

Friday, February 26, 2010

Page 1 of 4
REQUEST NUMBER: 10-2135

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: 10-2135

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 2/26/2010

TURNAROUND/REPORT DUE: 3/28/2010

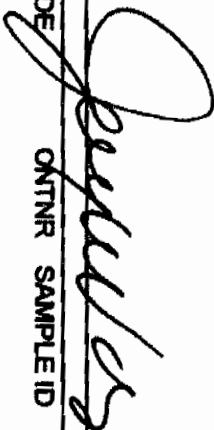
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:



PRIORITY	METHOD CODE	QNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA300.0	1	RE36-10-7453	R	2/24/2010	
		1	RE36-10-7454	R	2/24/2010	
		1	RE36-10-7455	R	2/24/2010	
		1	RE36-10-7456	R	2/24/2010	
		1	RE36-10-7457	R	2/24/2010	
		1	RE36-10-7458	R	2/24/2010	
		1	RE36-10-7459	R	2/24/2010	
		1	RE36-10-7460	R	2/24/2010	
		1	RE36-10-7519	R	2/24/2010	

Friday, February 26, 2010

Page 2 of 4
REQUEST NUMBER: 10-2135

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
SW-846:6010B	EPA-300.0	1	RE36-10-7520	R	2/24/2010	
		1	RE36-10-7453	R	2/24/2010	
		1	RE36-10-7454	R	2/24/2010	
		1	RE36-10-7455	R	2/24/2010	
		1	RE36-10-7456	R	2/24/2010	
		1	RE36-10-7457	R	2/24/2010	
		1	RE36-10-7458	R	2/24/2010	
		1	RE36-10-7459	R	2/24/2010	
		1	RE36-10-7460	R	2/24/2010	
		1	RE36-10-7519	R	2/24/2010	
SW-846:6020		1	RE36-10-7520	R	2/24/2010	
		1	RE36-10-7453	R	2/24/2010	
		1	RE36-10-7454	R	2/24/2010	
		1	RE36-10-7455	R	2/24/2010	
		1	RE36-10-7456	R	2/24/2010	
		1	RE36-10-7457	R	2/24/2010	
		1	RE36-10-7458	R	2/24/2010	
		1	RE36-10-7459	R	2/24/2010	
		1	RE36-10-7460	R	2/24/2010	
		1	RE36-10-7519	R	2/24/2010	
SW-846:6850		1	RE36-10-7520	R	2/24/2010	
		1	RE36-10-7530	W	2/24/2010	
		1	RE36-10-7453	R	2/24/2010	
		1	RE36-10-7454	R	2/24/2010	
		1	RE36-10-7455	R	2/24/2010	
		1	RE36-10-7456	R	2/24/2010	
		1	RE36-10-7457	R	2/24/2010	
		1	RE36-10-7458	R	2/24/2010	
		1	RE36-10-7459	R	2/24/2010	
		1	RE36-10-7460	R	2/24/2010	

PRIORITY	METHOD CODE	CNTR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6850	1	RE36-10-7459	R	2/24/2010	
		1	RE36-10-7460	R	2/24/2010	
		1	RE36-10-7519	R	2/24/2010	
		1	RE36-10-7520	R	2/24/2010	
		1	RE36-10-7530	W	2/24/2010	
	SW-846:7470A	1	RE36-10-7530	W	2/24/2010	
	SW-846:7471A	1	RE36-10-7453	R	2/24/2010	
		1	RE36-10-7454	R	2/24/2010	
		1	RE36-10-7455	R	2/24/2010	
		1	RE36-10-7456	R	2/24/2010	
		1	RE36-10-7457	R	2/24/2010	
		1	RE36-10-7458	R	2/24/2010	
		1	RE36-10-7459	R	2/24/2010	
		1	RE36-10-7460	R	2/24/2010	
		1	RE36-10-7519	R	2/24/2010	
		1	RE36-10-7520	R	2/24/2010	
		1	RE36-10-7530	W	2/24/2010	
	SW-846:9012A	1	RE36-10-7453	R	2/24/2010	
		1	RE36-10-7454	R	2/24/2010	
		1	RE36-10-7455	R	2/24/2010	
		1	RE36-10-7456	R	2/24/2010	
		1	RE36-10-7457	R	2/24/2010	
		1	RE36-10-7458	R	2/24/2010	
		1	RE36-10-7459	R	2/24/2010	
		1	RE36-10-7460	R	2/24/2010	
		1	RE36-10-7519	R	2/24/2010	
		1	RE36-10-7520	R	2/24/2010	
		1	RE36-10-7530	W	2/24/2010	

Friday, February 26, 2010

Page 4 of 4
REQUEST NUMBER: 10-2135

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
SW-846:9045C						
		1	RE36-10-7454	R	2/24/2010	
		1	RE36-10-7455	R	2/24/2010	
		1	RE36-10-7456	R	2/24/2010	
		1	RE36-10-7457	R	2/24/2010	
		1	RE36-10-7458	R	2/24/2010	
		1	RE36-10-7459	R	2/24/2010	
		1	RE36-10-7460	R	2/24/2010	
		1	RE36-10-7519	R	2/24/2010	
		1	RE36-10-7520	R	2/24/2010	

Final Page of REQUEST NUMBER 10-2135

Friday, February 26, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2135

REQUEST NUMBER: 10-2135

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc.,
Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/28/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-7458	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7458	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7453	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7453	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7454	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7454	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7460	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7460	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7456	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7456	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7455	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7455	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7459	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7459	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7457	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7457	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7520	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7520	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7519	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7519	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7530	1	POLY	METALS+U-GEL	Nitric Acid	W
RE36-10-7530	1	POLY	SW-846:6850	Ice	W
RE36-10-7530	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:

Date

Time

Received By:

Date

Time

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date

Time

Remarks:

2/24/10 1400

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr: FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7453

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/24/2010		MEDIA:		OBT3	
TIME COLLECTED (HH:MM)		0854		SUB-MEDIA:		TUFF 1	
PRS ID: 36-008		OK		SAMPLE TECH CODE:		HA	
LOCATION ID: 36-610599		↓		FIELD QC TYPE:		NA	
LOCATION TYPE: GENERIC		↓		FIELD PREP:		NA	
TOP DEPTH: 0		0.0		SAMPLE USAGE:		INV	
BOTTOM DEPTH: 0		0.5		SCREEN/PORT DESC:		NA	
FIELD MATRIX: R		S		EXCAVATED: YES/NO		NA	
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA		NA	
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

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

SAMPLE DESC:

Brown sandy silt, leaves, tuff fragments
FD: RE36-10-7520

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-9

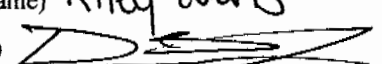

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 36 dpm
Beta/Gamma = 2050 dpmPID $\frac{\text{Ambient Reading}}{73m \ 2/24/10} = \text{ppm}$

COLLECTED BY (PRINT)

L McFarlane

REVIEWED BY (PRINT) Jon Roberson

RELINQUISHED BY (Printed Name) Riley Evans (Signature) 	Date/Time 2/24/10 1634	RECEIVED BY (Printed Name)  (Signature)	Date/Time 2/24/10 4:34
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7454

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/24/2010		MEDIA:	QBT3	02/24/10	OK QBT2
TIME COLLECTED (HH:MM)		0945		SUB-MEDIA:	TUFF 1		OK
PRS ID:	36-008	OK		SAMPLE TECH CODE:	HA		
LOCATION ID:	36-610599	↓		FIELD QC TYPE:	NA		
LOCATION TYPE:	GENERIC	↓		FIELD PREP:	NA		
TOP DEPTH:	0	0.5		SAMPLE USAGE:	INV		↓
BOTTOM DEPTH:	0	1.0		SCREEN/PORT DESC:			NA
FIELD MATRIX:	R	R		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
				WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA				BOREHOLE DECLINATION:	NA		
				BOREHOLE DIRECTION:	NA		

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

SAMPLE DESC:

Pinkish gray, tuff

FTB: RE36-10-7454

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-9

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha \pm 15 dpm
Beta/Gamma \pm 2100 dpm



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

77m 2/24/10

COLLECTED BY (PRINT)

Th McFarlang

REVIEWED BY (PRINT) Jon Roberson

RELINQUISHED BY (Printed Name) Riley Evans (Signature) 	Date/Time 2/24/10 1634	RECEIVED BY (Printed Name)  (Signature)	Date/Time 2/24/10 4:34
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7455

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/24/2010		MEDIA:	QBT3		Allh
TIME COLLECTED(HH:MM)		1015		SUB-MEDIA:	TUFF 1		NA
PRS ID:	36-008	OK		SAMPLE TECH CODE:	HA		OK
LOCATION ID:	36-610600	↓		FIELD QC TYPE:	NA		↓
LOCATION TYPE:	GENERIC	↓		FIELD PREP:	NA		↓
TOP DEPTH:	0	0.0		SAMPLE USAGE:	INV		↓
BOTTOM DEPTH:	0	0.5		SCREEN/PORT DESC:			NA
FIELD MATRIX:	R	S		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		WATER FLOWING: YES/NO/NA
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION:	NA	BOREHOLE DIRECTION:	NA		

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

SAMPLE DESC: moist brown silty sand

SAMPLE COMMENTS: NA

LOCATION DESC: 8-24

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha \leq 30 dpm
Beta/Gamma \leq 1760 dpm

73m 2/24/10
PID $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$

COLLECTED BY (PRINT)

REVIEWED BY (PRINT) Jon Roberson

Th McFarland

RELINQUISHED BY (Printed Name) Riley Warrs (Signature)	Date/Time 2/24/10 1634	RECEIVED BY (Printed Name) (Signature)	Date/Time 2/24/10 4:34
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7456

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/24/2010		MEDIA:	QBT3		JR 2/24/10
TIME COLLECTED (HH:MM)		1025		SUB-MEDIA:	TUFF 1		OK QBT2
PRS ID:	36-008	ok		SAMPLE TECH CODE:	HA		ok
LOCATION ID:	36-610600			FIELD QC TYPE:	NA		
LOCATION TYPE:	GENERIC			FIELD PREP:	NA		
TOP DEPTH:	0	73m 2/24/10	1.0	SAMPLE USAGE:	INV		
BOTTOM DEPTH:	0		2.0	SCREEN/PORT DESC:			NA
FIELD MATRIX:	R	R		EXCAVATED: YES/NO	NA		
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
BOREHOLE: YES/NO/NA				BOREHOLE DECLINATION:	NA		
				BOREHOLE DIRECTION:	NA		

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

SAMPLE DESC:

Pinkish gray tuff

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-24

FIELD SCREENING/MEASUREMENT RESULTS:


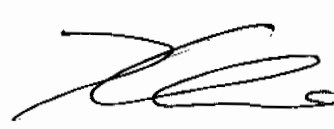
Alpha \leq 36 dpm
Beta/Gamma \leq 1865 dpm

PID $\frac{\text{Ambient Reading}}{73m 2/24/10} = \text{ppm}$

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT) Jon Robertson

RELINQUISHED BY (Printed Name) Rkey Ward (Signature) 	Date/Time 2/24/10 1634	RECEIVED BY (Printed Name)  (Signature)	Date/Time 2/24/10 4:34
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7457

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/24/2010		MEDIA:	QBT3		Allh
TIME COLLECTED(HH:MM)		1030		SUB-MEDIA:	TUFF 1		NA
PRS ID:	36-008	ok		SAMPLE TECH CODE:	HA		ok
LOCATION ID:	36-610601	↓		FIELD QC TYPE:	NA		↓
LOCATION TYPE:	GENERIC	↓		FIELD PREP:	NA		↓
TOP DEPTH:	0	0.0		SAMPLE USAGE:	INV		↓
BOTTOM DEPTH:	0	0.5		SCREEN/PORT DESC:			NA
FIELD MATRIX:	R	S		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		WATER FLOWING: YES/NO/NA
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION:	NA	BOREHOLE DIRECTION:	NA		

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

SAMPLE DESC:

Brownish black moist sandy silt, roots

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-10

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha \leq 10 dpm
Beta/Gamma \leq 1720 dpm

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


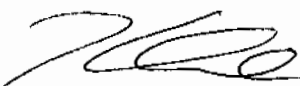
73m 2/24/10

COLLECTED BY (PRINT)

Th McFarlane

REVIEWED BY (PRINT)

Jon Roberson

RELINQUISHED BY (Printed Name) Riley Evans (Signature) 	Date/Time 2/24/10 1634	RECEIVED BY (Printed Name)  (Signature)	Date/Time 2/24/10 4:34
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7458

WORK ORDER:

AS PLANNED		AS COLLECTED	AS PLANNED		AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/24/2010	MEDIA:		QBT3
TIME COLLECTED (HH:MM)		1041	SUB-MEDIA:		TUFF 1
PRS ID:	36-008	ok	SAMPLE TECH CODE:		HA
LOCATION ID:	36-610601	↓	FIELD QC TYPE:		NA
LOCATION TYPE:	GENERIC	↓	FIELD PREP:		NA
TOP DEPTH:	0	2.0	SAMPLE USAGE:		INV
BOTTOM DEPTH:	0	3.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES/NO/NA		
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA	WATER FLOWING: YES/NO/NA		
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA	BOREHOLE DIRECTION: NA		

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

SAMPLE DESC:

Brown sandy silt, roots, tuff fragments

FR: RE36-10-7530

SAMPLE COMMENTS:

LOCATION DESC:

8-10

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha \leq 56 dpm
Beta/Gamma \leq 1930 dpm

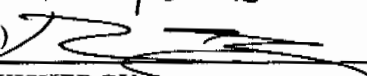

PID $\frac{\text{Ambient Reading}}{73m \ 2/24/10} = \text{ppm}$

COLLECTED BY (PRINT)

T.M. O'Farrell

REVIEWED BY (PRINT)

Jon Roberson

RELINQUISHED BY (Printed Name) Riley Evans (Signature) 	Date/Time 2/24/10 1634	RECEIVED BY (Printed Name)  (Signature)	Date/Time 2/24/10 4:34
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7459

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/24/2010		MEDIA:	QBT3		A11h
TIME COLLECTED (HH:MM)		11:15		SUB-MEDIA:	TUFF 1		NA
PRS ID:	36-008	ok		SAMPLE TECH CODE:	HA		ok
LOCATION ID:	36-610602	↓		FIELD QC TYPE:	NA		↓
LOCATION TYPE:	GENERIC			FIELD PREP:	NA		↓
TOP DEPTH:	0	0.0		SAMPLE USAGE:	INV		↓
BOTTOM DEPTH:	0	0.5		SCREEN/PORT DESC:			NA
FIELD MATRIX:	R	S		EXCAVATED: YES/NO/NA	NO		
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		WATER FLOWING: YES/NO/NA
BOREHOLE: YES/NO/NA	NO			BOREHOLE DECLINATION:	NA		BOREHOLE DIRECTION: NA

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

SAMPLE DESC:

Brown and black sandy silt, tuff fragments, roots

FD: RE 36-10-7519

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-23

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha \pm 2.0 dpm
Beta/Gamma \pm 2010 dpm

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

73m 2/24/10

COLLECTED BY (PRINT)

Th McFarlane

REVIEWED BY (PRINT)

Jon Roberson

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Riley Evans	2/24/10	(Printed Name)	2/24/10
(Signature)	1634	(Signature)	4134
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7460

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/24/2010		MEDIA:		OBT3	
TIME COLLECTED (HH:MM)		1128		SUB-MEDIA:		TUFF 1	
PRS ID: 36-008		OK		SAMPLE TECH CODE:		HA	
LOCATION ID: 36-610602		↓		FIELD QC TYPE:		NA	
LOCATION TYPE: GENERIC		↓		FIELD PREP:		NA	
TOP DEPTH: 0		1.5		SAMPLE USAGE:		INV	
BOTTOM DEPTH: 0		2.6		SCREEN/PORT DESC:		NA	
FIELD MATRIX: R		R		EXCAVATED: YES (NO) / NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES (NO) / NA			
BOREHOLE: YES (NO) / NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

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

SAMPLE DESC: Light brown tuff, slightly moist, some soil

SAMPLE COMMENTS: NA

LOCATION DESC: 8-23

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha \leq 41 dpm
Beta/Gamma \leq 1963 dpm

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

77m 2/24/10

COLLECTED BY (PRINT)

ThMcFarlane

REVIEWED BY (PRINT)

Jon Roberson

RELINQUISHED BY (Printed Name) Riley Evans (Signature)	Date/Time 2/24/10 1634	RECEIVED BY (Printed Name) (Signature)	Date/Time 2/24/10 4334
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7519

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/24/2010		MEDIA: QBT3		Allh	
TIME COLLECTED(HH:MM)		1115		SUB-MEDIA: TUFF 1		NA	
PRS ID: 36-008		OK		SAMPLE TECH CODE: HA		OK	
LOCATION ID: UNK		36-610602		FIELD QC TYPE: ED		↓	
LOCATION TYPE: GENERIC		OK		FIELD PREP: NA			
TOP DEPTH: 0		0.0		SAMPLE USAGE: QC			
BOTTOM DEPTH: 0		0.5		SCREEN/PORT DESC:		NA	
FIELD MATRIX: R		S		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	73m 2/24/10 8082+8270+NME D-EXP	500 ML AMBER GLASS	Ice	Y	
1		8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		METALS+U- GEL	125 ML POLY	Ice	Y	
1		Perchlorate+CN+ N03+pH	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE 36-10-75 73m 2/24/10

7459

SAMPLE COMMENTS: Brown and black sandy silt, tuff fragments, roots

NA

LOCATION DESC: 8-23

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha \pm 20 dpm
Beta/Gamma \pm 2016 dpmPID $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$

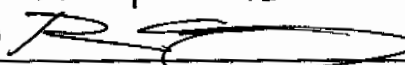

73m 2/24/10

COLLECTED BY (PRINT)

Th McFarland

REVIEWED BY (PRINT)

Jon Roberson

RELINQUISHED BY (Printed Name) Riley Evans (Signature) 	Date/Time 2/21/10 1634	RECEIVED BY (Printed Name)  (Signature)	Date/Time 2/24/10 4:34
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7520

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/24/2010		MEDIA:	QBT3		Alln
TIME COLLECTED(HH:MM)		0854 - 0945 - 12m 2/24/10		SUB-MEDIA:	TUFF 1		NA
PRS ID:	36-008		011	SAMPLE TECH CODE:	HA		ok
LOCATION ID:	UNK		36-610599	FIELD QC TYPE:	FD		
LOCATION TYPE:	GENERIC		ok	FIELD PREP:	NA		
TOP DEPTH:	0	0.0	0.5 - 12m 2/24/10	SAMPLE USAGE:	QC		
BOTTOM DEPTH:	0	0.5	1.0 - 12m 2/24/10	SCREEN/PORT DESC:			NA
FIELD MATRIX:	B		S	EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		WATER FLOWING: YES/NO/NA
BOREHOLE: YES/NO/NA				BOREHOLE DECLINATION:	NA		BOREHOLE DIRECTION: NA

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

SAMPLE DESC: QC Sample of RE36-10-7453

Brown sandy silt, leaves, tuff fragments

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-9

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha < _____ dpm
Beta/Gamma < _____ dpm

PID Ambient Reading = ppm

12m 2/24/10

COLLECTED BY (PRINT)

T. McFarland

REVIEWED BY (PRINT)

Jon Roberson

RELINQUISHED BY (Printed Name) R. Key WMS (Signature)	Date/Time 2/24/10 1634	RECEIVED BY (Printed Name) (Signature)	Date/Time 2/24/10 4:34
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7530

WORK ORDER:

AS PLANNED	AS COLLECTED	AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):	02/24/2010	MEDIA:	NA
TIME COLLECTED (HH:MM)	11 11	SUB-MEDIA:	OTHER
PRS ID: 36-008	ok	SAMPLE TECH CODE: DC	
LOCATION ID: UNK	36-610601	FIELD QC TYPE: FR	
LOCATION TYPE: GENERIC	ok	FIELD PREP: UF	
TOP DEPTH: 0		SAMPLE USAGE: QC	
BOTTOM DEPTH: 0		SCREEN/PORT DESC:	NA
FIELD MATRIX: W		EXCAVATED: YES/NO/NA	
COMPOSITE TYPE: NA	COMPOSITE TIME INTERVAL: NA	WATER FLOWING: YES/NO/NA	
BOREHOLE: YES/NO/NA	BOREHOLE DECLINATION: NA	BOREHOLE DIRECTION: NA	

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	METALS+U-GEL	1 LITER POLY	Nitric Acid	Y	
1		NO3NO2	250 ML POLY	Sulfuric Acid (Hydrogen Sulfate)	N	
1	Normal	SW-846:6850	250 ML POLY	Ice	Y	
1	Normal	TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE 36-10-7458

SAMPLE COMMENTS:

Rinsate

LOCATION DESC:

NA

FIELD SCREENING/MEASUREMENT RESULTS:




NA

COLLECTED BY (PRINT)

Th McFarland

REVIEWED BY (PRINT)

Jon Roberson

RELINQUISHED BY (Printed Name) Riley Evans (Signature) 	Date/Time 2/24/10 1634	RECEIVED BY (Printed Name)  (Signature) 	Date/Time 2/24/10 4:34
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7542

WORK ORDER:

AS PLANNED	AS COLLECTED	AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):	02/24/2010	MEDIA:	NA
TIME COLLECTED (HH:MM)	1014	SUB-MEDIA:	OTHER
PRS ID: 36-008	OK	SAMPLE TECH CODE: DC	
LOCATION ID: UNK	36-610599	FIELD QC TYPE: FTB	
LOCATION TYPE: GENERIC	OK	FIELD PREP: NA	
TOP DEPTH: 0		SAMPLE USAGE: QC	
BOTTOM DEPTH: 0		SCREEN/PORT DESC:	NA
FIELD MATRIX: S		EXCAVATED: YES/NO/NA	
COMPOSITE TYPE: NA	COMPOSITE TIME INTERVAL: NA	WATER FLOWING: YES/NO/NA	
BOREHOLE: YES/NO/NA	BOREHOLE DECLINATION: NA	BOREHOLE DIRECTION: NA	

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
12m 2/24/10						
1	Normal	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE36-10-7454

SAMPLE COMMENTS:

FTB

LOCATION DESC:

NA



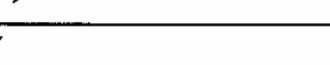
FIELD SCREENING/MEASUREMENT RESULTS:

NA

COLLECTED BY (PRINT)

TL McFarlane

REVIEWED BY (PRINT) Jon Roberson

RELINQUISHED BY (Printed Name) Riley Evans (Signature) 	Date/Time 2/24/10 1634	RECEIVED BY (Printed Name)  (Signature) 	Date/Time 2/24/10 4134
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

Rad Screening Data Release Form

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

RE 36-10-7453	RE 36-10 - 8283
7454	8284
7455	8285
7456	8286
7457	8464
7458	8475
7459	8477
7460	8471
7519	8479
7520	8481
	8484
	8485

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

.....

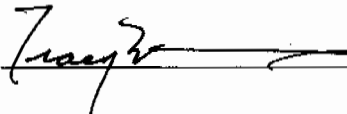
The following samples do not require rad screening data for the reasons stated (list sample numbers):

RE 36-10-7530	Rinsate
7542	FTB
8296	FTB
8493	Rinsate

Reason:

.....

Print Last Name McFarland

Signature 

Date 2/24/10

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only



Section I.

REQUEST NUMBER: 10-2135 VALIDATION DATE: 4/26/10 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 | <input type="checkbox"/> PESTICIDES/POLYCHLORINATED BIPHENYLS |
- ☐ OTHER (DESCRIBE): _____

Section II. Completeness Check

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


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

1. It should be noted that the aqueous MS and MSD parent sample was from another LANL RN and the raw data for the parent sample were not included in the package. No sample data were qualified as a result.


Reviewed by: Monica Dymerski Level I Date: 04/27/10

VALIDATOR'S SIGNATURE: _____


DATE: 4/26/10

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

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

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 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"/>	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R, PERC7f
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
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"/>	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: 959046
 Extraction Type: Filter/DAI
 Client Sample No. RE36-10-7530
 Date Received: 27-FEB-10
 GEL Job No (SDG): 10-2135-1
 GEL Sample ID: 248242001
 Date Filtered: 05-MAR-10
 Injection Volume (uL): 20
 %Solids:

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

CAS No.	Analyte ^a	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	09-MAR-10 11:34	per0308132a
	Perchlorate Isotope Ratio						1	09-MAR-10 11:34	per0308132a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	09-MAR-10 11:34	per0308132a
	Perchlorate-O(18)			0.451	ug/L		1	09-MAR-10 11:34	per0308132a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1 %Solids
 Aliquot

LMF
 4/26/10

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: 959033
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE36-10-7458
 Date Received: 27-FEB-10
 GEL Job No (SDG): 10-2135
 GEL Sample ID: 248241001
 Date Filtered: 15-MAR-10
 Injection Volume (uL): 20
 %Solids: 86

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.583	2.33	3.84	ug/kg		1	22-MAR-10 14:20	per0322015a
	Perchlorate Isotope Ratio			3.02			1	22-MAR-10 14:20	per0322015a
14797-73-0	Perchlorate-101	.583	2.33	3.87	ug/kg		1	22-MAR-10 14:20	per0322015a
	Perchlorate-O(18)			5.87	ug/kg		1	22-MAR-10 14:20	per0322015a

[^] 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
 4/26/10

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: 959033

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7453

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2135

GEL Sample ID: 248241002

Date Filtered: 15-MAR-10

Injection Volume (uL): 20

%Solids: 55

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.905	3.62	0.905	ug/kg	U	1	22-MAR-10 14:32	per0322016a
	Perchlorate Isotope Ratio						1	22-MAR-10 14:32	per0322016a
14797-73-0	Perchlorate-101	.905	3.62	0.905	ug/kg	U	1	22-MAR-10 14:32	per0322016a
	Perchlorate-O(18)			9.09	ug/kg		1	22-MAR-10 14:32	per0322016a

[^] 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
4/26/10

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: 959033

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7454

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2135

GEL Sample ID: 248241003

Date Filtered: 15-MAR-10

Injection Volume (uL): 20

%Solids: 91.8

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.544	2.18	0.544	ug/kg	U	1	22-MAR-10 15:08	per0322019a
	Perchlorate Isotope Ratio						1	22-MAR-10 15:08	per0322019a
14797-73-0	Perchlorate-101	.544	2.18	0.544	ug/kg	U	1	22-MAR-10 15:08	per0322019a
	Perchlorate-O(18)			5.30	ug/kg		1	22-MAR-10 15:08	per0322019a

[^] 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
4/26/10

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: 959033

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7460

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2135

GEL Sample ID: 248241004

Date Filtered: 15-MAR-10

Injection Volume (uL): 20

%Solids: 90.5

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.552	2.21	2.41	ug/kg		1	22-MAR-10 15:20	per0322020a
	Perchlorate Isotope Ratio			2.99			1	22-MAR-10 15:20	per0322020a
14797-73-0	Perchlorate-101	.552	2.21	2.46	ug/kg		1	22-MAR-10 15:20	per0322020a
	Perchlorate-O(18)			5.29	ug/kg		1	22-MAR-10 15:20	per0322020a

[^] 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
4/26/10

Form I

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 259033

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7456

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2135

GEL Sample ID: 248241005

Date Filtered: 15-MAR-10

Injection Volume (uL): 20

%Solids: 92.5

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.54	2.16	1.78	ug/kg	J	1	22-MAR-10 15:32	per0322021a
	Perchlorate Isotope Ratio			3.04			1	22-MAR-10 15:32	per0322021a
14797-73-0	Perchlorate-101	.54	2.16	1.78	ug/kg	J	1	22-MAR-10 15:32	per0322021a
	Perchlorate-O(18)			5.44	ug/kg		1	22-MAR-10 15:32	per0322021a

[^] 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
4/26/10

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: 959033

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7455

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2135

GEL Sample ID: 248241006

Date Filtered: 15-MAR-10

Injection Volume (uL): 20

%Solids: 76

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.662	2.65	2.06	ug/kg	J	1	22-MAR-10 16:21	per0322025a
	Perchlorate Isotope Ratio			3.04			1	22-MAR-10 16:21	per0322025a
14797-73-0	Perchlorate-101	.662	2.65	2.06	ug/kg	J	1	22-MAR-10 16:21	per0322025a
	Perchlorate-O(18)			6.62	ug/kg		1	22-MAR-10 16:21	per0322025a

[^] 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
4/26/10

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: 959033

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7459

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2135

GEL Sample ID: 248241007

Date Filtered: 15-MAR-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte ^a	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.615	2.46	4.14	ug/kg		1	22-MAR-10 16:33	per0322026a
	Perchlorate Isotope Ratio			3.04			1	22-MAR-10 16:33	per0322026a
14797-73-0	Perchlorate-101	.615	2.46	4.13	ug/kg		1	22-MAR-10 16:33	per0322026a
	Perchlorate-O(18)			5.90	ug/kg		1	22-MAR-10 16:33	per0322026a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1
Aliquot %Solids

LMF
4/26/10

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: 959033

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7457

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2135

GEL Sample ID: 248241008

Date Filtered: 15-MAR-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.616	2.46	4.33	ug/kg		1	22-MAR-10 16:45	per0322027a
	Perchlorate Isotope Ratio			2.86			1	22-MAR-10 16:45	per0322027a
14797-73-0	Perchlorate-101	.616	2.46	4.59	ug/kg		1	22-MAR-10 16:45	per0322027a
	Perchlorate-O(18)			5.76	ug/kg		1	22-MAR-10 16:45	per0322027a

[^] 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
4/26/10

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 259033

Extraction Type: Solid Prep

Client Sample No.

RE36-10-7520

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2135

GEL Sample ID: 248241009

Date Filtered: 15-MAR-10

Injection Volume (uL): 20

%Solids: 58

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	.866	3.46	0.866	ug/kg	U	1	22-MAR-10 16:57	per0322028a
	Perchlorate Isotope Ratio						1	22-MAR-10 16:57	per0322028a
14797-73-0	Perchlorate-101	.866	3.46	0.866	ug/kg	U	1	22-MAR-10 16:57	per0322028a
	Perchlorate-O(18)			8.68	ug/kg		1	22-MAR-10 16:57	per0322028a

[^] 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
4/26/10

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: 959033
 Extraction Type: Solid Prep
 Client Sample No.: RE36-10-7519
 Date Received: 27-FEB-10
 GEL Job No (SDG): 10-2135
 GEL Sample ID: 248241010
 Date Filtered: 15-MAR-10
 Injection Volume (uL): 20
 %Solids: 79

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	.633	2.53	3.39	ug/kg		1	22-MAR-10 17:09	per0322029a
	Perchlorate Isotope Ratio			2.93			1	22-MAR-10 17:09	per0322029a
14797-73-0	Perchlorate-101	.633	2.53	3.51	ug/kg		1	22-MAR-10 17:09	per0322029a
	Perchlorate-O(18)			6.24	ug/kg		1	22-MAR-10 17:09	per0322029a

[^] 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
 4/26/10

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only



Section I.

REQUEST NUMBER: 10-2135 VALIDATION DATE: 4/26/10 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 |


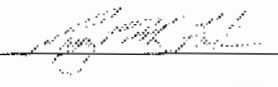
Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):


1. In the aqueous MB, Pb was detected. The associated sample result was a detect $\leq 5X$ the MB concentration and, thus, was qualified U,I4.
2. In the aqueous ICB and/or CCBs, K and Tl were detected. The associated sample results were detects $\leq 5X$ the greatest blank concentration and, thus, were qualified U,I4b. In the soil ICB and/or CCBs, Mg, Sb, and Tl were detected. The result for Tl in sample RE36-10-7458 was a detect $\leq 5X$ the greatest blank concentration and, thus, was qualified U,I4b. All other associated sample results were either detects $> 5X$ the greatest blank concentration or were NDs and, thus, were not qualified.
3. In the FR blank (sample -7530) associated with all of the field samples, Na was detected. The associated results in samples -7455, -7459, and -7460 were detects $\leq 5X$ the FR blank concentration and, thus, was qualified U,I4b. All other associated sample results were detects $> 5X$ the FR blank concentration and, thus, were not qualified.
4. The soil MS %Rs were $>$ the laboratory UAL for Mg and K. The associated sample results were detects and, thus, were qualified J+,I6b. The soil MS %R was also $>$ the laboratory UAL for Al. However, the associated parent sample result was $> 4X$ the spike concentration and, thus, no sample results were qualified, based on professional judgment.
5. It should be noted that the aqueous matrix QC parent sample was from another LANL RN. No sample results were qualified as a result.

Reviewed by: Monica Dymerski


Level I

Date: 04/27/10


DATA VALIDATION COVER SHEET	
5118-1	Records Use only
Data Validation Cover Sheet	 Los Alamos NATIONAL LABORATORY EST. 1945
VALIDATOR'S SIGNATURE:  DATE: 4/26/10	
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16. The sample result is $\leq 5X$ the concentration of the related analyte in the method blank.	U, I4	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was $> 5X$.	N/A	J, I4a
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18. The sample result is $\leq 5X$ the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20. The sample result is $\leq 5X$ the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	22. The associated matrix spike recovery was $< 10\%$. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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: 10-2135-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248242001

BASIS: As Received

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-7530

LEVEL: Low

DATE RECEIVED 27-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	03/31/10 09:38	033110A-1	959141
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	PRB	04/13/10 12:14	100413-3	959143
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	03/31/10 09:38	033110A-1	959141
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 09:38	033110A-1	959141
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BCDI	04/12/10 07:33	100411-2	959143
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BCDI	04/12/10 07:33	100411-2	959143
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	03/31/10 09:38	033110A-1	959141
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 09:38	033110A-1	959141
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 09:38	033110A-1	959141
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	03/31/10 09:38	033110A-1	959141
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	03/31/10 09:38	033110A-1	959141
7439-92-1	Lead U,14	0.659	ug/L	J	0.5	2	2	1	MS	BCDI	04/12/10 07:33	100411-2	959143
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	03/31/10 09:38	033110A-1	959141
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BCDI	04/12/10 07:33	100411-2	959143
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	03/02/10 12:35	030210W3-6	958969
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	03/31/10 09:38	033110A-1	959141
7440-09-7	Potassium U,14b	76.4	ug/L	J	50	150	150	1	P	HSC	03/31/10 09:38	033110A-1	959141
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	03/31/10 09:38	033110A-1	959141
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 09:38	033110A-1	959141
7440-23-5	Sodium	148	ug/L	J	100	300	300	1	P	HSC	03/31/10 09:38	033110A-1	959141
7440-28-0	Thallium U,14b	0.671	ug/L	J	0.3	1	1	1	MS	BCDI	04/12/10 07:33	100411-2	959143
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	PRB	04/13/10 15:32	100413-5	959143
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 09:38	033110A-1	959141
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	03/31/10 09:38	033110A-1	959141

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958969	958967	SW846 7470A Prep	20	mL	20	mL	03/01/10	TXB3
959141	959140	SW846 3005A	50	mL	50	mL	03/11/10	LYH1
959143	959142	SW846 3005A	50	mL	50	mL	03/11/10	LYH1

LMF
4/26/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2135

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248241001

BASIS: Dry Weight

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-7458

LEVEL: Low

DATE RECEIVED 27-FEB-10

MATRIX: SOIL

%SOLIDS: 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	6710000	ug/Kg		7780	22900	22900	1	P	HSC	03/31/10 13:32	033110-1	959146
7440-36-0	Antimony	1140	ug/Kg	U	378	1140	1140	1	P	HSC	03/31/10 13:32	033110-1	959146
7440-38-2	Arsenic	1.5	mg/kg		0.23	1.15	1.15	2	MS	PRB	04/12/10 23:35	100412-2	959148
7440-39-3	Barium	85400	ug/Kg		114	572	572	1	P	HSC	03/31/10 13:32	033110-1	959146
7440-41-7	Beryllium	0.556	mg/kg		0.023	0.115	0.115	2	MS	PRB	04/12/10 23:35	100412-2	959148
7440-43-9	Cadmium	572	ug/Kg	U	114	572	572	1	P	HSC	03/31/10 13:32	033110-1	959146
7440-70-2	Calcium	3110000	ug/Kg		9160	28600	28600	1	P	HSC	03/31/10 13:32	033110-1	959146
7440-47-3	Chromium	9670	ug/Kg		172	572	572	1	P	HSC	03/31/10 13:32	033110-1	959146
7440-48-4	Cobalt	2470	ug/Kg		172	572	572	1	P	HSC	03/31/10 13:32	033110-1	959146
7440-50-8	Copper	5410	ug/Kg		343	1140	1140	1	P	HSC	03/31/10 13:32	033110-1	959146
7439-89-6	Iron	9360000	ug/Kg		9160	28600	28600	1	P	HSC	03/31/10 13:32	033110-1	959146
7439-92-1	Lead	8860	ug/Kg		286	1140	1140	1	P	HSC	03/31/10 13:32	033110-1	959146
7439-93-4	Magnesium J+, I6b	1290000	ug/Kg	N	9730	34300	34300	1	P	HSC	03/31/10 13:32	033110-1	959146
7439-96-5	Manganese	261000	ug/Kg		229	1140	1140	1	P	HSC	03/31/10 13:32	033110-1	959146
7439-97-6	Mercury	42.8	ug/kg		4.67	13.7	13.7	1	AV	JXL1	03/16/10 11:26	031610S1-3	958974
7440-02-0	Nickel	4.68	mg/kg		0.115	0.46	0.46	2	MS	PRB	04/12/10 23:35	100412-2	959148
7440-09-7	Potassium J+, I6b	1550000	ug/Kg	N	7330	28600	28600	1	P	HSC	03/31/10 13:32	033110-1	959146
7782-49-2	Selenium	1.15	mg/kg	U	0.575	1.15	1.15	2	MS	PRB	04/12/10 23:35	100412-2	959148
7440-22-4	Silver	223	ug/Kg	J	114	572	572	1	P	HSC	03/31/10 13:32	033110-1	959146
7440-23-5	Sodium	104000	ug/Kg		8010	28600	28600	1	P	HSC	03/31/10 13:32	033110-1	959146
7440-28-0	Thallium U, I4b	0.0871	mg/kg	J	0.0689	0.23	0.23	2	MS	PRB	04/12/10 23:35	100412-2	959148
7440-61-1	Uranium	0.655	mg/kg		0.0152	0.046	0.046	2	MS	PRB	04/12/10 23:35	100412-2	959148
7440-62-2	Vanadium	12600	ug/Kg		114	572	572	1	P	HSC	03/31/10 13:32	033110-1	959146
7440-66-6	Zinc	34000	ug/Kg		378	1140	1140	1	P	HSC	03/31/10 13:32	033110-1	959146

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958974	958973	SW846 7471A Prep	0.509	g	30	mL	03/15/10	TXB3
959146	959145	SW846 3050B	0.509	g	50	mL	03/09/10	AXG2
959148	959147	SW846 3050B	0.507	g	50	mL	03/09/10	AXG2

LMF
4/26/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2135

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248241002

BASIS: Dry Weight

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-7453

LEVEL: Low

DATE RECEIVED 27-FEB-10

MATRIX: SOIL

%SOLIDS: 55

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4140000	ug/Kg		12000	35300	35300	1	P	HSC	03/31/10 14:07	033110-1	959146
7440-36-0	Antimony	1760	ug/Kg	U	582	1760	1760	1	P	HSC	03/31/10 14:07	033110-1	959146
7440-38-2	Arsenic	1.54	mg/kg	J	0.349	1.74	1.74	2	MS	PRB	04/12/10 23:55	100412-2	959148
7440-39-3	Barium	81000	ug/Kg		176	882	882	1	P	HSC	03/31/10 14:07	033110-1	959146
7440-41-7	Beryllium	0.493	mg/kg		0.0349	0.174	0.174	2	MS	PRB	04/12/10 23:55	100412-2	959148
7440-43-9	Cadmium	882	ug/Kg	U	176	882	882	1	P	HSC	03/31/10 14:07	033110-1	959146
7440-70-2	Calcium	3750000	ug/Kg		14100	44100	44100	1	P	HSC	03/31/10 14:07	033110-1	959146
7440-47-3	Chromium	9910	ug/Kg		264	882	882	1	P	HSC	03/31/10 14:07	033110-1	959146
7440-48-4	Cobalt	2300	ug/Kg		264	882	882	1	P	HSC	03/31/10 14:07	033110-1	959146
7440-50-8	Copper	7360	ug/Kg		529	1760	1760	1	P	HSC	03/31/10 14:07	033110-1	959146
7439-89-6	Iron	9170000	ug/Kg		14100	44100	44100	1	P	HSC	03/31/10 14:07	033110-1	959146
7439-92-1	Lead	14600	ug/Kg		441	1760	1760	1	P	HSC	03/31/10 14:07	033110-1	959146
7439-95-4	Magnesium J+,I6b	1010000	ug/Kg	N	15000	52900	52900	1	P	HSC	03/31/10 14:07	033110-1	959146
7439-96-5	Manganese	643000	ug/Kg		353	1760	1760	1	P	HSC	03/31/10 14:07	033110-1	959146
7439-97-6	Mercury	40.4	ug/kg		6.67	19.6	19.6	1	AV	JXL	03/16/10 11:38	031610S1-3	958974
7440-02-0	Nickel	4.47	mg/kg		0.174	0.697	0.697	2	MS	PRB	04/12/10 23:55	100412-2	959148
7440-09-7	Potassium J+,I6b	1030000	ug/Kg	N	11300	44100	44100	1	P	HSC	03/31/10 14:07	033110-1	959146
7782-49-2	Selenium	1.74	mg/kg	U	0.871	1.74	1.74	2	MS	PRB	04/12/10 23:55	100412-2	959148
7440-22-4	Silver	209	ug/Kg	J	176	882	882	1	P	HSC	03/31/10 14:07	033110-1	959146
7440-23-5	Sodium	184000	ug/Kg		12300	44100	44100	1	P	HSC	03/31/10 14:07	033110-1	959146
7440-28-0	Thallium	0.349	mg/kg	U	0.105	0.349	0.349	2	MS	PRB	04/12/10 23:55	100412-2	959148
7440-61-1	Uranium	1.2	mg/kg		0.023	0.0697	0.0697	2	MS	PRB	04/12/10 23:55	100412-2	959148
7440-62-2	Vanadium	8820	ug/Kg		176	882	882	1	P	HSC	03/31/10 14:07	033110-1	959146
7440-66-6	Zinc	55500	ug/Kg		582	1760	1760	1	P	HSC	03/31/10 14:07	033110-1	959146

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958974	958973	SW846 7471A Prep	0.553	g	30	mL	03/15/10	TXB3
959146	959145	SW846 3050B	0.513	g	50	mL	03/09/10	AXG2
959148	959147	SW846 3050B	0.519	g	50	mL	03/09/10	AXG2

LMF
4/26/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2135

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248241003

BASIS: Dry Weight

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-7454

LEVEL: Low

DATE RECEIVED 27-FEB-10

MATRIX: SOIL

%SOLIDS: 91.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1680000	ug/Kg		7170	21100	21100	1	P	HSC	03/31/10 14:28	033110-1	959146
7440-36-0	Antimony	1060	ug/Kg	U	348	1060	1060	1	P	HSC	03/31/10 14:28	033110-1	959146
7440-38-2	Arsenic	0.514	mg/kg	J	0.209	1.04	1.04	2	MS	PRB	04/13/10 00:08	100412-2	959148
7440-39-3	Barium	19600	ug/Kg		106	528	528	1	P	HSC	03/31/10 14:28	033110-1	959146
7440-41-7	Beryllium	0.351	mg/kg		0.0209	0.104	0.104	2	MS	PRB	04/13/10 00:08	100412-2	959148
7440-43-9	Cadmium	528	ug/Kg	U	106	528	528	1	P	HSC	03/31/10 14:28	033110-1	959146
7440-70-2	Calcium	298000	ug/Kg		8440	26400	26400	1	P	HSC	03/31/10 14:28	033110-1	959146
7440-47-3	Chromium	11700	ug/Kg		158	528	528	1	P	HSC	03/31/10 14:28	033110-1	959146
7440-48-4	Cobalt	896	ug/Kg		158	528	528	1	P	HSC	03/31/10 14:28	033110-1	959146
7440-50-8	Copper	1790	ug/Kg		317	1060	1060	1	P	HSC	03/31/10 14:28	033110-1	959146
7439-89-6	Iron	6690000	ug/Kg		8440	26400	26400	1	P	HSC	03/31/10 14:28	033110-1	959146
7439-92-1	Lead	4820	ug/Kg		264	1060	1060	1	P	HSC	03/31/10 14:28	033110-1	959146
7439-95-4	Magnesium J+,16b	194000	ug/Kg	N	8970	31700	31700	1	P	HSC	03/31/10 14:28	033110-1	959146
7439-96-5	Manganese	371000	ug/Kg		211	1060	1060	1	P	HSC	03/31/10 14:28	033110-1	959146
7439-97-6	Mercury	8.56	ug/kg	J	4.44	13.1	13.1	1	AV	JXL	03/16/10 11:40	031610S1-3	958974
7440-02-0	Nickel	3.24	mg/kg		0.104	0.418	0.418	2	MS	PRB	04/13/10 00:08	100412-2	959148
7440-09-7	Potassium J+,16b	522000	ug/Kg	N	6750	26400	26400	1	P	HSC	03/31/10 14:28	033110-1	959146
7782-49-2	Selenium	1.04	mg/kg	U	0.522	1.04	1.04	2	MS	PRB	04/13/10 00:08	100412-2	959148
7440-22-4	Silver	162	ug/Kg	J	106	528	528	1	P	HSC	03/31/10 14:28	033110-1	959146
7440-23-5	Sodium	317000	ug/Kg		7390	26400	26400	1	P	HSC	03/31/10 14:28	033110-1	959146
7440-28-0	Thallium	0.209	mg/kg	U	0.0627	0.209	0.209	2	MS	PRB	04/13/10 00:08	100412-2	959148
7440-61-1	Uranium	0.511	mg/kg		0.0138	0.0418	0.0418	2	MS	PRB	04/13/10 00:08	100412-2	959148
7440-62-2	Vanadium	2460	ug/Kg		106	528	528	1	P	HSC	03/31/10 14:28	033110-1	959146
7440-66-6	Zinc	41400	ug/Kg		348	1060	1060	1	P	HSC	03/31/10 14:28	033110-1	959146

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958974	958973	SW846 7471A Prep	0.5	g	30	mL	03/15/10	TXB3
959146	959145	SW846 3050B	0.516	g	50	mL	03/09/10	AXG2
959148	959147	SW846 3050B	0.521	g	50	mL	03/09/10	AXG2

LMF
4/26/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2135

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248241004

BASIS: Dry Weight

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-7460

LEVEL: Low

DATE RECEIVED 27-FEB-10

MATRIX: SOIL

%SOLIDS: 90.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4760000	ug/Kg		7110	20900	20900	1	P	HSC	03/31/10 14:35	033110-1	959146
7440-36-0	Antimony	1050	ug/Kg	U	345	1050	1050	1	P	HSC	03/31/10 14:35	033110-1	959146
7440-38-2	Arsenic	1.5	mg/kg		0.219	1.09	1.09	2	MS	PRB	04/13/10 00:12	100412-2	959148
7440-39-3	Barium	40000	ug/Kg		105	523	523	1	P	HSC	03/31/10 14:35	033110-1	959146
7440-41-7	Beryllium	2.44	mg/kg		0.0219	0.109	0.109	2	MS	PRB	04/13/10 00:12	100412-2	959148
7440-43-6	Cadmium	523	ug/Kg	U	105	523	523	1	P	HSC	03/31/10 14:35	033110-1	959146
7440-70-2	Calcium	1550000	ug/Kg		8370	26200	26200	1	P	HSC	03/31/10 14:35	033110-1	959146
7440-47-3	Chromium	17900	ug/Kg		157	523	523	1	P	HSC	03/31/10 14:35	033110-1	959146
7440-48-4	Cobalt	1370	ug/Kg		157	523	523	1	P	HSC	03/31/10 14:35	033110-1	959146
7440-50-8	Copper	3470	ug/Kg		314	1050	1050	1	P	HSC	03/31/10 14:35	033110-1	959146
7439-89-6	Iron	9440000	ug/Kg		8370	26200	26200	1	P	HSC	03/31/10 14:35	033110-1	959146
7439-92-1	Lead	5680	ug/Kg		262	1050	1050	1	P	HSC	03/31/10 14:35	033110-1	959146
7439-95-4	Magnesium J+, I6b	938000	ug/Kg	N	8890	31400	31400	1	P	HSC	03/31/10 14:35	033110-1	959146
7439-96-5	Manganese	274000	ug/Kg		209	1050	1050	1	P	HSC	03/31/10 14:35	033110-1	959146
7439-97-6	Mercury	23.9	ug/kg		4.39	12.9	12.9	1	AV	JXL1	03/16/10 11:42	031610S1-3	958974
7440-02-0	Nickel	5.42	mg/kg		0.109	0.438	0.438	2	MS	PRB	04/13/10 00:12	100412-2	959148
7440-09-7	Potassium J+, I6b	826000	ug/Kg	N	6700	26200	26200	1	P	HSC	03/31/10 14:35	033110-1	959146
7782-49-2	Selenium	1.09	mg/kg	U	0.547	1.09	1.09	2	MS	PRB	04/13/10 00:12	100412-2	959148
7440-22-4	Silver	523	ug/Kg	U	105	523	523	1	P	HSC	03/31/10 14:35	033110-1	959146
7440-23-5	Sodium U, I4d	63900	ug/Kg		7320	26200	26200	1	P	HSC	03/31/10 14:35	033110-1	959146
7440-28-0	Thallium	0.219	mg/kg	U	0.0656	0.219	0.219	2	MS	PRB	04/13/10 00:12	100412-2	959148
7440-61-1	Uranium	1.08	mg/kg		0.0144	0.0438	0.0438	2	MS	PRB	04/13/10 00:12	100412-2	959148
7440-62-2	Vanadium	10200	ug/Kg		105	523	523	1	P	HSC	03/31/10 14:35	033110-1	959146
7440-66-6	Zinc	39100	ug/Kg		345	1050	1050	1	P	HSC	03/31/10 14:35	033110-1	959146

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958974	958973	SW846 7471A Prep	0.514	g	30	mL	03/15/10	TXB3
959146	959145	SW846 3050B	0.528	g	50	mL	03/09/10	AXG2
959148	959147	SW846 3050B	0.505	g	50	mL	03/09/10	AXG2

LMF
4/26/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2135

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248241005

BASIS: Dry Weight

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-7456

LEVEL: Low

DATE RECEIVED 27-FEB-10

MATRIX: SOIL

%SOLIDS: 92.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4430000	ug/Kg		7280	21400	21400	1	P	HSC	03/31/10 14:42	033110-1	959146
7440-36-0	Antimony	1070	ug/Kg	U	353	1070	1070	1	P	HSC	03/31/10 14:42	033110-1	959146
7440-38-2	Arsenic	1.37	mg/kg		0.216	1.08	1.08	2	MS	PRB	04/13/10 00:16	100412-2	959148
7440-39-3	Barium	54200	ug/Kg		107	535	535	1	P	HSC	03/31/10 14:42	033110-1	959146
7440-41-7	Beryllium	0.494	mg/kg		0.0216	0.108	0.108	2	MS	PRB	04/13/10 00:16	100412-2	959148
7440-43-9	Cadmium	535	ug/Kg	U	107	535	535	1	P	HSC	03/31/10 14:42	033110-1	959146
7440-70-2	Calcium	1650000	ug/Kg		8560	26800	26800	1	P	HSC	03/31/10 14:42	033110-1	959146
7440-47-3	Chromium	13500	ug/Kg		161	535	535	1	P	HSC	03/31/10 14:42	033110-1	959146
7440-48-4	Cobalt	1490	ug/Kg		161	535	535	1	P	HSC	03/31/10 14:42	033110-1	959146
7440-50-8	Copper	3570	ug/Kg		321	1070	1070	1	P	HSC	03/31/10 14:42	033110-1	959146
7439-89-6	Iron	8650000	ug/Kg		8560	26800	26800	1	P	HSC	03/31/10 14:42	033110-1	959146
7439-92-1	Lead	7060	ug/Kg		268	1070	1070	1	P	HSC	03/31/10 14:42	033110-1	959146
7439-95-4	Magnesium J+, I6b	1040000	ug/Kg	N	9100	32100	32100	1	P	HSC	03/31/10 14:42	033110-1	959146
7439-96-5	Manganese	127000	ug/Kg		214	1070	1070	1	P	HSC	03/31/10 14:42	033110-1	959146
7439-97-6	Mercury	10.6	ug/kg	J	3.83	11.3	11.3	1	AV	JXL1	03/16/10 11:43	031610S1-3	958974
7440-02-0	Nickel	3.93	mg/kg		0.108	0.432	0.432	2	MS	PRB	04/13/10 00:16	100412-2	959148
7440-09-7	Potassium J+, I6b	574000	ug/Kg	N	6850	26800	26800	1	P	HSC	03/31/10 14:42	033110-1	959146
7782-49-2	Selenium	1.08	mg/kg	U	0.54	1.08	1.08	2	MS	PRB	04/13/10 00:16	100412-2	959148
7440-22-4	Silver	535	ug/Kg	U	107	535	535	1	P	HSC	03/31/10 14:42	033110-1	959146
7440-23-5	Sodium	99800	ug/Kg		7490	26800	26800	1	P	HSC	03/31/10 14:42	033110-1	959146
7440-28-0	Thallium	0.216	mg/kg	U	0.0649	0.216	0.216	2	MS	PRB	04/13/10 00:16	100412-2	959148
7440-61-1	Uranium	0.515	mg/kg		0.0143	0.0432	0.0432	2	MS	PRB	04/13/10 00:16	100412-2	959148
7440-62-2	Vanadium	12500	ug/Kg		107	535	535	1	P	HSC	03/31/10 14:42	033110-1	959146
7440-66-6	Zinc	30700	ug/Kg		353	1070	1070	1	P	HSC	03/31/10 14:42	033110-1	959146

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958974	958973	SW846 7471A Prep	0.576	g	30	mL	03/15/10	TXB3
959146	959145	SW846 3050B	0.505	g	50	mL	03/09/10	AXG2
959148	959147	SW846 3050B	0.5	g	50	mL	03/09/10	AXG2

LMF
4/26/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2135

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248241006

BASIS: Dry Weight

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-7455

LEVEL: Low

DATE RECEIVED 27-FEB-10

MATRIX: SOIL

%SOLIDS: 76

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7020000	ug/Kg		8570	25200	25200	1	P	HSC	03/31/10 14:49	033110-1	959146
7440-36-0	Antimony	1260	ug/Kg	U	416	1260	1260	1	P	HSC	03/31/10 14:49	033110-1	959146
7440-38-2	Arsenic	1.92	mg/kg		0.261	1.31	1.31	2	MS	PRB	04/13/10 00:20	100412-2	959148
7440-39-3	Barium	137000	ug/Kg		126	630	630	1	P	HSC	03/31/10 14:49	033110-1	959146
7440-41-7	Beryllium	0.775	mg/kg		0.0261	0.131	0.131	2	MS	PRB	04/13/10 00:20	100412-2	959148
7440-43-9	Cadmium	630	ug/Kg	U	126	630	630	1	P	HSC	03/31/10 14:49	033110-1	959146
7440-70-2	Calcium	4540000	ug/Kg		10100	31500	31500	1	P	HSC	03/31/10 14:49	033110-1	959146
7440-47-3	Chromium	6790	ug/Kg		189	630	630	1	P	HSC	03/31/10 14:49	033110-1	959146
7440-48-4	Cobalt	3100	ug/Kg		189	630	630	1	P	HSC	03/31/10 14:49	033110-1	959146
7440-50-8	Copper	8100	ug/Kg		378	1260	1260	1	P	HSC	03/31/10 14:49	033110-1	959146
7439-89-6	Iron	9330000	ug/Kg		10100	31500	31500	1	P	HSC	03/31/10 14:49	033110-1	959146
7439-92-1	Lead	15800	ug/Kg		315	1260	1260	1	P	HSC	03/31/10 14:49	033110-1	959146
7439-95-4	Magnesium J+, I6b	1710000	ug/Kg	N	10700	37800	37800	1	P	HSC	03/31/10 14:49	033110-1	959146
7439-96-5	Manganese	485000	ug/Kg		252	1260	1260	1	P	HSC	03/31/10 14:49	033110-1	959146
7439-97-6	Mercury	73.2	ug/kg		4.83	14.2	14.2	1	AV	JXL1	03/16/10 11:45	031610S1-3	958974
7440-02-0	Nickel	5.77	mg/kg		0.131	0.523	0.523	2	MS	PRB	04/13/10 00:20	100412-2	959148
7440-09-7	Potassium J+, I6b	1250000	ug/Kg	N	8060	31500	31500	1	P	HSC	03/31/10 14:49	033110-1	959146
7782-49-2	Selenium	1.31	mg/kg	U	0.654	1.31	1.31	2	MS	PRB	04/13/10 00:20	100412-2	959148
7440-22-4	Silver	175	ug/Kg	J	126	630	630	1	P	HSC	03/31/10 14:49	033110-1	959146
7440-23-5	Sodium U, I4d	88700	ug/Kg		8820	31500	31500	1	P	HSC	03/31/10 14:49	033110-1	959146
7440-28-0	Thallium	0.261	mg/kg	U	0.0784	0.261	0.261	2	MS	PRB	04/13/10 00:20	100412-2	959148
7440-61-1	Uranium	2.34	mg/kg		0.0173	0.0523	0.0523	2	MS	PRB	04/13/10 00:20	100412-2	959148
7440-62-2	Vanadium	14400	ug/Kg		126	630	630	1	P	HSC	03/31/10 14:49	033110-1	959146
7440-66-6	Zinc	34200	ug/Kg		416	1260	1260	1	P	HSC	03/31/10 14:49	033110-1	959146

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958974	958973	SW846 7471A Prep	0.559	g	30	mL	03/15/10	TXB3
959146	959145	SW846 3050B	0.525	g	50	mL	03/09/10	AXG2
959148	959147	SW846 3050B	0.506	g	50	mL	03/09/10	AXG2

LMF
4/26/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2135

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248241007

BASIS: Dry Weight

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-7459

LEVEL: Low

DATE RECEIVED 27-FEB-10

MATRIX: SOIL

%SOLIDS: 81

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5780000	ug/Kg		8170	24000	24000	1	P	HSC	03/31/10 14:56	033110-1	959146
7440-36-0	Antimony	1200	ug/Kg	U	397	1200	1200	1	P	HSC	03/31/10 14:56	033110-1	959146
7440-38-2	Arsenic	1.69	mg/kg		0.23	1.15	1.15	2	MS	PRB	04/13/10 00:24	100412-2	959148
7440-39-3	Barium	97700	ug/Kg		120	601	601	1	P	HSC	03/31/10 14:56	033110-1	959146
7440-41-7	Beryllium	1.07	mg/kg		0.023	0.115	0.115	2	MS	PRB	04/13/10 00:24	100412-2	959148
7440-43-9	Cadmium	601	ug/Kg	U	120	601	601	1	P	HSC	03/31/10 14:56	033110-1	959146
7440-70-2	Calcium	4270000	ug/Kg		9620	30000	30000	1	P	HSC	03/31/10 14:56	033110-1	959146
7440-47-3	Chromium	6350	ug/Kg		180	601	601	1	P	HSC	03/31/10 14:56	033110-1	959146
7440-48-4	Cobalt	2690	ug/Kg		180	601	601	1	P	HSC	03/31/10 14:56	033110-1	959146
7440-50-8	Copper	6390	ug/Kg		361	1200	1200	1	P	HSC	03/31/10 14:56	033110-1	959146
7439-89-6	Iron	8060000	ug/Kg		9620	30000	30000	1	P	HSC	03/31/10 14:56	033110-1	959146
7439-92-1	Lead	11500	ug/Kg		300	1200	1200	1	P	HSC	03/31/10 14:56	033110-1	959146
7439-95-4	Magnesium J+, I6b	1420000	ug/Kg	N	10200	36100	36100	1	P	HSC	03/31/10 14:56	033110-1	959146
7439-96-5	Manganese	679000	ug/Kg		240	1200	1200	1	P	HSC	03/31/10 14:56	033110-1	959146
7439-97-6	Mercury	79	ug/kg		4.46	13.1	13.1	1	AV	JXL1	03/16/10 11:47	031610S1-3	958974
7440-02-0	Nickel	6.03	mg/kg		0.115	0.461	0.461	2	MS	PRB	04/13/10 00:24	100412-2	959148
7440-09-7	Potassium J+, I6b	1460000	ug/Kg	N	7690	30000	30000	1	P	HSC	03/31/10 14:56	033110-1	959146
7782-49-2	Selenium	1.15	mg/kg	U	0.576	1.15	1.15	2	MS	PRB	04/13/10 00:24	100412-2	959148
7440-22-4	Silver	601	ug/Kg	U	120	601	601	1	P	HSC	03/31/10 14:56	033110-1	959146
7440-23-5	Sodium U, I4d	86700	ug/Kg		8410	30000	30000	1	P	HSC	03/31/10 14:56	033110-1	959146
7440-28-0	Thallium	0.230	mg/kg	U	0.0691	0.23	0.23	2	MS	PRB	04/13/10 00:24	100412-2	959148
7440-61-1	Uranium	1.52	mg/kg		0.0152	0.0461	0.0461	2	MS	PRB	04/13/10 00:24	100412-2	959148
7440-62-2	Vanadium	12100	ug/Kg		120	601	601	1	P	HSC	03/31/10 14:56	033110-1	959146
7440-66-6	Zinc	33200	ug/Kg		397	1200	1200	1	P	HSC	03/31/10 14:56	033110-1	959146

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958974	958973	SW846 7471A Prep	0.563	g	30	mL	03/15/10	TXB3
959146	959145	SW846 3050B	0.512	g	50	mL	03/09/10	AXG2
959148	959147	SW846 3050B	0.534	g	50	mL	03/09/10	AXG2

LMF
4/26/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2135

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248241008

BASIS: Dry Weight

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-7457

LEVEL: Low

DATE RECEIVED 27-FEB-10

MATRIX: SOIL

%SOLIDS: 81

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4980000	ug/Kg		8260	24300	24300	1	P	HSC	03/31/10 15:03	033110-1	959146
7440-36-0	Antimony	1210	ug/Kg	U	401	1210	1210	1	P	HSC	03/31/10 15:03	033110-1	959146
7440-38-2	Arsenic	2.3	mg/kg		0.243	1.21	1.21	2	MS	PRB	04/13/10 00:28	100412-2	959148
7440-39-3	Barium	66800	ug/Kg		121	607	607	1	P	HSC	03/31/10 15:03	033110-1	959146
7440-41-7	Beryllium	0.638	mg/kg		0.0243	0.121	0.121	2	MS	PRB	04/13/10 00:28	100412-2	959148
7440-43-9	Cadmium	607	ug/Kg	U	121	607	607	1	P	HSC	03/31/10 15:03	033110-1	959146
7440-70-2	Calcium	3030000	ug/Kg		9720	30400	30400	1	P	HSC	03/31/10 15:03	033110-1	959146
7440-47-3	Chromium	4970	ug/Kg		182	607	607	1	P	HSC	03/31/10 15:03	033110-1	959146
7440-48-4	Cobalt	1710	ug/Kg		182	607	607	1	P	HSC	03/31/10 15:03	033110-1	959146
7440-50-8	Copper	5370	ug/Kg		364	1210	1210	1	P	HSC	03/31/10 15:03	033110-1	959146
7439-89-6	Iron	5550000	ug/Kg		9720	30400	30400	1	P	HSC	03/31/10 15:03	033110-1	959146
7439-92-1	Lead	9730	ug/Kg		304	1210	1210	1	P	HSC	03/31/10 15:03	033110-1	959146
7439-95-4	Magnesium J+, I6b	1110000	ug/Kg	N	10300	36400	36400	1	P	HSC	03/31/10 15:03	033110-1	959146
7439-96-5	Manganese	302000	ug/Kg		243	1210	1210	1	P	HSC	03/31/10 15:03	033110-1	959146
7439-97-6	Mercury	84.9	ug/kg		4.42	13	13	1	AV	JXL1	03/16/10 11:48	031610S1-3	958974
7440-02-0	Nickel	6.17	mg/kg		0.121	0.486	0.486	2	MS	PRB	04/13/10 00:28	100412-2	959148
7440-09-7	Potassium J+, I6b	1200000	ug/Kg	N	7770	30400	30400	1	P	HSC	03/31/10 15:03	033110-1	959146
7782-49-2	Selenium	1.21	mg/kg	U	0.607	1.21	1.21	2	MS	PRB	04/13/10 00:28	100412-2	959148
7440-22-4	Silver	193	ug/Kg	J	121	607	607	1	P	HSC	03/31/10 15:03	033110-1	959146
7440-23-5	Sodium	106000	ug/Kg		8500	30400	30400	1	P	HSC	03/31/10 15:03	033110-1	959146
7440-28-0	Thallium	0.243	mg/kg	U	0.0729	0.243	0.243	2	MS	PRB	04/13/10 00:28	100412-2	959148
7440-61-1	Uranium	1.69	mg/kg		0.016	0.0486	0.0486	2	MS	PRB	04/13/10 00:28	100412-2	959148
7440-62-2	Vanadium	7660	ug/Kg		121	607	607	1	P	HSC	03/31/10 15:03	033110-1	959146
7440-66-6	Zinc	24900	ug/Kg		401	1210	1210	1	P	HSC	03/31/10 15:03	033110-1	959146

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958974	958973	SW846 7471A Prep	0.568	g	30	mL	03/15/10	TXB3
959146	959145	SW846 3050B	0.507	g	50	mL	03/09/10	AXG2
959148	959147	SW846 3050B	0.507	g	50	mL	03/09/10	AXG2

LMF
4/26/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2135

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248241009

BASIS: Dry Weight

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-7520

LEVEL: Low

DATE RECEIVED 27-FEB-10

MATRIX: SOIL

%SOLIDS: 58

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3850000	ug/Kg		11600	34200	34200	1	P	HSC	03/31/10 15:11	033110-1	959146
7440-36-0	Antimony	1710	ug/Kg	U	565	1710	1710	1	P	HSC	03/31/10 15:11	033110-1	959146
7440-38-2	Arsenic	1.59	mg/kg	J	0.32	1.6	1.6	2	MS	PRB	04/13/10 00:32	100412-2	959148
7440-39-3	Barium	71400	ug/Kg		171	856	856	1	P	HSC	03/31/10 15:11	033110-1	959146
7440-41-7	Beryllium	0.549	mg/kg		0.032	0.16	0.16	2	MS	PRB	04/13/10 00:32	100412-2	959148
7440-43-9	Cadmium	856	ug/Kg	U	171	856	856	1	P	HSC	03/31/10 15:11	033110-1	959146
7440-70-2	Calcium	2990000	ug/Kg		13700	42800	42800	1	P	HSC	03/31/10 15:11	033110-1	959146
7440-47-3	Chromium	7870	ug/Kg		257	856	856	1	P	HSC	03/31/10 15:11	033110-1	959146
7440-48-4	Cobalt	2220	ug/Kg		257	856	856	1	P	HSC	03/31/10 15:11	033110-1	959146
7440-50-8	Copper	6500	ug/Kg		513	1710	1710	1	P	HSC	03/31/10 15:11	033110-1	959146
7439-89-6	Iron	9190000	ug/Kg		13700	42800	42800	1	P	HSC	03/31/10 15:11	033110-1	959146
7439-92-1	Lead	13300	ug/Kg		428	1710	1710	1	P	HSC	03/31/10 15:11	033110-1	959146
7439-95-4	Magnesium J+,16b	856000	ug/Kg	N	14500	51300	51300	1	P	HSC	03/31/10 15:11	033110-1	959146
7439-96-5	Manganese	613000	ug/Kg		342	1710	1710	1	P	HSC	03/31/10 15:11	033110-1	959146
7439-97-6	Mercury	38.3	ug/kg		6.45	19	19	1	AV	JXL1	03/16/10 11:53	031610S1-3	958974
7440-02-0	Nickel	4.66	mg/kg		0.16	0.64	0.64	2	MS	PRB	04/13/10 00:32	100412-2	959148
7440-09-7	Potassium J+,16b	949000	ug/Kg	N	11000	42800	42800	1	P	HSC	03/31/10 15:11	033110-1	959146
7782-49-2	Selenium	1.6	mg/kg	U	0.8	1.6	1.6	2	MS	PRB	04/13/10 00:32	100412-2	959148
7440-22-4	Silver	303	ug/Kg	J	171	856	856	1	P	HSC	03/31/10 15:11	033110-1	959146
7440-23-5	Sodium	199000	ug/Kg		12000	42800	42800	1	P	HSC	03/31/10 15:11	033110-1	959146
7440-28-0	Thallium	0.320	mg/kg	U	0.096	0.32	0.32	2	MS	PRB	04/13/10 00:32	100412-2	959148
7440-61-1	Uranium	1.39	mg/kg		0.0211	0.064	0.064	2	MS	PRB	04/13/10 00:32	100412-2	959148
7440-62-2	Vanadium	7640	ug/Kg		171	856	856	1	P	HSC	03/31/10 15:11	033110-1	959146
7440-66-6	Zinc	53800	ug/Kg		565	1710	1710	1	P	HSC	03/31/10 15:11	033110-1	959146

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958974	958973	SW846 7471A Prep	0.548	g	30	mL	03/15/10	TXB3
959146	959145	SW846 3050B	0.506	g	50	mL	03/09/10	AXG2
959148	959147	SW846 3050B	0.541	g	50	mL	03/09/10	AXG2

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4/26/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2135

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248241010

BASIS: Dry Weight

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-7519

LEVEL: Low

DATE RECEIVED 27-FEB-10

MATRIX: SOIL

%SOLIDS: 79

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5770000	ug/Kg		8440	24800	24800	1	P	HSC	03/31/10 15:18	033110-1	959146
7440-36-0	Antimony	1240	ug/Kg	U	410	1240	1240	1	P	HSC	03/31/10 15:18	033110-1	959146
7440-38-2	Arsenic	1.62	mg/kg		0.241	1.21	1.21	2	MS	PRB	04/13/10 00:36	100412-2	959148
7440-39-3	Barium	88600	ug/Kg		124	621	621	1	P	HSC	03/31/10 15:18	033110-1	959146
7440-41-7	Beryllium	1.17	mg/kg		0.0241	0.121	0.121	2	MS	PRB	04/13/10 00:36	100412-2	959148
7440-43-9	Cadmium	621	ug/Kg	U	124	621	621	1	P	HSC	03/31/10 15:18	033110-1	959146
7440-70-2	Calcium	4200000	ug/Kg		9930	31000	31000	1	P	HSC	03/31/10 15:18	033110-1	959146
7440-47-3	Chromium	6790	ug/Kg		186	621	621	1	P	HSC	03/31/10 15:18	033110-1	959146
7440-48-4	Cobalt	2070	ug/Kg		186	621	621	1	P	HSC	03/31/10 15:18	033110-1	959146
7440-50-8	Copper	5910	ug/Kg		372	1240	1240	1	P	HSC	03/31/10 15:18	033110-1	959146
7439-89-6	Iron	8300000	ug/Kg		9930	31000	31000	1	P	HSC	03/31/10 15:18	033110-1	959146
7439-92-1	Lead	10300	ug/Kg		310	1240	1240	1	P	HSC	03/31/10 15:18	033110-1	959146
7439-95-4	Magnesium J+,16b	1390000	ug/Kg	N	10600	37200	37200	1	P	HSC	03/31/10 15:18	033110-1	959146
7439-96-5	Manganese	567000	ug/Kg		248	1240	1240	1	P	HSC	03/31/10 15:18	033110-1	959146
7439-97-6	Mercury	88.7	ug/kg		4.65	13.7	13.7	1	AV	JXL1	03/16/10 11:55	031610S1-3	958974
7440-02-0	Nickel	5.88	mg/kg		0.121	0.482	0.482	2	MS	PRB	04/13/10 00:36	100412-2	959148
7440-09-7	Potassium J+,16b	1450000	ug/Kg	N	7940	31000	31000	1	P	HSC	03/31/10 15:18	033110-1	959146
7782-49-2	Selenium	1.21	mg/kg	U	0.603	1.21	1.21	2	MS	PRB	04/13/10 00:36	100412-2	959148
7440-22-4	Silver	214	ug/Kg	J	124	621	621	1	P	HSC	03/31/10 15:18	033110-1	959146
7440-23-5	Sodium	95100	ug/Kg		8690	31000	31000	1	P	HSC	03/31/10 15:18	033110-1	959146
7440-28-0	Thallium	0.241	mg/kg	U	0.0723	0.241	0.241	2	MS	PRB	04/13/10 00:36	100412-2	959148
7440-61-1	Uranium	1.49	mg/kg		0.0159	0.0482	0.0482	2	MS	PRB	04/13/10 00:36	100412-2	959148
7440-62-2	Vanadium	11500	ug/Kg		124	621	621	1	P	HSC	03/31/10 15:18	033110-1	959146
7440-66-6	Zinc	32500	ug/Kg		410	1240	1240	1	P	HSC	03/31/10 15:18	033110-1	959146

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958974	958973	SW846 7471A Prep	0.555	g	30	mL	03/15/10	TXB3
959146	959145	SW846 3050B	0.51	g	50	mL	03/09/10	AXG2
959148	959147	SW846 3050B	0.525	g	50	mL	03/09/10	AXG2

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DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only



Section I.

REQUEST NUMBER: 10-2135 VALIDATION DATE: 4/26/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

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

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO ☐ HIGH EXPLOSIVES ☐ DIOXIN FURANS ☐ LCMSMS PERCHLORATES
☐ TPH-DRO ☐ METALS ☐ PCB CONGENERS ☐ ORGANOCHLORINE
☒ GENERAL CHEMISTRY ☐ RADIOCHEMISTRY ☐ LCMSMS HIGH EXPLOSIVES PESTICIDES/POLYCHLORINATED BIPHENYLS
☐ OTHER (DESCRIBE): _____

Section II. Completeness Check

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


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

- It should be noted that the aqueous matrix QC analyses for total CN were performed on parent samples from other LANL RNs. It should also be noted that the soil matrix QC for total CN analyses of samples RE36-10-7453 and -7458 was performed on parent samples from another LANL RN. No sample data were qualified as a result.


Reviewed by: Monica Dymerski Level I Date: 04/27/10

VALIDATOR'S SIGNATURE: _____


DATE: 4/26/10

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

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

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 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 17, 2010

Client SDG: 10-2135-1

Client Sample ID: RE36-10-7530
Sample ID: 248242001
Matrix: W
Collect Date: 24-FEB-10 12:00
Receive Date: 27-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	03/08/10	1534	959217	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/08/10	1241	959216

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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4/26/10

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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 26, 2010

Client SDG: 10-2135

Client Sample ID: RE36-10-7458
Sample ID: 248241001
Matrix: R
Collect Date: 24-FEB-10 12:00
Receive Date: 27-FEB-10
Collector: Client
Moisture: 14.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 21.0C	H	5.24	0.010	0.100	SU	1	TXT1	03/03/10	1334	960262	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		363	70.7	260	ug/kg	1	AXC2	03/10/10	1146	959212	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	0.350	1.17	mg/kg	1	MAR1	03/23/10	0140	966999	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	03/22/10	1400	966995
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/09/10	1524	959211

The following Analytical Methods were performed

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

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Certificate of Analysis

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 26, 2010

Client SDG: 10-2135

Client Sample ID: RE36-10-7453
Sample ID: 248241002
Matrix: R
Collect Date: 24-FEB-10 12:00
Receive Date: 27-FEB-10
Collector: Client
Moisture: 44.7%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.8C	H	6.73	0.010	0.100	SU	1	TXT1	03/03/10	1339	960262	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	J	362	116	427	ug/kg	1	AXC2	03/10/10	1147	959212	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		3.42	0.543	1.81	mg/kg	1	MAR1	03/23/10	0328	966999	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	03/22/10	1400	966995
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/09/10	1524	959211

The following Analytical Methods were performed

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

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4/26/10

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 26, 2010

Client SDG: 10-2135

Client Sample ID: RE36-10-7454
Sample ID: 248241003
Matrix: R
Collect Date: 24-FEB-10 12:00
Receive Date: 27-FEB-10
Collector: Client
Moisture: 8.15%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.8C	H	7.77	0.010	0.100	SU	1	TXT1	03/03/10	1342	960262	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	68.6	252	ug/kg	1	AXC2	03/10/10	1451	959214	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		1.47	0.327	1.09	mg/kg	1	MAR1	03/23/10	0355	966999	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	03/22/10	1400	966995
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/10/10	1107	959213

The following Analytical Methods were performed

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

LMF
4/26/10

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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 26, 2010

Client SDG: 10-2135

Client Sample ID: RE36-10-7460
Sample ID: 248241004
Matrix: R
Collect Date: 24-FEB-10 12:00
Receive Date: 27-FEB-10
Collector: Client
Moisture: 9.49%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.7C	H	6.55	0.010	0.100	SU	1	TXT1	03/03/10	1343	960262	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	J	112	75.1	276	ug/kg	1	AXC2	03/10/10	1455	959214	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		1.68	0.331	1.10	mg/kg	1	MAR1	03/23/10	0422	966999	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	03/22/10	1400	966995
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/10/10	1107	959213

The following Analytical Methods were performed

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

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

Report Date: March 26, 2010

Client SDG: 10-2135

Client Sample ID: RE36-10-7456
Sample ID: 248241005
Matrix: R
Collect Date: 24-FEB-10 12:00
Receive Date: 27-FEB-10
Collector: Client
Moisture: 7.48%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.3C	H	6.16	0.010	0.100	SU	1	TXT1	03/03/10	1346	960262	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	J	117	72.1	265	ug/kg	1	AXC2	03/10/10	1502	959214	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		1.39	0.324	1.08	mg/kg	1	MAR1	03/23/10	0448	966999	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	03/22/10	1400	966995
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/10/10	1107	959213

The following Analytical Methods were performed

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

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Certificate of Analysis

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

Report Date: March 26, 2010

Client SDG: 10-2135

Client Sample ID: RE36-10-7455
Sample ID: 248241006
Matrix: R
Collect Date: 24-FEB-10 12:00
Receive Date: 27-FEB-10
Collector: Client
Moisture: 24.4%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.3C	H	6.39	0.010	0.100	SU	1	TXT1	03/03/10	1349	960262	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		596	88.2	324	ug/kg	1	AXC2	03/10/10	1503	959214	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		2.39	0.397	1.32	mg/kg	1	MAR103/23/10	0609	966999		3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	03/22/10	1400	966995
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/10/10	1107	959213

The following Analytical Methods were performed

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

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

Report Date: March 26, 2010

Client SDG: 10-2135

Client Sample ID: RE36-10-7459
Sample ID: 248241007
Matrix: R
Collect Date: 24-FEB-10 12:00
Receive Date: 27-FEB-10
Collector: Client
Moisture: 18.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.0C	H	6.87	0.010	0.100	SU	1	TXT1	03/03/10	1357	960262	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		1310	76.1	280	ug/kg	1	AXC2	03/10/10	1503	959214	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		1.99	0.369	1.23	mg/kg	1	MAR1	03/23/10	0636	966999	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	03/22/10	1400	966995
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/10/10	1107	959213

The following Analytical Methods were performed

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

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Certificate of Analysis

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 26, 2010

Client SIDG: 10-2135

Client Sample ID: RE36-10-7457
Sample ID: 248241008
Matrix: R
Collect Date: 24-FEB-10 12:00
Receive Date: 27-FEB-10
Collector: Client
Moisture: 18.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.9C	H	5.63	0.010	0.100	SU	1	TXT1	03/03/10	1357	960262	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		1100	79.0	291	ug/kg	1	AXC2	03/10/10	1504	959214	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		2.52	0.370	1.23	mg/kg	1	MAR103/23/10	0703	966999		3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	03/22/10	1400	966995
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/10/10	1107	959213

The following Analytical Methods were performed

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

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4/26/10

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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 26, 2010

Client SDG: 10-2135

Client Sample ID: RE36-10-7520
Sample ID: 248241009
Matrix: R
Collect Date: 24-FEB-10 12:00
Receive Date: 27-FEB-10
Collector: Client
Moisture: 42.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.0C	H	6.90	0.010	0.100	SU	1	TXT1	03/03/10	1359	960262	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		452	111	408	ug/kg	1	AXC2	03/10/10	1505	959214	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		2.80	0.519	1.73	mg/kg	1	MAR1	03/23/10	0730	966999	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	03/22/10	1400	966995
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/10/10	1107	959213

The following Analytical Methods were performed

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

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4/26/10

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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 26, 2010

Client SDG: 10-2135

Client Sample ID: RE36-10-7519
Sample ID: 248241010
Matrix: R
Collect Date: 24-FEB-10 12:00
Receive Date: 27-FEB-10
Collector: Client
Moisture: 21%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.8C	H	6.91	0.010	0.100	SU	1	TXT1	03/03/10	1400	960262	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		690	86.1	317	ug/kg	1	AXC2	03/10/10	1506	959214	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		2.44	0.380	1.27	mg/kg	1	MAR1	03/23/10	0757	966999	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	03/22/10	1400	966995
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/10/10	1107	959213

The following Analytical Methods were performed

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

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4/26/10

Friday, February 26, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2135

LOS ALAMOS

REQUEST NUMBER: 10-2135

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/28/2010

General Engineering Laboratories, Inc.,
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

248241, 248242

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-7458	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7458	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7453	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7453	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7454	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7454	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7460	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7460	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7456	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7456	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7455	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7455	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7459	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7459	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7457	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7457	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7520	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7520	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7519	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7519	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7530	1	POLY	METALS+U-GEL	Nitric Acid	W
RE36-10-7530	1	POLY	SW-846.6850	Ice	W
RE36-10-7530	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:

Date

Time

Received By:

Date

Time

Printed Name

Signature

2/24/10 1400

Printed Name

Signature

Greg Tyler

2/27/10 0910

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date

Time

Remarks:

Page 1 of 4
REQUEST NUMBER: 10-2135

Friday, February 26, 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: 10-2135

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 2/26/2010

TURNAROUND/REPORT DUE: 3/28/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:



PRIORITY	METHOD CODE	QNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA-300.0	1	RE36-10-7453	R	2/24/2010	
		1	RE36-10-7454	R	2/24/2010	
		1	RE36-10-7455	R	2/24/2010	
		1	RE36-10-7456	R	2/24/2010	
		1	RE36-10-7457	R	2/24/2010	
		1	RE36-10-7458	R	2/24/2010	
		1	RE36-10-7459	R	2/24/2010	
		1	RE36-10-7460	R	2/24/2010	
		1	RE36-10-7519	R	2/24/2010	

Friday, February 26, 2010 Page 2 of 4
 REQUEST NUMBER: 10-2135

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA-300.0	1	RE36-10-7520	R	2/24/2010	
	SW-846-60108	1	RE36-10-7453	R	2/24/2010	
		1	RE36-10-7454	R	2/24/2010	
		1	RE36-10-7455	R	2/24/2010	
		1	RE36-10-7456	R	2/24/2010	
		1	RE36-10-7457	R	2/24/2010	
		1	RE36-10-7458	R	2/24/2010	
		1	RE36-10-7459	R	2/24/2010	
		1	RE36-10-7460	R	2/24/2010	
		1	RE36-10-7519	R	2/24/2010	
	SW-846-6020	1	RE36-10-7520	R	2/24/2010	
		1	RE36-10-7453	R	2/24/2010	
		1	RE36-10-7454	R	2/24/2010	
		1	RE36-10-7455	R	2/24/2010	
		1	RE36-10-7456	R	2/24/2010	
		1	RE36-10-7457	R	2/24/2010	
		1	RE36-10-7458	R	2/24/2010	
		1	RE36-10-7459	R	2/24/2010	
		1	RE36-10-7460	R	2/24/2010	
		1	RE36-10-7519	R	2/24/2010	
		1	RE36-10-7520	R	2/24/2010	
		1	RE36-10-7530	W	2/24/2010	
	SW-846-6850	1	RE36-10-7453	R	2/24/2010	
		1	RE36-10-7454	R	2/24/2010	
		1	RE36-10-7455	R	2/24/2010	
		1	RE36-10-7456	R	2/24/2010	
		1	RE36-10-7457	R	2/24/2010	
		1	RE36-10-7458	R	2/24/2010	

Friday, February 26, 2010

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846.6850	1	RE36-10-7459	R	2/24/2010	
		1	RE36-10-7460	R	2/24/2010	
		1	RE36-10-7519	R	2/24/2010	
		1	RE36-10-7520	R	2/24/2010	
		1	RE36-10-7530	W	2/24/2010	
	SW-848.7470A	1	RE36-10-7530	W	2/24/2010	
	SW-848.7471A	1	RE36-10-7453	R	2/24/2010	
		1	RE36-10-7454	R	2/24/2010	
		1	RE36-10-7455	R	2/24/2010	
		1	RE36-10-7456	R	2/24/2010	
		1	RE36-10-7457	R	2/24/2010	
		1	RE36-10-7458	R	2/24/2010	
		1	RE36-10-7459	R	2/24/2010	
		1	RE36-10-7460	R	2/24/2010	
		1	RE36-10-7519	R	2/24/2010	
		1	RE36-10-7520	R	2/24/2010	
	SW-846.9012A	1	RE36-10-7453	R	2/24/2010	
		1	RE36-10-7454	R	2/24/2010	
		1	RE36-10-7455	R	2/24/2010	
		1	RE36-10-7456	R	2/24/2010	
		1	RE36-10-7457	R	2/24/2010	
		1	RE36-10-7458	R	2/24/2010	
		1	RE36-10-7459	R	2/24/2010	
		1	RE36-10-7520	W	2/24/2010	
		1	RE36-10-7530	R	2/24/2010	
		1	RE36-10-7519	R	2/24/2010	
		1	RE36-10-7520	R	2/24/2010	
		1	RE36-10-7530	W	2/24/2010	
		1	RE36-10-7519	R	2/24/2010	

FILED IN 10-2135

Friday, February 26, 2010

REQUEST NUMBER: 10-2135

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846-904SC	1	RE36-10-7454	R	2/24/2010	
		1	RE36-10-7455	R	2/24/2010	
		1	RE36-10-7456	R	2/24/2010	
		1	RE36-10-7457	R	2/24/2010	
		1	RE36-10-7458	R	2/24/2010	
		1	RE36-10-7459	R	2/24/2010	
		1	RE36-10-7460	R	2/24/2010	
		1	RE36-10-7519	R	2/24/2010	
		1	RE36-10-7520	R	2/24/2010	

Final Page of REQUEST NUMBER 10-2135



March 06, 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: 248241 248242
SDG: 10-2135

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 27, 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: 10-2135
Enclosures

Los Alamos National Laboratory (72733-001-09)

LANL ER Project

Work Order #: 248241 and 248242

SDG: 10-2135

Table of Contents

Case Narrative.....	1
Chain of Custody and Supporting Documentation	5
Data Review Qualifier Flag Definition Sheet	17
LC/MS/MS Perchlorate Analysis.....	19
Sample Data Summary	24
Quality Control Summary.....	35
Sample Data	68
Standards Data.....	89
Quality Control	118
Miscellaneous Data	127
LC/MS/MS Pechlorate Analysis	134
Sample Data Summary	138
Quality Control Summary.....	140
Sample Data	174
Standards Data.....	177
Quality Control	211
Miscellaneous Data	216
Metals Analysis.....	225
Case Narrative.....	226
Sample Data Summary	232
Quality Control Summary.....	243
Standards	290
Raw Data	302
Miscellaneous	516
Metals Analysis	550
Case Narrative.....	551
Sample Data Summary	557
Quality Control Summary.....	559
Standards	598
Raw Data	611
Miscellaneous	804
General Chemistry Analysis	843
Case Narrative.....	844
Sample Data Summary	854

Quality Control Summary.....	866
Instrum QC Data Summary	870
Cyanide, Total	873
Ion Chromatography	901
pH	942
General Chemistry Analysis	945
Case Narrative	946
Sample Data Summary	951
Quality Control Summary.....	954
Instrument QC Data Summary	957
Cyanide, Total	959

Case Narrative

**Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 248241 and 248242
SDG # : 10-2135**

March 06, 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 27, 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 original chain of custody was received 3/2/10. 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:

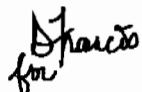
<u>Laboratory ID</u>	<u>Client ID</u>
248241001	RE36-10-7458
248241002	RE36-10-7453
248241003	RE36-10-7454
248241004	RE36-10-7460
248241005	RE36-10-7456
248241006	RE36-10-7455
248241007	RE36-10-7459
248241008	RE36-10-7457
248241009	RE36-10-7520
248241010	RE36-10-7519
248242001	RE36-10-7530

Case Narrative

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

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

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

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

Valerie Davis

Project Manager

List of current GEL Certifications as of 06 March 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 26, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2135

LOS ALAMOS

REQUEST NUMBER: 10-2135

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/28/2010

General Engineering Laboratories, Inc.,
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

248241, 248242

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-7458	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7458	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7453	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7453	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7454	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7454	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7460	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7460	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7456	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7456	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7455	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7455	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7459	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7459	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7457	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7457	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7520	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7520	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7519	1	POLY	METALS+U-GEL	Ice	R
RE36-10-7519	1	POLY	Perchlorate+CN+N03+pH	Ice	R
RE36-10-7530	1	POLY	METALS+U-GEL	Nitric Acid	W
RE36-10-7530	1	POLY	SW-846:6850	Ice	W
RE36-10-7530	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:

Date Time

Received By:

Date Time

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date Time

Remarks:

Friday, February 26, 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:10-2135

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/26/2010

TURNAROUND/REPORT DUE: 3/28/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	ONTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE36-10-7453	R	2/24/2010	
		1	RE36-10-7454	R	2/24/2010	
		1	RE36-10-7455	R	2/24/2010	
		1	RE36-10-7456	R	2/24/2010	
		1	RE36-10-7457	R	2/24/2010	
		1	RE36-10-7458	R	2/24/2010	
		1	RE36-10-7459	R	2/24/2010	
		1	RE36-10-7460	R	2/24/2010	
		1	RE36-10-7519	R	2/24/2010	

Friday, February 26, 2010

Page 2 of 4

REQUEST NUMBER: 10-2135

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:300.0	1	RE38-10-7520	R	2/24/2010	
	SW-846:6010B	1	RE38-10-7453	R	2/24/2010	
		1	RE38-10-7454	R	2/24/2010	
		1	RE38-10-7455	R	2/24/2010	
		1	RE38-10-7456	R	2/24/2010	
		1	RE38-10-7457	R	2/24/2010	
		1	RE38-10-7458	R	2/24/2010	
		1	RE38-10-7459	R	2/24/2010	
		1	RE38-10-7460	R	2/24/2010	
		1	RE38-10-7519	R	2/24/2010	
		1	RE38-10-7520	R	2/24/2010	
	SW-846:6020	1	RE38-10-7453	R	2/24/2010	
		1	RE38-10-7454	R	2/24/2010	
		1	RE38-10-7455	R	2/24/2010	
		1	RE38-10-7456	R	2/24/2010	
		1	RE38-10-7457	R	2/24/2010	
		1	RE38-10-7458	R	2/24/2010	
		1	RE38-10-7459	R	2/24/2010	
		1	RE38-10-7460	R	2/24/2010	
		1	RE38-10-7519	R	2/24/2010	
		1	RE38-10-7520	R	2/24/2010	
		1	RE38-10-7530	W	2/24/2010	
	SW-846:6850	1	RE38-10-7453	R	2/24/2010	
		1	RE38-10-7454	R	2/24/2010	
		1	RE38-10-7455	R	2/24/2010	
		1	RE38-10-7456	R	2/24/2010	
		1	RE38-10-7457	R	2/24/2010	
		1	RE38-10-7458	R	2/24/2010	

Friday, February 26, 2010

Page 3 of 4

REQUEST NUMBER: 10-2135

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6850	1	RE36-10-7459	R	2/24/2010	
		1	RE36-10-7460	R	2/24/2010	
		1	RE36-10-7519	R	2/24/2010	
		1	RE36-10-7520	R	2/24/2010	
		1	RE36-10-7530	W	2/24/2010	
	SW-846:7470A	1	RE36-10-7530	W	2/24/2010	
	SW-846:7471A	1	RE36-10-7453	R	2/24/2010	
		1	RE36-10-7454	R	2/24/2010	
		1	RE36-10-7455	R	2/24/2010	
		1	RE36-10-7456	R	2/24/2010	
		1	RE36-10-7457	R	2/24/2010	
		1	RE36-10-7458	R	2/24/2010	
		1	RE36-10-7459	R	2/24/2010	
		1	RE36-10-7460	R	2/24/2010	
		1	RE36-10-7519	R	2/24/2010	
		1	RE36-10-7520	R	2/24/2010	
	SW-846:9012A	1	RE36-10-7453	R	2/24/2010	
		1	RE36-10-7454	R	2/24/2010	
		1	RE36-10-7455	R	2/24/2010	
		1	RE36-10-7456	R	2/24/2010	
		1	RE36-10-7457	R	2/24/2010	
		1	RE36-10-7458	R	2/24/2010	
		1	RE36-10-7459	R	2/24/2010	
		1	RE36-10-7460	R	2/24/2010	
		1	RE36-10-7519	R	2/24/2010	
		1	RE36-10-7520	R	2/24/2010	
		1	RE36-10-7530	W	2/24/2010	
	SW-846:9012A	1	RE36-10-7453	R	2/24/2010	

Friday, February 26, 2010

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9045C	1	RE36-10-7454	R	2/24/2010	
		1	RE36-10-7455	R	2/24/2010	
		1	RE36-10-7456	R	2/24/2010	
		1	RE36-10-7457	R	2/24/2010	
		1	RE36-10-7458	R	2/24/2010	
		1	RE36-10-7459	R	2/24/2010	
		1	RE36-10-7460	R	2/24/2010	
		1	RE36-10-7519	R	2/24/2010	
		1	RE36-10-7520	R	2/24/2010	

Final Page of REQUEST NUMBER 10-2135



Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL			SDG/ARCOC/Work Order: 10-2135		
Received By: Greg Tyler			Date Received: 2/27/10		
Suspected Hazard Information		Yes	No	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.	
COC/Samples marked as radioactive?			X	Maximum Counts Observed*: 60cpm	
Classified Radioactive II by RSO?			X		
COC/Samples marked containing PCBs?			X		
Shipped as a DOT Hazardous?			X	Hazard Class Shipped: UN#:	
Samples identified as Foreign Soil?			X		

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2 Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags blue ice dry ice none other 1-6C 10,11C
3 Chain of custody documents included with shipment?	X		X	the original COC rec'd 3/2/10
4 Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5 Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6 VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7 Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8 Samples received within holding time?	X			Id's and tests affected:
9 Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10 Date & time on COC match date & time on bottles?		X		Sample ID's affected: No time on Chain of Custody.
11 Number of containers received match number indicated on COC?	X			Sample ID's affected:
12 COC form is properly signed in relinquished/received sections?	X			

Comments:

Fed Ex Tracking Numbers:

7209 7850 2525 1C 7209 7850 2570 5C
 7209 7850 2606 1C 7209 7850 2558 6C
 7209 7850 2547 1C 7209 7850 2536 6C
 7209 7850 2639 2C 7209 7850 2591 6C
 7209 7850 2580 2C 7209 7850 2514 10C
 7209 7850 2499 2C 7209 7850 2628 11C
 7209 7850 2617 3C 7209 7850 2503 11C
 7209 7850 2569 4C

Subject: Sample Receipt for 2/27/10

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

Date: Mon, 01 Mar 2010 13:52:03 -0500

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

Keith,

The lab did not receive any original chain of custodies.

