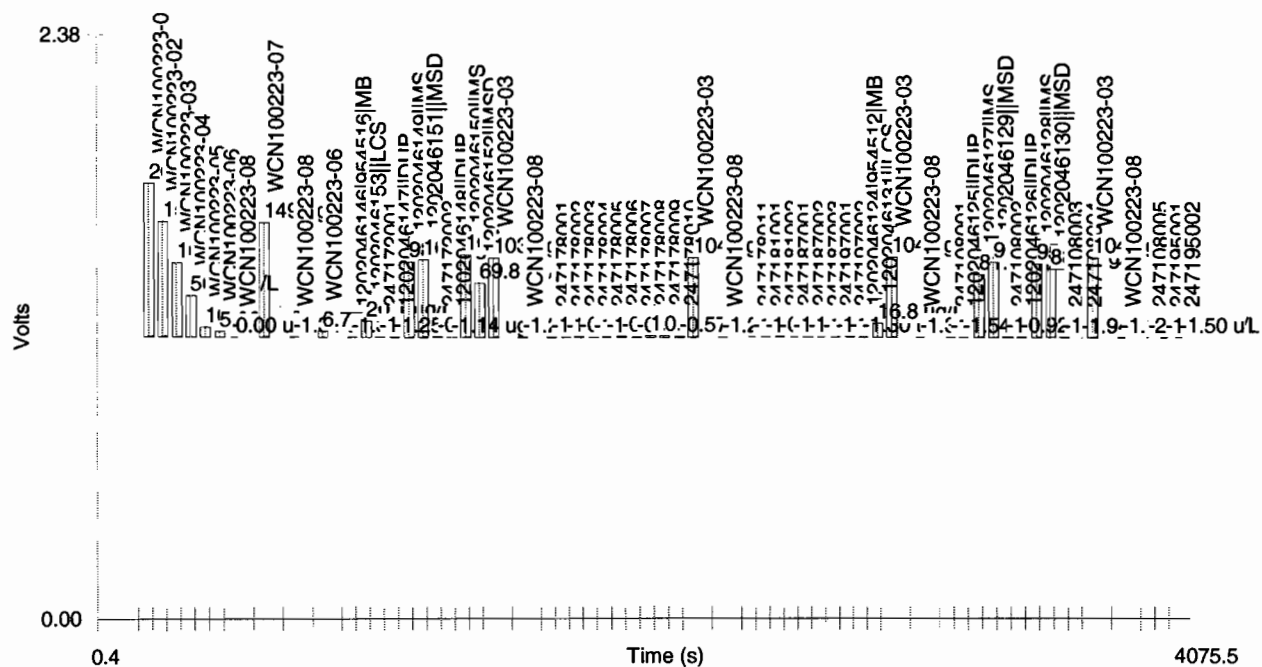
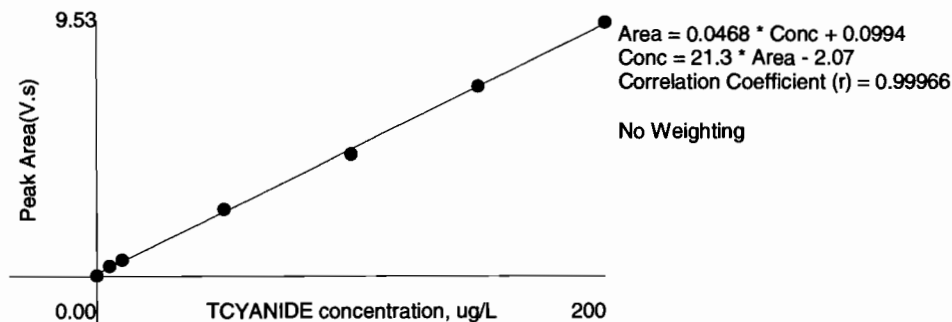


Table 1: TCYANIDE

	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



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

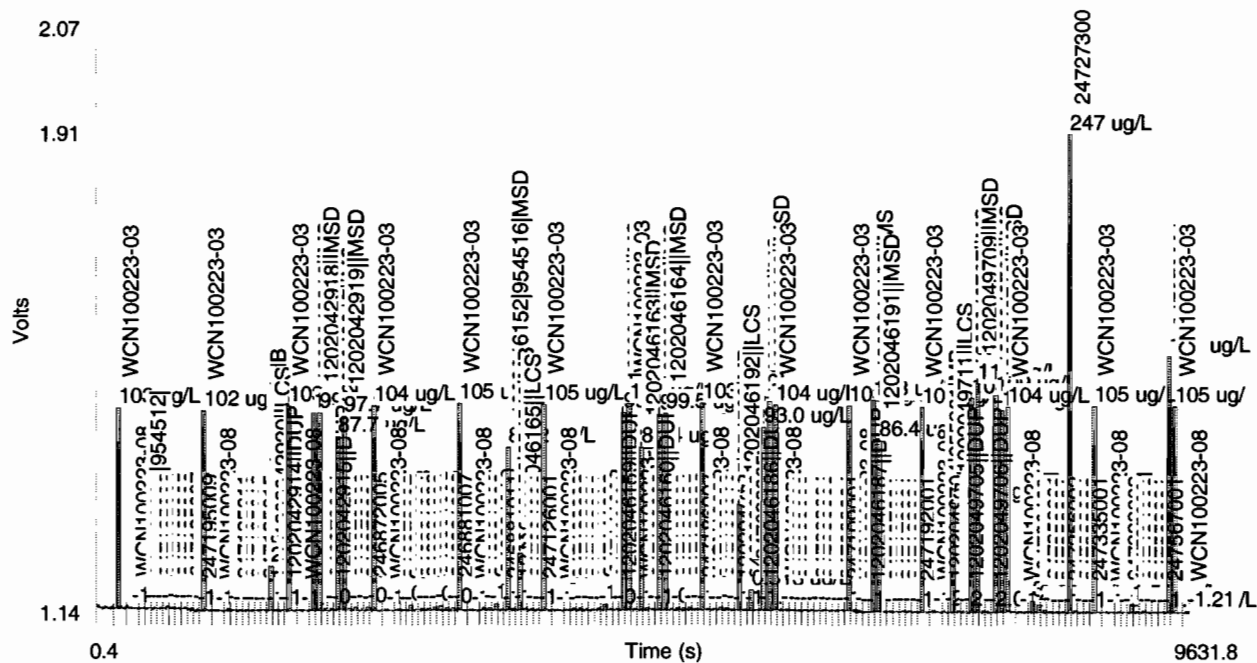


Table 1: TCYANIDE

	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