RN 10-2149: the lab did not receive the RAD poly container for sample WSTTH-10-13314.

RN 10-2148: the lab did not receive the GrossG container for sample WSTTH-10-13314

RN 10-2145: the lab did not receive the 40ml vial container for sample RE46-10-13543.

RN 10-2098: the Metals container for sample WST16-10-12239 will be preserved prior to analysis.

The following containers were rec'd without a COC:

RE36-10-7533 and 7535

250 poly Perchlorate, 500ml poly TCN, 1L poly Metals+U

RE36-10-7416 thru 7420, 7477 thru 7490, 7492 thru 7500, 7521 thru 7523

125ml poly Metals, 500ml amber glass 8270+NMED Exp, 500ml poly Perchlorate

RE36-10-7491

500ml amber glass H3, 8270+NMED Exp

Thanks,

Dionne

--

Dionne Francis

Project Manager Assistant

GEL Laboratories, LLC

2040 Savage Road

Charleston, SC (USA) 29407

Direct: 843.769.7376 Ext. 4432

Main: 843.556.8171

Fax: 843.766.1178

E-mail: daf@gel.com

Web: www.gel.com

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

ORIGIN ID: SAFA (505) 865-9968

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 26 FEB 10
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: MR3A0223CY10

1c

DATE: 26 FEB 10 10:00 AM



FedEx Express



1 of 2
TRKH 0201 7209 7850 2525
NN MASTER NN

SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

294



DATE: 26 FEB 10 10:00 AM
LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: MR3A0223CY10

1c

DATE: 26 FEB 10 10:00 AM



FedEx Express



1 of 2
TRKH 0201 7209 7850 2547
NN MASTER NN

SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

29407
SC-US
CHS



ORIGIN ID: SAFA (505) 865-9968

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 26 FEB 10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

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TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

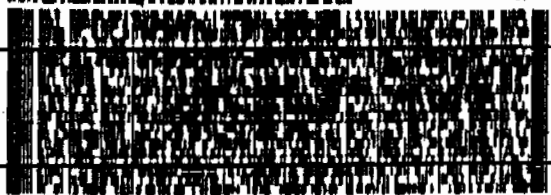
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DATE: 26 FEB 10 10:00 AM



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NN MASTER NN

SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

29407
SC-US
CHS



DATE: 26 FEB 10 10:00 AM
LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: MR3A0223CY10

2c

DATE: 26 FEB 10 10:00 AM



FedEx Express



2 of 2
NPS# 0263 7209 7850 2639
Master 7209 7850 2628 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

29407
SC-US
CHS



JOYLENE VALDEZ (505) 665-9968

LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 26FEB10
ACTWGT: 67.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

ORIGIN ID: SAFA (505) 665-9968

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 26FEB10

ACTWGT: 58.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: MR2A0515BYD0

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TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: MR3A0223CY10

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Express

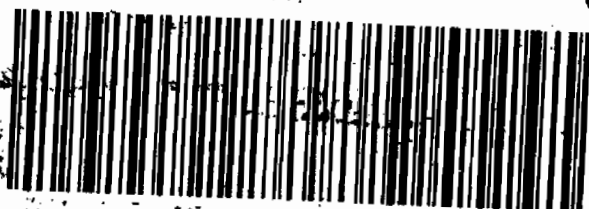


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SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

29407
SC-US
CHS



TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: MR2A0515BYD0

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Express



1 of 3
TRK# 7209 7850 2499
NN MASTER NN

SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

29407
SC-US
CHS



JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: MR2A0515BYD0

FedEx
Express



2 of 2
MPS# 7209 7850 2617
Metri 7209 7850 2606 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

29407
SC-US
CHS



1 of 2
TRK# 7209 7850 2569
NN MASTER NN

SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

29407
SC-US
CHS



ORIGIN ID: SAFA (605) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 26FEB10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171
REF: MR3A0223CY10

5c

ORIGIN ID: SAFA (605) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 26FEB10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171
REF: MR3A0223FCY10

6c

FedEx
Express



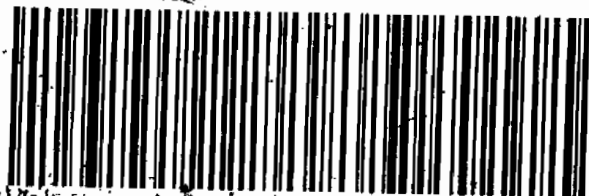
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2 of 2
IPSN 7209 7850 2570
strn 7209 7850 2569 0201
SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

29407
SC-US
CHS



LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

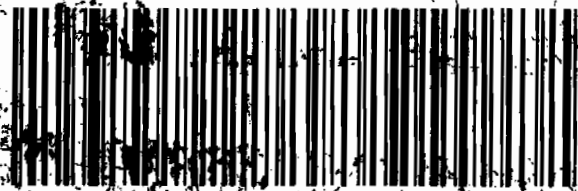
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2 of 2
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SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

29407
SC-US
CHS



UNITED STATES US

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171
REF: MR2A0515BY00

6c

FedEx
Express



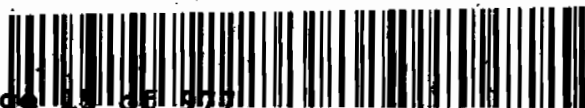
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Express



2 of 2
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SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

29407
SC-US
CHS



2 of 2
IPSN 7209 7850 2591
strn 7209 7850 2580 0201
SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

29407
SC-US
CHS



ORIGIN ID: SAFA (805) 865-9908
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 26FEB10
ACTNGT: 39.0 LB MAN
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BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: MR3A0223CY10

10c

ORIGIN ID: SAFA (805) 865-9908
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 26FEB10
ACTNGT: 39.0 LB MAN
CAD: 0014175/CAFE2450

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3 of 3
MPS# 7209 7850 2514
Matr# 7209 7850 2499 (0201)

SATURDAY ### A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X0 CHSA



1 of 2
MPS# 7209 7850 2628
Matr# 7209 7850 2499 (0201)

SATURDAY ### A1
PRIORITY OVERNIGHT

MM MASTER MM

29407
SC-US
CHS

X0 CHSA



ORIGIN ID: SAFA (805) 865-9908
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 26FEB10
ACTNGT: 48.0 LB MAN
CAD: 0014175/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
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REF: MR3A0223CY10

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Express



2 of 3
MPS# 7209 7850 2503
Matr# 7209 7850 2499 (0201)

SATURDAY ### A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X0 CHSA

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier Explanation

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
- A The TIC is a suspected aldol-condensation product
- B Target analyte was detected in the associated blank
- B Metals-Either presence of analyte detected in the associated blank, or
MDL/IDL < sample value < PQL
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- d 5-day BOD-The 2:1 depletion requirement was not met for this sample
- E Organics-Concentration of the target analyte exceeds the instrument calibration range
- E Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- H Analytical holding time was exceeded
- h Preparation or preservation holding time was exceeded
- J Value is estimated
- N Metals-The Matrix spike sample recovery is not within specified control limits
- N Organics-Presumptive evidence based on mass spectral library search to make a tentative
identification of the analyte (TIC). Quantitation is based on nearest internal standard
response factor
- N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration
by 4X or more
- ND Analyte concentration is not detected above the reporting limit
- UI Gamma Spectroscopy-Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- Z Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

LC/MS/MS PERCHLORATE ANALYSIS

**Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-2135**

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: 959034

Prep Batch Number: 959033

Sample Analysis

Sample ID	Client ID
248241001	RE36-10-7458
248241002	RE36-10-7453
248241003	RE36-10-7454
248241004	RE36-10-7460
248241005	RE36-10-7456
248241006	RE36-10-7455
248241007	RE36-10-7459
248241008	RE36-10-7457
248241009	RE36-10-7520
248241010	RE36-10-7519
1202056702	Interference Check Sample (ICS)
1202056698	Method Blank (MB)
1202056699	Laboratory Control Sample (LCS)
1202056700	248241002(RE36-10-7453) Matrix Spike (MS)
1202056701	248241002(RE36-10-7453) Matrix Spike Duplicate (MSD)

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

10-2135-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 248241002 (RE36-10-7453) 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.

10-2135-PERLCMS

Page 2 of 4

Retention Time

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

Technical Information

Holding Time Specifications

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

Preparation/Analytical Method Verification

All procedures were performed as stated in the SOP.

Sample Dilutions

The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis

The SDG was re-analyzed due to failing bracketing CCVs. All passed acceptance criteria except the 1202056702 (ICS). The 1202056702 (ICS) was further re-analyzed and passed acceptance criteria. The last re-analysis in each case is reported.

Miscellaneous Information

Data Exception (DER) Documentation

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

Manual Integrations

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

Method Comments

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

Additional Comments

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

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

10-2135-PERLCMS

Page 3 of 4

Perchlorate Isotope Ratio

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

System Configuration

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

Chromatographic Columns

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

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

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

Review Validation:

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

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

Reviewer: Herbert Mauer

Date: 03/25/10

10-2135-PERLCMS

Page 4 of 4

SAMPLE DATA SUMMARY

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 959033

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7458

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2135

GEL Sample ID: 248241001

Date Filtered: 15-MAR-10

Injection Volume (uL): 20

%Solids: 86

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.583	2.33	3.84	ug/kg		1	22-MAR-10 14:20	per0322015a
	Perchlorate Isotope Ratio			3.02			1	22-MAR-10 14:20	per0322015a
14797-73-0	Perchlorate-101	.583	2.33	3.87	ug/kg		1	22-MAR-10 14:20	per0322015a
	Perchlorate-O(18)			5.87	ug/kg		1	22-MAR-10 14:20	per0322015a

[^] 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: 959033
 Extraction Type: Solid Prep
 Client Sample No. RE36-10-7453
 Date Received: 27-FEB-10
 GEL Job No (SDG): 10-2135
 GEL Sample ID: 248241002
 Date Filtered: 15-MAR-10
 Injection Volume (uL): 20
 %Solids: 55

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	.905	3.62	0.905	ug/kg	U	1	22-MAR-10 14:32	per0322016a
	Perchlorate Isotope Ratio						1	22-MAR-10 14:32	per0322016a
14797-73-0	Perchlorate-101	.905	3.62	0.905	ug/kg	U	1	22-MAR-10 14:32	per0322016a
	Perchlorate-O(18)			9.09	ug/kg		1	22-MAR-10 14:32	per0322016a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1
 Aliquot %Solids

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 959033

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7454

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2135

GEL Sample ID: 248241003

Date Filtered: 15-MAR-10

Injection Volume (uL): 20

%Solids: 91.8

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.544	2.18	0.544	ug/kg	U	1	22-MAR-10 15:08	per0322019a
	Perchlorate Isotope Ratio						1	22-MAR-10 15:08	per0322019a
14797-73-0	Perchlorate-101	.544	2.18	0.544	ug/kg	U	1	22-MAR-10 15:08	per0322019a
	Perchlorate-O(18)			5.30	ug/kg		1	22-MAR-10 15:08	per0322019a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1
Aliquot %Solids

Form 1

P perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 959033

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7460

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2135

GEL Sample ID: 248241004

Date Filtered: 15-MAR-10

Injection Volume (uL): 20

%Solids: 90.5

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.552	2.21	2.41	ug/kg		1	22-MAR-10 15:20	per0322020a
	Perchlorate Isotope Ratio			2.99			1	22-MAR-10 15:20	per0322020a
14797-73-0	Perchlorate-101	.552	2.21	2.46	ug/kg		1	22-MAR-10 15:20	per0322020a
	Perchlorate-O(18)			5.29	ug/kg		1	22-MAR-10 15:20	per0322020a

[^] 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: 959033

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7456

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2135

GEL Sample ID: 248241005

Date Filtered: 15-MAR-10

Injection Volume (uL): 20

%Solids: 92.5

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.54	2.16	1.78	ug/kg	J	1	22-MAR-10 15:32	per0322021a
	Perchlorate Isotope Ratio			3.04			1	22-MAR-10 15:32	per0322021a
14797-73-0	Perchlorate-101	.54	2.16	1.78	ug/kg	J	1	22-MAR-10 15:32	per0322021a
	Perchlorate-O(18)			5.44	ug/kg		1	22-MAR-10 15:32	per0322021a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1
Aliquot %Solids

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 959033

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7455

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2135

GEL Sample ID: 248241006

Date Filtered: 15-MAR-10

Injection Volume (uL): 20

% Solids: 76

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.662	2.65	2.06	ug/kg	J	1	22-MAR-10 16:21	per0322025a
	Perchlorate Isotope Ratio			3.04			1	22-MAR-10 16:21	per0322025a
14797-73-0	Perchlorate-101	.662	2.65	2.06	ug/kg	J	1	22-MAR-10 16:21	per0322025a
	Perchlorate-O(18)			6.62	ug/kg		1	22-MAR-10 16:21	per0322025a

[^] 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: 959033
Extraction Type: Solid Prep
Client Sample No. RE36-10-7459
Date Received: 27-FEB-10
GEL Job No (SDG): 10-2135
GEL Sample ID: 248241007
Date Filtered: 15-MAR-10
Injection Volume (uL): 20
%Solids: 81

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	.615	2.46	4.14	ug/kg		1	22-MAR-10 16:33	per0322026a
	Perchlorate Isotope Ratio			3.04			1	22-MAR-10 16:33	per0322026a
14797-73-0	Perchlorate-101	.615	2.46	4.13	ug/kg		1	22-MAR-10 16:33	per0322026a
	Perchlorate-O(18)			5.90	ug/kg		1	22-MAR-10 16:33	per0322026a

[^] 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: 959033

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7457

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2135

GEL Sample ID: 248241008

Date Filtered: 15-MAR-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.616	2.46	4.33	ug/kg		1	22-MAR-10 16:45	per0322027a
	Perchlorate Isotope Ratio			2.86			1	22-MAR-10 16:45	per0322027a
14797-73-0	Perchlorate-101	.616	2.46	4.59	ug/kg		1	22-MAR-10 16:45	per0322027a
	Perchlorate-O(18)			5.76	ug/kg		1	22-MAR-10 16:45	per0322027a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1 %Solids
Aliquot

Form 1

Perchlorate Analysis Data Sheet

Client Sample No.

RE36-10-7520

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Date Received: 27-FEB-10

Instrument: LCMSMS

GEL Job No (SDG): 10-2135

Method: SW846 6850 Modified

GEL Sample ID: 248241009

Matrix: SOIL

Date Filtered: 15-MAR-10

Extraction Batch ID: 959033

Injection Volume (uL): 20

Extraction Type: Solid Prep

% Solids: 58

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	.866	3.46	0.866	ug/kg	U	1	22-MAR-10 16:57	per0322028a
	Perchlorate Isotope Ratio						1	22-MAR-10 16:57	per0322028a
14797-73-0	Perchlorate-101	.866	3.46	0.866	ug/kg	U	1	22-MAR-10 16:57	per0322028a
	Perchlorate-O(18)			8.68	ug/kg		1	22-MAR-10 16:57	per0322028a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1
Aliquot %Solids

Form 1

Perchlorate Analysis Data Sheet

Client Sample No.

RE36-10-7519

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 959033

Extraction Type: Solid Prep

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2135

GEL Sample ID: 248241010

Date Filtered: 15-MAR-10

Injection Volume (uL): 20

%Solids: 79

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	.633	2.53	3.39	ug/kg		1	22-MAR-10 17:09	per0322029a
	Perchlorate Isotope Ratio			2.93			1	22-MAR-10 17:09	per0322029a
14797-73-0	Perchlorate-101	.633	2.53	3.51	ug/kg		1	22-MAR-10 17:09	per0322029a
	Perchlorate-O(18)			6.24	ug/kg		1	22-MAR-10 17:09	per0322029a

[^] 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):

10-2135

Extract Batch Code: 959033

Date Filtered:

15-MAR-10

Matrix: SOIL

Sample ID:

1202056699

Analyte [^]	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	1.84	ug/kg	91.8		70 - 130
Perchlorate Isotope Ratio		2.91				-
Perchlorate-101	2.00	1.92	ug/kg	95.8		70 - 130
Perchlorate-O(18)		4.72	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): 10-2135

Extract Batch Code: 959033 Date Filtered: 15-MAR-10

Matrix: SOIL Sample ID: 1202056702

Analyte [^]	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.11	ug/kg	106		70 - 130
Perchlorate Isotope Ratio		2.89				
Perchlorate-101	2.00	2.23	ug/kg	111		70 - 130
Perchlorate-O(18)		5.36	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: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qid

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322106a

Date: 23-Mar-2010

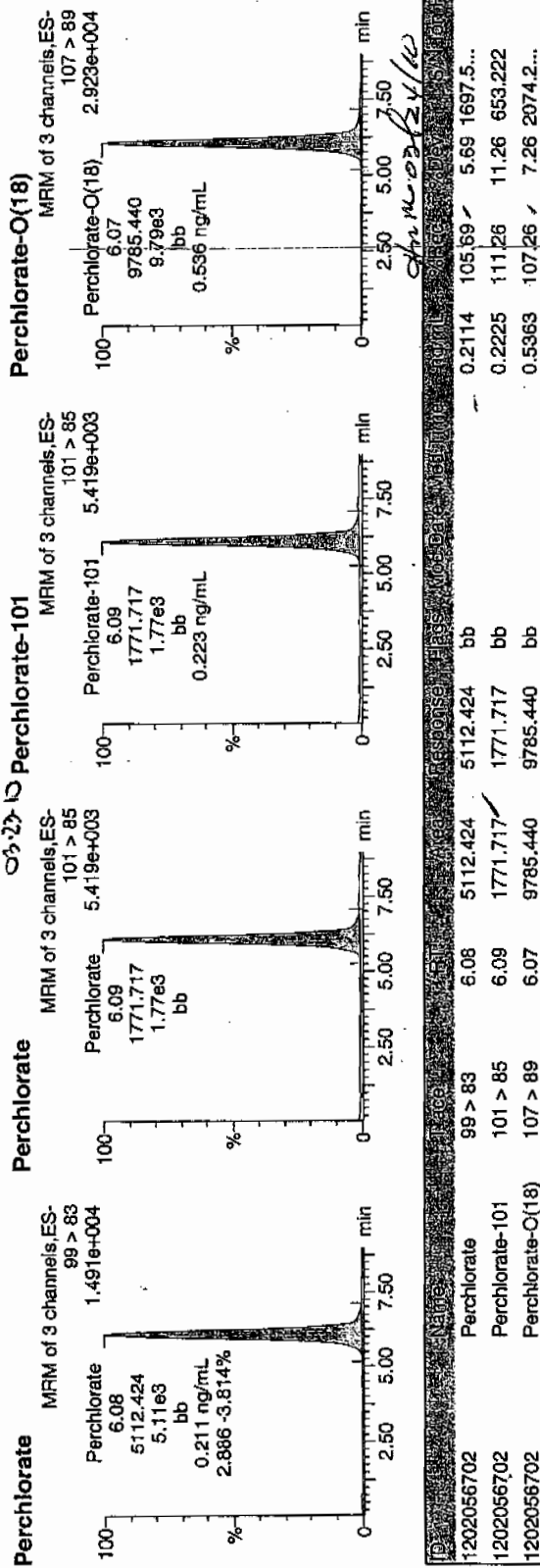
Time: 08:43:25

ID: 1202056702

Vial: 1:3,C

LANL | 959034 | 5020 | 1 | 19
ISE-1119A

03-23-10



Sample	Perchlorate	Perchlorate-101	Perchlorate-O(18)
1202056702	0.211 2.886 -3.814%	0.223	0.536

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

Extract Batch Code: 959033

GEL Job No (SDG): 10-2135

Date Extracted: 15-MAR-10

GEL MS/PS ID: 1202056700

Client ID: RE36-10-7453

GEL MSD/PSD ID: 1202056701

QC Type: MS

Compound [^]	Spike Added	Sample Conc	Units	MS Conc	MS Rec	#	MSD Conc	MSD Rec	#	RPD	#	RPD Limit	Recovery Limit
Perchlorate	3.62	0.300	ug/kg	3.93	100		3.69	93.7		6.35		30	75 - 125
Perchlorate Isotope Ratio	0	0.00		3.03			2.84			0			-
Perchlorate-101	3.62	0.264	ug/kg	3.94	102		3.94	102		.0844		30	75 - 125
Perchlorate-O(18)	0	9.09	ug/kg	9.28			9.14			1.57			-

[^] 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): 10-2135

Lab Name: General Engineering Laboratories

Lab Code: GEL

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

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	22-MAR-10	per0322001a	IPB001
Perchlorate-101	0.00	0	NA	22-MAR-10	per0322001a	IPB001
Perchlorate	0.00	0	NA	22-MAR-10	per0322002a	IPB001
Perchlorate-101	0.00	0	NA	22-MAR-10	per0322002a	IPB001

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

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032210a.mdb 23 Mar 2010 10:24:18
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032210a.cdb 23 Mar 2010 10:24:34

Name: per0322001a

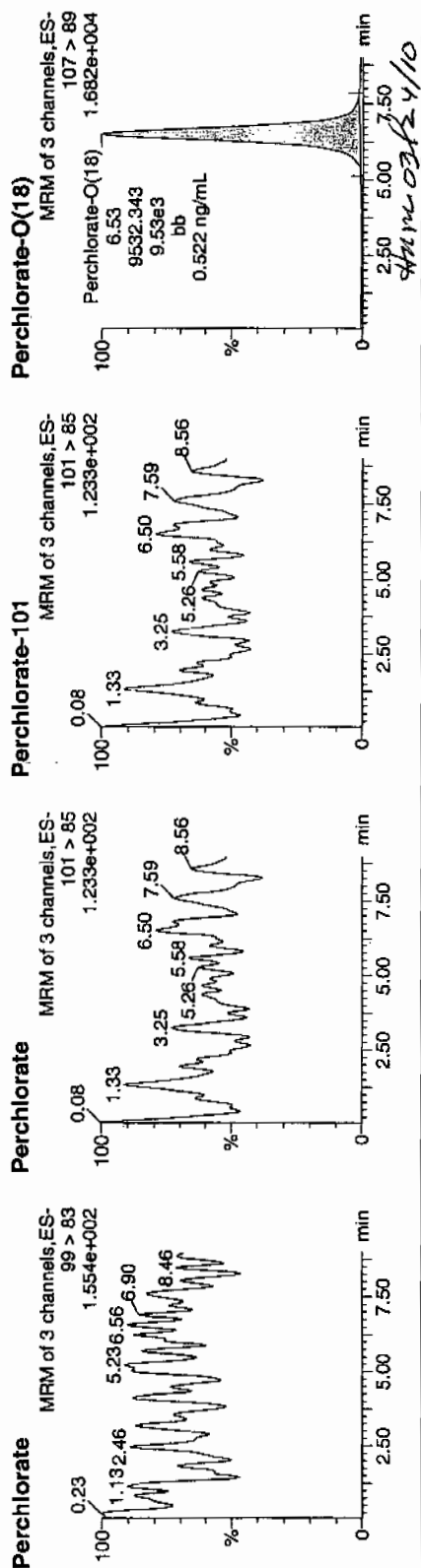
Date: 22-Mar-2010

Time: 11:30:33

ID: IPB001

Vial: 1:1,A

0322-10



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	6.53	9532.343	9532.343	bb			0.5224	104.48	4.48	384.191	

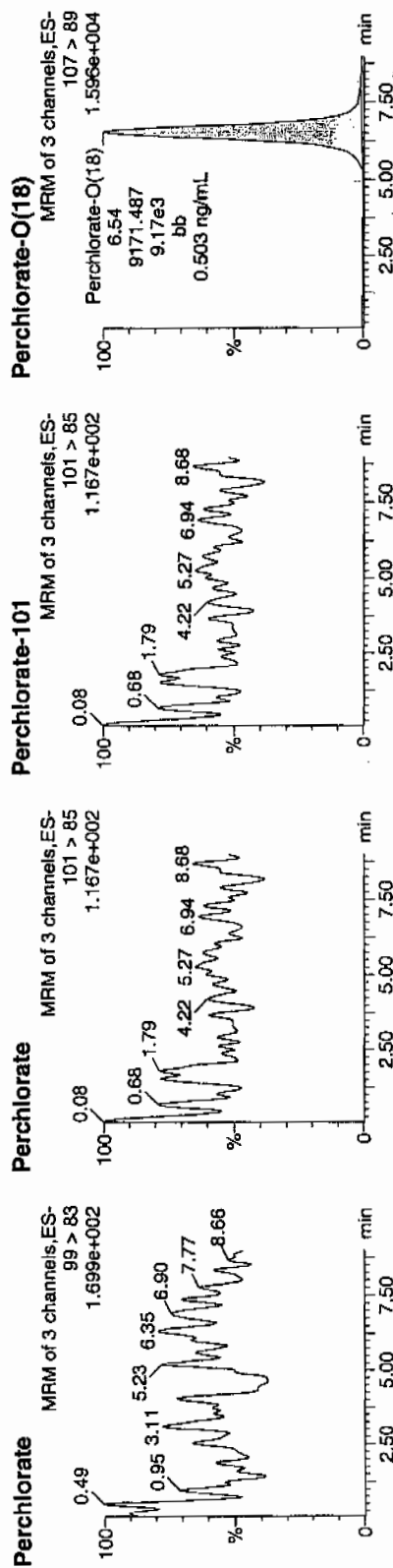
GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322002a
Date: 22-Mar-2010
Time: 11:42:55
ID: IPB001
Vial: 1:1,A



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	6.54	9171.487	9171.487	bb			0.5026	100.53	0.53	692.431	

Form 4

Perchlorate Continuing Calibration Blank

GEL Job No.(SDG): 10-2135

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	22-MAR-10	per0322008a	IPB002
Perchlorate-101	0.00	0	NA	22-MAR-10	per0322008a	IPB002
Perchlorate	0.00	0	NA	22-MAR-10	per0322010a	IPB003
Perchlorate-101	0.00	0	NA	22-MAR-10	per0322010a	IPB003
Perchlorate	0.00	0	NA	22-MAR-10	per0322023a	IPB004
Perchlorate-101	0.00	0	NA	22-MAR-10	per0322023a	IPB004
Perchlorate	0.00	0	NA	22-MAR-10	per0322036a	IPB005
Perchlorate-101	0.00	0	NA	22-MAR-10	per0322036a	IPB005
Perchlorate	0.00	0	NA	22-MAR-10	per0322040a	IPB006
Perchlorate-101	0.00	0	NA	22-MAR-10	per0322040a	IPB006
Perchlorate	0.00	0	NA	22-MAR-10	per0322049a	IPB007
Perchlorate-101	0.00	0	NA	22-MAR-10	per0322049a	IPB007
Perchlorate	0.00	0	NA	22-MAR-10	per0322062a	IPB008

P perchlorate Continuing Calibration Blank

GEL Job No.(SDG): 10-2135

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate-101	0.00	0	NA	22-MAR-10	per0322062a	IPB008
Perchlorate	0.00	0	NA	23-MAR-10	per0322073a	IPB009
Perchlorate-101	0.00	0	NA	23-MAR-10	per0322073a	IPB009
Perchlorate	0.00	0	NA	23-MAR-10	per0322086a	IPB010
Perchlorate-101	0.00	0	NA	23-MAR-10	per0322086a	IPB010
Perchlorate	0.00	0	NA	23-MAR-10	per0322099a	IPB011
Perchlorate-101	0.00	0	NA	23-MAR-10	per0322099a	IPB011
Perchlorate	0.00	0	NA	23-MAR-10	per0322105a	IPB012
Perchlorate-101	0.00	0	NA	23-MAR-10	per0322105a	IPB012
Perchlorate	0.00	0	NA	23-MAR-10	per0322107a	IPB013
Perchlorate-101	0.00	0	NA	23-MAR-10	per0322107a	IPB013
Perchlorate	0.00	0	NA	23-MAR-10	per0322112a	IPB014
Perchlorate-101	0.00	0	NA	23-MAR-10	per0322112a	IPB014

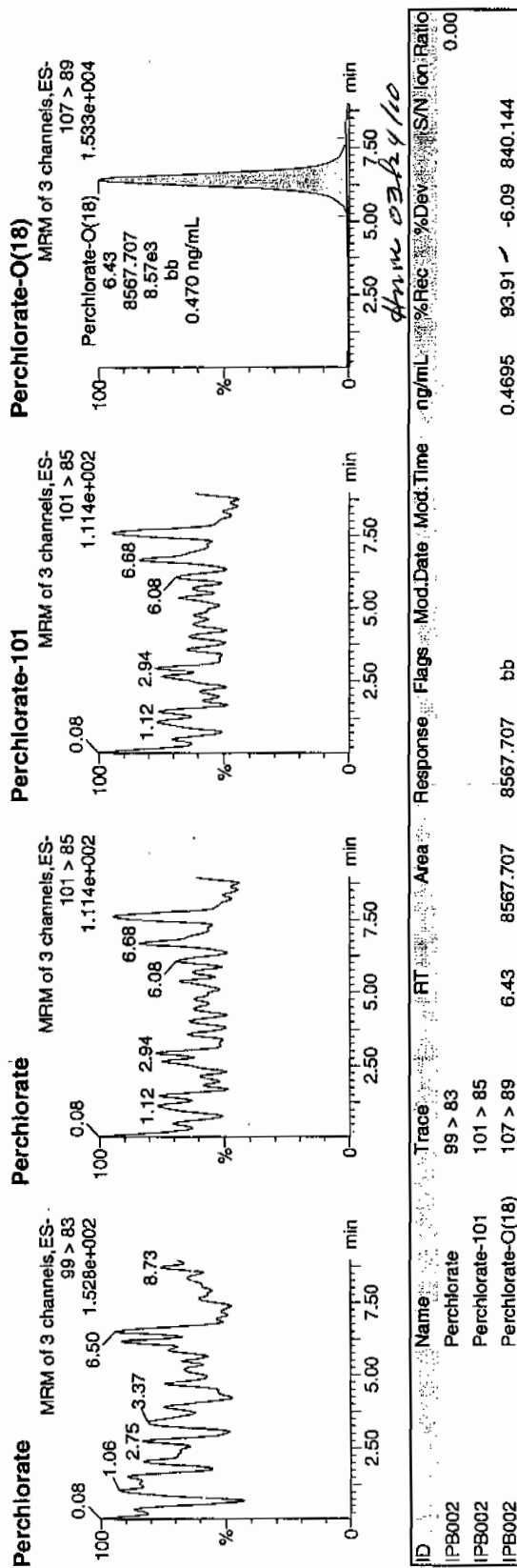
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charters W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322008a
Date: 22-Mar-2010
Time: 12:55:34
ID: IPB002
Vial: 1:1.A

03-23-10



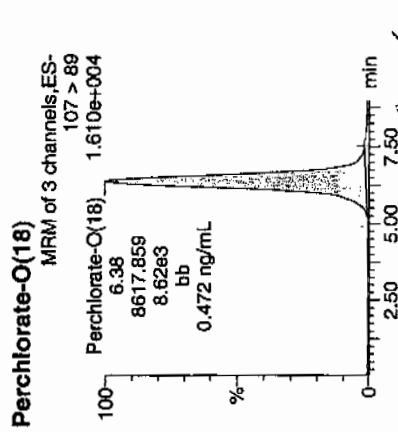
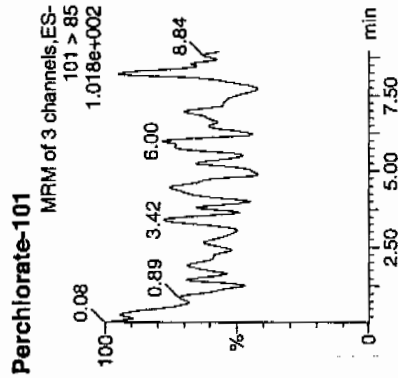
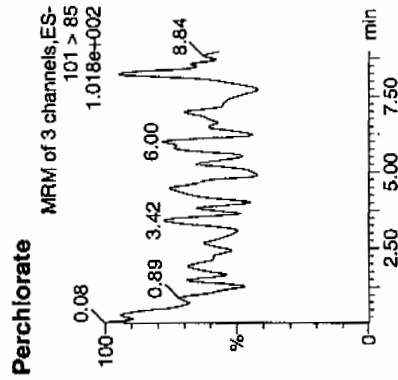
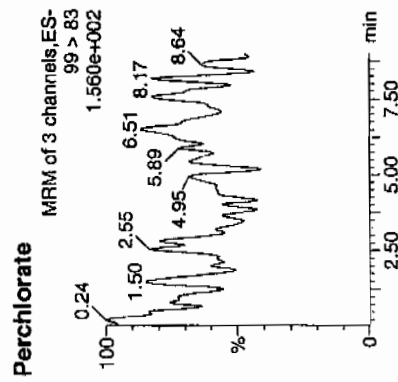
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322010a
Date: 22-Mar-2010
Time: 13:19:46
ID: IPB003
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
IPB003	Perchlorate	99 > 83											
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-Q(18)	107 > 89	6.38	8617.859	8617.859	bb			0.4723	94.46	-5.54	154.848	0.00

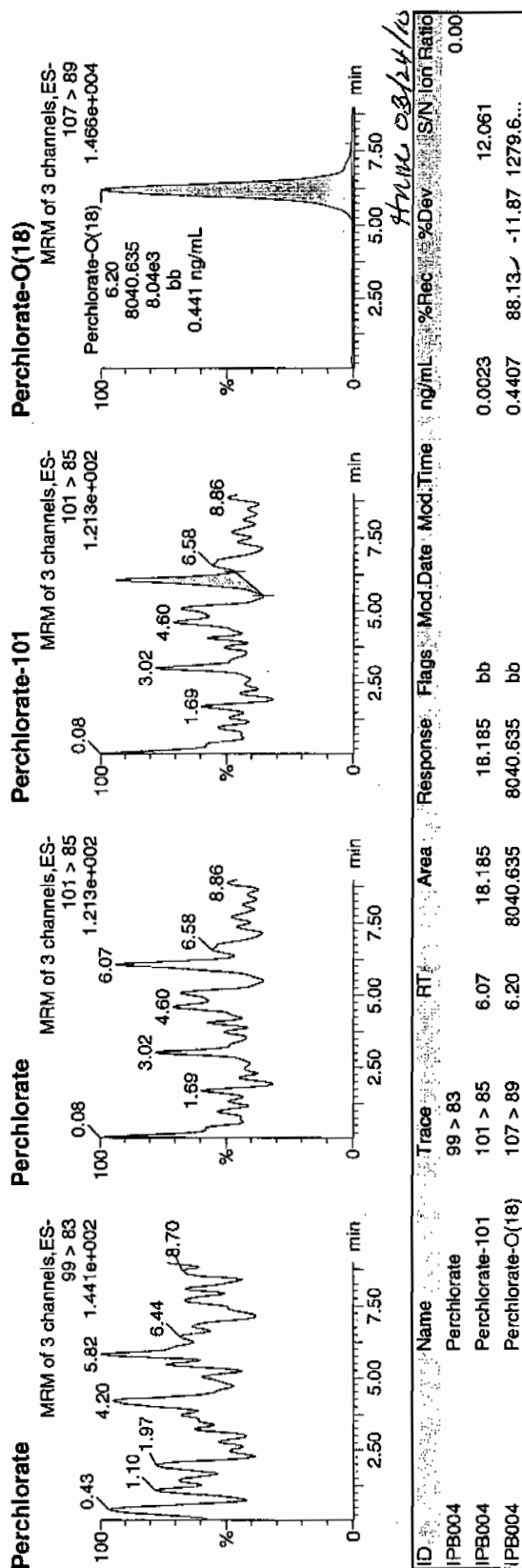
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322023a
Date: 22-Mar-2010
Time: 15:56:51
ID: IPB004
Vial: 1:1,A

03-23-10



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	6.07	18.185	18.185	bb			0.0023			12.061	
IPB004	Perchlorate-O(18)	107 > 89	6.20	8040.635	8040.635	bb			0.4407	88.13	-11.87	1279.6...	

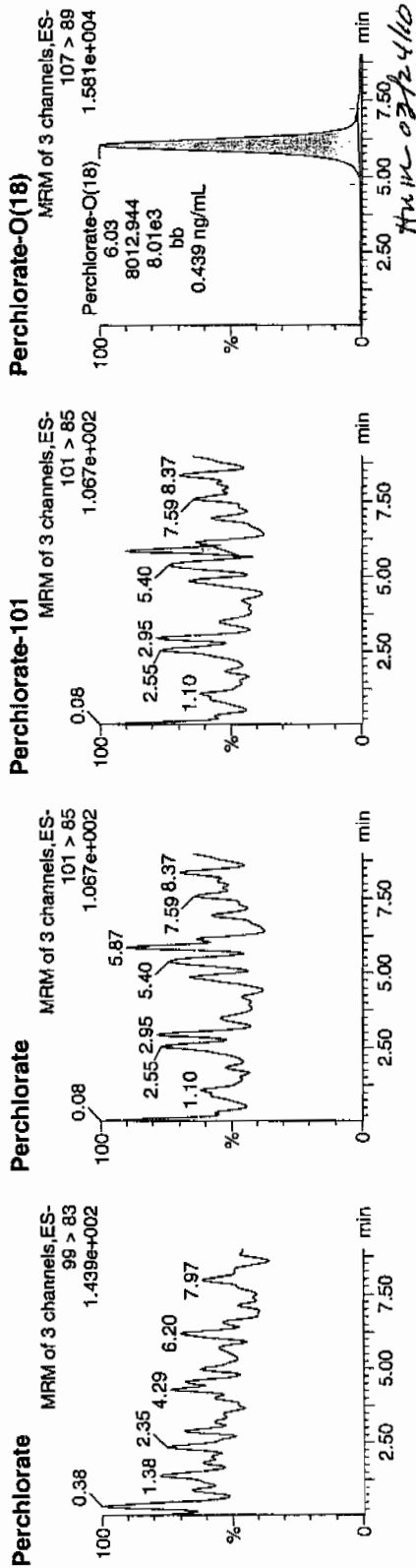
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322036a
Date: 22-Mar-2010
Time: 18:34:07
ID: IPB005
Vial: 1:1,A

03-23-10



ID	Name	Trace	RT	Area	Response	Flags	Mod	Date	Time	ng/mL	%Rec	%Dev	IS/N	Ion	Ratio
IPB005	Perchlorate	99 > 83													0.00
IPB005	Perchlorate-101	101 > 85	5.87	7.461	7.461	bb				0.0009				13.240	
IPB005	Perchlorate-O(18)	107 > 89	6.03	8012.944	8012.944	bb				0.4391	87.83	-12.17		132.616	

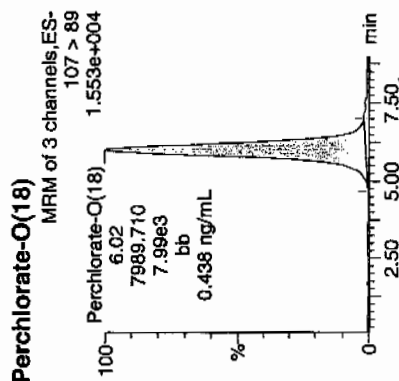
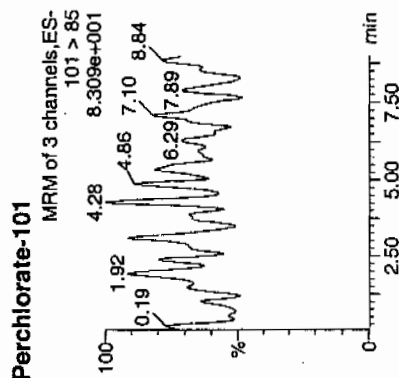
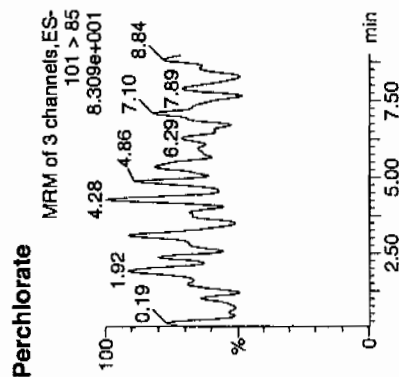
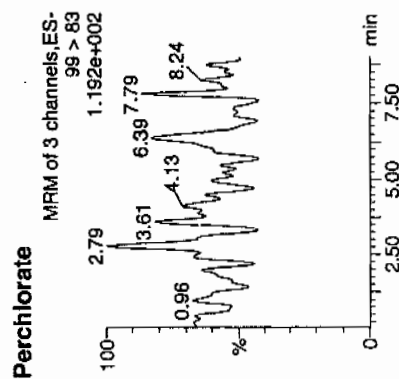
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322040a
Date: 22-Mar-2010
Time: 19:22:34
ID: IPB006
Vial: 1:1,A

03-23-10



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	6.02	7989.710	7989.710	bb			0.4379	87.57	-12.43	2604.0...	

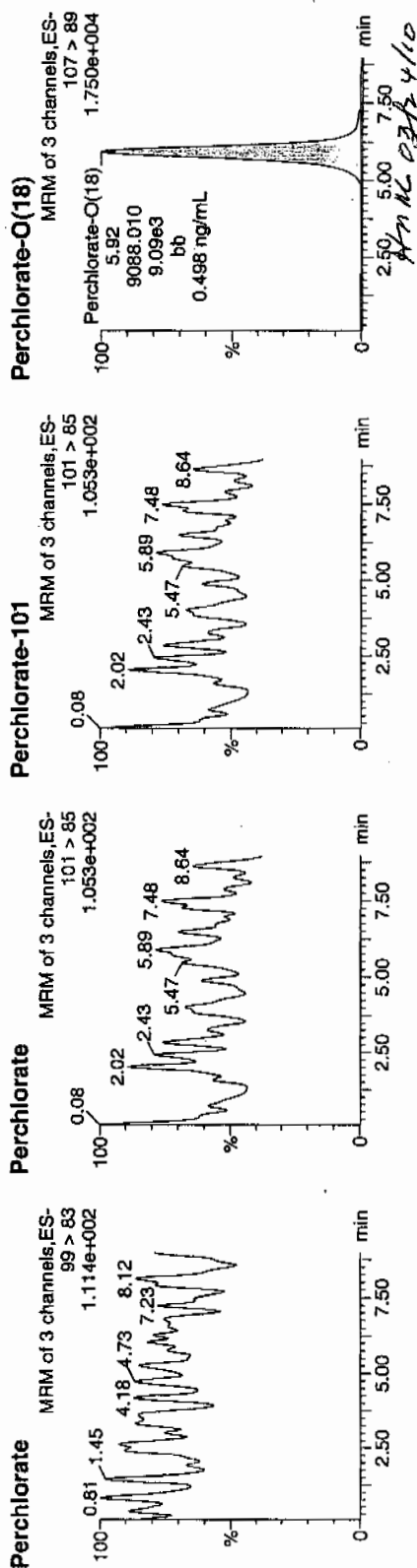
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322049a
Date: 22-Mar-2010
Time: 21:11:37
ID: IPB007
Vial: 1:1,A

0323-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83											0.00
IPB007	Perchlorate-101	101 > 85											
IPB007	Perchlorate-O(18)	107 > 89	5.92	9088.010	9088.010	bb			0.4981	99.61	-0.39	614.610	

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322062a

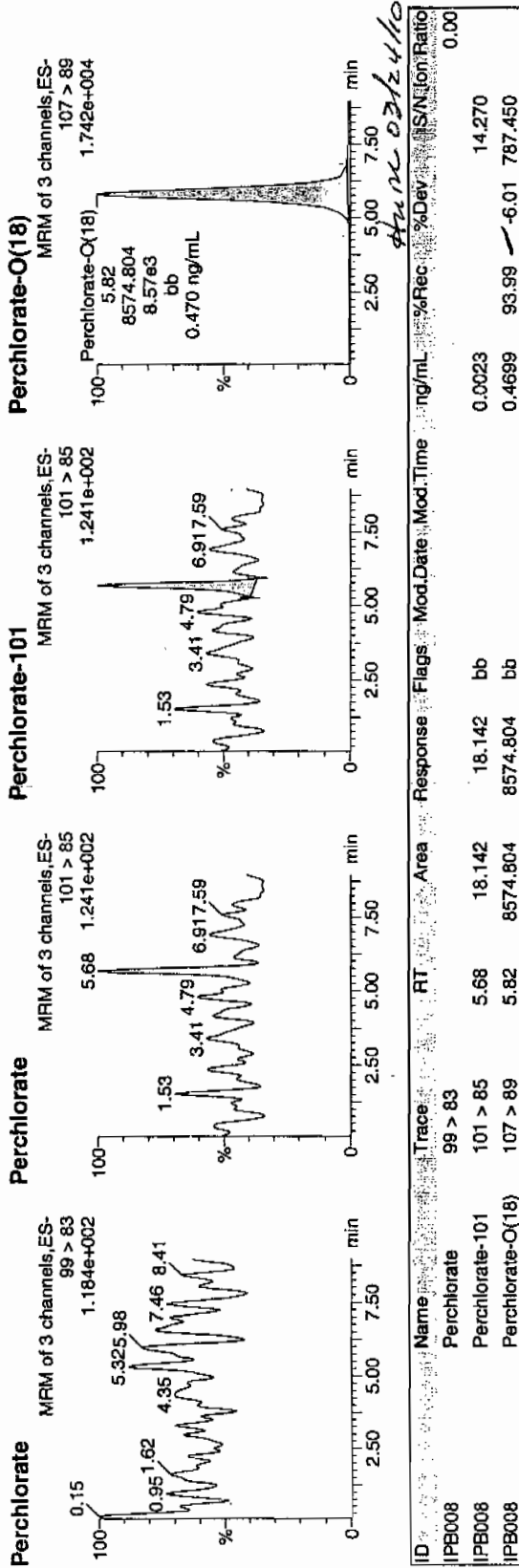
Date: 22-Mar-2010

Time: 23:48:27

ID: IPB008

Vial: 1:1,A

03-23-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	IS/N	Ion Ratio
IPB008	Perchlorate	99 > 83											
IPB008	Perchlorate-101	101 > 85	5.68	18.142	18.142	bb			0.0023				
IPB008	Perchlorate-O(18)	107 > 89	5.82	8574.804	8574.804	bb			0.4699	93.99	-6.01		
													0.00

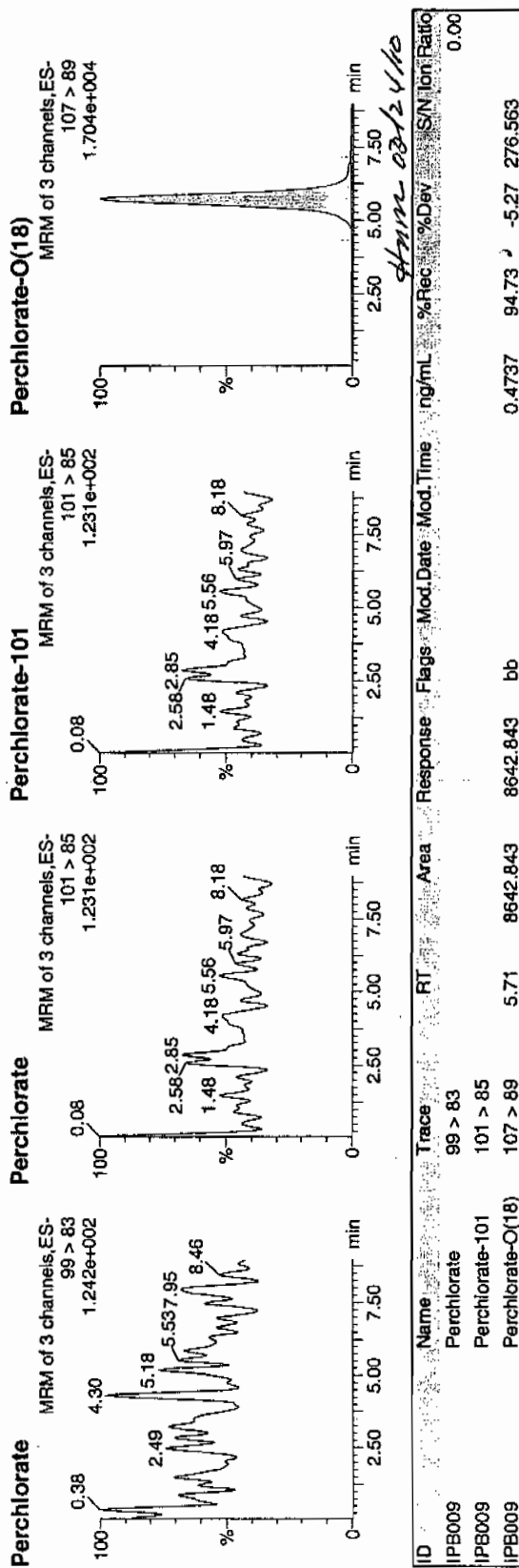
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322073a
Date: 23-Mar-2010
Time: 02:01:20
ID: IPB009
Vial: 1:1,A

03-23-10



Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
 Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322086a

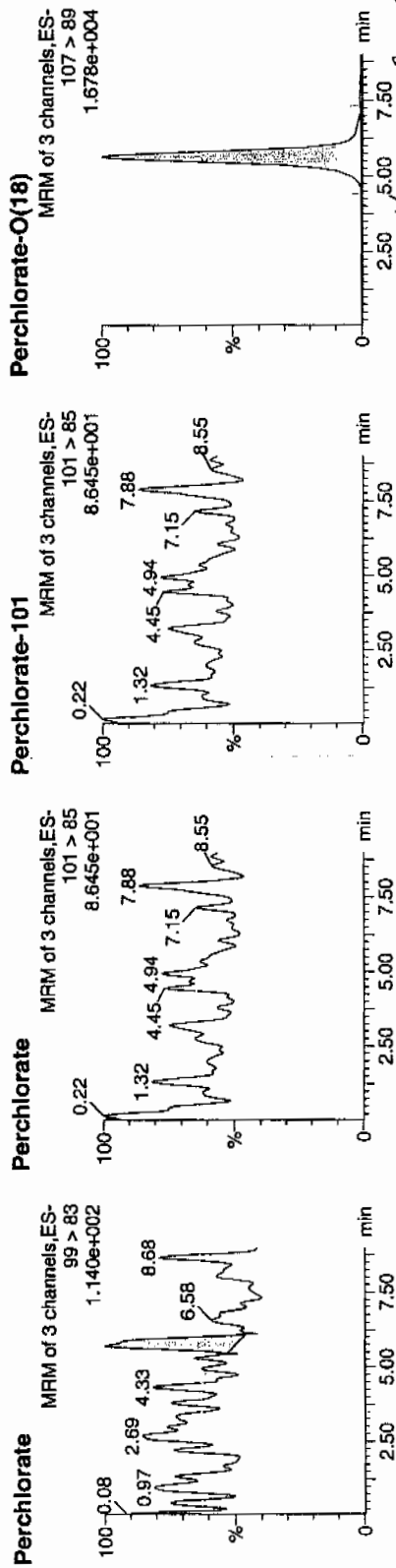
Date: 23-Mar-2010

Time: 04:38:11

ID: IPB010

Vial: 1:1,A

03-23-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB010	Perchlorate	99 > 83	5.71	22.210	22.210	bb			0.0009			12.081	0.00
IPB010	Perchlorate-101	101 > 85											
IPB010	Perchlorate-O(18)	107 > 89	5.64	8465.981	8465.981	bb			0.4640	92.79	-7.21	1511.7	

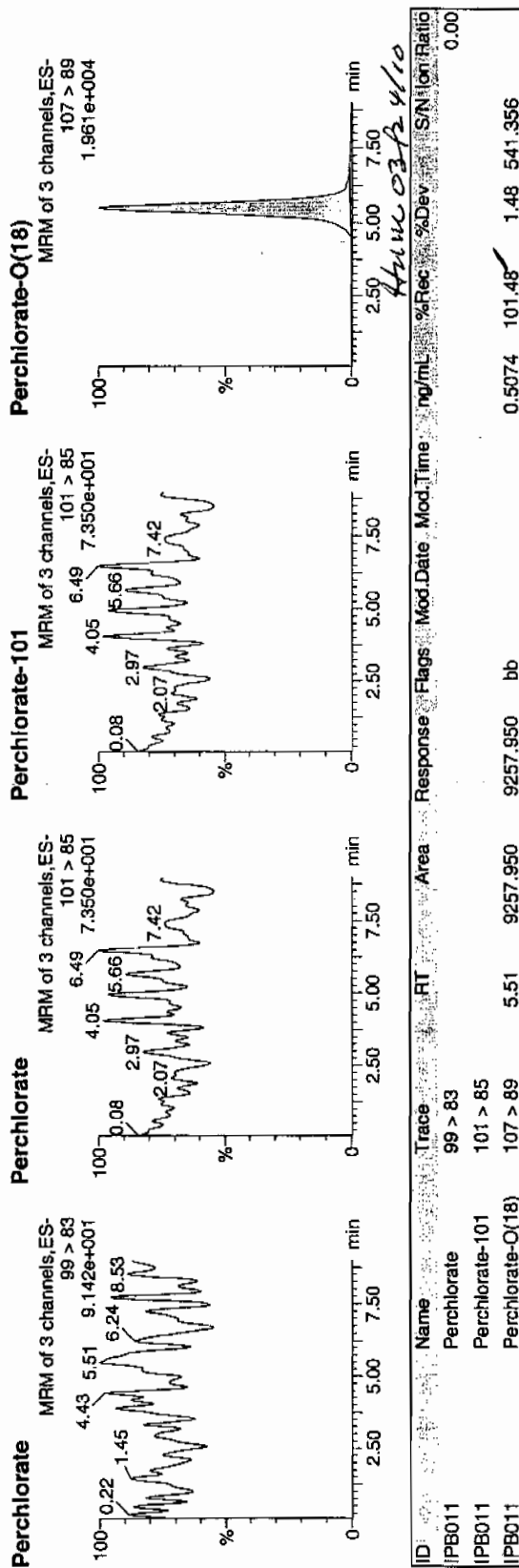
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322099a
Date: 23-Mar-2010
Time: 07:18:34
ID: IPB011
Vial: 1:1,A

Wm
03-23-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
IPB011	Perchlorate	99 > 83											0.00
IPB011	Perchlorate-101	101 > 85											
IPB011	Perchlorate-O(18)	107 > 89	5.51	9257.950	9257.950	bb			0.5074	101.48	1.48	541.356	

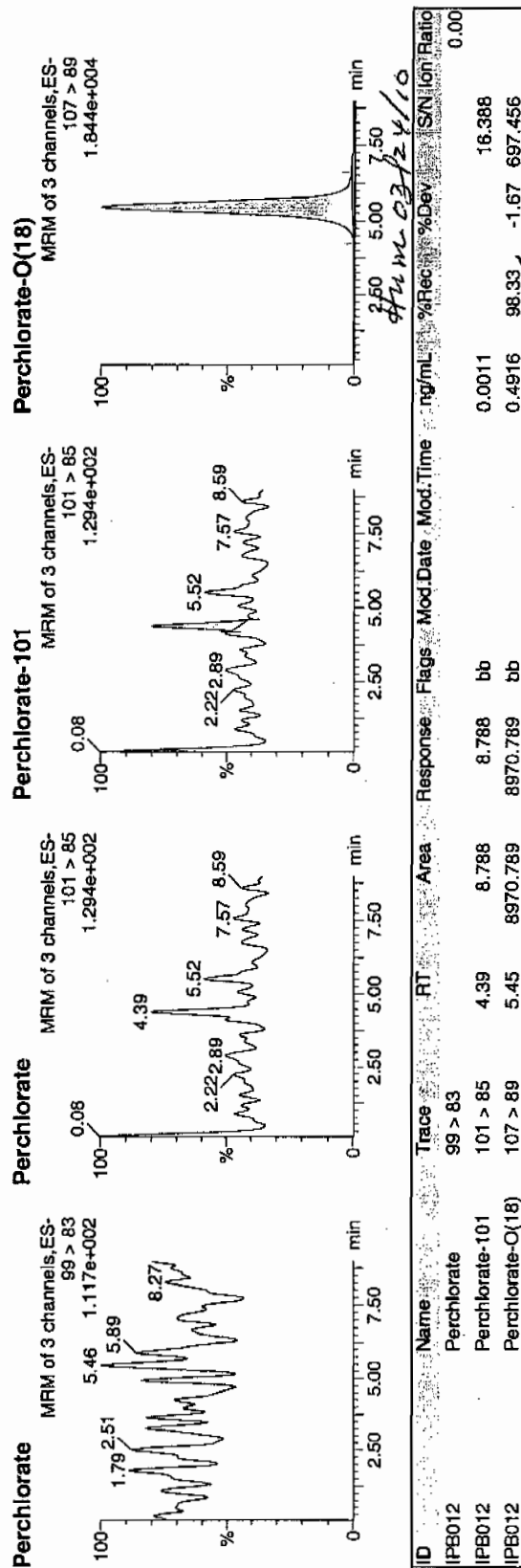
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322105a
Date: 23-Mar-2010
Time: 08:31:10
ID: IPB012
Vial: 1:1,A

03-23-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB012	Perchlorate	99 > 83											0.00
IPB012	Perchlorate-101	101 > 85	4.39	8.788	8.788	bb			0.0011				16.388
IPB012	Perchlorate-O(18)	107 > 89	5.45	8970.789	8970.789	bb			0.4916	98.33	-1.67	697.456	

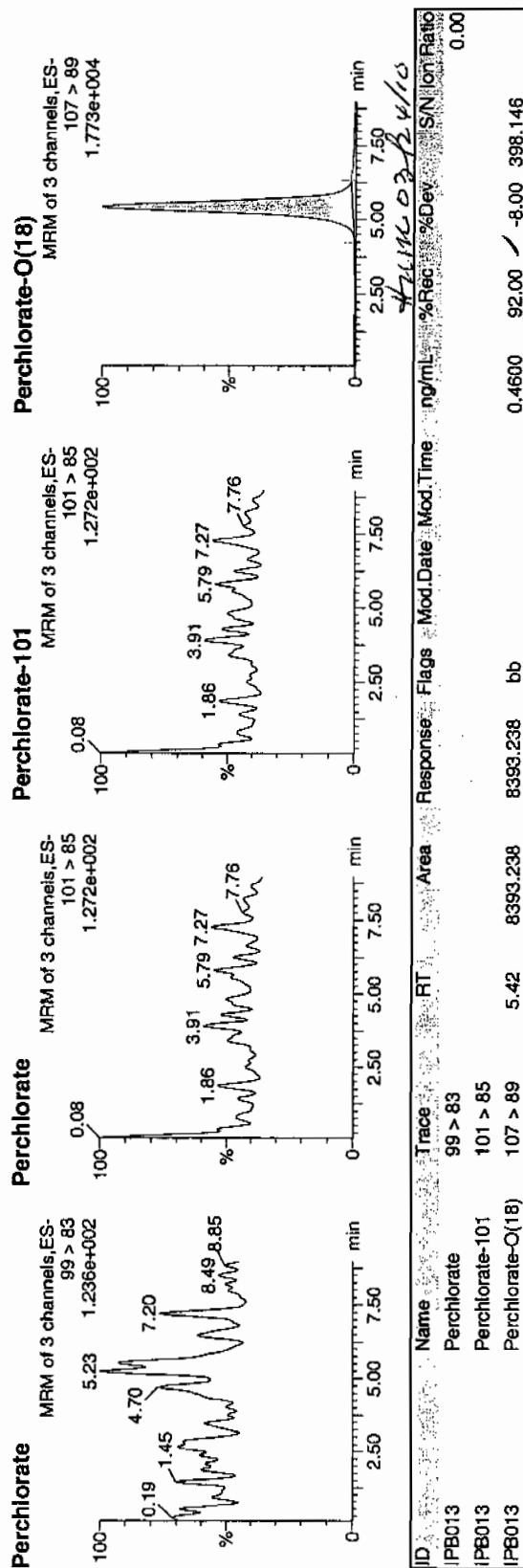
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322107a
Date: 23-Mar-2010
Time: 08:55:27
ID: IPB013
Vial: 1:1.A

03-23-10



Quantify Sample Report MassLynx 4.0 SP4

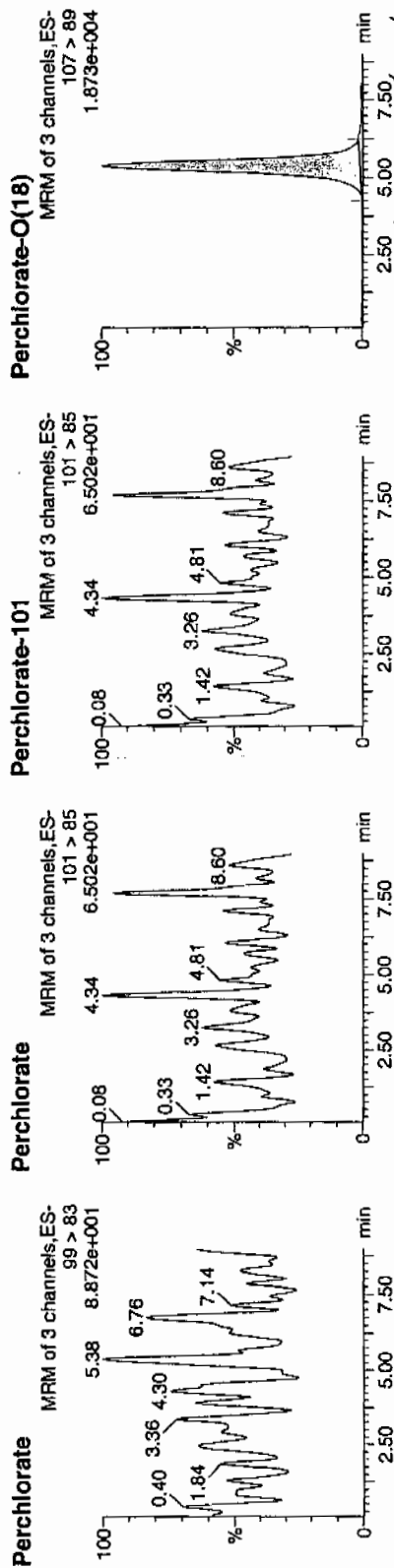
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
 Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322112a
 Date: 23-Mar-2010
 Time: 09:55:44
 ID: IPB014
 Vial: 1:1,A

03-23-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB014	Perchlorate	99 > 83											0.00
IPB014	Perchlorate-101	101 > 85											
IPB014	Perchlorate-O(18)	107 > 89	5.37	8920.187	8920.187	bb			0.4889	97.77	-2.23	1004.3...	

Nalib.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

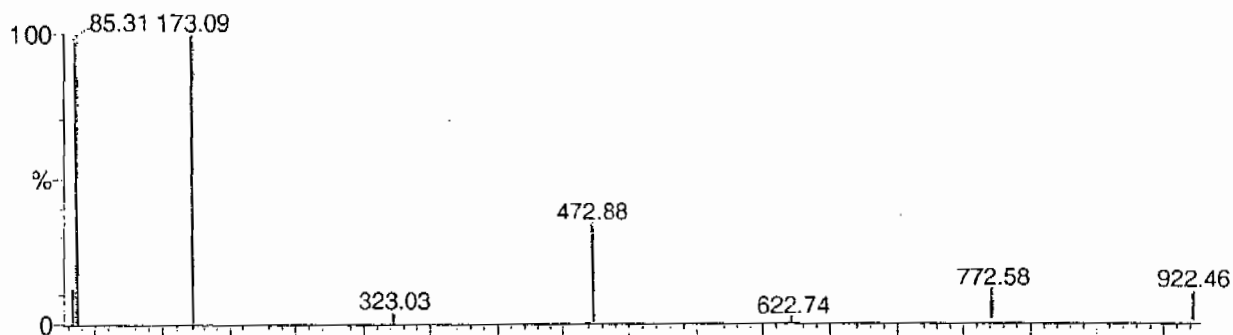
Page 1 of 1

Printed: Tue Jan 08 12:19:12 2008

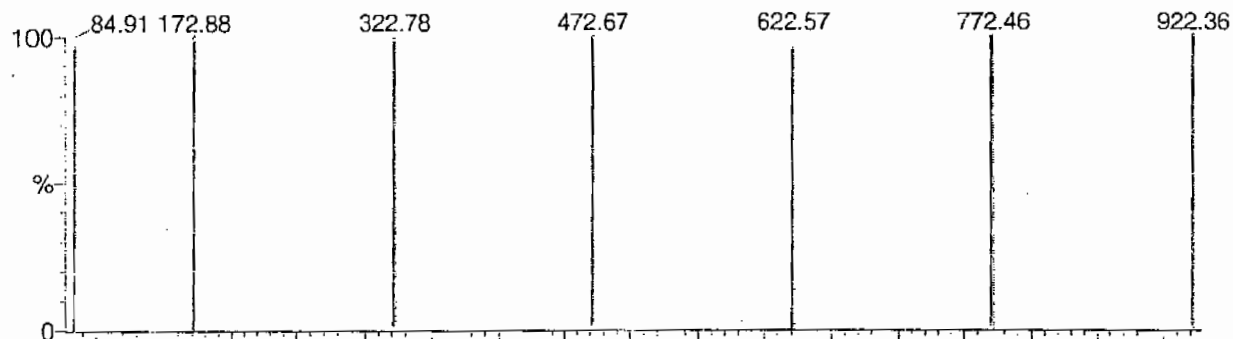
PAIS HIGHLIGHTED BY GSWW 01-07-08

Data file: STATMS1 - Uncalibrated

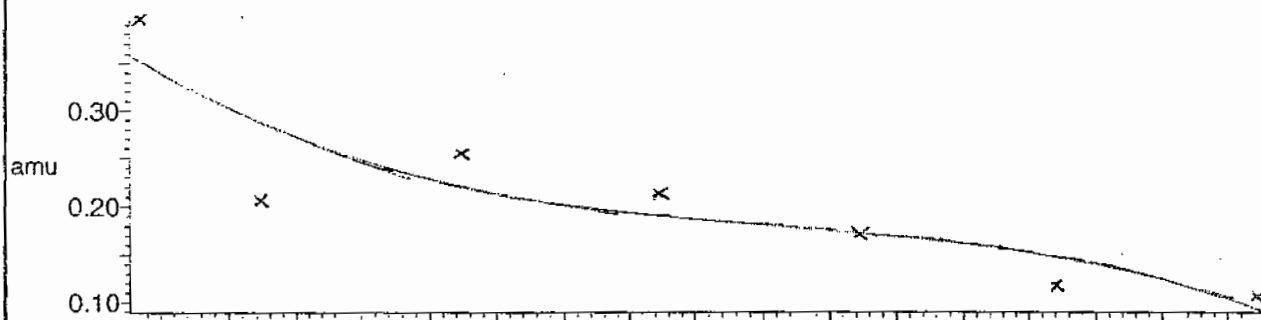
7 matches of 7 tested references



Reference file: Nairb

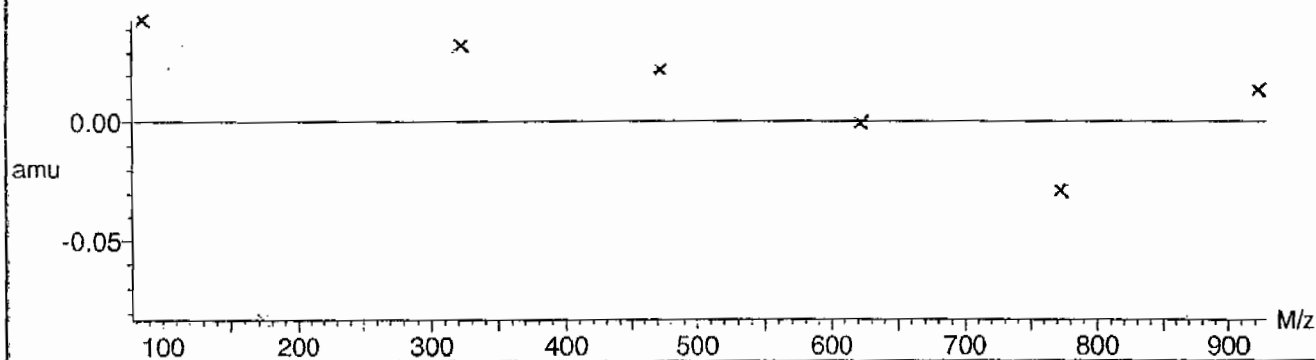


Mass difference (Raw - Ref mass)



Residuals

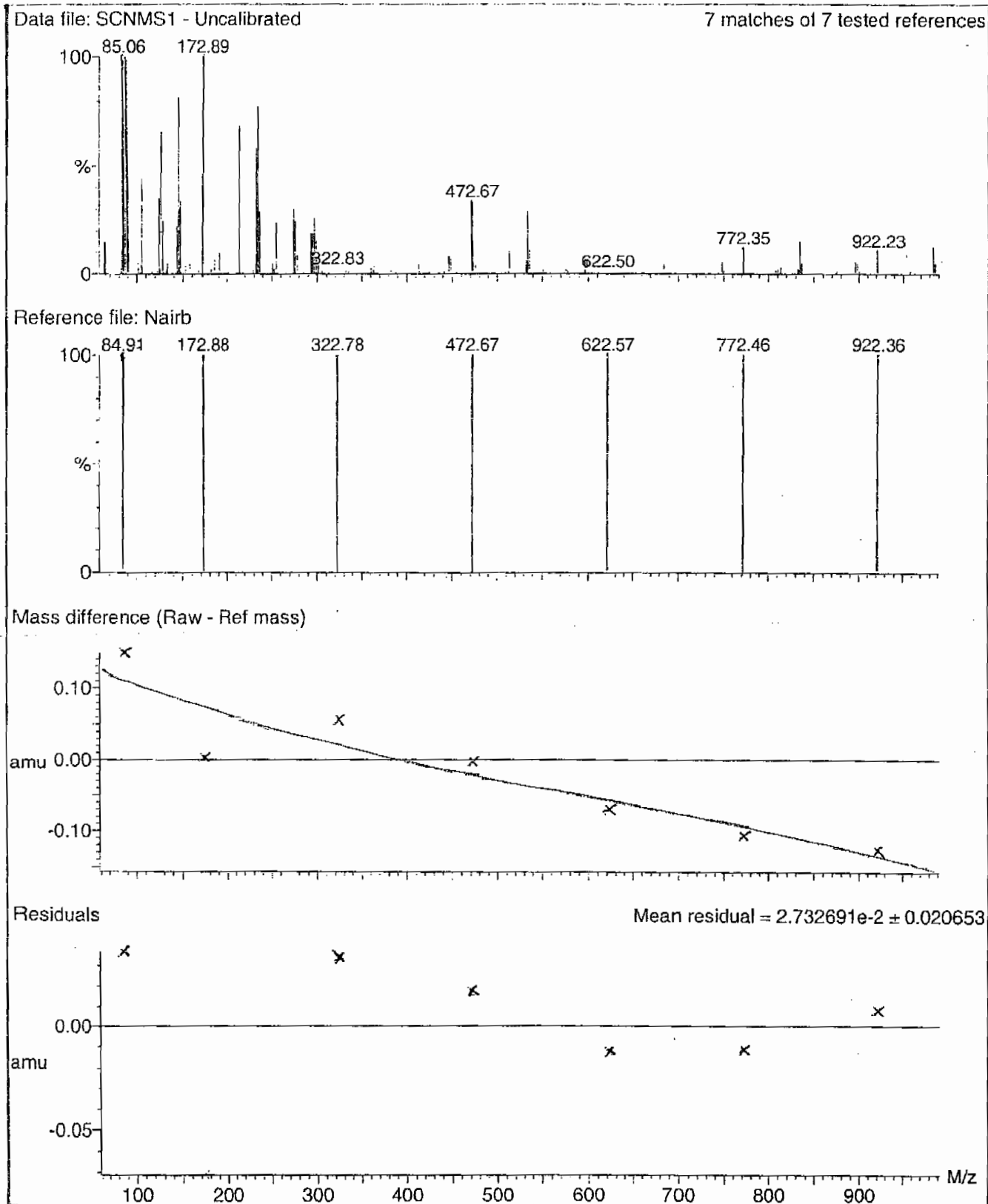
Mean residual = $3.212012 \times 10^{-2} \pm 0.024108$



Calibration Report - MS1 Scanning

Page 1 of 1

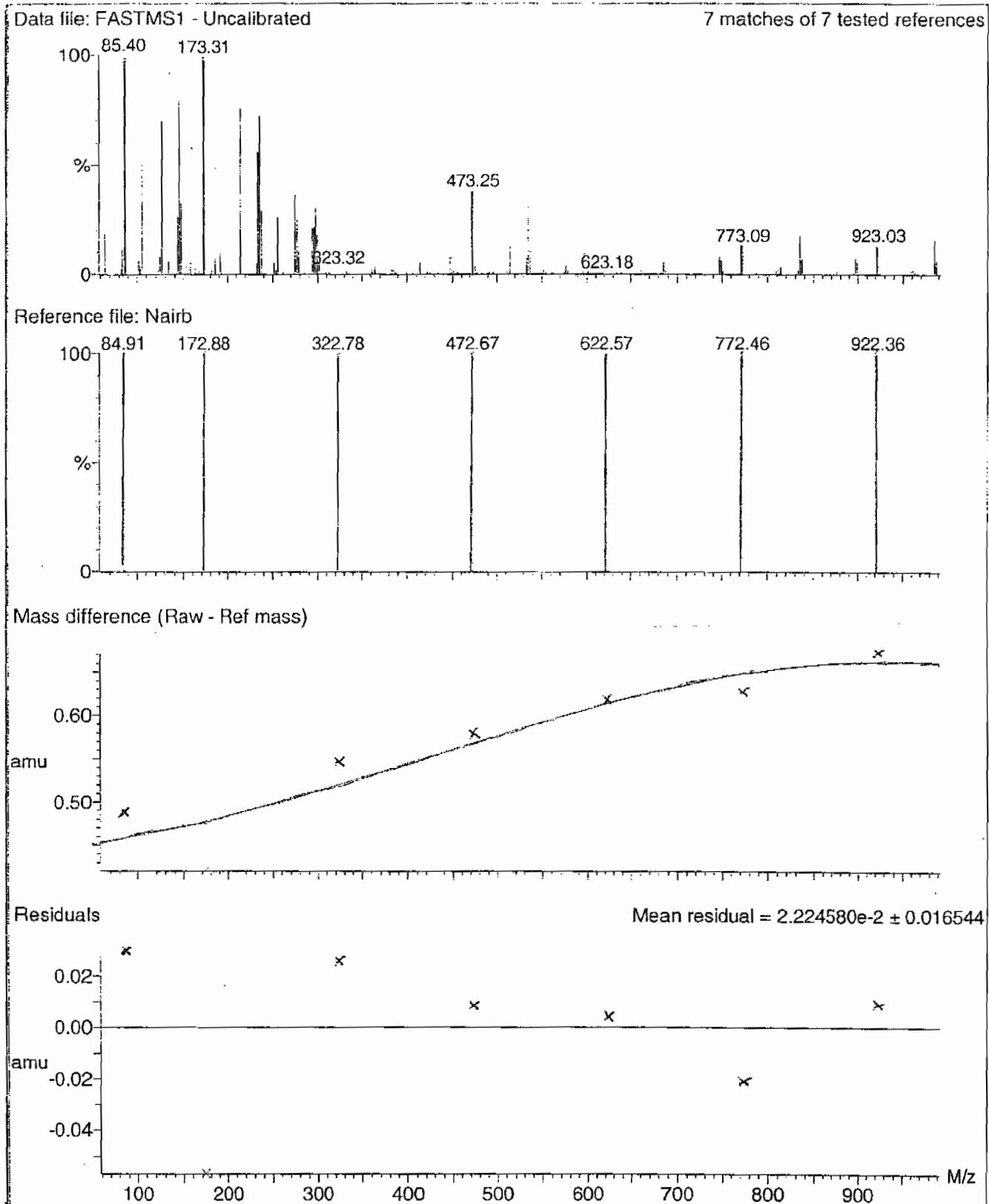
Printed: Tue Jan 08 12:20:09 2008



Calibration Report - MS1 Scan Speed Compensation

Page 1 of 1

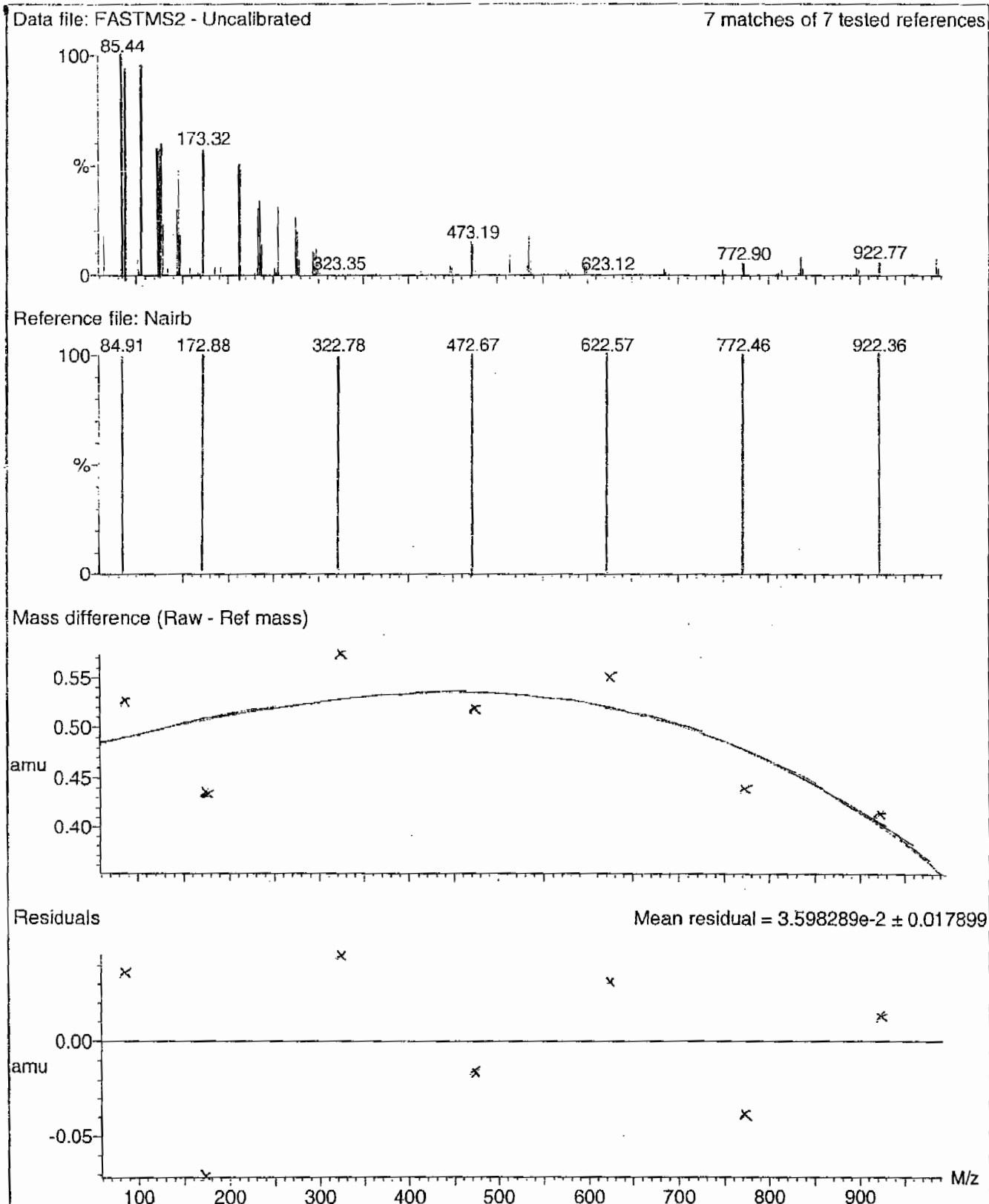
Printed: Tue Jan 08 12:21:04 2008



Calibration Report - MS2 Scan Speed Compensation

Page 1 of 1

Printed: Tue Jan 08 12:23:51 2008



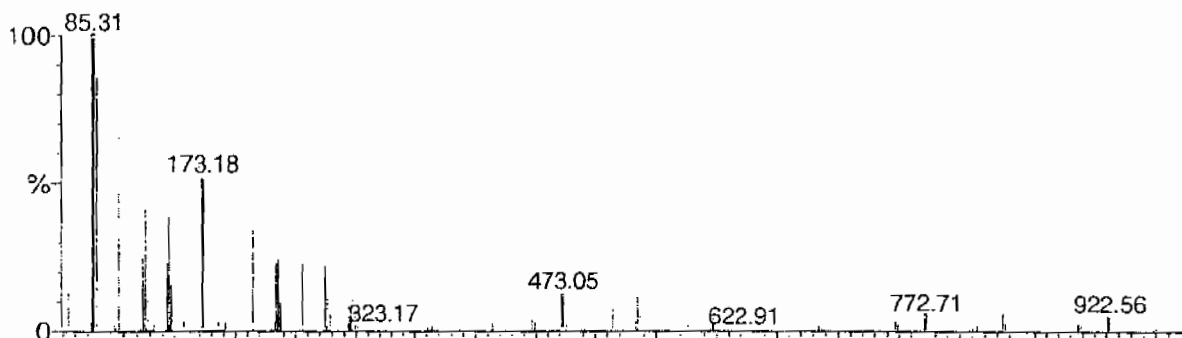
Calibration Report - MS2 Scanning

Page 1 of 1

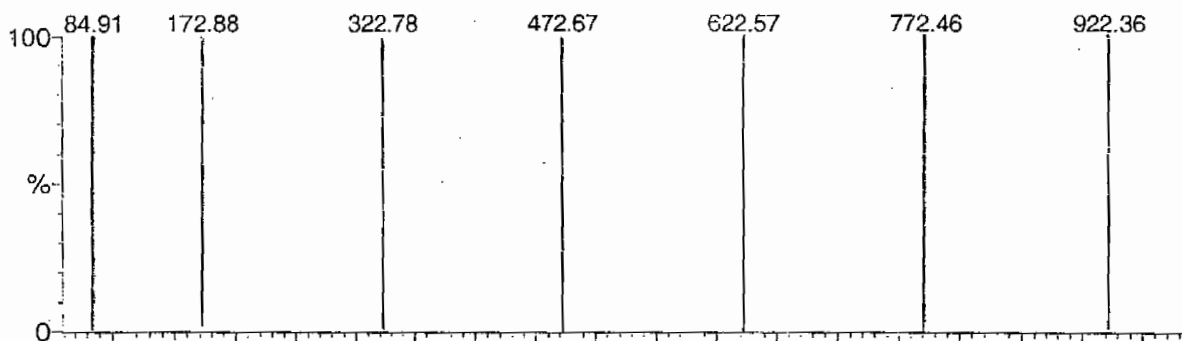
Printed: Tue Jan 08 12:22:56 2008

Data file: SCNMS2 - Uncalibrated

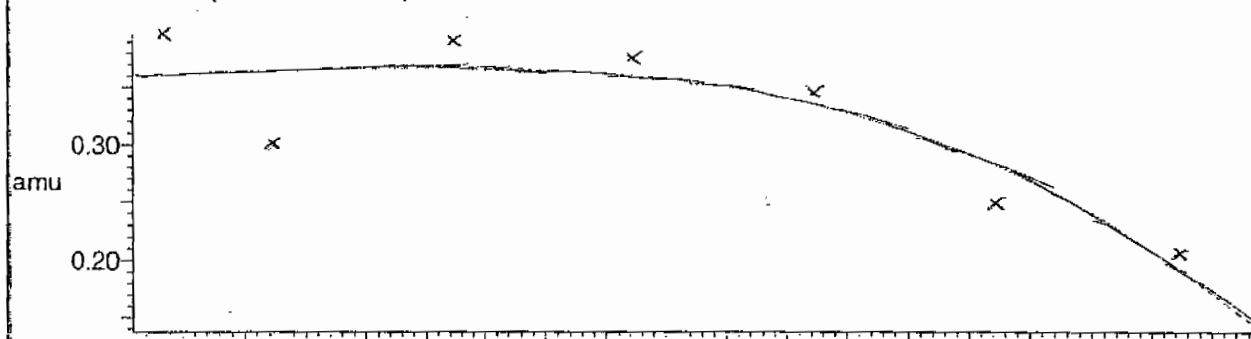
7 matches of 7 tested references



Reference file: Nairb

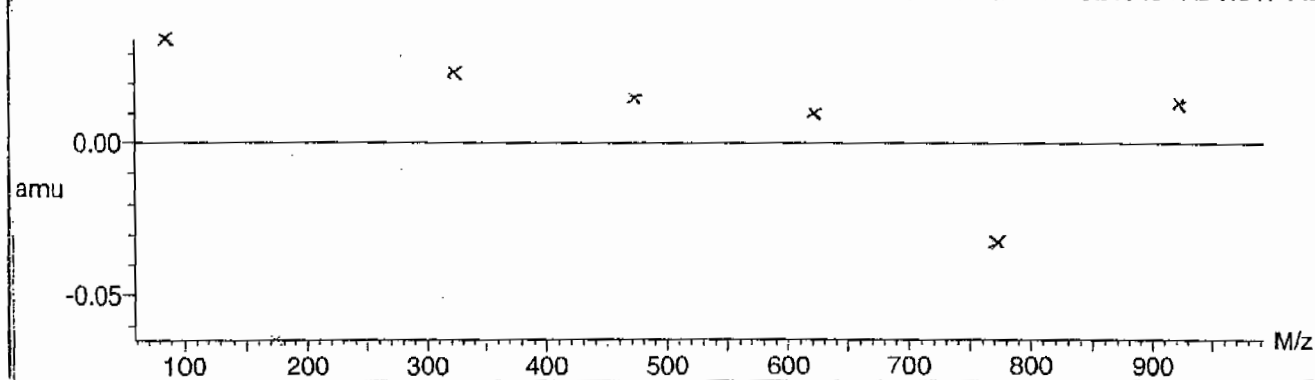


Mass difference (Raw - Ref mass)



Residuals

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



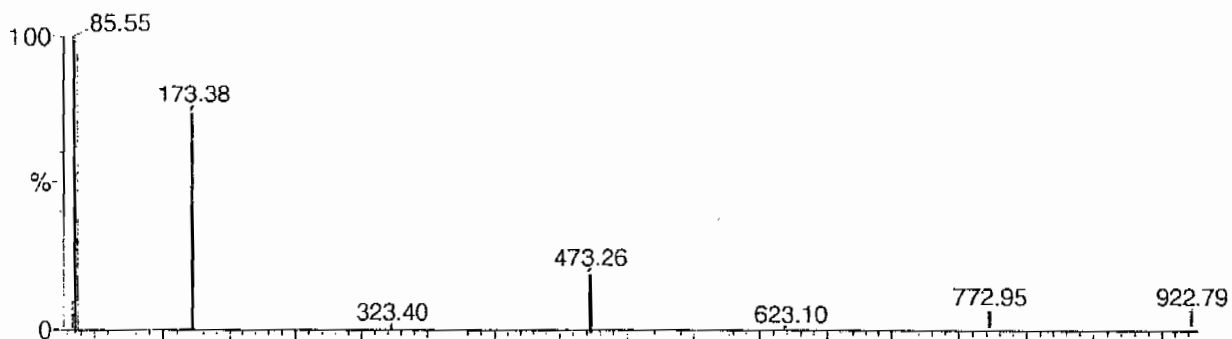
Calibration Report - MS2 Static

Page 1 of 1

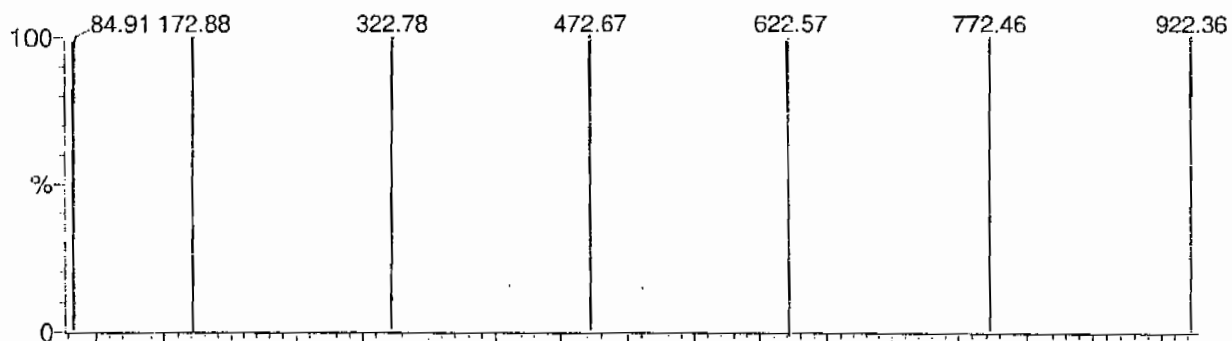
Printed: Tue Jan 08 12:21:59 2008

Data file: STATMS2 - Uncalibrated

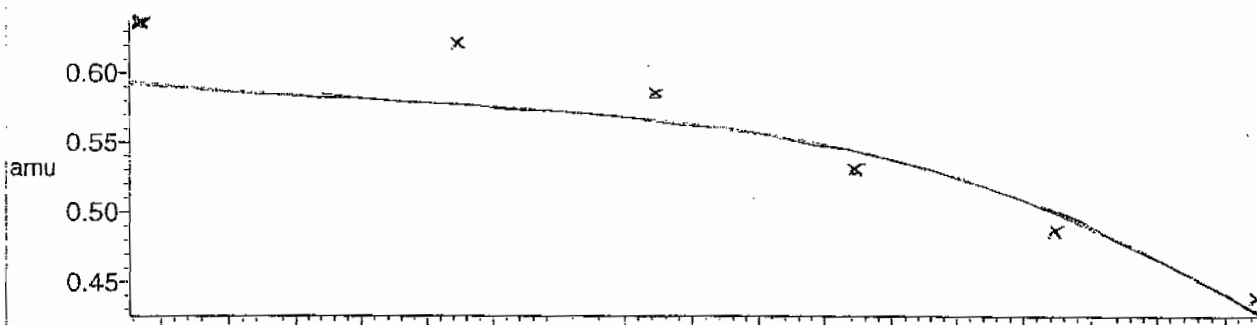
7 matches of 7 tested references



Reference file: Nairb

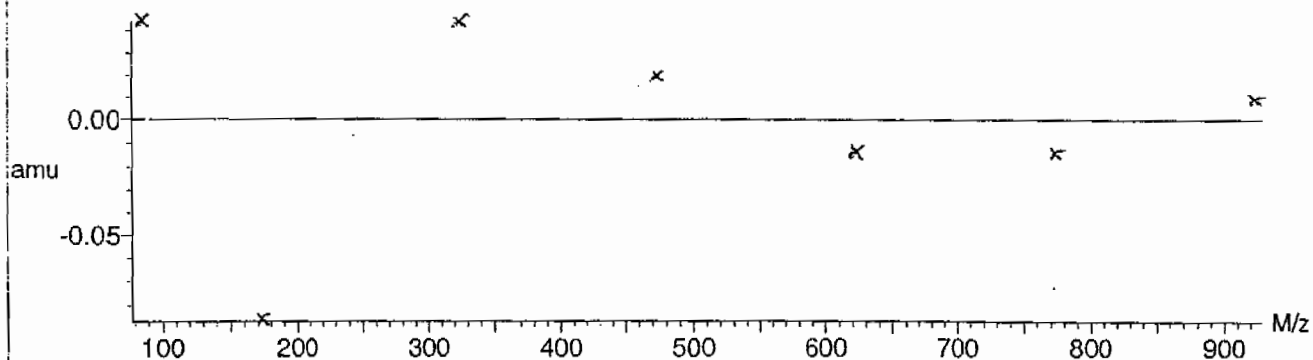


Mass difference (Raw - Ref mass)



Residuals

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



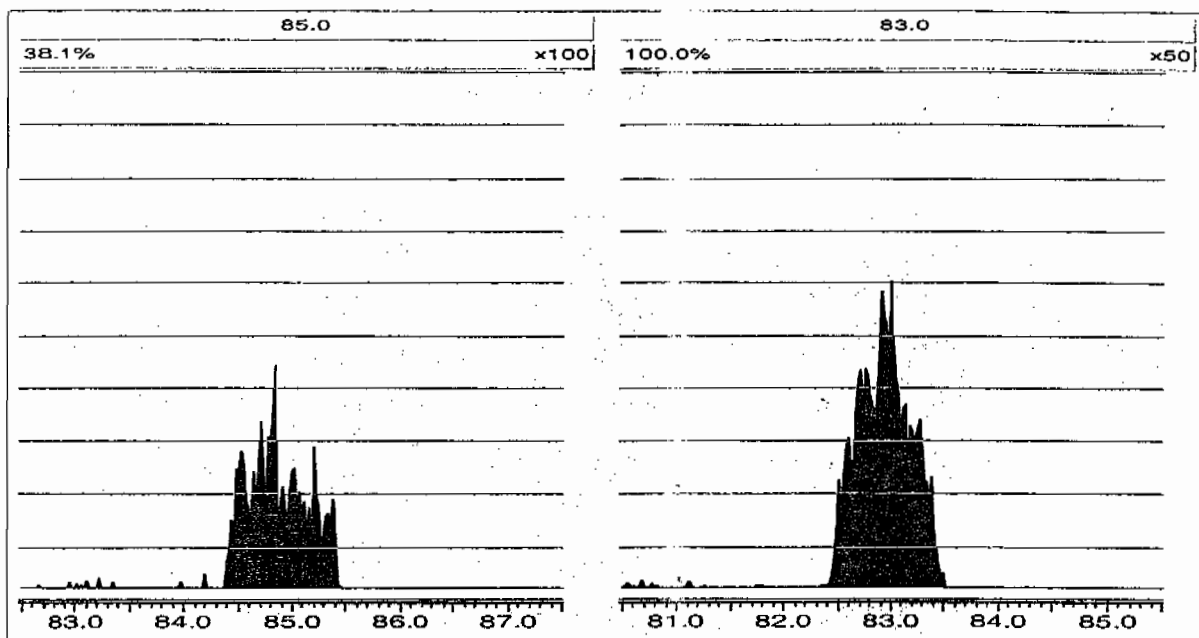
Tune Parameters

MassLynx 4.0 SP4

Page 1 of 1

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

Printed: Monday, March 22, 2010 08:32:35 Eastern Standard Time



Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2135

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	per0322006a	22-MAR-10	9056.69				
Lower Area Limit			4528.345				
Upper Area Limit			18113.38				
1202056698	per0322012a	22-MAR-10 13:44	8047.19	6.35			
1202056699	per0322013a	22-MAR-10 13:56	8605.36	6.33	6.36485	1.006	
248241001	per0322015a	22-MAR-10 14:20	9193.91	6.28	6.3151	1.006	
248241002	per0322016a	22-MAR-10 14:32	9168.25	6.27	6.34022	1.011	
1202056700	per0322017a	22-MAR-10 14:44	9365.1	6.24	6.29045	1.008	
1202056701	per0322018a	22-MAR-10 14:56	9219.59	6.24	6.26555	1.004	
248241003	per0322019a	22-MAR-10 15:08	8882.13	6.23	6.26555	1.006	
248241004	per0322020a	22-MAR-10 15:20	8738.23	6.19	6.21573	1.004	

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2135

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	per0322006a	22-MAR-10	9056.69				
Lower Area Limit			4528.345				
Upper Area Limit			18113.38				
248241005	per0322021a	22-MAR-10 15:32	9181.86	6.18	6.24062	1.01	
248241006	per0322025a	22-MAR-10 16:21	9124.3	6.15	6.19105	1.007	
248241007	per0322026a	22-MAR-10 16:33	8745.71	6.12	6.1661	1.008	
248241008	per0322027a	22-MAR-10 16:45	8528.55	6.13	6.15392	1.004	
248241009	per0322028a	22-MAR-10 16:57	9150.92	6.09	6.10432	1.002	
248241010	per0322029a	22-MAR-10 17:09	8993.91	6.07	6.09162	1.004	
1202056702	per0322106a	23-MAR-10 08:43	9785.44	6.07	6.07915	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: 959033
 Extraction Type: Solid Prep
 Client Sample No.: RE36-10-7458
 Date Received: 27-FEB-10
 GEL Job No (SDG): 10-2135
 GEL Sample ID: 248241001
 Date Filtered: 15-MAR-10
 Injection Volume (uL): 20
 %Solids: 86

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	.583	2.33	3.84	ug/kg		1	22-MAR-10 14:20	per0322015a
	Perchlorate Isotope Ratio			3.02			1	22-MAR-10 14:20	per0322015a
14797-73-0	Perchlorate-101	.583	2.33	3.87	ug/kg		1	22-MAR-10 14:20	per0322015a
	Perchlorate-O(18)			5.87	ug/kg		1	22-MAR-10 14:20	per0322015a

[^] 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\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322015a

Date: 22-Mar-2010

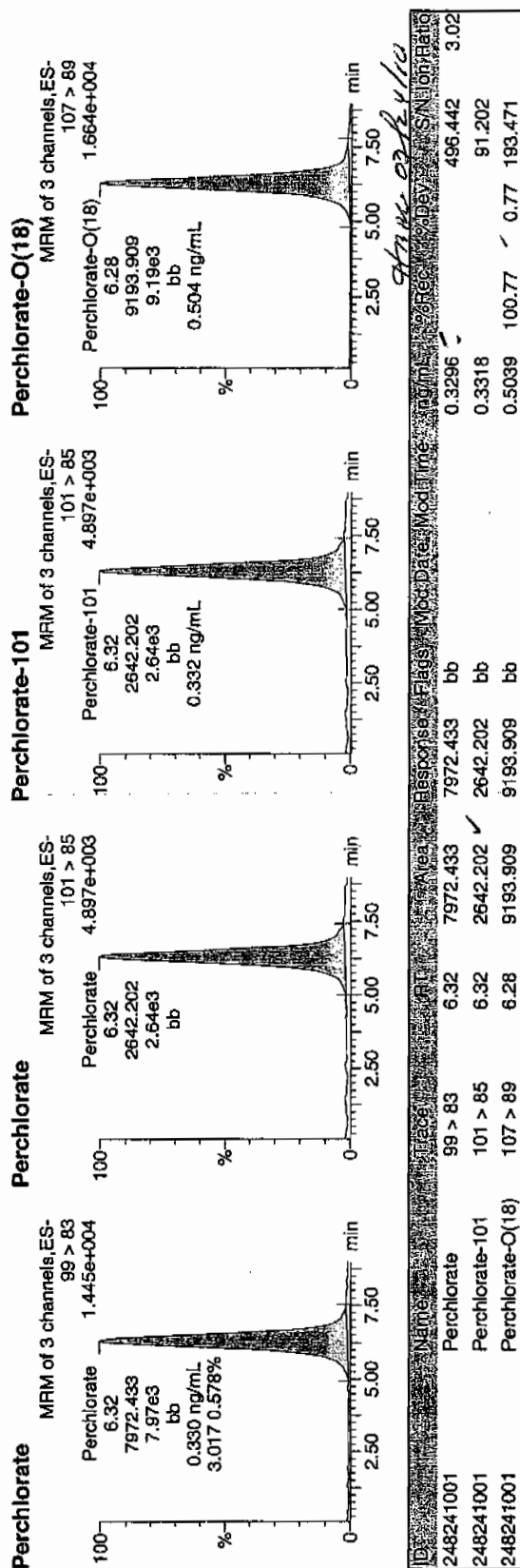
Time: 14:20:17

ID: 248241001

Vial: 1:3,D

03-23-10

15700 | 959034 | 5070 | 11



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: 959033
 Extraction Type: Solid Prep
 Client Sample No. RE36-10-7453
 Date Received: 27-FEB-10
 GEL Job No (SDG): 10-2135
 GEL Sample ID: 248241002
 Date Filtered: 15-MAR-10
 Injection Volume (uL): 20
 %Solids: 55

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	.905	3.62	0.905	ug/kg	U	1	22-MAR-10 14:32	per0322016a
	Perchlorate Isotope Ratio						1	22-MAR-10 14:32	per0322016a
14797-73-0	Perchlorate-101	.905	3.62	0.905	ug/kg	U	1	22-MAR-10 14:32	per0322016a
	Perchlorate-O(18)			9.09	ug/kg		1	22-MAR-10 14:32	per0322016a

[^] 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\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322016a

Date: 22-Mar-2010

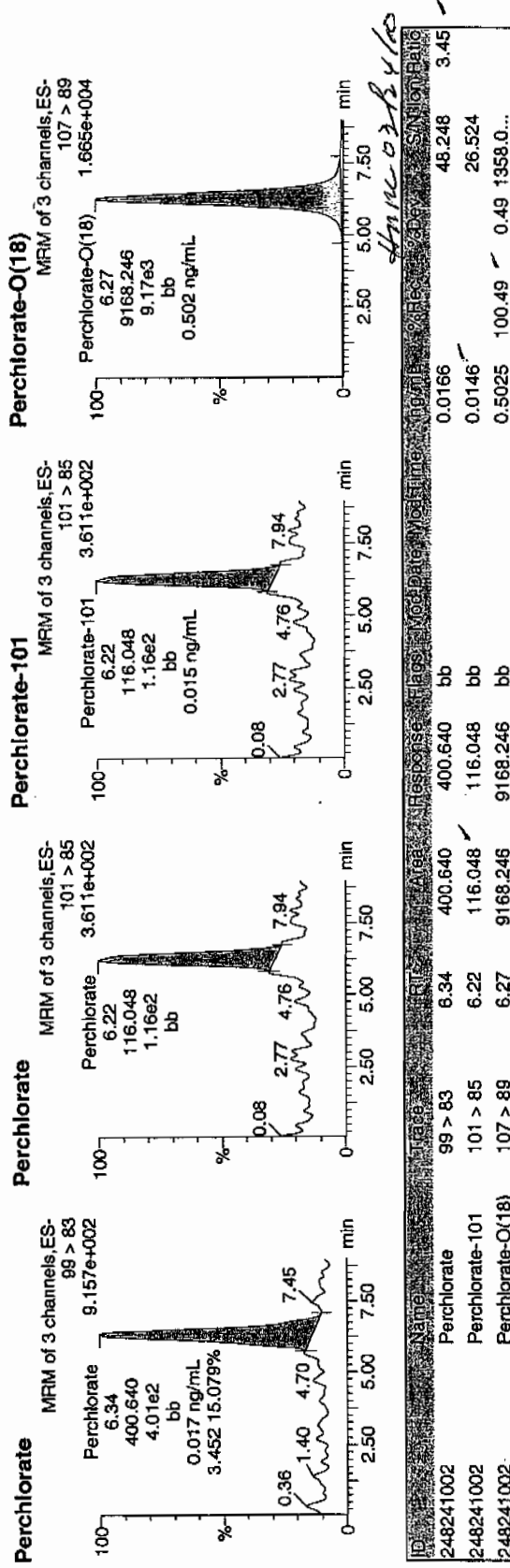
Time: 14:32:18

ID: 248241002

Vial: 1:3,E

03-23-10

LANC 1959034 | 5020 | 11



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: 959033

Extraction Type: Solid Prep

Client Sample No.

RE36-10-7454

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2135

GEL Sample ID: 248241003

Date Filtered: 15-MAR-10

Injection Volume (uL): 20

%Solids: 21.8

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	.544	2.18	0.544	ug/kg	U	1	22-MAR-10 15:08	per0322019a
	Perchlorate Isotope Ratio						1	22-MAR-10 15:08	per0322019a
14797-73-0	Perchlorate-101	.544	2.18	0.544	ug/kg	U	1	22-MAR-10 15:08	per0322019a
	Perchlorate-O(18)			5.30	ug/kg		1	22-MAR-10 15:08	per0322019a

[^] 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\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322019a

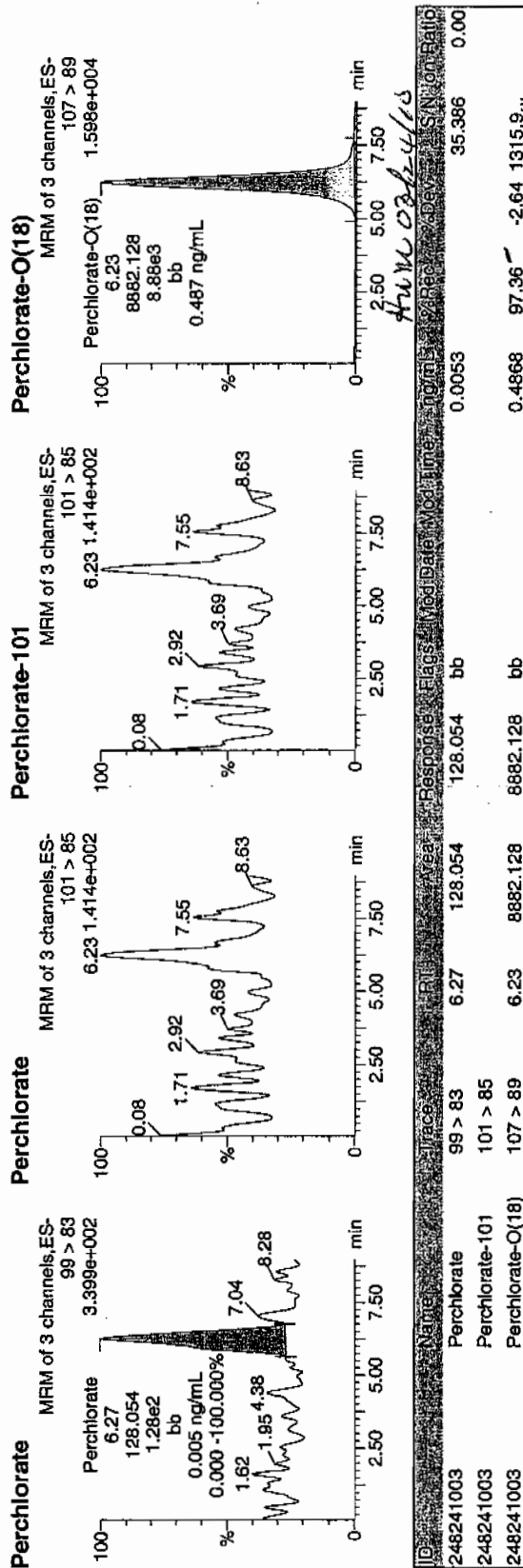
Date: 22-Mar-2010

Time: 15:08:33

ID: 248241003

Vial: 1:4,B

LANC | 959034 | 5070 | 11
03-23-10



Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 959033

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7460

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2135

GEL Sample ID: 248241004

Date Filtered: 15-MAR-10

Injection Volume (uL): 20

%Solids: 90.5

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.552	2.21	2.41	ug/kg		1	22-MAR-10 15:20	per0322020a
	Perchlorate Isotope Ratio			2.99			1	22-MAR-10 15:20	per0322020a
14797-73-0	Perchlorate-101	.552	2.21	2.46	ug/kg		1	22-MAR-10 15:20	per0322020a
	Perchlorate-O(18)			5.29	ug/kg		1	22-MAR-10 15:20	per0322020a

[^] 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

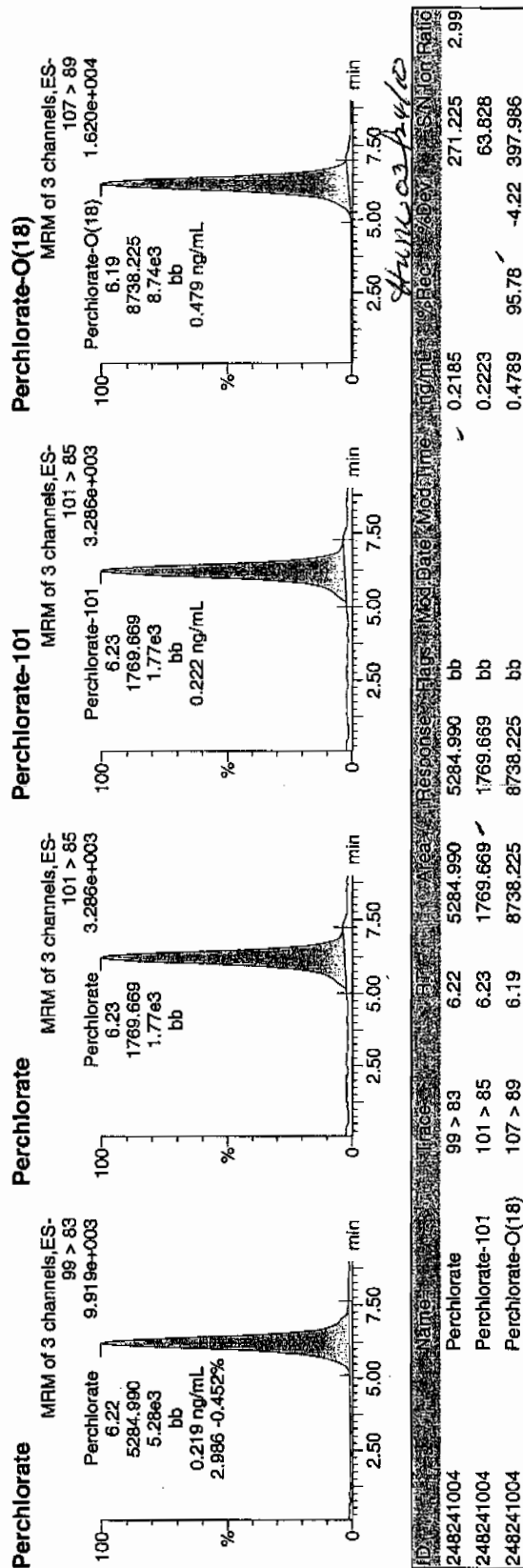
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322020a
Date: 22-Mar-2010
Time: 15:20:35
ID: 248241004
Vial: 1:4,C

1622-1959034 | 3020 | 11 |
03-23-10



ID	Name	Traces	Area	Response	Flags	Mod. Time	ng/mL	Rec	Day	SN	Ion Ratio
248241004	Perchlorate	99 > 83	6.22	5284.990	bb		0.2185	271.225			2.99
248241004	Perchlorate-101	101 > 85	6.23	1769.669	bb		0.2223	63.828			
248241004	Perchlorate-Q(18)	107 > 89	6.19	8738.225	bb		0.4789	95.78	-4.22		397.986

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: 959033

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7456

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2135

GEL Sample ID: 248241005

Date Filtered: 15-MAR-10

Injection Volume (uL): 20

%Solids: 92.5

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.54	2.16	1.78	ug/kg	J	1	22-MAR-10 15:32	per0322021a
	Perchlorate Isotope Ratio			3.04			1	22-MAR-10 15:32	per0322021a
14797-73-0	Perchlorate-101	.54	2.16	1.78	ug/kg	J	1	22-MAR-10 15:32	per0322021a
	Perchlorate-O(18)			5.44	ug/kg		1	22-MAR-10 15:32	per0322021a

[^] 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\per032210a.qid

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322021a

Date: 22-Mar-2010

Time: 15:32:38

ID: 248241005

Vial: 1:4,D

03-23-10

1.722 | 959034 | 3020 | 1.1

Perchlorate

MRM of 3 channels, ES-

99 > 83

7.453e+003

Perchlorate

6.24

3981.864

3.98e3

bb

0.165 ng/mL

3.044 1.460%

min

2.50

5.00

7.50

Perchlorate

MRM of 3 channels, ES-

101 > 85

2.305e+003

Perchlorate

6.19

1308.183

1.31e3

bb

0.164 ng/mL

min

2.50

5.00

7.50

Perchlorate-101

MRM of 3 channels, ES-

101 > 85

2.305e+003

Perchlorate-101

6.19

1308.183

1.31e3

bb

0.164 ng/mL

min

2.50

5.00

7.50

Perchlorate-O(18)

MRM of 3 channels, ES-

107 > 89

1.677e+004

Perchlorate-O(18)

6.18

9181.862

9.18e3

bb

0.503 ng/mL

min

2.50

5.00

7.50

ID	Name	Trace	RT	Area	Response	Flag	Mod	Acq	Mod	Time	ng/mL	SN	Ratio
248241005	Perchlorate	99 > 83	6.24	3981.864	3981.864	bb					0.1646	433.654	3.04
248241005	Perchlorate-101	101 > 85	6.19	1308.183	1308.183	bb					0.1643	29.561	
248241005	Perchlorate-O(18)	107 > 89	6.18	9181.862	9181.862	bb					0.5032	100.64	0.64 145.476

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC Client Sample No. RE36-10-7455

Lab Code: GEL Date Received: 27-FEB-10

Instrument: LCMSMS GEL Job No (SDG): 10-2135

Method: SW846 6850 Modified GEL Sample ID: 248241006

Matrix: SOIL Date Filtered: 15-MAR-10

Extraction Batch ID: 259033 Injection Volume (uL): 20

Extraction Type: Solid Prep %Solids: 76

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

CAS No.	Analyte ^a	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.662	2.65	2.06	ug/kg	J	1	22-MAR-10 16:21	per0322025a
	Perchlorate Isotope Ratio			3.04			1	22-MAR-10 16:21	per0322025a
14797-73-0	Perchlorate-101	.662	2.65	2.06	ug/kg	J	1	22-MAR-10 16:21	per0322025a
	Perchlorate-O(18)			6.62	ug/kg		1	22-MAR-10 16:21	per0322025a

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

*Concentration =

Instrument Value X Concentrated Extract Volume X 1 %Solids
Aliquot

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

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322025a

Date: 22-Mar-2010

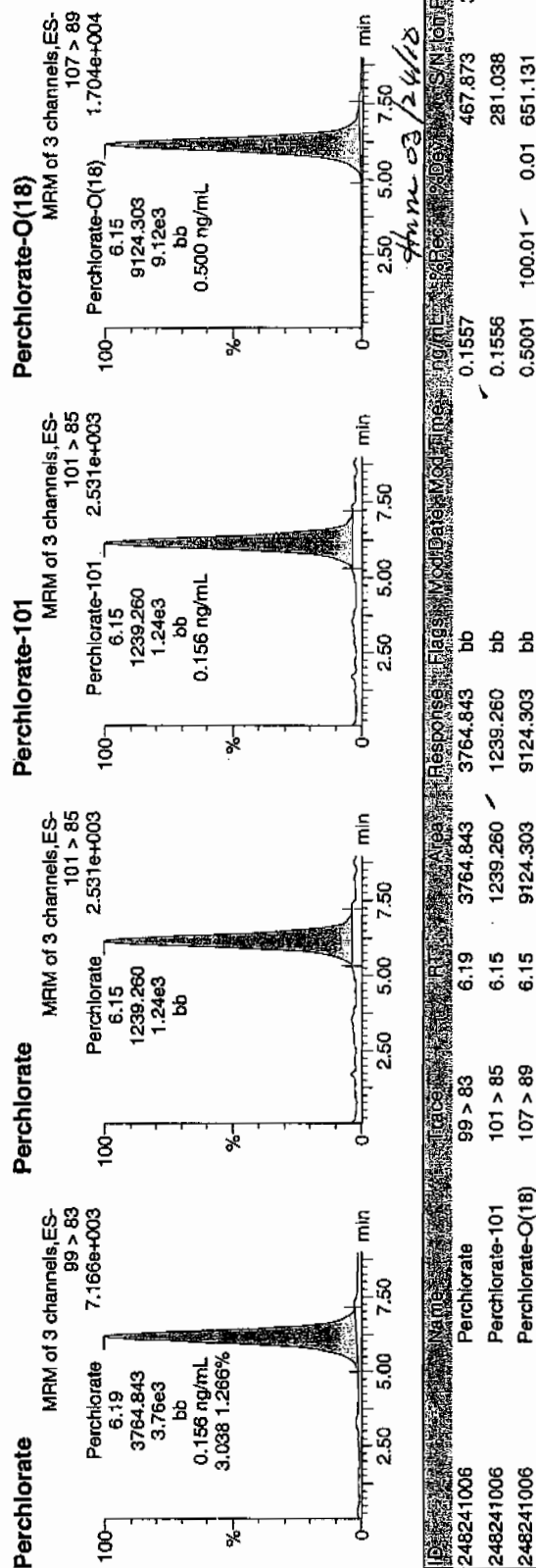
Time: 16:21:12

ID: 248241006

Vial: 1:4,E

03-23-10

LAN-1959034 | 5070 | 11



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: 959033

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7459

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2135

GEL Sample ID: 248241007

Date Filtered: 15-MAR-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.615	2.46	4.14	ug/kg		1	22-MAR-10 16:33	per0322026a
	Perchlorate Isotope Ratio			3.04			1	22-MAR-10 16:33	per0322026a
14797-73-0	Perchlorate-101	.615	2.46	4.13	ug/kg		1	22-MAR-10 16:33	per0322026a
	Perchlorate-O(18)			5.90	ug/kg		1	22-MAR-10 16:33	per0322026a

[^] 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\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322026a

Date: 22-Mar-2010

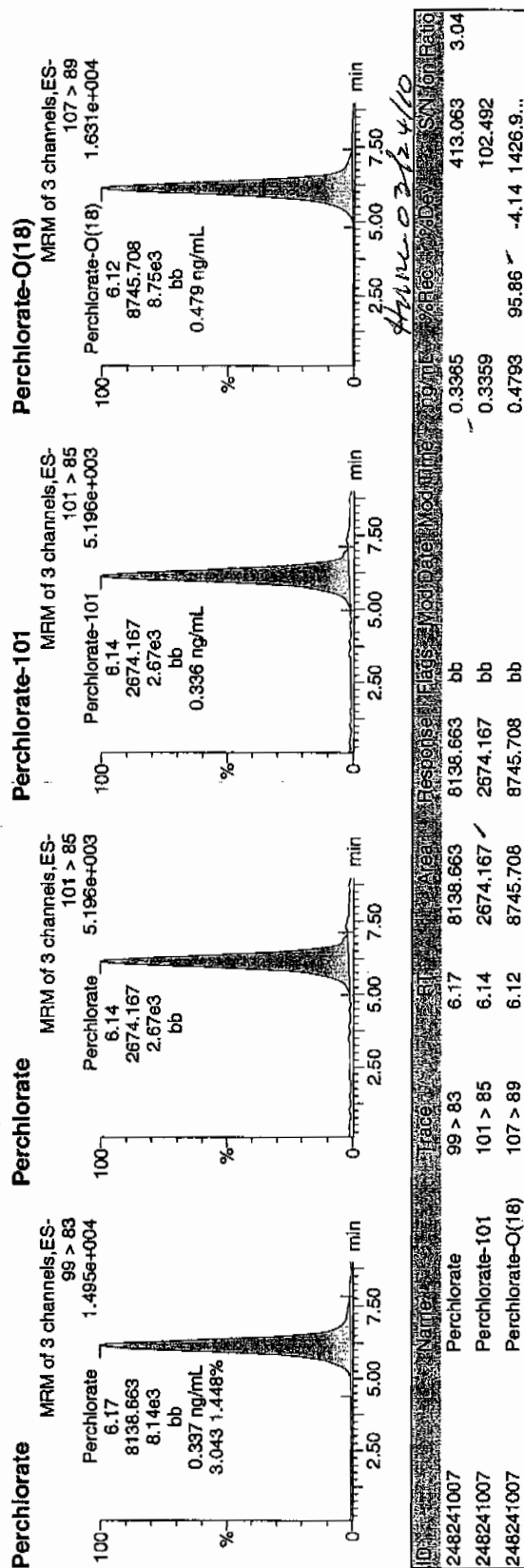
Time: 16:33:14

ID: 248241007

Vial: 1:4,F

LAN-1959034 | 30720 | 11

03-23-10



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: 959033
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE36-10-7457
 Date Received: 27-FEB-10
 GEL Job No (SDG): 10-2135
 GEL Sample ID: 248241008
 Date Filtered: 15-MAR-10
 Injection Volume (uL): 20
 %Solids: 81

CAS No.	Analyte ^A	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.616	2.46	4.33	ug/kg		1	22-MAR-10 16:45	per0322027a
	Perchlorate Isotope Ratio			2.86			1	22-MAR-10 16:45	per0322027a
14797-73-0	Perchlorate-101	.616	2.46	4.59	ug/kg		1	22-MAR-10 16:45	per0322027a
	Perchlorate-O(18)			5.76	ug/kg		1	22-MAR-10 16:45	per0322027a

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

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

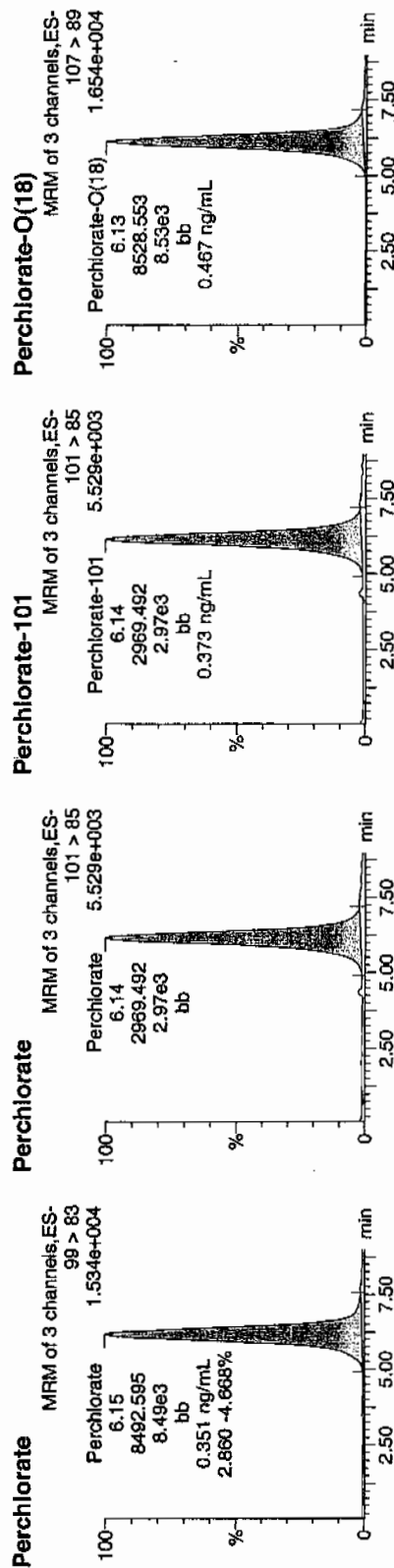
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322027a
Date: 22-Mar-2010
Time: 16:45:15
ID: 248241008
Vial: 1:5,A

UND
03-23-10
LAN 1959034 | 5020 | 11



ID	Name	Trace	RT	Area	Response	Flags	Not Date	Ycd Time	ng/mL	% Rec	% Dev	SN	Ion Ratio
248241008	Perchlorate	99 > 83	6.15	8492.595	8492.595	bb			0.3511			119.303	2.86
248241008	Perchlorate-101	101 > 85	6.14	2969.492	2969.492	bb			0.3729			120.841	
248241008	Perchlorate-O(18)	107 > 89	6.13	8528.553	8528.553	bb			0.4674	93.48	-6.52	288.310	

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: 259033
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE36-10-7520
 Date Received: 27-FEB-10
 GEL Job No (SDG): 10-2135
 GEL Sample ID: 248241009
 Date Filtered: 15-MAR-10
 Injection Volume (uL): 20
 %Solids: 58

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.866	3.46	0.866	ug/kg	U	1	22-MAR-10 16:57	per0322028a
	Perchlorate Isotope Ratio						1	22-MAR-10 16:57	per0322028a
14797-73-0	Perchlorate-101	.866	3.46	0.866	ug/kg	U	1	22-MAR-10 16:57	per0322028a
	Perchlorate-O(18)			8.68	ug/kg		1	22-MAR-10 16:57	per0322028a

[^] 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 %Solids
 Aliquot

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322028a

Date: 22-Mar-2010

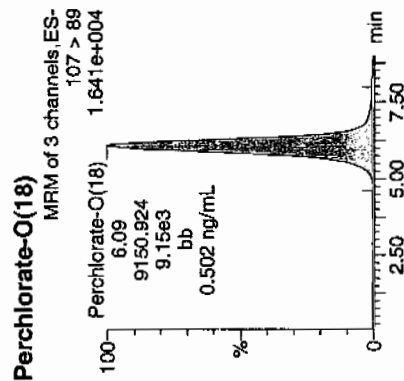
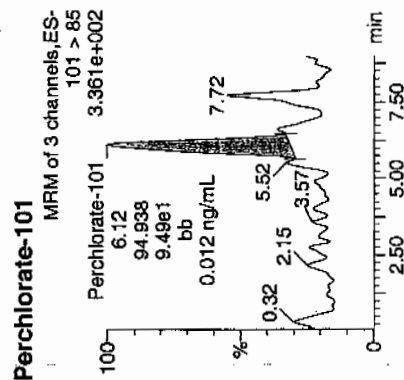
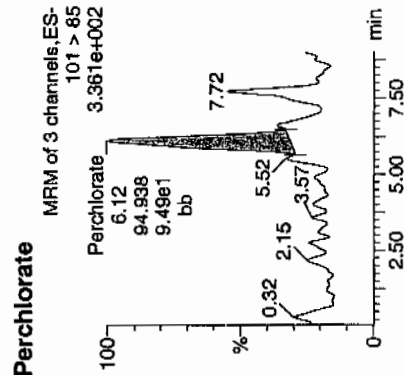
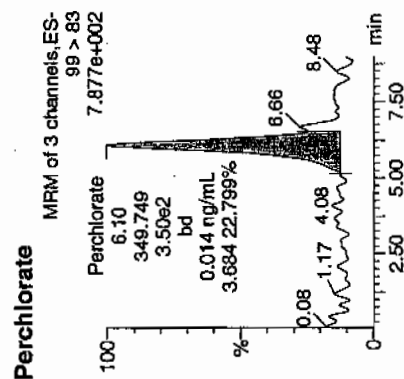
Time: 16:57:27

ID: 248241009

Vial: 1:5,8

03.23-10

1922-95934 | 5075 | 11



ID	Name	Trace	Time	Area	Response	Flags	Mod Date	Mod Time	mg/L	% Recs	% Dev	SN	Non Ratio
2482241009	Perchlorate	99 > 83	6.10	349.749	349.749	bd			0.0145			47.226	3.68
2482241009	Perchlorate-101	101 > 85	6.12	94.938	94.938	bb			0.0119			19.305	
2482241009	Perchlorate-O(18)	107 > 89	6.09	9150.924	9150.924	bb			0.5015	100.30	0.30	521.844	

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

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC
 Lab Code: GEL
 Instrument: LCMSMS
 Method: SW846 6850 Modified
 Matrix: SOIL
 Extraction Batch ID: 959033
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE36-10-7519
 Date Received: 27-FEB-10
 GEL Job No (SDG): 10-2135
 GEL Sample ID: 248241010
 Date Filtered: 15-MAR-10
 Injection Volume (uL): 20
 %Solids: 79

CAS No.	Analyte ^A	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.633	2.53	3.39	ug/kg		1	22-MAR-10 17:09	per0322029a
	Perchlorate Isotope Ratio			2.93			1	22-MAR-10 17:09	per0322029a
14797-73-0	Perchlorate-101	.633	2.53	3.51	ug/kg		1	22-MAR-10 17:09	per0322029a
	Perchlorate-O(18)			6.24	ug/kg		1	22-MAR-10 17:09	per0322029a

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

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

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

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322029a

Date: 22-Mar-2010

Time: 17:09:31

ID: 248241010

Vial: 1:5,C

600
0323-10

LAN-1959034 / 9120 / 11

Perchlorate

MRM of 3 channels, ES-

99 > 83

1.269e+004

Perchlorate

6.09

6473.133

6.47e3

bb

0.268 ng/mL

2.929 -2.365%

2.50 5.00 7.50 min

Perchlorate

MRM of 3 channels, ES-

101 > 85

4.084e+003

Perchlorate

6.09

2209.978

2.21e3

bb

0.278 ng/mL

2.50 5.00 7.50 min

Perchlorate-101

MRM of 3 channels, ES-

101 > 85

4.084e+003

Perchlorate-101

6.09

2209.978

2.21e3

bb

0.278 ng/mL

2.50 5.00 7.50 min

Perchlorate-O(18)

MRM of 3 channels, ES-

107 > 89

1.682e+004

Perchlorate-O(18)

6.07

8993.907

8.99e3

bb

0.493 ng/mL

2.50 5.00 7.50 min

ID	Name	Area	RT	Area	Response	Flag	ModDate	ModTime	Unit	% Rec	SN	Ratio
248241010	Perchlorate	99 > 83	6.09	6473.133	6473.133	bb				0.2676	958.067	2.93
248241010	Perchlorate-101	101 > 85	6.09	2209.978	2209.978	bb				0.2776	419.070	
248241010	Perchlorate-O(18)	107 > 89	6.07	8993.907	8993.907	bb				0.4929	98.58	-1.42 2065.5...

STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2135

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 22-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: 24186.2
 Response Type: External Standard
 Curve Type: RF

Perchlorate Initial Calibration

GEL Job No.(SDG): 10-2135

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 22-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: 7962.2

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\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032210a.mdb 23 Mar 2010 10:24:18
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032210a.cdb 23 Mar 2010 10:24:34

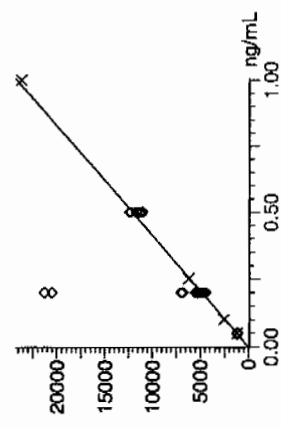
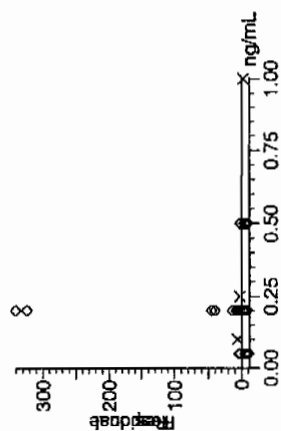
Compound name: Perchlorate

Response Factor: 24186.2

RRF SD: 1053.84, % Relative SD: 4.3572

Response type: External Std, Area

Curve type: RF



07-23-10

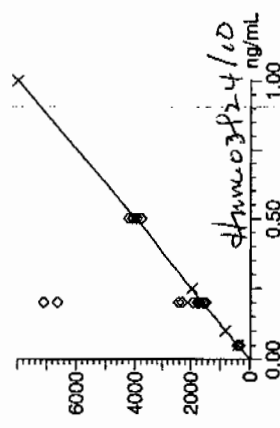
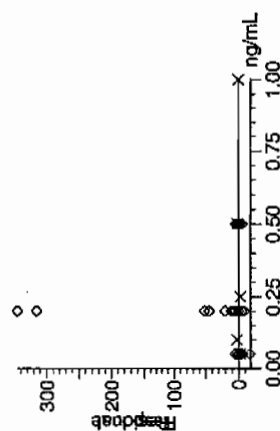
Compound name: Perchlorate-101

Response Factor: 7962.2

RRF SD: 189.293, % Relative SD: 2.3774

Response type: External Std, Area

Curve type: RF



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

Quantify Calibration Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time

Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

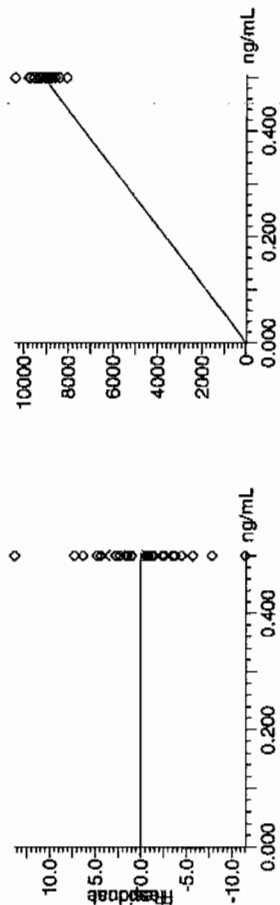
Compound name: Perchlorate-O(18)

Response Factor: 18246.7

RRF SD: 488.232, % Relative SD: 2.67573

Response type: External Std, Area

Curve type: RF



Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2135

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.48	96.71	22-MAR-10 13:07	per0322009a
Perchlorate Isotope Ratio		2.87		22-MAR-10 13:07	per0322009a
Perchlorate-101	.5	.51	102.4	22-MAR-10 13:07	per0322009a

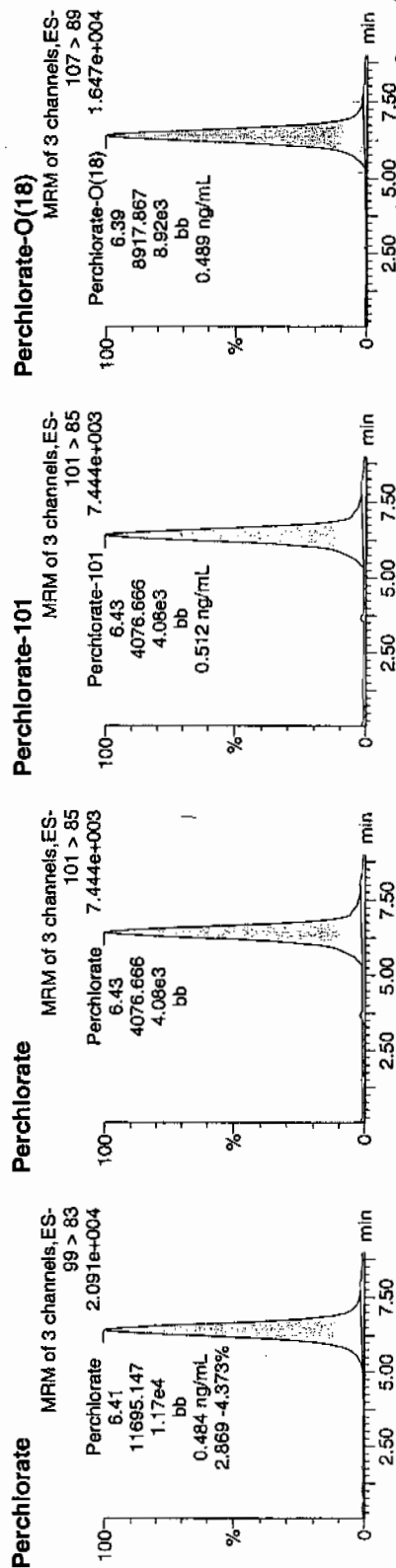
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322009a
Date: 22-Mar-2010
Time: 13:07:36
ID: WCL100318-06ICV
Vial: 1:2,A

Peru
WCL
03-23-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-06ICV	Perchlorate	99 > 83	6.41	11695.147	11695.147	bb			0.4835	96.71	-3.29	250.846	2.87
WCL100318-06ICV	Perchlorate-101	101 > 85	6.43	4076.666	4076.666	bb			0.5120	102.40	2.40	1210.6...	
WCL100318-06ICV	Perchlorate-O(18)	107 > 89	6.39	8917.867	8917.867	bb			0.4887	97.75	-2.25	457.149	

Perchlorate Continuing Calibration Verification

GEL Job No.(SDG): 10-2135

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.47	93.78	22-MAR-10 15:44	per0322022a
Perchlorate Isotope Ratio		2.99		22-MAR-10 15:44	per0322022a
Perchlorate-101	.5	.48	95.32	22-MAR-10 15:44	per0322022a
Perchlorate	.5	.45	90.99	22-MAR-10 18:21	per0322035a
Perchlorate Isotope Ratio		2.88		22-MAR-10 18:21	per0322035a
Perchlorate-101	.5	.48	95.82	22-MAR-10 18:21	per0322035a
Perchlorate	.5	.51	102.25	22-MAR-10 20:59	per0322048a
Perchlorate Isotope Ratio		2.94		22-MAR-10 20:59	per0322048a
Perchlorate-101	.5	.53	105.57	22-MAR-10 20:59	per0322048a
Perchlorate	.5	.48	95.78	22-MAR-10 23:36	per0322061a
Perchlorate Isotope Ratio		2.93		22-MAR-10 23:36	per0322061a
Perchlorate-101	.5	.5	99.27	22-MAR-10 23:36	per0322061a
Perchlorate	.5	.51	102.76	23-MAR-10 01:49	per0322072a

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2135

Lab Code: GEL

Reporting Units: µg/kg

Perchlorate Isotope Ratio		3.08			23-MAR-10 01:49	per0322072a
Perchlorate-101	.5	.51	101.37		23-MAR-10 01:49	per0322072a
Perchlorate	.5	.46	92.01		23-MAR-10 04:25	per0322085a
Perchlorate Isotope Ratio		2.76			23-MAR-10 04:25	per0322085a
Perchlorate-101	.5	.51	101.12		23-MAR-10 04:25	per0322085a
Perchlorate	.5	.49	97.02		23-MAR-10 07:02	per0322098a
Perchlorate Isotope Ratio		3.11			23-MAR-10 07:02	per0322098a
Perchlorate-101	.5	.47	94.9		23-MAR-10 07:02	per0322098a
Perchlorate	.5	.5	100.89		23-MAR-10 09:43	per0322111a
Perchlorate Isotope Ratio		3.1			23-MAR-10 09:43	per0322111a
Perchlorate-101	.5	.49	98.95		23-MAR-10 09:43	per0322111a

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

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

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Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322022a

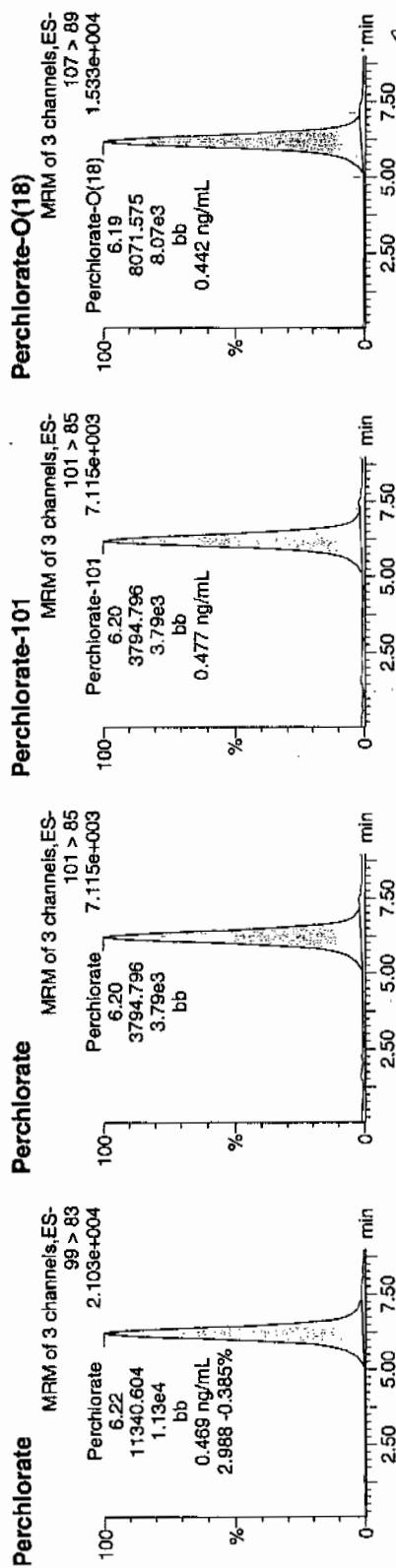
Date: 22-Mar-2010

Time: 15:44:41

ID: WCL100318-06CCV

Vial: 1:2,A

*Per
03-23-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-06CCV	Perchlorate	99 > 83	6.22	11340.604	11340.604	bb			0.4689	93.78	-6.22	78.315	2.99
WCL100318-06CCV	Perchlorate-101	101 > 85	6.20	3794.796	3794.796	bb			0.4766	95.32	-4.68	121.502	
WCL100318-06CCV	Perchlorate-O(18)	107 > 89	6.19	8071.575	8071.575	bb			0.4424	88.47	-11.53	409.576	

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322035a

Date: 22-Mar-2010

Time: 18:21:57

ID: WCL100318-06CCV

Vial: 1:2,A

Pure
6.03
03-23-10

Perchlorate

MRM of 3 channels, ES-

99 > 83

2.118e+004

11003.747

6.05

1.10e4

bb

0.455 ng/mL

2.885 -3.845%

Perchlorate

MRM of 3 channels, ES-

101 > 85

7.349e+003

3814.583

6.05

3.81e3

bb

Perchlorate-101

MRM of 3 channels, ES-

101 > 85

7.349e+003

3814.583

6.05

3.81e3

bb

0.479 ng/mL

Perchlorate-O(18)

MRM of 3 channels, ES-

107 > 89

1.630e+004

8408.900

6.03

8.41e3

bb

0.461 ng/mL

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-06CCV	Perchlorate	99 > 83	6.05	11003.747	11003.747	bb			0.4550	90.99	-9.01	623.072	2.88
WCL100318-06CCV	Perchlorate-101	101 > 85	6.05	3814.583	3814.583	bb			0.4791	95.82	-4.18	143.478	
WCL100318-06CCV	Perchlorate-O(18)	107 > 89	6.03	8408.900	8408.900	bb			0.4608	92.17	-7.83	575.189	

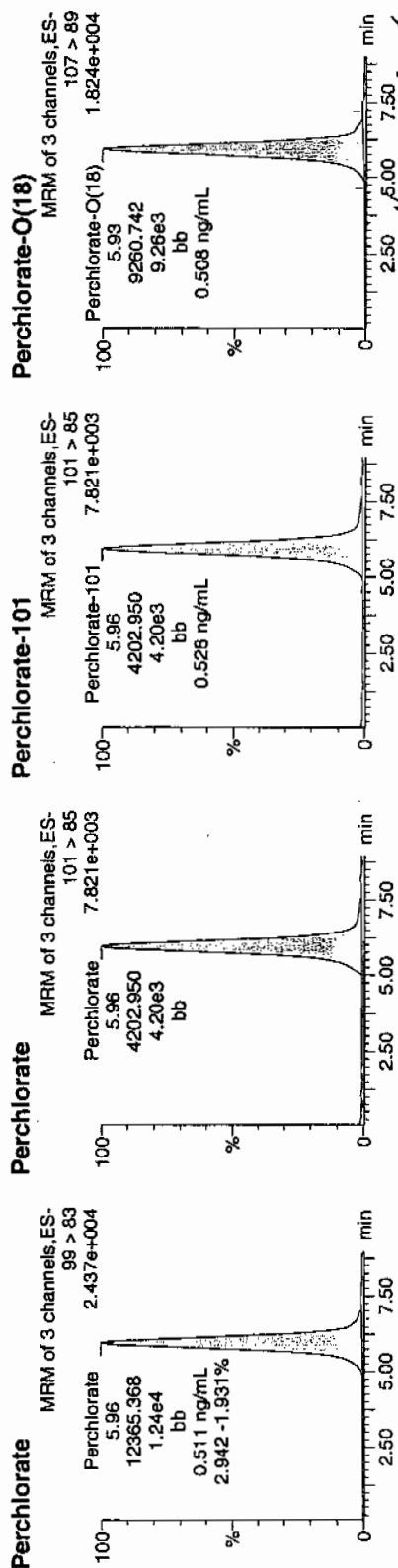
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322048a
Date: 22-Mar-2010
Time: 20:59:20
ID: WCL100318-06CCV
Vial: 1:2,A

Russ and 03-23-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-06CCV	Perchlorate	99 > 83	5.96	12365.368	12365.368	bb			0.5113	102.25	2.25	749.044	2.94
WCL100318-06CCV	Perchlorate-101	101 > 85	5.96	4202.950	4202.950	bb			0.5279	105.57	5.57	86.876	
WCL100318-06CCV	Perchlorate-O(18)	107 > 89	5.93	9260.742	9260.742	bb			0.5075	101.51	1.51	650.738	

Quantify Sample Report MassLynx 4.0 SP4

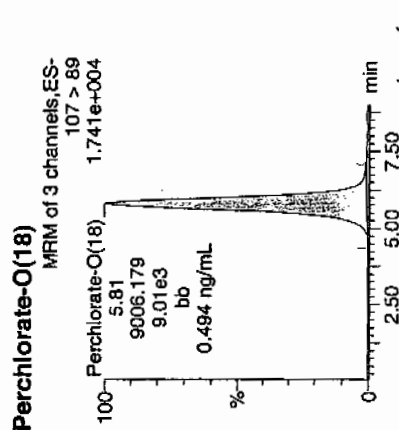
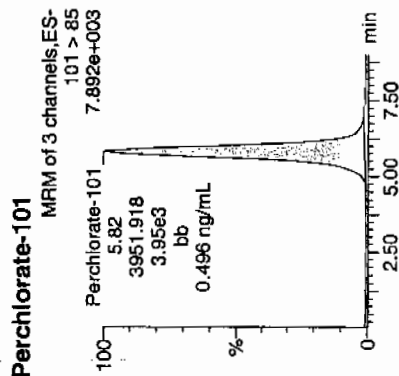
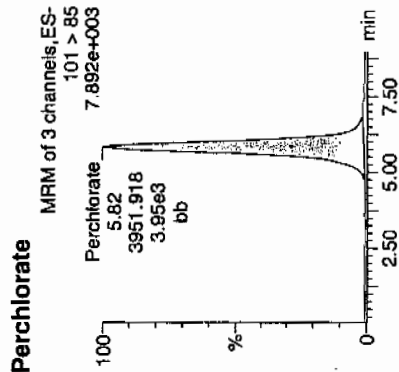
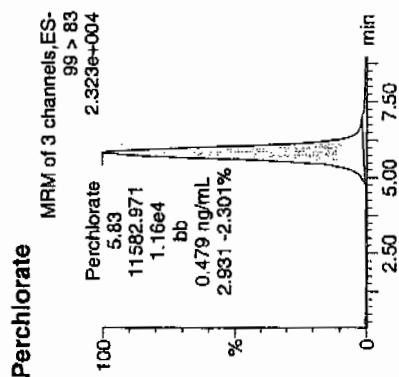
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
 Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322061a
 Date: 22-Mar-2010
 Time: 23:36:10
 ID: WCL100318-06CCV
 Vial: 1:2,A

Per
and
03-23-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-06CCV	Perchlorate	99 > 83	5.83	11582.971	11582.971	bb			0.4789	95.78	-4.22	1071.2...	2.93
WCL100318-06CCV	Perchlorate-101	101 > 85	5.82	3951.918	3951.918	bb			0.4963	99.27	-0.73	628.944	
WCL100318-06CCV	Perchlorate-O(18)	107 > 89	5.81	9006.179	9006.179	bb			0.4936	98.72	-1.28	674.962	

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

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

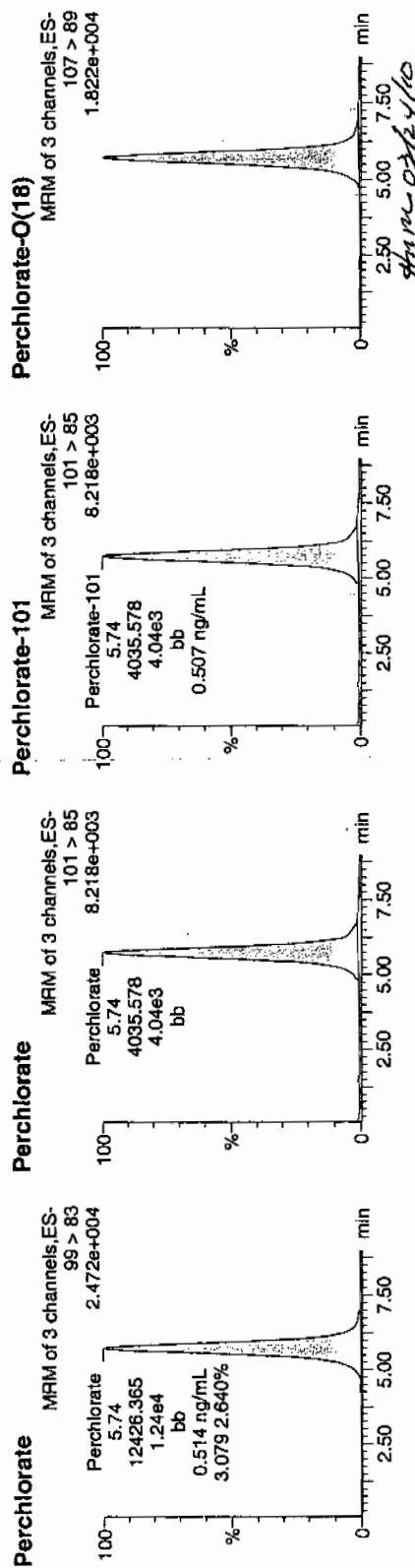
Name: per0322072a

Date: 23-Mar-2010

Time: 01:49:03

ID: WCL100318-06CCV

Vial: 1:2,A



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-06CCV	Perchlorate	99 > 83	5.74	12426.365	12426.365	bb			0.5138	102.76	2.76	1822.7...	3.08
WCL100318-06CCV	Perchlorate-101	101 > 85	5.74	4035.578	4035.578	bb			0.5068	101.37	1.37	150.307	
WCL100318-06CCV	Perchlorate-O(18)	107 > 89	5.72	9219.264	9219.264	bb			0.5053	101.05	1.05	80.426	

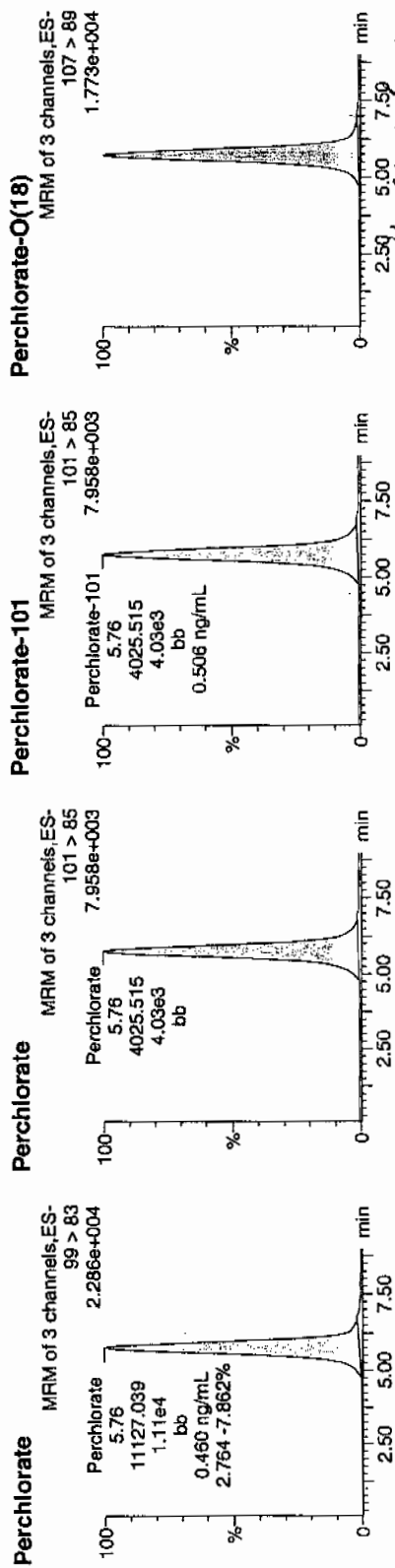
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322085a
Date: 23-Mar-2010
Time: 04:25:55
ID: WCL100318-06CCV
Vial: 1:2,A

Pass and 03-23-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-06CCV	Perchlorate	99 > 83	5.76	11127.039	11127.039	bb			0.4601	92.01	-7.99	2466.7...	2.76
WCL100318-06CCV	Perchlorate-101	101 > 85	5.76	4025.515	4025.515	bb			0.5056	101.12	1.12	722.058	
WCL100318-06CCV	Perchlorate-O(18)	107 > 89	5.73	8780.086	8780.086	bb			0.4812	96.24	-3.76	438.076	

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322098a

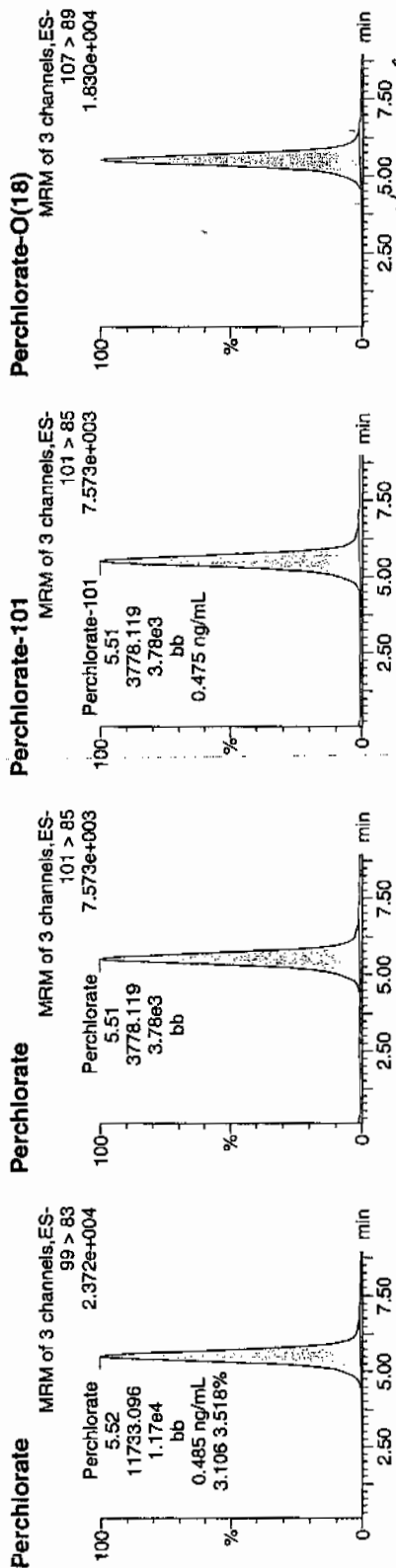
Date: 23-Mar-2010

Time: 07:02:53

ID: WCL100318-06CCV

Vial: 1:2,A

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and
03-23-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-06CCV	Perchlorate	99 > 83	5.52	11733.096	11733.096	bb			0.4851	97.02	-2.98	2479.9...	3.11
WCL100318-06CCV	Perchlorate-101	101 > 85	5.51	3778.119	3778.119	bb			0.4745	94.90	-5.10	154.599	
WCL100318-06CCV	Perchlorate-O(18)	107 > 89	5.51	8716.706	8716.706	bb			0.4777	95.54	-4.46	1333.6...	

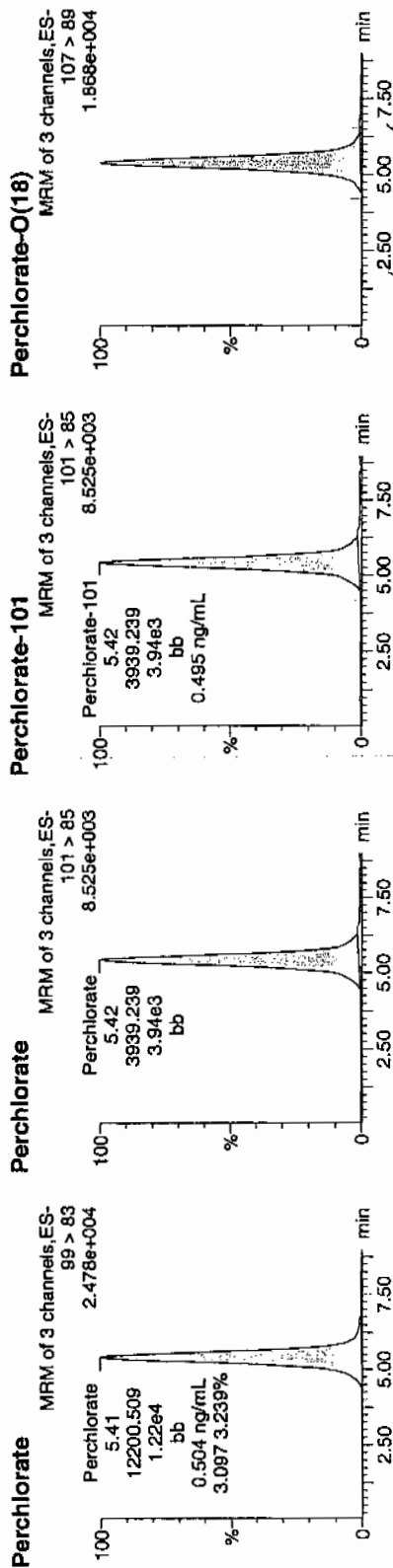
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322111a
Date: 23-Mar-2010
Time: 09:43:42
ID: WCL100318-06CCV
Vial: 1:2,A

QW
0.03
03-23-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-06CCV	Perchlorate	99 > 83	5.41	12200.509	12200.509	bb			0.5044	100.89	0.89	670.332	3.10
WCL100318-06CCV	Perchlorate-101	101 > 85	5.42	3939.239	3939.239	bb			0.4947	98.95	-1.05	577.183	
WCL100318-06CCV	Perchlorate-O(18)	107 > 89	5.38	9063.763	9063.763	bb			0.4967	99.35	-0.65	1064.0...	

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2135

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	96.16	22-MAR-10 13:31	per0322011a
Perchlorate Isotope Ratio		2.76		22-MAR-10 13:31	per0322011a
Perchlorate-101	.05	.05	105.81	22-MAR-10 13:31	per0322011a
Perchlorate	.05	.04	89.47	22-MAR-10 16:09	per0322024a
Perchlorate Isotope Ratio		2.73		22-MAR-10 16:09	per0322024a
Perchlorate-101	.05	.05	99.55	22-MAR-10 16:09	per0322024a
Perchlorate	.05	.05	93.64	22-MAR-10 18:46	per0322037a
Perchlorate Isotope Ratio		2.96		22-MAR-10 18:46	per0322037a
Perchlorate-101	.05	.05	96.12	22-MAR-10 18:46	per0322037a
Perchlorate	.05	.05	101.99	22-MAR-10 21:23	per0322050a
Perchlorate Isotope Ratio		3.05		22-MAR-10 21:23	per0322050a

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2135

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate-101	.05	.05	101.59	22-MAR-10 21:23	per0322050a
Perchlorate	.05	.05	105.21	23-MAR-10 00:00	per0322063a
Perchlorate Isotope Ratio		3.84		23-MAR-10 00:00	per0322063a
Perchlorate-101	.05	.04	83.13	23-MAR-10 00:00	per0322063a
Perchlorate	.05	.05	95.72	23-MAR-10 02:13	per0322074a
Perchlorate Isotope Ratio		3.07		23-MAR-10 02:13	per0322074a
Perchlorate-101	.05	.05	94.79	23-MAR-10 02:13	per0322074a
Perchlorate	.05	.04	89.53	23-MAR-10 04:50	per0322087a
Perchlorate Isotope Ratio		2.72		23-MAR-10 04:50	per0322087a
Perchlorate-101	.05	.05	99.81	23-MAR-10 04:50	per0322087a
Perchlorate	.05	.05	93.84	23-MAR-10 07:30	per0322100a

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2135

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate Isotope Ratio		2.74		23-MAR-10 07:30	per0322100a
Perchlorate-101	.05	.05	104.14	23-MAR-10 07:30	per0322100a
Perchlorate	.05	.05	102.72	23-MAR-10 10:07	per0322113a
Perchlorate Isotope Ratio		3.28		23-MAR-10 10:07	per0322113a
Perchlorate-101	.05	.05	95.09	23-MAR-10 10:07	per0322113a

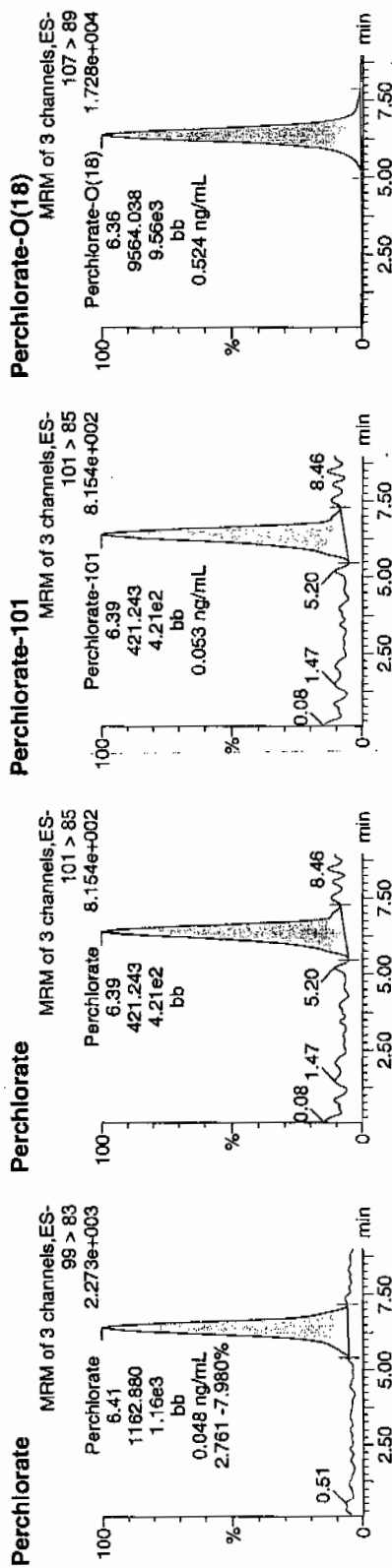
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322011a
Date: 22-Mar-2010
Time: 13:31:49
ID: WCL100318-07CRI
Vial: 1:2,B

*Per
and
03.23.10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-07CRI	Perchlorate	99 > 83	6.41	1162.880	1162.880	bb			0.0481	96.16	-3.84	155.349	2.76
WCL100318-07CRI	Perchlorate-101	101 > 85	6.39	421.243	421.243	bb			0.0529	105.81	5.81	21.022	
WCL100318-07CRI	Perchlorate-O(18)	107 > 89	6.36	9564.038	9564.038	bb			0.5242	104.83	4.83	664.087	

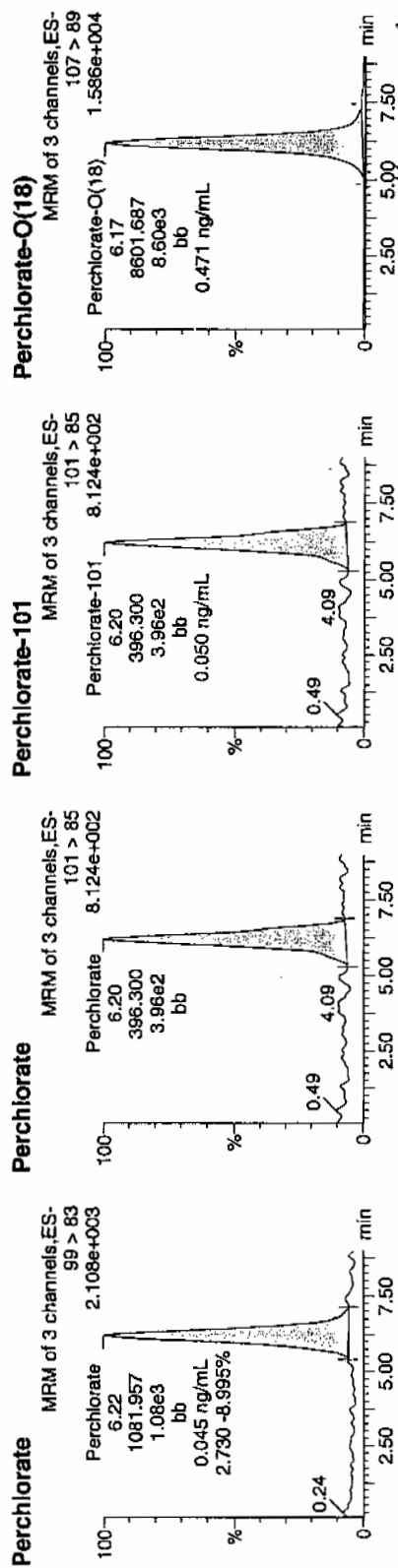
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322024a
Date: 22-Mar-2010
Time: 16:09:02
ID: WCL100318-07CRI
Vial: 1:2,B

Pure
03-23-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-07CRI	Perchlorate	99 > 83	6.22	1081.957	1081.957	bb			0.0447	89.47	-10.53	22.200	2.73
WCL100318-07CRI	Perchlorate-101	101 > 85	6.20	396.300	396.300	bb			0.0498	99.55	-0.45	148.246	
WCL100318-07CRI	Perchlorate-O(18)	107 > 89	6.17	8601.687	8601.687	bb			0.4714	94.28	-5.72	847.250	

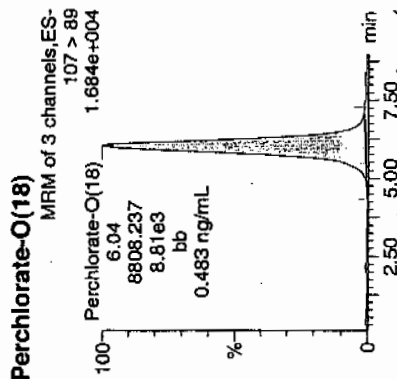
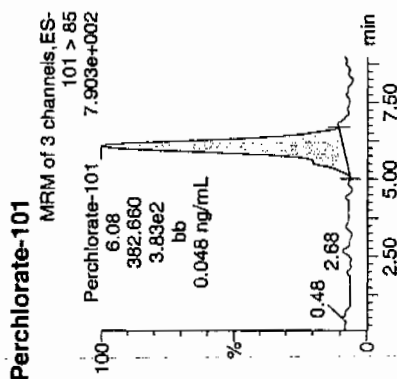
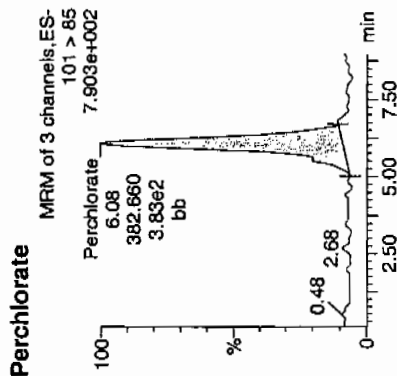
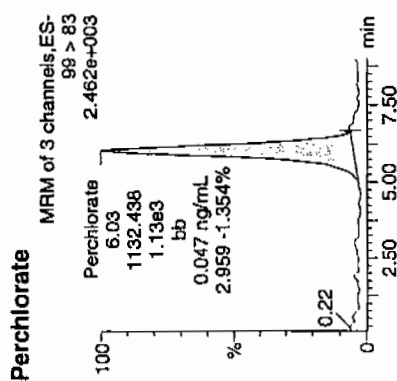
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322037a
Date: 22-Mar-2010
Time: 18:46:17
ID: WCL100318-07CRI
Vial: 1:2,B

Pure and
03-23-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
WCL100318-07CRI	Perchlorate	99 > 83	6.03	1132.438	1132.438	bb			0.0468	93.64	-6.36	134.965	2.96
WCL100318-07CRI	Perchlorate-101	101 > 85	6.08	382.660	382.660	bb			0.0481	96.12	-3.88	39.446	
WCL100318-07CRI	Perchlorate-O(18)	107 > 89	6.04	8808.237	8808.237	bb			0.4827	96.55	-3.45	1488.8...	

Quantify Sample Report MassLynx 4.0 SP4

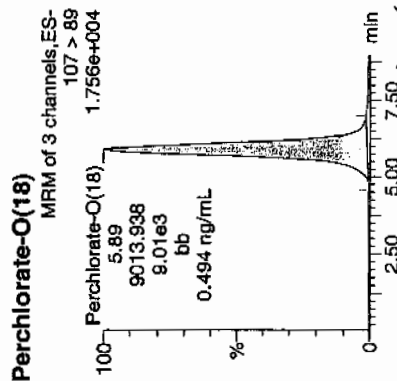
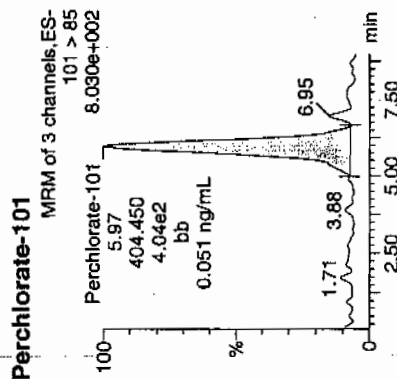
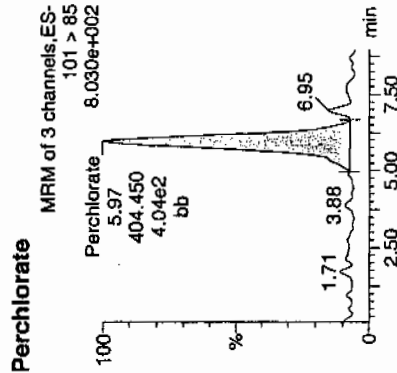
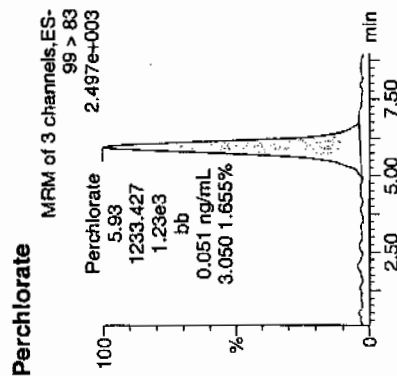
The GEL Group, LLC Analyst: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

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 Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322050a
 Date: 22-Mar-2010
 Time: 21:23:39
 ID: WCL100318-07CRI
 Vial: 1:2,B

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an
03-23-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
WCL100318-07CRI	Perchlorate	99 > 83	5.93	1233.427	1233.427	bb			0.0510	101.99	1.99	43.428	3.05
WCL100318-07CRI	Perchlorate-101	101 > 85	5.97	404.450	404.450	bb			0.0508	101.59	1.59	143.836	
WCL100318-07CRI	Perchlorate-O(18)	107 > 89	5.89	9013.938	9013.938	bb			0.4940	98.80	-1.20	1482.8...	

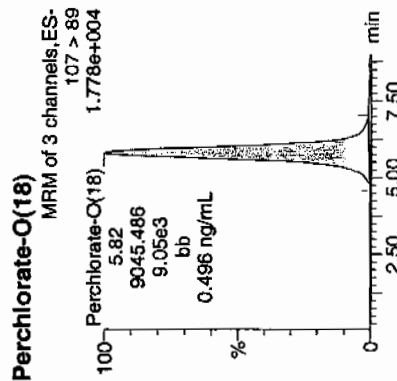
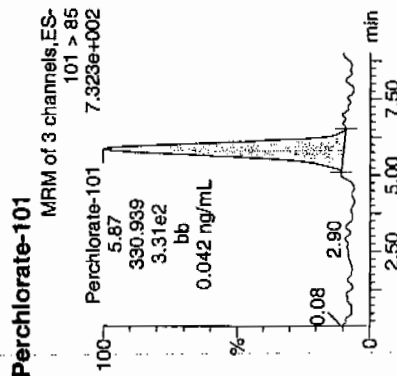
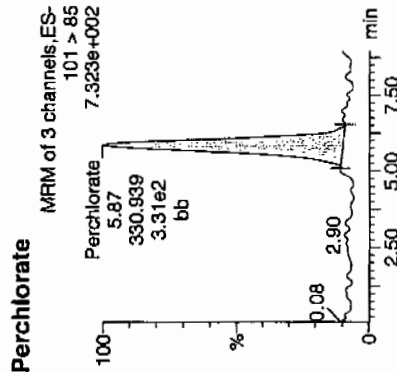
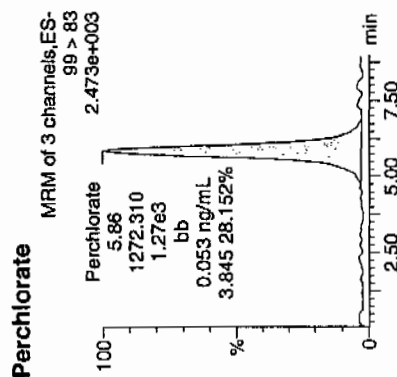
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322063a
Date: 23-Mar-2010
Time: 00:00:30
ID: WCL100318-07CRI
Vial: 1:2,B

Perchlorate
03-23-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-07CRI	Perchlorate	99 > 83	5.86	1272.310	1272.310	bb			0.0526	105.21	5.21	262.204	3.84
WCL100318-07CRI	Perchlorate-101	101 > 85	5.87	330.939	330.939	bb			0.0416	83.13	-16.87	63.658	
WCL100318-07CRI	Perchlorate-O(18)	107 > 89	5.82	9045.486	9045.486	bb			0.4957	99.15	-0.85	2907.5...	

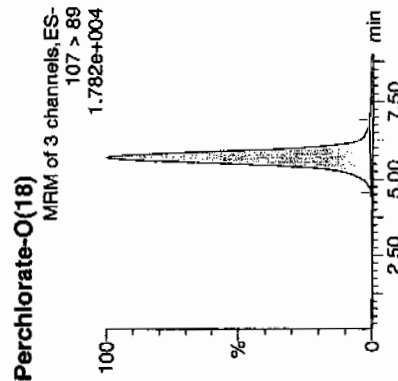
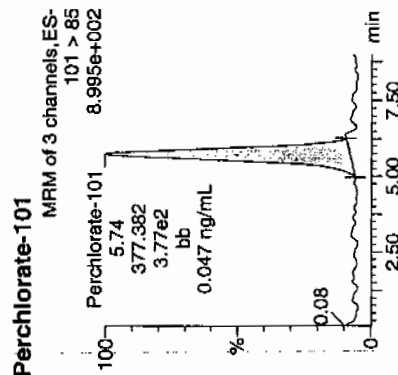
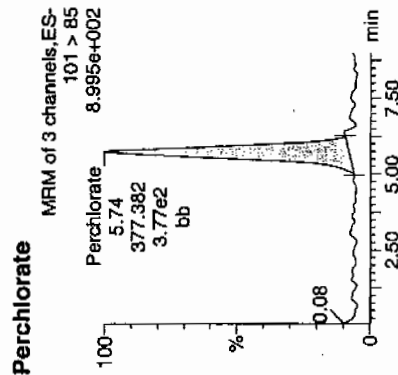
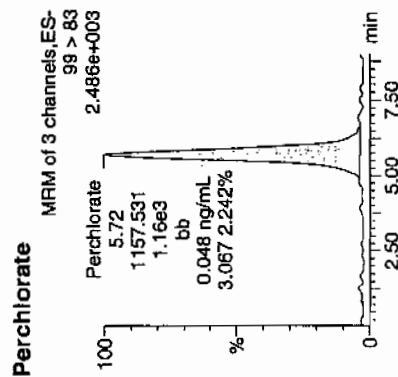
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

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Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322074a
Date: 23-Mar-2010
Time: 02:13:22
ID: WCL100318-07CRI
Vial: 1:2,B

Perchlorate
03-23-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	IS/N	Ion Ratio
WCL100318-07CRI	Perchlorate	99 > 83	5.72	1157.531	1157.531	bb			0.0479	95.72	-4.28	120.828	3.07
WCL100318-07CRI	Perchlorate-101	101 > 85	5.74	377.382	377.382	bb			0.0474	94.79	-5.21	159.729	
WCL100318-07CRI	Perchlorate-O(18)	107 > 89	5.69	9021.444	9021.444	bb			0.4944	98.88	-1.12	1276.9...	

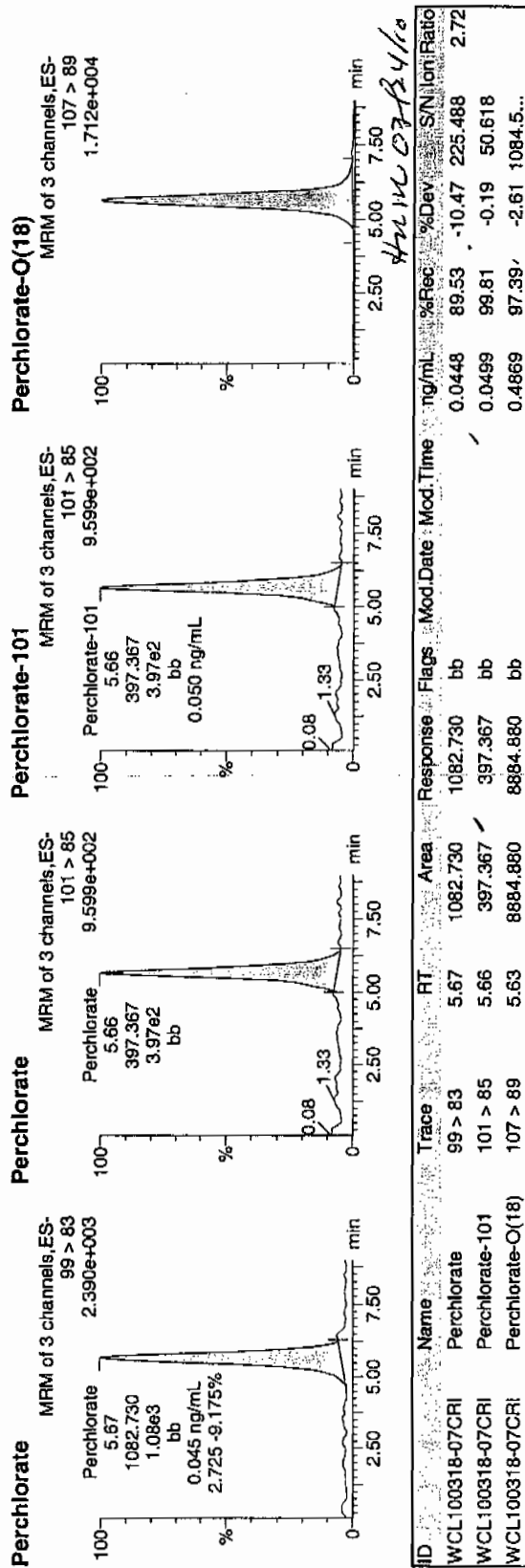
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322087a
Date: 23-Mar-2010
Time: 04:50:13
ID: WCL100318-07CRI
Vial: 1:2,B

Per0322087a
03-23-10



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

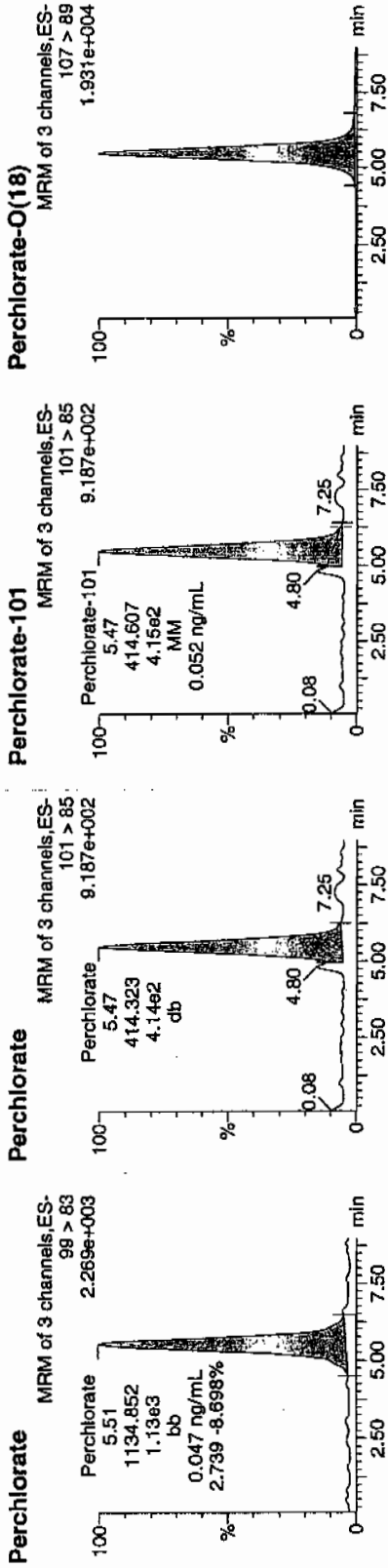
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Last Altered: Thursday, March 25, 2010 8:00:40 AM Eastern Standard Time
Printed: Thursday, March 25, 2010 8:02:25 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per032210a.mdb 23 Mar 2010 10:24:18
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per032210a.cdb 23 Mar 2010 10:24:34

Name: per0322100a
Date: 23-Mar-2010
Time: 07:30:48
ID: WCL100318-07CRI
Vial: 1:2,B

CW
03-25-10



ID	Name	Trace	RT	Area	Response	Flags	Mod	Date	Mod	Time	ng/mL	Dec	20	Day	SN	Ion	Ratio
WCL100318-07CRI	Perchlorate	99 > 83	5.51	1134.852	1134.852	bb					0.0469	93.84	-6.16	33.301	2.74		
WCL100318-07CRI	Perchlorate-101	101 > 85	5.47	414.607	414.607	MM	25-Mar-10	08:00:40			0.0521	104.14	4.14	287.625			
WCL100318-07CRI	Perchlorate-O(18)	107 > 89	5.47	9333.718	9333.718	bb					0.5115	102.31	2.31	645.193			

WCL
3/25/10

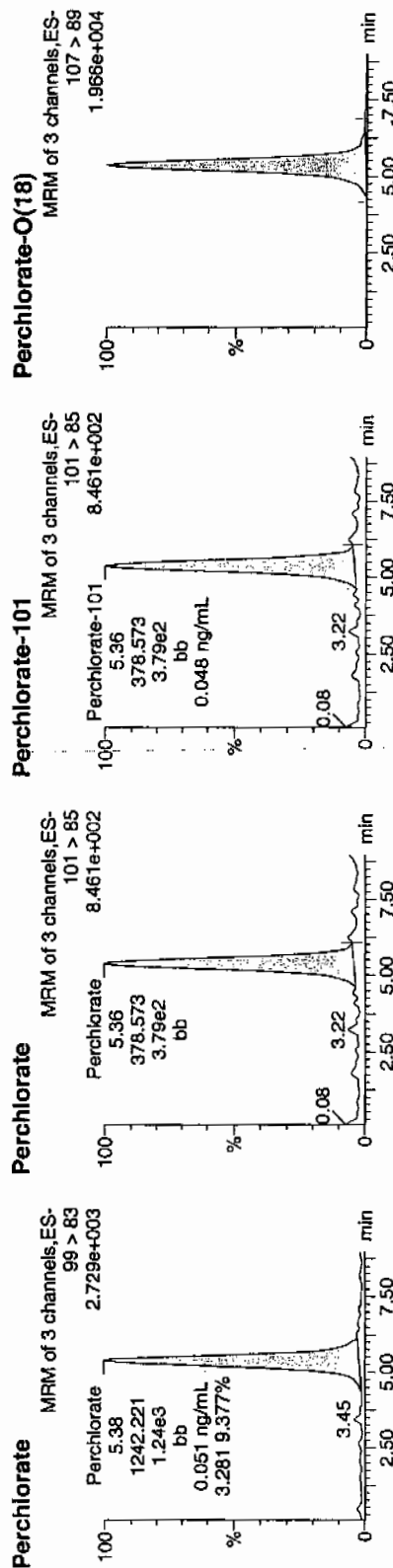
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charters W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322113a
Date: 23-Mar-2010
Time: 10:07:47
ID: WCL100318-07CRI
Vial: 1:2,B

Per
C
03-23-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100318-07CRI	Perchlorate	99 > 83	5.36	1242.221	1242.221	bb			0.0514	102.72	2.72	115.935	3.28
WCL100318-07CRI	Perchlorate-101	101 > 85	5.36	378.573	378.573	bb			0.0475	95.09	-4.91	26.582	
WCL100318-07CRI	Perchlorate-O(18)	107 > 89	5.36	9522.026	9522.026	bb			0.5218	104.37	4.37	2703.2...	

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

QUALITY CONTROL

Perchlorate Analysis Data Sheet

Client Sample No.

MB

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Date Received: 15-MAR-10

Instrument: LCMSMS

GEL Job No (SDG): 10-2135

Method: EPA 6850 Modified

GEL Sample ID: 1202056698

Matrix: SOIL

Date Filtered: 15-MAR-10

Extraction Batch ID: 959033

Injection Volume (uL): 20

Extraction Type: Solid Prep

%Solids: 100

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	.5	2	0.500	ug/kg	U	1	22-MAR-10 13:44	per0322012a
	Perchlorate Isotope Ratio						1	22-MAR-10 13:44	per0322012a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	22-MAR-10 13:44	per0322012a
	Perchlorate-O(18)			4.41	ug/kg		1	22-MAR-10 13:44	per0322012a

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

*Concentration =

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

Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322012a

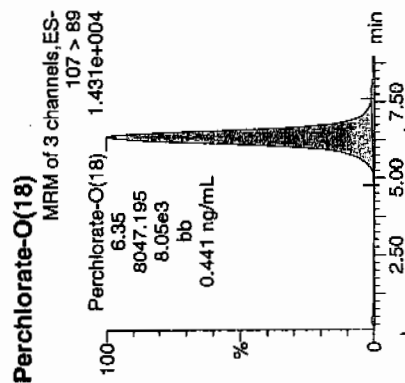
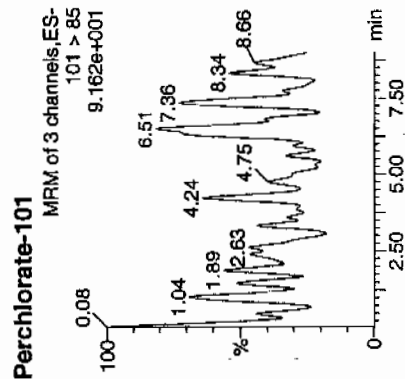
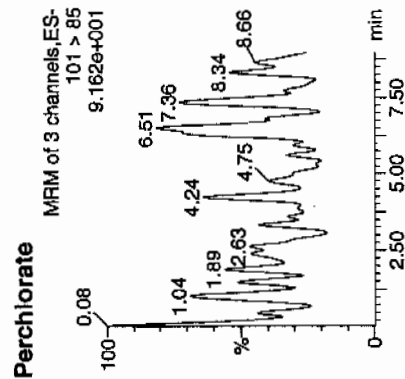
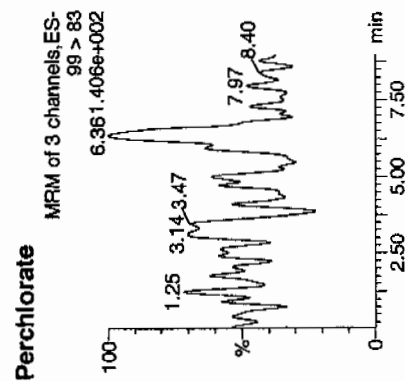
Date: 22-Mar-2010

Time: 13:44:01

ID: 1202056698

Vial: 1:3,A

03-23-10



ID	Name	Age	Sex	HR	Area	Response	Flags	ModTime	ParamL	%Rec	%Dev	SN on Ratio
1202056698	Perchlorate	99 > 83										0.00
1202056698	Perchlorate-101	101 > 85										
1202056698	Perchlorate-O(18)	107 > 89		6.35	8047.195	8047.195	bb			0.4410	88.20	-11.80 1037.1...

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC
 Lab Code: GEL
 Instrument: LCMSMS
 Method: EPA 6850 Modified
 Matrix: SOIL
 Extraction Batch ID: 959033
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. LCS
 Date Received: 15-MAR-10
 GEL Job No (SDG): 10-2135
 GEL Sample ID: 1202056699
 Date Filtered: 15-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	1.84	ug/kg	J	1	22-MAR-10 13:56	per0322013a
	Perchlorate Isotope Ratio			2.91			1	22-MAR-10 13:56	per0322013a
14797-73-0	Perchlorate-101	.5	2	1.92	ug/kg	J	1	22-MAR-10 13:56	per0322013a
	Perchlorate-O(18)			4.72	ug/kg		1	22-MAR-10 13:56	per0322013a

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

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

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

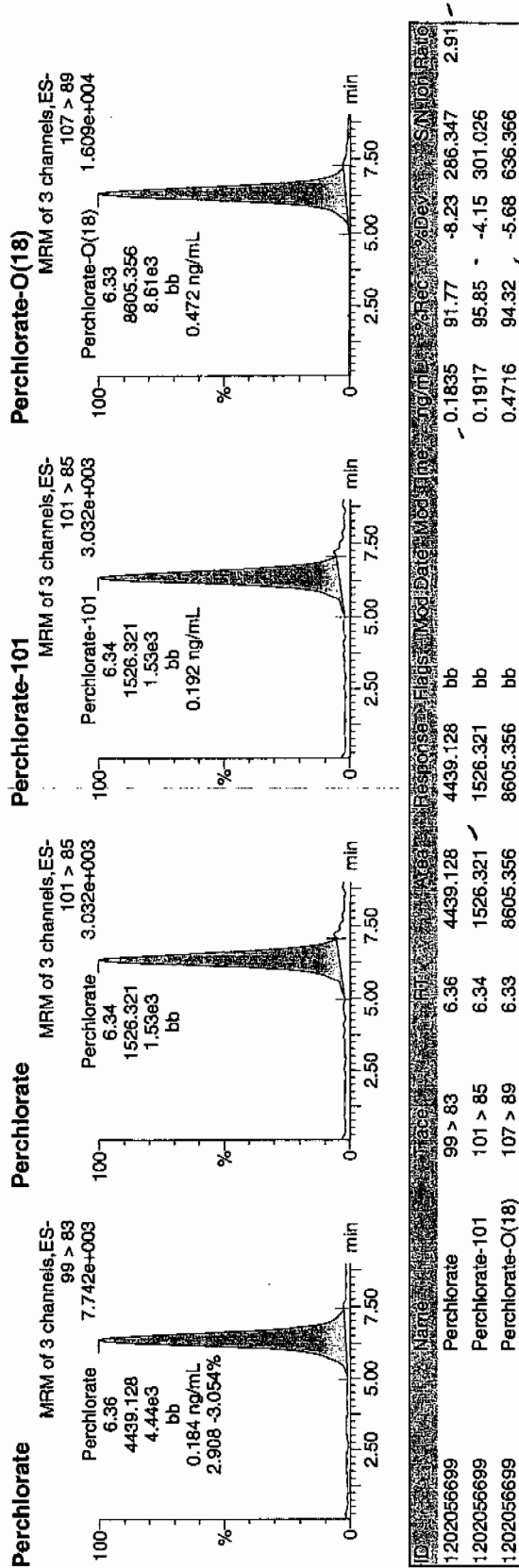
Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322013a
Date: 22-Mar-2010
Time: 13:56:11
ID: 1202056699
Vial: 1:3,B

1202056699 | 5020 | LGS | 1:1

03-23-10



4439.128
2 4186.2
-0.1835
4439.128 / 2 4186.2 = 0.1835

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 259033

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

RE36-10-7453MS

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2135

GEL Sample ID: 1202056700

Date Filtered: 15-MAR-10

Injection Volume (uL): 20

%Solids: 55

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.905	3.62	3.93	ug/kg		1	22-MAR-10 14:44	per0322017a
	Perchlorate Isotope Ratio			3.03			1	22-MAR-10 14:44	per0322017a
14797-73-0	Perchlorate-101	.905	3.62	3.94	ug/kg		1	22-MAR-10 14:44	per0322017a
	Perchlorate-O(18)			9.28	ug/kg		1	22-MAR-10 14:44	per0322017a

[^] 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

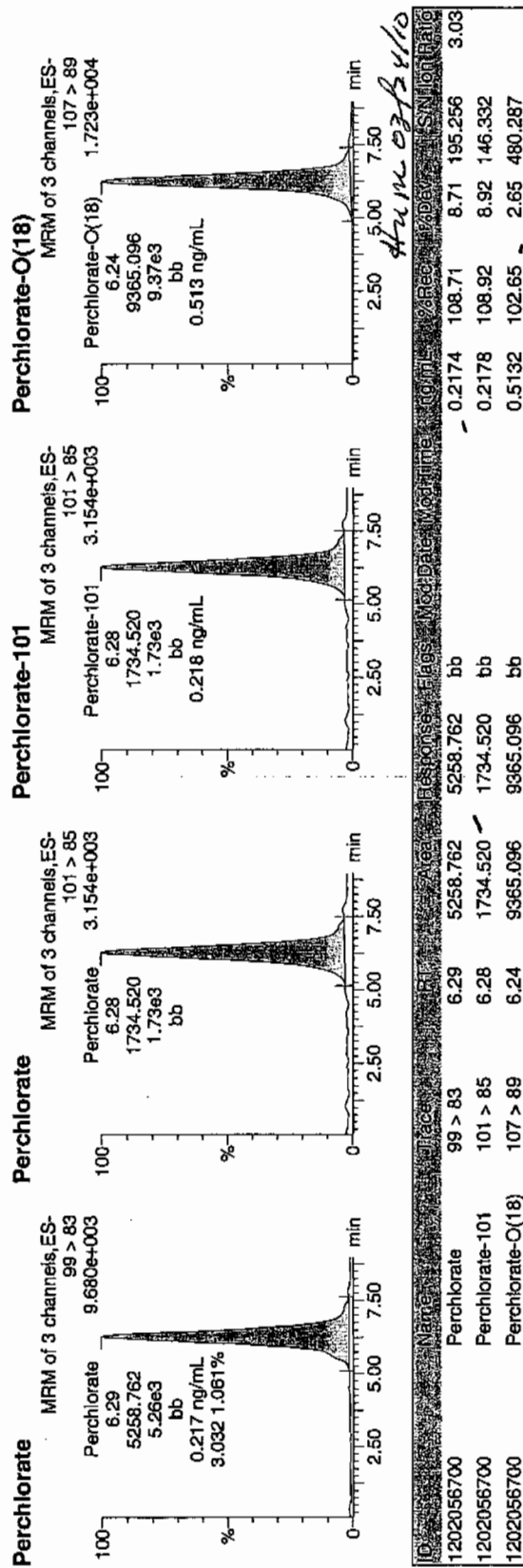
Dataset: C:\MassLynx\Perchlorate.PRO\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322017a
Date: 22-Mar-2010
Time: 14:44:20
ID: 1202056700
Vial: 1:3.F

03-23-10

1202056700 | 959034 | 5070 | MS | 1



Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC
 Lab Code: GEL
 Instrument: LCMSMS
 Method: SW846 6850 Modified
 Matrix: SOIL
 Extraction Batch ID: 959033
 Extraction Type: Solid Prep
 Sample Volume/Weight: 2.00 g
 Concentrated Extract Volume: 20.0
 Client Sample No. RE36-10-7453MSD
 Date Received: 27-FEB-10
 GEL Job No (SDG): 10-2135
 GEL Sample ID: 1202056701
 Date Filtered: 15-MAR-10
 Injection Volume (uL): 20
 %Solids: 55

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.905	3.62	3.69	ug/kg		1	22-MAR-10 14:56	per0322018a
	Perchlorate Isotope Ratio			2.84			1	22-MAR-10 14:56	per0322018a
14797-73-0	Perchlorate-101	.905	3.62	3.94	ug/kg		1	22-MAR-10 14:56	per0322018a
	Perchlorate-O(18)			9.14	ug/kg		1	22-MAR-10 14:56	per0322018a

[^] 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\per032210a.qld

Last Altered: Tuesday, March 23, 2010 10:27:00 AM Eastern Standard Time
Printed: Tuesday, March 23, 2010 10:37:35 AM Eastern Standard Time

Name: per0322018a

Date: 22-Mar-2010

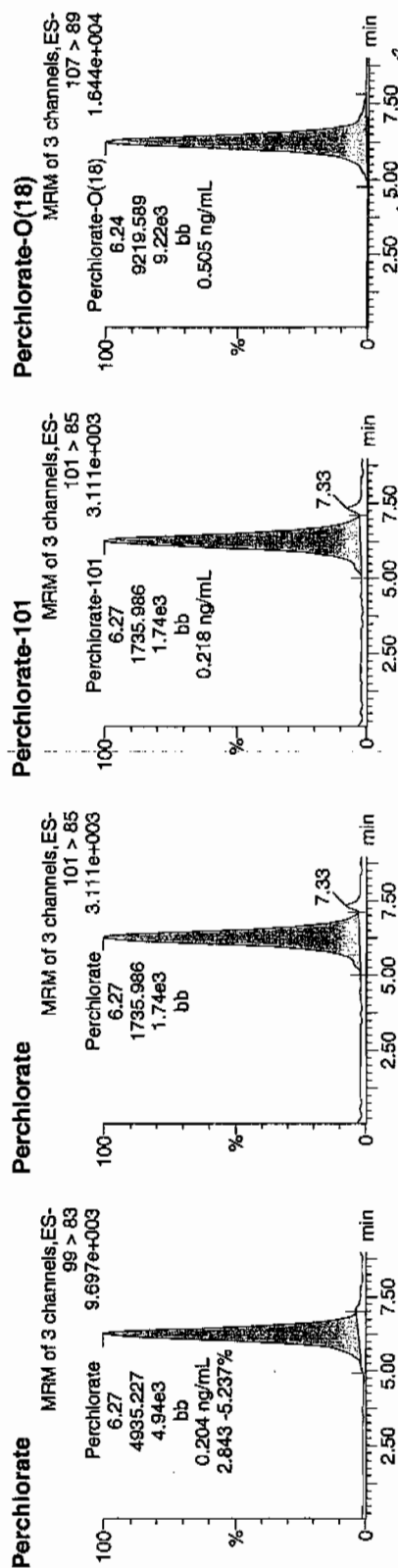
Time: 14:56:21

ID: 1202056701

Vial: 1:4,A

03-23-10

1202056701 | 959034 | 5025 | 150111



ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Conc	Unit	Rec	DB	SN	Unit Ratio
1202056701	Perchlorate	98 > 83	6.27	4935.227	4935.227	bb		0.2041	102.03	2.03	280.187	2.84	
1202056701	Perchlorate-101	101 > 85	6.27	1735.986	1735.986	bb		0.2180	109.01	9.01	100.241		
1202056701	Perchlorate-O(18)	107 > 89	6.24	9219.589	9219.589	bb		0.5053	101.05	1.05	2321.2...		

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: 959033 Verified by: _____
 Analyst: Kaylie Westmoreland
 Method: SW846 6850 Modified
 Lab SOP: GL-OA-E-067 REV# 6
 Instrument: MicroMass Quattro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202056698 MB	15-MAR-2010 13:33:00	2	20	10
1202056699 LCS	15-MAR-2010 13:33:00	2	20	10
248241001	15-MAR-2010 13:33:00	2	20	10
248241002	15-MAR-2010 13:33:00	2	20	10
1202056700 MS (248241002)	15-MAR-2010 13:33:00	2	20	10
1202056701 MSD (248241002)	15-MAR-2010 13:33:00	2	20	10
248241003	15-MAR-2010 13:33:00	2	20	10
248241004	15-MAR-2010 13:33:00	2	20	10
248241005	15-MAR-2010 13:33:00	2	20	10
248241006	15-MAR-2010 13:33:00	2	20	10
248241007	15-MAR-2010 13:33:00	2	20	10
248241008	15-MAR-2010 13:33:00	2	20	10
248241009	15-MAR-2010 13:33:00	2	20	10
248241010	15-MAR-2010 13:33:00	2	20	10
248256001	15-MAR-2010 13:33:00	2	20	10
248256002	15-MAR-2010 13:33:00	2	20	10
248256003	15-MAR-2010 13:33:00	2	20	10
248256004	15-MAR-2010 13:33:00	2	20	10
248256005	15-MAR-2010 13:33:00	2	20	10
248256006	15-MAR-2010 13:33:00	2	20	10
248256007	15-MAR-2010 13:33:00	2	20	10
1202056702 LCS	15-MAR-2010 13:33:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1202056702	10 ug/L ICV/CCV Second Source	UCL100311-01.1	4	mL	Desalting Cartridges used: 100223-1-Ba & 100216-1-H
LCS	1202056699	10 ug/L ICV/CCV Second Source	UCL100311-01.1	4	mL	
MS	1202056700	10 ug/L ICV/CCV Second Source	UCL100311-01.1	4	mL	
MSD	1202056701	10 ug/L ICV/CCV Second Source	UCL100311-01.1	4	mL	

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/22/10
 Extr. Injection Volume: 20uL
 Sequence Number: per032210a
 Initial Calibration Date: 03/22/10

Method: EPA 6850-Modified
 Int. Std.: UCL100210-01
 Mobile Phase Lot#: 1278668, 1284736
 Standard-Samp Reagent Lot#: 1271949

Reviewed BY: *H/nml*
 Date: *03/24/10*
 SOP: GL-OA-E-067 Rev.6
 Alt Check Std. ID: WCL100318-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0322001a	IPB001	CWW	3/22/2010 11:30			1		USE	B
per0322002a	IPB001	CWW	3/22/2010 11:42			1		USE	B
per0322003a	WCLICAL-01	CWW	3/22/2010 11:55			1		USE	I
per0322004a	WCLICAL-02	CWW	3/22/2010 12:07			1		USE	I
per0322005a	WCLICAL-03	CWW	3/22/2010 12:19			1		USE	I
per0322006a	WCLICAL-04	CWW	3/22/2010 12:31			1		USE	I
per0322007a	WCLICAL-05	CWW	3/22/2010 12:43			1		USE	I
per0322008a	IPB002	CWW	3/22/2010 12:55			1		USE	B
per0322009a	WCLICV	CWW	3/22/2010 13:07			1		USE	C
per0322010a	IPB003	CWW	3/22/2010 13:19			1		USE	B
per0322011a	WCLCRI	CWW	3/22/2010 13:31			1		USE	C
per0322012a	1202056698	CWW	3/22/2010 13:44	959034	VARIOUS	1	LANL	USE	S
per0322013a	1202056699	CWW	3/22/2010 13:56	959034	VARIOUS	1	LANL	USE	S
per0322014a	1202056702	CWW	3/22/2010 14:08	959034	VARIOUS	1	LANL	DUSE-RA	S
per0322015a	248241001	CWW	3/22/2010 14:20	959034	10-2135	1	LANL	USE	S
per0322016a	248241002	CWW	3/22/2010 14:32	959034	10-2135	1	LANL	USE	S
per0322017a	1202056700	CWW	3/22/2010 14:44	959034	10-2135	1	LANL	USE	S
per0322018a	1202056701	CWW	3/22/2010 14:56	959034	10-2135	1	LANL	USE	S
per0322019a	248241003	CWW	3/22/2010 15:08	959034	10-2135	1	LANL	USE	S
per0322020a	248241004	CWW	3/22/2010 15:20	959034	10-2135	1	LANL	USE	S
per0322021a	248241005	CWW	3/22/2010 15:32	959034	10-2135	1	LANL	USE	S
per0322022a	WCLCCV	CWW	3/22/2010 15:44			1		USE	C
per0322023a	IPB004	CWW	3/22/2010 15:56			1		USE	B
per0322024a	WCLCRI	CWW	3/22/2010 16:09			1		USE	C
per0322025a	248241006	CWW	3/22/2010 16:21	959034	10-2135	1	LANL	USE	S
per0322026a	248241007	CWW	3/22/2010 16:33	959034	10-2135	1	LANL	USE	S
per0322027a	248241008	CWW	3/22/2010 16:45	959034	10-2135	1	LANL	USE	S
per0322028a	248241009	CWW	3/22/2010 16:57	959034	10-2135	1	LANL	USE	S
per0322029a	248241010	CWW	3/22/2010 17:09	959034	10-2135	1	LANL	USE	S

per0322030a	248256001	CWW	3/22/2010 17:21	959034	10-2146	1	LANL	USE	S
per0322031a	248256002	CWW	3/22/2010 17:33	959034	10-2146	1	LANL	USE	S
per0322032a	248256003	CWW	3/22/2010 17:45	959034	10-2146	1	LANL	USE	S
per0322033a	248256004	CWW	3/22/2010 17:57	959034	10-2146	1	LANL	USE	S
per0322034a	248256005	CWW	3/22/2010 18:09	959034	10-2146	1	LANL	USE	S
per0322035a	WCLCCV	CWW	3/22/2010 18:21			1		USE	C
per0322036a	IPB005	CWW	3/22/2010 18:34			1		USE	B
per0322037a	WCLCRI	CWW	3/22/2010 18:46			1		USE	C
per0322038a	248256006	CWW	3/22/2010 18:58	959034	10-2146	1	LANL	USE	S
per0322039a	248256007	CWW	3/22/2010 19:10	959034	10-2146	1	LANL	USE	S
per0322040a	IPB006	CWW	3/22/2010 19:22			1		USE	B
per0322041a	1202063742	CWW	3/22/2010 19:34	962127	10-2151	1	LANL	USE	S
per0322042a	1202063743	CWW	3/22/2010 19:47	962127	10-2151	1	LANL	USE	S
per0322043a	1202063746	CWW	3/22/2010 19:59	962127	10-2151	1	LANL	USE	S
per0322044a	248371001	CWW	3/22/2010 20:11	962127	10-2151	1	LANL	USE	S
per0322045a	1202063744	CWW	3/22/2010 20:23	962127	10-2151	1	LANL	USE	S
per0322046a	1202063745	CWW	3/22/2010 20:35	962127	10-2151	1	LANL	USE	S
per0322047a	248371002	CWW	3/22/2010 20:47	962127	10-2151	1	LANL	USE	S
per0322048a	WCLCCV	CWW	3/22/2010 20:59			1		DUSE-DL	S
per0322049a	IPB007	CWW	3/22/2010 21:11			1		USE	C
per0322050a	WCLCRI	CWW	3/22/2010 21:23			1		USE	B
per0322051a	248371003	CWW	3/22/2010 21:35	962127	10-2151	1	LANL	USE	C
per0322052a	248371004	CWW	3/22/2010 21:47	962127	10-2151	1	LANL	USE	S
per0322053a	248371005	CWW	3/22/2010 21:59	962127	10-2151	1	LANL	DUSE-DL	S
per0322054a	248371006	CWW	3/22/2010 22:11	962127	10-2151	1	LANL	DUSE-RA	S
per0322055a	248371007	CWW	3/22/2010 22:23	962127	10-2151	1	LANL	USE	S
per0322056a	248371008	CWW	3/22/2010 22:36	962127	10-2151	1	LANL	USE	S
per0322057a	248371009	CWW	3/22/2010 22:48	962127	10-2151	1	LANL	USE	S
per0322058a	248371010	CWW	3/22/2010 23:00	962127	10-2151	1	LANL	USE	S
per0322059a	248371011	CWW	3/22/2010 23:12	962127	10-2151	1	LANL	USE	S
per0322060a	248371012	CWW	3/22/2010 23:24	962127	10-2151	1	LANL	USE	S
per0322061a	WCLCCV	CWW	3/22/2010 23:36			1		USE	C
per0322062a	IPB008	CWW	3/22/2010 23:48			1		USE	B
per0322063a	WCLCRI	CWW	3/23/2010 0:00			1		USE	C
per0322064a	248371013	CWW	3/23/2010 0:12	962127	10-2151	1	LANL	USE	S
per0322065a	248371014	CWW	3/23/2010 0:24	962127	10-2151	1	LANL	USE	S
per0322066a	248371015	CWW	3/23/2010 0:36	962127	10-2151	1	LANL	USE	S

per0322067a	248371016	CWW	3/23/2010 0:48	962127	10-2151	1	LANL	USE	S
per0322068a	248371017	CWW	3/23/2010 1:00	962127	10-2151	1	LANL	USE	S
per0322069a	248371018	CWW	3/23/2010 1:12	962127	10-2151	1	LANL	USE	S
per0322070a	248371019	CWW	3/23/2010 1:24	962127	10-2151	1	LANL	USE	S
per0322071a	248371020	CWW	3/23/2010 1:36	962127	10-2151	1	LANL	USE	S
per0322072a	WCLCCV	CWW	3/23/2010 1:49			1		USE	C
per0322073a	IPB009	CWW	3/23/2010 2:01			1		USE	B
per0322074a	WCLCRI	CWW	3/23/2010 2:13			1		USE	C
per0322075a	1202067810	CWW	3/23/2010 2:25	963899	VARIOUS	1	LANL	USE	S
per0322076a	1202067811	CWW	3/23/2010 2:37	963899	VARIOUS	1	LANL	USE	S
per0322077a	1202067814	CWW	3/23/2010 2:49	963899	VARIOUS	1	LANL	USE	S
per0322078a	248374001	CWW	3/23/2010 3:01	963899	10-2155	1	LANL	USE	S
per0322079a	248374002	CWW	3/23/2010 3:13	963899	10-2155	1	LANL	USE	S
per0322080a	1202067812	CWW	3/23/2010 3:25	963899	10-2155	1	LANL	USE	S
per0322081a	1202067813	CWW	3/23/2010 3:37	963899	10-2155	1	LANL	USE	S
per0322082a	248374003	CWW	3/23/2010 3:49	963899	10-2155	1	LANL	USE	S
per0322083a	248374004	CWW	3/23/2010 4:01	963899	10-2155	1	LANL	USE	S
per0322084a	248374005	CWW	3/23/2010 4:13	963899	10-2155	1	LANL	USE	S
per0322085a	WCLCCV	CWW	3/23/2010 4:25			1		USE	C
per0322086a	IPB010	CWW	3/23/2010 4:38			1		USE	B
per0322087a	WCLCRI	CWW	3/23/2010 4:50			1		USE	C
per0322088a	248374006	CWW	3/23/2010 5:02	963899	10-2155	1	LANL	USE	S
per0322089a	248374007	CWW	3/23/2010 5:14	963899	10-2155	1	LANL	USE	S
per0322090a	248374008	CWW	3/23/2010 5:26	963899	10-2155	1	LANL	USE	S
per0322091a	248374009	CWW	3/23/2010 5:38	963899	10-2155	1	LANL	USE	S
per0322092a	248374010	CWW	3/23/2010 5:50	963899	10-2155	1	LANL	USE	S
per0322093a	248374011	CWW	3/23/2010 6:02	963899	10-2155	1	LANL	USE	S
per0322094a	248374012	CWW	3/23/2010 6:14	963899	10-2155	1	LANL	USE	S
per0322095a	248374013	CWW	3/23/2010 6:26	963899	10-2155	1	LANL	USE	S
per0322096a	248422001	CWW	3/23/2010 6:38	963899	10-2166	1	LANL	USE	S
per0322097a	248422002	CWW	3/23/2010 6:50	963899	10-2166	1	LANL	USE	S
per0322098a	WCLCCV	CWW	3/23/2010 7:02			1		USE	C
per0322099a	IPB011	CWW	3/23/2010 7:18			1		USE	B
per0322100a	WCLCRI	CWW	3/23/2010 7:30			1		USE	C
per0322101a	248515001	CWW	3/23/2010 7:42	963899	10-2197	1	LANL	USE	S
per0322102a	248515002	CWW	3/23/2010 7:55	963899	10-2197	1	LANL	USE	S
per0322103a	248515003	CWW	3/23/2010 8:07	963899	10-2197	1	LANL	USE	S

per0322104a	248517001	CWW	3/23/2010 8:19	963899	10-2198	1	LANL	USE	S
per0322105a	IPB012	CWW	3/23/2010 8:31			1		USE	B
per0322106a	1202056702	CWW	3/23/2010 8:43	959034	VARIOUS	1	LANL	USE	S
per0322107a	IPB013	CWW	3/23/2010 8:55			1		USE	B
per0322108a	248371002	CWW	3/23/2010 9:07	962127	10-2151	4	LANL	USE	S
per0322109a	248371005	CWW	3/23/2010 9:19	962127	10-2151	4	LANL	USE	S
per0322110a	248371006	CWW	3/23/2010 9:31	962127	10-2151	1	LANL	USE	S
per0322111a	WCLCCV	CWW	3/23/2010 9:43			1		USE	C
per0322112a	IPB014	CWW	3/23/2010 9:55			1		USE	B
per0322113a	WCLCRI	CWW	3/23/2010 10:07			1		USE	C

Isotope Ratio Criteria

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

2.31-3.85

Tune Criteria

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

LC/MS/MS PERCHLORATE ANALYSIS

**Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-2135-1**

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: 959047

Prep Batch Number: 959046

Sample Analysis

Sample ID	Client ID
248242001	RE36-10-7530
1202056719	Interference Check Sample (ICS)
1202056715	Method Blank (MB)
1202056716	Laboratory Control Sample (LCS)
1202056717	248162002(RE46-10-13209) Matrix Spike (MS)
1202056718	248162002(RE46-10-13209) 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.

CCV Requirements

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

10-2135-1-PERLCMS

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 248162002 (RE46-10-13209) was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement

The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement

The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement

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

Retention Time Standard Area Acceptance

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

Retention Time

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

Technical Information

Holding Time Specifications

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

Preparation/Analytical Method Verification

All procedures were performed as stated in the SOP.

Sample Dilutions

The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis

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

Miscellaneous Information

Data Exception (DER) Documentation

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

Manual Integrations

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

Method Comments

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

Additional Comments

The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value. The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio

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

System Configuration

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

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:
Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

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

Review Validation:

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

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

Reviewer: Pet Stas Date: 3/16/10

10-2135-1-PERLCMS

SAMPLE DATA SUMMARY

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC
 Lab Code: GEL
 Instrument: LCMSMS
 Method: SW846 6850 Modified
 Matrix: WATER
 Extraction Batch ID: 259046
 Extraction Type: Filter/DAI
 Client Sample No. RE36-10-7530
 Date Received: 27-FEB-10
 GEL Job No (SDG): 10-2135-1
 GEL Sample ID: 248242001
 Date Filtered: 05-MAR-10
 Injection Volume (uL): 20

%Solids:

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

CAS No.	Analyte [^]	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	09-MAR-10 11:34	per0308132a
	Perchlorate Isotope Ratio						1	09-MAR-10 11:34	per0308132a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	09-MAR-10 11:34	per0308132a
	Perchlorate-O(18)			0.451	ug/L		1	09-MAR-10 11:34	per0308132a

[^] 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): 10-2135-1

Extract Batch Code: 959046 Date Filtered: 05-MAR-10

Matrix: WATER Sample ID: 1202056716

Analyte [^]	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.187	ug/L	93.6		85 - 115
Perchlorate Isotope Ratio		3.13				-
Perchlorate-101	0.200	.197	ug/L	98.4		85 - 115
Perchlorate-O(18)		.45	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): 10-2135-1

Extract Batch Code: 959046 Date Filtered: 05-MAR-10

Matrix: WATER Sample ID: 1202056719

Analyte [^]	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.197	ug/L	98.5		70 - 130
Perchlorate Isotope Ratio		3.09				
Perchlorate-101	0.200	.21	ug/L	105		70 - 130
Perchlorate-O(18)		.463	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

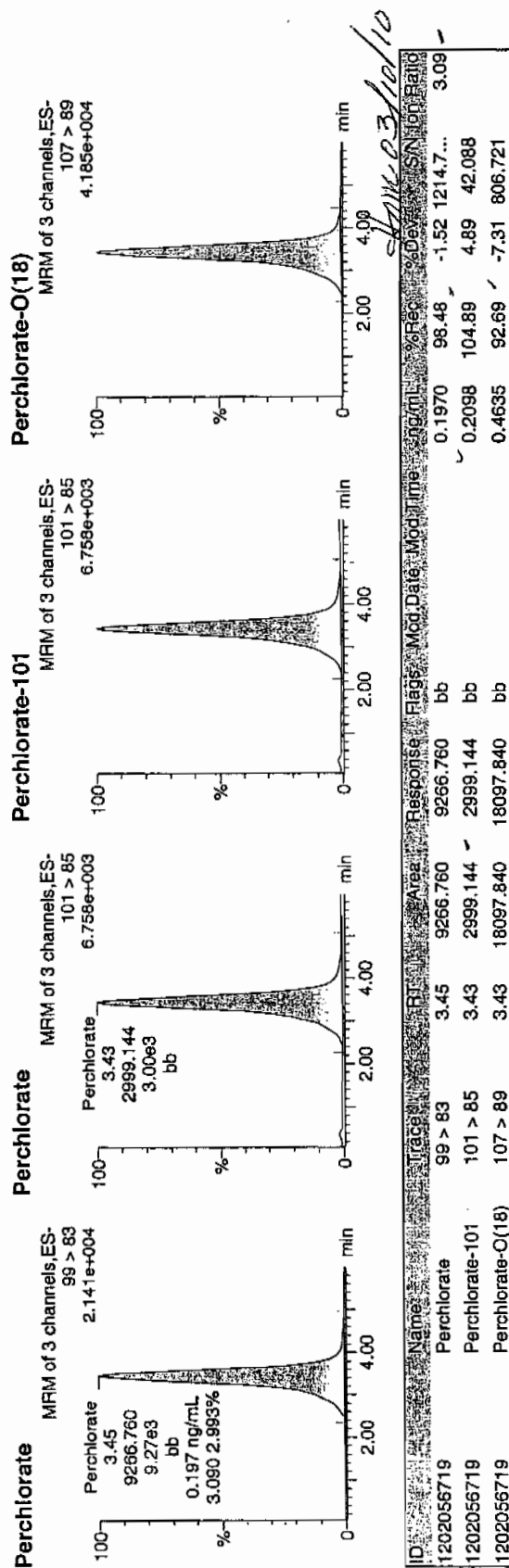
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Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308109a
Date: 09-Mar-2010
Time: 08:06:14
ID: 1202056719
Vial: 3:1,C

623-01-10

1202056719 | 1202056719 | 1202056719



Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

Extract Batch Code: 959046

GEL MS/PS ID: 1202056717

GEL MSD/PSD ID: 1202056718

GEL Job No (SDG): 10-2135-1

Date Extracted: 05-MAR-10

Client ID: RE46-10-13209

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	0.00772	ug/L	0.190	91.1		.191	91.9		.803		30	75 - 125
Perchlorate Isotope Ratio	0	0.00		3.14			3.05			0			-
Perchlorate-101	0.200	0.0102	ug/L	0.199	94.3		.207	98.3		3.87		30	75 - 125
Perchlorate-O(18)	0	0.435	ug/L	0.461			.46			.13			-

[^] 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): 10-2135-1

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	08-MAR-10	per0308001a	IPB001
Perchlorate-101	0.00	0	NA	08-MAR-10	per0308001a	IPB001
Perchlorate	0.00	0	NA	08-MAR-10	per0308002a	IPB001
Perchlorate-101	0.00	0	NA	08-MAR-10	per0308002a	IPB001

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

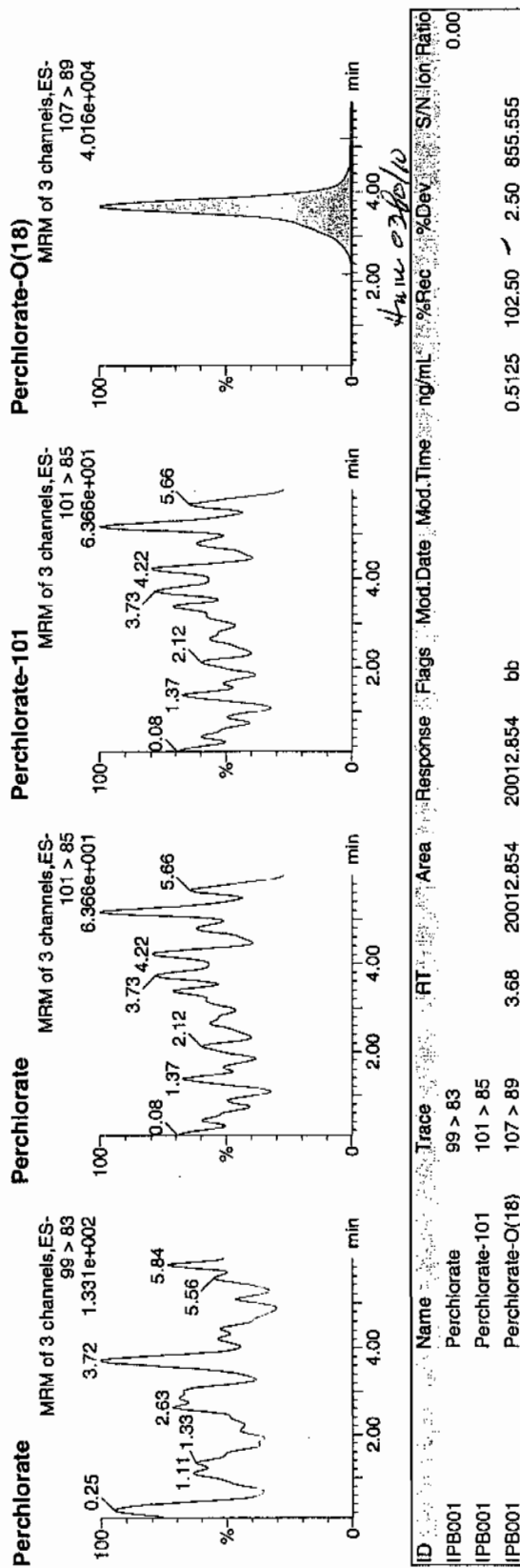
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Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per030810a.mdb 09 Mar 2010 12:48:33
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per030810a.cdb 09 Mar 2010 12:48:47

Name: per03080001a
Date: 08-Mar-2010
Time: 15:44:43
ID: IPB001
Vial: 1:1,A

03-09-10



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

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

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Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308002a

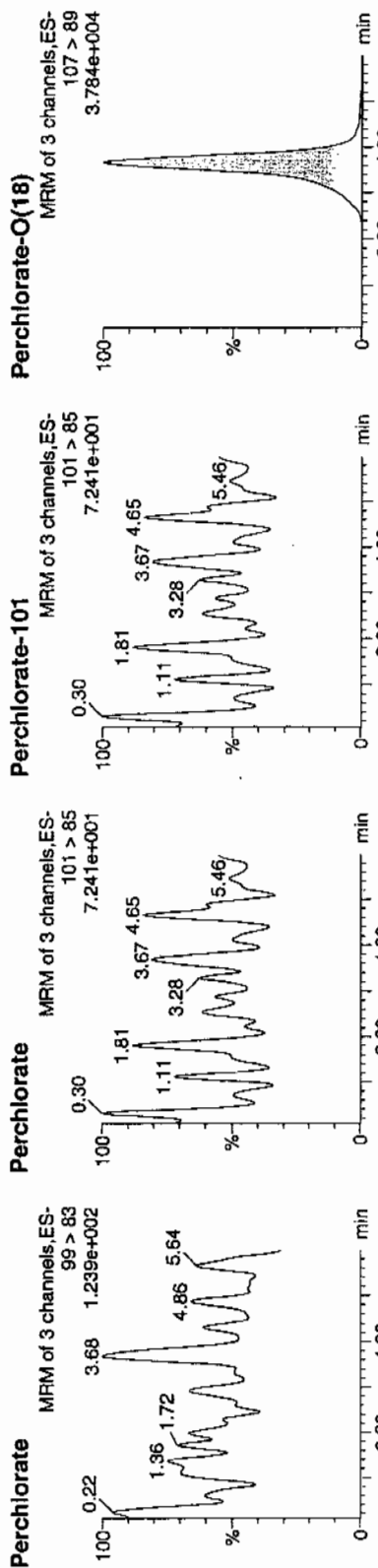
Date: 08-Mar-2010

Time: 15:53:45

ID: IPB001

Vial: 1:1,A

3303-01-0



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IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85	3.66	18783.678	18783.678	bb			0.4810	96.21	-3.79	1331.0...	
IPB001	Perchlorate-O(18)	107 > 89											

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2135-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	08-MAR-10	per0308008a	IPB002
Perchlorate-101	0.00	0	NA	08-MAR-10	per0308008a	IPB002
Perchlorate	0.00	0	NA	08-MAR-10	per0308010a	IPB003
Perchlorate-101	0.00	0	NA	08-MAR-10	per0308010a	IPB003
Perchlorate	0.00	0	NA	08-MAR-10	per0308022a	IPB004
Perchlorate-101	0.00	0	NA	08-MAR-10	per0308022a	IPB004
Perchlorate	0.00	0	NA	08-MAR-10	per0308035a	IPB005
Perchlorate-101	0.00	0	NA	08-MAR-10	per0308035a	IPB005
Perchlorate	0.00	0	NA	08-MAR-10	per0308048a	IPB006
Perchlorate-101	0.00	0	NA	08-MAR-10	per0308048a	IPB006
Perchlorate	0.00	0	NA	08-MAR-10	per0308052a	IPB007
Perchlorate-101	0.00	0	NA	08-MAR-10	per0308052a	IPB007
Perchlorate	0.00	0	NA	09-MAR-10	per0308061a	IPB008

Perchlorate Continuing Calibration Blank

GEL Job No.(SDG): 10-2135-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

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

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate-101	0.00	0	NA	09-MAR-10	per0308061a	IPB008
Perchlorate	0.00	0	NA	09-MAR-10	per0308074a	IPB009
Perchlorate-101	0.00	0	NA	09-MAR-10	per0308074a	IPB009
Perchlorate	0.00	0	NA	09-MAR-10	per0308087a	IPB010
Perchlorate-101	0.00	0	NA	09-MAR-10	per0308087a	IPB010
Perchlorate	0.00	0	NA	09-MAR-10	per0308100a	IPB011
Perchlorate-101	0.00	0	NA	09-MAR-10	per0308100a	IPB011
Perchlorate	0.00	0	NA	09-MAR-10	per0308106a	IPB012
Perchlorate-101	0.00	0	NA	09-MAR-10	per0308106a	IPB012
Perchlorate	0.00	0	NA	09-MAR-10	per0308113a	IPB013
Perchlorate-101	0.00	0	NA	09-MAR-10	per0308113a	IPB013
Perchlorate	0.00	0	NA	09-MAR-10	per0308126a	IPB014
Perchlorate-101	0.00	0	NA	09-MAR-10	per0308126a	IPB014

Perchlorate Continuing Calibration Blank

GEL Job No.(SDG): 10-2135-1

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	09-MAR-10	per0308138a	IPB015
Perchlorate-101	0.00	0	NA	09-MAR-10	per0308138a	IPB015

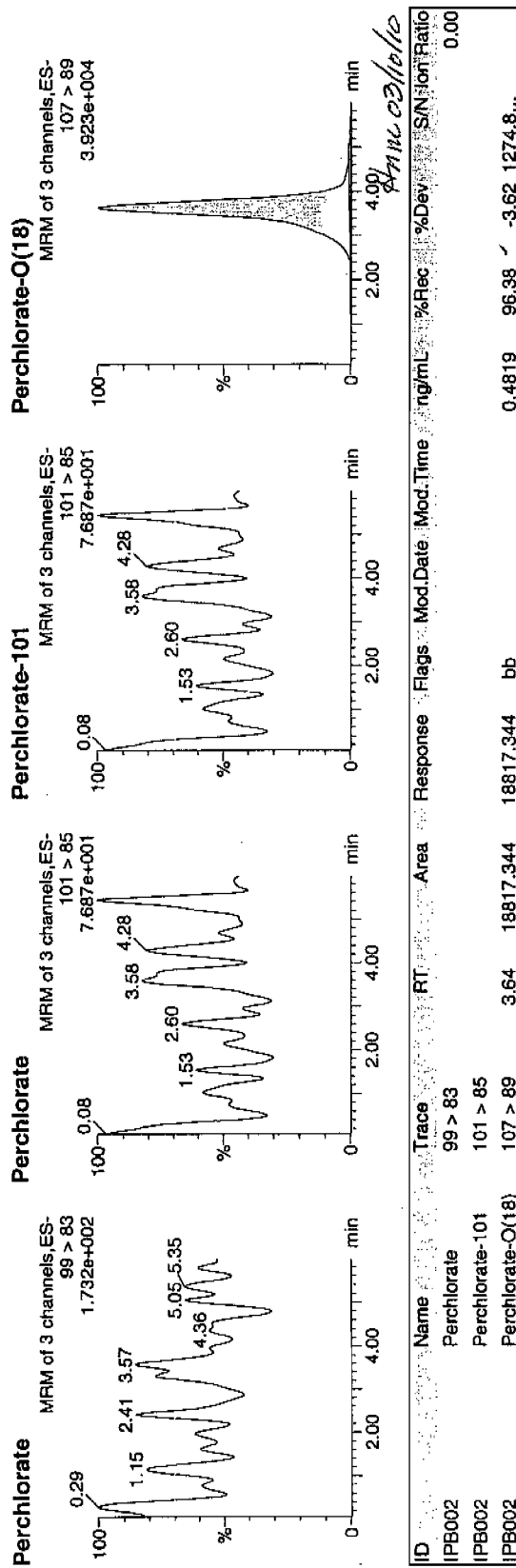
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

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Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308008a
Date: 08-Mar-2010
Time: 16:48:15
ID: IPB002
Vial: 1:1,A

03-09-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
IPB002	Perchlorate	99 > 83											0.00
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	3.64	18817.344	18817.344	bb			0.4819	96.38	-3.62	1274.8...	

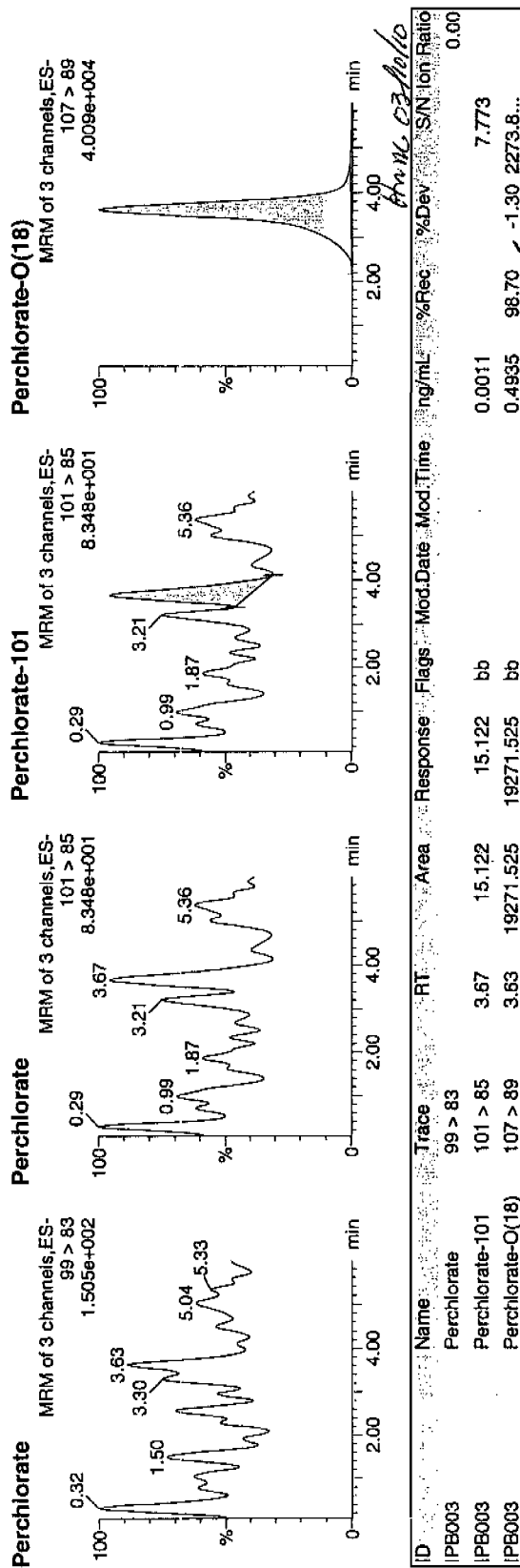
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The GEL Group, LLC Analyst: Charlers W. Wilson

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Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308010a
Date: 08-Mar-2010
Time: 17:06:27
ID: IPB003
Vial: 1:1,A

03-09-10



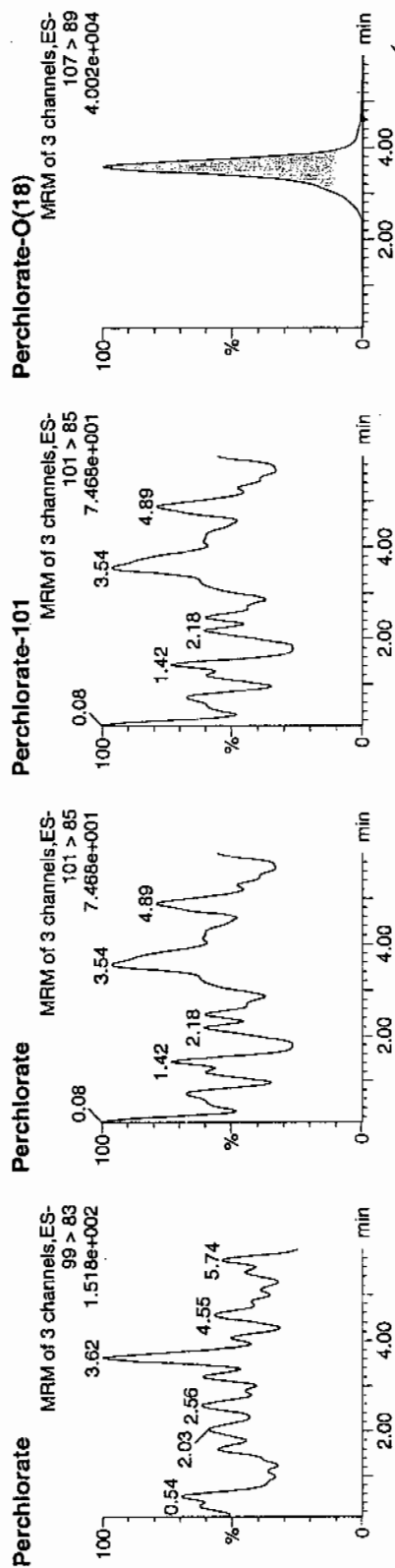
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

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Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308022a
Date: 08-Mar-2010
Time: 18:55:24
ID: IPB004
Vial: 1:1,A

03-09-10



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	3.58	19034.945	19034.945	bb			0.4875	97.49	-2.51	1930.8...	
IPB004	Perchlorate-O(18)	107 > 89											

Amu 0.2/dec

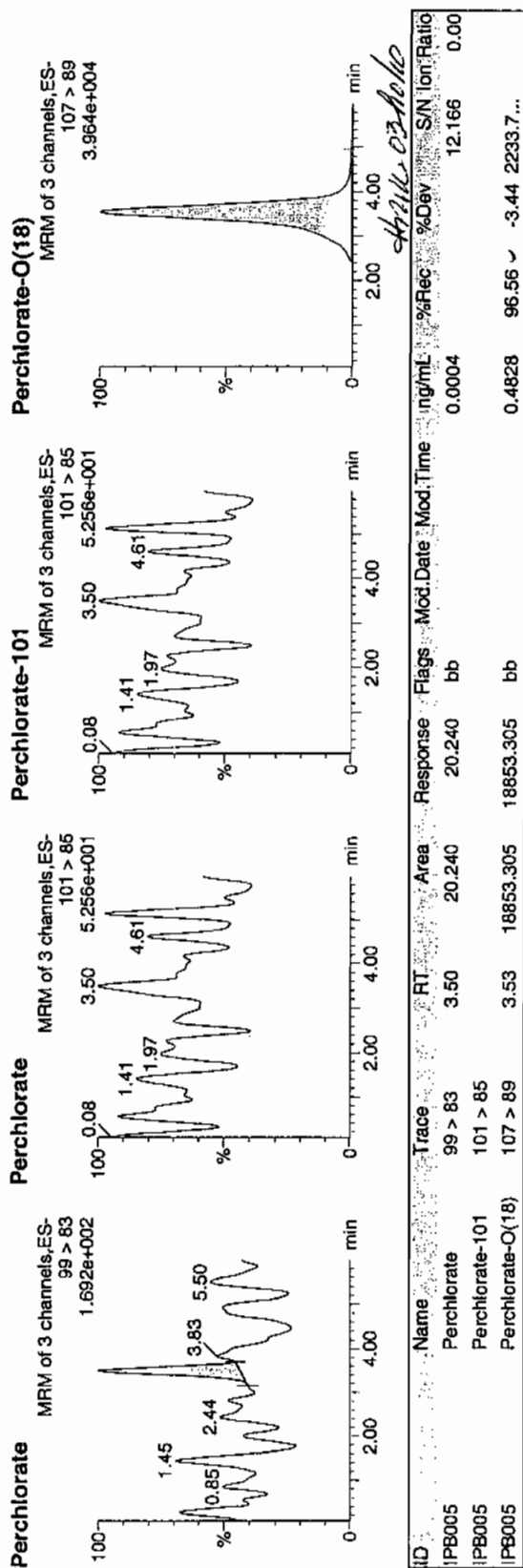
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The GEL Group, LLC Analyst: Charlers W. Wilson

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Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

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Date: 08-Mar-2010
Time: 20:53:11
ID: IPB005
Vial: 1:1,A

0309-10



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

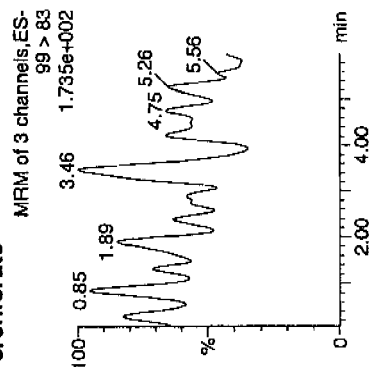
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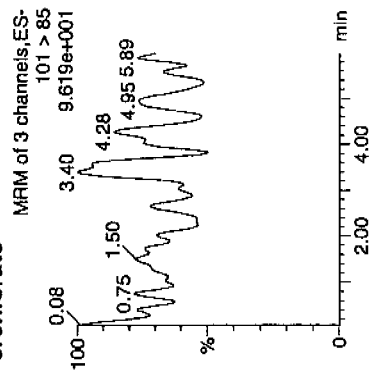
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Time: 22:51:21
ID: IPB006
Vial: 1:1,A

03-09-10

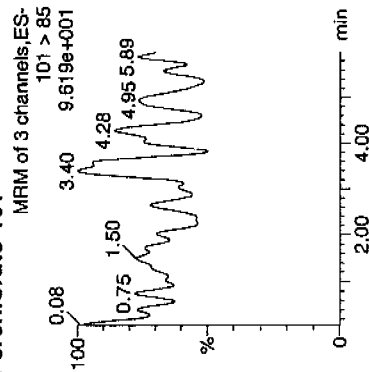
Perchlorate



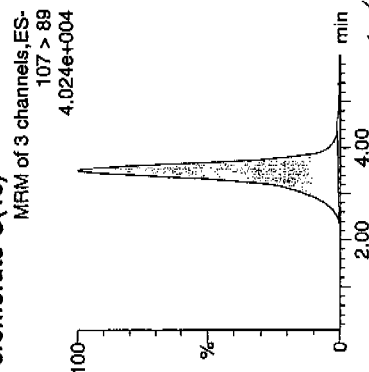
Perchlorate



Perchlorate-101



Perchlorate-O(18)



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83											0.00
IPB006	Perchlorate-101	101 > 85											
IPB006	Perchlorate-O(18)	107 > 89	3.51	18258.602	18258.602	bb			0.4676	93.52	-6.48	1018.6...	

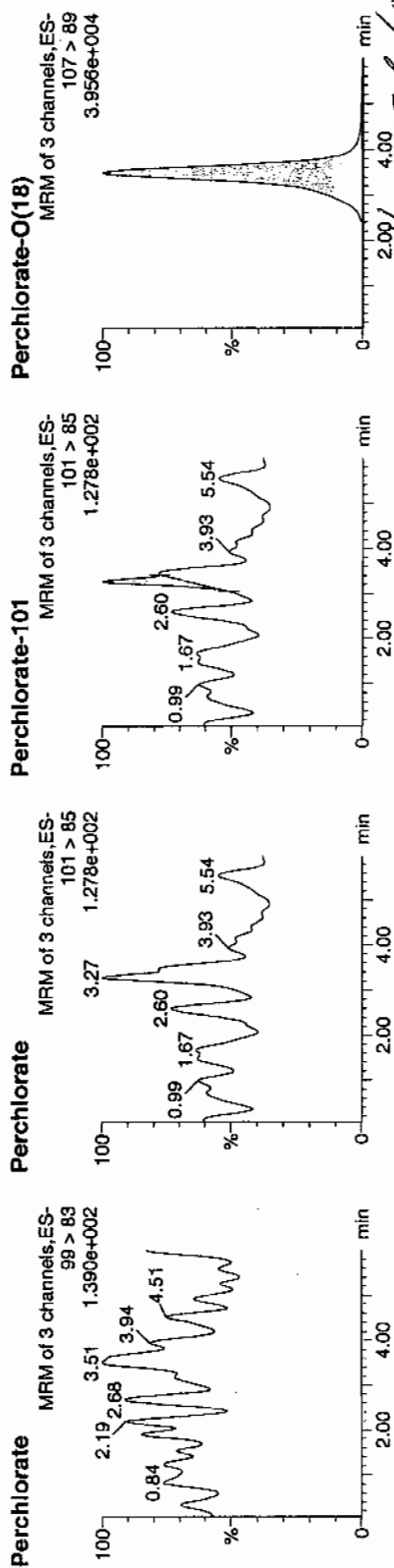
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

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Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308052a
Date: 08-Mar-2010
Time: 23:27:41
ID: IPB007
Vial: 1:1,A

03-04-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83	3.27	7.250	7.250	bb			0.0005			11.574	0.00
IPB007	Perchlorate-101	101 > 85	3.50	18495.547	18495.547	bb			0.4736	94.73	-5.27	613.571	
IPB007	Perchlorate-O(18)	107 > 89											

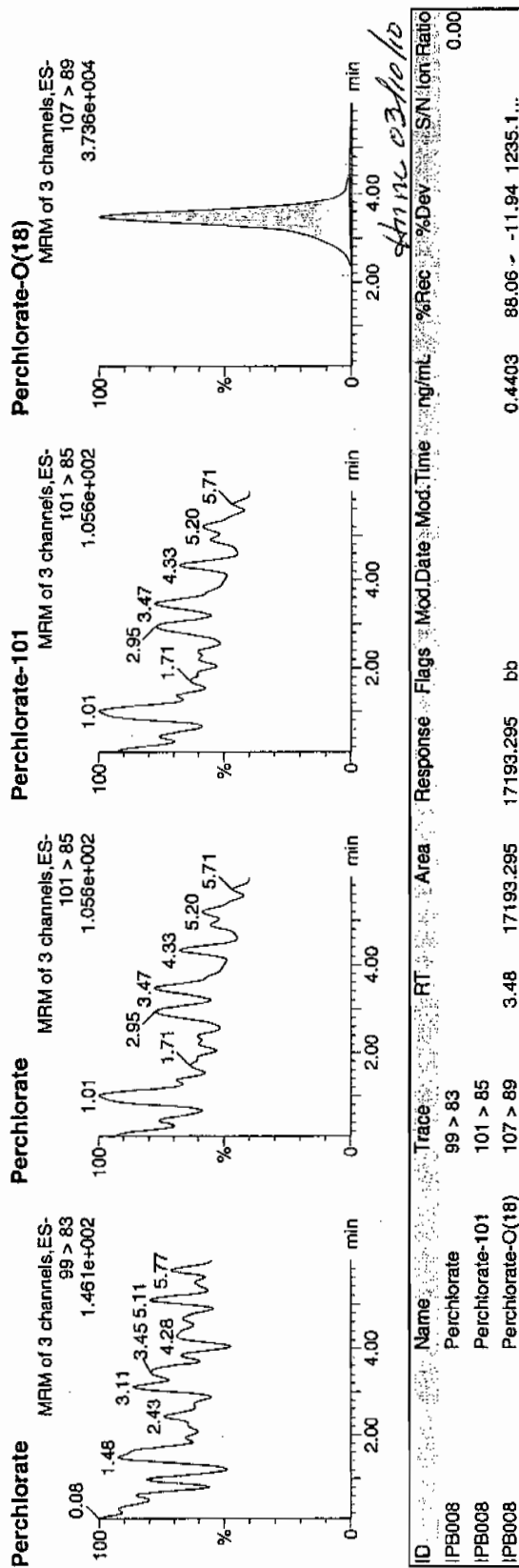
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308061a
Date: 09-Mar-2010
Time: 00:50:02
ID: IPB008
Vial: 1:1,A

03-09-10



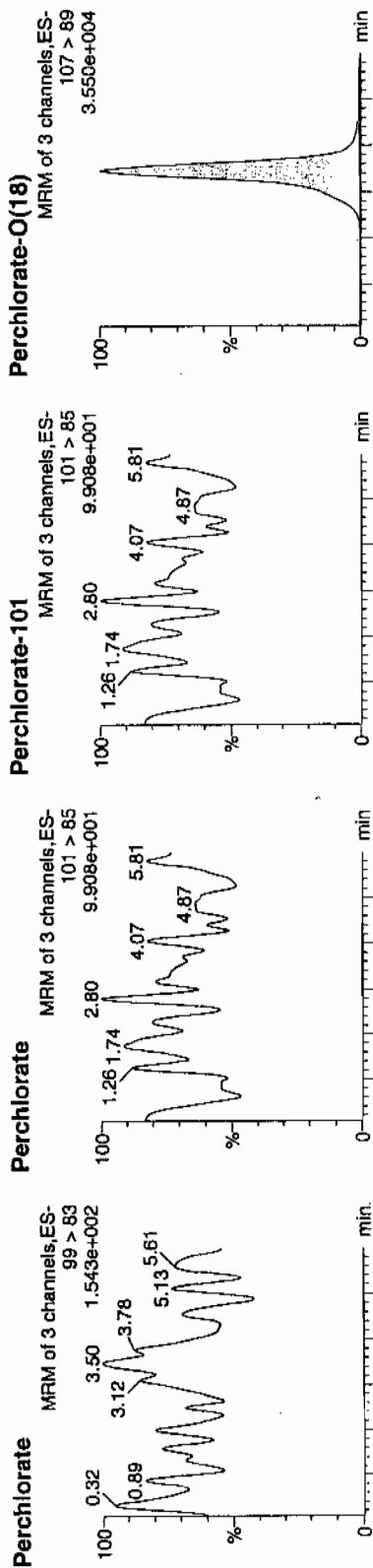
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308074a
Date: 09-Mar-2010
Time: 02:48:02
ID: IPB009
Vial: 1:1,A

WSD
03-09-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB009	Perchlorate	99 > 83											0.00
IPB009	Perchlorate-101	101 > 85											
IPB009	Perchlorate-O(18)	107 > 89	3.47	16711.643	16711.643	bb			0.4280	85.59	-14.41	2348.6...	

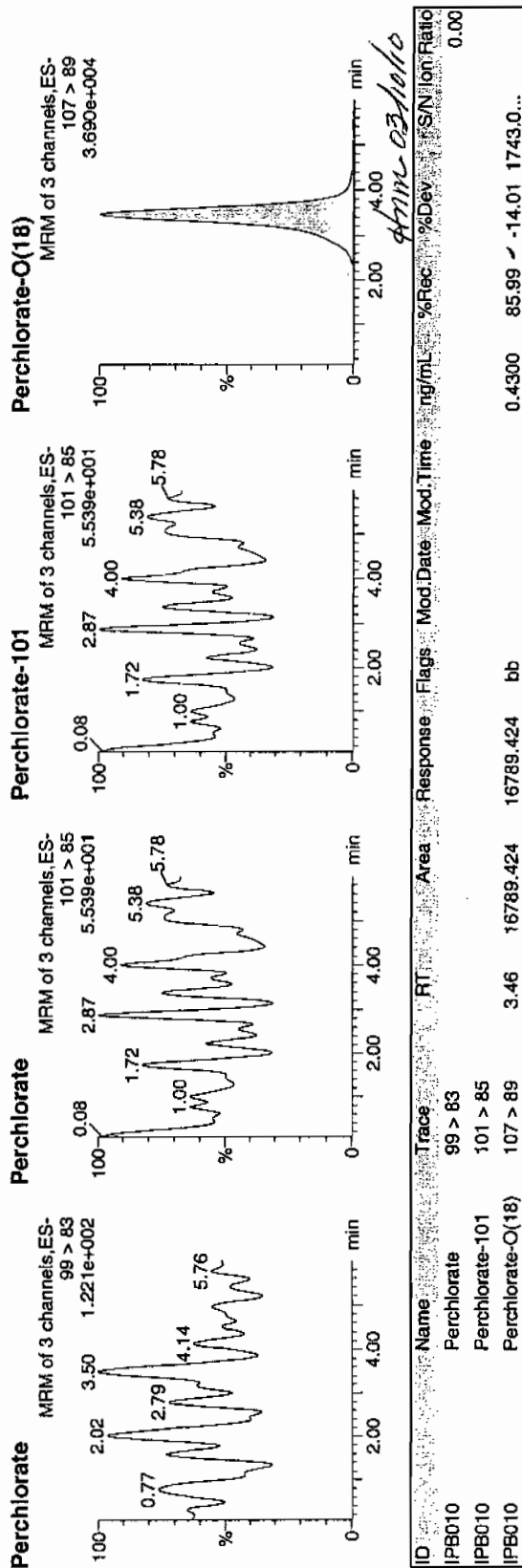
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

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Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308087a
Date: 09-Mar-2010
Time: 04:46:06
ID: IPB010
Vial: 1:1,A

030410



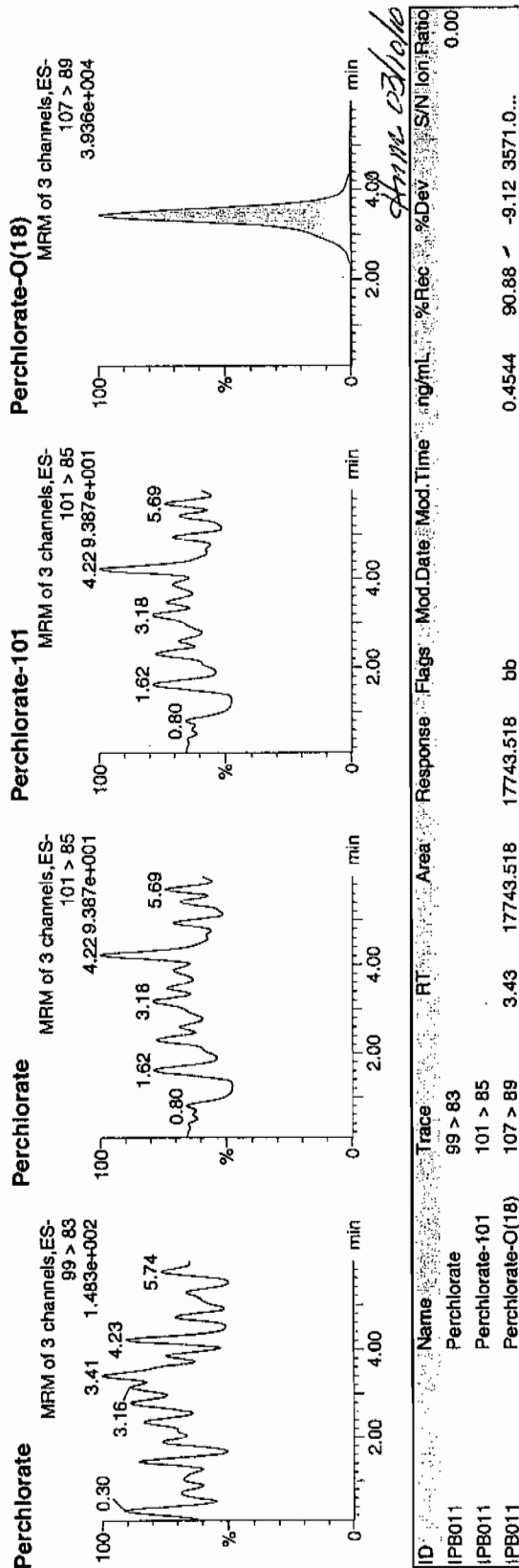
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

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Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

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Date: 09-Mar-2010
Time: 06:44:12
ID: IPB011
Vial: 1:1,A

03.04.10



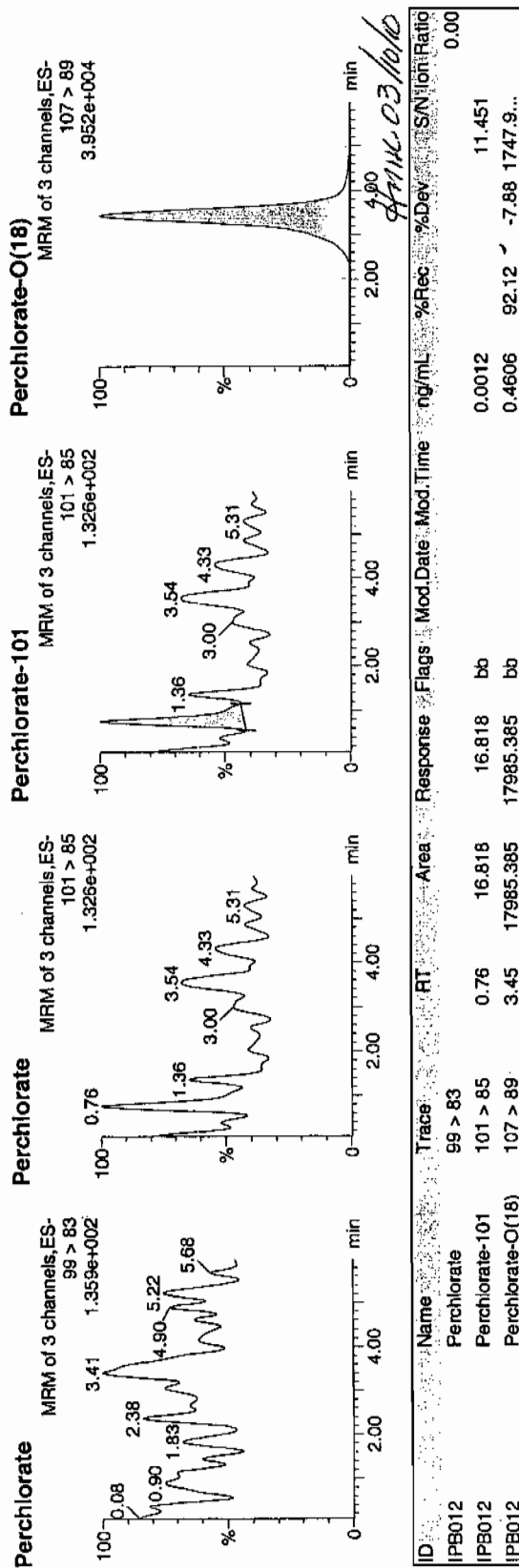
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

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Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308106a
Date: 09-Mar-2010
Time: 07:38:40
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03-04-10



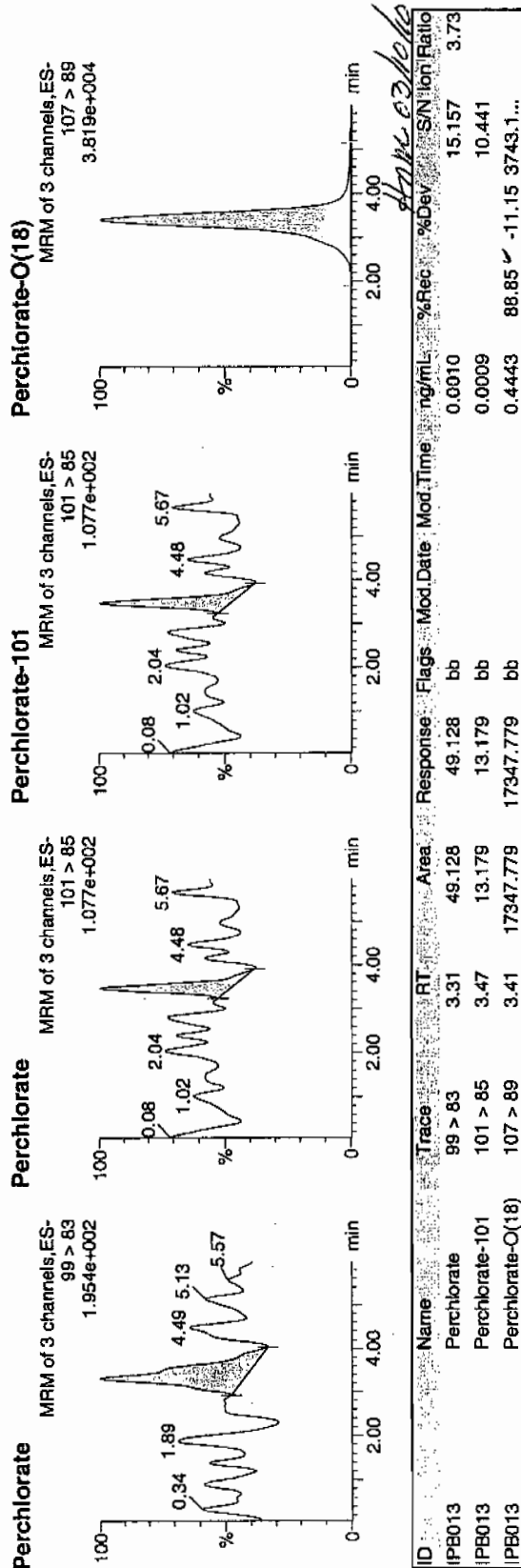
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

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Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308113a
Date: 09-Mar-2010
Time: 08:42:34
ID: IPB013
Vial: 1:1,A

03-04-10



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

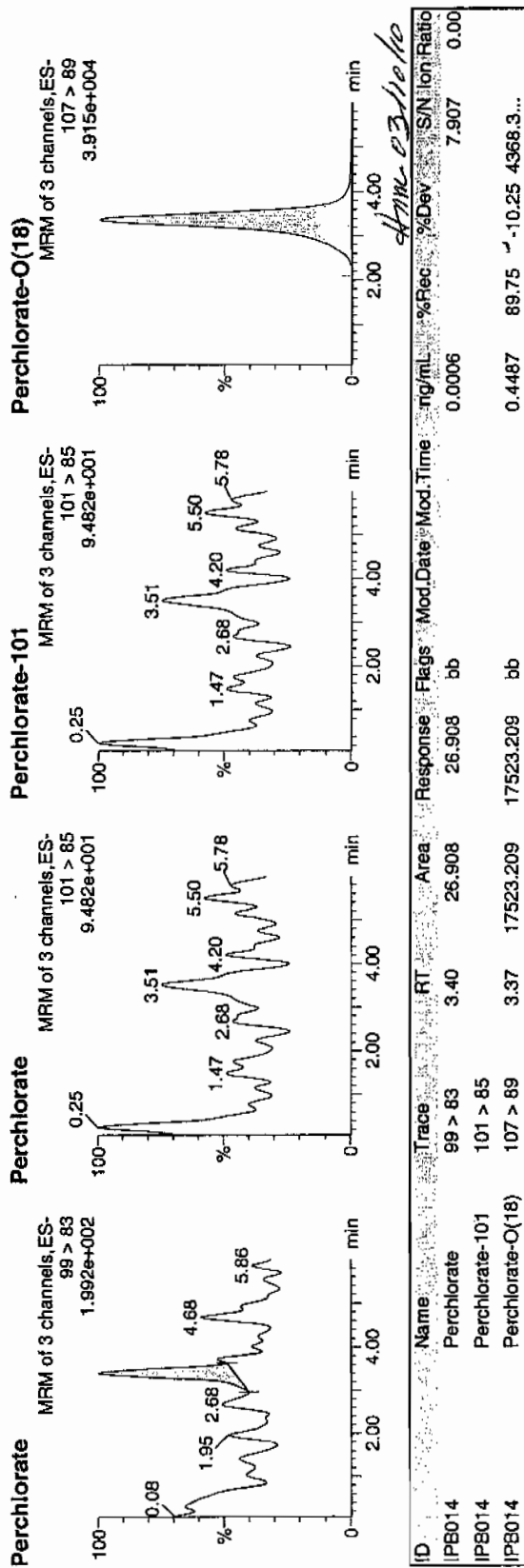
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308126a
Date: 09-Mar-2010
Time: 10:40:29
ID: IPB014
Vial: 1:1,A

33-09-10



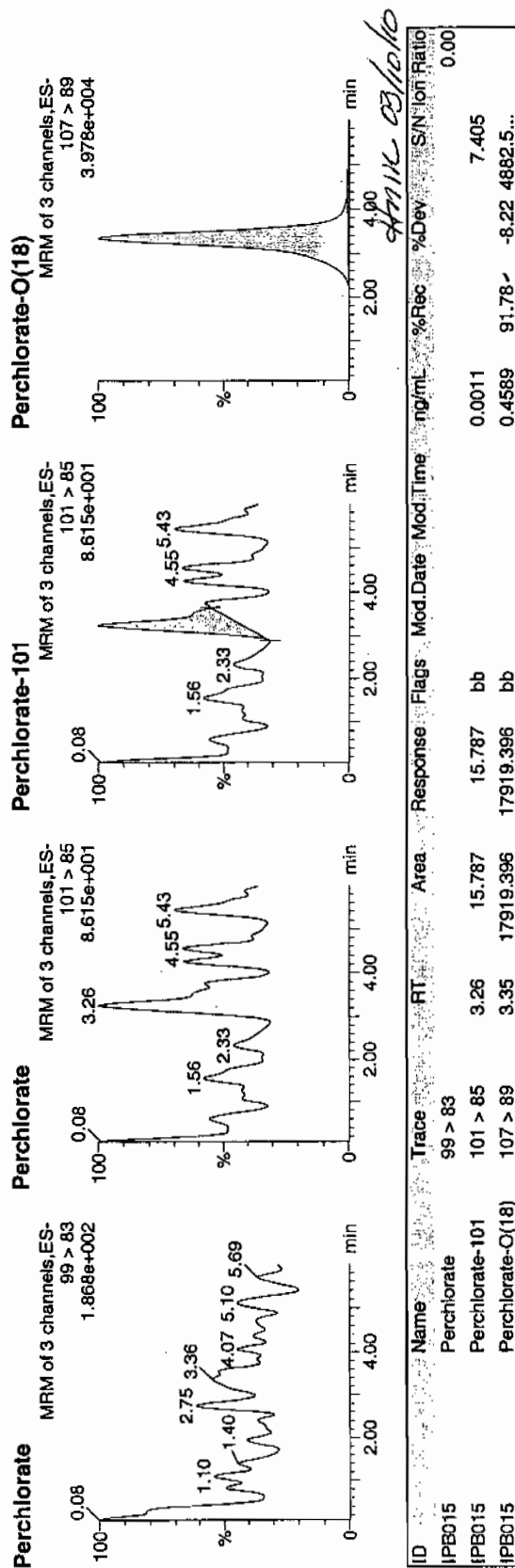
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308138a
Date: 09-Mar-2010
Time: 12:29:15
ID: IPB015
Vial: 1:1,A

WJ 03-09-10



Nairb.ref

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

Updated 20 April '95

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

QUATRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

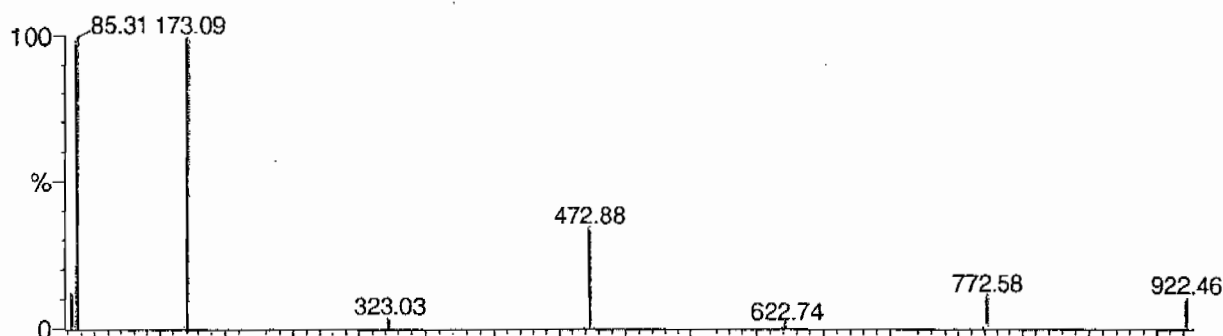
Page 1 of 1

Printed: Tue Jan 08 12:19:12 2008

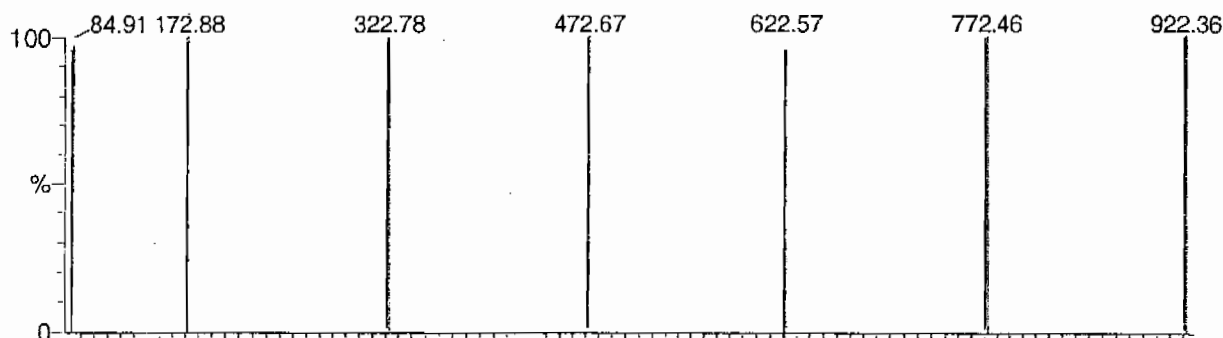
POINTS HIGHLIGHTED BY CURV 01-07-08

Data file: STATMS1 - Uncalibrated

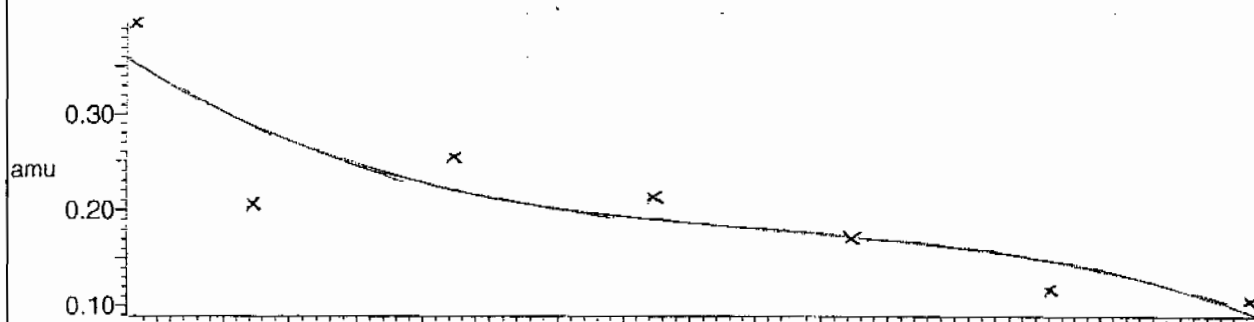
7 matches of 7 tested references



Reference file: Nairb

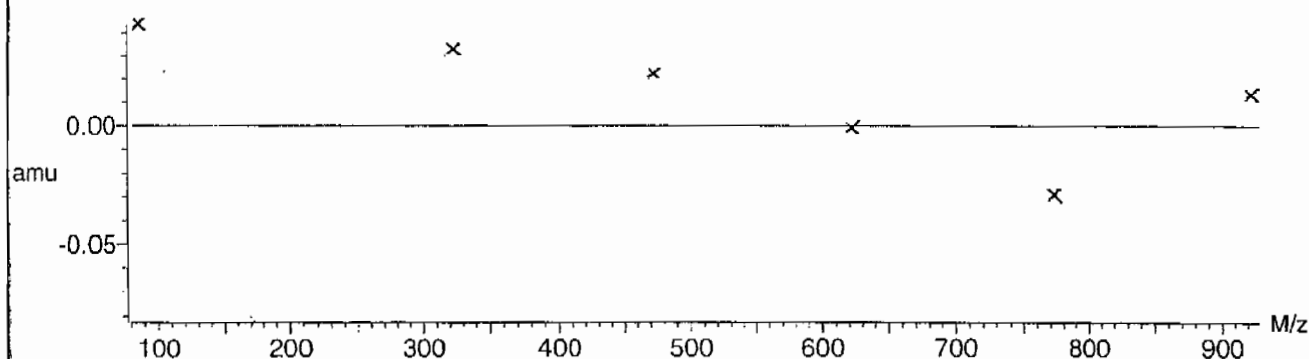


Mass difference (Raw - Ref mass)



Residuals

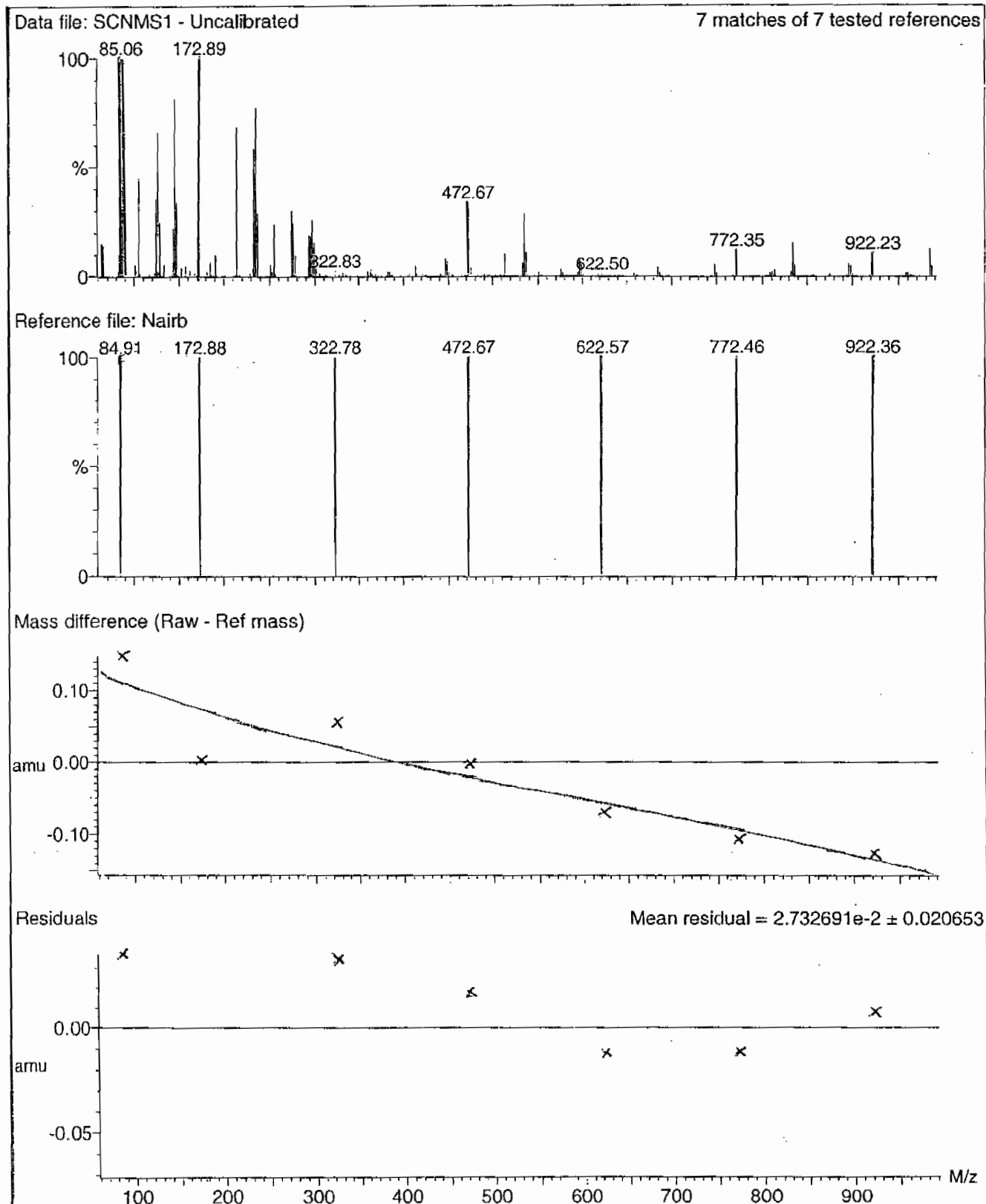
Mean residual = $3.212012 \times 10^{-2} \pm 0.024108$



Calibration Report - MS1 Scanning

Page 1 of 1

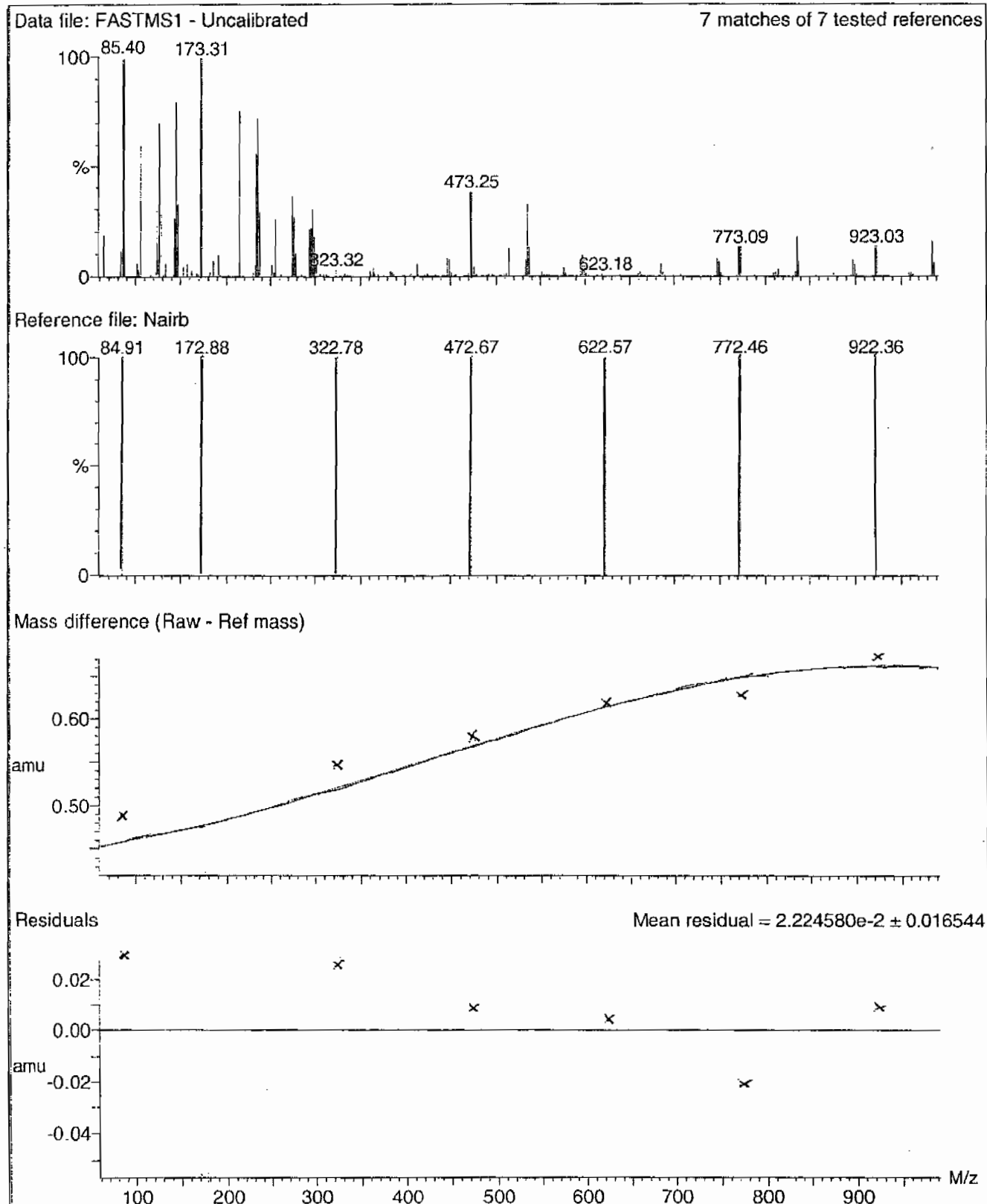
Printed: Tue Jan 08 12:20:09 2008



Calibration Report - MS1 Scan Speed Compensation

Page 1 of 1

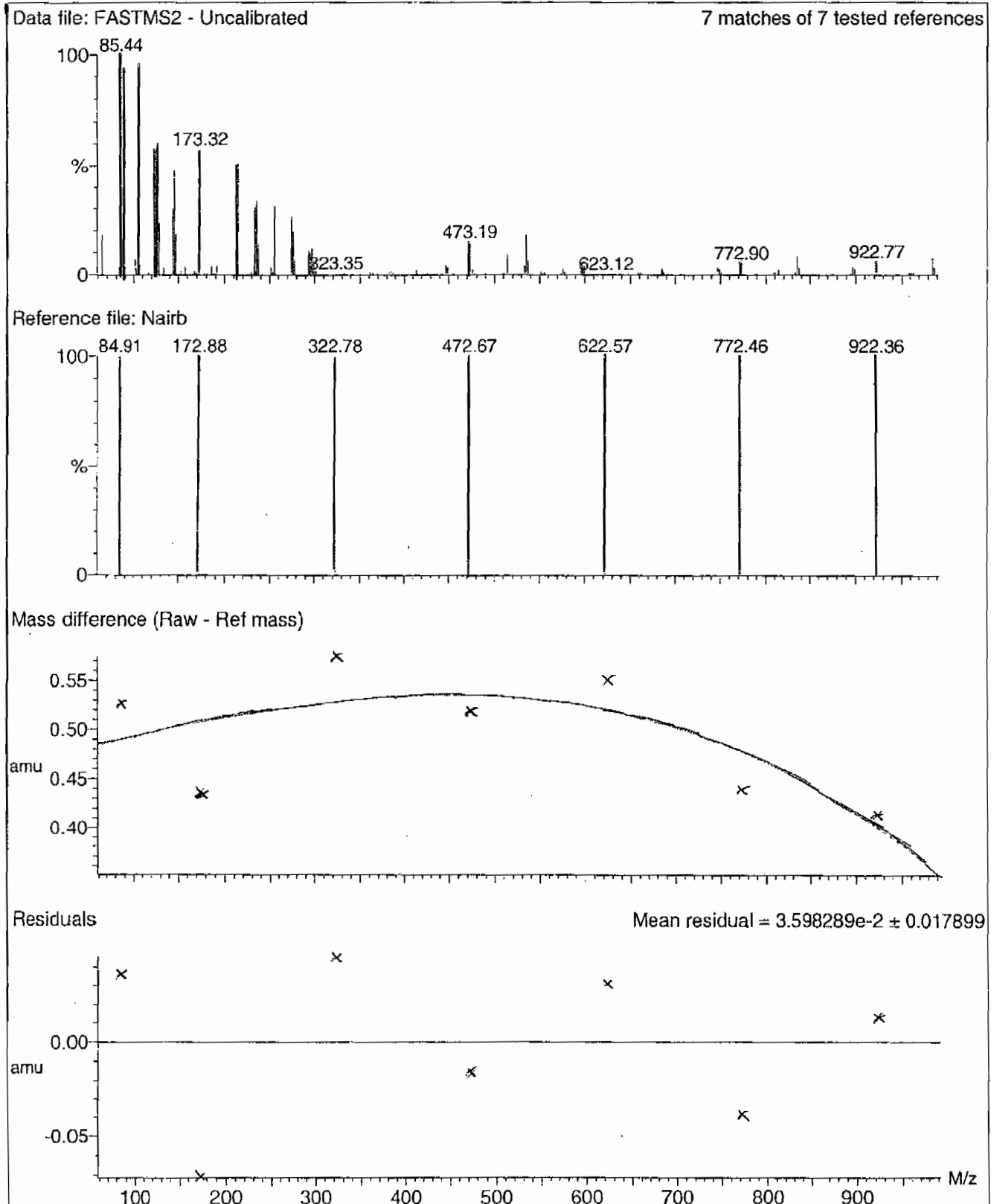
Printed: Tue Jan 08 12:21:04 2008



Calibration Report - MS2 Scan Speed Compensation

Page 1 of 1

Printed: Tue Jan 08 12:23:51 2008



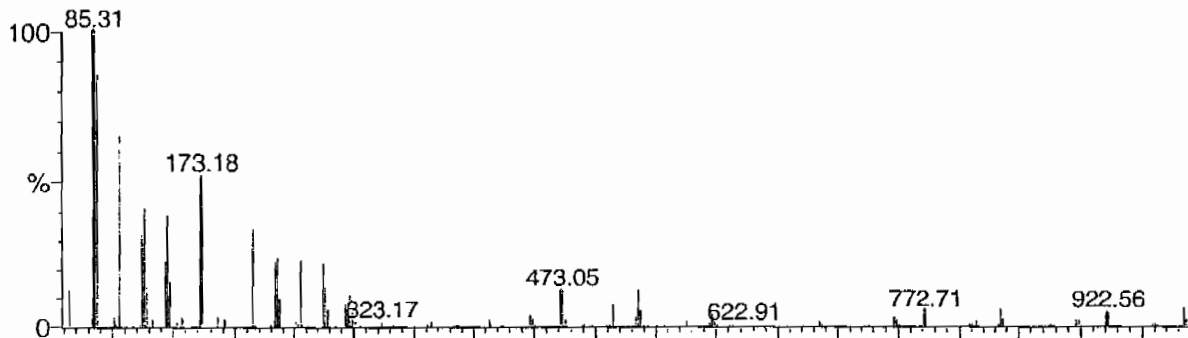
Calibration Report - MS2 Scanning

Page 1 of 1

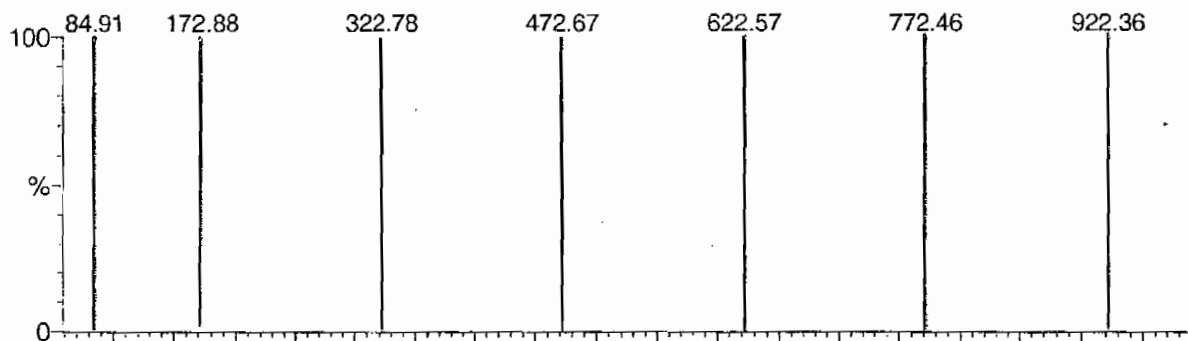
Printed: Tue Jan 08 12:22:56 2008

Data file: SCNMS2 - Uncalibrated

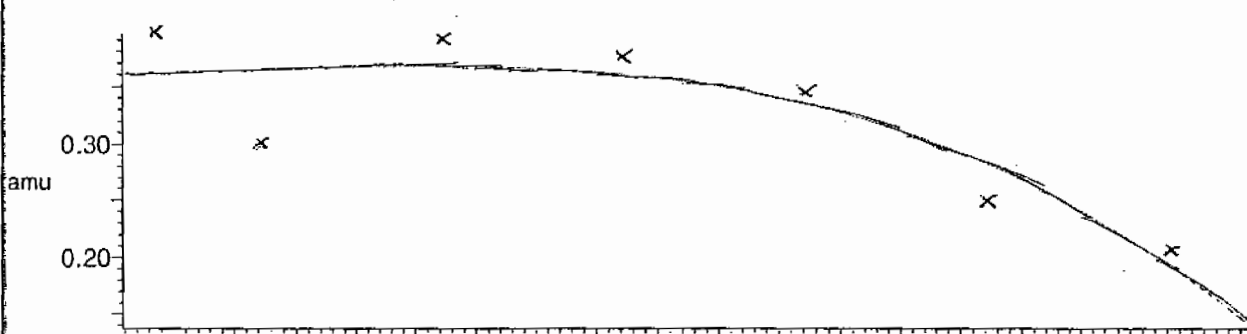
7 matches of 7 tested references



Reference file: Nairb

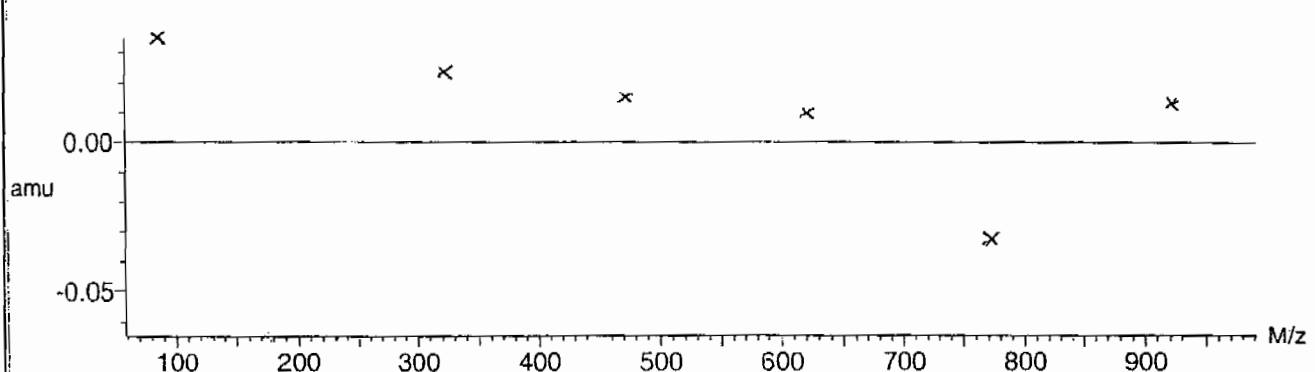


Mass difference (Raw - Ref mass)



Residuals

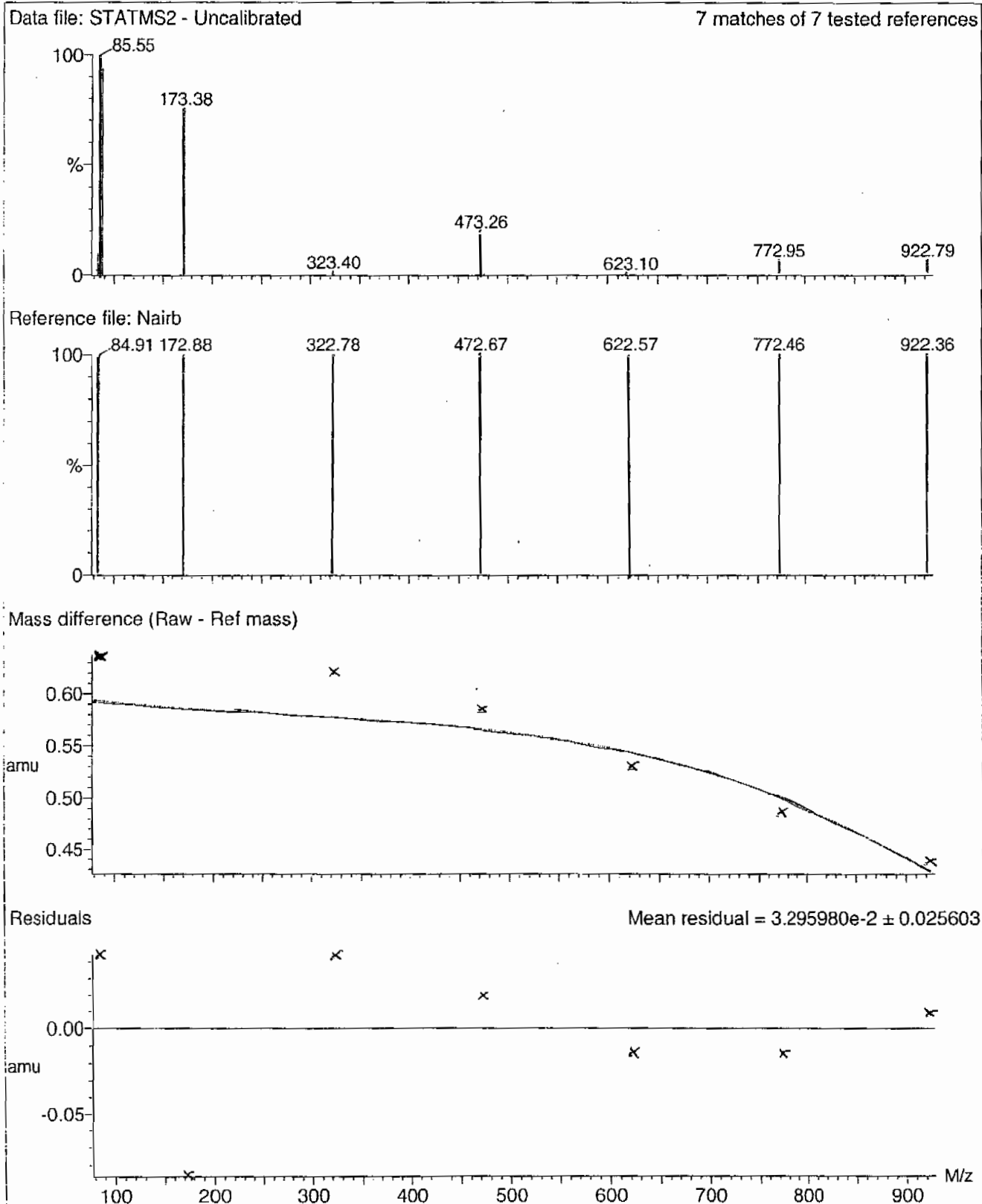
Mean residual = $2.782494 \times 10^{-2} \pm 0.017442$



Calibration Report - MS2 Static

Page 1 of 1

Printed: Tue Jan 08 12:21:59 2008



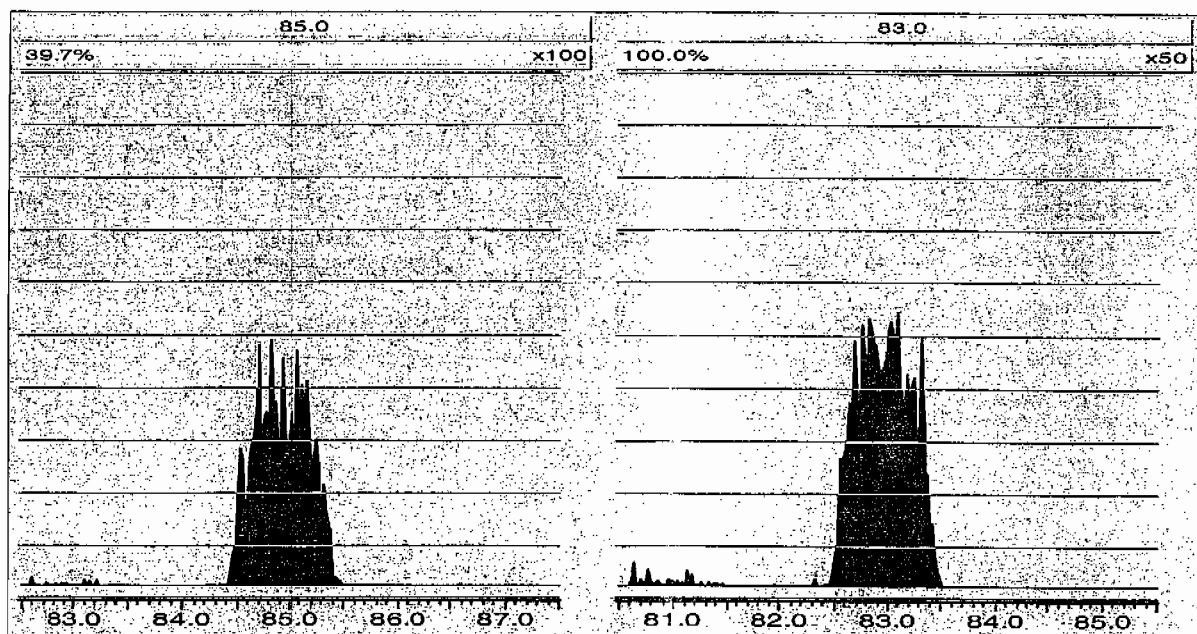
Tune Parameters

MassLynx 4.0 SP4

Page 1 of 1

File: C:\MassLynx\Perchlorate.PRO\ACQ\UD\B\Perchlorate.IPR

Printed: Monday, March 08, 2010 10:18:13 Eastern Standard Time



Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories GEL Job No.(SDG): 10-2135-1

Lab Code: GEL

Instrument ID: LCMSMS

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

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98-1.02
MidLevel Standard Area	per0308006a	08-MAR-10	19792.7				
Lower Area Limit			9896.35				
Upper Area Limit			39585.4				
1202056715	per0308107a	09-MAR-10 07:47	17439.3	3.43	3.44547	1.005	
1202056716	per0308108a	09-MAR-10 07:57	17560.8	3.43	3.44552	1.005	
1202056719	per0308109a	09-MAR-10 08:06	18097.8	3.43	3.44547	1.005	
248242001	per0308132a	09-MAR-10 11:34	17623.8	3.38			

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: 959046

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.

RE36-10-7530

Date Received: 27-FEB-10

GEL Job No (SDG): 10-2135-1

GEL Sample ID: 248242001

Date Filtered: 05-MAR-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	09-MAR-10 11:34	per0308132a
	Perchlorate Isotope Ratio						1	09-MAR-10 11:34	per0308132a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	09-MAR-10 11:34	per0308132a
	Perchlorate-O(18)			0.451	ug/L		1	09-MAR-10 11:34	per0308132a

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

*Concentration =

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

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

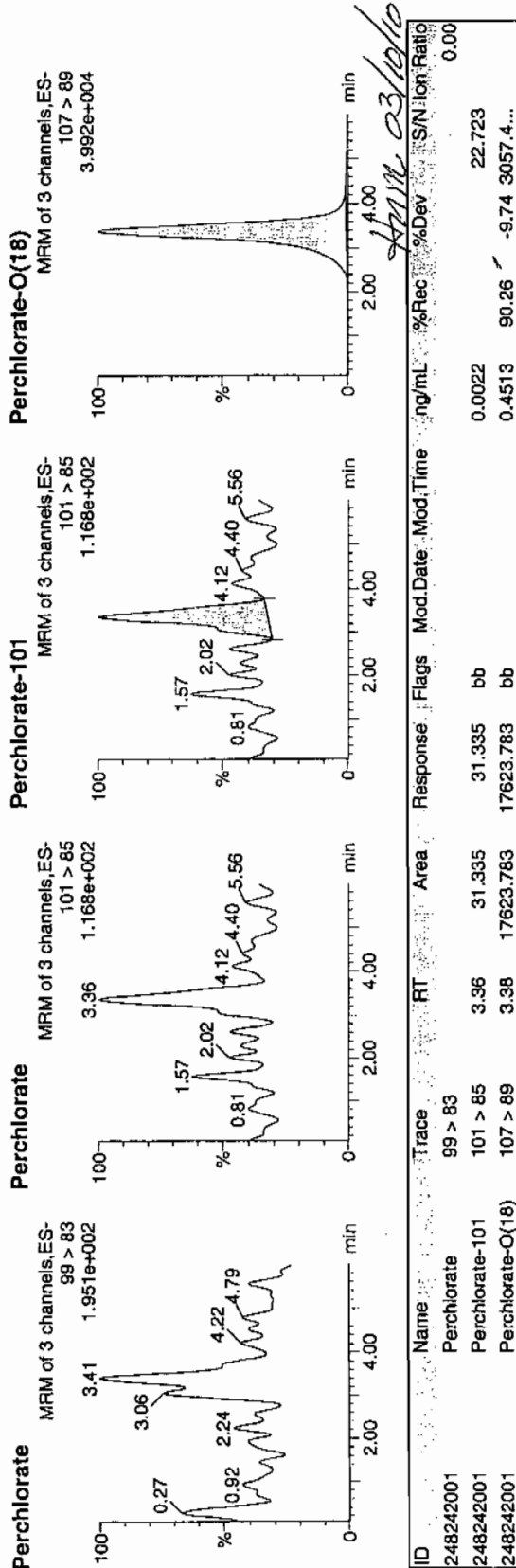
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Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308132a
Date: 09-Mar-2010
Time: 11:34:53
ID: 248242001
Vial: 3:4,B

WWS
03-09-10

LANU | 959047 | 122 | 11



STANDARDS DATA

Perchlorate Initial Calibration

GEL Job No.(SDG): 10-2135-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 08-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: 47047.38

Response Type: External Standard

Curve Type: RF

Perchlorate Initial Calibration

GEL Job No.(SDG): 10-2135-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

Instrument ID: LCMSMS Date Analyzed: 08-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: 14296.94

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\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time

Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per030810a.mdb 09 Mar 2010 12:48:33
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per030810a.cdb 09 Mar 2010 12:48:47

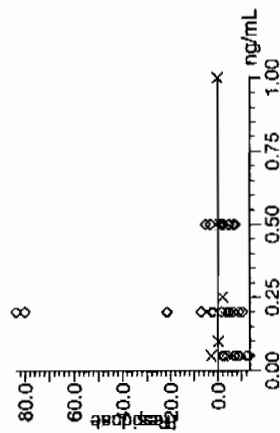
Compound name: Perchlorate

Response Factor: 47047.4

RRF SD: 838.521, % Relative SD: 1.78229

Response type: External Std, Area

Curve type: RF



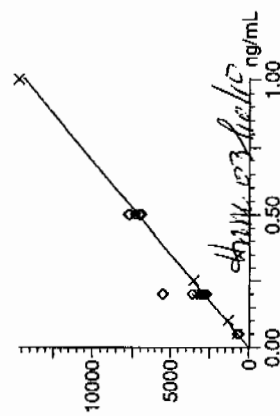
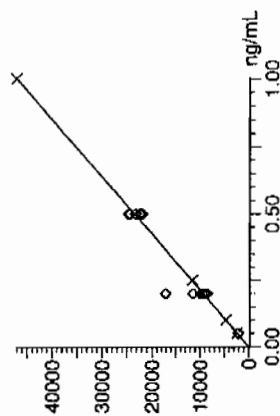
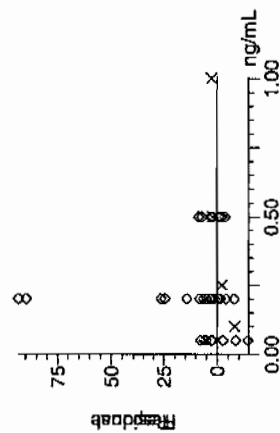
Compound name: Perchlorate-101

Response Factor: 14297

RRF SD: 749.315, % Relative SD: 5.24108

Response type: External Std, Area

Curve type: RF



03-09-10

03-09-10

Quantify Calibration Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time

Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

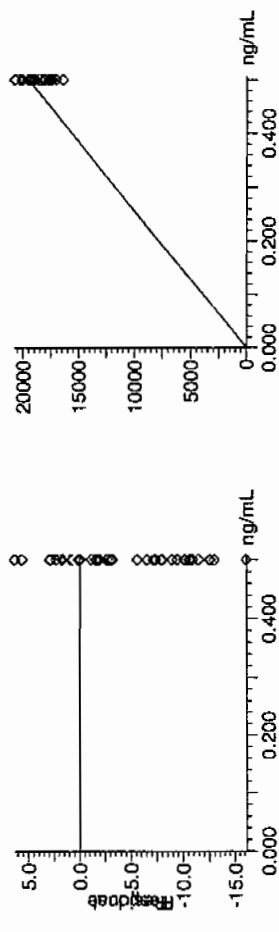
Compound name: Perchlorate-O(18)

Response Factor: 39049

RRF SD: 832.552, % Relative SD: 2.13207

Response type: External Std, Area

Curve type: RF



Form 3

Perchlorate Initial Calibration Verification

GEL Job No.(SDG): 10-2135-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.53	105.14	08-MAR-10 16:57	per0308009a
Perchlorate Isotope Ratio		3.18		08-MAR-10 16:57	per0308009a
Perchlorate-101	.5	.54	108.66	08-MAR-10 16:57	per0308009a

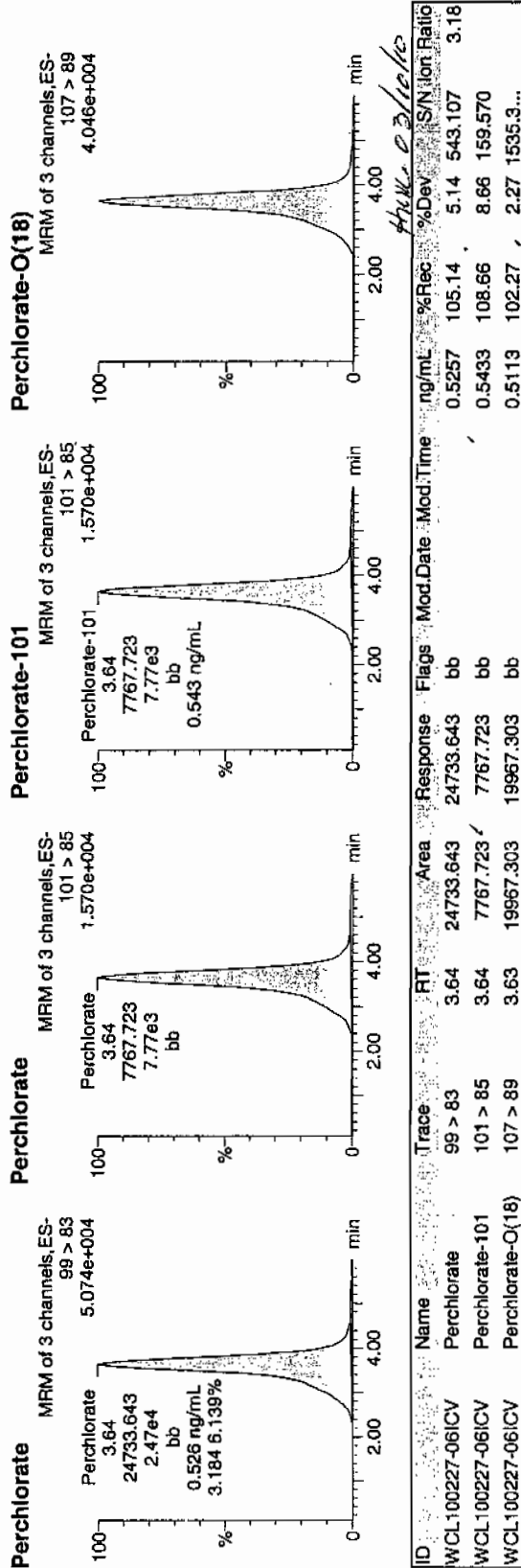
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308009a
Date: 08-Mar-2010
Time: 16:57:17
ID: WCL100227-06ICV
Vial: 1:2,A

Per
0309-10



Perchlorate Continuing Calibration Verification

GEL Job No.(SDG): 10-2135-1

Lab Name: General Engineering Laboratories

Lab Code: GEL

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

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.52	103.28	08-MAR-10 18:46	per0308021a
Perchlorate Isotope Ratio		3.14		08-MAR-10 18:46	per0308021a
Perchlorate-101	.5	.54	108.41	08-MAR-10 18:46	per0308021a
Perchlorate	.5	.53	105.15	08-MAR-10 20:44	per0308034a
Perchlorate Isotope Ratio		3.23		08-MAR-10 20:44	per0308034a
Perchlorate-101	.5	.54	107.08	08-MAR-10 20:44	per0308034a
Perchlorate	.5	.52	103.16	08-MAR-10 22:42	per0308047a
Perchlorate Isotope Ratio		3.13		08-MAR-10 22:42	per0308047a
Perchlorate-101	.5	.54	108.56	08-MAR-10 22:42	per0308047a
Perchlorate	.5	.5	99.29	09-MAR-10 00:40	per0308060a
Perchlorate Isotope Ratio		3.17		09-MAR-10 00:40	per0308060a
Perchlorate-101	.5	.51	102.95	09-MAR-10 00:40	per0308060a
Perchlorate	.5	.48	95.1	09-MAR-10 02:38	per0308073a

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2135-1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate Isotope Ratio		3.07		09-MAR-10 02:38	per0308073a
Perchlorate-101	.5	.51	101.9	09-MAR-10 02:38	per0308073a
Perchlorate	.5	.46	92.67	09-MAR-10 04:36	per0308086a
Perchlorate Isotope Ratio		3.1		09-MAR-10 04:36	per0308086a
Perchlorate-101	.5	.49	98.48	09-MAR-10 04:36	per0308086a
Perchlorate	.5	.47	93.76	09-MAR-10 06:34	per0308099a
Perchlorate Isotope Ratio		3.2		09-MAR-10 06:34	per0308099a
Perchlorate-101	.5	.48	96.42	09-MAR-10 06:34	per0308099a
Perchlorate	.5	.48	95.65	09-MAR-10 08:33	per0308112a
Perchlorate Isotope Ratio		3.22		09-MAR-10 08:33	per0308112a
Perchlorate-101	.5	.49	97.77	09-MAR-10 08:33	per0308112a
Perchlorate	.5	.49	97.67	09-MAR-10 10:31	per0308125a
Perchlorate Isotope Ratio		3.13		09-MAR-10 10:31	per0308125a

Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2135-1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate-101	.5	.51	102.74	09-MAR-10 10:31	per0308125a
Perchlorate	.5	.49	98.5	09-MAR-10 12:20	per0308137a
Perchlorate Isotope Ratio		3.26		09-MAR-10 12:20	per0308137a
Perchlorate-101	.5	.5	99.33	09-MAR-10 12:20	per0308137a

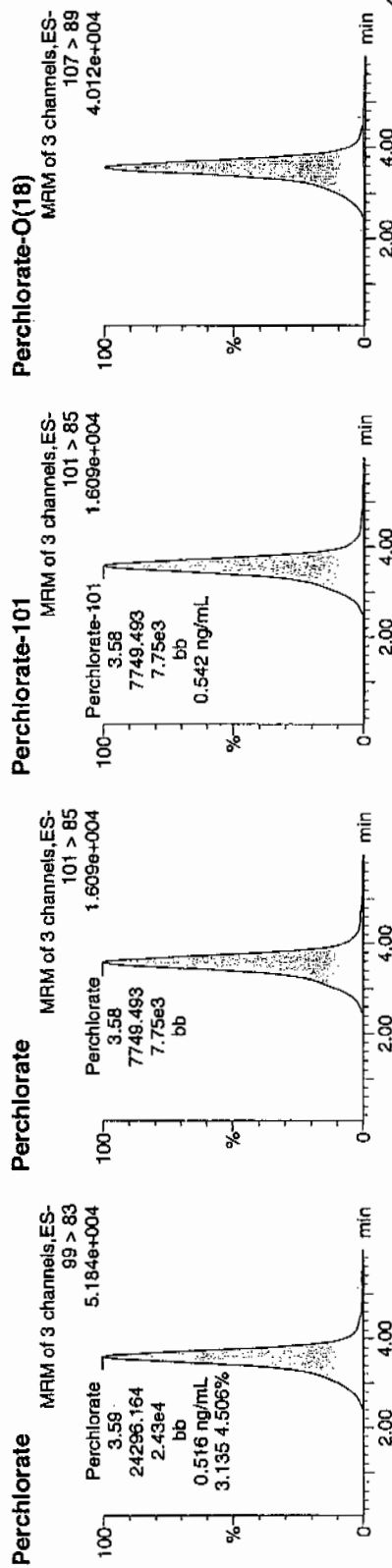
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308021a
Date: 08-Mar-2010
Time: 18:46:13
ID: WCL100227-06CCV
Vial: 1:2,A

Per
0309-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion.Ratio
WCL100227-06CCV	Perchlorate	99 > 83	3.59	24296.164	24296.164	bb			0.5164	103.28	3.28	2058.4...	3.14
WCL100227-06CCV	Perchlorate-101	101 > 85	3.58	7749.493	7749.493	bb			0.5420	108.41	8.41	842.163	
WCL100227-06CCV	Perchlorate-O(18)	107 > 89	3.57	18892.500	18892.500	bb			0.4838	96.76	-3.24	3961.4...	

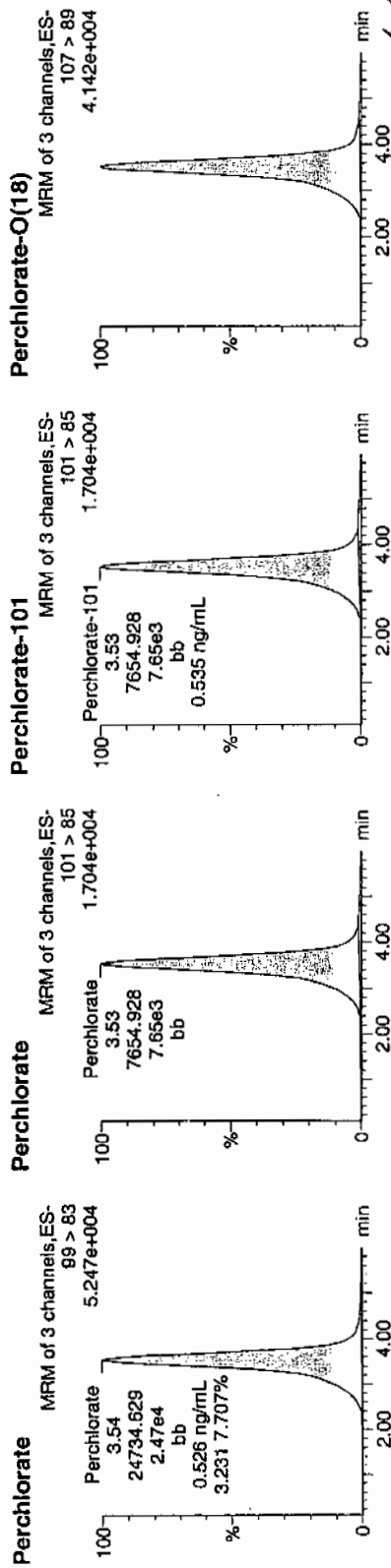
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308034a
Date: 08-Mar-2010
Time: 20:44:08
ID: WCL100227-06CCV
Vial: 1:2,A

per
03-09-10



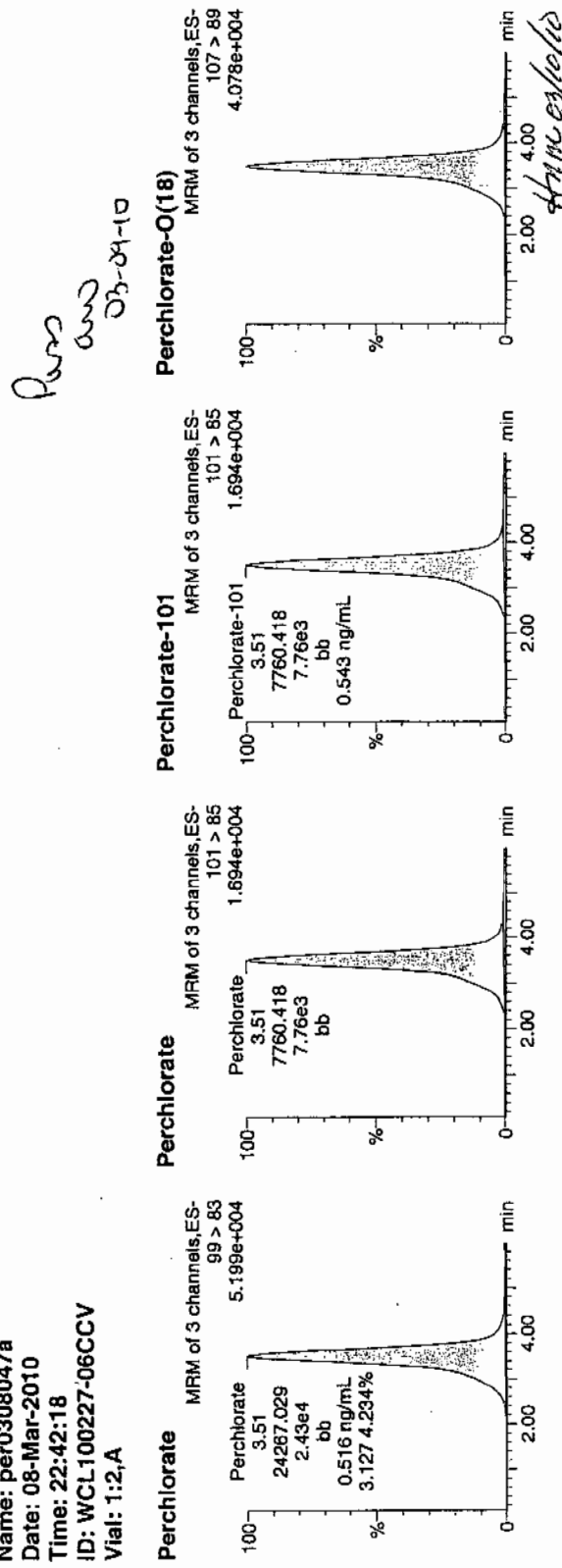
ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-06CCV	Perchlorate	99 > 83	3.54	24734.629	24734.629	bb			0.5257	105.15	5.15	2200.8...	3.23
WCL100227-06CCV	Perchlorate-101	101 > 85	3.53	7654.928	7654.928	bb			0.5354	107.08	7.08	2331.6...	
WCL100227-06CCV	Perchlorate-O(18)	107 > 89	3.53	19141.506	19141.506	bb			0.4902	98.04	-1.96	1232.7...	

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

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308047a
Date: 08-Mar-2010
Time: 22:42:18
ID: WCL100227-06CCV
Vial: 1:2,A



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
WCL100227-06CCV	Perchlorate	99 > 83	3.51	24267.029	24267.029	bb			0.5158	103.16	3.16	1490.7...	3.13
WCL100227-06CCV	Perchlorate-101	101 > 85	3.51	7760.418	7760.418	bb			0.5428	108.56	8.56	1343.7...	
WCL100227-06CCV	Perchlorate-O(18)	107 > 89	3.50	18936.834	18936.834	bb			0.4849	96.99	-3.01	1821.0...	

Quantity Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charliers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
 Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308060a

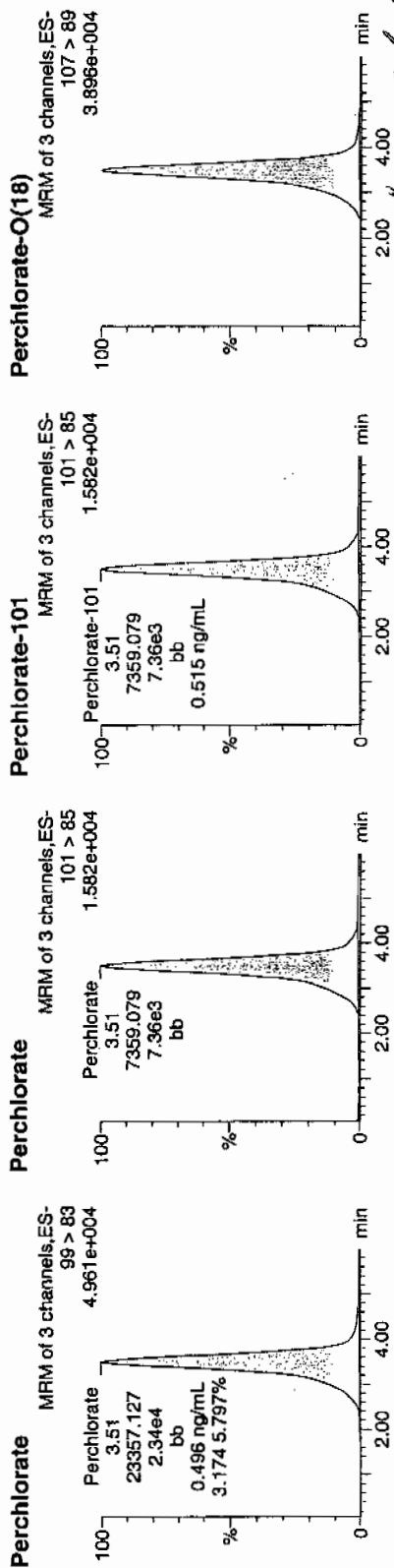
Date: 09-Mar-2010

Time: 00:40:46

ID: WCL100227-06CCV

Vial: 1:2,A

*Run
 03-01-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
WCL100227-06CCV	Perchlorate	99 > 83	3.51	23357.127	23357.127	bb			0.4965	99.29	-0.71	1630.4...	3.17
WCL100227-06CCV	Perchlorate-101	101 > 85	3.51	7359.079	7359.079	bb			0.5147	102.95	2.95	1965.3...	
WCL100227-06CCV	Perchlorate-O(18)	107 > 89	3.48	18080.102	18080.102	bb			0.4630	92.60	-7.40	1265.2...	

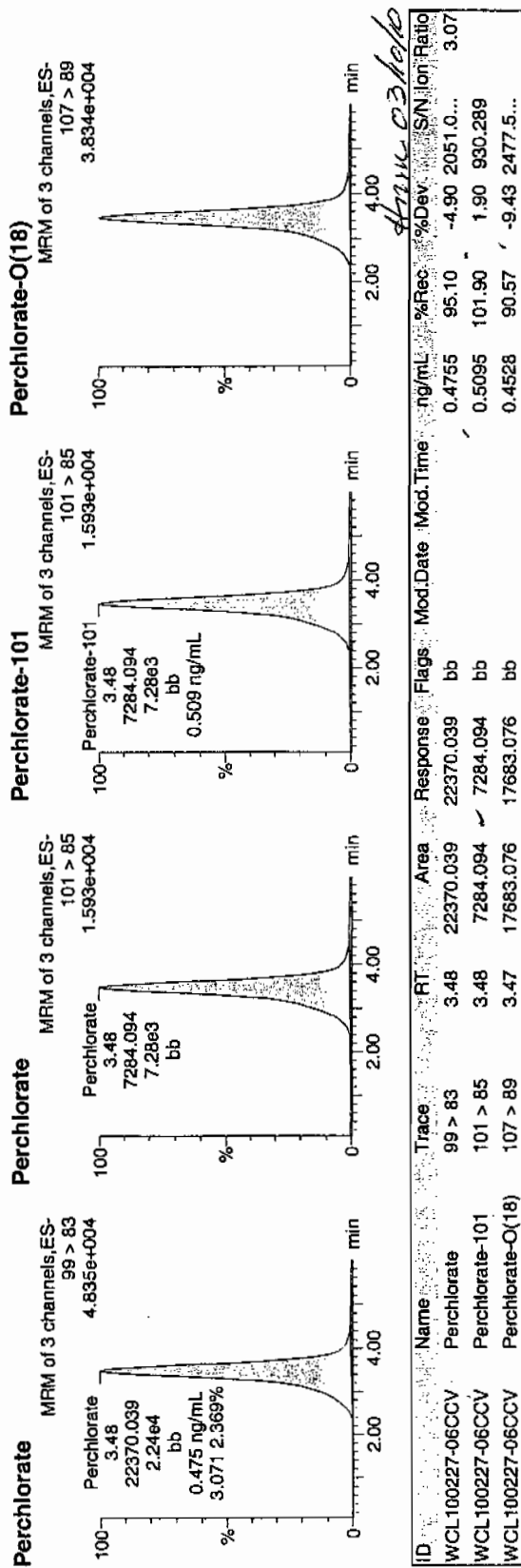
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308073a
Date: 09-Mar-2010
Time: 02:38:45
ID: WCL100227-06CCV
Vial: 1:2,A

Pure
WCL
03-04-10



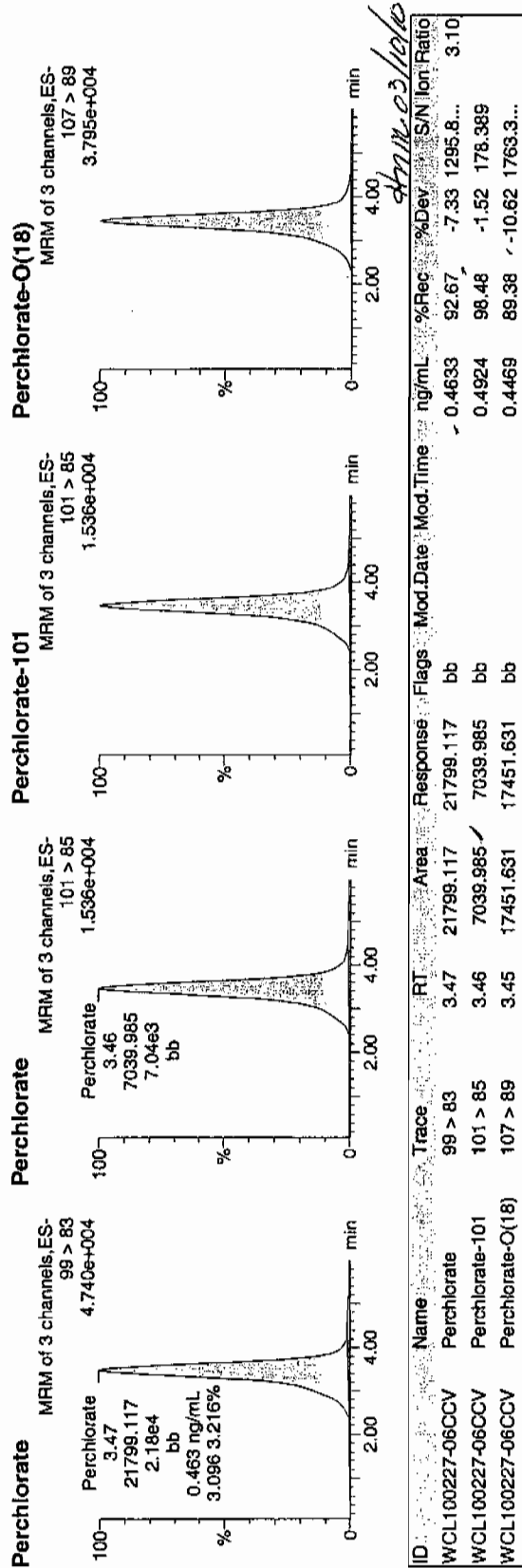
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308086a
Date: 09-Mar-2010
Time: 04:36:48
ID: WCL100227-06CCCV
Vial: 1:2,A

Perchlorate
03-09-10



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

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308099a

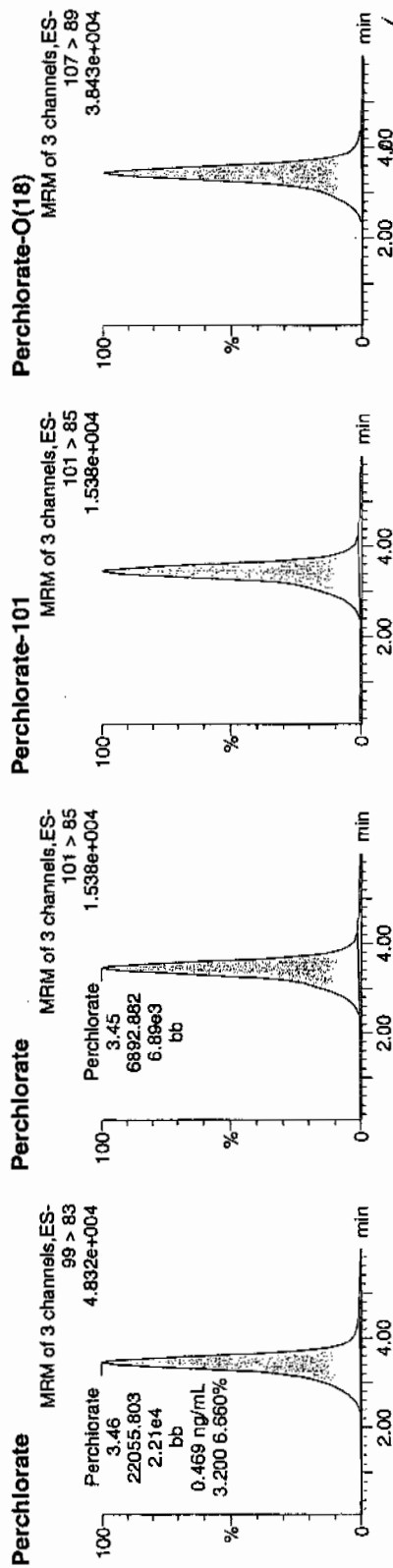
Date: 09-Mar-2010

Time: 06:34:54

ID: WCL100227-06CCV

Vial: 1:2,A

Per
WCL
03-04-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
WCL100227-06CCV	Perchlorate	99 > 83	3.46	22055.803	22055.803	bb			0.4688	93.76	-6.24	2548.4...	3.20
WCL100227-06CCV	Perchlorate-101	101 > 85	3.45	6892.882	6892.882	bb			0.4821	96.42	-3.58	112.288	
WCL100227-06CCV	Perchlorate-O(18)	107 > 89	3.43	17439.898	17439.898	bb			0.4466	89.32	-10.68	1716.7...	

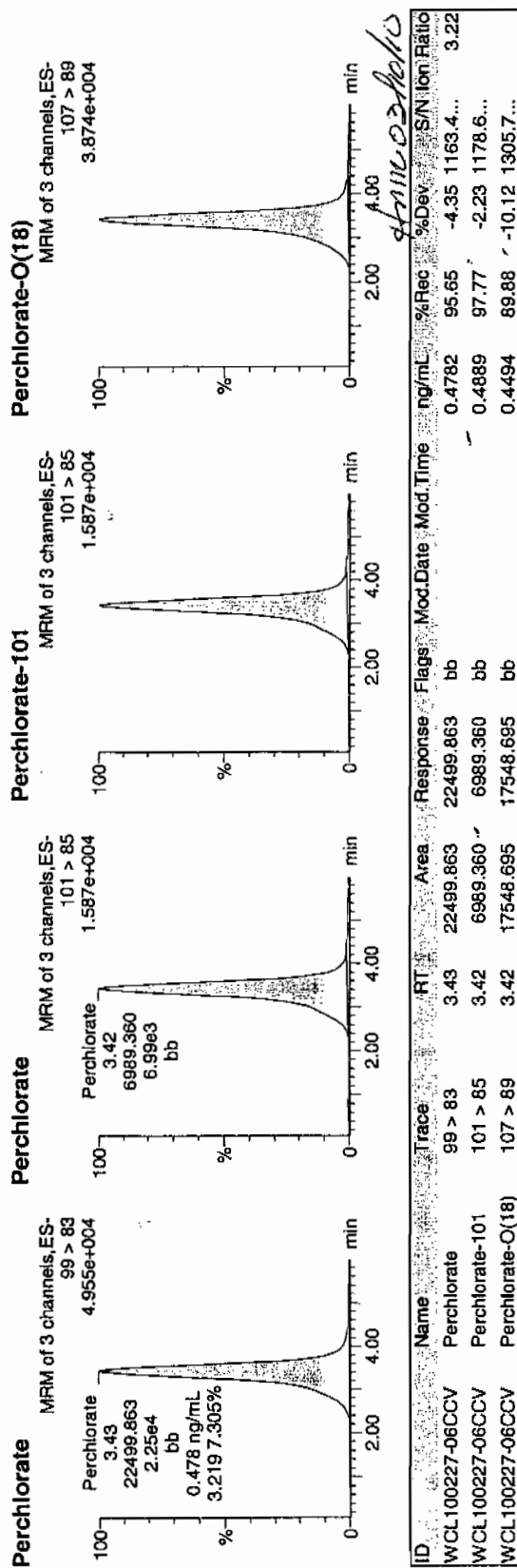
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308112a
Date: 09-Mar-2010
Time: 08:33:18
ID: WCL100227-06CCV
Vial: 1:2,A

pure
03-09-10



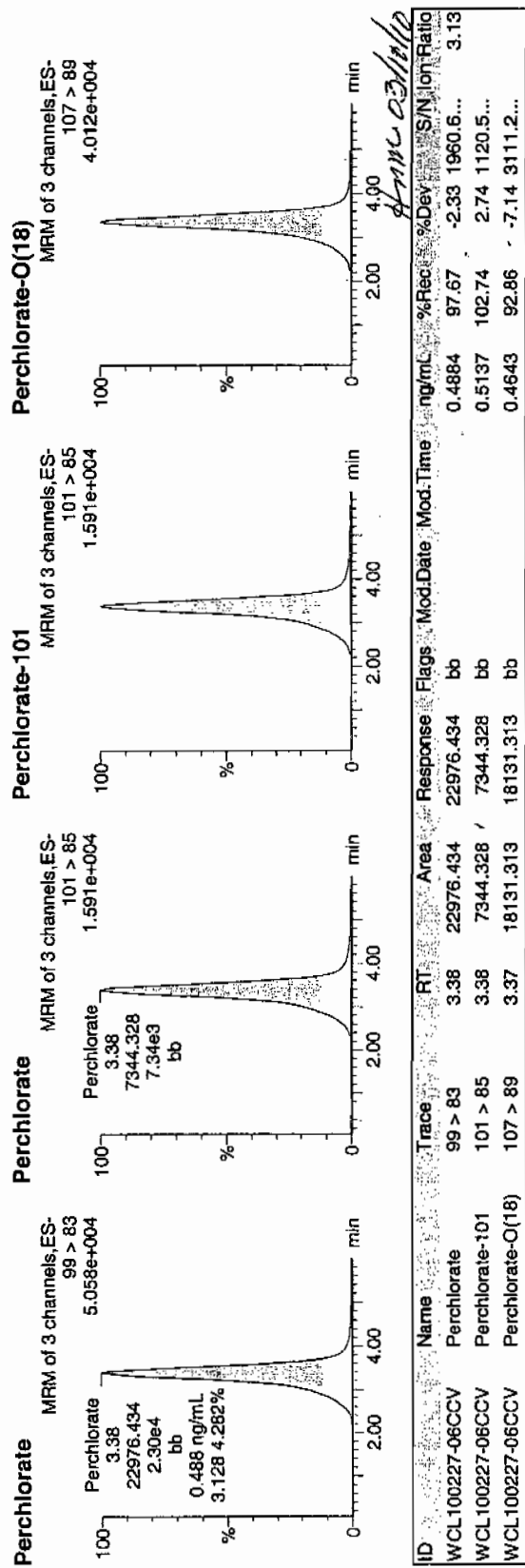
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308125a
Date: 09-Mar-2010
Time: 10:31:13
ID: WCL100227-06CCV
Vial: 1:2,A

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03-01-10*



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

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308137a

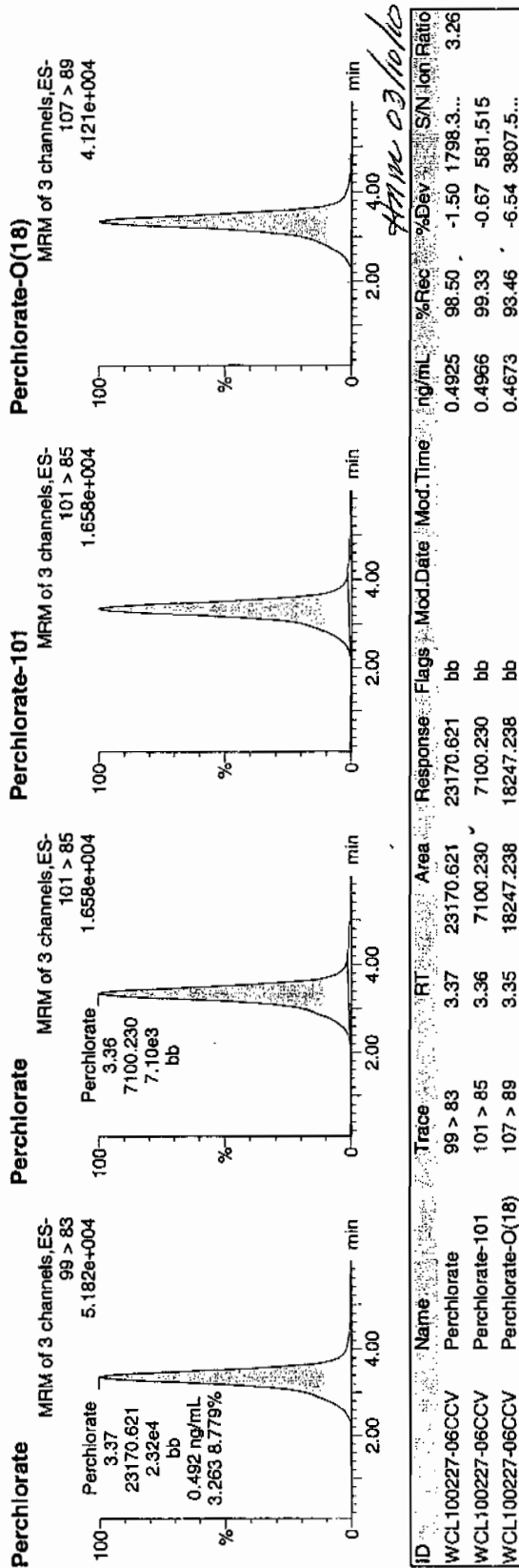
Date: 09-Mar-2010

Time: 12:20:04

ID: WCL100227-06CCV

Vial: 1:2,A

*Per
WCL
03-04-10*



Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2135-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	91.57	08-MAR-10 17:15	per0308011a
Perchlorate Isotope Ratio		2.95		08-MAR-10 17:15	per0308011a
Perchlorate-101	.05	.05	102.06	08-MAR-10 17:15	per0308011a
Perchlorate	.05	.05	97.28	08-MAR-10 19:04	per0308023a
Perchlorate Isotope Ratio		2.97		08-MAR-10 19:04	per0308023a
Perchlorate-101	.05	.05	107.82	08-MAR-10 19:04	per0308023a
Perchlorate	.05	.05	97.48	08-MAR-10 21:02	per0308036a
Perchlorate Isotope Ratio		3.14		08-MAR-10 21:02	per0308036a
Perchlorate-101	.05	.05	102.17	08-MAR-10 21:02	per0308036a
Perchlorate	.05	.05	98.41	08-MAR-10 23:00	per0308049a
Perchlorate Isotope Ratio		3.08		08-MAR-10 23:00	per0308049a

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2135-1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate-101	.05	.05	105.1	08-MAR-10 23:00	per0308049a
Perchlorate	.05	.05	92.76	09-MAR-10 00:59	per0308062a
Perchlorate Isotope Ratio		3.13		09-MAR-10 00:59	per0308062a
Perchlorate-101	.05	.05	97.6	09-MAR-10 00:59	per0308062a
Perchlorate	.05	.04	87.02	09-MAR-10 02:57	per0308075a
Perchlorate Isotope Ratio		2.95		09-MAR-10 02:57	per0308075a
Perchlorate-101	.05	.05	97.15	09-MAR-10 02:57	per0308075a
Perchlorate	.05	.04	88.07	09-MAR-10 04:55	per0308088a
Perchlorate Isotope Ratio		2.98		09-MAR-10 04:55	per0308088a
Perchlorate-101	.05	.05	97.34	09-MAR-10 04:55	per0308088a
Perchlorate	.05	.05	93.32	09-MAR-10 06:53	per0308101a

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2135-1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate Isotope Ratio			3.36		09-MAR-10 06:53	per0308101a
Perchlorate-101	.05		.05	91.41	09-MAR-10 06:53	per0308101a
Perchlorate	.05		.05	96.02	09-MAR-10 08:51	per0308114a
Perchlorate Isotope Ratio			3.69		09-MAR-10 08:51	per0308114a
Perchlorate-101	.05		.04	85.66	09-MAR-10 08:51	per0308114a
Perchlorate	.05		.05	91.03	09-MAR-10 10:49	per0308127a
Perchlorate Isotope Ratio			2.91		09-MAR-10 10:49	per0308127a
Perchlorate-101	.05		.05	103.09	09-MAR-10 10:49	per0308127a
Perchlorate	.05		.04	87.93	09-MAR-10 12:38	per0308139a
Perchlorate Isotope Ratio			2.72		09-MAR-10 12:38	per0308139a
Perchlorate-101	.05		.05	106.27	09-MAR-10 12:38	per0308139a

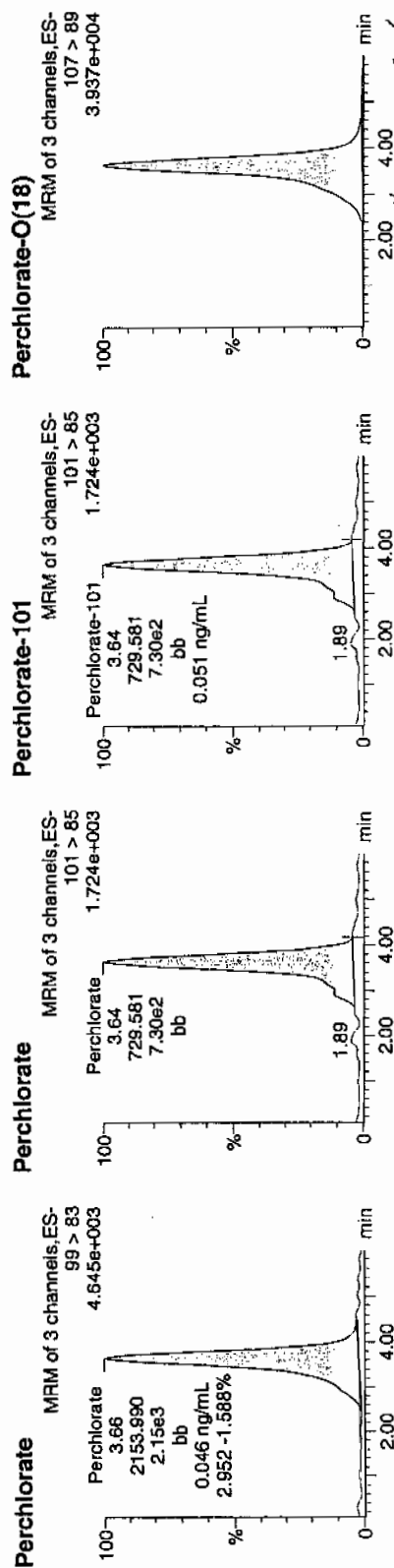
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308011a
Date: 08-Mar-2010
Time: 17:15:29
ID: WCL100227-07CRI
Vial: 1:2,B

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and
03-09-10*



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-07CRI	Perchlorate	99 > 83	3.66	2153.990	2153.990	bb			0.0458	91.57	-8.43	192.273	2.95
WCL100227-07CRI	Perchlorate-101	101 > 85	3.64	729.581	729.581	bb			0.0510	102.06	2.06	143.835	
WCL100227-07CRI	Perchlorate-O(18)	107 > 89	3.63	19505.877	19505.877	bb			0.4995	99.90	-0.10	1304.1...	

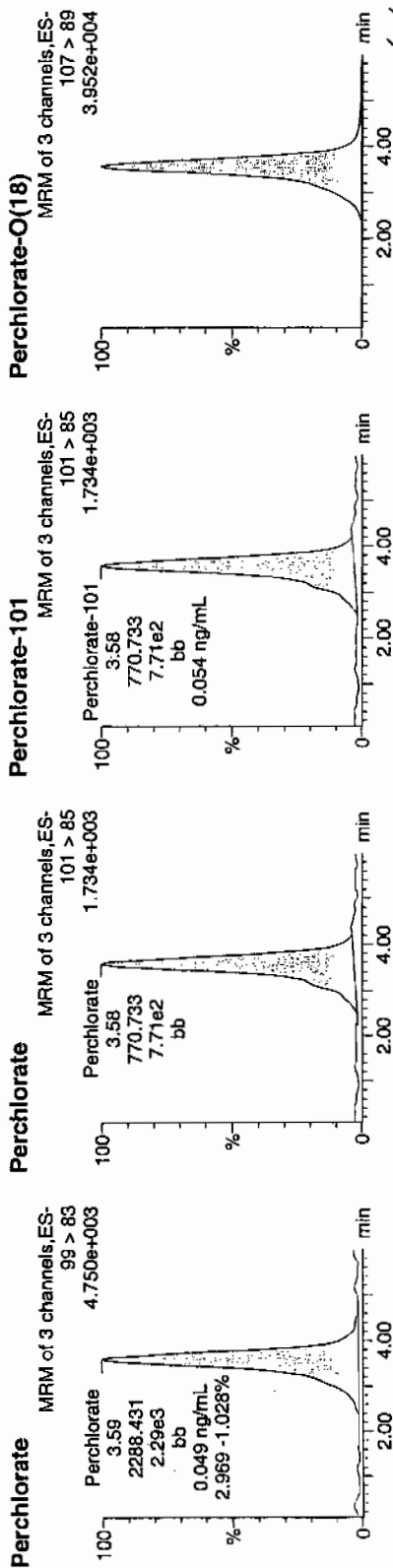
GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308023a
Date: 08-Mar-2010
Time: 19:04:27
ID: WCL100227-07CRI
Vial: 1:2,B



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
WCL100227-07CRI	Perchlorate	99 > 83	3.59	2288.431	2288.431	bb			0.0486	97.28	-2.72	379.669	2.97
WCL100227-07CRI	Perchlorate-101	101 > 85	3.58	770.733	770.733	bb			0.0539	107.82	7.82	84.015	
WCL100227-07CRI	Perchlorate-O(18)	107 > 89	3.57	18985.990	18985.990	bb			0.4862	97.24	-2.76	3992.9...	

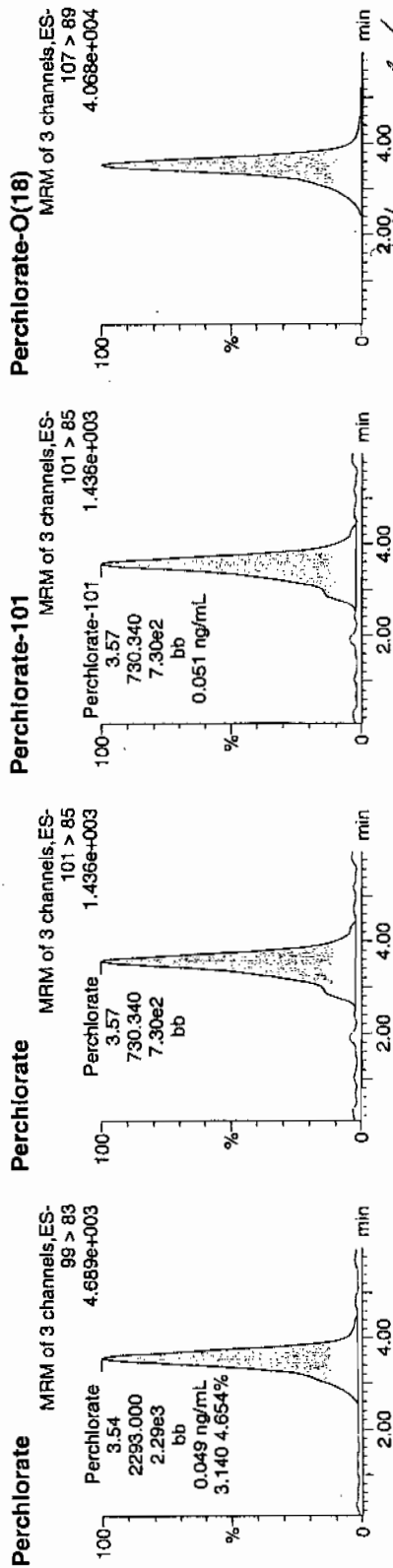
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308036a
Date: 08-Mar-2010
Time: 21:02:14
ID: WCL100227-07CRI
Vial: 1:2,B

Pur and
03-04-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-07CRI	Perchlorate	99 > 83	3.54	2293.000	2293.000	bb			0.0487	97.48	-2.52	112.560	3.14
WCL100227-07CRI	Perchlorate-101	101 > 85	3.57	730.340	730.340	bb			0.0511	102.17	2.17	21.006	
WCL100227-07CRI	Perchlorate-O(18)	107 > 89	3.53	19152.959	19152.959	bb			0.4905	98.10	-1.90	2778.2...	

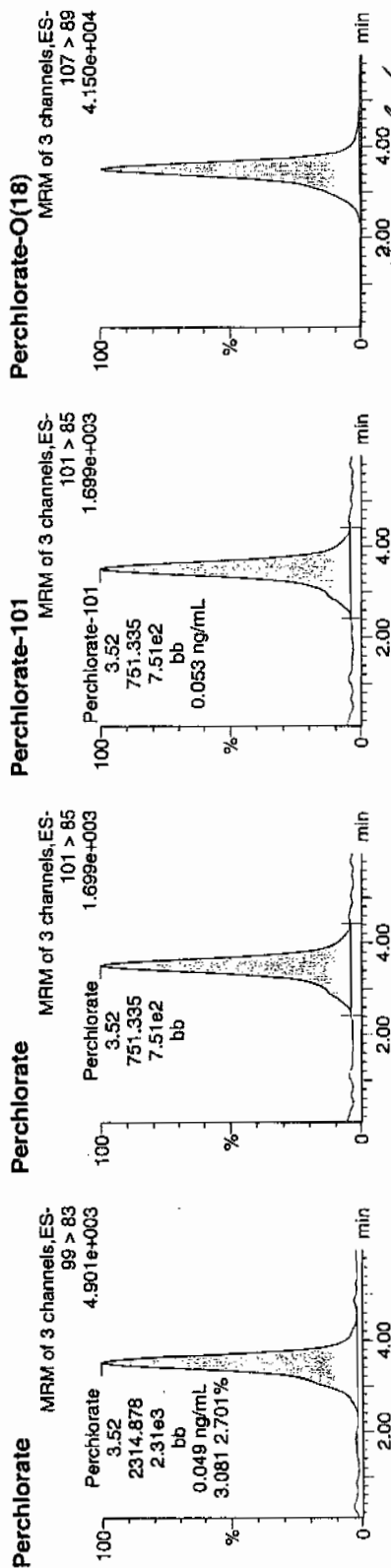
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308049a
Date: 08-Mar-2010
Time: 23:00:24
ID: WCL100227-07CRI
Vial: 1:2,B

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and
03-09-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-07CRI	Perchlorate	99 > 83	3.52	2314.878	2314.878	bb			0.0492	98.41	-1.59	318.865	3.08
WCL100227-07CRI	Perchlorate-101	101 > 85	3.52	751.335	751.335	bb			0.0526	105.10	5.10	86.661	
WCL100227-07CRI	Perchlorate-O(18)	107 > 89	3.51	19220.762	19220.762	bb			0.4922	98.44	-1.56	1856.7...	

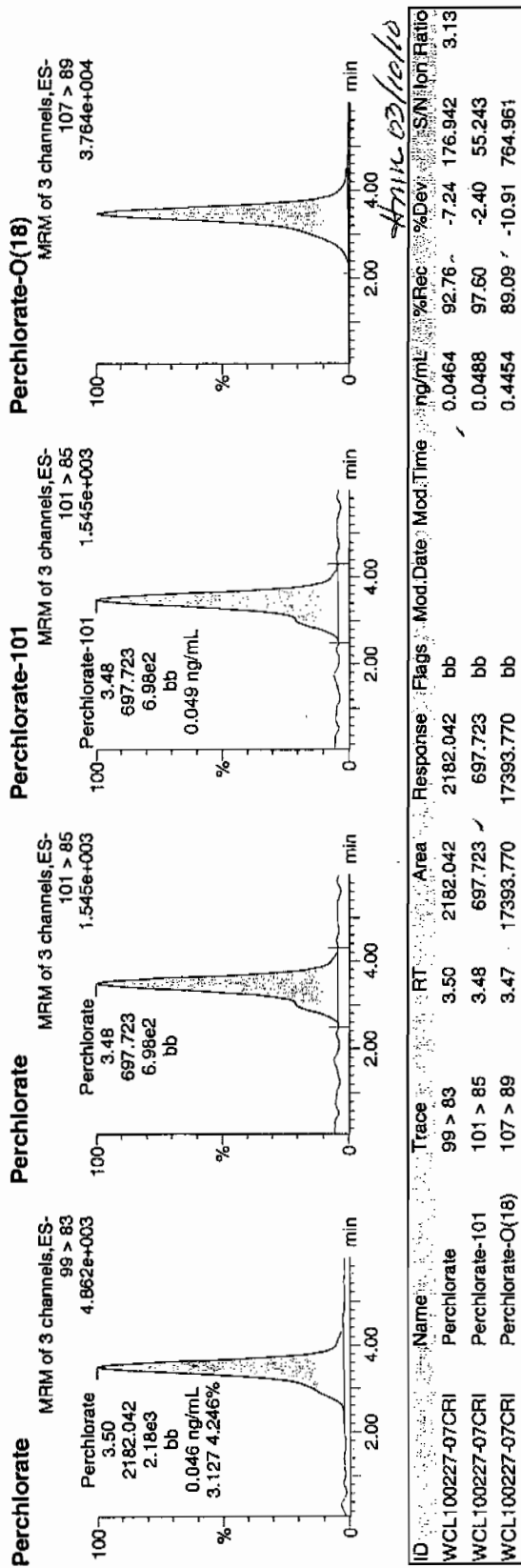
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308062a
Date: 09-Mar-2010
Time: 00:59:13
ID: WCL100227-07CRI
Vial: 1:2,B

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B-01-10*



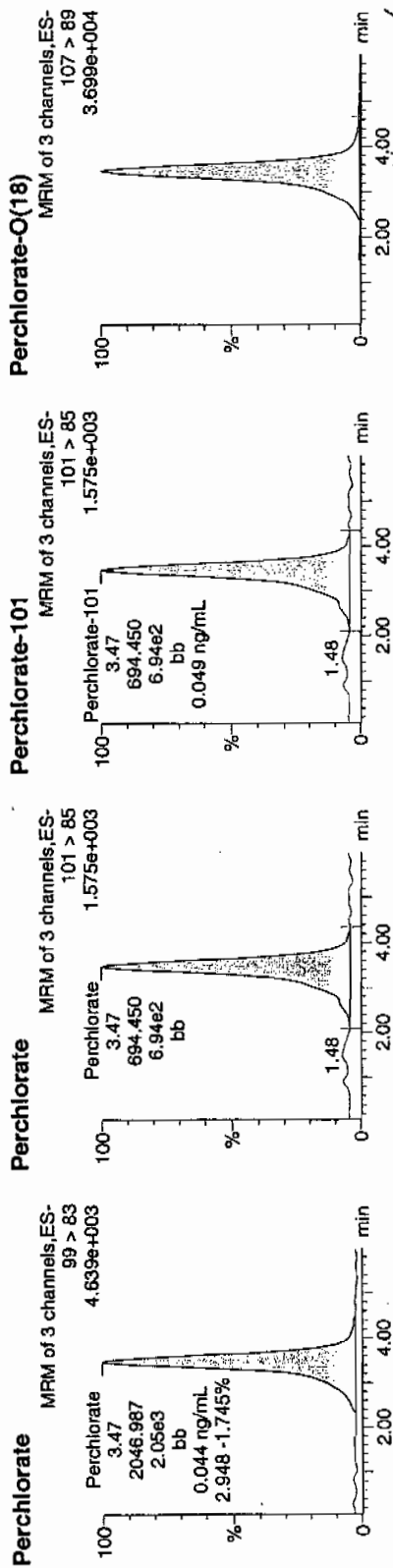
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308075a
Date: 09-Mar-2010
Time: 02:57:04
ID: WCL100227-07CRI
Vial: 1:2,B

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and
03-01-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-07CRI	Perchlorate	99 > 83	3.47	2046.987	2046.987	bb			0.0435	87.02	-12.98	175.388	2.95
WCL100227-07CRI	Perchlorate-101	101 > 85	3.47	694.450	694.450	bb			0.0486	97.15	-2.85	110.840	
WCL100227-07CRI	Perchlorate-O(18)	107 > 89	3.47	17056.256	17056.256	bb			0.4368	87.36	-12.64	2127.1...	

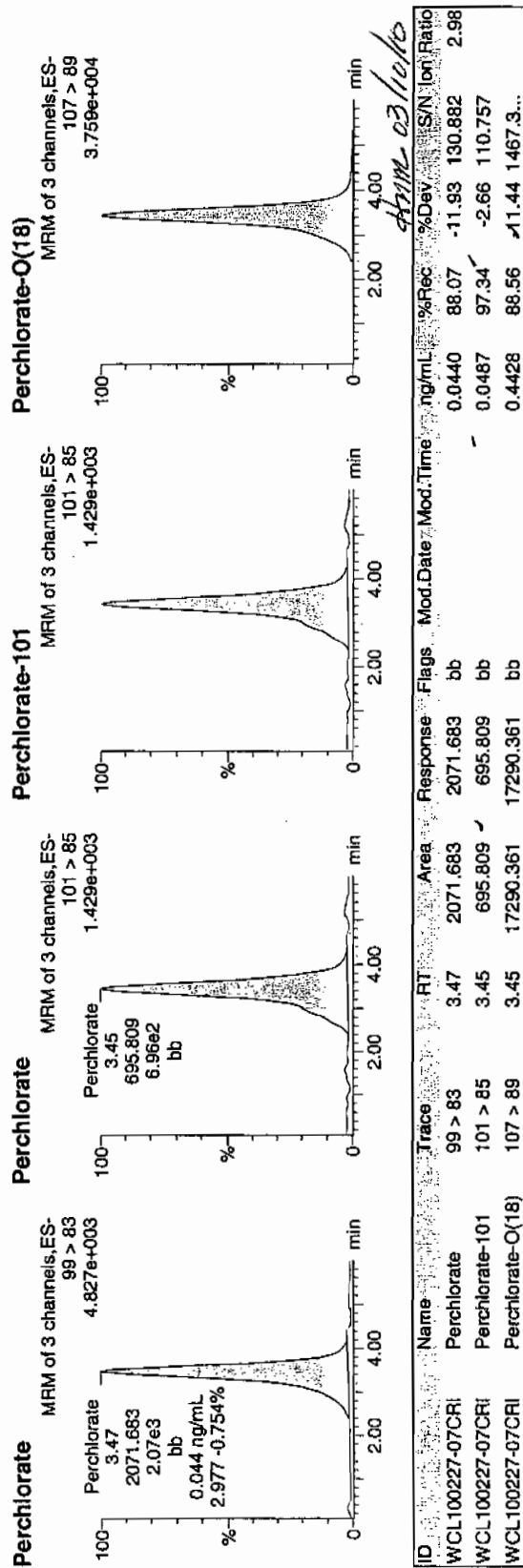
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308088a
Date: 09-Mar-2010
Time: 04:55:08
ID: WCL100227-07CRI
Vial: 1:2,B

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

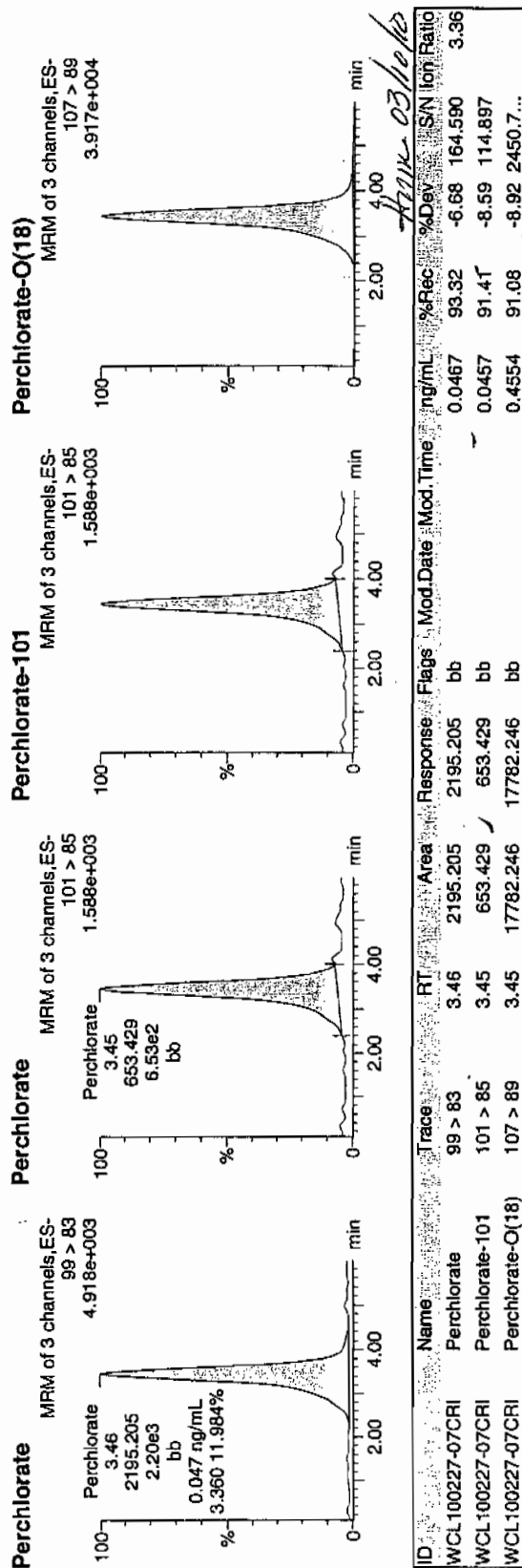
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308101a
Date: 09-Mar-2010
Time: 06:53:14
ID: WCL100227-07CRI
Vial: 1:2,B

Pure
WCL
03-04-10



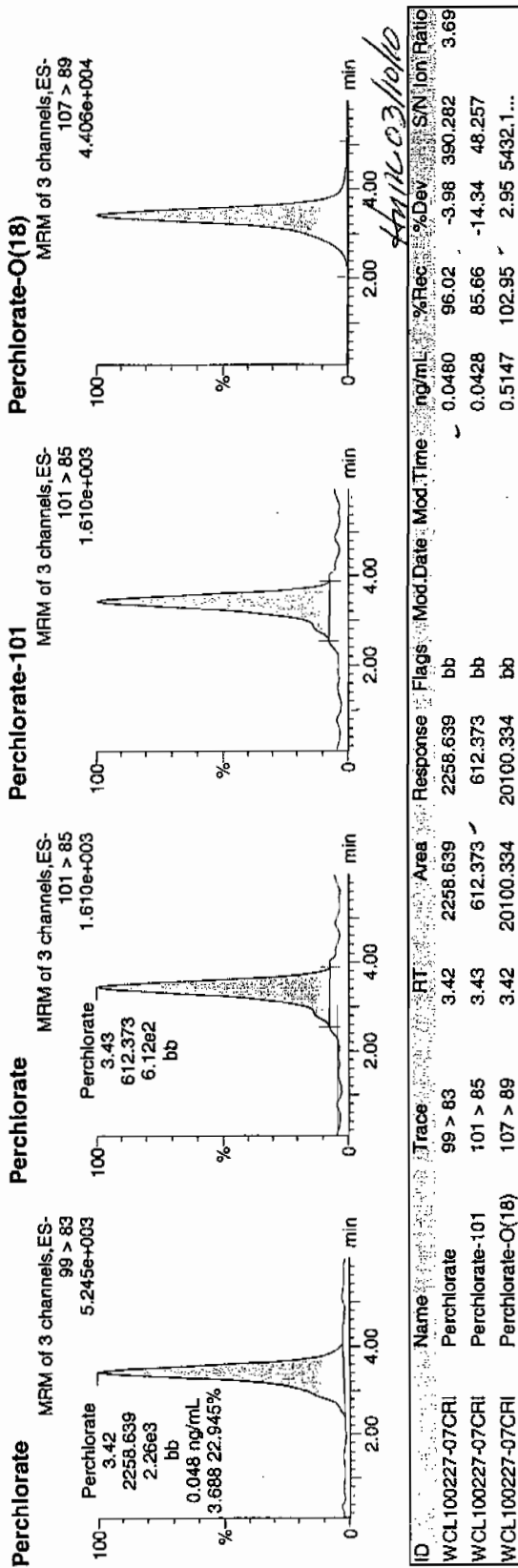
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charfers W. Wilson

Dataset: C:\MassLynx\P perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308114a
Date: 09-Mar-2010
Time: 08:51:36
ID: WCL100227-07CRI
Vial: 1:2,B

Per0308114a
03-04-10



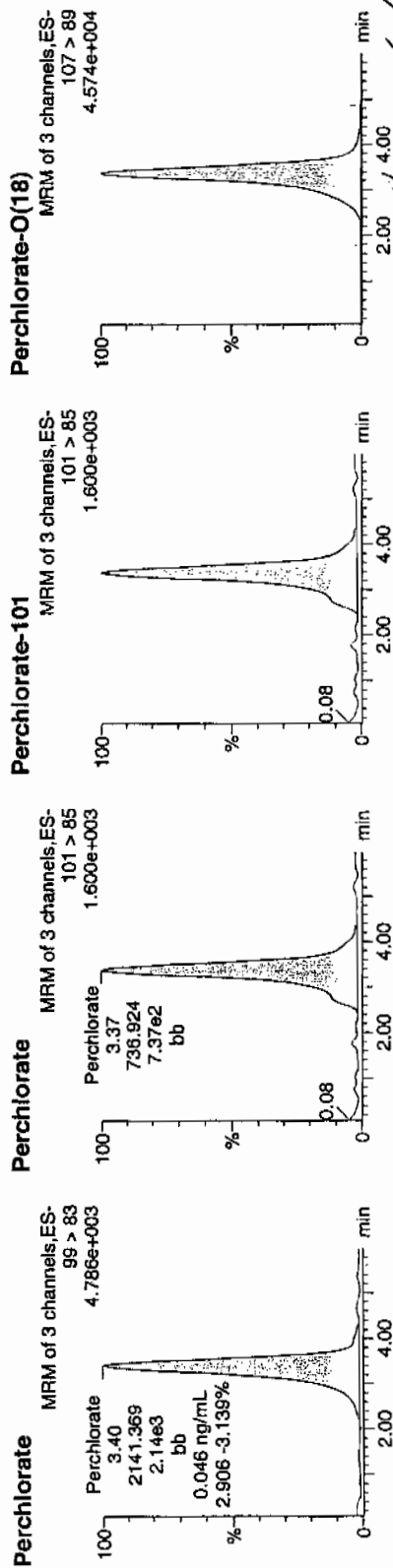
Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charfers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308127a
Date: 09-Mar-2010
Time: 10:49:31
ID: WCL100227-07CRI
Vial: 1:2,B

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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	2141.369	2141.369	bb			0.0455	91.03	-8.97	139.288	2.91
WCL100227-07CRI	Perchlorate-101	101 > 85	3.37	736.924	736.924	bb			0.0515	103.09	3.09	12.943	
WCL100227-07CRI	Perchlorate-O(18)	107 > 89	3.37	20618.322	20618.322	bb			0.5280	105.60	5.60	705.031	

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

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308139a

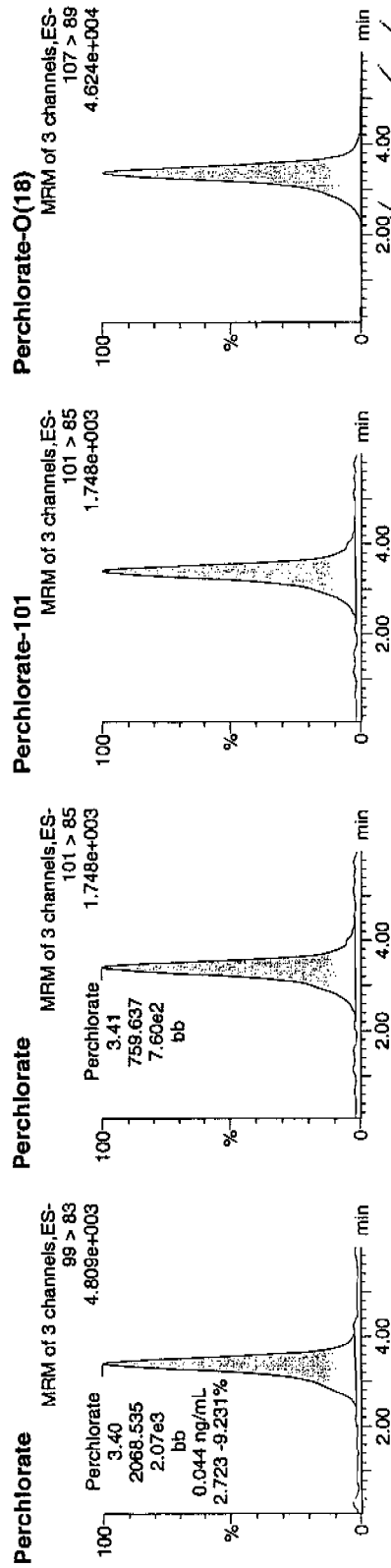
Date: 09-Mar-2010

Time: 12:38:17

ID: WCL100227-07CRI

Vial: 1:2,B

Pure
WCL
03-31-10



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	SN	Ion Ratio
WCL100227-07CRI	Perchlorate	99 > 83	3.40	2068.535	2068.535	bb			0.0440	87.93	-12.07	51.642	2.72
WCL100227-07CRI	Perchlorate-101	101 > 85	3.41	759.637	759.637	bb			0.0531	106.27	6.27	233.557	
WCL100227-07CRI	Perchlorate-O(18)	107 > 89	3.37	20755.320	20755.320	bb			0.5315	106.30	-6.30	2077.5...	

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: 959046

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.

MB

Date Received: 05-MAR-10

GEL Job No (SDG): 10-2135-1

GEL Sample ID: 1202056715

Date Filtered: 05-MAR-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	09-MAR-10 07:47	per0308107a
	Perchlorate Isotope Ratio						1	09-MAR-10 07:47	per0308107a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	09-MAR-10 07:47	per0308107a
	Perchlorate-O(18)			0.447	ug/L		1	09-MAR-10 07:47	per0308107a

[^] 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

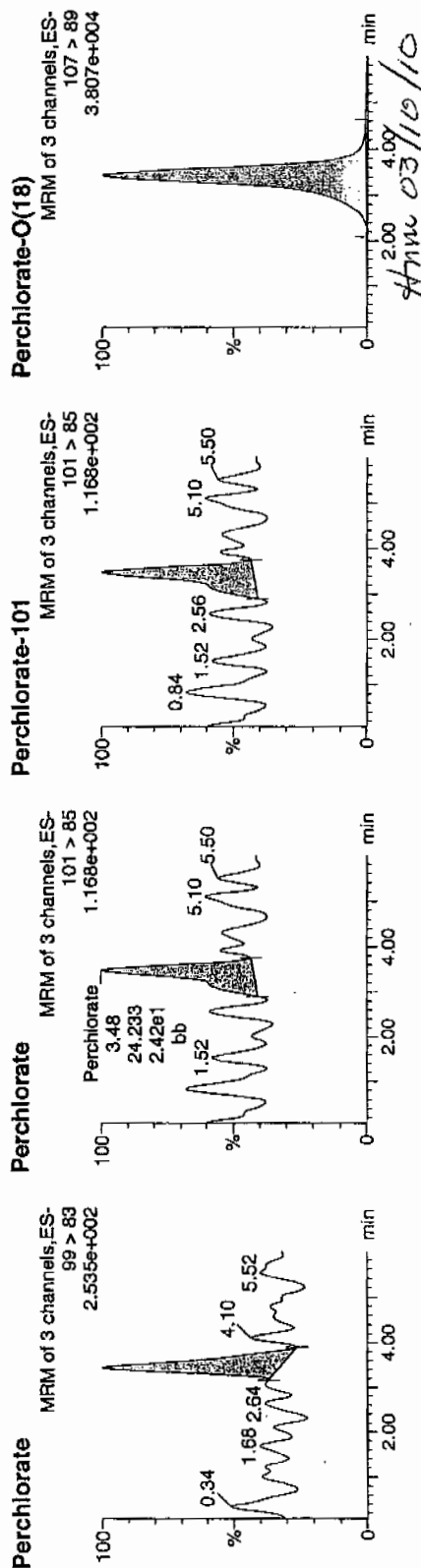
Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qid

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308107a
Date: 09-Mar-2010
Time: 07:47:57
ID: 1202056715
Vial: 3:1,A

03-04-10

1202056715 | 1202056715 | 1202056715



ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	mg/mL	%Rec	%Dev	S/N	Ion Ratio
1202056715	Perchlorate	99 > 83	3.45	54.168	54.168	bb			0.0012			19.278	2.24
1202056715	Perchlorate-101	101 > 85	3.48	24.233	24.233	bb			0.0017			28.878	
1202056715	Perchlorate-O(18)	107 > 89	3.43	17439.324	17439.324	bb			0.4466	89.32	-10.68	565.332	

0.004
20.0500

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC
 Lab Code: GEL
 Instrument: LCMSMS
 Method: EPA 6850 Modified
 Matrix: WATER
 Extraction Batch ID: 259046
 Extraction Type: Filter/DAI
 Sample Volume/Weight: 10.0 mL
 Concentrated Extract Volume: 10.0
 Client Sample No. LCS
 Date Received: 05-MAR-10
 GEL Job No (SDG): 10-2135-1
 GEL Sample ID: 1202056716
 Date Filtered: 05-MAR-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	0.187	ug/L	J	1	09-MAR-10 07:57	per0308108a
	Perchlorate Isotope Ratio			3.13			1	09-MAR-10 07:57	per0308108a
14797-73-0	Perchlorate-101	.05	.2	0.197	ug/L	J	1	09-MAR-10 07:57	per0308108a
	Perchlorate-O(18)			0.450	ug/L		1	09-MAR-10 07:57	per0308108a

[^] 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

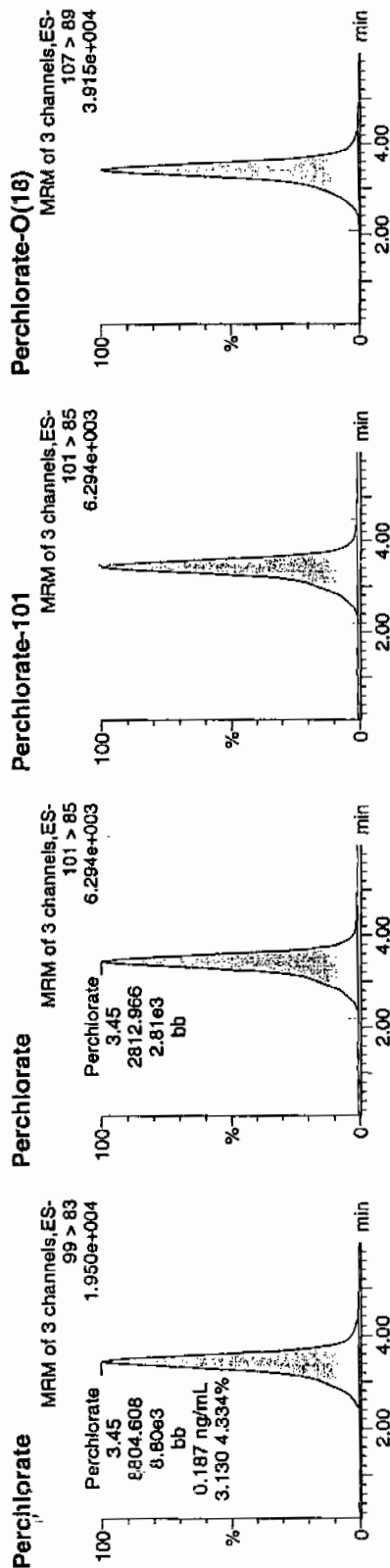
Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308108a
Date: 09-Mar-2010
Time: 07:57:12
ID: 1202056716
Vial: 3:1,B

03-31-10

1202056716 | 1202056716 | 11



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202056716	Perchlorate	99 > 83	3.45	8804.608	8804.608	bb			-0.1871	93.57	-6.43	837.751	3.13
1202056716	Perchlorate-101	101 > 85	3.45	2812.966	2812.966	bb			0.1968	98.38	-1.62	753.206	
1202056716	Perchlorate-O(18)	107 > 89	3.43	17560.795	17560.795	bb			0.4497	89.94	-10.06	1081.8...	

$$\frac{8804.608}{47047.4} = 0.1871$$

4/23/10/10

MISCELLANEOUS DATA

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.

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: 959046 Verified by: _____
 Analyst: Kaylie Westmoreland 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)
1202056715 MB	05-MAR-2010 15:17:00	10	10	1
1202056716 LCS	05-MAR-2010 15:17:00	10	10	1
248108001	05-MAR-2010 15:17:00	10	10	1
248117001	05-MAR-2010 15:17:00	10	10	1
248127001	05-MAR-2010 15:17:00	10	10	1
248127002	05-MAR-2010 15:17:00	10	10	1
248162001	05-MAR-2010 15:17:00	10	10	1
248162002	05-MAR-2010 15:17:00	10	10	1
1202056717 MS (248162002)	05-MAR-2010 15:17:00	10	10	1
1202056718 MSD (248162002)	05-MAR-2010 15:17:00	10	10	1
248162003	05-MAR-2010 15:17:00	10	10	1
248162004	05-MAR-2010 15:17:00	10	10	1
248168006	05-MAR-2010 15:17:00	10	10	1
248169004	05-MAR-2010 15:17:00	10	10	1
248188001	05-MAR-2010 15:17:00	10	10	1
248199001	05-MAR-2010 15:17:00	10	10	1
248238001	05-MAR-2010 15:17:00	10	10	1
248238002	05-MAR-2010 15:17:00	10	10	1
248242001	05-MAR-2010 15:17:00	10	10	1
248245001	05-MAR-2010 15:17:00	10	10	1
248257001	05-MAR-2010 15:17:00	10	10	1
248257002	05-MAR-2010 15:17:00	10	10	1
248261001	05-MAR-2010 15:17:00	10	10	1
1202056719 ICS	05-MAR-2010 15:17:00	10	10	1

Comments:

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202056719	10 ug/L ICV/CCV Second Source	UCL100226-01.1	.2	mL
LCS	1202056716	10 ug/L ICV/CCV Second Source	UCL100226-01.1	.2	mL
MS	1202056717	10 ug/L ICV/CCV Second Source	UCL100226-01.1	.2	mL
MSD	1202056718	10 ug/L ICV/CCV Second Source	UCL100226-01.1	.2	mL
RGNT	All	500 ppm Carbonate, Bicarbonate, Chloride, Sulfate	1267890	10	mL
RGNT	All	O2SI HPLC Grade Water	1271949	10	mL

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/07/10
Extr. Injection Volume: 20uL
Sequence Number: per030710a
Initial Calibration Date: 03/07/10

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

Reviewed BY: *Amu*
Date: 03/10/10
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
per0308001a	IPB001	CWW	3/8/2010 15:44			1		USE	B
per0308002a	IPB001	CWW	3/8/2010 15:53			1		USE	B
per0308003a	WCLICAL-01	CWW	3/8/2010 16:02			1		USE	I
per0308004a	WCLICAL-02	CWW	3/8/2010 16:11			1		USE	I
per0308005a	WCLICAL-03	CWW	3/8/2010 16:20			1		USE	I
per0308006a	WCLICAL-04	CWW	3/8/2010 16:29			1		USE	I
per0308007a	WCLICAL-05	CWW	3/8/2010 16:39			1		USE	I
per0308008a	IPB002	CWW	3/8/2010 16:48			1		USE	B
per0308009a	WCLICV	CWW	3/8/2010 16:57			1		USE	C
per0308010a	IPB003	CWW	3/8/2010 17:06			1		USE	B
per0308011a	WCLCRI	CWW	3/8/2010 17:15			1		USE	C
per0308012a	246870009	CWW	3/8/2010 17:24	955688	10-1782	1	LANL	USE	S
per0308013a	246870010	CWW	3/8/2010 17:33	955688	10-1782	1	LANL	USE	S
per0308014a	246982001	CWW	3/8/2010 17:42	955688	10-1812	1	LANL	USE	S
per0308015a	246982002	CWW	3/8/2010 17:51	955688	10-1812	1	LANL	USE	S
per0308016a	246982003	CWW	3/8/2010 18:01	955688	10-1812	1	LANL	USE	S
per0308017a	246982004	CWW	3/8/2010 18:10	955688	10-1812	1	LANL	USE	S
per0308018a	246982005	CWW	3/8/2010 18:19	955688	10-1812	1	LANL	USE	S
per0308019a	246982006	CWW	3/8/2010 18:28	955688	10-1812	1	LANL	USE	S
per0308020a	246982007	CWW	3/8/2010 18:37	955688	10-1812	1	LANL	USE	S
per0308021a	WCLCCV	CWW	3/8/2010 18:46			1		USE	C
per0308022a	IPB004	CWW	3/8/2010 18:55			1		USE	B
per0308023a	WCLCRI	CWW	3/8/2010 19:04			1		USE	C
per0308024a	1202049003	CWW	3/8/2010 19:13	955691	10-1809	1	LANL	USE	S
per0308025a	1202049004	CWW	3/8/2010 19:22	955691	10-1809	1	LANL	USE	S
per0308026a	1202049007	CWW	3/8/2010 19:31	955691	10-1809	1	LANL	USE	S
per0308027a	246974001	CWW	3/8/2010 19:40	955691	10-1809	1	LANL	USE	S
per0308028a	1202049005	CWW	3/8/2010 19:49	955691	10-1809	1	LANL	USE	S
per0308029a	1202049006	CWW	3/8/2010 19:58	955691	10-1809	1	LANL	USE	S

per0308030a	246974002	CWW	3/8/2010 20:07	955691	10-1809	1	LANL	USE	S
per0308031a	246974003	CWW	3/8/2010 20:16	955691	10-1809	1	LANL	USE	S
per0308032a	246974004	CWW	3/8/2010 20:26	955691	10-1809	1	LANL	USE	S
per0308033a	246974005	CWW	3/8/2010 20:35	955691	10-1809	1	LANL	USE	S
per0308034a	WCLCCV	CWW	3/8/2010 20:44			1		USE	C
per0308035a	IPB005	CWW	3/8/2010 20:53			1		USE	B
per0308036a	WCLCRI	CWW	3/8/2010 21:02			1		USE	C
per0308037a	246974006	CWW	3/8/2010 21:11	955691	10-1809	1	LANL	USE	S
per0308038a	246974007	CWW	3/8/2010 21:20	955691	10-1809	1	LANL	USE	S
per0308039a	246974008	CWW	3/8/2010 21:29	955691	10-1809	1	LANL	USE	S
per0308040a	246974009	CWW	3/8/2010 21:38	955691	10-1809	1	LANL	USE	S
per0308041a	246974010	CWW	3/8/2010 21:47	955691	10-1809	1	LANL	USE	S
per0308042a	246974011	CWW	3/8/2010 21:56	955691	10-1809	1	LANL	USE	S
per0308043a	246974012	CWW	3/8/2010 22:05	955691	10-1809	1	LANL	USE	S
per0308044a	246974013	CWW	3/8/2010 22:14	955691	10-1809	1	LANL	USE	S
per0308045a	246974014	CWW	3/8/2010 22:23	955691	10-1809	1	LANL	USE	S
per0308046a	246974015	CWW	3/8/2010 22:32	955691	10-1809	1	LANL	USE	S
per0308047a	WCLCCV	CWW	3/8/2010 22:42			1		USE	C
per0308048a	IPB006	CWW	3/8/2010 22:51			1		USE	B
per0308049a	WCLCRI	CWW	3/8/2010 23:00			1		USE	C
per0308050a	246974016	CWW	3/8/2010 23:09	955691	10-1809	1	LANL	USE	S
per0308051a	246974017	CWW	3/8/2010 23:18	955691	10-1809	1	LANL	USE	S
per0308052a	IPB007	CWW	3/8/2010 23:27			1		USE	B
per0308053a	1202049064	CWW	3/8/2010 23:36	955724	VARIOUS	1	LANL	USE	S
per0308054a	1202049065	CWW	3/8/2010 23:46	955724	VARIOUS	1	LANL	USE	S
per0308055a	1202049068	CWW	3/8/2010 23:55	955724	VARIOUS	1	LANL	USE	S
per0308056a	246964002	CWW	3/9/2010 0:04	955724	10-1802	1	LANL	USE	S
per0308057a	246964004	CWW	3/9/2010 0:13	955724	10-1802	1	LANL	USE	S
per0308058a	246967001	CWW	3/9/2010 0:22	955724	10-1807	1	LANL	USE	S
per0308059a	246967004	CWW	3/9/2010 0:31	955724	10-1807	1	LANL	DUSE-DL	S
per0308060a	WCLCCV	CWW	3/9/2010 0:40			1		USE	C
per0308061a	IPB008	CWW	3/9/2010 0:50			1		USE	B
per0308062a	WCLCRI	CWW	3/9/2010 0:59			1		USE	C
per0308063a	247036002	CWW	3/9/2010 1:08	955724	10-1826	1	LANL	USE	S
per0308064a	247036003	CWW	3/9/2010 1:17	955724	10-1826	1	LANL	USE	S
per0308065a	247036006	CWW	3/9/2010 1:26	955724	10-1826	1	LANL	USE	S
per0308066a	247037001	CWW	3/9/2010 1:35	955724	10-1823	1	LANL	DUSE-DL	S

per0308067a	247042002	CWW	3/9/2010 1:44	955724	10-1817	1	LANL	DUSE-RA	S
per0308068a	247042004	CWW	3/9/2010 1:53	955724	10-1817	1	LANL	USE	S
per0308069a	247042006	CWW	3/9/2010 2:02	955724	10-1817	1	LANL	USE	S
per0308070a	247261004	CWW	3/9/2010 2:11	955724	10-1886	1	LANL	USE	S
per0308071a	1202049066	CWW	3/9/2010 2:20	955724	10-1886	1	LANL	USE	S
per0308072a	1202049067	CWW	3/9/2010 2:29	955724	10-1886	1	LANL	USE	S
per0308073a	WCLCCV	CWW	3/9/2010 2:38			1		USE	C
per0308074a	IPB009	CWW	3/9/2010 2:48			1		USE	B
per0308075a	WCLCRI	CWW	3/9/2010 2:57			1		USE	C
per0308076a	1202056710	CWW	3/9/2010 3:06	959044	VARIOUS	1	LANL	USE	S
per0308077a	1202056711	CWW	3/9/2010 3:15	959044	VARIOUS	1	LANL	USE	S
per0308078a	1202056714	CWW	3/9/2010 3:24	959044	VARIOUS	1	LANL	USE	S
per0308079a	247908001	CWW	3/9/2010 3:33	959044	10-2013-1	1	LANL	USE	S
per0308080a	1202056712	CWW	3/9/2010 3:42	959044	10-2013-1	1	LANL	USE	S
per0308081a	1202056713	CWW	3/9/2010 3:51	959044	10-2013-1	1	LANL	USE	S
per0308082a	247908002	CWW	3/9/2010 4:00	959044	10-2013-1	1	LANL	USE	S
per0308083a	247908003	CWW	3/9/2010 4:09	959044	10-2013-1	1	LANL	USE	S
per0308084a	247919001	CWW	3/9/2010 4:18	959044	10-2016-1	1	LANL	USE	S
per0308085a	247919002	CWW	3/9/2010 4:27	959044	10-2016-1	1	LANL	USE	S
per0308086a	WCLCCV	CWW	3/9/2010 4:36			1		USE	C
per0308087a	IPB010	CWW	3/9/2010 4:46			1		USE	B
per0308088a	WCLCRI	CWW	3/9/2010 4:55			1		USE	C
per0308089a	247922004	CWW	3/9/2010 5:04	959044	10-2022	1	LANL	USE	S
per0308090a	247997001	CWW	3/9/2010 5:13	959044	10-2025	1	LANL	USE	S
per0308091a	248001001	CWW	3/9/2010 5:22	959044	10-2028	1	LANL	USE	S
per0308092a	248019001	CWW	3/9/2010 5:31	959044	10-2052	1	LANL	USE	S
per0308093a	248019002	CWW	3/9/2010 5:40	959044	10-2052	1	LANL	USE	S
per0308094a	248034001	CWW	3/9/2010 5:49	959044	10-2072-1	1	LANL	USE	S
per0308095a	248038001	CWW	3/9/2010 5:58	959044	10-2066-1	1	LANL	USE	S
per0308096a	248038002	CWW	3/9/2010 6:07	959044	10-2066-1	1	LANL	USE	S
per0308097a	248039001	CWW	3/9/2010 6:16	959044	10-2069	1	LANL	USE	S
per0308098a	248046001	CWW	3/9/2010 6:25	959044	10-2075-1	1	LANL	USE	S
per0308099a	WCLCCV	CWW	3/9/2010 6:34			1		USE	C
per0308100a	IPB011	CWW	3/9/2010 6:44			1		USE	B
per0308101a	WCLCRI	CWW	3/9/2010 6:53			1		USE	C
per0308102a	248046002	CWW	3/9/2010 7:02	959044	10-2075-1	1	LANL	USE	S
per0308103a	248053001	CWW	3/9/2010 7:11	959044	10-2081	1	LANL	USE	S

per0308104a	248053002	CWW	3/9/2010 7:20	959044	10-2081	1	LANL	USE	S
per0308105a	248053003	CWW	3/9/2010 7:29	959044	10-2081	1	LANL	USE	S
per0308106a	IPB012	CWW	3/9/2010 7:38			1		USE	B
per0308107a	1202056715	CWW	3/9/2010 7:47	959047	VARIOUS	1	LANL	USE	S
per0308108a	1202056716	CWW	3/9/2010 7:57	959047	VARIOUS	1	LANL	USE	S
per0308109a	1202056719	CWW	3/9/2010 8:06	959047	VARIOUS	1	LANL	USE	S
per0308110a	248108001	CWW	3/9/2010 8:15	959047	10-2090	1	LANL	USE	S
per0308111a	248117001	CWW	3/9/2010 8:24	959047	10-2093	1	LANL	USE	S
per0308112a	WCLCCV	CWW	3/9/2010 8:33			1		USE	C
per0308113a	IPB013	CWW	3/9/2010 8:42			1		USE	B
per0308114a	WCLCRI	CWW	3/9/2010 8:51			1		USE	C
per0308115a	248127001	CWW	3/9/2010 9:00	959047	10-2096	1	LANL	USE	S
per0308116a	248127002	CWW	3/9/2010 9:09	959047	10-2096	1	LANL	USE	S
per0308117a	248162001	CWW	3/9/2010 9:18	959047	10-2103	1	LANL	USE	S
per0308118a	248162002	CWW	3/9/2010 9:27	959047	10-2103	1	LANL	USE	S
per0308119a	1202056717	CWW	3/9/2010 9:37	959047	10-2103	1	LANL	USE	S
per0308120a	1202056718	CWW	3/9/2010 9:46	959047	10-2103	1	LANL	USE	S
per0308121a	248162003	CWW	3/9/2010 9:55	959047	10-2103	1	LANL	USE	S
per0308122a	248162004	CWW	3/9/2010 10:04	959047	10-2103	1	LANL	USE	S
per0308123a	248168006	CWW	3/9/2010 10:13	959047	10-2107	1	LANL	USE	S
per0308124a	248169004	CWW	3/9/2010 10:22	959047	10-2108	1	LANL	USE	S
per0308125a	WCLCCV	CWW	3/9/2010 10:31			1		USE	C
per0308126a	IPB014	CWW	3/9/2010 10:40			1		USE	B
per0308127a	WCLCRI	CWW	3/9/2010 10:49			1		USE	C
per0308128a	248188001	CWW	3/9/2010 10:58	959047	10-2120	1	LANL	USE	S
per0308129a	248199001	CWW	3/9/2010 11:07	959047	10-2122-1	1	LANL	USE	S
per0308130a	248238001	CWW	3/9/2010 11:16	959047	10-2132-1	1	LANL	USE	S
per0308131a	248238002	CWW	3/9/2010 11:25	959047	10-2132-1	1	LANL	USE	S
per0308132a	248242001	CWW	3/9/2010 11:34	959047	10-2135-1	1	LANL	USE	S
per0308133a	248245001	CWW	3/9/2010 11:43	959047	10-2138	1	LANL	USE	S
per0308134a	248257001	CWW	3/9/2010 11:52	959047	10-2146-1	1	LANL	USE	S
per0308135a	248257002	CWW	3/9/2010 12:02	959047	10-2146-1	1	LANL	USE	S
per0308136a	248261001	CWW	3/9/2010 12:11	959047	10-2149	1	LANL	USE	S
per0308137a	WCLCCV	CWW	3/9/2010 12:20			1		USE	C
per0308138a	IPB015	CWW	3/9/2010 12:29			1		USE	B
per0308139a	WCLCRI	CWW	3/9/2010 12:38			1		USE	C

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

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308119a

Date: 09-Mar-2010

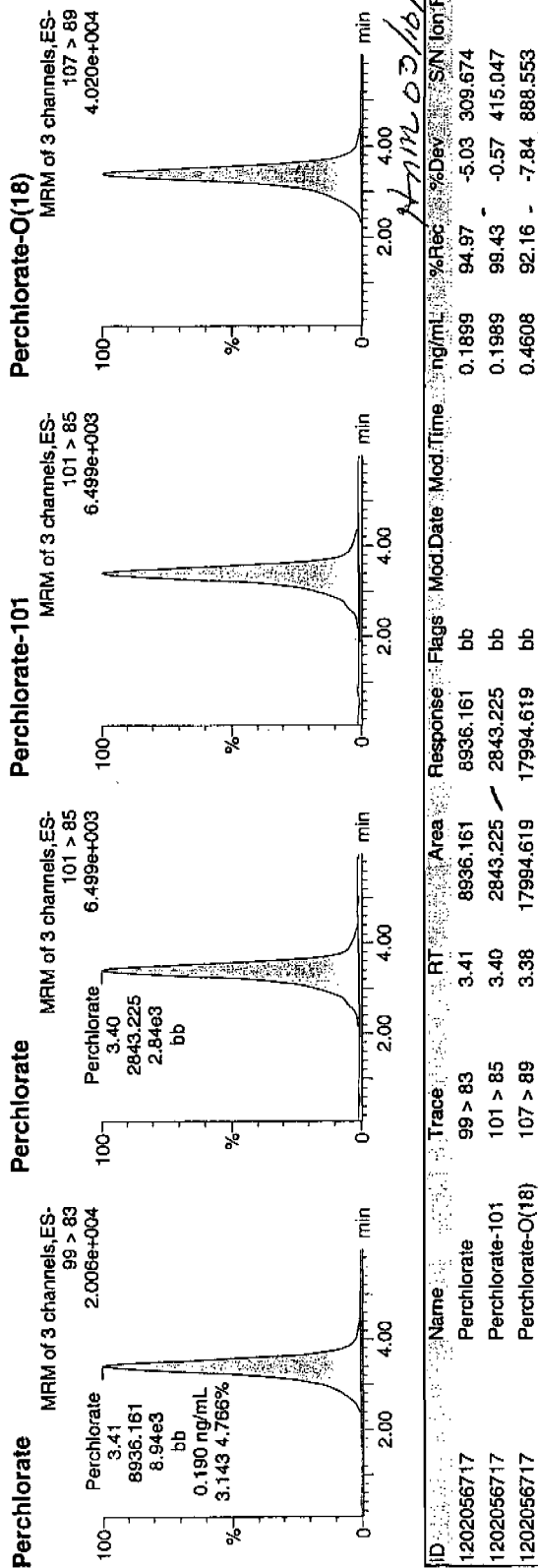
Time: 09:37:00

ID: 1202056717

Vial: 3:2,D

03-08-10

1202056717 | 0.225 | MS | 1 | 1



ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	SN	Ion Ratio
1202056717	Perchlorate	99 > 83	3.41	8936.161	8936.161	bb			0.1899	94.97	-5.03	309.674	3.14
1202056717	Perchlorate-101	101 > 85	3.40	2843.225	2843.225	bb			0.1989	99.43	-0.57	415.047	
1202056717	Perchlorate-O(18)	107 > 89	3.38	17994.619	17994.619	bb			0.4608	92.16	-7.84	888.553	

Quantify Sample Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

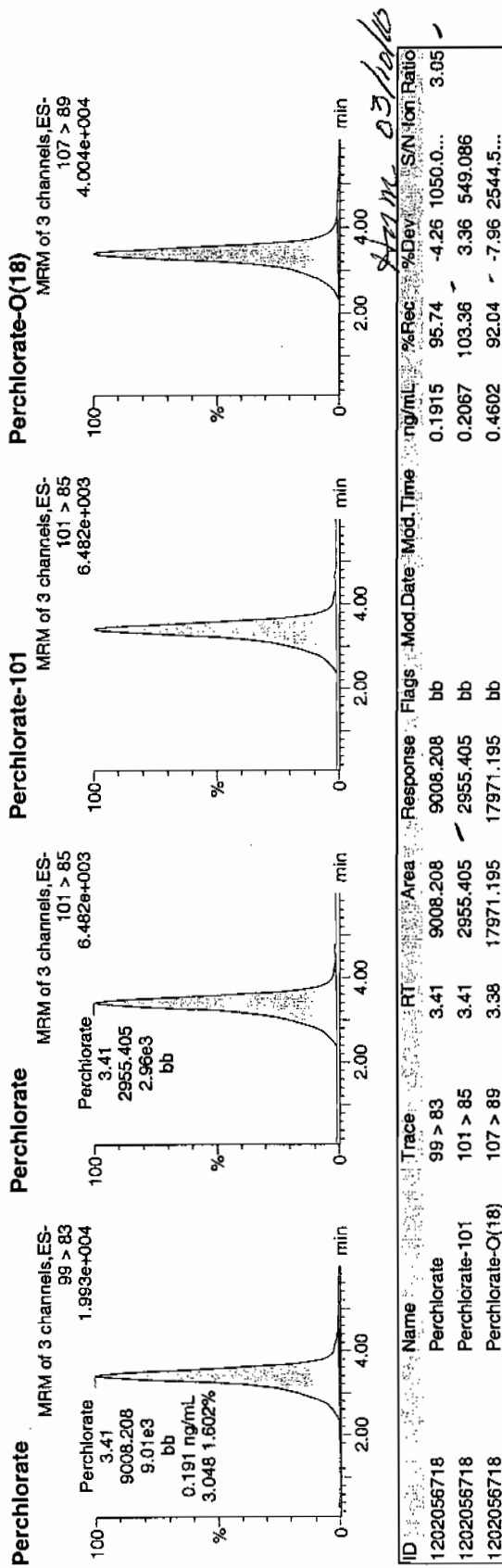
Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308120a
Date: 09-Mar-2010
Time: 09:46:02
ID: 1202056718
Vial: 3:2,E

WJ
03 09-10

1202056718 | 1202056718 | 1202056718



Metals Analysis

Case Narrative

**Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2135**

Sample Analysis

Sample ID	Client ID
248241001	RE36-10-7458
248241002	RE36-10-7453
248241003	RE36-10-7454
248241004	RE36-10-7460
248241005	RE36-10-7456
248241006	RE36-10-7455
248241007	RE36-10-7459
248241008	RE36-10-7457
248241009	RE36-10-7520
248241010	RE36-10-7519
1202056967	Method Blank (MB) ICP
1202056972	Laboratory Control Sample (LCS)
1202056969	248241001(RE36-10-7458L) Serial Dilution (SD)
1202056968	248241001(RE36-10-7458D) Sample Duplicate (DUP)
1202056970	248241001(RE36-10-7458S) Matrix Spike (MS)
1202056971	248241001(RE36-10-7458SD) Matrix Spike Duplicate (MSD)
1202056973	Method Blank (MB) ICP-MS
1202056978	Laboratory Control Sample (LCS)
1202056975	248241001(RE36-10-7458L) Serial Dilution (SD)
1202056974	248241001(RE36-10-7458D) Sample Duplicate (DUP)
1202056976	248241001(RE36-10-7458S) Matrix Spike (MS)
1202056977	248241001(RE36-10-7458SD) Matrix Spike Duplicate (MSD)
1202056614	Method Blank (MB) CVAA
1202056615	Laboratory Control Sample (LCS)
1202056618	248241001(RE36-10-7458L) Serial Dilution (SD)
1202056616	248241001(RE36-10-7458D) Sample Duplicate (DUP)
1202056617	248241001(RE36-10-7458S) Matrix Spike (MS)
1202056619	248241001(RE36-10-7458SD) Matrix Spike Duplicate (MSD)

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

Method/Analysis Information

Analytical Batch: 959146, 959148 and 958974
Prep Batch : 959145, 959147 and 958973
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 magnesium that recovered outside of the advisory control limits of 70-130%.

ICSA/ICSAB Statement

All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements

All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements

All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement

The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement

The following sample was selected as the quality control (QC) sample for this SDG: 248241001 (RE36-10-7458)-ICP, ICP-MS and CVAA.

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 magnesium and potassium 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 magnesium and potassium as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement

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

Duplicate Relative Percent Difference (RPD) Statement

The 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 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 DER was generated for this SDG: DER ID 813630. A copy 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: Nik-DeA Elmore Date: 4.14.10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2135

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248241001

BASIS: Dry Weight

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-7458

LEVEL: Low

DATE RECEIVED 27-FEB-10

MATRIX: SOIL

%SOLIDS: 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	6710000	ug/Kg		7780	22900	22900	1	P	HSC	03/31/10 13:32	033110-1	959146
7440-36-0	Antimony	1140	ug/Kg	U	378	1140	1140	1	P	HSC	03/31/10 13:32	033110-1	959146
7440-38-2	Arsenic	1.5	mg/kg		0.23	1.15	1.15	2	MS	PRB	04/12/10 23:35	100412-2	959148
7440-39-3	Barium	85400	ug/Kg		114	572	572	1	P	HSC	03/31/10 13:32	033110-1	959146
7440-41-7	Beryllium	0.556	mg/kg		0.023	0.115	0.115	2	MS	PRB	04/12/10 23:35	100412-2	959148
7440-43-9	Cadmium	572	ug/Kg	U	114	572	572	1	P	HSC	03/31/10 13:32	033110-1	959146
7440-70-2	Calcium	3110000	ug/Kg		9160	28600	28600	1	P	HSC	03/31/10 13:32	033110-1	959146
7440-47-3	Chromium	9670	ug/Kg		172	572	572	1	P	HSC	03/31/10 13:32	033110-1	959146
7440-48-4	Cobalt	2470	ug/Kg		172	572	572	1	P	HSC	03/31/10 13:32	033110-1	959146
7440-50-8	Copper	5410	ug/Kg		343	1140	1140	1	P	HSC	03/31/10 13:32	033110-1	959146
7439-89-6	Iron	9360000	ug/Kg		9160	28600	28600	1	P	HSC	03/31/10 13:32	033110-1	959146
7439-92-1	Lead	8860	ug/Kg		286	1140	1140	1	P	HSC	03/31/10 13:32	033110-1	959146
7439-95-4	Magnesium	1290000	ug/Kg	N	9730	34300	34300	1	P	HSC	03/31/10 13:32	033110-1	959146
7439-96-5	Manganese	261000	ug/Kg		229	1140	1140	1	P	HSC	03/31/10 13:32	033110-1	959146
7439-97-6	Mercury	42.8	ug/kg		4.67	13.7	13.7	1	AV	JXL1	03/16/10 11:26	031610S1-3	958974
7440-02-0	Nickel	4.68	mg/kg		0.115	0.46	0.46	2	MS	PRB	04/12/10 23:35	100412-2	959148
7440-09-7	Potassium	1550000	ug/Kg	N	7330	28600	28600	1	P	HSC	03/31/10 13:32	033110-1	959146
7782-49-2	Selenium	1.15	mg/kg	U	0.575	1.15	1.15	2	MS	PRB	04/12/10 23:35	100412-2	959148
7440-22-4	Silver	223	ug/Kg	J	114	572	572	1	P	HSC	03/31/10 13:32	033110-1	959146
7440-23-5	Sodium	104000	ug/Kg		8010	28600	28600	1	P	HSC	03/31/10 13:32	033110-1	959146
7440-28-0	Thallium	0.0871	mg/kg	J	0.0689	0.23	0.23	2	MS	PRB	04/12/10 23:35	100412-2	959148
7440-61-1	Uranium	0.655	mg/kg		0.0152	0.046	0.046	2	MS	PRB	04/12/10 23:35	100412-2	959148
7440-62-2	Vanadium	12600	ug/Kg		114	572	572	1	P	HSC	03/31/10 13:32	033110-1	959146
7440-66-6	Zinc	34000	ug/Kg		378	1140	1140	1	P	HSC	03/31/10 13:32	033110-1	959146

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958974	958973	SW846 7471A Prep	0.509	g	30	mL	03/15/10	TXB3
959146	959145	SW846 3050B	0.509	g	50	mL	03/09/10	AXG2
959148	959147	SW846 3050B	0.507	g	50	mL	03/09/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2135

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248241002

BASIS: Dry Weight

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-7453

LEVEL: Low

DATE RECEIVED 27-FEB-10

MATRIX: SOIL

%SOLIDS: 55

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4140000	ug/Kg		12000	35300	35300	1	P	HSC	03/31/10 14:07	033110-1	959146
7440-36-0	Antimony	1760	ug/Kg	U	582	1760	1760	1	P	HSC	03/31/10 14:07	033110-1	959146
7440-38-2	Arsenic	1.54	mg/kg	J	0.349	1.74	1.74	2	MS	PRB	04/12/10 23:55	100412-2	959148
7440-39-3	Barium	81000	ug/Kg		176	882	882	1	P	HSC	03/31/10 14:07	033110-1	959146
7440-41-7	Beryllium	0.493	mg/kg		0.0349	0.174	0.174	2	MS	PRB	04/12/10 23:55	100412-2	959148
7440-43-9	Cadmium	882	ug/Kg	U	176	882	882	1	P	HSC	03/31/10 14:07	033110-1	959146
7440-70-2	Calcium	3750000	ug/Kg		14100	44100	44100	1	P	HSC	03/31/10 14:07	033110-1	959146
7440-47-3	Chromium	9910	ug/Kg		264	882	882	1	P	HSC	03/31/10 14:07	033110-1	959146
7440-48-4	Cobalt	2300	ug/Kg		264	882	882	1	P	HSC	03/31/10 14:07	033110-1	959146
7440-50-8	Copper	7360	ug/Kg		529	1760	1760	1	P	HSC	03/31/10 14:07	033110-1	959146
7439-89-6	Iron	9170000	ug/Kg		14100	44100	44100	1	P	HSC	03/31/10 14:07	033110-1	959146
7439-92-1	Lead	14600	ug/Kg		441	1760	1760	1	P	HSC	03/31/10 14:07	033110-1	959146
7439-95-4	Magnesium	1010000	ug/Kg	N	15000	52900	52900	1	P	HSC	03/31/10 14:07	033110-1	959146
7439-96-5	Manganese	643000	ug/Kg		353	1760	1760	1	P	HSC	03/31/10 14:07	033110-1	959146
7439-97-6	Mercury	40.4	ug/kg		6.67	19.6	19.6	1	AV	JXL1	03/16/10 11:38	031610S1-3	958974
7440-02-0	Nickel	4.47	mg/kg		0.174	0.697	0.697	2	MS	PRB	04/12/10 23:55	100412-2	959148
7440-09-7	Potassium	1030000	ug/Kg	N	11300	44100	44100	1	P	HSC	03/31/10 14:07	033110-1	959146
7782-49-2	Selenium	1.74	mg/kg	U	0.871	1.74	1.74	2	MS	PRB	04/12/10 23:55	100412-2	959148
7440-22-4	Silver	209	ug/Kg	J	176	882	882	1	P	HSC	03/31/10 14:07	033110-1	959146
7440-23-5	Sodium	184000	ug/Kg		12300	44100	44100	1	P	HSC	03/31/10 14:07	033110-1	959146
7440-28-0	Thallium	0.349	mg/kg	U	0.105	0.349	0.349	2	MS	PRB	04/12/10 23:55	100412-2	959148
7440-61-1	Uranium	1.2	mg/kg		0.023	0.0697	0.0697	2	MS	PRB	04/12/10 23:55	100412-2	959148
7440-62-2	Vanadium	8820	ug/Kg		176	882	882	1	P	HSC	03/31/10 14:07	033110-1	959146
7440-66-6	Zinc	55500	ug/Kg		582	1760	1760	1	P	HSC	03/31/10 14:07	033110-1	959146

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958974	958973	SW846 7471A Prep	0.553	g	30	mL	03/15/10	TXB3
959146	959145	SW846 3050B	0.513	g	50	mL	03/09/10	AXG2
959148	959147	SW846 3050B	0.519	g	50	mL	03/09/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2135

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248241003

BASIS: Dry Weight

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-7454

LEVEL: Low

DATE RECEIVED 27-FEB-10

MATRIX: SOIL

%SOLIDS: 91.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1680000	ug/Kg		7170	21100	21100	1	P	HSC	03/31/10 14:28	033110-1	959146
7440-36-0	Antimony	1060	ug/Kg	U	348	1060	1060	1	P	HSC	03/31/10 14:28	033110-1	959146
7440-38-2	Arsenic	0.514	mg/kg	J	0.209	1.04	1.04	2	MS	PRB	04/13/10 00:08	100412-2	959148
7440-39-3	Barium	19600	ug/Kg		106	528	528	1	P	HSC	03/31/10 14:28	033110-1	959146
7440-41-7	Beryllium	0.351	mg/kg		0.0209	0.104	0.104	2	MS	PRB	04/13/10 00:08	100412-2	959148
7440-43-9	Cadmium	528	ug/Kg	U	106	528	528	1	P	HSC	03/31/10 14:28	033110-1	959146
7440-70-2	Calcium	298000	ug/Kg		8440	26400	26400	1	P	HSC	03/31/10 14:28	033110-1	959146
7440-47-3	Chromium	11700	ug/Kg		158	528	528	1	P	HSC	03/31/10 14:28	033110-1	959146
7440-48-4	Cobalt	896	ug/Kg		158	528	528	1	P	HSC	03/31/10 14:28	033110-1	959146
7440-50-8	Copper	1790	ug/Kg		317	1060	1060	1	P	HSC	03/31/10 14:28	033110-1	959146
7439-89-6	Iron	6690000	ug/Kg		8440	26400	26400	1	P	HSC	03/31/10 14:28	033110-1	959146
7439-92-1	Lead	4820	ug/Kg		264	1060	1060	1	P	HSC	03/31/10 14:28	033110-1	959146
7439-95-4	Magnesium	194000	ug/Kg	N	8970	31700	31700	1	P	HSC	03/31/10 14:28	033110-1	959146
7439-96-5	Manganese	371000	ug/Kg		211	1060	1060	1	P	HSC	03/31/10 14:28	033110-1	959146
7439-97-6	Mercury	8.56	ug/kg	J	4.44	13.1	13.1	1	AV	JXL1	03/16/10 11:40	031610S1-3	958974
7440-02-0	Nickel	3.24	mg/kg		0.104	0.418	0.418	2	MS	PRB	04/13/10 00:08	100412-2	959148
7440-09-7	Potassium	522000	ug/Kg	N	6750	26400	26400	1	P	HSC	03/31/10 14:28	033110-1	959146
7782-49-2	Selenium	1.04	mg/kg	U	0.522	1.04	1.04	2	MS	PRB	04/13/10 00:08	100412-2	959148
7440-22-4	Silver	162	ug/Kg	J	106	528	528	1	P	HSC	03/31/10 14:28	033110-1	959146
7440-23-5	Sodium	317000	ug/Kg		7390	26400	26400	1	P	HSC	03/31/10 14:28	033110-1	959146
7440-28-0	Thallium	0.209	mg/kg	U	0.0627	0.209	0.209	2	MS	PRB	04/13/10 00:08	100412-2	959148
7440-61-1	Uranium	0.511	mg/kg		0.0138	0.0418	0.0418	2	MS	PRB	04/13/10 00:08	100412-2	959148
7440-62-2	Vanadium	2460	ug/Kg		106	528	528	1	P	HSC	03/31/10 14:28	033110-1	959146
7440-66-6	Zinc	41400	ug/Kg		348	1060	1060	1	P	HSC	03/31/10 14:28	033110-1	959146

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958974	958973	SW846 7471A Prep	0.5	g	30	mL	03/15/10	TXB3
959146	959145	SW846 3050B	0.516	g	50	mL	03/09/10	AXG2
959148	959147	SW846 3050B	0.521	g	50	mL	03/09/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2135

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248241004

BASIS: Dry Weight

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-7460

LEVEL: Low

DATE RECEIVED 27-FEB-10

MATRIX: SOIL

%SOLIDS: 90.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4760000	ug/Kg		7110	20900	20900	1	P	HSC	03/31/10 14:35	033110-1	959146
7440-36-0	Antimony	1050	ug/Kg	U	345	1050	1050	1	P	HSC	03/31/10 14:35	033110-1	959146
7440-38-2	Arsenic	1.5	mg/kg		0.219	1.09	1.09	2	MS	PRB	04/13/10 00:12	100412-2	959148
7440-39-3	Barium	40000	ug/Kg		105	523	523	1	P	HSC	03/31/10 14:35	033110-1	959146
7440-41-7	Beryllium	2.44	mg/kg		0.0219	0.109	0.109	2	MS	PRB	04/13/10 00:12	100412-2	959148
7440-43-9	Cadmium	523	ug/Kg	U	105	523	523	1	P	HSC	03/31/10 14:35	033110-1	959146
7440-70-2	Calcium	1550000	ug/Kg		8370	26200	26200	1	P	HSC	03/31/10 14:35	033110-1	959146
7440-47-3	Chromium	17900	ug/Kg		157	523	523	1	P	HSC	03/31/10 14:35	033110-1	959146
7440-48-4	Cobalt	1370	ug/Kg		157	523	523	1	P	HSC	03/31/10 14:35	033110-1	959146
7440-50-8	Copper	3470	ug/Kg		314	1050	1050	1	P	HSC	03/31/10 14:35	033110-1	959146
7439-89-6	Iron	9440000	ug/Kg		8370	26200	26200	1	P	HSC	03/31/10 14:35	033110-1	959146
7439-92-1	Lead	5680	ug/Kg		262	1050	1050	1	P	HSC	03/31/10 14:35	033110-1	959146
7439-95-4	Magnesium	938000	ug/Kg	N	8890	31400	31400	1	P	HSC	03/31/10 14:35	033110-1	959146
7439-96-5	Manganese	274000	ug/Kg		209	1050	1050	1	P	HSC	03/31/10 14:35	033110-1	959146
7439-97-6	Mercury	23.9	ug/kg		4.39	12.9	12.9	1	AV	JXL1	03/16/10 11:42	031610S1-3	958974
7440-02-0	Nickel	5.42	mg/kg		0.109	0.438	0.438	2	MS	PRB	04/13/10 00:12	100412-2	959148
7440-09-7	Potassium	826000	ug/Kg	N	6700	26200	26200	1	P	HSC	03/31/10 14:35	033110-1	959146
7782-49-2	Selenium	1.09	mg/kg	U	0.547	1.09	1.09	2	MS	PRB	04/13/10 00:12	100412-2	959148
7440-22-4	Silver	523	ug/Kg	U	105	523	523	1	P	HSC	03/31/10 14:35	033110-1	959146
7440-23-5	Sodium	63900	ug/Kg		7320	26200	26200	1	P	HSC	03/31/10 14:35	033110-1	959146
7440-28-0	Thallium	0.219	mg/kg	U	0.0656	0.219	0.219	2	MS	PRB	04/13/10 00:12	100412-2	959148
7440-61-1	Uranium	1.08	mg/kg		0.0144	0.0438	0.0438	2	MS	PRB	04/13/10 00:12	100412-2	959148
7440-62-2	Vanadium	10200	ug/Kg		105	523	523	1	P	HSC	03/31/10 14:35	033110-1	959146
7440-66-6	Zinc	39100	ug/Kg		345	1050	1050	1	P	HSC	03/31/10 14:35	033110-1	959146

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958974	958973	SW846 7471A Prep	0.514	g	30	mL	03/15/10	TXB3
959146	959145	SW846 3050B	0.528	g	50	mL	03/09/10	AXG2
959148	959147	SW846 3050B	0.505	g	50	mL	03/09/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2135

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248241005

BASIS: Dry Weight

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-7456

LEVEL: Low

DATE RECEIVED 27-FEB-10

MATRIX: SOIL

%SOLIDS: 92.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4430000	ug/Kg		7280	21400	21400	1	P	HSC	03/31/10 14:42	033110-1	959146
7440-36-0	Antimony	1070	ug/Kg	U	353	1070	1070	1	P	HSC	03/31/10 14:42	033110-1	959146
7440-38-2	Arsenic	1.37	mg/kg		0.216	1.08	1.08	2	MS	PRB	04/13/10 00:16	100412-2	959148
7440-39-3	Barium	54200	ug/Kg		107	535	535	1	P	HSC	03/31/10 14:42	033110-1	959146
7440-41-7	Beryllium	0.494	mg/kg		0.0216	0.108	0.108	2	MS	PRB	04/13/10 00:16	100412-2	959148
7440-43-9	Cadmium	535	ug/Kg	U	107	535	535	1	P	HSC	03/31/10 14:42	033110-1	959146
7440-70-2	Calcium	1650000	ug/Kg		8560	26800	26800	1	P	HSC	03/31/10 14:42	033110-1	959146
7440-47-3	Chromium	13500	ug/Kg		161	535	535	1	P	HSC	03/31/10 14:42	033110-1	959146
7440-48-4	Cobalt	1490	ug/Kg		161	535	535	1	P	HSC	03/31/10 14:42	033110-1	959146
7440-50-8	Copper	3570	ug/Kg		321	1070	1070	1	P	HSC	03/31/10 14:42	033110-1	959146
7439-89-6	Iron	8650000	ug/Kg		8560	26800	26800	1	P	HSC	03/31/10 14:42	033110-1	959146
7439-92-1	Lead	7060	ug/Kg		268	1070	1070	1	P	HSC	03/31/10 14:42	033110-1	959146
7439-95-4	Magnesium	1040000	ug/Kg	N	9100	32100	32100	1	P	HSC	03/31/10 14:42	033110-1	959146
7439-96-5	Manganese	127000	ug/Kg		214	1070	1070	1	P	HSC	03/31/10 14:42	033110-1	959146
7439-97-6	Mercury	10.6	ug/kg	J	3.83	11.3	11.3	1	AV	JXL1	03/16/10 11:43	031610S1-3	958974
7440-02-0	Nickel	3.93	mg/kg		0.108	0.432	0.432	2	MS	PRB	04/13/10 00:16	100412-2	959148
7440-09-7	Potassium	574000	ug/Kg	N	6850	26800	26800	1	P	HSC	03/31/10 14:42	033110-1	959146
7782-49-2	Selenium	1.08	mg/kg	U	0.54	1.08	1.08	2	MS	PRB	04/13/10 00:16	100412-2	959148
7440-22-4	Silver	535	ug/Kg	U	107	535	535	1	P	HSC	03/31/10 14:42	033110-1	959146
7440-23-5	Sodium	99800	ug/Kg		7490	26800	26800	1	P	HSC	03/31/10 14:42	033110-1	959146
7440-28-0	Thallium	0.216	mg/kg	U	0.0649	0.216	0.216	2	MS	PRB	04/13/10 00:16	100412-2	959148
7440-61-1	Uranium	0.515	mg/kg		0.0143	0.0432	0.0432	2	MS	PRB	04/13/10 00:16	100412-2	959148
7440-62-2	Vanadium	12500	ug/Kg		107	535	535	1	P	HSC	03/31/10 14:42	033110-1	959146
7440-66-6	Zinc	30700	ug/Kg		353	1070	1070	1	P	HSC	03/31/10 14:42	033110-1	959146

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wL/vol	Units	Date	Analyst
958974	958973	SW846 7471A Prep	0.576	g	30	mL	03/15/10	TXB3
959146	959145	SW846 3050B	0.505	g	50	mL	03/09/10	AXG2
959148	959147	SW846 3050B	0.5	g	50	mL	03/09/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2135

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248241006

BASIS: Dry Weight

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-7455

LEVEL: Low

DATE RECEIVED 27-FEB-10

MATRIX: SOIL

%SOLIDS: 76

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7020000	ug/Kg		8570	25200	25200	1	P	HSC	03/31/10 14:49	033110-1	959146
7440-36-0	Antimony	1260	ug/Kg	U	416	1260	1260	1	P	HSC	03/31/10 14:49	033110-1	959146
7440-38-2	Arsenic	1.92	mg/kg		0.261	1.31	1.31	2	MS	PRB	04/13/10 00:20	100412-2	959148
7440-39-3	Barium	1370000	ug/Kg		126	630	630	1	P	HSC	03/31/10 14:49	033110-1	959146
7440-41-7	Beryllium	0.775	mg/kg		0.0261	0.131	0.131	2	MS	PRB	04/13/10 00:20	100412-2	959148
7440-43-9	Cadmium	630	ug/Kg	U	126	630	630	1	P	HSC	03/31/10 14:49	033110-1	959146
7440-70-2	Calcium	4540000	ug/Kg		10100	31500	31500	1	P	HSC	03/31/10 14:49	033110-1	959146
7440-47-3	Chromium	6790	ug/Kg		189	630	630	1	P	HSC	03/31/10 14:49	033110-1	959146
7440-48-4	Cobalt	3100	ug/Kg		189	630	630	1	P	HSC	03/31/10 14:49	033110-1	959146
7440-50-8	Copper	8100	ug/Kg		378	1260	1260	1	P	HSC	03/31/10 14:49	033110-1	959146
7439-89-6	Iron	9330000	ug/Kg		10100	31500	31500	1	P	HSC	03/31/10 14:49	033110-1	959146
7439-92-1	Lead	15800	ug/Kg		315	1260	1260	1	P	HSC	03/31/10 14:49	033110-1	959146
7439-95-4	Magnesium	1710000	ug/Kg	N	10700	37800	37800	1	P	HSC	03/31/10 14:49	033110-1	959146
7439-96-5	Manganese	485000	ug/Kg		252	1260	1260	1	P	HSC	03/31/10 14:49	033110-1	959146
7439-97-6	Mercury	73.2	ug/kg		4.83	14.2	14.2	1	AV	JXL1	03/16/10 11:45	031610S1-3	958974
7440-02-0	Nickel	5.77	mg/kg		0.131	0.523	0.523	2	MS	PRB	04/13/10 00:20	100412-2	959148
7440-09-7	Potassium	1250000	ug/Kg	N	8060	31500	31500	1	P	HSC	03/31/10 14:49	033110-1	959146
7782-49-2	Selenium	1.31	mg/kg	U	0.654	1.31	1.31	2	MS	PRB	04/13/10 00:20	100412-2	959148
7440-22-4	Silver	175	ug/Kg	J	126	630	630	1	P	HSC	03/31/10 14:49	033110-1	959146
7440-23-5	Sodium	88700	ug/Kg		8820	31500	31500	1	P	HSC	03/31/10 14:49	033110-1	959146
7440-28-0	Thallium	0.261	mg/kg	U	0.0784	0.261	0.261	2	MS	PRB	04/13/10 00:20	100412-2	959148
7440-61-1	Uranium	2.34	mg/kg		0.0173	0.0523	0.0523	2	MS	PRB	04/13/10 00:20	100412-2	959148
7440-62-2	Vanadium	14400	ug/Kg		126	630	630	1	P	HSC	03/31/10 14:49	033110-1	959146
7440-66-6	Zinc	34200	ug/Kg		416	1260	1260	1	P	HSC	03/31/10 14:49	033110-1	959146

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt/vol.	Units	Final wt/vol.	Units	Date	Analyst
958974	958973	SW846 7471A Prep	0.559	g	30	mL	03/15/10	TXB3
959146	959145	SW846 3050B	0.525	g	50	mL	03/09/10	AXG2
959148	959147	SW846 3050B	0.506	g	50	mL	03/09/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2135

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248241007

BASIS: Dry Weight

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-7459

LEVEL: Low

DATE RECEIVED 27-FEB-10

MATRIX: SOIL

%SOLIDS: 81

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5780000	ug/Kg		8170	24000	24000	1	P	HSC	03/31/10 14:56	033110-1	959146
7440-36-0	Antimony	1200	ug/Kg	U	397	1200	1200	1	P	HSC	03/31/10 14:56	033110-1	959146
7440-38-2	Arsenic	1.69	mg/kg		0.23	1.15	1.15	2	MS	PRB	04/13/10 00:24	100412-2	959148
7440-39-3	Barium	97700	ug/Kg		120	601	601	1	P	HSC	03/31/10 14:56	033110-1	959146
7440-41-7	Beryllium	1.07	mg/kg		0.023	0.115	0.115	2	MS	PRB	04/13/10 00:24	100412-2	959148
7440-43-9	Cadmium	601	ug/Kg	U	120	601	601	1	P	HSC	03/31/10 14:56	033110-1	959146
7440-70-2	Calcium	4270000	ug/Kg		9620	30000	30000	1	P	HSC	03/31/10 14:56	033110-1	959146
7440-47-3	Chromium	6350	ug/Kg		180	601	601	1	P	HSC	03/31/10 14:56	033110-1	959146
7440-48-4	Cobalt	2690	ug/Kg		180	601	601	1	P	HSC	03/31/10 14:56	033110-1	959146
7440-50-8	Copper	6390	ug/Kg		361	1200	1200	1	P	HSC	03/31/10 14:56	033110-1	959146
7439-89-6	Iron	8060000	ug/Kg		9620	30000	30000	1	P	HSC	03/31/10 14:56	033110-1	959146
7439-92-1	Lead	11500	ug/Kg		300	1200	1200	1	P	HSC	03/31/10 14:56	033110-1	959146
7439-95-4	Magnesium	1420000	ug/Kg	N	10200	36100	36100	1	P	HSC	03/31/10 14:56	033110-1	959146
7439-96-5	Manganese	679000	ug/Kg		240	1200	1200	1	P	HSC	03/31/10 14:56	033110-1	959146
7439-97-6	Mercury	79	ug/Kg		4.46	13.1	13.1	1	AV	JXL1	03/16/10 11:47	031610S1-3	958974
7440-02-0	Nickel	6.03	mg/kg		0.115	0.461	0.461	2	MS	PRB	04/13/10 00:24	100412-2	959148
7440-09-7	Potassium	1460000	ug/Kg	N	7690	30000	30000	1	P	HSC	03/31/10 14:56	033110-1	959146
7782-49-2	Selenium	1.15	mg/kg	U	0.576	1.15	1.15	2	MS	PRB	04/13/10 00:24	100412-2	959148
7440-22-4	Silver	601	ug/Kg	U	120	601	601	1	P	HSC	03/31/10 14:56	033110-1	959146
7440-23-5	Sodium	86700	ug/Kg		8410	30000	30000	1	P	HSC	03/31/10 14:56	033110-1	959146
7440-28-0	Thallium	0.230	mg/kg	U	0.0691	0.23	0.23	2	MS	PRB	04/13/10 00:24	100412-2	959148
7440-61-1	Uranium	1.52	mg/kg		0.0152	0.0461	0.0461	2	MS	PRB	04/13/10 00:24	100412-2	959148
7440-62-2	Vanadium	12100	ug/Kg		120	601	601	1	P	HSC	03/31/10 14:56	033110-1	959146
7440-66-6	Zinc	33200	ug/Kg		397	1200	1200	1	P	HSC	03/31/10 14:56	033110-1	959146

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958974	958973	SW846 7471A Prep	0.563	g	30	mL	03/15/10	TXB3
959146	959145	SW846 3050B	0.512	g	50	mL	03/09/10	AXG2
959148	959147	SW846 3050B	0.534	g	50	mL	03/09/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2135

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248241008

BASIS: Dry Weight

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-7457

LEVEL: Low

DATE RECEIVED 27-FEB-10

MATRIX: SOIL

%SOLIDS: 81

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4980000	ug/Kg		8260	24300	24300	1	P	HSC	03/31/10 15:03	033110-1	959146
7440-36-0	Antimony	1210	ug/Kg	U	401	1210	1210	1	P	HSC	03/31/10 15:03	033110-1	959146
7440-38-2	Arsenic	2.3	mg/kg		0.243	1.21	1.21	2	MS	PRB	04/13/10 00:28	100412-2	959148
7440-39-3	Barium	66800	ug/Kg		121	607	607	1	P	HSC	03/31/10 15:03	033110-1	959146
7440-41-7	Beryllium	0.638	mg/kg		0.0243	0.121	0.121	2	MS	PRB	04/13/10 00:28	100412-2	959148
7440-43-9	Cadmium	607	ug/Kg	U	121	607	607	1	P	HSC	03/31/10 15:03	033110-1	959146
7440-70-2	Calcium	3030000	ug/Kg		9720	30400	30400	1	P	HSC	03/31/10 15:03	033110-1	959146
7440-47-3	Chromium	4970	ug/Kg		182	607	607	1	P	HSC	03/31/10 15:03	033110-1	959146
7440-48-4	Cobalt	1710	ug/Kg		182	607	607	1	P	HSC	03/31/10 15:03	033110-1	959146
7440-50-8	Copper	5370	ug/Kg		364	1210	1210	1	P	HSC	03/31/10 15:03	033110-1	959146
7439-89-6	Iron	5550000	ug/Kg		9720	30400	30400	1	P	HSC	03/31/10 15:03	033110-1	959146
7439-92-1	Lead	9730	ug/Kg		304	1210	1210	1	P	HSC	03/31/10 15:03	033110-1	959146
7439-95-4	Magnesium	1110000	ug/Kg	N	10300	36400	36400	1	P	HSC	03/31/10 15:03	033110-1	959146
7439-96-5	Manganese	302000	ug/Kg		243	1210	1210	1	P	HSC	03/31/10 15:03	033110-1	959146
7439-97-6	Mercury	84.9	ug/kg		4.42	13	13	1	AV	JXL1	03/16/10 11:48	031610S1-3	958974
7440-02-0	Nickel	6.17	mg/kg		0.121	0.486	0.486	2	MS	PRB	04/13/10 00:28	100412-2	959148
7440-09-7	Potassium	1200000	ug/Kg	N	7770	30400	30400	1	P	HSC	03/31/10 15:03	033110-1	959146
7782-49-2	Selenium	1.21	mg/kg	U	0.607	1.21	1.21	2	MS	PRB	04/13/10 00:28	100412-2	959148
7440-22-4	Silver	193	ug/Kg	J	121	607	607	1	P	HSC	03/31/10 15:03	033110-1	959146
7440-23-5	Sodium	106000	ug/Kg		8500	30400	30400	1	P	HSC	03/31/10 15:03	033110-1	959146
7440-28-0	Thallium	0.243	mg/kg	U	0.0729	0.243	0.243	2	MS	PRB	04/13/10 00:28	100412-2	959148
7440-61-1	Uranium	1.69	mg/kg		0.016	0.0486	0.0486	2	MS	PRB	04/13/10 00:28	100412-2	959148
7440-62-2	Vanadium	7660	ug/Kg		121	607	607	1	P	HSC	03/31/10 15:03	033110-1	959146
7440-66-6	Zinc	24900	ug/Kg		401	1210	1210	1	P	HSC	03/31/10 15:03	033110-1	959146

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958974	958973	SW846 7471A Prep	0.568	g	30	mL	03/15/10	TXB3
959146	959145	SW846 3050B	0.507	g	50	mL	03/09/10	AXG2
959148	959147	SW846 3050B	0.507	g	50	mL	03/09/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2135

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248241009

BASIS: Dry Weight

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-7520

LEVEL: Low

DATE RECEIVED 27-FEB-10

MATRIX: SOIL

%SOLIDS: 58

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3850000	ug/Kg		11600	34200	34200	1	P	HSC	03/31/10 15:11	033110-1	959146
7440-36-0	Antimony	1710	ug/Kg	U	565	1710	1710	1	P	HSC	03/31/10 15:11	033110-1	959146
7440-38-2	Arsenic	1.59	mg/kg	J	0.32	1.6	1.6	2	MS	PRB	04/13/10 00:32	100412-2	959148
7440-39-3	Barium	71400	ug/Kg		171	856	856	1	P	HSC	03/31/10 15:11	033110-1	959146
7440-41-7	Beryllium	0.549	mg/kg		0.032	0.16	0.16	2	MS	PRB	04/13/10 00:32	100412-2	959148
7440-43-9	Cadmium	856	ug/Kg	U	171	856	856	1	P	HSC	03/31/10 15:11	033110-1	959146
7440-70-2	Calcium	2990000	ug/Kg		13700	42800	42800	1	P	HSC	03/31/10 15:11	033110-1	959146
7440-47-3	Chromium	7870	ug/Kg		257	856	856	1	P	HSC	03/31/10 15:11	033110-1	959146
7440-48-4	Cobalt	2220	ug/Kg		257	856	856	1	P	HSC	03/31/10 15:11	033110-1	959146
7440-50-8	Copper	6500	ug/Kg		513	1710	1710	1	P	HSC	03/31/10 15:11	033110-1	959146
7439-89-6	Iron	9190000	ug/Kg		13700	42800	42800	1	P	HSC	03/31/10 15:11	033110-1	959146
7439-92-1	Lead	13300	ug/Kg		428	1710	1710	1	P	HSC	03/31/10 15:11	033110-1	959146
7439-95-4	Magnesium	856000	ug/Kg	N	14500	51300	51300	1	P	HSC	03/31/10 15:11	033110-1	959146
7439-96-5	Manganese	613000	ug/Kg		342	1710	1710	1	P	HSC	03/31/10 15:11	033110-1	959146
7439-97-6	Mercury	38.3	ug/kg		6.45	19	19	1	AV	JXL1	03/16/10 11:53	031610S1-3	958974
7440-02-0	Nickel	4.66	mg/kg		0.16	0.64	0.64	2	MS	PRB	04/13/10 00:32	100412-2	959148
7440-09-7	Potassium	949000	ug/Kg	N	11000	42800	42800	1	P	HSC	03/31/10 15:11	033110-1	959146
7782-49-2	Selenium	1.6	mg/kg	U	0.8	1.6	1.6	2	MS	PRB	04/13/10 00:32	100412-2	959148
7440-22-4	Silver	303	ug/Kg	J	171	856	856	1	P	HSC	03/31/10 15:11	033110-1	959146
7440-23-5	Sodium	199000	ug/Kg		12000	42800	42800	1	P	HSC	03/31/10 15:11	033110-1	959146
7440-28-0	Thallium	0.320	mg/kg	U	0.096	0.32	0.32	2	MS	PRB	04/13/10 00:32	100412-2	959148
7440-61-1	Uranium	1.39	mg/kg		0.0211	0.064	0.064	2	MS	PRB	04/13/10 00:32	100412-2	959148
7440-62-2	Vanadium	7640	ug/Kg		171	856	856	1	P	HSC	03/31/10 15:11	033110-1	959146
7440-66-6	Zinc	53800	ug/Kg		565	1710	1710	1	P	HSC	03/31/10 15:11	033110-1	959146

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958974	958973	SW846 7471A Prep	0.548	g	30	mL	03/15/10	TXB3
959146	959145	SW846 3050B	0.506	g	50	mL	03/09/10	AXG2
959148	959147	SW846 3050B	0.541	g	50	mL	03/09/10	AXG2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2135

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248241010

BASIS: Dry Weight

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-7519

LEVEL: Low

DATE RECEIVED 27-FEB-10

MATRIX: SOIL

%SOLIDS: 79

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5770000	ug/Kg		8440	24800	24800	1	P	HSC	03/31/10 15:18	033110-1	959146
7440-36-0	Antimony	1240	ug/Kg	U	410	1240	1240	1	P	HSC	03/31/10 15:18	033110-1	959146
7440-38-2	Arsenic	1.62	mg/kg		0.241	1.21	1.21	2	MS	PRB	04/13/10 00:36	100412-2	959148
7440-39-3	Barium	88600	ug/Kg		124	621	621	1	P	HSC	03/31/10 15:18	033110-1	959146
7440-41-7	Beryllium	1.17	mg/kg		0.0241	0.121	0.121	2	MS	PRB	04/13/10 00:36	100412-2	959148
7440-43-9	Cadmium	621	ug/Kg	U	124	621	621	1	P	HSC	03/31/10 15:18	033110-1	959146
7440-70-2	Calcium	4200000	ug/Kg		9930	31000	31000	1	P	HSC	03/31/10 15:18	033110-1	959146
7440-47-3	Chromium	6790	ug/Kg		186	621	621	1	P	HSC	03/31/10 15:18	033110-1	959146
7440-48-4	Cobalt	2070	ug/Kg		186	621	621	1	P	HSC	03/31/10 15:18	033110-1	959146
7440-50-8	Copper	5910	ug/Kg		372	1240	1240	1	P	HSC	03/31/10 15:18	033110-1	959146
7439-89-6	Iron	8300000	ug/Kg		9930	31000	31000	1	P	HSC	03/31/10 15:18	033110-1	959146
7439-92-1	Lead	10300	ug/Kg		310	1240	1240	1	P	HSC	03/31/10 15:18	033110-1	959146
7439-95-4	Magnesium	1390000	ug/Kg	N	10600	37200	37200	1	P	HSC	03/31/10 15:18	033110-1	959146
7439-96-5	Manganese	567000	ug/Kg		248	1240	1240	1	P	HSC	03/31/10 15:18	033110-1	959146
7439-97-6	Mercury	88.7	ug/kg		4.65	13.7	13.7	1	AV	JXL1	03/16/10 11:55	031610S1-3	958974
7440-02-0	Nickel	5.88	mg/kg		0.121	0.482	0.482	2	MS	PRB	04/13/10 00:36	100412-2	959148
7440-09-7	Potassium	1450000	ug/Kg	N	7940	31000	31000	1	P	HSC	03/31/10 15:18	033110-1	959146
7782-49-2	Selenium	1.21	mg/kg	U	0.603	1.21	1.21	2	MS	PRB	04/13/10 00:36	100412-2	959148
7440-22-4	Silver	214	ug/Kg	J	124	621	621	1	P	HSC	03/31/10 15:18	033110-1	959146
7440-23-5	Sodium	95100	ug/Kg		8690	31000	31000	1	P	HSC	03/31/10 15:18	033110-1	959146
7440-28-0	Thallium	0.241	mg/kg	U	0.0723	0.241	0.241	2	MS	PRB	04/13/10 00:36	100412-2	959148
7440-61-1	Uranium	1.49	mg/kg		0.0159	0.0482	0.0482	2	MS	PRB	04/13/10 00:36	100412-2	959148
7440-62-2	Vanadium	11500	ug/Kg		124	621	621	1	P	HSC	03/31/10 15:18	033110-1	959146
7440-66-6	Zinc	32500	ug/Kg		410	1240	1240	1	P	HSC	03/31/10 15:18	033110-1	959146

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958974	958973	SW846 7471A Prep	0.555	g	30	mL	03/15/10	TXB3
959146	959145	SW846 3050B	0.51	g	50	mL	03/09/10	AXG2
959148	959147	SW846 3050B	0.525	g	50	mL	03/09/10	AXG2

Quality Control Summary

METALS

-2a-

Initial and Continuing Calibration Verification

SDG No: 10-2135

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICV01										
	Mercury	5.24	ug/L	5	ug/L	104.8	90.0 – 110.0	AV	16-MAR-10 09:48	031610S1-3
	Aluminum	5130	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	31-MAR-10 07:08	033110-1
	Antimony	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	31-MAR-10 07:08	033110-1
	Barium	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	31-MAR-10 07:08	033110-1
	Cadmium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	31-MAR-10 07:08	033110-1
	Calcium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	31-MAR-10 07:08	033110-1
	Chromium	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	31-MAR-10 07:08	033110-1
	Cobalt	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	31-MAR-10 07:08	033110-1
	Copper	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	31-MAR-10 07:08	033110-1
	Iron	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	31-MAR-10 07:08	033110-1
	Lead	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	31-MAR-10 07:08	033110-1
	Magnesium	5450	ug/L	5000	ug/L	109	90.0 – 110.0	P	31-MAR-10 07:08	033110-1
	Manganese	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	31-MAR-10 07:08	033110-1
	Potassium	2530	ug/L	2500	ug/L	101.3	90.0 – 110.0	P	31-MAR-10 07:08	033110-1
	Silver	255	ug/L	250	ug/L	102.1	90.0 – 110.0	P	31-MAR-10 07:08	033110-1
	Sodium	2550	ug/L	2500	ug/L	102.2	90.0 – 110.0	P	31-MAR-10 07:08	033110-1
	Vanadium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	31-MAR-10 07:08	033110-1
	Zinc	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	31-MAR-10 07:08	033110-1
	Arsenic	51.2	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	12-APR-10 22:58	100412-2
	Beryllium	49.7	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	12-APR-10 22:58	100412-2
	Nickel	51.3	ug/L	50	ug/L	102.6	90.0 – 110.0	MS	12-APR-10 22:58	100412-2
	Selenium	50.6	ug/L	50	ug/L	101.2	90.0 – 110.0	MS	12-APR-10 22:58	100412-2
	Thallium	48.8	ug/L	50	ug/L	97.5	90.0 – 110.0	MS	12-APR-10 22:58	100412-2
	Uranium	50.9	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	12-APR-10 22:58	100412-2
CCV01										
	Mercury	5.18	ug/L	5	ug/L	103.6	80.0 – 120.0	AV	16-MAR-10 09:53	031610S1-3
	Aluminum	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	31-MAR-10 07:56	033110-1
	Antimony	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	31-MAR-10 07:56	033110-1
	Barium	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	31-MAR-10 07:56	033110-1
	Cadmium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	31-MAR-10 07:56	033110-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2135

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Calcium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	31-MAR-10 07:56	033110-1
	Chromium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	31-MAR-10 07:56	033110-1
	Cobalt	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	31-MAR-10 07:56	033110-1
	Copper	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	31-MAR-10 07:56	033110-1
	Iron	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	31-MAR-10 07:56	033110-1
	Lcad	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	31-MAR-10 07:56	033110-1
	Magnesium	5260	ug/L	5000	ug/L	105.2	90.0 – 110.0	P	31-MAR-10 07:56	033110-1
	Manganese	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	31-MAR-10 07:56	033110-1
	Potassium	5230	ug/L	5000	ug/L	104.6	90.0 – 110.0	P	31-MAR-10 07:56	033110-1
	Silver	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	31-MAR-10 07:56	033110-1
	Sodium	10200	ug/L	10000	ug/L	102.1	90.0 – 110.0	P	31-MAR-10 07:56	033110-1
	Vanadium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	31-MAR-10 07:56	033110-1
	Zinc	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	31-MAR-10 07:56	033110-1
	Arsenic	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	12-APR-10 23:18	100412-2
	Beryllium	50.1	ug/L	50	ug/L	100.2	90.0 – 110.0	MS	12-APR-10 23:18	100412-2
	Nickel	50.2	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	12-APR-10 23:18	100412-2
	Selenium	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	12-APR-10 23:18	100412-2
	Thallium	46.2	ug/L	50	ug/L	92.4	90.0 – 110.0	MS	12-APR-10 23:18	100412-2
	Uranium	49.4	ug/L	50	ug/L	98.8	90.0 – 110.0	MS	12-APR-10 23:18	100412-2
CCV02	Mercury	5.12	ug/L	5	ug/L	102.3	80.0 – 120.0	AV	16-MAR-10 10:09	031610S1-3
	Aluminum	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	31-MAR-10 08:18	033110-1
	Antimony	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	31-MAR-10 08:18	033110-1
	Barium	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	31-MAR-10 08:18	033110-1
	Cadmium	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	31-MAR-10 08:18	033110-1
	Calcium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	31-MAR-10 08:18	033110-1
	Chromium	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	31-MAR-10 08:18	033110-1
	Cobalt	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	31-MAR-10 08:18	033110-1
	Copper	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	31-MAR-10 08:18	033110-1
	Iron	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	31-MAR-10 08:18	033110-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2135

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Lead	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31-MAR-10 08:18	033110-1
	Magnesium	5260	ug/L	5000	ug/L	105.1	90.0 – 110.0	P	31-MAR-10 08:18	033110-1
	Manganese	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	31-MAR-10 08:18	033110-1
	Potassium	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	31-MAR-10 08:18	033110-1
	Silver	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	31-MAR-10 08:18	033110-1
	Sodium	10000	ug/L	10000	ug/L	100.1	90.0 – 110.0	P	31-MAR-10 08:18	033110-1
	Vanadium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	31-MAR-10 08:18	033110-1
	Zinc	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	31-MAR-10 08:18	033110-1
	Arsenic	49.6	ug/L	50	ug/L	99.2	90.0 – 110.0	MS	12-APR-10 23:59	100412-2
	Beryllium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	12-APR-10 23:59	100412-2
	Nickel	49.6	ug/L	50	ug/L	99.2	90.0 – 110.0	MS	12-APR-10 23:59	100412-2
	Selenium	48.5	ug/L	50	ug/L	97	90.0 – 110.0	MS	12-APR-10 23:59	100412-2
	Thallium	47.1	ug/L	50	ug/L	94.2	90.0 – 110.0	MS	12-APR-10 23:59	100412-2
	Uranium	49.4	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	12-APR-10 23:59	100412-2
CCV03										
	Mercury	5.29	ug/L	5	ug/L	105.9	80.0 – 120.0	AV	16-MAR-10 10:29	031610S1-3
	Aluminum	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	31-MAR-10 09:19	033110-1
	Antimony	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	31-MAR-10 09:19	033110-1
	Barium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31-MAR-10 09:19	033110-1
	Cadmium	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	31-MAR-10 09:19	033110-1
	Calcium	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	31-MAR-10 09:19	033110-1
	Chromium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31-MAR-10 09:19	033110-1
	Cobalt	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	31-MAR-10 09:19	033110-1
	Copper	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	31-MAR-10 09:19	033110-1
	Iron	5090	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	31-MAR-10 09:19	033110-1
	Lead	490	ug/L	500	ug/L	98	90.0 – 110.0	P	31-MAR-10 09:19	033110-1
	Magnesium	5100	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	31-MAR-10 09:19	033110-1
	Manganese	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	31-MAR-10 09:19	033110-1
	Potassium	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	31-MAR-10 09:19	033110-1
	Silver	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	31-MAR-10 09:19	033110-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2135

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Sodium	10200	ug/L	10000	ug/L	101.6	90.0 – 110.0	P	31-MAR-10 09:19	033110-1
	Vanadium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	31-MAR-10 09:19	033110-1
	Zinc	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31-MAR-10 09:19	033110-1
	Arsenic	48.9	ug/L	50	ug/L	97.7	90.0 – 110.0	MS	13-APR-10 00:40	100412-2
	Beryllium	51.4	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	13-APR-10 00:40	100412-2
	Nickel	47.9	ug/L	50	ug/L	95.8	90.0 – 110.0	MS	13-APR-10 00:40	100412-2
	Selenium	48.9	ug/L	50	ug/L	97.8	90.0 – 110.0	MS	13-APR-10 00:40	100412-2
	Thallium	46.9	ug/L	50	ug/L	93.7	90.0 – 110.0	MS	13-APR-10 00:40	100412-2
	Uranium	48.7	ug/L	50	ug/L	97.3	90.0 – 110.0	MS	13-APR-10 00:40	100412-2
CCV04										
	Mercury	5.06	ug/L	5	ug/L	101.1	80.0 – 120.0	AV	16-MAR-10 10:50	031610S1-3
	Aluminum	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	31-MAR-10 10:35	033110-1
	Antimony	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	31-MAR-10 10:35	033110-1
	Barium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	31-MAR-10 10:35	033110-1
	Cadmium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	31-MAR-10 10:35	033110-1
	Calcium	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	31-MAR-10 10:35	033110-1
	Chromium	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31-MAR-10 10:35	033110-1
	Cobalt	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	31-MAR-10 10:35	033110-1
	Copper	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	31-MAR-10 10:35	033110-1
	Iron	4840	ug/L	5000	ug/L	96.9	90.0 – 110.0	P	31-MAR-10 10:35	033110-1
	Lead	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	31-MAR-10 10:35	033110-1
	Magnesium	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	31-MAR-10 10:35	033110-1
	Manganese	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31-MAR-10 10:35	033110-1
	Potassium	4870	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	31-MAR-10 10:35	033110-1
	Silver	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	31-MAR-10 10:35	033110-1
	Sodium	9840	ug/L	10000	ug/L	98.4	90.0 – 110.0	P	31-MAR-10 10:35	033110-1
	Vanadium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	31-MAR-10 10:35	033110-1
	Zinc	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	31-MAR-10 10:35	033110-1
CCV05										
	Mercury	5.13	ug/L	5	ug/L	102.5	80.0 – 120.0	AV	16-MAR-10 11:10	031610S1-3

METALS

-2a-

Initial and Continuing Calibration Verification

SDG No: 10-2135

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Aluminum	5000	ug/L	5000	ug/L	100.1	90.0 - 110.0	P	31-MAR-10 11:53	033110-1
	Antimony	502	ug/L	500	ug/L	100.5	90.0 - 110.0	P	31-MAR-10 11:53	033110-1
	Barium	496	ug/L	500	ug/L	99.1	90.0 - 110.0	P	31-MAR-10 11:53	033110-1
	Cadmium	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	31-MAR-10 11:53	033110-1
	Calcium	4830	ug/L	5000	ug/L	96.5	90.0 - 110.0	P	31-MAR-10 11:53	033110-1
	Chromium	496	ug/L	500	ug/L	99.2	90.0 - 110.0	P	31-MAR-10 11:53	033110-1
	Cobalt	499	ug/L	500	ug/L	99.7	90.0 - 110.0	P	31-MAR-10 11:53	033110-1
	Copper	498	ug/L	500	ug/L	99.6	90.0 - 110.0	P	31-MAR-10 11:53	033110-1
	Iron	4920	ug/L	5000	ug/L	98.4	90.0 - 110.0	P	31-MAR-10 11:53	033110-1
	Lead	487	ug/L	500	ug/L	97.4	90.0 - 110.0	P	31-MAR-10 11:53	033110-1
	Magnesium	5010	ug/L	5000	ug/L	100.3	90.0 - 110.0	P	31-MAR-10 11:53	033110-1
	Manganese	496	ug/L	500	ug/L	99.2	90.0 - 110.0	P	31-MAR-10 11:53	033110-1
	Potassium	4770	ug/L	5000	ug/L	95.5	90.0 - 110.0	P	31-MAR-10 11:53	033110-1
	Silver	501	ug/L	500	ug/L	100.2	90.0 - 110.0	P	31-MAR-10 11:53	033110-1
	Sodium	9920	ug/L	10000	ug/L	99.2	90.0 - 110.0	P	31-MAR-10 11:53	033110-1
	Vanadium	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	31-MAR-10 11:53	033110-1
	Zinc	492	ug/L	500	ug/L	98.4	90.0 - 110.0	P	31-MAR-10 11:53	033110-1
CCV06	Mercury	5.4	ug/L	5	ug/L	108	80.0 - 120.0	AV	16-MAR-10 11:30	031610S1-3
	Aluminum	5210	ug/L	5000	ug/L	104.3	90.0 - 110.0	P	31-MAR-10 13:03	033110-1
	Antimony	506	ug/L	500	ug/L	101.2	90.0 - 110.0	P	31-MAR-10 13:03	033110-1
	Barium	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	31-MAR-10 13:03	033110-1
	Cadmium	496	ug/L	500	ug/L	99.3	90.0 - 110.0	P	31-MAR-10 13:03	033110-1
	Calcium	5040	ug/L	5000	ug/L	100.7	90.0 - 110.0	P	31-MAR-10 13:03	033110-1
	Chromium	497	ug/L	500	ug/L	99.3	90.0 - 110.0	P	31-MAR-10 13:03	033110-1
	Cobalt	501	ug/L	500	ug/L	100.1	90.0 - 110.0	P	31-MAR-10 13:03	033110-1
	Copper	497	ug/L	500	ug/L	99.5	90.0 - 110.0	P	31-MAR-10 13:03	033110-1
	Iron	5080	ug/L	5000	ug/L	101.6	90.0 - 110.0	P	31-MAR-10 13:03	033110-1
	Lead	490	ug/L	500	ug/L	98	90.0 - 110.0	P	31-MAR-10 13:03	033110-1
	Magnesium	5230	ug/L	5000	ug/L	104.7	90.0 - 110.0	P	31-MAR-10 13:03	033110-1

METALS

-2a-

Initial and Continuing Calibration Verification

SDG No: 10-2135

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	31-MAR-10 13:03	033110-1
	Potassium	5000	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	31-MAR-10 13:03	033110-1
	Silver	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	31-MAR-10 13:03	033110-1
	Sodium	9970	ug/L	10000	ug/L	99.7	90.0 – 110.0	P	31-MAR-10 13:03	033110-1
	Vanadium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	31-MAR-10 13:03	033110-1
	Zinc	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	31-MAR-10 13:03	033110-1
CCV07										
	Mercury	5.1	ug/L	5	ug/L	102	80.0 – 120.0	AV	16-MAR-10 11:50	031610S1-3
	Aluminum	5250	ug/L	5000	ug/L	105	90.0 – 110.0	P	31-MAR-10 14:14	033110-1
	Antimony	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	31-MAR-10 14:14	033110-1
	Barium	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	31-MAR-10 14:14	033110-1
	Cadmium	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	31-MAR-10 14:14	033110-1
	Calcium	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	31-MAR-10 14:14	033110-1
	Chromium	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	31-MAR-10 14:14	033110-1
	Cobalt	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	31-MAR-10 14:14	033110-1
	Copper	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	31-MAR-10 14:14	033110-1
	Iron	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	31-MAR-10 14:14	033110-1
	Lead	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	31-MAR-10 14:14	033110-1
	Magnesium	5230	ug/L	5000	ug/L	104.7	90.0 – 110.0	P	31-MAR-10 14:14	033110-1
	Manganese	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	31-MAR-10 14:14	033110-1
	Potassium	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	31-MAR-10 14:14	033110-1
	Silver	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	31-MAR-10 14:14	033110-1
	Sodium	9610	ug/L	10000	ug/L	96.1	90.0 – 110.0	P	31-MAR-10 14:14	033110-1
	Vanadium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	31-MAR-10 14:14	033110-1
	Zinc	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	31-MAR-10 14:14	033110-1
CCV08										
	Mercury	5.05	ug/L	5	ug/L	100.9	80.0 – 120.0	AV	16-MAR-10 12:10	031610S1-3
	Aluminum	5270	ug/L	5000	ug/L	105.4	90.0 – 110.0	P	31-MAR-10 15:25	033110-1
	Antimony	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	31-MAR-10 15:25	033110-1
	Barium	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	31-MAR-10 15:25	033110-1

SW846

METALS

-2a-

Initial and Continuing Calibration Verification

SDG No: 10-2135

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Cadmium	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	31-MAR-10 15:25	033110-1
	Calcium	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	31-MAR-10 15:25	033110-1
	Chromium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	31-MAR-10 15:25	033110-1
	Cobalt	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	31-MAR-10 15:25	033110-1
	Copper	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	31-MAR-10 15:25	033110-1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	31-MAR-10 15:25	033110-1
	Lead	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	31-MAR-10 15:25	033110-1
	Magnesium	5260	ug/L	5000	ug/L	105.2	90.0 – 110.0	P	31-MAR-10 15:25	033110-1
	Manganese	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	31-MAR-10 15:25	033110-1
	Potassium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	31-MAR-10 15:25	033110-1
	Silver	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	31-MAR-10 15:25	033110-1
	Sodium	9700	ug/L	10000	ug/L	97	90.0 – 110.0	P	31-MAR-10 15:25	033110-1
	Vanadium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	31-MAR-10 15:25	033110-1
	Zinc	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	31-MAR-10 15:25	033110-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-2135

Contract: LANL01004

Lab Code: GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS5,OPTIMA3

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Advisory Limits (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
CRDL01										
	Mercury	.165	ug/L	.2	ug/L	82.5	70.0 – 130.0	AV	16-MAR-10 09:51	031610S1-3
	Nickel	2.3	ug/L	2	ug/L	114.8	70.0 – 130.0	MS	12-APR-10 23:06	100412-2
	Thallium	1.15	ug/L	1	ug/L	115.3	70.0 – 130.0	MS	12-APR-10 23:06	100412-2
	Arsenic	5.82	ug/L	5	ug/L	116.3	70.0 – 130.0	MS	12-APR-10 23:06	100412-2
	Beryllium	.511	ug/L	.5	ug/L	102.2	70.0 – 130.0	MS	12-APR-10 23:06	100412-2
	Uranium	.246	ug/L	.2	ug/L	123	70.0 – 130.0	MS	12-APR-10 23:06	100412-2
	Selenium	5.92	ug/L	5	ug/L	118.4	70.0 – 130.0	MS	12-APR-10 23:06	100412-2
PQL01										
	Zinc	9.87	ug/L	10	ug/L	98.7	70.0 – 130.0	P	31-MAR-10 07:22	033110-1
	Silver	4.98	ug/L	5	ug/L	99.7	70.0 – 130.0	P	31-MAR-10 07:22	033110-1
	Vanadium	5.61	ug/L	5	ug/L	112.3	70.0 – 130.0	P	31-MAR-10 07:22	033110-1
	Copper	10.5	ug/L	10	ug/L	104.5	70.0 – 130.0	P	31-MAR-10 07:22	033110-1
	Cobalt	4.89	ug/L	5	ug/L	97.8	70.0 – 130.0	P	31-MAR-10 07:22	033110-1
	Chromium	4.59	ug/L	5	ug/L	91.8	70.0 – 130.0	P	31-MAR-10 07:22	033110-1
	Cadmium	4.79	ug/L	5	ug/L	95.9	70.0 – 130.0	P	31-MAR-10 07:22	033110-1
	Barium	5.06	ug/L	5	ug/L	101.1	70.0 – 130.0	P	31-MAR-10 07:22	033110-1
	Antimony	12.5	ug/L	10	ug/L	125.1	70.0 – 130.0	P	31-MAR-10 07:22	033110-1
	Sodium	317	ug/L	300	ug/L	105.8	70.0 – 130.0	P	31-MAR-10 07:22	033110-1
	Potassium	142	ug/L	150	ug/L	94.8	70.0 – 130.0	P	31-MAR-10 07:22	033110-1
	Aluminum	213	ug/L	200	ug/L	106.3	70.0 – 130.0	P	31-MAR-10 07:22	033110-1
	Lead	10.2	ug/L	10	ug/L	102.3	70.0 – 130.0	P	31-MAR-10 07:22	033110-1
	Magnesium	410	ug/L	300	ug/L	136.7	70.0 – 130.0	P	31-MAR-10 07:22	033110-1
	Manganese	10.6	ug/L	10	ug/L	106	70.0 – 130.0	P	31-MAR-10 07:22	033110-1
	Iron	87.1	ug/L	100	ug/L	87.1	70.0 – 130.0	P	31-MAR-10 07:22	033110-1
	Calcium	216	ug/L	200	ug/L	108	70.0 – 130.0	P	31-MAR-10 07:22	033110-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-2135

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	0.068	+/-2	U	0.068	0.2	SOL	AV	16-MAR-10 09:50	031610S1-3
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 07:15	033110-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 07:15	033110-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 07:15	033110-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 07:15	033110-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 07:15	033110-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 07:15	033110-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 07:15	033110-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 07:15	033110-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 07:15	033110-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 07:15	033110-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 07:15	033110-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 07:15	033110-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	31-MAR-10 07:15	033110-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 07:15	033110-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	31-MAR-10 07:15	033110-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 07:15	033110-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 07:15	033110-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	12-APR-10 23:02	100412-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	12-APR-10 23:02	100412-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	12-APR-10 23:02	100412-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	12-APR-10 23:02	100412-2
	Thallium	0.351	+/-1	J	0.3	1.0	SOL	MS	12-APR-10 23:02	100412-2
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	12-APR-10 23:02	100412-2
CCB01	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	16-MAR-10 09:55	031610S1-3
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 08:03	033110-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 08:03	033110-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 08:03	033110-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 08:03	033110-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 08:03	033110-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-2135

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>
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 08:03	033110-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 08:03	033110-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 08:03	033110-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 08:03	033110-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 08:03	033110-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 08:03	033110-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 08:03	033110-1
	Potassium	117.36	+/-250	J	64.0	250	SOL	P	31-MAR-10 08:03	033110-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 08:03	033110-1
	Sodium	79.94	+/-250	J	70.0	250	SOL	P	31-MAR-10 08:03	033110-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 08:03	033110-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 08:03	033110-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	12-APR-10 23:23	100412-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	12-APR-10 23:23	100412-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	12-APR-10 23:23	100412-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	12-APR-10 23:23	100412-2
	Thallium	0.39	+/-1	J	0.3	1.0	SOL	MS	12-APR-10 23:23	100412-2
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	12-APR-10 23:23	100412-2
CCB02	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	16-MAR-10 10:11	031610S1-3
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 08:25	033110-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 08:25	033110-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 08:25	033110-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 08:25	033110-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 08:25	033110-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 08:25	033110-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 08:25	033110-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 08:25	033110-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 08:25	033110-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 08:25	033110-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 08:25	033110-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-2135

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>
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 08:25	033110-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	31-MAR-10 08:25	033110-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 08:25	033110-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	31-MAR-10 08:25	033110-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 08:25	033110-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 08:25	033110-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	13-APR-10 00:04	100412-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	13-APR-10 00:04	100412-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	13-APR-10 00:04	100412-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	13-APR-10 00:04	100412-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	13-APR-10 00:04	100412-2
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	13-APR-10 00:04	100412-2
CCB03	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	16-MAR-10 10:31	031610S1-3
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 09:26	033110-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 09:26	033110-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 09:26	033110-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 09:26	033110-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 09:26	033110-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 09:26	033110-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 09:26	033110-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 09:26	033110-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 09:26	033110-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 09:26	033110-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 09:26	033110-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 09:26	033110-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	31-MAR-10 09:26	033110-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 09:26	033110-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	31-MAR-10 09:26	033110-1
	Vanadium	1.1	+/-5	J	1.0	5.0	SOL	P	31-MAR-10 09:26	033110-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 09:26	033110-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-2135

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	13-APR-10 00:45	100412-2
	Beryllium	0.1	+/-5	U	0.1	0.5	SOL	MS	13-APR-10 00:45	100412-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	13-APR-10 00:45	100412-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	13-APR-10 00:45	100412-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	13-APR-10 00:45	100412-2
	Uranium	0.066	+/-2	U	0.066	0.2	SOL	MS	13-APR-10 00:45	100412-2
CCB04	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	16-MAR-10 10:51	031610S1-3
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 10:42	033110-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 10:42	033110-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 10:42	033110-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 10:42	033110-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 10:42	033110-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 10:42	033110-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 10:42	033110-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 10:42	033110-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 10:42	033110-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 10:42	033110-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 10:42	033110-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 10:42	033110-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	31-MAR-10 10:42	033110-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 10:42	033110-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	31-MAR-10 10:42	033110-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 10:42	033110-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 10:42	033110-1
CCB05	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	16-MAR-10 11:11	031610S1-3
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 12:00	033110-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 12:00	033110-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 12:00	033110-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 12:00	033110-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-2135

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	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 12:00	033110-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 12:00	033110-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 12:00	033110-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 12:00	033110-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 12:00	033110-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 12:00	033110-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 12:00	033110-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 12:00	033110-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	31-MAR-10 12:00	033110-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 12:00	033110-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	31-MAR-10 12:00	033110-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 12:00	033110-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 12:00	033110-1
CCB06	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	16-MAR-10 11:31	031610S1-3
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 13:10	033110-1
	Antimony	4.17	+/-10	J	3.3	10.0	SOL	P	31-MAR-10 13:10	033110-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 13:10	033110-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 13:10	033110-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 13:10	033110-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 13:10	033110-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 13:10	033110-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 13:10	033110-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 13:10	033110-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 13:10	033110-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 13:10	033110-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 13:10	033110-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	31-MAR-10 13:10	033110-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 13:10	033110-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	31-MAR-10 13:10	033110-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 13:10	033110-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-2135

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
CCB07	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 13:10	033110-1
	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	16-MAR-10 11:52	031610S1-3
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 14:21	033110-1
	Antimony	5.68	+/-10	J	3.3	10.0	SOL	P	31-MAR-10 14:21	033110-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 14:21	033110-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 14:21	033110-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 14:21	033110-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 14:21	033110-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 14:21	033110-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 14:21	033110-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 14:21	033110-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 14:21	033110-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	31-MAR-10 14:21	033110-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 14:21	033110-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	31-MAR-10 14:21	033110-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 14:21	033110-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	31-MAR-10 14:21	033110-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 14:21	033110-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 14:21	033110-1
CCB08	Mercury	0.068	+/-2	U	0.068	0.2	SOL	AV	16-MAR-10 12:12	031610S1-3
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	31-MAR-10 15:32	033110-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 15:32	033110-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 15:32	033110-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 15:32	033110-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 15:32	033110-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 15:32	033110-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	31-MAR-10 15:32	033110-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	31-MAR-10 15:32	033110-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	31-MAR-10 15:32	033110-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-2135

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ug/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	31-MAR-10 15:32	033110-1
	Magnesium	128.92	+/-300	J	85.0	300	SOL	P	31-MAR-10 15:32	033110-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	31-MAR-10 15:32	033110-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	31-MAR-10 15:32	033110-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 15:32	033110-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	31-MAR-10 15:32	033110-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	31-MAR-10 15:32	033110-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	31-MAR-10 15:32	033110-1

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 10-2135
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>
1202056614	Mercury	3.72	ug/kg	+/-10.9	U	AV	3.72	10.9
1202056967	Aluminum	6490	ug/Kg	+/-19100	U	P	6490	19100
	Antimony	315	ug/Kg	+/-954	U	P	315	954
	Calcium	7630	ug/Kg	+/-23900	U	P	7630	23900
	Chromium	143	ug/Kg	+/-477	U	P	143	477
	Cadmium	95.4	ug/Kg	+/-477	U	P	95.4	477
	Barium	95.4	ug/Kg	+/-477	U	P	95.4	477
	Cobalt	143	ug/Kg	+/-477	U	P	143	477
	Iron	7630	ug/Kg	+/-23900	U	P	7630	23900
	Zinc	315	ug/Kg	+/-954	U	P	315	954
	Vanadium	95.4	ug/Kg	+/-477	U	P	95.4	477
	Sodium	6680	ug/Kg	+/-23900	U	P	6680	23900
	Silver	95.4	ug/Kg	+/-477	U	P	95.4	477
	Potassium	6110	ug/Kg	+/-23900	U	P	6110	23900
	Manganese	191	ug/Kg	+/-954	U	P	191	954
	Magnesium	8110	ug/Kg	+/-28600	U	P	8110	28600
	Lead	239	ug/Kg	+/-954	U	P	239	954
	Copper	286	ug/Kg	+/-954	U	P	286	954
1202056973	Arsenic	0.2	mg/kg	+/-0.998	U	MS	0.2	0.998
	Beryllium	0.02	mg/kg	+/-0.0998	U	MS	0.02	0.0998
	Nickel	0.0998	mg/kg	+/-0.399	U	MS	0.0998	0.399
	Selenium	0.499	mg/kg	+/-0.998	U	MS	0.499	0.998
	Thallium	0.0599	mg/kg	+/-0.2	U	MS	0.0599	0.2
	Uranium	0.0132	mg/kg	+/-0.0399	U	MS	0.0132	0.0399

METALS
-4-
Interference Check Sample

SDG No: 10-2135

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	528000	ug/L	500000	ug/L	106	80.0 - 120.0	31-MAR-10 07:29	033110-1
	Antimony	-1.37	ug/L					31-MAR-10 07:29	033110-1
	Barium	-0.261	ug/L					31-MAR-10 07:29	033110-1
	Cadmium	-1.41	ug/L					31-MAR-10 07:29	033110-1
	Calcium	484000	ug/L	500000	ug/L	96.9	80.0 - 120.0	31-MAR-10 07:29	033110-1
	Chromium	-3.76	ug/L					31-MAR-10 07:29	033110-1
	Cobalt	-0.936	ug/L					31-MAR-10 07:29	033110-1
	Copper	0.321	ug/L					31-MAR-10 07:29	033110-1
	Iron	187000	ug/L	200000	ug/L	93.4	80.0 - 120.0	31-MAR-10 07:29	033110-1
	Lead	-1.82	ug/L					31-MAR-10 07:29	033110-1
	Magnesium	491000	ug/L	500000	ug/L	98.1	80.0 - 120.0	31-MAR-10 07:29	033110-1
	Manganese	-3.6	ug/L					31-MAR-10 07:29	033110-1
	Potassium	-164.0	ug/L					31-MAR-10 07:29	033110-1
	Silver	-2.66	ug/L					31-MAR-10 07:29	033110-1
	Sodium	57.2	ug/L					31-MAR-10 07:29	033110-1
	Vanadium	-3.55	ug/L					31-MAR-10 07:29	033110-1
	Zinc	-1.76	ug/L					31-MAR-10 07:29	033110-1
ICSAB01									
	Aluminum	514000	ug/L	500000	ug/L	103	80.0 - 120.0	31-MAR-10 07:35	033110-1
	Antimony	522	ug/L	500	ug/L	104	80.0 - 120.0	31-MAR-10 07:35	033110-1
	Barium	491	ug/L	500	ug/L	98.2	80.0 - 120.0	31-MAR-10 07:35	033110-1
	Cadmium	473	ug/L	500	ug/L	94.7	80.0 - 120.0	31-MAR-10 07:35	033110-1
	Calcium	477000	ug/L	500000	ug/L	95.5	80.0 - 120.0	31-MAR-10 07:35	033110-1
	Chromium	490	ug/L	500	ug/L	98	80.0 - 120.0	31-MAR-10 07:35	033110-1
	Cobalt	447	ug/L	500	ug/L	89.4	80.0 - 120.0	31-MAR-10 07:35	033110-1
	Copper	553	ug/L	500	ug/L	111	80.0 - 120.0	31-MAR-10 07:35	033110-1
	Iron	189000	ug/L	200000	ug/L	94.3	80.0 - 120.0	31-MAR-10 07:35	033110-1
	Lead	464	ug/L	500	ug/L	92.8	80.0 - 120.0	31-MAR-10 07:35	033110-1
	Magnesium	495000	ug/L	500000	ug/L	99	80.0 - 120.0	31-MAR-10 07:35	033110-1

METALS

-4-

Interference Check Sample

SDG No: 10-2135

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	486	ug/L	500	ug/L	97.3	80.0 - 120.0	31-MAR-10 07:35	033110-1
	Potassium	5260	ug/L	5000	ug/L	105	80.0 - 120.0	31-MAR-10 07:35	033110-1
	Silver	277	ug/L	250	ug/L	111	80.0 - 120.0	31-MAR-10 07:35	033110-1
	Sodium	5480	ug/L	5000	ug/L	110	80.0 - 120.0	31-MAR-10 07:35	033110-1
	Vanadium	514	ug/L	500	ug/L	103	80.0 - 120.0	31-MAR-10 07:35	033110-1
	Zinc	499	ug/L	500	ug/L	99.7	80.0 - 120.0	31-MAR-10 07:35	033110-1

METALS

-4-

Interference Check Sample

SDG No: 10-2135

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: ICPMS5

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01									
	Arsenic	-0.078	ug/L					12-APR-10 23:10	100412-2
	Beryllium	0.098	ug/L					12-APR-10 23:10	100412-2
	Nickel	2.74	ug/L					12-APR-10 23:10	100412-2
	Selenium	-0.795	ug/L					12-APR-10 23:10	100412-2
	Thallium	-0.059	ug/L					12-APR-10 23:10	100412-2
	Uranium	-0.018	ug/L					12-APR-10 23:10	100412-2
ICSAB01									
	Arsenic	19.7	ug/L	20	ug/L	98.7	80.0 - 120.0	12-APR-10 23:14	100412-2
	Beryllium	20.3	ug/L	20	ug/L	101	80.0 - 120.0	12-APR-10 23:14	100412-2
	Nickel	21.1	ug/L	23.31	ug/L	90.6	80.0 - 120.0	12-APR-10 23:14	100412-2
	Selenium	19.4	ug/L	20	ug/L	97.1	80.0 - 120.0	12-APR-10 23:14	100412-2
	Thallium	17.9	ug/L	20	ug/L	89.7	80.0 - 120.0	12-APR-10 23:14	100412-2
	Uranium	20.7	ug/L	20	ug/L	104	80.0 - 120.0	12-APR-10 23:14	100412-2

METALS

-5a-

Matrix Spike Summary

SDG NO. 10-2135 **Client ID** RE36-10-7458S**Contract:** LANL01004 **Level:** Low**Matrix:** SOIL **% Solids:** 86**Sample ID:** 248241001 **Spike ID:** 1202056617

<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	161		42.8		122	96.7		AV

METALS

-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-2135 **Client ID** RE36-10-7458SD**Contract:** LANL01004 **Level:** Low**Matrix:** SOIL **% Solids:** 86**Sample ID:** 248241001 **Spike ID:** 1202056619

<u>Analyte</u>	<u>Units</u>	<u>Acceptance Limit</u>	<u>Spiked Result</u>	<u>C</u>	<u>Sample Result</u>	<u>C</u>	<u>Spike Added</u>	<u>% Recovery</u>	<u>Qual</u>	<u>M</u>
Mercury	ug/kg	75-125	170		42.8		128	98.8		AV

METALS

-5a-

Matrix Spike Summary

SDG NO. 10-2135 Client ID RE36-10-7458S

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 86

Sample ID: 248241001 Spike ID: 1202056970

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg		11000000		6710000		576000	742	N/A	P
Antimony	ug/Kg	75-125	49800		378	U	57600	86.3		P
Barium	ug/Kg	75-125	146000		85400		57600	106		P
Cadmium	ug/Kg	75-125	49000		114	U	57600	85.1		P
Calcium	ug/Kg		3830000		3110000		576000	124	N/A	P
Chromium	ug/Kg	75-125	67100		9670		57600	99.8		P
Cobalt	ug/Kg	75-125	51400		2470		57600	85		P
Copper	ug/Kg	75-125	66300		5410		57600	106		P
Iron	ug/Kg		10100000		9360000		576000	125	N/A	P
Lead	ug/Kg	75-125	58800		8860		57600	86.8		P
Magnesium	ug/Kg	75-125	2130000		1290000		576000	147	N	P
Manganese	ug/Kg		331000		261000		57600	121	N/A	P
Potassium	ug/Kg	75-125	2420000		1550000		576000	150	N	P
Silver	ug/Kg	75-125	50100		223	J	57600	86.6		P
Sodium	ug/Kg	75-125	624000		104000		576000	90.2		P
Vanadium	ug/Kg	75-125	71900		12600		57600	103		P
Zinc	ug/Kg	75-125	91200		34000		57600	99.4		P

METALS

-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-2135 Client ID RE36-10-7458SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 86

Sample ID: 248241001 Spike ID: 1202056971

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg		10900000		6710000		566000	742	N/A	P
Antimony	ug/Kg	75-125	50500		378	U	56600	89.1		P
Barium	ug/Kg	75-125	149000		85400		56600	113		P
Cadmium	ug/Kg	75-125	49300		114	U	56600	87.1		P
Calcium	ug/Kg		3900000		3110000		566000	139	N/A	P
Chromium	ug/Kg	75-125	68800		9670		56600	105		P
Cobalt	ug/Kg	75-125	51700		2470		56600	87.1		P
Copper	ug/Kg	75-125	66900		5410		56600	109		P
Iron	ug/Kg		9950000		9360000		566000	104	N/A	P
Lead	ug/Kg	75-125	59500		8860		56600	89.5		P
Magnesium	ug/Kg	75-125	2120000		1290000		566000	147	N	P
Manganese	ug/Kg		339000		261000		56600	137	N/A	P
Potassium	ug/Kg	75-125	2430000		1550000		566000	156	N	P
Silver	ug/Kg	75-125	50300		223	J	56600	88.5		P
Sodium	ug/Kg	75-125	630000		104000		566000	93		P
Vanadium	ug/Kg	75-125	71700		12600		56600	104		P
Zinc	ug/Kg	75-125	91700		34000		56600	102		P

METALS

-5a-

Matrix Spike Summary

SDG NO. 10-2135 Client ID RE36-10-7458S

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 86

Sample ID: 248241001 Spike ID: 1202056976

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75-125	9.97		1.5		8.96	94.5		MS
Beryllium	mg/kg	75-125	5.96		0.556		5.6	96.5		MS
Nickel	mg/kg	75-125	10.5		4.68		5.6	103		MS
Selenium	mg/kg	75-125	2.12		0.575	U	2.24	85.1		MS
Thallium	mg/kg	75-125	10.5		0.0871	J	11.2	92.6		MS
Uranium	mg/kg	75-125	6.44		0.655		5.6	103		MS

METALS

-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-2135 Client ID RE36-10-7458SD

Contract: LANL01004 Level: Low

Matrix: SOIL % Solids: 86

Sample ID: 248241001 Spike ID: 1202056977

<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>
Nickel	mg/kg	75-125	10.6		4.68		5.8	103		MS
Selenium	mg/kg	75-125	2.15		0.575	U	2.32	83.8		MS
Thallium	mg/kg	75-125	10.9		0.0871	J	11.6	93.1		MS
Uranium	mg/kg	75-125	6.71		0.655		5.8	104		MS
Arsenic	mg/kg	75-125	10.1		1.5		9.28	92.1		MS
Beryllium	mg/kg	75-125	6.3		0.556		5.8	99		MS

Metals

-6-

Duplicate Sample Summary

SDG No.: 10-2135

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE36-10-7458D

Sample ID: 248241001

Duplicate ID: 1202056616

Percent Solids for Dup: 86

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-13.8	42.8		40.9		4.51		AV

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-2135

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE36-10-7458SD

Sample ID: 1202056617

Duplicate ID: 1202056619

Percent Solids for Dup: 86

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-20	161		170		5.49		AV

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-2135

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE36-10-7458D

Sample ID: 248241001

Duplicate ID: 1202056968

Percent Solids for Dup: 86

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20%	6710000		6650000		.926		P
Antimony	ug/Kg		378 U		384 U				P
Barium	ug/Kg	+/-20%	85400		87600		2.6		P
Cadmium	ug/Kg		114 U		116 U				P
Calcium	ug/Kg	+/-20%	3110000		3350000		7.27		P
Chromium	ug/Kg	+/-20%	9670		9010		6.98		P
Cobalt	ug/Kg	+/-581	2470		2450		1.12		P
Copper	ug/Kg	+/-1160	5410		5770		6.46		P
Iron	ug/Kg	+/-20%	9360000		9190000		1.8		P
Lead	ug/Kg	+/-20%	8860		9390		5.8		P
Magnesium	ug/Kg	+/-20%	1290000		1270000		1.16		P
Manganese	ug/Kg	+/-20%	261000		289000		10.2		P
Potassium	ug/Kg	+/-20%	1550000		1580000		1.64		P
Silver	ug/Kg	+/-581	223 J		192 J		14.7		P
Sodium	ug/Kg	+/-29100	104000		111000		6.28		P
Vanadium	ug/Kg	+/-20%	12600		12800		1.62		P
Zinc	ug/Kg	+/-20%	34000		35000		2.91		P

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-2135

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE36-10-7458SD

Sample ID: 1202056970

Duplicate ID: 1202056971

Percent Solids for Dup: 86

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20	11000000		10900000		.68		P
Antimony	ug/Kg	+/-20	49800		50500		1.39		P
Barium	ug/Kg	+/-20	146000		149000		2.03		P
Cadmium	ug/Kg	+/-20	49000		49300		.574		P
Calcium	ug/Kg	+/-20	3830000		3900000		1.86		P
Chromium	ug/Kg	+/-20	67100		68800		2.54		P
Cobalt	ug/Kg	+/-20	51400		51700		.578		P
Copper	ug/Kg	+/-20	66300		66900		.836		P
Iron	ug/Kg	+/-20	10100000		9950000		1.33		P
Lead	ug/Kg	+/-20	58800		59500		1.12		P
Magnesium	ug/Kg	+/-20	2130000		2120000		.549		P
Manganese	ug/Kg	+/-20	331000		339000		2.41		P
Potassium	ug/Kg	+/-20	2420000		2430000		.811		P
Silver	ug/Kg	+/-20	50100		50300		.35		P
Sodium	ug/Kg	+/-20	624000		630000		1.01		P
Vanadium	ug/Kg	+/-20	71900		71700		.323		P
Zinc	ug/Kg	+/-20	91200		91700		.505		P

Metals

-6-

Duplicate Sample Summary

SDG No.: 10-2135

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE36-10-7458D

Sample ID: 248241001

Duplicate ID: 1202056974

Percent Solids for Dup: 86

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/-1.16	1.5		1.61		6.88		MS
Beryllium	mg/kg	+/-1.16	0.556		0.598		7.2		MS
Nickel	mg/kg	+/-20%	4.68		5.03		7.29		MS
Selenium	mg/kg		0.575 U		0.581 U				MS
Thallium	mg/kg		0.0871 J		0.0698 U		200		MS
Uranium	mg/kg	+/-20%	0.655		0.729		10.8		MS

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-2135

Contract: LANL01004

Lab Code: GEL

Matrix: SOLID

Level: Low

Client ID: RE36-10-7458SD

Sample ID: 1202056976

Duplicate ID: 1202056977

Percent Solids for Dup: 86

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/-20	9.97		10.1		.758		MS
Beryllium	mg/kg	+/-20	5.96		6.3		5.51		MS
Nickel	mg/kg	+/-20	10.5		10.6		1.67		MS
Selenium	mg/kg	+/-20	2.12		2.15		1.79		MS
Thallium	mg/kg	+/-20	10.5		10.9		4.06		MS
Uranium	mg/kg	+/-20	6.44		6.71		4.15		MS

METALS

-7-

Laboratory Control Sample Summary

SDG NO. 10-2135

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>
1202056615	Mercury	ug/kg	5150	5810		113	71.6-128.3	AV

METALS

-7-

Laboratory Control Sample Summary

SDG NO. 10-2135

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>
1202056972								
	Aluminum	ug/Kg	10500000	8880000		84.5	56-144	P
	Antimony	ug/Kg	173000	128000		74.2	71-130	P
	Barium	ug/Kg	198000	206000		104	80-120	P
	Cadmium	ug/Kg	60700	61500		101	81-120	P
	Calcium	ug/Kg	9870000	9460000		95.9	83-117	P
	Chromium	ug/Kg	236000	245000		104	80-120	P
	Cobalt	ug/Kg	91200	92200		101	81-120	P
	Copper	ug/Kg	174000	188000		108	81-118	P
	Iron	ug/Kg	18000000	17000000		94.4	51-149	P
	Lead	ug/Kg	86000	82600		96.1	79-121	P
	Magnesium	ug/Kg	4000000	3580000		89.6	79-122	P
	Manganese	ug/Kg	558000	543000		97.4	81-119	P
	Potassium	ug/Kg	4300000	3880000		90.3	74-127	P
	Silver	ug/Kg	30100	31500		105	66-134	P
	Sodium	ug/Kg	1020000	1010000		98.7	74-127	P
	Vanadium	ug/Kg	115000	124000		108	79-121	P
	Zinc	ug/Kg	594000	614000		103	80-121	P

METALS

-7-

Laboratory Control Sample Summary

SDG NO. 10-2135

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>
1202056978								
	Arsenic	mg/kg	104	103		99.2	78-123	MS
	Beryllium	mg/kg	77.6	78.5		101	84-116	MS
	Nickel	mg/kg	134	144		107	78-123	MS
	Selenium	mg/kg	286	285		99.7	77-123	MS
	Thallium	mg/kg	121	126		104	78-122	MS
	Uranium	mg/kg	2.13	1.88		88.2	73-127	MS

METALS

-9-

Serial Dilution Sample Summary

SDG NO. 10-2135 **Client ID** RE36-10-7458L**Contract:** LANL01004**Matrix:** SOLID **Level:** Low**Sample ID:** 248241001 **Serial Dilution ID:** 1202056618

<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	.623		.44	J	29.4			AV

METALS

-9-

Serial Dilution Sample Summary

SDG NO. 10-2135 Client ID RE36-10-7458L

Contract: LANL01004

Matrix: SOLID Level: Low

Sample ID: 248241001 Serial Dilution ID: 1202056969

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	58600		55000		6.14		10	P
Antimony	3.3	U	16.5	U				P
Barium	746		755		1.21		10	P
Cadmium	1	U	5	U				P
Calcium	27200		25500		6.43		10	P
Chromium	84.4		85		.711		10	P
Cobalt	21.6		23.6	J	9.26			P
Copper	47.3		45.4	J	4.02			P
Iron	81800		78000		4.65		10	P
Lead	77.4		79.5		2.71			P
Magnesium	11200		11300		.893		10	P
Manganese	2280		2350		3.07		10	P
Potassium	13500		12300		8.89		10	P
Silver	1.95	J	5	U	100			P
Sodium	912		1010	J	10.2			P
Vanadium	110		113		2.27		10	P
Zinc	297		301		1.18		10	P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-2135 Client ID RE36-10-7458L

Contract: LANL01004

Matrix: SOLID Level: Low

Sample ID: 248241001 Serial Dilution ID: 1202056975

Analyte	<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>
Arsenic	6.54		6.1	J	6.73			MS
Beryllium	2.42		2.48	J	2.48			MS
Nickel	20.4		21.5		5.39			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.379	J	1.5	U	100			MS
Uranium	2.85		2.81		1.4			MS

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2135

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	959145						
1202056967	MB for batch 959145	MB	S	09-MAR-10	.524g	50mL	
1202056972	LCS for batch 959145	LCS	S	09-MAR-10	.505g	50mL	
1202056970	RE36-10-7458S	MS	S	09-MAR-10	.506g	50mL	
1202056971	RE36-10-7458SD	MSD	S	09-MAR-10	.515g	50mL	
1202056968	RE36-10-7458D	DUP	S	09-MAR-10	.501g	50mL	
248241001	RE36-10-7458	SAMPLE	S	09-MAR-10	.509g	50mL	
248241002	RE36-10-7453	SAMPLE	S	09-MAR-10	.513g	50mL	
248241003	RE36-10-7454	SAMPLE	S	09-MAR-10	.516g	50mL	
248241004	RE36-10-7460	SAMPLE	S	09-MAR-10	.528g	50mL	
248241005	RE36-10-7456	SAMPLE	S	09-MAR-10	.505g	50mL	
248241006	RE36-10-7455	SAMPLE	S	09-MAR-10	.525g	50mL	
248241007	RE36-10-7459	SAMPLE	S	09-MAR-10	.512g	50mL	
248241008	RE36-10-7457	SAMPLE	S	09-MAR-10	.507g	50mL	
248241009	RE36-10-7520	SAMPLE	S	09-MAR-10	.506g	50mL	
248241010	RE36-10-7519	SAMPLE	S	09-MAR-10	.51g	50mL	

SW846

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2135

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 959147							
1202056973	MB for batch 959147	MB	S	09-MAR-10	.501g	50mL	
1202056978	LCS for batch 959147	LCS	S	09-MAR-10	.512g	50mL	
1202056976	RE36-10-7458S	MS	S	09-MAR-10	.52g	50mL	
1202056977	RE36-10-7458SD	MSD	S	09-MAR-10	.502g	50mL	
1202056974	RE36-10-7458D	DUP	S	09-MAR-10	.501g	50mL	
248241001	RE36-10-7458	SAMPLE	S	09-MAR-10	.507g	50mL	
248241002	RE36-10-7453	SAMPLE	S	09-MAR-10	.519g	50mL	
248241003	RE36-10-7454	SAMPLE	S	09-MAR-10	.521g	50mL	
248241004	RE36-10-7460	SAMPLE	S	09-MAR-10	.505g	50mL	
248241005	RE36-10-7456	SAMPLE	S	09-MAR-10	.5g	50mL	
248241006	RE36-10-7455	SAMPLE	S	09-MAR-10	.506g	50mL	
248241007	RE36-10-7459	SAMPLE	S	09-MAR-10	.534g	50mL	
248241008	RE36-10-7457	SAMPLE	S	09-MAR-10	.507g	50mL	
248241009	RE36-10-7520	SAMPLE	S	09-MAR-10	.541g	50mL	
248241010	RE36-10-7519	SAMPLE	S	09-MAR-10	.525g	50mL	

SW846

METALS

-13-

SAMPLE PREPARATION SUMMARY

SDG No: 10-2135

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	958973						
1202056614	MB for batch 958973	MB	S	15-MAR-10	.548g	30mL	
1202056615	LCS for batch 958973	LCS	S	15-MAR-10	.204g	30mL	
1202056617	RE36-10-7458S	MS	S	15-MAR-10	.574g	30mL	
1202056619	RE36-10-7458SD	MSD	S	15-MAR-10	.545g	30mL	
1202056616	RE36-10-7458D	DUP	S	15-MAR-10	.506g	30mL	
248241001	RE36-10-7458	SAMPLE	S	15-MAR-10	.509g	30mL	
248241002	RE36-10-7453	SAMPLE	S	15-MAR-10	.553g	30mL	
248241003	RE36-10-7454	SAMPLE	S	15-MAR-10	.5g	30mL	
248241004	RE36-10-7460	SAMPLE	S	15-MAR-10	.514g	30mL	
248241005	RE36-10-7456	SAMPLE	S	15-MAR-10	.576g	30mL	
248241006	RE36-10-7455	SAMPLE	S	15-MAR-10	.559g	30mL	
248241007	RE36-10-7459	SAMPLE	S	15-MAR-10	.563g	30mL	
248241008	RE36-10-7457	SAMPLE	S	15-MAR-10	.568g	30mL	
248241009	RE36-10-7520	SAMPLE	S	15-MAR-10	.548g	30mL	
248241010	RE36-10-7519	SAMPLE	S	15-MAR-10	.555g	30mL	

SW846

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS5

Start Date: 12-APR-10

Client Sdg: 10-2135

Method MS

End Date: 13-APR-10

Data File: 100412-2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	22:46:00			X		X											X	X				X	X		
S10	1	22:50:00			X		X											X	X				X	X		
S100	1	22:54:00			X		X											X	X				X	X		
ICV01	1	22:58:00			X		X											X	X				X	X		
ICB01	1	23:02:00			X		X											X	X				X	X		
CRDL01	1	23:06:00			X		X											X	X				X	X		
ICSA01	1	23:10:00			X		X											X	X				X	X		
ICSAB01	1	23:14:00			X		X											X	X				X	X		
CCV01	1	23:18:00			X		X											X	X				X	X		
CCB01	1	23:23:00			X		X											X	X				X	X		
1202056973	2	23:27:00			X		X											X	X				X	X		
1202056978	40	23:31:00			X		X											X	X				X	X		
248241001	2	23:35:00			X		X											X	X				X	X		
1202056974	2	23:39:00			X		X											X	X				X	X		
1202056976	2	23:43:00			X		X											X	X				X	X		
1202056977	2	23:47:00			X		X											X	X				X	X		
1202056975	10	23:51:00			X		X											X	X				X	X		
248241002	2	23:55:00			X		X											X	X				X	X		
CCV02	1	23:59:00			X		X											X	X				X	X		
CCB02	1	00:04:00			X		X											X	X				X	X		
248241003	2	00:08:00			X		X											X	X				X	X		
248241004	2	00:12:00			X		X											X	X				X	X		
248241005	2	00:16:00			X		X											X	X				X	X		
248241006	2	00:20:00			X		X											X	X				X	X		
248241007	2	00:24:00			X		X											X	X				X	X		
248241008	2	00:28:00			X		X											X	X				X	X		
248241009	2	00:32:00			X		X											X	X				X	X		
248241010	2	00:36:00			X		X											X	X				X	X		
CCV03	1	00:40:00			X		X											X	X				X	X		
CCB03	1	00:45:00			X		X											X	X				X	X		

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: OPTIMA3

Start Date: 31-MAR-10

End Date: 31-MAR-10

Client Sdg: 10-2135

Method P

Data File: 033110-1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	06:35:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S0.1	1	06:42:00		X		X		X		X	X	X		X		X			X		X				X	X
S0.5	1	06:49:00	X	X		X		X	X	X	X	X		X	X	X			X		X				X	X
SCAL	1	06:56:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S10	1	07:03:00	X					X					X		X							X				
ICV01	1	07:08:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICB01	1	07:15:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
PQL01	1	07:22:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSA01	1	07:29:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSAB01	1	07:35:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR01	1	07:42:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR02	1	07:49:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV01	1	07:56:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB01	1	08:03:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR03	1	08:11:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV02	1	08:18:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB02	1	08:25:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	08:32:00																								
ZZZZZZ	1	08:38:00																								
ZZZZZZ	1	08:45:00																								
ZZZZZZ	1	08:52:00																								
ZZZZZZ	1	08:59:00																								
ZZZZZZ	1	09:05:00																								
ZZZZZZ	1	09:12:00																								
CCV03	1	09:19:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB03	1	09:26:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	09:32:00																								
ZZZZZZ	1	09:38:00																								
ZZZZZZ	1	09:46:00																								
ZZZZZZ	1	09:53:00																								
ZZZZZZ	1	10:00:00																								
ZZZZZZ	1	10:07:00																								
ZZZZZZ	5	10:14:00																								
ZZZZZZ	1	10:21:00																								
ZZZZZZ	1	10:28:00																								
CCV04	1	10:35:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB04	1	10:42:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	10:49:00																								
ZZZZZZ	1	10:56:00																								
ZZZZZZ	1	11:03:00																								

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																								
ZZZZZZ	1	11:10:00																								
ZZZZZZ	1	11:17:00																								
ZZZZZZ	1	11:24:00																								
ZZZZZZ	1	11:32:00																								
ZZZZZZ	1	11:39:00																								
ZZZZZZ	1	11:46:00																								
CCV05	1	11:53:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
CCB05	1	12:00:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
ZZZZZZ	1	12:07:00																								
ZZZZZZ	1	12:13:00																								
ZZZZZZ	1	12:20:00																								
ZZZZZZ	1	12:27:00																								
ZZZZZZ	1	12:35:00																								
ZZZZZZ	1	12:42:00																								
ZZZZZZ	1	12:49:00																								
ZZZZZZ	1	12:56:00																								
CCV06	1	13:03:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
CCB06	1	13:10:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
1202056967	1	13:18:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
1202056972	1	13:25:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
248241001	1	13:32:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
1202056968	1	13:39:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
1202056970	1	13:46:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
1202056971	1	13:53:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
1202056969	5	14:00:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
248241002	1	14:07:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
CCV07	1	14:14:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
CCB07	1	14:21:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
248241003	1	14:28:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
248241004	1	14:35:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
248241005	1	14:42:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
248241006	1	14:49:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
248241007	1	14:56:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
248241008	1	15:03:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
248241009	1	15:11:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
248241010	1	15:18:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
CCV08	1	15:25:00	X	X		X		X	X	X	X	X	X	X	X		X		X	X		X	X			
CCB08	1	15:32:00	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: 16-MAR-10

End Date: 16-MAR-10

Client Sdg: 10-2135

Method: AV

Data File: 031610S1-3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	09:38:00															X									
S0.2	1	09:40:00															X									
S0.5	1	09:41:00															X									
S2.0	1	09:43:00															X									
S5.0	1	09:45:00															X									
S10.0	1	09:46:00															X									
ICV01	1	09:48:00															X									
ICB01	1	09:50:00															X									
CRDL01	1	09:51:00															X									
CCV01	1	09:53:00															X									
CCB01	1	09:55:00															X									
ZZZZZZ	1	09:56:00																								
ZZZZZZ	10	09:58:00																								
ZZZZZZ	1	10:00:00																								
ZZZZZZ	1	10:01:00																								
ZZZZZZ	1	10:03:00																								
ZZZZZZ	1	10:05:00																								
CCV02	1	10:09:00															X									
CCB02	1	10:11:00															X									
ZZZZZZ	1	10:13:00																								
ZZZZZZ	1	10:14:00																								
ZZZZZZ	1	10:16:00																								
ZZZZZZ	1	10:18:00																								
ZZZZZZ	10	10:19:00																								
ZZZZZZ	1	10:21:00																								
ZZZZZZ	1	10:23:00																								
ZZZZZZ	1	10:24:00																								
ZZZZZZ	1	10:26:00																								
ZZZZZZ	5	10:28:00																								
CCV03	1	10:29:00															X									
CCB03	1	10:31:00															X									
ZZZZZZ	1	10:33:00																								
ZZZZZZ	1	10:34:00																								
ZZZZZZ	1	10:36:00																								
ZZZZZZ	1	10:38:00																								
ZZZZZZ	1	10:40:00																								
ZZZZZZ	1	10:41:00																								
ZZZZZZ	1	10:43:00																								
ZZZZZZ	1	10:45:00																								
ZZZZZZ	1	10:46:00																								

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time
ZZZZZZ	1	10:48:00
CCV04	1	10:50:00
CCB04	1	10:51:00
ZZZZZZ	1	10:53:00
ZZZZZZ	1	10:55:00
ZZZZZZ	1	10:56:00
ZZZZZZ	1	10:58:00
ZZZZZZ	1	11:00:00
ZZZZZZ	1	11:01:00
ZZZZZZ	1	11:03:00
ZZZZZZ	1	11:05:00
ZZZZZZ	1	11:06:00
1202056614	1	11:08:00
CCV05	1	11:10:00
CCB05	1	11:11:00
1202056615	10	11:13:00
ZZZZZZ	1	11:15:00
ZZZZZZ	1	11:16:00
ZZZZZZ	1	11:18:00
ZZZZZZ	1	11:20:00
ZZZZZZ	1	11:21:00
ZZZZZZ	1	11:23:00
ZZZZZZ	1	11:25:00
248241001	1	11:26:00
1202056616	1	11:28:00
CCV06	1	11:30:00
CCB06	1	11:31:00
1202056617	1	11:33:00
1202056619	1	11:35:00
1202056618	5	11:36:00
248241002	1	11:38:00
248241003	1	11:40:00
248241004	1	11:42:00
248241005	1	11:43:00
248241006	1	11:45:00
248241007	1	11:47:00
248241008	1	11:48:00
CCV07	1	11:50:00
CCB07	1	11:52:00
248241009	1	11:53:00

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
248241010	1	11:55:00															X									
ZZZZZZ	1	11:57:00																								
ZZZZZZ	10	11:58:00																								
ZZZZZZ	1	12:00:00																								
ZZZZZZ	1	12:02:00																								
ZZZZZZ	1	12:03:00																								
ZZZZZZ	1	12:05:00																								
ZZZZZZ	1	12:07:00																								
ZZZZZZ	1	12:08:00																								
CCV08	1	12:10:00															X									
CCB08	1	12:12:00															X									

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-2135

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

ICP/MS	<u>Analyte</u>	<u>Wavelength</u> <u>(nm)</u>	<u>MDL</u>	<u>RDL</u>
			<u>ug/L</u>	<u>ug/L</u>
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Uranium		0.066	.2
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-2135

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. 10-2135

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

ICP	<u>Analyte</u>	<u>Wavelength</u> <u>(nm)</u>	<u>MDL</u>	<u>RDL</u>
			<u>ug/L</u>	<u>ug/L</u>
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL

GEL Job No: 10-2135

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

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

METALS
-11-
Interelement Correction Factors

Lab Code: GELGEL Job No: **10-2135**

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: 10-2135

Contract: LANL01004

Instrument: OPTIMA3

Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	48.4946
Antimony	206.836	-0.02515	0.00000	0.00000	0.00000	-20.5057
Arsenic	188.979	-0.23424	0.00000	0.00000	0.00000	2.41902
Barium	233.527	-0.03042	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.16240	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.10329	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01944	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01444	0.00000	0.00000	0.00000	-2.33100
Copper	324.752	-0.05293	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09554	0.00000	0.00000	0.00000	-2.48774
Magnesium	279.077	1.04597	0.00000	0.00000	0.00000	-10.4683
Manganese	257.61	-0.09877	0.00000	0.04089	0.00000	0.00000
Molybdenum	202.031	-0.07763	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80543	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.39429	1.18725
Selenium	196.026	-3.27508	0.00000	0.00000	0.00000	-3.07287
Silica	251.611	0.00000	0.00000	0.00000	0.00000	27.2377
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	12.3082
Silver	328.068	-0.32385	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-4.77918	0.00000
Tin	189.927	-0.01682	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.08168	0.00000	0.00000
Uranium	409.014	0.11400	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.14564	0.00000	-0.01931	0.00000	-14.1293
Zinc	213.857	0.09701	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interement Correction Factors

Lab Code: GELGEL Job No: **10-2135**Contract: **LANL01004**Instrument: **OPTIMA3**Effective Dates: **01-FEB-10**

Interement Correction Factors (apparent ppb analyte/ppm interferent)

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

METALS
-11-
Interelement Correction Factors

Lab Code: GEL

GEL Job No: 10-2135

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: **10-2135**

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. 10-2135

Contract: LANL01004

Lab Code: GEL

Instrument ID ICPMS5

<u>Analyte</u>	<u>Integration Time (msec)</u>	<u>LDR</u>	<u>Units</u>	<u>Effective Date</u>
Aluminum	1	50000	ug/L	01-FEB-10
Antimony	1000	250	ug/L	01-FEB-10
Arsenic	1000	1000	ug/L	01-FEB-10
Barium	1000	1000	ug/L	01-FEB-10
Beryllium	1000	1000	ug/L	01-FEB-10
Cadmium	1000	1000	ug/L	01-FEB-10
Calcium	500	50000	ug/L	01-FEB-10
Chromium	1000	1000	ug/L	01-FEB-10
Cobalt	1000	1000	ug/L	01-FEB-10
Copper	1000	1000	ug/L	01-FEB-10
Iron	500	50000	ug/L	01-FEB-10
Lead	1000	5000	ug/L	01-FEB-10
Magnesium	1	50000	ug/L	01-FEB-10
Manganese	1000	1000	ug/L	01-FEB-10
Nickel	1000	1000	ug/L	01-FEB-10
Potassium	1	50000	ug/L	01-FEB-10
Selenium	1000	500	ug/L	01-FEB-10
Silver	1000	250	ug/L	01-FEB-10
Sodium	1	50000	ug/L	01-FEB-10
Thallium	1000	500	ug/L	01-FEB-10
Uranium	1000	5000	ug/L	01-FEB-10
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10

METALS
-12-
Linear Ranges

SDG NO. 10-2135

Contract: LANL01004

Lab Code: GEL

Instrument ID OPTIMA3

<u>Analyte</u>	<u>Integration Time (sec)</u>	<u>LDR</u>	<u>Units</u>	<u>Effective Date</u>
Aluminum	20	500000	ug/L	01-FEB-10
Antimony	20	10000	ug/L	01-FEB-10
Arsenic	20	10000	ug/L	01-FEB-10
Barium	20	15000	ug/L	01-FEB-10
Beryllium	20	3000	ug/L	01-FEB-10
Cadmium	20	10000	ug/L	01-FEB-10
Calcium	20	500000	ug/L	01-FEB-10
Chromium	20	25000	ug/L	01-FEB-10
Cobalt	20	10000	ug/L	01-FEB-10
Copper	20	20000	ug/L	01-FEB-10
Iron	20	500000	ug/L	01-FEB-10
Lead	20	25000	ug/L	01-FEB-10
Magnesium	20	500000	ug/L	01-FEB-10
Manganese	20	10000	ug/L	01-FEB-10
Nickel	20	10000	ug/L	01-FEB-10
Potassium	20	300000	ug/L	01-FEB-10
Selenium	20	10000	ug/L	01-FEB-10
Silver	20	1000	ug/L	01-FEB-10
Sodium	20	500000	ug/L	01-FEB-10
Thallium	20	10000	ug/L	01-FEB-10
Uranium	20	15000	ug/L	01-FEB-10
Vanadium	20	10000	ug/L	01-FEB-10
Zinc	20	15000	ug/L	01-FEB-10

Raw Data

===== Analysis Begun

Start Time: 3/31/2010 06:35:28

Plasma On Time: 3/30/2010 17:10:22

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\033110.sif

Batch ID:

Results Data Set: 033110

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

Sequence No.: 1

Autosampler Location: 8

Sample ID: S0

Date Collected: 3/31/2010 06:35:30

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:
=====

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc Radial	3549.2	3549.2	0.000 %	06:37:42
1	Y RADIAL	3979.0	3979.0	0.000 %	06:37:22
1	Al 396.153Radial†	-113.6	-114.9	[0.00] ug/L	06:37:22
1	Ca 317.933Radial†	14.5	14.7	[0.00] ug/L	06:37:42
1	Fe 238.204 Radial†	9.4	9.5	[0.00] ug/L	06:37:42
1	K 766.490 Radial†	2998.3	3031.6	[0.00] ug/L	06:37:22
1	Mg 279.077 IEC†	2.0	2.0	[0.00] ug/L	06:37:42
1	Na 589.592 Radial†	-884.0	-893.8	[0.00] ug/L	06:37:22
1	Sr 421.552†	-2.5	-2.5	[0.00] ug/L	06:37:22
1	Sc 361.383	670771.5	670771.5	0.0000 %	06:38:39
1	Y 371.029	530319.3	530319.3	0.0000 %	06:38:39
1	Ag 328.068†	163.6	162.7	[0.00] ug/L	06:38:39
1	As 188.979†	-29.3	-29.1	[0.00] ug/L	06:38:59
1	B 249.677†	-415.2	-412.8	[0.00] ug/L	06:38:59
1	Ba 233.527†	-2.0	-2.0	[0.00] ug/L	06:38:59
1	Be 313.107†	-4098.6	-4074.9	[0.00] ug/L	06:38:39
1	Cd 226.502†	-206.0	-204.8	[0.00] ug/L	06:38:59
1	Co 228.616†	-55.6	-55.2	[0.00] ug/L	06:38:59
1	Cr 267.716†	84.0	83.5	[0.00] ug/L	06:38:59
1	Cu 324.752†	5269.5	5239.1	[0.00] ug/L	06:38:39
1	Mn 257.610†	442.5	439.9	[0.00] ug/L	06:38:59
1	Mo 202.031†	4.7	4.6	[0.00] ug/L	06:38:59
1	Ni 231.604†	89.5	88.9	[0.00] ug/L	06:38:59
1	P 214.914†	207.1	205.9	[0.00] ug/L	06:38:59
1	Pb 220.353†	-79.1	-78.6	[0.00] ug/L	06:38:59
1	S 181.975 Axial†	37.7	37.5	[0.00] ug/L	06:38:59
1	Sb 206.836†	27.9	27.8	[0.00] ug/L	06:38:59
1	Se 196.026†	-25.3	-25.1	[0.00] ug/L	06:38:59
1	Si 251.611†	545.5	542.4	[0.00] ug/L	06:38:59
1	Sn 189.927†	9.8	9.8	[0.00] ug/L	06:38:59
1	Ti 334.940†	-1434.5	-1426.2	[0.00] ug/L	06:38:39
1	Tl 190.801†	-33.4	-33.2	[0.00] ug/L	06:38:59
1	U 409.014†	-2397.9	-2384.1	[0.00] ug/L	06:38:39
1	V 292.402†	-1756.6	-1746.5	[0.00] ug/L	06:38:39
1	Zn 213.857†	696.0	691.9	[0.00] ug/L	06:38:59
1	SiO2†	566.6	563.4	[0.00] ug/L	06:39:55
2	Sc Radial	3654.7	3654.7	0.000 %	06:38:07
2	Y RADIAL	3984.8	3984.8	0.000 %	06:37:47
2	Al 396.153Radial†	-102.7	-100.8	[0.00] ug/L	06:37:47
2	Ca 317.933Radial†	14.8	14.5	[0.00] ug/L	06:38:07
2	Fe 238.204 Radial†	7.7	7.6	[0.00] ug/L	06:38:07
2	K 766.490 Radial†	3110.2	3054.0	[0.00] ug/L	06:37:47
2	Mg 279.077 IEC†	0.0	0.0	[0.00] ug/L	06:38:07
2	Na 589.592 Radial†	-908.5	-892.1	[0.00] ug/L	06:37:47
2	Sr 421.552†	26.9	26.4	[0.00] ug/L	06:37:47
2	Sc 361.383	660750.2	660750.2	0.0000 %	06:39:04
2	Y 371.029	523393.6	523393.6	0.0000 %	06:39:04

2	Ag 328.068†	207.6	209.6	[0.00]	ug/L	06:39:04
2	As 188.979†	-27.9	-28.2	[0.00]	ug/L	06:39:24
2	B 249.677†	-413.4	-417.3	[0.00]	ug/L	06:39:24
2	Ba 233.527†	28.9	29.1	[0.00]	ug/L	06:39:24
2	Be 313.107†	-4208.0	-4247.1	[0.00]	ug/L	06:39:04
2	Cd 226.502†	-204.5	-206.4	[0.00]	ug/L	06:39:24
2	Co 228.616†	-46.3	-46.7	[0.00]	ug/L	06:39:24
2	Cr 267.716†	117.0	118.1	[0.00]	ug/L	06:39:24
2	Cu 324.752†	5404.8	5455.1	[0.00]	ug/L	06:39:04
2	Mn 257.610†	463.6	467.9	[0.00]	ug/L	06:39:24
2	Mo 202.031†	3.3	3.3	[0.00]	ug/L	06:39:24
2	Ni 231.604†	84.8	85.6	[0.00]	ug/L	06:39:24
2	P 214.914†	201.5	203.4	[0.00]	ug/L	06:39:24
2	Pb 220.353†	-59.7	-60.3	[0.00]	ug/L	06:39:24
2	S 181.975 Axial†	35.6	35.9	[0.00]	ug/L	06:39:24
2	Sb 206.836†	24.7	25.0	[0.00]	ug/L	06:39:24
2	Se 196.026†	-20.7	-20.9	[0.00]	ug/L	06:39:24
2	Si 251.611†	534.7	539.7	[0.00]	ug/L	06:39:24
2	Sn 189.927†	11.1	11.2	[0.00]	ug/L	06:39:24
2	Ti 334.940†	-1318.9	-1331.2	[0.00]	ug/L	06:39:04
2	Tl 190.801†	-28.7	-29.0	[0.00]	ug/L	06:39:24
2	U 409.014†	-2313.1	-2334.6	[0.00]	ug/L	06:39:04
2	V 292.402†	-1750.8	-1767.1	[0.00]	ug/L	06:39:04
2	Zn 213.857†	685.7	692.0	[0.00]	ug/L	06:39:24
2	SiO2†	510.9	515.7	[0.00]	ug/L	06:40:00
3	Sc Radial	3562.0	3562.0	0.000	%	06:38:32
3	Y RADIAL	4235.4	4235.4	0.000	%	06:38:12
3	Al 396.153Radial†	-113.4	-114.3	[0.00]	ug/L	06:38:12
3	Ca 317.933Radial†	17.8	18.0	[0.00]	ug/L	06:38:32
3	Fe 238.204 Radial†	7.4	7.5	[0.00]	ug/L	06:38:32
3	K 766.490 Radial†	2949.2	2971.2	[0.00]	ug/L	06:38:12
3	Mg 279.077 IEC†	-0.2	-0.2	[0.00]	ug/L	06:38:32
3	Na 589.592 Radial†	-899.7	-906.4	[0.00]	ug/L	06:38:12
3	Sr 421.552†	17.3	17.4	[0.00]	ug/L	06:38:12
3	Sc 361.383	669166.4	669166.4	0.0000	%	06:39:30
3	Y 371.029	530543.0	530543.0	0.0000	%	06:39:30
3	Ag 328.068†	234.7	233.9	[0.00]	ug/L	06:39:30
3	As 188.979†	-18.5	-18.5	[0.00]	ug/L	06:39:50
3	B 249.677†	-416.6	-415.2	[0.00]	ug/L	06:39:50
3	Ba 233.527†	12.5	12.5	[0.00]	ug/L	06:39:50
3	Be 313.107†	-4227.2	-4212.8	[0.00]	ug/L	06:39:30
3	Cd 226.502†	-187.1	-186.5	[0.00]	ug/L	06:39:50
3	Co 228.616†	-47.9	-47.8	[0.00]	ug/L	06:39:50
3	Cr 267.716†	84.4	84.1	[0.00]	ug/L	06:39:50
3	Cu 324.752†	5386.9	5368.6	[0.00]	ug/L	06:39:30
3	Mn 257.610†	457.0	455.4	[0.00]	ug/L	06:39:50
3	Mo 202.031†	6.3	6.2	[0.00]	ug/L	06:39:50
3	Ni 231.604†	80.0	79.7	[0.00]	ug/L	06:39:50
3	P 214.914†	196.3	195.7	[0.00]	ug/L	06:39:50
3	Pb 220.353†	-58.6	-58.4	[0.00]	ug/L	06:39:50
3	S 181.975 Axial†	44.8	44.6	[0.00]	ug/L	06:39:50
3	Sb 206.836†	23.1	23.0	[0.00]	ug/L	06:39:50
3	Se 196.026†	-33.9	-33.7	[0.00]	ug/L	06:39:50
3	Si 251.611†	529.0	527.2	[0.00]	ug/L	06:39:50
3	Sn 189.927†	8.3	8.3	[0.00]	ug/L	06:39:50
3	Ti 334.940†	-1464.7	-1459.7	[0.00]	ug/L	06:39:30
3	Tl 190.801†	-32.3	-32.2	[0.00]	ug/L	06:39:50
3	U 409.014†	-2506.5	-2498.0	[0.00]	ug/L	06:39:30
3	V 292.402†	-1737.4	-1731.5	[0.00]	ug/L	06:39:30
3	Zn 213.857†	689.5	687.1	[0.00]	ug/L	06:39:50
3	SiO2†	573.6	571.6	[0.00]	ug/L	06:40:05

Mean Data: S0

Analyte	Mean Corrected			Calib	
	Intensity	Std.Dev.	RSD	Conc.	Units
Sc 361.383	666896.0	5382.63	0.81%	0.0000	%
Sc Radial	3588.6	57.54	1.60%	0.000	%
Y 371.029	528085.3	4064.67	0.77%	0.0000	%
Y RADIAL	4066.4	146.35	3.60%	0.000	%
Ag 328.068†	202.0	36.22	17.93%	[0.00]	ug/L

Al 396.153Radial†	-110.0	7.95	7.23%	[0.00]	ug/L
As 188.979†	-25.2	5.89	23.33%	[0.00]	ug/L
B 249.677†	-415.1	2.24	0.54%	[0.00]	ug/L
Ba 233.527†	13.2	15.58	117.92%	[0.00]	ug/L
Be 313.107†	-4178.3	91.14	2.18%	[0.00]	ug/L
Ca 317.933Radial†	15.7	1.95	12.40%	[0.00]	ug/L
Cd 226.502†	-199.2	11.09	5.57%	[0.00]	ug/L
Co 228.616†	-49.9	4.64	9.31%	[0.00]	ug/L
Cr 267.716†	95.2	19.77	20.76%	[0.00]	ug/L
Cu 324.752†	5354.2	108.71	2.03%	[0.00]	ug/L
Fe 238.204 Radial†	8.2	1.11	13.54%	[0.00]	ug/L
K 766.490 Radial†	3019.0	42.81	1.42%	[0.00]	ug/L
Mg 279.077 IEC†	0.6	1.21	190.91%	[0.00]	ug/L
Mn 257.610†	454.4	14.03	3.09%	[0.00]	ug/L
Mo 202.031†	4.7	1.45	30.58%	[0.00]	ug/L
Na 589.592 Radial†	-897.4	7.80	0.87%	[0.00]	ug/L
Ni 231.604†	84.7	4.67	5.51%	[0.00]	ug/L
P 214.914†	201.7	5.34	2.65%	[0.00]	ug/L
Pb 220.353†	-65.8	11.17	16.98%	[0.00]	ug/L
S 181.975 Axial†	39.4	4.64	11.78%	[0.00]	ug/L
Sb 206.836†	25.2	2.38	9.44%	[0.00]	ug/L
Se 196.026†	-26.6	6.55	24.64%	[0.00]	ug/L
Si 251.611†	536.4	8.11	1.51%	[0.00]	ug/L
Sn 189.927†	9.8	1.46	14.91%	[0.00]	ug/L
Sr 421.552†	13.8	14.82	107.59%	[0.00]	ug/L
Ti 334.940†	-1405.7	66.69	4.74%	[0.00]	ug/L
Tl 190.801†	-31.5	2.18	6.94%	[0.00]	ug/L
U 409.014†	-2405.5	83.77	3.48%	[0.00]	ug/L
V 292.402†	-1748.4	17.86	1.02%	[0.00]	ug/L
Zn 213.857†	690.4	2.80	0.41%	[0.00]	ug/L
SiO2†	550.2	30.22	5.49%	[0.00]	ug/L

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

Autosampler Location: 2
 Date Collected: 3/31/2010 06:42:16
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib.	Analysis Time
1	Sc Radial	3979.1	3979.1	111 %		06:44:29
1	Y RADIAL	4345.5	4345.5	106.9 %		06:44:29
1	K 766.490 Radial†	8404.1	4560.4	[1000] ug/L		06:44:09
1	Sr 421.552†	10011.7	9015.4	[100] ug/L		06:44:29
1	Sc 361.383	680196.7	680196.7	101.99 %		06:45:26
1	Y 371.029	538210.6	538210.6	101.92 %		06:45:26
1	Ag 328.068†	17607.5	17061.2	[100] ug/L		06:45:26
1	As 188.979†	174.3	196.1	[100] ug/L		06:45:46
1	B 249.677†	3187.8	3540.6	[100] ug/L		06:45:26
1	Ba 233.527†	10161.1	9949.2	[100] ug/L		06:45:26
1	Be 313.107†	234917.2	234501.9	[100] ug/L		06:45:26
1	Cd 226.502†	6217.0	6294.6	[100] ug/L		06:45:46
1	Co 228.616†	3866.7	3841.0	[100] ug/L		06:45:46
1	Cr 267.716†	6654.3	6429.0	[100] ug/L		06:45:26
1	Cu 324.752†	33826.6	27810.9	[100] ug/L		06:45:26
1	Mn 257.610†	76334.6	74387.5	[100] ug/L		06:45:26
1	Mo 202.031†	1040.3	1015.2	[100] ug/L		06:45:46
1	Ni 231.604†	3068.0	2923.3	[100] ug/L		06:45:46
1	P 214.914†	943.9	723.8	[500] ug/L		06:45:46
1	Pb 220.353†	548.1	603.2	[100] ug/L		06:45:46
1	S 181.975 Axial†	162.3	119.7	[200] ug/L		06:45:46
1	Sb 206.836†	268.4	237.9	[100] ug/L		06:45:46
1	Se 196.026†	103.3	127.9	[100] ug/L		06:45:46
1	Si 251.611†	13660.3	12856.8	[500] ug/L		06:45:26
1	Sn 189.927†	432.2	414.0	[100] ug/L		06:45:46
1	Ti 334.940†	52716.9	53091.8	[100] ug/L		06:45:26
1	Tl 190.801†	219.8	246.9	[100] ug/L		06:45:46
1	U 409.014†	189.7	2591.5	[100] ug/L		06:45:26
1	V 292.402†	9158.5	10727.8	[100] ug/L		06:45:26
1	Zn 213.857†	9080.2	8212.3	[100] ug/L		06:45:26
1	SiO2†	13067.5	12261.8	[1069.5] ug/L		06:46:42
2	Sc Radial	3809.4	3809.4	106 %		06:44:54
2	Y RADIAL	4168.0	4168.0	102.5 %		06:44:54
2	K 766.490 Radial†	8255.2	4757.8	[1000] ug/L		06:44:34
2	Sr 421.552†	9646.0	9073.2	[100] ug/L		06:44:54
2	Sc 361.383	700867.6	700867.6	105.09 %		06:45:52
2	Y 371.029	553477.5	553477.5	104.81 %		06:45:52
2	Ag 328.068†	18583.5	17480.7	[100] ug/L		06:45:52
2	As 188.979†	172.7	189.6	[100] ug/L		06:46:12
2	B 249.677†	3390.1	3640.9	[100] ug/L		06:45:52
2	Ba 233.527†	10602.8	10075.7	[100] ug/L		06:45:52
2	Be 313.107†	248712.2	240835.3	[100] ug/L		06:45:52
2	Cd 226.502†	6139.5	6041.2	[100] ug/L		06:46:12
2	Co 228.616†	3807.7	3673.0	[100] ug/L		06:46:12
2	Cr 267.716†	7001.7	6567.1	[100] ug/L		06:45:52
2	Cu 324.752†	35743.7	28657.0	[100] ug/L		06:45:52
2	Mn 257.610†	80465.7	76111.0	[100] ug/L		06:45:52
2	Mo 202.031†	1032.3	977.5	[100] ug/L		06:46:12
2	Ni 231.604†	3035.1	2803.2	[100] ug/L		06:46:12
2	P 214.914†	914.0	668.0	[500] ug/L		06:46:12
2	Pb 220.353†	532.8	572.8	[100] ug/L		06:46:12
2	S 181.975 Axial†	158.6	111.6	[200] ug/L		06:46:12
2	Sb 206.836†	269.5	231.2	[100] ug/L		06:46:12
2	Se 196.026†	93.9	115.9	[100] ug/L		06:46:12
2	Si 251.611†	14365.2	13132.5	[500] ug/L		06:45:52
2	Sn 189.927†	431.7	401.0	[100] ug/L		06:46:12
2	Ti 334.940†	55730.6	54435.0	[100] ug/L		06:45:52
2	Tl 190.801†	214.4	235.5	[100] ug/L		06:46:12
2	U 409.014†	240.9	2634.8	[100] ug/L		06:45:52

2	V 292.402†	9698.6	10976.9	[100]	ug/L	06:45:52
2	Zn 213.857†	9499.8	8349.0	[100]	ug/L	06:45:52
2	SiO2†	13158.2	11970.2	[1069.5]	ug/L	06:46:47
3	Sc Radial	4008.6	4008.6	112	%	06:45:19
3	Y RADIAL	4370.4	4370.4	107.5	%	06:45:19
3	K 766.490 Radial†	7858.4	4016.1	[1000]	ug/L	06:44:59
3	Sr 421.552†	10121.5	9047.3	[100]	ug/L	06:45:19
3	Sc 361.383	671910.1	671910.1	100.75	%	06:46:17
3	Y 371.029	531325.8	531325.8	100.61	%	06:46:17
3	Ag 328.068†	17744.5	17410.0	[100]	ug/L	06:46:17
3	As 188.979†	155.7	179.8	[100]	ug/L	06:46:37
3	B 249.677†	3350.9	3741.0	[100]	ug/L	06:46:17
3	Ba 233.527†	10238.2	10148.6	[100]	ug/L	06:46:17
3	Be 313.107†	237075.7	239484.9	[100]	ug/L	06:46:17
3	Cd 226.502†	5971.2	6125.9	[100]	ug/L	06:46:37
3	Co 228.616†	3714.3	3736.4	[100]	ug/L	06:46:37
3	Cr 267.716†	6737.0	6591.5	[100]	ug/L	06:46:17
3	Cu 324.752†	34444.2	28832.9	[100]	ug/L	06:46:17
3	Mn 257.610†	77035.1	76005.8	[100]	ug/L	06:46:17
3	Mo 202.031†	1009.8	997.6	[100]	ug/L	06:46:37
3	Ni 231.604†	2928.3	2821.7	[100]	ug/L	06:46:37
3	P 214.914†	891.9	683.6	[500]	ug/L	06:46:37
3	Pb 220.353†	518.9	580.8	[100]	ug/L	06:46:37
3	S 181.975 Axial†	156.4	115.8	[200]	ug/L	06:46:37
3	Sb 206.836†	261.0	233.8	[100]	ug/L	06:46:37
3	Se 196.026†	96.5	122.3	[100]	ug/L	06:46:37
3	Si 251.611†	13693.7	13055.1	[500]	ug/L	06:46:17
3	Sn 189.927†	414.8	402.0	[100]	ug/L	06:46:37
3	Ti 334.940†	53468.4	54475.1	[100]	ug/L	06:46:17
3	Tl 190.801†	220.6	250.4	[100]	ug/L	06:46:37
3	U 409.014†	413.8	2816.2	[100]	ug/L	06:46:17
3	V 292.402†	9256.2	10935.5	[100]	ug/L	06:46:17
3	Zn 213.857†	9131.4	8372.9	[100]	ug/L	06:46:17
3	SiO2†	13323.5	12673.8	[1069.5]	ug/L	06:46:53

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	684324.8	14913.57	2.18%	102.61	%
Sc Radial	3932.3	107.51	2.73%	110	%
Y 371.029	541004.6	11337.06	2.10%	102.45	%
Y RADIAL	4294.6	110.36	2.57%	105.6	%
Ag 328.068†	17317.3	224.61	1.30%	[100]	ug/L
As 188.979†	188.5	8.23	4.36%	[100]	ug/L
B 249.677†	3640.8	100.20	2.75%	[100]	ug/L
Ba 233.527†	10057.8	100.88	1.00%	[100]	ug/L
Be 313.107†	238274.0	3335.78	1.40%	[100]	ug/L
Cd 226.502†	6153.9	129.03	2.10%	[100]	ug/L
Co 228.616†	3750.2	84.80	2.26%	[100]	ug/L
Cr 267.716†	6529.2	87.65	1.34%	[100]	ug/L
Cu 324.752†	28433.6	546.35	1.92%	[100]	ug/L
K 766.490 Radial†	4444.8	384.12	8.64%	[1000]	ug/L
Mn 257.610†	75501.4	966.16	1.28%	[100]	ug/L
Mo 202.031†	996.8	18.85	1.89%	[100]	ug/L
Ni 231.604†	2849.4	64.64	2.27%	[100]	ug/L
P 214.914†	691.8	28.79	4.16%	[500]	ug/L
Pb 220.353†	585.6	15.74	2.69%	[100]	ug/L
S 181.975 Axial†	115.7	4.08	3.53%	[200]	ug/L
Sb 206.836†	234.3	3.39	1.45%	[100]	ug/L
Se 196.026†	122.1	6.00	4.91%	[100]	ug/L
Si 251.611†	13014.8	142.19	1.09%	[500]	ug/L
Sn 189.927†	405.7	7.23	1.78%	[100]	ug/L
Sr 421.552†	9045.3	28.93	0.32%	[100]	ug/L
Ti 334.940†	54000.6	787.32	1.46%	[100]	ug/L
Tl 190.801†	244.3	7.78	3.19%	[100]	ug/L
U 409.014†	2680.8	119.22	4.45%	[100]	ug/L
V 292.402†	10880.1	133.48	1.23%	[100]	ug/L
Zn 213.857†	8311.4	86.68	1.04%	[100]	ug/L
SiO2†	12301.9	353.55	2.87%	[1069.5]	ug/L

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

Autosampler Location: 3
 Date Collected: 3/31/2010 06:49:03
 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	3917.2	3917.2	109 %		06:51:16
1	Y RADIAL	4173.4	4173.4	102.6 %		06:50:56
1	Al 396.153Radial†	4425.0	4163.8	[5000] ug/L		06:50:56
1	Ca 317.933Radial†	2709.6	2466.6	[5000] ug/L		06:51:16
1	K 766.490 Radial†	27808.6	22457.1	[5000] ug/L		06:50:56
1	Mg 279.077 IEC†	131.2	119.5	[5000] ug/L		06:51:16
1	Sr 421.552†	48511.6	44428.7	[500] ug/L		06:50:56
1	Sc 361.383	684985.1	684985.1	102.71 %		06:52:13
1	Y 371.029	536878.6	536878.6	101.67 %		06:52:13
1	Ag 328.068†	90561.5	87967.9	[500] ug/L		06:52:18
1	As 188.979†	908.6	909.9	[500] ug/L		06:52:38
1	B 249.677†	18935.3	18850.4	[500] ug/L		06:52:18
1	Ba 233.527†	51473.6	50101.1	[500] ug/L		06:52:18
1	Be 313.107†	1196245.7	1168833.6	[500] ug/L		06:52:13
1	Cd 226.502†	33682.4	32992.1	[500] ug/L		06:52:18
1	Co 228.616†	20283.9	19798.2	[500] ug/L		06:52:18
1	Cr 267.716†	33811.6	32823.5	[500] ug/L		06:52:18
1	Cu 324.752†	152606.7	143222.5	[500] ug/L		06:52:18
1	Mn 257.610†	379251.5	368781.9	[500] ug/L		06:52:18
1	Mo 202.031†	5022.8	4885.4	[500] ug/L		06:52:38
1	Ni 231.604†	15696.8	15197.5	[500] ug/L		06:52:18
1	P 214.914†	3772.2	3470.9	[2500] ug/L		06:52:38
1	Pb 220.353†	2936.9	2925.1	[500] ug/L		06:52:38
1	S 181.975 Axial†	646.2	589.8	[1000] ug/L		06:52:38
1	Sb 206.836†	1216.7	1159.3	[500] ug/L		06:52:38
1	Se 196.026†	605.0	615.6	[500] ug/L		06:52:38
1	Si 251.611†	70160.5	67771.3	[2500] ug/L		06:52:18
1	Sn 189.927†	2071.9	2007.4	[500] ug/L		06:52:38
1	Ti 334.940†	273135.0	267327.8	[500] ug/L		06:52:18
1	Tl 190.801†	1199.0	1198.8	[500] ug/L		06:52:38
1	U 409.014†	10451.4	12580.9	[500] ug/L		06:52:18
1	V 292.402†	54588.1	54894.9	[500] ug/L		06:52:18
1	Zn 213.857†	44021.8	42168.9	[500] ug/L		06:52:18
1	SiO2†	66005.0	63711.8	[5347.5] ug/L		06:53:45
2	Sc Radial	3760.2	3760.2	105 %		06:51:41
2	Y RADIAL	4104.2	4104.2	100.9 %		06:51:21
2	Al 396.153Radial†	4342.7	4254.5	[5000] ug/L		06:51:21
2	Ca 317.933Radial†	2603.3	2468.8	[5000] ug/L		06:51:41
2	K 766.490 Radial†	27632.9	23352.9	[5000] ug/L		06:51:21
2	Mg 279.077 IEC†	120.6	114.5	[5000] ug/L		06:51:41
2	Sr 421.552†	47422.7	45244.8	[500] ug/L		06:51:21
2	Sc 361.383	700499.1	700499.1	105.04 %		06:52:44
2	Y 371.029	549076.4	549076.4	103.97 %		06:52:44
2	Ag 328.068†	86866.8	82497.7	[500] ug/L		06:52:49
2	As 188.979†	921.5	902.6	[500] ug/L		06:53:09
2	B 249.677†	18128.5	17674.0	[500] ug/L		06:52:49
2	Ba 233.527†	49535.9	47146.5	[500] ug/L		06:52:49
2	Be 313.107†	1223165.5	1168668.2	[500] ug/L		06:52:44
2	Cd 226.502†	32238.7	30891.5	[500] ug/L		06:52:49
2	Co 228.616†	19386.8	18506.7	[500] ug/L		06:52:49
2	Cr 267.716†	32515.2	30860.2	[500] ug/L		06:52:49
2	Cu 324.752†	145774.6	133427.5	[500] ug/L		06:52:49
2	Mn 257.610†	364423.1	346487.2	[500] ug/L		06:52:49
2	Mo 202.031†	5066.8	4819.0	[500] ug/L		06:53:09
2	Ni 231.604†	14953.0	14151.0	[500] ug/L		06:52:49
2	P 214.914†	3798.8	3414.9	[2500] ug/L		06:53:09
2	Pb 220.353†	2962.7	2886.4	[500] ug/L		06:53:09
2	S 181.975 Axial†	654.2	583.5	[1000] ug/L		06:53:09
2	Sb 206.836†	1209.6	1126.3	[500] ug/L		06:53:09

2	Se 196.026†	601.5	599.2	[500]	ug/L	06:53:09
2	Si 251.611†	67001.8	63251.3	[2500]	ug/L	06:52:49
2	Sn 189.927†	2079.7	1970.2	[500]	ug/L	06:53:09
2	Ti 334.940†	262417.1	251234.6	[500]	ug/L	06:52:49
2	Tl 190.801†	1211.7	1185.0	[500]	ug/L	06:53:09
2	U 409.014†	9891.2	11822.3	[500]	ug/L	06:52:49
2	V 292.402†	52435.6	51668.7	[500]	ug/L	06:52:49
2	Zn 213.857†	42185.2	39471.1	[500]	ug/L	06:52:49
2	SiO2†	65983.9	62268.4	[5347.5]	ug/L	06:53:50
3	Sc Radial	3749.1	3749.1	104	%	06:52:06
3	Y RADIAL	4247.9	4247.9	104.5	%	06:51:46
3	Al 396.153Radial†	4494.9	4412.5	[5000]	ug/L	06:51:46
3	Ca 317.933Radial†	2600.7	2473.7	[5000]	ug/L	06:52:06
3	K 766.490 Radial†	28419.6	24184.3	[5000]	ug/L	06:51:46
3	Mg 279.077 IEC†	122.7	116.8	[5000]	ug/L	06:52:06
3	Sr 421.552†	49359.9	47233.6	[500]	ug/L	06:51:46
3	Sc 361.383	649969.5	649969.5	97.462	%	06:53:14
3	Y 371.029	511574.7	511574.7	96.874	%	06:53:14
3	Ag 328.068†	83117.9	85080.4	[500]	ug/L	06:53:20
3	As 188.979†	911.0	959.9	[500]	ug/L	06:53:40
3	B 249.677†	17124.7	17985.8	[500]	ug/L	06:53:20
3	Ba 233.527†	47369.0	48589.3	[500]	ug/L	06:53:20
3	Be 313.107†	1127079.5	1160609.3	[500]	ug/L	06:53:14
3	Cd 226.502†	30523.6	31517.7	[500]	ug/L	06:53:20
3	Co 228.616†	18510.7	19042.6	[500]	ug/L	06:53:20
3	Cr 267.716†	31122.0	31837.2	[500]	ug/L	06:53:20
3	Cu 324.752†	139241.2	137513.1	[500]	ug/L	06:53:20
3	Mn 257.610†	347453.0	356046.9	[500]	ug/L	06:53:20
3	Mo 202.031†	5004.2	5129.8	[500]	ug/L	06:53:40
3	Ni 231.604†	14304.5	14592.3	[500]	ug/L	06:53:20
3	P 214.914†	3776.5	3673.2	[2500]	ug/L	06:53:40
3	Pb 220.353†	2900.8	3042.1	[500]	ug/L	06:53:40
3	S 181.975 Axial†	641.8	619.2	[1000]	ug/L	06:53:40
3	Sb 206.836†	1199.9	1205.9	[500]	ug/L	06:53:40
3	Se 196.026†	604.5	646.8	[500]	ug/L	06:53:40
3	Si 251.611†	63554.2	64672.9	[2500]	ug/L	06:53:20
3	Sn 189.927†	2068.0	2112.1	[500]	ug/L	06:53:40
3	Ti 334.940†	250682.2	258616.2	[500]	ug/L	06:53:20
3	Tl 190.801†	1205.1	1268.0	[500]	ug/L	06:53:40
3	U 409.014†	9598.0	12253.5	[500]	ug/L	06:53:20
3	V 292.402†	50051.2	53103.0	[500]	ug/L	06:53:20
3	Zn 213.857†	40120.8	40475.2	[500]	ug/L	06:53:20
3	SiO2†	68081.3	69304.1	[5347.5]	ug/L	06:53:55

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc. Units	Calib
Sc 361.383	678484.6	25884.42	3.82%	101.74	%
Sc Radial	3808.8	94.01	2.47%	106	%
Y 371.029	532509.9	19128.75	3.59%	100.84	%
Y RADIAL	4175.2	71.88	1.72%	102.7	%
Ag 328.068†	85182.0	2736.51	3.21%	[500]	ug/L
Al 396.153Radial†	4276.9	125.85	2.94%	[5000]	ug/L
As 188.979†	924.1	31.22	3.38%	[500]	ug/L
B 249.677†	18170.1	609.44	3.35%	[500]	ug/L
Ba 233.527†	48612.3	1477.44	3.04%	[500]	ug/L
Be 313.107†	1166037.0	4701.30	0.40%	[500]	ug/L
Ca 317.933Radial†	2469.7	3.62	0.15%	[5000]	ug/L
Cd 226.502†	31800.4	1078.50	3.39%	[500]	ug/L
Co 228.616†	19115.8	648.83	3.39%	[500]	ug/L
Cr 267.716†	31840.3	981.65	3.08%	[500]	ug/L
Cu 324.752†	138054.3	4919.86	3.56%	[500]	ug/L
K 766.490 Radial†	23331.4	863.83	3.70%	[5000]	ug/L
Mg 279.077 IEC†	116.9	2.53	2.16%	[5000]	ug/L
Mn 257.610†	357105.3	11184.93	3.13%	[500]	ug/L
Mo 202.031†	4944.8	163.67	3.31%	[500]	ug/L
Ni 231.604†	14646.9	525.42	3.59%	[500]	ug/L
P 214.914†	3519.6	135.87	3.86%	[2500]	ug/L
Pb 220.353†	2951.2	81.08	2.75%	[500]	ug/L
S 181.975 Axial†	597.5	19.06	3.19%	[1000]	ug/L

Sb 206.836†	1163.9	40.00	3.44%	[500]	ug/L
Se 196.026†	620.6	24.17	3.90%	[500]	ug/L
Si 251.611†	65231.8	2311.24	3.54%	[2500]	ug/L
Sn 189.927†	2029.9	73.58	3.62%	[500]	ug/L
Sr 421.552†	45635.7	1442.71	3.16%	[500]	ug/L
Ti 334.940†	259059.5	8055.75	3.11%	[500]	ug/L
Tl 190.801†	1217.3	44.43	3.65%	[500]	ug/L
U 409.014†	12218.9	380.50	3.11%	[500]	ug/L
V 292.402†	53222.2	1616.43	3.04%	[500]	ug/L
Zn 213.857†	40705.1	1363.48	3.35%	[500]	ug/L
SiO2†	65094.7	3716.16	5.71%	[5347.5]	ug/L

Sequence No.: 4

Sample ID: SCAL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 3/31/2010 06:56:06

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	3752.9	3752.9	105 %		06:58:19
1	Y RADIAL	4238.6	4238.6	104.2 %		06:57:59
1	Al 396.153Radial†	9119.4	8830.2	[10000] ug/L		06:57:59
1	Ca 317.933Radial†	5318.7	5070.2	[10000] ug/L		06:57:59
1	Fe 238.204 Radial†	772.5	730.5	[10000] ug/L		06:58:19
1	K 766.490 Radial†	54073.2	48687.5	[10000] ug/L		06:57:59
1	Mg 279.077 IEC†	249.7	238.2	[10000] ug/L		06:58:19
1	Na 589.592 Radial†	20037.4	20057.8	[10000] ug/L		06:57:59
1	Sr 421.552†	97513.7	93231.8	[1000] ug/L		06:57:59
1	Sc 361.383	663625.3	663625.3	99.510 %		06:59:22
1	Y 371.029	521497.5	521497.5	98.753 %		06:59:22
1	Ag 328.068†	172797.9	173447.5	[1000] ug/L		06:59:22
1	As 188.979†	1923.7	1958.5	[1000] ug/L		06:59:42
1	B 249.677†	36980.0	37577.3	[1000] ug/L		06:59:22
1	Ba 233.527†	98637.1	99110.0	[1000] ug/L		06:59:22
1	Be 313.107†	2344381.7	2360114.3	[1000] ug/L		06:59:17
1	Cd 226.502†	64861.3	65380.2	[1000] ug/L		06:59:22
1	Co 228.616†	38432.5	38671.8	[1000] ug/L		06:59:42
1	Cr 267.716†	65242.6	65469.0	[1000] ug/L		06:59:22
1	Cu 324.752†	286879.2	282938.8	[1000] ug/L		06:59:22
1	Mn 257.610†	726648.1	729774.9	[1000] ug/L		06:59:22
1	Mo 202.031†	10278.6	10324.5	[1000] ug/L		06:59:42
1	Ni 231.604†	29779.1	29841.1	[1000] ug/L		06:59:42
1	P 214.914†	7684.4	7520.6	[5000] ug/L		06:59:42
1	Pb 220.353†	6107.6	6203.5	[1000] ug/L		06:59:42
1	S 181.975 Axial†	1313.5	1280.6	[2000] ug/L		06:59:42
1	Sb 206.836†	2448.5	2435.3	[1000] ug/L		06:59:42
1	Se 196.026†	1272.1	1304.9	[1000] ug/L		06:59:42
1	Si 251.611†	130695.6	130803.3	[5000] ug/L		06:59:22
1	Sn 189.927†	4276.5	4287.8	[1000] ug/L		06:59:42
1	Ti 334.940†	525287.7	529282.3	[1000] ug/L		06:59:22
1	Tl 190.801†	2502.7	2546.5	[1000] ug/L		06:59:42
1	U 409.014†	22405.8	24921.8	[1000] ug/L		06:59:22
1	V 292.402†	106679.7	108953.8	[1000] ug/L		06:59:22
1	Zn 213.857†	83599.4	83321.0	[1000] ug/L		06:59:22
1	SiO2†	130582.3	130675.7	[10695] ug/L		07:00:50
2	Sc Radial	3661.4	3661.4	102 %		06:58:45
2	Y RADIAL	3963.7	3963.7	97.47 %		06:58:25
2	Al 396.153Radial†	8526.6	8467.0	[10000] ug/L		06:58:25
2	Ca 317.933Radial†	5023.3	4907.7	[10000] ug/L		06:58:25
2	Fe 238.204 Radial†	752.7	729.5	[10000] ug/L		06:58:45
2	K 766.490 Radial†	51119.8	47084.1	[10000] ug/L		06:58:25
2	Mg 279.077 IEC†	245.2	239.7	[10000] ug/L		06:58:45
2	Na 589.592 Radial†	18639.3	19166.1	[10000] ug/L		06:58:25
2	Sr 421.552†	90341.7	88531.2	[1000] ug/L		06:58:25
2	Sc 361.383	656626.3	656626.3	98.460 %		06:59:53
2	Y 371.029	516429.7	516429.7	97.793 %		06:59:53
2	Ag 328.068†	171568.6	174049.9	[1000] ug/L		06:59:53
2	As 188.979†	1899.3	1954.2	[1000] ug/L		07:00:13
2	B 249.677†	36743.1	37732.9	[1000] ug/L		06:59:53
2	Ba 233.527†	97670.2	99184.6	[1000] ug/L		06:59:53
2	Be 313.107†	2364338.0	2405494.9	[1000] ug/L		06:59:48
2	Cd 226.502†	63794.9	64991.9	[1000] ug/L		06:59:53
2	Co 228.616†	38062.2	38707.4	[1000] ug/L		07:00:13
2	Cr 267.716†	64396.9	65308.9	[1000] ug/L		06:59:53
2	Cu 324.752†	285186.4	284292.5	[1000] ug/L		06:59:53
2	Mn 257.610†	718622.3	729407.2	[1000] ug/L		06:59:53
2	Mo 202.031†	10203.0	10357.8	[1000] ug/L		07:00:13
2	Ni 231.604†	29489.3	29865.8	[1000] ug/L		07:00:13

2	P 214.914†	7552.7	7469.1	[5000]	ug/L	07:00:13
2	Pb 220.353†	6042.3	6202.5	[1000]	ug/L	07:00:13
2	S 181.975 Axial†	1303.9	1284.9	[2000]	ug/L	07:00:13
2	Sb 206.836†	2433.4	2446.2	[1000]	ug/L	07:00:13
2	Se 196.026†	1263.3	1309.6	[1000]	ug/L	07:00:13
2	Si 251.611†	129463.8	130952.2	[5000]	ug/L	06:59:53
2	Sn 189.927†	4224.2	4280.5	[1000]	ug/L	07:00:13
2	Ti 334.940†	521167.7	530724.5	[1000]	ug/L	06:59:53
2	Tl 190.801†	2472.3	2542.4	[1000]	ug/L	07:00:13
2	U 409.014†	22655.7	25415.6	[1000]	ug/L	06:59:53
2	V 292.402†	105648.3	109049.1	[1000]	ug/L	06:59:53
2	Zn 213.857†	82710.5	83313.8	[1000]	ug/L	06:59:53
2	SiO2†	128264.6	129720.5	[10695]	ug/L	07:00:55
3	Sc Radial	3590.1	3590.1	100	%	06:59:10
3	Y RADIAL	3904.0	3904.0	96.01	%	06:58:50
3	Al 396.153Radial†	8487.6	8594.1	[10000]	ug/L	06:58:50
3	Ca 317.933Radial†	4972.4	4954.6	[10000]	ug/L	06:58:50
3	Fe 238.204 Radial†	739.4	730.9	[10000]	ug/L	06:59:10
3	K 766.490 Radial†	50550.1	47510.0	[10000]	ug/L	06:58:50
3	Mg 279.077 IEC†	237.7	236.9	[10000]	ug/L	06:59:10
3	Na 589.592 Radial†	18451.1	19340.8	[10000]	ug/L	06:58:50
3	Sr 421.552†	89977.7	89926.3	[1000]	ug/L	06:58:50
3	Sc 361.383	649666.6	649666.6	97.416	%	07:00:24
3	Y 371.029	511387.3	511387.3	96.838	%	07:00:24
3	Ag 328.068†	169807.3	174108.6	[1000]	ug/L	07:00:24
3	As 188.979†	1851.2	1925.6	[1000]	ug/L	07:00:44
3	B 249.677†	36081.5	37453.5	[1000]	ug/L	07:00:24
3	Ba 233.527†	96876.0	99432.0	[1000]	ug/L	07:00:24
3	Be 313.107†	2370869.0	2437923.7	[1000]	ug/L	07:00:19
3	Cd 226.502†	63107.1	64980.0	[1000]	ug/L	07:00:24
3	Co 228.616†	37404.0	38445.8	[1000]	ug/L	07:00:44
3	Cr 267.716†	63828.2	65425.8	[1000]	ug/L	07:00:24
3	Cu 324.752†	281153.5	283255.6	[1000]	ug/L	07:00:24
3	Mn 257.610†	711196.5	729603.3	[1000]	ug/L	07:00:24
3	Mo 202.031†	10002.8	10263.3	[1000]	ug/L	07:00:44
3	Ni 231.604†	28960.3	29643.6	[1000]	ug/L	07:00:44
3	P 214.914†	7375.5	7369.4	[5000]	ug/L	07:00:44
3	Pb 220.353†	5936.4	6159.6	[1000]	ug/L	07:00:44
3	S 181.975 Axial†	1274.3	1268.7	[2000]	ug/L	07:00:44
3	Sb 206.836†	2382.2	2420.1	[1000]	ug/L	07:00:44
3	Se 196.026†	1210.9	1269.6	[1000]	ug/L	07:00:44
3	Si 251.611†	127628.6	130476.9	[5000]	ug/L	07:00:24
3	Sn 189.927†	4154.8	4255.2	[1000]	ug/L	07:00:44
3	Ti 334.940†	515625.4	530705.7	[1000]	ug/L	07:00:24
3	Tl 190.801†	2442.9	2539.2	[1000]	ug/L	07:00:44
3	U 409.014†	22198.0	25192.3	[1000]	ug/L	07:00:24
3	V 292.402†	104627.6	109150.7	[1000]	ug/L	07:00:24
3	Zn 213.857†	81551.7	83024.1	[1000]	ug/L	07:00:24
3	SiO2†	132345.4	135305.0	[10695]	ug/L	07:01:00

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	656639.4	6979.38	1.06%	98.462	%
Sc Radial	3668.1	81.59	2.22%	102	%
Y 371.029	516438.2	5055.10	0.98%	97.794	%
Y RADIAL	4035.4	178.46	4.42%	99.24	%
Ag 328.068†	173868.7	365.94	0.21%	[1000]	ug/L
Al 396.153Radial†	8630.4	184.33	2.14%	[10000]	ug/L
As 188.979†	1946.1	17.89	0.92%	[1000]	ug/L
B 249.677†	37587.9	139.99	0.37%	[1000]	ug/L
Ba 233.527†	99242.2	168.52	0.17%	[1000]	ug/L
Be 313.107†	2401177.6	39083.92	1.63%	[1000]	ug/L
Ca 317.933Radial†	4977.5	83.62	1.68%	[10000]	ug/L
Cd 226.502†	65117.4	227.72	0.35%	[1000]	ug/L
Co 228.616†	38608.4	141.86	0.37%	[1000]	ug/L
Cr 267.716†	65401.2	82.82	0.13%	[1000]	ug/L
Cu 324.752†	283495.6	708.04	0.25%	[1000]	ug/L
Fe 238.204 Radial†	730.3	0.69	0.09%	[10000]	ug/L
K 766.490 Radial†	47760.5	830.53	1.74%	[10000]	ug/L

Mg 279.077 IEC†	238.3	1.39	0.59%	[10000]	ug/L
Mn 257.610†	729595.1	183.99	0.03%	[1000]	ug/L
Mo 202.031†	10315.2	47.94	0.46%	[1000]	ug/L
Na 589.592 Radial†	19521.6	472.57	2.42%	[10000]	ug/L
Ni 231.604†	29783.5	121.76	0.41%	[1000]	ug/L
P 214.914†	7453.1	76.84	1.03%	[5000]	ug/L
Pb 220.353†	6188.5	25.06	0.40%	[1000]	ug/L
S 181.975 Axial†	1278.1	8.38	0.66%	[2000]	ug/L
Sb 206.836†	2433.9	13.09	0.54%	[1000]	ug/L
Se 196.026†	1294.7	21.86	1.69%	[1000]	ug/L
Si 251.611†	130744.1	243.08	0.19%	[5000]	ug/L
Sn 189.927†	4274.5	17.12	0.40%	[1000]	ug/L
Sr 421.552†	90563.1	2414.13	2.67%	[1000]	ug/L
Ti 334.940†	530237.5	827.28	0.16%	[1000]	ug/L
Tl 190.801†	2542.7	3.64	0.14%	[1000]	ug/L
U 409.014†	25176.6	247.29	0.98%	[1000]	ug/L
V 292.402†	109051.2	98.44	0.09%	[1000]	ug/L
Zn 213.857†	83219.6	169.37	0.20%	[1000]	ug/L
SiO2†	131900.4	2986.93	2.26%	[10695]	ug/L

Sequence No.: 5

Sample ID: S10

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 5

Date Collected: 3/31/2010 07:03:11

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	3752.9	3752.9	105 %		07:05:25
1	Y RADIAL	4084.5	4084.5	100.4 %		07:05:25
1	Al 396.153Radial†	44794.6	42943.2	[50000] ug/L		07:05:05
1	Ca 317.933Radial†	25107.1	23992.0	[50000] ug/L		07:05:05
1	Fe 238.204 Radial†	1474.5	1401.7	[20000] ug/L		07:05:25
1	Mg 279.077 IEC†	1182.9	1130.5	[50000] ug/L		07:05:25
1	Na 589.592 Radial†	39133.2	38317.2	[20000] ug/L		07:05:05
1	Sc 361.383	640064.1	640064.1	95.977 %		07:06:22
1	Y 371.029	500865.1	500865.1	94.846 %		07:06:22
2	Sc Radial	3673.6	3673.6	102 %		07:05:50
2	Y RADIAL	3996.6	3996.6	98.28 %		07:05:50
2	Al 396.153Radial†	45135.2	44201.0	[50000] ug/L		07:05:30
2	Ca 317.933Radial†	25306.4	24705.3	[50000] ug/L		07:05:30
2	Fe 238.204 Radial†	1443.4	1401.8	[20000] ug/L		07:05:50
2	Mg 279.077 IEC†	1157.6	1130.1	[50000] ug/L		07:05:50
2	Na 589.592 Radial†	39040.4	39034.6	[20000] ug/L		07:05:30
2	Sc 361.383	638811.1	638811.1	95.789 %		07:06:28
2	Y 371.029	500298.1	500298.1	94.738 %		07:06:28
3	Sc Radial	3600.7	3600.7	100 %		07:06:15
3	Y RADIAL	3913.0	3913.0	96.23 %		07:06:15
3	Al 396.153Radial†	43690.8	43653.9	[50000] ug/L		07:05:55
3	Ca 317.933Radial†	24728.8	24629.9	[50000] ug/L		07:05:55
3	Fe 238.204 Radial†	1419.6	1406.6	[20000] ug/L		07:06:15
3	Mg 279.077 IEC†	1133.4	1128.9	[50000] ug/L		07:06:15
3	Na 589.592 Radial†	38051.7	38821.2	[20000] ug/L		07:05:55
3	Sc 361.383	643854.1	643854.1	96.545 %		07:06:34
3	Y 371.029	503994.3	503994.3	95.438 %		07:06:34

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc. Units	Calib.
Sc 361.383	640909.7	2625.69	0.41%	96.103 %	
Sc Radial	3675.8	76.13	2.07%	102 %	
Y 371.029	501719.1	1990.60	0.40%	95.007 %	
Y RADIAL	3998.0	85.76	2.14%	98.32 %	
Al 396.153Radial†	43599.4	630.63	1.45%	[50000] ug/L	
Ca 317.933Radial†	24442.4	391.83	1.60%	[50000] ug/L	
Fe 238.204 Radial†	1403.4	2.80	0.20%	[20000] ug/L	
Mg 279.077 IEC†	1129.8	0.83	0.07%	[50000] ug/L	
Na 589.592 Radial†	38724.3	368.38	0.95%	[20000] ug/L	

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	173.2	0.00000	0.999967	
Al 396.153Radial	3	Lin Thru 0	0.0	0.8715	0.00000	0.999996	
As 188.979	3	Lin Thru 0	0.0	1.926	0.00000	0.999794	
B 249.677	3	Lin Thru 0	0.0	37.33	0.00000	0.999909	
Ba 233.527	3	Lin Thru 0	0.0	98.85	0.00000	0.999966	
Be 313.107	3	Lin Thru 0	0.0	2387	0.00000	0.999933	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.4892	0.00000	0.999993	
Cd 226.502	3	Lin Thru 0	0.0	64.79	0.00000	0.999946	
Co 228.616	3	Lin Thru 0	0.0	38.52	0.00000	0.999990	
Cr 267.716	3	Lin Thru 0	0.0	65.06	0.00000	0.999944	
Cu 324.752	3	Lin Thru 0	0.0	282.0	0.00000	0.999945	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0707	0.00000	0.999869	
K 766.490 Radial	3	Lin Thru 0	0.0	4.752	0.00000	0.999941	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0227	0.00000	0.999941
Mn 257.610	3	Lin Thru 0	0.0	726.7	0.00000	0.999958
Mo 202.031	3	Lin Thru 0	0.0	10.23	0.00000	0.999860
Na 589.592 Radia	2	Lin Thru 0	0.0	1.939	0.00000	0.999995
Ni 231.604	3	Lin Thru 0	0.0	29.68	0.00000	0.999972
P 214.914	3	Lin Thru 0	0.0	1.473	0.00000	0.999735
Pb 220.353	3	Lin Thru 0	0.0	6.129	0.00000	0.999819
S 181.975 Axial	3	Lin Thru 0	0.0	0.6303	0.00000	0.999628
Sb 206.836	3	Lin Thru 0	0.0	2.412	0.00000	0.999843
Se 196.026	3	Lin Thru 0	0.0	1.283	0.00000	0.999852
Si 251.611	3	Lin Thru 0	0.0	26.14	0.00000	1.000000
Sn 189.927	3	Lin Thru 0	0.0	4.230	0.00000	0.999789
Sr 421.552	3	Lin Thru 0	0.0	90.70	0.00000	0.999995
Ti 334.940	3	Lin Thru 0	0.0	527.9	0.00000	0.999956
Tl 190.801	3	Lin Thru 0	0.0	2.520	0.00000	0.999850
U 409.014	3	Lin Thru 0	0.0	25.04	0.00000	0.999911
V 292.402	3	Lin Thru 0	0.0	108.5	0.00000	0.999954
Zn 213.857	3	Lin Thru 0	0.0	82.86	0.00000	0.999962
SiO2	3	Lin Thru 0	0.0	12.29	0.00000	0.999970

Sequence No.: 6

Sample ID: ICV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 9

Date Collected: 3/31/2010 07:08:45

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	3727.8	3727.8	104 %		07:10:58
1	Y RADIAL	4324.8	4324.8	106.4 %		07:10:38
1	Al 396.153Radial†	4720.0	4653.8	5314.8 ug/L	5314.8 ppb	07:10:38
1	Ca 317.933Radial†	2588.0	2475.7	5060.4 ug/L	5060.4 ppb	07:10:58
1	Fe 238.204 Radial†	391.1	368.3	5221.8 ug/L	5221.8 ppb	07:10:58
1	K 766.490 Radial†	16206.1	12582.2	2644.4 ug/L	2644.4 ppb	07:10:38
1	Mg 279.077 IEC†	129.6	124.2	5482.0 ug/L	5482.0 ppb	07:10:58
1	Na 589.592 Radial†	4391.7	5125.2	2642.7 ug/L	2642.7 ppb	07:10:38
1	Sr 421.552†	52812.4	50827.3	560.33 ug/L	560.33 ppb	07:10:38
1	Sc 361.383	679234.7	679234.7	101.85 %		07:11:55
1	Y 371.029	533574.5	533574.5	101.04 %		07:11:55
1	Ag 328.068†	44773.0	43757.7	255.87 ug/L	255.87 ppb	07:11:55
1	As 188.979†	881.8	891.0	466.86 ug/L	466.86 ppb	07:12:15
1	B 249.677†	18970.0	19040.5	507.78 ug/L	507.78 ppb	07:11:55
1	Ba 233.527†	50821.2	49884.8	505.91 ug/L	505.91 ppb	07:11:55
1	Be 313.107†	620535.5	613441.4	258.09 ug/L	258.09 ppb	07:11:55
1	Cd 226.502†	31476.1	31103.6	479.95 ug/L	479.95 ppb	07:12:15
1	Co 228.616†	19482.2	19178.2	497.94 ug/L	497.94 ppb	07:12:15
1	Cr 267.716†	32004.5	31327.9	482.60 ug/L	482.60 ppb	07:11:55
1	Cu 324.752†	149785.1	141709.9	502.46 ug/L	502.46 ppb	07:11:55
1	Mn 257.610†	383447.4	376027.4	517.70 ug/L	517.70 ppb	07:11:55
1	Mo 202.031†	5433.3	5329.8	521.57 ug/L	521.57 ppb	07:12:15
1	Ni 231.604†	14933.3	14577.3	490.91 ug/L	490.91 ppb	07:12:15
1	P 214.914†	3850.6	3578.9	2331.3 ug/L	2331.3 ppb	07:12:15
1	Pb 220.353†	2969.7	2981.6	488.37 ug/L	488.37 ppb	07:12:15
1	S 181.975 Axial†	1566.0	1498.2	2375.9 ug/L	2375.9 ppb	07:12:15
1	Sb 206.836†	1209.0	1161.8	500.34 ug/L	500.34 ppb	07:12:15
1	Se 196.026†	3201.9	3170.4	2487.0 ug/L	2487.0 ppb	07:12:15
1	Si 251.611†	130757.3	127845.6	4885.0 ug/L	4885.0 ppb	07:11:55
1	Sn 189.927†	2241.7	2191.2	518.93 ug/L	518.93 ppb	07:12:15
1	Ti 334.940†	266619.8	263182.2	498.38 ug/L	498.38 ppb	07:11:55
1	Tl 190.801†	1293.9	1301.9	520.02 ug/L	520.02 ppb	07:12:15
1	U 409.014†	10062.8	12285.5	488.91 ug/L	488.91 ppb	07:11:55
1	V 292.402†	53929.8	54698.5	510.93 ug/L	510.93 ppb	07:11:55
1	Zn 213.857†	43333.7	41856.2	500.56 ug/L	500.56 ppb	07:11:55
1	SiO2†	134496.9	131503.5	10682 ug/L	10682 ppb	07:13:13
2	Sc Radial	3676.0	3676.0	102 %		07:11:23
2	Y RADIAL	4050.6	4050.6	99.61 %		07:11:03
2	Al 396.153Radial†	4399.9	4405.3	5029.5 ug/L	5029.5 ppb	07:11:03
2	Ca 317.933Radial†	2532.2	2456.2	5020.6 ug/L	5020.6 ppb	07:11:23
2	Fe 238.204 Radial†	381.2	364.0	5160.5 ug/L	5160.5 ppb	07:11:23
2	K 766.490 Radial†	15183.7	11803.8	2480.7 ug/L	2480.7 ppb	07:11:03
2	Mg 279.077 IEC†	126.5	122.9	5424.1 ug/L	5424.1 ppb	07:11:23
2	Na 589.592 Radial†	3997.8	4800.2	2475.1 ug/L	2475.1 ppb	07:11:03
2	Sr 421.552†	49193.2	48009.8	529.27 ug/L	529.27 ppb	07:11:03
2	Sc 361.383	675952.3	675952.3	101.36 %		07:12:21
2	Y 371.029	530413.9	530413.9	100.44 %		07:12:21
2	Ag 328.068†	44308.3	43512.6	254.43 ug/L	254.43 ppb	07:12:21
2	As 188.979†	874.4	887.9	465.20 ug/L	465.20 ppb	07:12:41
2	B 249.677†	18827.0	18989.8	506.41 ug/L	506.41 ppb	07:12:21
2	Ba 233.527†	50325.7	49638.2	503.41 ug/L	503.41 ppb	07:12:21
2	Be 313.107†	615453.7	611386.2	257.22 ug/L	257.22 ppb	07:12:21
2	Cd 226.502†	31737.5	31511.5	486.26 ug/L	486.26 ppb	07:12:41
2	Co 228.616†	19617.9	19404.9	503.83 ug/L	503.83 ppb	07:12:41
2	Cr 267.716†	31760.9	31240.1	481.24 ug/L	481.24 ppb	07:12:21
2	Cu 324.752†	148443.0	141099.9	500.29 ug/L	500.29 ppb	07:12:21
2	Mn 257.610†	380074.7	374528.0	515.64 ug/L	515.64 ppb	07:12:21
2	Mo 202.031†	5436.9	5359.3	524.45 ug/L	524.45 ppb	07:12:41
2	Ni 231.604†	15038.2	14752.0	496.80 ug/L	496.80 ppb	07:12:41

2	P 214.914†	3872.0	3618.4	2358.6 ug/L	2358.6 ppb	07:12:41
2	Pb 220.353†	2988.1	3013.8	493.58 ug/L	493.58 ppb	07:12:41
2	S 181.975 Axial†	1589.2	1528.6	2424.1 ug/L	2424.1 ppb	07:12:41
2	Sb 206.836†	1210.4	1168.9	503.48 ug/L	503.48 ppb	07:12:41
2	Se 196.026†	3238.2	3221.4	2526.6 ug/L	2526.6 ppb	07:12:41
2	Si 251.611†	129594.2	127321.5	4864.9 ug/L	4864.9 ppb	07:12:21
2	Sn 189.927†	2258.0	2218.0	525.26 ug/L	525.26 ppb	07:12:41
2	Ti 334.940†	264091.5	261958.9	496.06 ug/L	496.06 ppb	07:12:21
2	Tl 190.801†	1292.6	1306.7	521.88 ug/L	521.88 ppb	07:12:41
2	U 409.014†	9960.4	12232.5	486.80 ug/L	486.80 ppb	07:12:21
2	V 292.402†	53375.2	54408.5	508.30 ug/L	508.30 ppb	07:12:21
2	Zn 213.857†	42998.0	41731.5	499.03 ug/L	499.03 ppb	07:12:21
2	SiO2†	129807.1	127517.7	10358 ug/L	10358 ppb	07:13:18
3	Sc Radial	3797.9	3797.9	106 %		07:11:48
3	Y RADIAL	4241.9	4241.9	104.3 %		07:11:28
3	Al 396.153Radial†	4569.1	4427.3	5053.4 ug/L	5053.4 ppb	07:11:28
3	Ca 317.933Radial†	2621.2	2461.1	5030.4 ug/L	5030.4 ppb	07:11:48
3	Fe 238.204 Radial†	396.2	366.1	5191.6 ug/L	5191.6 ppb	07:11:48
3	K 766.490 Radial†	15633.9	11753.3	2470.0 ug/L	2470.0 ppb	07:11:28
3	Mg 279.077 IEC†	131.3	123.5	5450.6 ug/L	5450.6 ppb	07:11:48
3	Na 589.592 Radial†	4276.8	4938.6	2546.4 ug/L	2546.4 ppb	07:11:28
3	Sr 421.552†	51479.4	48628.4	536.09 ug/L	536.09 ppb	07:11:28
3	Sc 361.383	655275.5	655275.5	98.258 %		07:12:47
3	Y 371.029	515549.1	515549.1	97.626 %		07:12:47
3	Ag 328.068†	43169.2	43732.7	255.72 ug/L	255.72 ppb	07:12:47
3	As 188.979†	895.6	936.7	490.50 ug/L	490.50 ppb	07:13:07
3	B 249.677†	18350.8	19091.4	509.06 ug/L	509.06 ppb	07:12:47
3	Ba 233.527†	49213.4	50072.9	507.81 ug/L	507.81 ppb	07:12:47
3	Be 313.107†	598301.3	613089.8	257.94 ug/L	257.94 ppb	07:12:47
3	Cd 226.502†	32243.6	33014.7	509.47 ug/L	509.47 ppb	07:13:07
3	Co 228.616†	19896.0	20298.7	527.09 ug/L	527.09 ppb	07:13:07
3	Cr 267.716†	31123.0	31579.7	486.47 ug/L	486.47 ppb	07:12:47
3	Cu 324.752†	144294.9	141499.5	501.71 ug/L	501.71 ppb	07:12:47
3	Mn 257.610†	370827.4	376949.1	518.97 ug/L	518.97 ppb	07:12:47
3	Mo 202.031†	5531.4	5624.8	550.40 ug/L	550.40 ppb	07:13:07
3	Ni 231.604†	15255.9	15441.7	520.02 ug/L	520.02 ppb	07:13:07
3	P 214.914†	3937.4	3805.6	2485.6 ug/L	2485.6 ppb	07:13:07
3	Pb 220.353†	2997.1	3116.0	510.31 ug/L	510.31 ppb	07:13:07
3	S 181.975 Axial†	1622.5	1611.9	2556.3 ug/L	2556.3 ppb	07:13:07
3	Sb 206.836†	1252.0	1248.9	537.60 ug/L	537.60 ppb	07:13:07
3	Se 196.026†	3291.8	3376.8	2647.8 ug/L	2647.8 ppb	07:13:07
3	Si 251.611†	126006.1	127704.3	4879.2 ug/L	4879.2 ppb	07:12:47
3	Sn 189.927†	2297.4	2328.4	551.36 ug/L	551.36 ppb	07:13:07
3	Ti 334.940†	257473.1	263444.8	498.87 ug/L	498.87 ppb	07:12:47
3	Tl 190.801†	1308.7	1363.4	544.31 ug/L	544.31 ppb	07:13:07
3	U 409.014†	9658.2	12235.0	486.88 ug/L	486.88 ppb	07:12:47
3	V 292.402†	51983.1	54653.3	510.92 ug/L	510.92 ppb	07:12:47
3	Zn 213.857†	41982.2	42036.3	502.55 ug/L	502.55 ppb	07:12:47
3	SiO2†	130038.7	131794.6	10705 ug/L	10705 ppb	07:13:23

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	670154.2	100.49 %	1.948			1.94%
Sc Radial	3733.9	104 %	1.7			1.64%
Y 371.029	526512.5	99.702 %	1.8227			1.83%
Y RADIAL	4205.8	103.4 %	3.46			3.34%
Ag 328.068†	43667.7	255.34 ug/L	0.793	255.34 ppb	0.793	0.31%
QC value within limits for Ag 328.068 Recovery = 102.13%						
Al 396.153Radial†	4495.4	5132.6 ug/L	158.28	5132.6 ppb	158.28	3.08%
QC value within limits for Al 396.153Radial Recovery = 102.65%						
As 188.979†	905.2	474.19 ug/L	14.152	474.19 ppb	14.152	2.98%
QC value within limits for As 188.979 Recovery = 94.84%						
B 249.677†	19040.6	507.75 ug/L	1.325	507.75 ppb	1.325	0.26%
QC value within limits for B 249.677 Recovery = 101.55%						
Ba 233.527†	49865.3	505.71 ug/L	2.208	505.71 ppb	2.208	0.44%
QC value within limits for Ba 233.527 Recovery = 101.14%						
Be 313.107†	612639.1	257.75 ug/L	0.464	257.75 ppb	0.464	0.18%
QC value within limits for Be 313.107 Recovery = 103.10%						
Ca 317.933Radial†	2464.3	5037.1 ug/L	20.71	5037.1 ppb	20.71	0.41%

QC value within limits for Ca 317.933 Radial Recovery = 100.74%							
Cd 226.502†	31876.6	491.89 ug/L	15.546	491.89 ppb	15.546	3.16%	
QC value within limits for Cd 226.502 Recovery = 98.38%							
Co 228.616†	19627.3	509.62 ug/L	15.413	509.62 ppb	15.413	3.02%	
QC value within limits for Co 228.616 Recovery = 101.92%							
Cr 267.716†	31382.6	483.44 ug/L	2.712	483.44 ppb	2.712	0.56%	
QC value within limits for Cr 267.716 Recovery = 96.69%							
Cu 324.752†	141436.5	501.49 ug/L	1.100	501.49 ppb	1.100	0.22%	
QC value within limits for Cu 324.752 Recovery = 100.30%							
Fe 238.204 Radial†	366.2	5191.3 ug/L	30.68	5191.3 ppb	30.68	0.59%	
QC value within limits for Fe 238.204 Radial Recovery = 103.83%							
K 766.490 Radial†	12046.4	2531.7 ug/L	97.77	2531.7 ppb	97.77	3.86%	
QC value within limits for K 766.490 Radial Recovery = 101.27%							
Mg 279.077 IEC†	123.5	5452.2 ug/L	28.96	5452.2 ppb	28.96	0.53%	
QC value within limits for Mg 279.077 IEC Recovery = 109.04%							
Mn 257.610†	375834.9	517.44 ug/L	1.683	517.44 ppb	1.683	0.33%	
QC value within limits for Mn 257.610 Recovery = 103.49%							
Mo 202.031†	5438.0	532.14 ug/L	15.881	532.14 ppb	15.881	2.98%	
QC value within limits for Mo 202.031 Recovery = 106.43%							
Na 589.592 Radial†	4954.7	2554.7 ug/L	84.11	2554.7 ppb	84.11	3.29%	
QC value within limits for Na 589.592 Radial Recovery = 102.19%							
Ni 231.604†	14923.7	502.58 ug/L	15.392	502.58 ppb	15.392	3.06%	
QC value within limits for Ni 231.604 Recovery = 100.52%							
P 214.914†	3667.6	2391.8 ug/L	82.32	2391.8 ppb	82.32	3.44%	
QC value within limits for P 214.914 Recovery = 95.67%							
Pb 220.353†	3037.1	497.42 ug/L	11.463	497.42 ppb	11.463	2.30%	
QC value within limits for Pb 220.353 Recovery = 99.48%							
S 181.975 Axial†	1546.2	2452.1 ug/L	93.43	2452.1 ppb	93.43	3.81%	
QC value within limits for S 181.975 Axial Recovery = 98.08%							
Sb 206.836†	1193.2	513.81 ug/L	20.668	513.81 ppb	20.668	4.02%	
QC value within limits for Sb 206.836 Recovery = 102.76%							
Se 196.026†	3256.2	2553.8 ug/L	83.77	2553.8 ppb	83.77	3.28%	
QC value within limits for Se 196.026 Recovery = 102.15%							
Si 251.611†	127623.8	4876.4 ug/L	10.34	4876.4 ppb	10.34	0.21%	
QC value within limits for Si 251.611 Recovery = 97.53%							
Sn 189.927†	2245.9	531.85 ug/L	17.189	531.85 ppb	17.189	3.23%	
QC value within limits for Sn 189.927 Recovery = 106.37%							
Sr 421.552†	49155.2	541.90 ug/L	16.325	541.90 ppb	16.325	3.01%	
QC value within limits for Sr 421.552 Recovery = 108.38%							
Ti 334.940†	262862.0	497.77 ug/L	1.501	497.77 ppb	1.501	0.30%	
QC value within limits for Ti 334.940 Recovery = 99.55%							
Tl 190.801†	1324.0	528.73 ug/L	13.519	528.73 ppb	13.519	2.56%	
QC value within limits for Tl 190.801 Recovery = 105.75%							
U 409.014†	12251.0	487.53 ug/L	1.193	487.53 ppb	1.193	0.24%	
QC value within limits for U 409.014 Recovery = 97.51%							
V 292.402†	54586.8	510.05 ug/L	1.512	510.05 ppb	1.512	0.30%	
QC value within limits for V 292.402 Recovery = 102.01%							
Zn 213.857†	41874.7	500.71 ug/L	1.767	500.71 ppb	1.767	0.35%	
QC value within limits for Zn 213.857 Recovery = 100.14%							
SiO2†	130271.9	10581 ug/L	194.2	10581 ppb	194.2	1.83%	
QC value within limits for SiO2 Recovery = 98.94%							
All analyte(s) passed QC.							

Sequence No.: 7

Sample ID: ICB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 3/31/2010 07:15:34

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	3702.8	3702.8	103 %		07:17:47
1	Y RADIAL	4043.3	4043.3	99.43 %		07:17:27
1	Al 396.153Radial†	-94.7	18.2	20.795 ug/L	20.795 ppb	07:17:47
1	Ca 317.933Radial†	17.9	1.6	3.3390 ug/L	3.3390 ppb	07:17:47
1	Fe 238.204 Radial†	8.3	-0.2	-2.2291 ug/L	-2.2291 ppb	07:17:47
1	K 766.490 Radial†	3026.7	-85.5	-17.993 ug/L	-17.993 ppb	07:17:27
1	Mg 279.077 IEC†	-1.1	-1.7	-74.404 ug/L	-74.404 ppb	07:17:47
1	Na 589.592 Radial†	-993.5	-65.4	-33.721 ug/L	-33.721 ppb	07:17:27
1	Sr 421.552†	26.0	11.4	0.1262 ug/L	0.1262 ppb	07:17:27
1	Sc 361.383	654511.6	654511.6	98.143 %		07:18:44
1	Y 371.029	517681.4	517681.4	98.030 %		07:18:44
1	Ag 328.068†	304.8	108.5	0.6264 ug/L	0.6264 ppb	07:18:44
1	As 188.979†	-18.9	6.0	3.1107 ug/L	3.1107 ppb	07:19:04
1	B 249.677†	-285.4	124.3	3.3315 ug/L	3.3315 ppb	07:19:04
1	Ba 233.527†	21.7	8.9	0.0884 ug/L	0.0884 ppb	07:19:04
1	Be 313.107†	-4175.7	-76.5	-0.0324 ug/L	-0.0324 ppb	07:18:44
1	Cd 226.502†	-206.6	-11.3	-0.1743 ug/L	-0.1743 ppb	07:19:04
1	Co 228.616†	-55.8	-6.9	-0.1756 ug/L	-0.1756 ppb	07:19:04
1	Cr 267.716†	108.8	15.6	0.2400 ug/L	0.2400 ppb	07:19:04
1	Cu 324.752†	5378.5	126.0	0.4491 ug/L	0.4491 ppb	07:18:44
1	Mn 257.610†	461.7	16.0	0.0248 ug/L	0.0248 ppb	07:19:04
1	Mo 202.031†	20.5	16.2	1.5824 ug/L	1.5824 ppb	07:19:04
1	Ni 231.604†	113.7	31.2	1.0499 ug/L	1.0499 ppb	07:19:04
1	P 214.914†	199.5	1.6	0.9962 ug/L	0.9962 ppb	07:19:04
1	Pb 220.353†	-49.1	15.7	2.5745 ug/L	2.5745 ppb	07:19:04
1	S 181.975 Axial†	34.8	-3.9	-6.2041 ug/L	-6.2041 ppb	07:19:04
1	Sb 206.836†	15.6	-9.4	-3.8284 ug/L	-3.8284 ppb	07:19:04
1	Se 196.026†	-17.4	8.8	6.8900 ug/L	6.8900 ppb	07:19:04
1	Si 251.611†	529.8	3.5	0.1130 ug/L	0.1130 ppb	07:19:04
1	Sn 189.927†	15.3	5.8	1.3776 ug/L	1.3776 ppb	07:19:04
1	Ti 334.940†	-1460.3	-82.3	-0.1474 ug/L	-0.1474 ppb	07:18:44
1	Tl 190.801†	-22.8	8.2	3.2663 ug/L	3.2663 ppb	07:19:04
1	U 409.014†	-2473.0	-114.2	-4.5606 ug/L	-4.5606 ppb	07:18:44
1	V 292.402†	-1794.8	-80.4	-0.7283 ug/L	-0.7283 ppb	07:18:44
1	Zn 213.857†	679.6	2.0	0.0176 ug/L	0.0176 ppb	07:19:04
1	SiO2†	538.3	-1.7	-0.1809 ug/L	-0.1809 ppb	07:20:00
2	Sc Radial	3752.6	3752.6	105 %		07:18:12
2	Y RADIAL	4100.3	4100.3	100.8 %		07:17:52
2	Al 396.153Radial†	-107.2	7.4	8.5029 ug/L	8.5029 ppb	07:18:12
2	Ca 317.933Radial†	8.4	-7.7	-15.677 ug/L	-15.677 ppb	07:18:12
2	Fe 238.204 Radial†	5.4	-3.1	-43.179 ug/L	-43.179 ppb	07:18:12
2	K 766.490 Radial†	3163.5	6.3	1.3250 ug/L	1.3250 ppb	07:17:52
2	Mg 279.077 IEC†	-0.2	-0.9	-38.443 ug/L	-38.443 ppb	07:18:12
2	Na 589.592 Radial†	-920.1	17.6	9.0546 ug/L	9.0546 ppb	07:17:52
2	Sr 421.552†	25.3	10.4	0.1151 ug/L	0.1151 ppb	07:17:52
2	Sc 361.383	693074.1	693074.1	103.93 %		07:19:09
2	Y 371.029	547155.6	547155.6	103.61 %		07:19:09
2	Ag 328.068†	183.2	-25.8	-0.1618 ug/L	-0.1618 ppb	07:19:09
2	As 188.979†	-17.9	8.0	4.1640 ug/L	4.1640 ppb	07:19:29
2	B 249.677†	-296.0	130.2	3.4953 ug/L	3.4953 ppb	07:19:29
2	Ba 233.527†	12.0	-1.6	-0.0154 ug/L	-0.0154 ppb	07:19:29
2	Be 313.107†	-4323.1	18.5	0.0076 ug/L	0.0076 ppb	07:19:09
2	Cd 226.502†	-206.4	0.7	0.0153 ug/L	0.0153 ppb	07:19:29
2	Co 228.616†	-45.3	6.3	0.1653 ug/L	0.1653 ppb	07:19:29
2	Cr 267.716†	89.5	-9.1	-0.1452 ug/L	-0.1452 ppb	07:19:29
2	Cu 324.752†	5593.2	27.7	0.0934 ug/L	0.0934 ppb	07:19:09
2	Mn 257.610†	473.2	0.9	-0.0015 ug/L	-0.0015 ppb	07:19:29
2	Mo 202.031†	10.3	5.2	0.5042 ug/L	0.5042 ppb	07:19:29
2	Ni 231.604†	81.6	-6.3	-0.2107 ug/L	-0.2107 ppb	07:19:29

2	P 214.914†	197.3	-11.8	-8.0134 ug/L	-8.0134 ppb	07:19:29
2	Pb 220.353†	-83.4	-14.5	-2.3591 ug/L	-2.3591 ppb	07:19:29
2	S 181.975 Axial†	32.5	-8.1	-12.826 ug/L	-12.826 ppb	07:19:29
2	Sb 206.836†	30.9	4.5	1.8841 ug/L	1.8841 ppb	07:19:29
2	Se 196.026†	-21.0	6.4	4.8618 ug/L	4.8618 ppb	07:19:29
2	Si 251.611†	547.9	-9.2	-0.3572 ug/L	-0.3572 ppb	07:19:29
2	Sn 189.927†	14.2	3.9	0.9197 ug/L	0.9197 ppb	07:19:29
2	Ti 334.940†	-1489.5	-27.6	-0.0532 ug/L	-0.0532 ppb	07:19:09
2	Tl 190.801†	-44.0	-10.8	-4.3049 ug/L	-4.3049 ppb	07:19:29
2	U 409.014†	-2378.6	116.8	4.6703 ug/L	4.6703 ppb	07:19:09
2	V 292.402†	-1698.5	114.0	1.0721 ug/L	1.0721 ppb	07:19:09
2	Zn 213.857†	681.4	-34.7	-0.4109 ug/L	-0.4109 ppb	07:19:29
2	SiO2†	545.4	-25.4	-2.0838 ug/L	-2.0838 ppb	07:20:05
3	Sc Radial	3835.8	3835.8	107 %		07:18:37
3	Y RADIAL	4101.9	4101.9	100.9 %		07:18:17
3	Al 396.153Radial†	-87.2	28.4	32.578 ug/L	32.578 ppb	07:18:37
3	Ca 317.933Radial†	14.0	-2.6	-5.2815 ug/L	-5.2815 ppb	07:18:37
3	Fe 238.204 Radial†	6.7	-1.9	-26.807 ug/L	-26.807 ppb	07:18:37
3	K 766.490 Radial†	3051.8	-163.8	-34.480 ug/L	-34.480 ppb	07:18:17
3	Mg 279.077 IEC†	2.1	1.3	56.969 ug/L	56.969 ppb	07:18:37
3	Na 589.592 Radial†	-953.7	5.2	2.6865 ug/L	2.6865 ppb	07:18:17
3	Sr 421.552†	16.8	2.0	0.0218 ug/L	0.0218 ppb	07:18:17
3	Sc 361.383	658450.7	658450.7	98.734 %		07:19:35
3	Y 371.029	521328.2	521328.2	98.720 %		07:19:35
3	Ag 328.068†	216.1	16.8	0.0852 ug/L	0.0852 ppb	07:19:35
3	As 188.979†	-20.3	4.7	2.4138 ug/L	2.4138 ppb	07:19:55
3	B 249.677†	-225.7	186.5	5.0009 ug/L	5.0009 ppb	07:19:55
3	Ba 233.527†	6.8	-6.3	-0.0640 ug/L	-0.0640 ppb	07:19:55
3	Be 313.107†	-4157.8	-32.9	-0.0134 ug/L	-0.0134 ppb	07:19:35
3	Cd 226.502†	-214.9	-18.4	-0.2798 ug/L	-0.2798 ppb	07:19:55
3	Co 228.616†	-48.1	1.2	0.0311 ug/L	0.0311 ppb	07:19:55
3	Cr 267.716†	75.5	-18.8	-0.2936 ug/L	-0.2936 ppb	07:19:55
3	Cu 324.752†	5380.6	95.4	0.3336 ug/L	0.3336 ppb	07:19:35
3	Mn 257.610†	432.3	-16.6	-0.0278 ug/L	-0.0278 ppb	07:19:55
3	Mo 202.031†	6.2	1.5	0.1475 ug/L	0.1475 ppb	07:19:55
3	Ni 231.604†	95.7	12.2	0.4110 ug/L	0.4110 ppb	07:19:55
3	P 214.914†	199.0	-0.1	-0.1172 ug/L	-0.1172 ppb	07:19:55
3	Pb 220.353†	-73.0	-8.1	-1.3171 ug/L	-1.3171 ppb	07:19:55
3	S 181.975 Axial†	36.0	-2.9	-4.6341 ug/L	-4.6341 ppb	07:19:55
3	Sb 206.836†	31.3	6.4	2.6658 ug/L	2.6658 ppb	07:19:55
3	Se 196.026†	-21.9	4.4	3.3869 ug/L	3.3869 ppb	07:19:55
3	Si 251.611†	535.6	6.0	0.2286 ug/L	0.2286 ppb	07:19:55
3	Sn 189.927†	8.6	-1.0	-0.2441 ug/L	-0.2441 ppb	07:19:55
3	Ti 334.940†	-1307.2	81.7	0.1470 ug/L	0.1470 ppb	07:19:35
3	Tl 190.801†	-29.3	1.8	0.7210 ug/L	0.7210 ppb	07:19:55
3	U 409.014†	-2230.9	146.0	5.8335 ug/L	5.8335 ppb	07:19:35
3	V 292.402†	-1697.4	29.2	0.2873 ug/L	0.2873 ppb	07:19:35
3	Zn 213.857†	687.2	5.7	0.0694 ug/L	0.0694 ppb	07:19:55
3	SiO2†	578.7	35.9	2.9192 ug/L	2.9192 ppb	07:20:10

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	668678.8	100.27 %		3.182			3.17%
Sc Radial	3763.7	105 %		1.9			1.79%
Y 371.029	528721.7	100.12 %		3.043			3.04%
Y RADIAL	4081.8	100.4 %		0.82			0.82%
Ag 328.068†	33.2	0.1833 ug/L		0.40314	0.1833 ppb	0.40314	219.94%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	18.0	20.625 ug/L		12.0382	20.625 ppb	12.0382	58.37%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	6.2	3.2295 ug/L		0.88111	3.2295 ppb	0.88111	27.28%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	147.0	3.9426 ug/L		0.92018	3.9426 ppb	0.92018	23.34%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	0.3	0.0030 ug/L		0.07784	0.0030 ppb	0.07784	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	-30.3	-0.0127 ug/L		0.02002	-0.0127 ppb	0.02002	157.34%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	-2.9	-5.8731 ug/L		9.52159	-5.8731 ppb	9.52159	162.12%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd 226.502†	-9.7	-0.1463 ug/L	0.14951	-0.1463 ppb	0.14951	102.22%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	0.2	0.0069 ug/L	0.17173	0.0069 ppb	0.17173	>999.9%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-4.1	-0.0663 ug/L	0.27541	-0.0663 ppb	0.27541	415.56%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	83.0	0.2920 ug/L	0.18145	0.2920 ppb	0.18145	62.14%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-1.7	-24.072 ug/L	20.6115	-24.072 ppb	20.6115	85.63%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	-81.0	-17.049 ug/L	17.9210	-17.049 ppb	17.9210	105.11%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	-0.4	-18.626 ug/L	67.8916	-18.626 ppb	67.8916	364.50%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	0.1	-0.0015 ug/L	0.02632	-0.0015 ppb	0.02632	>999.9%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	7.6	0.7447 ug/L	0.74711	0.7447 ppb	0.74711	100.32%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-14.2	-7.3267 ug/L	23.07898	-7.3267 ppb	23.07898	315.00%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	12.4	0.4167 ug/L	0.63034	0.4167 ppb	0.63034	151.26%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-3.5	-2.3781 ug/L	4.91194	-2.3781 ppb	4.91194	206.54%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-2.3	-0.3672 ug/L	2.60033	-0.3672 ppb	2.60033	708.09%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-5.0	-7.8881 ug/L	4.34793	-7.8881 ppb	4.34793	55.12%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	0.5	0.2405 ug/L	3.54540	0.2405 ppb	3.54540	>999.9%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	6.5	5.0462 ug/L	1.75882	5.0462 ppb	1.75882	34.85%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	0.1	-0.0052 ug/L	0.31029	-0.0052 ppb	0.31029	>999.9%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	2.9	0.6844 ug/L	0.83609	0.6844 ppb	0.83609	122.16%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	7.9	0.0877 ug/L	0.05734	0.0877 ppb	0.05734	65.39%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-9.4	-0.0178 ug/L	0.15036	-0.0178 ppb	0.15036	842.84%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-0.3	-0.1059 ug/L	3.85269	-0.1059 ppb	3.85269	>999.9%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	49.5	1.9811 ug/L	5.69501	1.9811 ppb	5.69501	287.47%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	20.9	0.2104 ug/L	0.90264	0.2104 ppb	0.90264	429.06%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	-9.0	-0.1080 ug/L	0.26360	-0.1080 ppb	0.26360	244.12%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	2.9	0.2182 ug/L	2.52525	0.2182 ppb	2.52525	>999.9%
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: 3/31/2010 07:22:22
 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	3685.4	3685.4	103 %		07:24:35
1	Y RADIAL	4041.2	4041.2	99.38 %		07:24:15
1	Al 396.153Radial†	70.6	178.8	204.60 ug/L	204.60 ppb	07:24:15
1	Ca 317.933Radial†	123.4	104.5	213.55 ug/L	213.55 ppb	07:24:35
1	Fe 238.204 Radial†	14.5	6.0	84.652 ug/L	84.652 ppb	07:24:35
1	K 766.490 Radial†	3787.1	668.7	140.52 ug/L	140.52 ppb	07:24:15
1	Mg 279.077 IEC†	11.5	10.6	466.76 ug/L	466.76 ppb	07:24:35
1	Na 589.592 Radial†	-339.0	567.3	292.52 ug/L	292.52 ppb	07:24:15
1	Sr 421.552†	477.3	451.0	4.9702 ug/L	4.9702 ppb	07:24:15
1	Sc 361.383	668720.7	668720.7	100.27 %		07:25:32
1	Y 371.029	528209.7	528209.7	100.02 %		07:25:32
1	Ag 328.068†	1022.5	817.6	4.7286 ug/L	4.7286 ppb	07:25:32
1	As 188.979†	37.8	62.9	32.704 ug/L	32.704 ppb	07:25:52
1	B 249.677†	1435.0	1846.2	49.426 ug/L	49.426 ppb	07:25:32
1	Ba 233.527†	527.3	512.7	5.1991 ug/L	5.1991 ppb	07:25:52
1	Be 313.107†	7620.4	11777.9	4.9446 ug/L	4.9446 ppb	07:25:32
1	Cd 226.502†	110.6	309.5	4.7810 ug/L	4.7810 ppb	07:25:52
1	Co 228.616†	141.9	191.4	4.9834 ug/L	4.9834 ppb	07:25:52
1	Cr 267.716†	383.8	287.6	4.4186 ug/L	4.4186 ppb	07:25:52
1	Cu 324.752†	8351.1	2974.0	10.525 ug/L	10.525 ppb	07:25:32
1	Mn 257.610†	8150.3	7673.6	10.548 ug/L	10.548 ppb	07:25:32
1	Mo 202.031†	115.7	110.6	10.822 ug/L	10.822 ppb	07:25:52
1	Ni 231.604†	250.6	165.2	5.5644 ug/L	5.5644 ppb	07:25:52
1	P 214.914†	413.1	210.3	140.69 ug/L	140.69 ppb	07:25:52
1	Pb 220.353†	-3.9	61.9	10.166 ug/L	10.166 ppb	07:25:52
1	S 181.975 Axial†	100.1	60.4	95.815 ug/L	95.815 ppb	07:25:52
1	Sb 206.836†	52.5	27.1	11.617 ug/L	11.617 ppb	07:25:52
1	Se 196.026†	8.6	35.2	27.738 ug/L	27.738 ppb	07:25:52
1	Si 251.611†	3173.1	2628.0	100.42 ug/L	100.42 ppb	07:25:52
1	Sn 189.927†	50.2	40.3	9.5685 ug/L	9.5685 ppb	07:25:52
1	Ti 334.940†	1184.7	2587.1	4.8707 ug/L	4.8707 ppb	07:25:32
1	Tl 190.801†	14.5	46.0	18.302 ug/L	18.302 ppb	07:25:52
1	U 409.014†	-1331.5	1077.7	43.014 ug/L	43.014 ppb	07:25:32
1	V 292.402†	-1245.0	506.8	4.8947 ug/L	4.8947 ppb	07:25:32
1	Zn 213.857†	1550.3	855.7	10.265 ug/L	10.265 ppb	07:25:52
1	SiO2†	3338.8	2779.5	225.78 ug/L	225.78 ppb	07:26:48
2	Sc Radial	3747.4	3747.4	104 %		07:25:00
2	Y RADIAL	4191.9	4191.9	103.1 %		07:24:40
2	Al 396.153Radial†	70.4	177.4	202.98 ug/L	202.98 ppb	07:24:40
2	Ca 317.933Radial†	128.7	107.6	219.85 ug/L	219.85 ppb	07:25:00
2	Fe 238.204 Radial†	12.6	3.9	55.580 ug/L	55.580 ppb	07:25:00
2	K 766.490 Radial†	3883.5	699.9	147.09 ug/L	147.09 ppb	07:24:40
2	Mg 279.077 IEC†	8.4	7.4	326.93 ug/L	326.93 ppb	07:25:00
2	Na 589.592 Radial†	-337.2	574.5	296.23 ug/L	296.23 ppb	07:24:40
2	Sr 421.552†	513.4	477.9	5.2673 ug/L	5.2673 ppb	07:24:40
2	Sc 361.383	667000.9	667000.9	100.02 %		07:25:57
2	Y 371.029	526955.5	526955.5	99.786 %		07:25:57
2	Ag 328.068†	1022.8	820.6	4.7415 ug/L	4.7415 ppb	07:25:57
2	As 188.979†	34.4	59.7	31.019 ug/L	31.019 ppb	07:26:17
2	B 249.677†	1469.3	1884.2	50.450 ug/L	50.450 ppb	07:25:57
2	Ba 233.527†	520.5	507.2	5.1472 ug/L	5.1472 ppb	07:26:17
2	Be 313.107†	7819.2	11996.3	5.0365 ug/L	5.0365 ppb	07:25:57
2	Cd 226.502†	105.3	304.5	4.7066 ug/L	4.7066 ppb	07:26:17
2	Co 228.616†	136.5	186.4	4.8530 ug/L	4.8530 ppb	07:26:17
2	Cr 267.716†	411.3	316.0	4.8546 ug/L	4.8546 ppb	07:26:17
2	Cu 324.752†	8277.4	2921.9	10.338 ug/L	10.338 ppb	07:25:57
2	Mn 257.610†	8228.4	7772.7	10.687 ug/L	10.687 ppb	07:25:57
2	Mo 202.031†	118.4	113.6	11.114 ug/L	11.114 ppb	07:26:17
2	Ni 231.604†	258.0	173.2	5.8332 ug/L	5.8332 ppb	07:26:17

2	P 214.914†	412.9	211.2	141.37 ug/L	141.37 ppb	07:26:17
2	Pb 220.353†	6.3	72.1	11.834 ug/L	11.834 ppb	07:26:17
2	S 181.975 Axial†	89.7	50.3	79.763 ug/L	79.763 ppb	07:26:17
2	Sb 206.836†	55.0	29.8	12.740 ug/L	12.740 ppb	07:26:17
2	Se 196.026†	13.0	39.6	31.065 ug/L	31.065 ppb	07:26:17
2	Si 251.611†	3122.3	2585.4	98.780 ug/L	98.780 ppb	07:26:17
2	Sn 189.927†	54.9	45.2	10.716 ug/L	10.716 ppb	07:26:17
2	Ti 334.940†	1266.9	2672.3	5.0431 ug/L	5.0431 ppb	07:25:57
2	Tl 190.801†	14.4	45.9	18.262 ug/L	18.262 ppb	07:26:17
2	U 409.014†	-1261.7	1144.0	45.665 ug/L	45.665 ppb	07:25:57
2	V 292.402†	-1052.8	695.8	6.6461 ug/L	6.6461 ppb	07:25:57
2	Zn 213.857†	1520.1	829.5	9.9518 ug/L	9.9518 ppb	07:26:17
2	SiO2†	3369.5	2818.8	228.97 ug/L	228.97 ppb	07:26:53
3	Sc Radial	3782.6	3782.6	105 %		07:25:25
3	Y RADIAL	4458.6	4458.6	109.6 %		07:25:05
3	Al 396.153Radial†	96.2	201.2	230.35 ug/L	230.35 ppb	07:25:05
3	Ca 317.933Radial†	127.2	105.0	214.53 ug/L	214.53 ppb	07:25:25
3	Fe 238.204 Radial†	17.6	8.6	121.08 ug/L	121.08 ppb	07:25:25
3	K 766.490 Radial†	3879.2	661.3	138.94 ug/L	138.94 ppb	07:25:05
3	Mg 279.077 IEC†	11.1	9.9	436.84 ug/L	436.84 ppb	07:25:25
3	Na 589.592 Radial†	-202.6	705.2	363.62 ug/L	363.62 ppb	07:25:05
3	Sr 421.552†	547.6	505.8	5.5744 ug/L	5.5744 ppb	07:25:05
3	Sc 361.383	692274.8	692274.8	103.81 %		07:26:23
3	Y 371.029	545764.4	545764.4	103.35 %		07:26:23
3	Ag 328.068†	1191.9	946.1	5.4773 ug/L	5.4773 ppb	07:26:23
3	As 188.979†	24.8	49.1	25.554 ug/L	25.554 ppb	07:26:43
3	B 249.677†	1505.5	1865.5	49.937 ug/L	49.937 ppb	07:26:23
3	Ba 233.527†	506.9	475.1	4.8210 ug/L	4.8210 ppb	07:26:43
3	Be 313.107†	8206.6	12084.0	5.0733 ug/L	5.0733 ppb	07:26:23
3	Cd 226.502†	122.0	316.7	4.8891 ug/L	4.8891 ppb	07:26:43
3	Co 228.616†	141.0	185.7	4.8351 ug/L	4.8351 ppb	07:26:43
3	Cr 267.716†	402.6	292.6	4.4974 ug/L	4.4974 ppb	07:26:43
3	Cu 324.752†	8637.8	2966.8	10.498 ug/L	10.498 ppb	07:26:23
3	Mn 257.610†	8450.0	7685.8	10.570 ug/L	10.570 ppb	07:26:23
3	Mo 202.031†	122.3	113.1	11.067 ug/L	11.067 ppb	07:26:43
3	Ni 231.604†	226.6	133.5	4.4965 ug/L	4.4965 ppb	07:26:43
3	P 214.914†	416.3	199.4	133.29 ug/L	133.29 ppb	07:26:43
3	Pb 220.353†	-13.5	52.8	8.6813 ug/L	8.6813 ppb	07:26:43
3	S 181.975 Axial†	100.6	57.5	91.204 ug/L	91.204 ppb	07:26:43
3	Sb 206.836†	58.3	30.9	13.176 ug/L	13.176 ppb	07:26:43
3	Se 196.026†	12.6	38.8	30.615 ug/L	30.615 ppb	07:26:43
3	Si 251.611†	3171.4	2518.7	96.230 ug/L	96.230 ppb	07:26:43
3	Sn 189.927†	51.2	39.6	9.3961 ug/L	9.3961 ppb	07:26:43
3	Ti 334.940†	1324.2	2681.3	5.0485 ug/L	5.0485 ppb	07:26:23
3	Tl 190.801†	26.8	57.3	22.798 ug/L	22.798 ppb	07:26:43
3	U 409.014†	-1184.3	1264.7	50.476 ug/L	50.476 ppb	07:26:23
3	V 292.402†	-1244.3	549.7	5.3019 ug/L	5.3019 ppb	07:26:23
3	Zn 213.857†	1529.3	782.9	9.3869 ug/L	9.3869 ppb	07:26:43
3	SiO2†	3335.9	2663.3	216.33 ug/L	216.33 ppb	07:26:58

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	675998.8	101.36 %	2.118			2.09%
Sc Radial	3738.5	104 %	1.4			1.32%
Y 371.029	533643.2	101.05 %	1.991			1.97%
Y RADIAL	4230.6	104.0 %	5.20			5.00%
Ag 328.068†	861.4	4.9825 ug/L	0.42861	4.9825 ppb	0.42861	8.60%
QC value within limits for Ag 328.068 Recovery = 99.65%						
Al 396.153Radial†	185.8	212.64 ug/L	15.354	212.64 ppb	15.354	7.22%
QC value within limits for Al 396.153Radial Recovery = 106.32%						
As 188.979†	57.3	29.759 ug/L	3.7377	29.759 ppb	3.7377	12.56%
QC value within limits for As 188.979 Recovery = 99.20%						
B 249.677†	1865.3	49.938 ug/L	0.5122	49.938 ppb	0.5122	1.03%
QC value within limits for B 249.677 Recovery = 99.88%						
Ba 233.527†	498.3	5.0558 ug/L	0.20497	5.0558 ppb	0.20497	4.05%
QC value within limits for Ba 233.527 Recovery = 101.12%						
Be 313.107†	11952.7	5.0181 ug/L	0.06626	5.0181 ppb	0.06626	1.32%
QC value within limits for Be 313.107 Recovery = 100.36%						
Ca 317.933Radial†	105.7	215.97 ug/L	3.392	215.97 ppb	3.392	1.57%

QC value within limits for Ca 317.933 Radial Recovery = 107.99%							
Cd 226.502†	310.3	4.7923 ug/L	0.09175	4.7923 ppb	0.09175	1.91%	
QC value within limits for Cd 226.502 Recovery = 95.85%							
Co 228.616†	187.9	4.8905 ug/L	0.08093	4.8905 ppb	0.08093	1.65%	
QC value within limits for Co 228.616 Recovery = 97.81%							
Cr 267.716†	298.7	4.5902 ug/L	0.23235	4.5902 ppb	0.23235	5.06%	
QC value within limits for Cr 267.716 Recovery = 91.80%							
Cu 324.752†	2954.2	10.454 ug/L	0.1015	10.454 ppb	0.1015	0.97%	
QC value within limits for Cu 324.752 Recovery = 104.54%							
Fe 238.204 Radial†	6.2	87.104 ug/L	32.8193	87.104 ppb	32.8193	37.68%	
QC value within limits for Fe 238.204 Radial Recovery = 87.10%							
K 766.490 Radial†	676.6	142.18 ug/L	4.325	142.18 ppb	4.325	3.04%	
QC value within limits for K 766.490 Radial Recovery = 94.79%							
Mg 279.077 IEC†	9.3	410.18 ug/L	73.625	410.18 ppb	73.625	17.95%	
QC value greater than the upper limit for Mg 279.077 IEC Recovery = 136.73%							
Mn 257.610†	7710.7	10.602 ug/L	0.0749	10.602 ppb	0.0749	0.71%	
QC value within limits for Mn 257.610 Recovery = 106.02%							
Mo 202.031†	112.4	11.001 ug/L	0.1568	11.001 ppb	0.1568	1.42%	
QC value within limits for Mo 202.031 Recovery = 110.01%							
Na 589.592 Radial†	615.7	317.45 ug/L	40.020	317.45 ppb	40.020	12.61%	
QC value within limits for Na 589.592 Radial Recovery = 105.82%							
Ni 231.604†	157.3	5.2981 ug/L	0.70704	5.2981 ppb	0.70704	13.35%	
QC value within limits for Ni 231.604 Recovery = 105.96%							
P 214.914†	206.9	138.45 ug/L	4.477	138.45 ppb	4.477	3.23%	
QC value within limits for P 214.914 Recovery = 92.30%							
Pb 220.353†	62.3	10.227 ug/L	1.5771	10.227 ppb	1.5771	15.42%	
QC value within limits for Pb 220.353 Recovery = 102.27%							
S 181.975 Axial†	56.1	88.927 ug/L	8.2648	88.927 ppb	8.2648	9.29%	
QC value within limits for S 181.975 Axial Recovery = 88.93%							
Sb 206.836†	29.3	12.511 ug/L	0.8042	12.511 ppb	0.8042	6.43%	
QC value within limits for Sb 206.836 Recovery = 125.11%							
Se 196.026†	37.8	29.806 ug/L	1.8052	29.806 ppb	1.8052	6.06%	
QC value within limits for Se 196.026 Recovery = 99.35%							
Si 251.611†	2577.4	98.475 ug/L	2.1097	98.475 ppb	2.1097	2.14%	
QC value within limits for Si 251.611 Recovery = 98.48%							
Sn 189.927†	41.7	9.8936 ug/L	0.71749	9.8936 ppb	0.71749	7.25%	
QC value within limits for Sn 189.927 Recovery = 98.94%							
Sr 421.552†	478.2	5.2707 ug/L	0.30213	5.2707 ppb	0.30213	5.73%	
QC value within limits for Sr 421.552 Recovery = 105.41%							
Ti 334.940†	2646.9	4.9874 ug/L	0.10112	4.9874 ppb	0.10112	2.03%	
QC value within limits for Ti 334.940 Recovery = 99.75%							
Tl 190.801†	49.7	19.787 ug/L	2.6074	19.787 ppb	2.6074	13.18%	
QC value within limits for Tl 190.801 Recovery = 98.94%							
U 409.014†	1162.1	46.385 ug/L	3.7830	46.385 ppb	3.7830	8.16%	
QC value within limits for U 409.014 Recovery = 92.77%							
V 292.402†	584.1	5.6142 ug/L	0.91653	5.6142 ppb	0.91653	16.33%	
QC value within limits for V 292.402 Recovery = 112.28%							
Zn 213.857†	822.7	9.8679 ug/L	0.44497	9.8679 ppb	0.44497	4.51%	
QC value within limits for Zn 213.857 Recovery = 98.68%							
SiO2†	2753.9	223.69 ug/L	6.573	223.69 ppb	6.573	2.94%	
QC value within limits for SiO2 Recovery = 105.02%							
QC Failed. Continue with analysis.							

Sequence No.: 9

Sample ID: ICSA

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 13

Date Collected: 3/31/2010 07:29:10

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	3523.8	3523.8	98.2 %		07:31:24
1	Y RADIAL	3846.0	3846.0	94.58 %		07:31:24
1	Al 396.153Radial†	448447.8	456809.5	524170 ug/L	524170 ppb	07:31:04
1	Ca 317.933Radial†	232415.1	236676.0	483770 ug/L	483770 ppb	07:31:04
1	Fe 238.204 Radial†	12978.2	13208.8	186720 ug/L	186720 ppb	07:31:24
1	K 766.490 Radial†	3047.2	84.3	-144.08 ug/L	-144.08 ppb	07:31:04
1	Mg 279.077 IEC†	10881.7	11081.3	489020 ug/L	489020 ppb	07:31:24
1	Na 589.592 Radial†	-811.2	71.3	36.790 ug/L	36.790 ppb	07:31:24
1	Sr 421.552†	361.8	354.6	0.2976 ug/L	0.2976 ppb	07:31:24
1	Sc 361.383	613548.0	613548.0	92.001 %		07:32:21
1	Y 371.029	480955.3	480955.3	91.075 %		07:32:21
1	Ag 328.068†	-8398.2	-9330.4	-2.6917 ug/L	-2.6917 ppb	07:32:21
1	As 188.979†	-65.7	-46.2	19.614 ug/L	19.614 ppb	07:32:41
1	B 249.677†	30.5	448.2	-18.320 ug/L	-18.320 ppb	07:32:21
1	Ba 233.527†	-527.8	-586.9	-0.2233 ug/L	-0.2233 ppb	07:32:41
1	Be 313.107†	-4627.7	-851.8	-0.4078 ug/L	-0.4078 ppb	07:32:21
1	Cd 226.502†	861.7	1135.9	-1.7430 ug/L	-1.7430 ppb	07:32:41
1	Co 228.616†	15.6	66.8	-0.9573 ug/L	-0.9573 ppb	07:32:41
1	Cr 267.716†	-1251.0	-1455.1	-2.5797 ug/L	-2.5797 ppb	07:32:41
1	Cu 324.752†	2527.4	-2607.1	0.6146 ug/L	0.6146 ppb	07:32:21
1	Mn 257.610†	-910.1	-1443.7	-3.5475 ug/L	-3.5475 ppb	07:32:21
1	Mo 202.031†	-194.2	-215.8	-0.8516 ug/L	-0.8516 ppb	07:32:41
1	Ni 231.604†	208.7	142.1	4.7884 ug/L	4.7884 ppb	07:32:41
1	P 214.914†	184.4	-1.2	-19.480 ug/L	-19.480 ppb	07:32:41
1	Pb 220.353†	-764.4	-765.1	-4.5334 ug/L	-4.5334 ppb	07:32:41
1	S 181.975 Axial†	46.9	11.6	-79.816 ug/L	-79.816 ppb	07:32:41
1	Sb 206.836†	74.6	55.8	5.2921 ug/L	5.2921 ppb	07:32:41
1	Se 196.026†	-779.7	-820.9	1.5886 ug/L	1.5886 ppb	07:32:41
1	Si 251.611†	480.8	-13.8	-0.2676 ug/L	-0.2676 ppb	07:32:41
1	Sn 189.927†	-321.1	-358.8	2.0730 ug/L	2.0730 ppb	07:32:41
1	Ti 334.940†	-12213.4	-11869.7	2.4319 ug/L	2.4319 ppb	07:32:21
1	Tl 190.801†	-57.9	-31.4	-12.701 ug/L	-12.701 ppb	07:32:41
1	U 409.014†	-1180.5	1122.5	23.585 ug/L	23.585 ppb	07:32:21
1	V 292.402†	-124.0	1613.6	-3.0594 ug/L	-3.0594 ppb	07:32:41
1	Zn 213.857†	2581.7	2115.8	-2.4253 ug/L	-2.4253 ppb	07:32:41
1	SiO2†	431.9	-80.8	-5.9991 ug/L	-5.9991 ppb	07:33:37
2	Sc Radial	3605.6	3605.6	100 %		07:31:49
2	Y RADIAL	3957.8	3957.8	97.33 %		07:31:49
2	Al 396.153Radial†	456609.8	454571.1	521600 ug/L	521600 ppb	07:31:29
2	Ca 317.933Radial†	235274.1	234151.3	478610 ug/L	478610 ppb	07:31:29
2	Fe 238.204 Radial†	13264.7	13194.1	186510 ug/L	186510 ppb	07:31:49
2	K 766.490 Radial†	3018.8	-14.3	-163.11 ug/L	-163.11 ppb	07:31:29
2	Mg 279.077 IEC†	11156.3	11103.2	489980 ug/L	489980 ppb	07:31:49
2	Na 589.592 Radial†	-768.8	132.3	68.205 ug/L	68.205 ppb	07:31:49
2	Sr 421.552†	349.2	333.8	0.1063 ug/L	0.1063 ppb	07:31:49
2	Sc 361.383	603520.2	603520.2	90.497 %		07:32:46
2	Y 371.029	472538.9	472538.9	89.482 %		07:32:46
2	Ag 328.068†	-8129.6	-9185.4	-1.8481 ug/L	-1.8481 ppb	07:32:46
2	As 188.979†	-76.8	-59.6	12.592 ug/L	12.592 ppb	07:33:06
2	B 249.677†	16.6	433.4	-18.684 ug/L	-18.684 ppb	07:32:46
2	Ba 233.527†	-495.8	-561.1	0.0310 ug/L	0.0310 ppb	07:33:06
2	Be 313.107†	-4456.5	-746.1	-0.3610 ug/L	-0.3610 ppb	07:32:46
2	Cd 226.502†	880.2	1171.9	-1.1651 ug/L	-1.1651 ppb	07:33:06
2	Co 228.616†	26.2	78.8	-0.6461 ug/L	-0.6461 ppb	07:33:06
2	Cr 267.716†	-1327.9	-1562.6	-4.2539 ug/L	-4.2539 ppb	07:33:06
2	Cu 324.752†	2421.5	-2678.5	0.3511 ug/L	0.3511 ppb	07:32:46
2	Mn 257.610†	-989.3	-1547.6	-3.7503 ug/L	-3.7503 ppb	07:32:46
2	Mo 202.031†	-197.3	-222.8	-1.6104 ug/L	-1.6104 ppb	07:33:06
2	Ni 231.604†	215.4	153.3	5.1651 ug/L	5.1651 ppb	07:33:06

2	P 214.914†	165.7	-18.5	-31.759 ug/L	-31.759 ppb	07:33:06
2	Pb 220.353†	-715.0	-724.4	1.4175 ug/L	1.4175 ppb	07:33:06
2	S 181.975 Axial†	46.3	11.8	-78.977 ug/L	-78.977 ppb	07:33:06
2	Sb 206.836†	54.8	35.3	-3.3159 ug/L	-3.3159 ppb	07:33:06
2	Se 196.026†	-797.7	-854.9	-26.125 ug/L	-26.125 ppb	07:33:06
2	Si 251.611†	491.9	7.1	0.5406 ug/L	0.5406 ppb	07:33:06
2	Sn 189.927†	-353.5	-400.4	-8.6656 ug/L	-8.6656 ppb	07:33:06
2	Ti 334.940†	-11474.6	-11273.8	2.7909 ug/L	2.7909 ppb	07:32:46
2	Tl 190.801†	-72.1	-48.2	-19.347 ug/L	-19.347 ppb	07:33:06
2	U 409.014†	-1191.0	1089.4	22.294 ug/L	22.294 ppb	07:32:46
2	V 292.402†	-145.5	1587.6	-3.2622 ug/L	-3.2622 ppb	07:33:06
2	Zn 213.857†	2612.5	2196.5	-1.4234 ug/L	-1.4234 ppb	07:33:06
2	SiO2†	465.7	-35.6	-2.2998 ug/L	-2.2998 ppb	07:33:42
3	Sc Radial	3628.7	3628.7	101 %		07:32:14
3	Y RADIAL	3985.0	3985.0	98.00 %		07:32:14
3	Al 396.153Radial†	473601.1	468482.7	537570 ug/L	537570 ppb	07:31:54
Saturated within auto integration window (code 4)						
3	Ca 317.933Radial†	242715.3	240020.1	490600 ug/L	490600 ppb	07:31:54
3	Fe 238.204 Radial†	13407.1	13250.9	187310 ug/L	187310 ppb	07:32:14
3	K 766.490 Radial†	2950.0	-101.5	-185.48 ug/L	-185.48 ppb	07:31:54
3	Mg 279.077 IEC†	11289.0	11163.8	492660 ug/L	492660 ppb	07:32:14
3	Na 589.592 Radial†	-776.7	129.3	66.679 ug/L	66.679 ppb	07:32:14
3	Sr 421.552†	371.3	353.4	0.2331 ug/L	0.2331 ppb	07:32:14
3	Sc 361.383	599894.7	599894.7	89.953 %		07:33:12
3	Y 371.029	469680.4	469680.4	88.940 %		07:33:12
3	Ag 328.068†	-8344.0	-9478.0	-3.4499 ug/L	-3.4499 ppb	07:33:12
3	As 188.979†	-70.7	-53.4	16.022 ug/L	16.022 ppb	07:33:32
3	B 249.677†	-22.9	389.6	-19.986 ug/L	-19.986 ppb	07:33:12
3	Ba 233.527†	-550.0	-624.6	-0.5897 ug/L	-0.5897 ppb	07:33:32
3	Be 313.107†	-4466.3	-786.8	-0.3805 ug/L	-0.3805 ppb	07:33:12
3	Cd 226.502†	871.0	1167.5	-1.3179 ug/L	-1.3179 ppb	07:33:32
3	Co 228.616†	6.9	57.6	-1.2048 ug/L	-1.2048 ppb	07:33:32
3	Cr 267.716†	-1335.4	-1579.8	-4.4324 ug/L	-4.4324 ppb	07:33:32
3	Cu 324.752†	2305.2	-2791.6	-0.0029 ug/L	-0.0029 ppb	07:33:12
3	Mn 257.610†	-800.6	-1344.5	-3.5009 ug/L	-3.5009 ppb	07:33:12
3	Mo 202.031†	-190.4	-216.4	-0.7807 ug/L	-0.7807 ppb	07:33:32
3	Ni 231.604†	187.5	123.7	4.1667 ug/L	4.1667 ppb	07:33:32
3	P 214.914†	181.1	-0.3	-15.912 ug/L	-15.912 ppb	07:33:32
3	Pb 220.353†	-754.1	-772.5	-2.3404 ug/L	-2.3404 ppb	07:33:32
3	S 181.975 Axial†	28.8	-7.3	-112.39 ug/L	-112.39 ppb	07:33:32
3	Sb 206.836†	49.1	29.4	-6.0919 ug/L	-6.0919 ppb	07:33:32
3	Se 196.026†	-816.0	-880.5	-39.554 ug/L	-39.554 ppb	07:33:32
3	Si 251.611†	459.1	-26.1	-0.7365 ug/L	-0.7365 ppb	07:33:32
3	Sn 189.927†	-328.2	-374.6	-0.4391 ug/L	-0.4391 ppb	07:33:32
3	Ti 334.940†	-11914.7	-11839.8	3.1130 ug/L	3.1130 ppb	07:33:12
3	Tl 190.801†	-65.4	-41.2	-16.590 ug/L	-16.590 ppb	07:33:32
3	U 409.014†	-1366.3	886.7	14.108 ug/L	14.108 ppb	07:33:12
3	V 292.402†	-242.6	1478.7	-4.3370 ug/L	-4.3370 ppb	07:33:32
3	Zn 213.857†	2605.4	2206.0	-1.4213 ug/L	-1.4213 ppb	07:33:32
3	SiO2†	445.4	-55.1	-3.9017 ug/L	-3.9017 ppb	07:33:47

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	605654.3	90.817 %		1.0605			1.17%
Sc Radial	3586.0	99.9 %		1.54			1.54%
Y 371.029	474391.5	89.832 %		1.1099			1.24%
Y RADIAL	3929.6	96.64 %		1.811			1.87%
Ag 328.068†	-9331.3	-2.6632 ug/L		0.80131	-2.6632 ppb	0.80131	30.09%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	459954.5	527780 ug/L		8571.5	527780 ppb	8571.5	1.62%
Saturated within auto integration window (code 4)							
QC value within limits for Al 396.153Radial Recovery = 105.56%							
As 188.979†	-53.1	16.076 ug/L		3.5113	16.076 ppb	3.5113	21.84%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	423.8	-18.997 ug/L		0.8759	-18.997 ppb	0.8759	4.61%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	-590.9	-0.2607 ug/L		0.31205	-0.2607 ppb	0.31205	119.70%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	-794.9	-0.3831 ug/L		0.02351	-0.3831 ppb	0.02351	6.14%

QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	236949.1	484330 ug/L	6017.4	484330 ppb	6017.4	1.24%	
QC value within limits for Ca 317.933Radial Recovery = 96.87%							
Cd 226.502†	1158.4	-1.4087 ug/L	0.29945	-1.4087 ppb	0.29945	21.26%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	67.7	-0.9361 ug/L	0.27997	-0.9361 ppb	0.27997	29.91%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-1532.5	-3.7553 ug/L	1.02205	-3.7553 ppb	1.02205	27.22%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-2692.4	0.3209 ug/L	0.30983	0.3209 ppb	0.30983	96.55%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	13217.9	186850 ug/L	416.8	186850 ppb	416.8	0.22%	
QC value within limits for Fe 238.204 Radial Recovery = 93.42%							
K 766.490 Radial†	-10.5	-164.22 ug/L	20.723	-164.22 ppb	20.723	12.62%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	11116.1	490550 ug/L	1884.8	490550 ppb	1884.8	0.38%	
QC value within limits for Mg 279.077 IEC Recovery = 98.11%							
Mn 257.610†	-1445.3	-3.5996 ug/L	0.13262	-3.5996 ppb	0.13262	3.68%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	-218.3	-1.0809 ug/L	0.45989	-1.0809 ppb	0.45989	42.55%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	111.0	57.224 ug/L	17.7136	57.224 ppb	17.7136	30.95%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	139.7	4.7068 ug/L	0.50420	4.7068 ppb	0.50420	10.71%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-6.7	-22.384 ug/L	8.3133	-22.384 ppb	8.3133	37.14%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-754.0	-1.8188 ug/L	3.00952	-1.8188 ppb	3.00952	165.47%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	5.4	-90.396 ug/L	19.0554	-90.396 ppb	19.0554	21.08%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	40.2	-1.3719 ug/L	5.93571	-1.3719 ppb	5.93571	432.66%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-852.1	-21.364 ug/L	20.9806	-21.364 ppb	20.9806	98.21%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	-10.9	-0.1545 ug/L	0.64606	-0.1545 ppb	0.64606	418.16%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	-377.9	-2.3439 ug/L	5.61703	-2.3439 ppb	5.61703	239.64%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	347.3	0.2124 ug/L	0.09734	0.2124 ppb	0.09734	45.84%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-11661.1	2.7786 ug/L	0.34070	2.7786 ppb	0.34070	12.26%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	-40.3	-16.213 ug/L	3.3387	-16.213 ppb	3.3387	20.59%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	1032.9	19.995 ug/L	5.1398	19.995 ppb	5.1398	25.70%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	1560.0	-3.5529 ug/L	0.68659	-3.5529 ppb	0.68659	19.32%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	2172.8	-1.7567 ug/L	0.57909	-1.7567 ppb	0.57909	32.97%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	-57.1	-4.0668 ug/L	1.85517	-4.0668 ppb	1.85517	45.62%	
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: 3/31/2010 07:35:59
 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	3706.2	3706.2	103 %		07:38:11
1	Y RADIAL	4059.2	4059.2	99.82 %		07:38:11
1	Al 396.153Radial†	452808.5	438547.4	503190 ug/L	503190 ppb	07:37:51
1	Ca 317.933Radial†	236393.1	228874.8	467820 ug/L	467820 ppb	07:37:51
1	Fe 238.204 Radial†	13658.6	13216.9	186850 ug/L	186850 ppb	07:38:11
1	K 766.490 Radial†	29194.3	25248.8	5154.3 ug/L	5154.3 ppb	07:37:51
1	Mg 279.077 IEC†	11462.4	11098.0	489760 ug/L	489760 ppb	07:38:11
1	Na 589.592 Radial†	10063.4	10641.4	5487.0 ug/L	5487.0 ppb	07:38:11
1	Sr 421.552†	46561.6	45070.1	493.41 ug/L	493.41 ppb	07:37:51
1	Sc 361.383	599484.9	599484.9	89.892 %		07:39:09
1	Y 371.029	468428.6	468428.6	88.703 %		07:39:09
1	Ag 328.068†	34814.1	38526.8	275.57 ug/L	275.57 ppb	07:39:09
1	As 188.979†	828.5	946.9	538.45 ug/L	538.45 ppb	07:39:29
1	B 249.677†	17422.9	19797.2	498.68 ug/L	498.68 ppb	07:39:09
1	Ba 233.527†	43200.3	48044.9	492.87 ug/L	492.87 ppb	07:39:09
1	Be 313.107†	527594.3	591099.8	248.70 ug/L	248.70 ppb	07:39:09
1	Cd 226.502†	28870.6	32316.3	479.91 ug/L	479.91 ppb	07:39:29
1	Co 228.616†	15717.9	17535.2	452.56 ug/L	452.56 ppb	07:39:29
1	Cr 267.716†	27555.0	30558.3	490.02 ug/L	490.02 ppb	07:39:09
1	Cu 324.752†	141925.3	152530.3	550.40 ug/L	550.40 ppb	07:39:09
1	Mn 257.610†	320126.6	355669.9	487.82 ug/L	487.82 ppb	07:39:09
1	Mo 202.031†	4302.9	4782.0	487.61 ug/L	487.61 ppb	07:39:29
1	Ni 231.604†	12659.9	13998.8	471.44 ug/L	471.44 ppb	07:39:29
1	P 214.914†	3561.0	3759.8	2423.2 ug/L	2423.2 ppb	07:39:29
1	Pb 220.353†	1869.5	2145.5	465.76 ug/L	465.76 ppb	07:39:29
1	S 181.975 Axial†	1564.5	1701.1	2604.5 ug/L	2604.5 ppb	07:39:29
1	Sb 206.836†	1173.4	1280.1	531.19 ug/L	531.19 ppb	07:39:29
1	Se 196.026†	2147.0	2415.0	2518.8 ug/L	2518.8 ppb	07:39:29
1	Si 251.611†	121807.6	134968.2	5158.2 ug/L	5158.2 ppb	07:39:09
1	Sn 189.927†	1555.4	1720.5	490.80 ug/L	490.80 ppb	07:39:29
1	Ti 334.940†	229536.5	256753.2	508.67 ug/L	508.67 ppb	07:39:09
1	Tl 190.801†	971.0	1111.7	444.46 ug/L	444.46 ppb	07:39:29
1	U 409.014†	10406.4	13982.1	535.98 ug/L	535.98 ppb	07:39:09
1	V 292.402†	49672.2	57006.1	514.48 ug/L	514.48 ppb	07:39:09
1	Zn 213.857†	40249.4	44085.0	500.35 ug/L	500.35 ppb	07:39:09
1	SiO2†	122321.3	135525.9	11011 ug/L	11011 ppb	07:40:27
2	Sc Radial	3530.8	3530.8	98.4 %		07:38:37
2	Y RADIAL	3886.3	3886.3	95.57 %		07:38:37
2	Al 396.153Radial†	449623.5	457093.9	524480 ug/L	524480 ppb	07:38:16
2	Ca 317.933Radial†	235175.3	239009.5	488540 ug/L	488540 ppb	07:38:16
2	Fe 238.204 Radial†	13187.2	13394.9	189360 ug/L	189360 ppb	07:38:37
2	K 766.490 Radial†	28997.3	26453.0	5400.8 ug/L	5400.8 ppb	07:38:16
2	Mg 279.077 IEC†	11094.9	11275.9	497610 ug/L	497610 ppb	07:38:37
2	Na 589.592 Radial†	9515.0	10568.2	5449.2 ug/L	5449.2 ppb	07:38:37
2	Sr 421.552†	46064.1	46804.4	512.37 ug/L	512.37 ppb	07:38:16
2	Sc 361.383	607799.1	607799.1	91.139 %		07:39:35
2	Y 371.029	475551.0	475551.0	90.052 %		07:39:35
2	Ag 328.068†	35514.5	38765.5	277.45 ug/L	277.45 ppb	07:39:35
2	As 188.979†	801.3	904.4	517.00 ug/L	517.00 ppb	07:39:55
2	B 249.677†	17857.4	20008.7	503.95 ug/L	503.95 ppb	07:39:35
2	Ba 233.527†	43716.1	47953.4	492.02 ug/L	492.02 ppb	07:39:35
2	Be 313.107†	535517.8	591765.0	248.98 ug/L	248.98 ppb	07:39:35
2	Cd 226.502†	28751.0	31745.7	470.84 ug/L	470.84 ppb	07:39:55
2	Co 228.616†	15673.0	17246.8	445.02 ug/L	445.02 ppb	07:39:55
2	Cr 267.716†	28035.6	30666.2	491.94 ug/L	491.94 ppb	07:39:35
2	Cu 324.752†	144428.5	153117.2	552.62 ug/L	552.62 ppb	07:39:35
2	Mn 257.610†	323999.4	355047.8	486.89 ug/L	486.89 ppb	07:39:35
2	Mo 202.031†	4288.7	4701.0	480.13 ug/L	480.13 ppb	07:39:55
2	Ni 231.604†	12632.6	13776.2	463.95 ug/L	463.95 ppb	07:39:55

2	P 214.914†	3530.4	3672.0	2366.5 ug/L	2366.5 ppb	07:39:55
2	Pb 220.353†	1894.1	2144.0	470.88 ug/L	470.88 ppb	07:39:55
2	S 181.975 Axial†	1542.8	1653.4	2524.8 ug/L	2524.8 ppb	07:39:55
2	Sb 206.836†	1142.5	1228.3	508.82 ug/L	508.82 ppb	07:39:55
2	Se 196.026†	2111.8	2343.7	2475.8 ug/L	2475.8 ppb	07:39:55
2	Si 251.611†	123483.8	134953.8	5157.7 ug/L	5157.7 ppb	07:39:35
2	Sn 189.927†	1543.3	1683.5	485.75 ug/L	485.75 ppb	07:39:55
2	Ti 334.940†	232536.6	256552.1	510.43 ug/L	510.43 ppb	07:39:35
2	Tl 190.801†	961.5	1086.5	434.49 ug/L	434.49 ppb	07:39:55
2	U 409.014†	10406.5	13823.9	529.37 ug/L	529.37 ppb	07:39:35
2	V 292.402†	50329.7	56971.7	513.83 ug/L	513.83 ppb	07:39:35
2	Zn 213.857†	40720.7	43989.7	498.87 ug/L	498.87 ppb	07:39:35
2	SiO2†	121050.5	132270.1	10746 ug/L	10746 ppb	07:40:32
3	Sc Radial	3524.9	3524.9	98.2 %		07:39:02
3	Y RADIAL	3876.4	3876.4	95.33 %		07:39:02
3	Al 396.153Radial†	439330.2	447383.3	513330 ug/L	513330 ppb	07:38:42
3	Ca 317.933Radial†	228528.9	232645.0	475530 ug/L	475530 ppb	07:38:42
3	Fe 238.204 Radial†	13179.7	13409.8	189570 ug/L	189570 ppb	07:39:02
3	K 766.490 Radial†	28145.9	25635.8	5233.2 ug/L	5233.2 ppb	07:38:42
3	Mg 279.077 IEC†	11061.9	11261.3	496960 ug/L	496960 ppb	07:39:02
3	Na 589.592 Radial†	9589.8	10660.6	5496.9 ug/L	5496.9 ppb	07:39:02
3	Sr 421.552†	44902.0	45700.0	500.29 ug/L	500.29 ppb	07:38:42
3	Sc 361.383	616966.7	616966.7	92.513 %		07:40:01
3	Y 371.029	482752.6	482752.6	91.416 %		07:40:01
3	Ag 328.068†	36141.3	38864.1	278.25 ug/L	278.25 ppb	07:40:01
3	As 188.979†	830.1	922.5	526.42 ug/L	526.42 ppb	07:40:21
3	B 249.677†	18176.7	20062.8	505.37 ug/L	505.37 ppb	07:40:01
3	Ba 233.527†	44072.1	47625.5	488.71 ug/L	488.71 ppb	07:40:01
3	Be 313.107†	541816.6	589842.5	248.17 ug/L	248.17 ppb	07:40:01
3	Cd 226.502†	29082.4	31635.2	469.11 ug/L	469.11 ppb	07:40:21
3	Co 228.616†	15867.2	17201.1	443.84 ug/L	443.84 ppb	07:40:21
3	Cr 267.716†	28219.2	30407.7	487.99 ug/L	487.99 ppb	07:40:01
3	Cu 324.752†	147261.2	153824.4	555.13 ug/L	555.13 ppb	07:40:01
3	Mn 257.610†	327135.0	353154.7	484.34 ug/L	484.34 ppb	07:40:01
3	Mo 202.031†	4339.9	4686.4	478.57 ug/L	478.57 ppb	07:40:21
3	Ni 231.604†	12787.3	13737.4	462.64 ug/L	462.64 ppb	07:40:21
3	P 214.914†	3567.6	3654.6	2351.2 ug/L	2351.2 ppb	07:40:21
3	Pb 220.353†	1853.8	2069.6	455.73 ug/L	455.73 ppb	07:40:21
3	S 181.975 Axial†	1568.7	1656.3	2531.5 ug/L	2531.5 ppb	07:40:21
3	Sb 206.836†	1195.4	1266.9	525.14 ug/L	525.14 ppb	07:40:21
3	Se 196.026†	2147.9	2348.3	2476.8 ug/L	2476.8 ppb	07:40:21
3	Si 251.611†	125170.4	134763.6	5150.5 ug/L	5150.5 ppb	07:40:01
3	Sn 189.927†	1573.5	1691.1	485.22 ug/L	485.22 ppb	07:40:21
3	Ti 334.940†	235045.5	255472.8	506.69 ug/L	506.69 ppb	07:40:01
3	Tl 190.801†	966.4	1076.0	430.32 ug/L	430.32 ppb	07:40:21
3	U 409.014†	10680.2	13950.0	534.39 ug/L	534.39 ppb	07:40:01
3	V 292.402†	50994.1	56869.3	512.84 ug/L	512.84 ppb	07:40:01
3	Zn 213.857†	41185.2	43827.8	496.89 ug/L	496.89 ppb	07:40:01
3	SiO2†	122698.2	132077.6	10730 ug/L	10730 ppb	07:40:37

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	608083.6	91.181 %		1.3112			1.44%
Sc Radial	3587.3	100.0 %		2.87			2.87%
Y 371.029	475577.4	90.057 %		1.3562			1.51%
Y RADIAL	3940.6	96.91 %		2.528			2.61%
Ag 328.068†	38718.8	277.09 ug/L		1.377	277.09 ppb	1.377	0.50%
QC value within limits for Ag 328.068 Recovery = 110.84%							
Al 396.153Radial†	447674.9	513670 ug/L		10644.8	513670 ppb	10644.8	2.07%
QC value within limits for Al 396.153Radial Recovery = 102.73%							
As 188.979†	924.6	527.29 ug/L		10.751	527.29 ppb	10.751	2.04%
QC value within limits for As 188.979 Recovery = 105.46%							
B 249.677†	19956.3	502.67 ug/L		3.529	502.67 ppb	3.529	0.70%
QC value within limits for B 249.677 Recovery = 100.53%							
Ba 233.527†	47874.6	491.20 ug/L		2.199	491.20 ppb	2.199	0.45%
QC value within limits for Ba 233.527 Recovery = 98.24%							
Be 313.107†	590902.4	248.62 ug/L		0.412	248.62 ppb	0.412	0.17%
QC value within limits for Be 313.107 Recovery = 99.45%							
Ca 317.933Radial†	233509.8	477300 ug/L		10470.2	477300 ppb	10470.2	2.19%

QC value within limits for Ca 317.933 Radial Recovery = 95.46%							
Cd 226.502†	31899.1	473.29 ug/L	5.801	473.29 ppb	5.801	1.23%	
QC value within limits for Cd 226.502 Recovery = 94.66%							
Co 228.616†	17327.7	447.14 ug/L	4.734	447.14 ppb	4.734	1.06%	
QC value within limits for Co 228.616 Recovery = 89.43%							
Cr 267.716†	30544.1	489.98 ug/L	1.978	489.98 ppb	1.978	0.40%	
QC value within limits for Cr 267.716 Recovery = 98.00%							
Cu 324.752†	153157.3	552.71 ug/L	2.368	552.71 ppb	2.368	0.43%	
QC value within limits for Cu 324.752 Recovery = 110.54%							
Fe 238.204 Radial†	13340.5	188600 ug/L	1517.2	188600 ppb	1517.2	0.80%	
QC value within limits for Fe 238.204 Radial Recovery = 94.30%							
K 766.490 Radial†	25779.2	5262.8 ug/L	125.90	5262.8 ppb	125.90	2.39%	
QC value within limits for K 766.490 Radial Recovery = 105.26%							
Mg 279.077 IEC†	11211.7	494780 ug/L	4358.5	494780 ppb	4358.5	0.88%	
QC value within limits for Mg 279.077 IEC Recovery = 98.96%							
Mn 257.610†	354624.1	486.35 ug/L	1.805	486.35 ppb	1.805	0.37%	
QC value within limits for Mn 257.610 Recovery = 97.27%							
Mo 202.031†	4723.1	482.10 ug/L	4.831	482.10 ppb	4.831	1.00%	
QC value within limits for Mo 202.031 Recovery = 96.42%							
Na 589.592 Radial†	10623.4	5477.7 ug/L	25.16	5477.7 ppb	25.16	0.46%	
QC value within limits for Na 589.592 Radial Recovery = 109.55%							
Ni 231.604†	13837.5	466.01 ug/L	4.750	466.01 ppb	4.750	1.02%	
QC value within limits for Ni 231.604 Recovery = 93.20%							
P 214.914†	3695.5	2380.3 ug/L	37.95	2380.3 ppb	37.95	1.59%	
QC value within limits for P 214.914 Recovery = 95.21%							
Pb 220.353†	2119.7	464.12 ug/L	7.706	464.12 ppb	7.706	1.66%	
QC value within limits for Pb 220.353 Recovery = 92.82%							
S 181.975 Axial†	1670.3	2553.6 ug/L	44.19	2553.6 ppb	44.19	1.73%	
QC value within limits for S 181.975 Axial Recovery = 102.14%							
Sb 206.836†	1258.4	521.72 ug/L	11.571	521.72 ppb	11.571	2.22%	
QC value within limits for Sb 206.836 Recovery = 104.34%							
Se 196.026†	2369.0	2490.5 ug/L	24.54	2490.5 ppb	24.54	0.99%	
QC value within limits for Se 196.026 Recovery = 99.62%							
Si 251.611†	134895.2	5155.4 ug/L	4.33	5155.4 ppb	4.33	0.08%	
QC value within limits for Si 251.611 Recovery = 103.11%							
Sn 189.927†	1698.4	487.26 ug/L	3.079	487.26 ppb	3.079	0.63%	
QC value within limits for Sn 189.927 Recovery = 97.45%							
Sr 421.552†	45858.2	502.02 ug/L	9.601	502.02 ppb	9.601	1.91%	
QC value within limits for Sr 421.552 Recovery = 100.40%							
Ti 334.940†	256259.3	508.60 ug/L	1.870	508.60 ppb	1.870	0.37%	
QC value within limits for Ti 334.940 Recovery = 101.72%							
Tl 190.801†	1091.4	436.42 ug/L	7.267	436.42 ppb	7.267	1.67%	
QC value within limits for Tl 190.801 Recovery = 87.28%							
U 409.014†	13918.7	533.24 ug/L	3.450	533.24 ppb	3.450	0.65%	
QC value within limits for U 409.014 Recovery = 106.65%							
V 292.402†	56949.0	513.72 ug/L	0.830	513.72 ppb	0.830	0.16%	
QC value within limits for V 292.402 Recovery = 102.74%							
Zn 213.857†	43967.5	498.70 ug/L	1.737	498.70 ppb	1.737	0.35%	
QC value within limits for Zn 213.857 Recovery = 99.74%							
SiO2†	133291.2	10829 ug/L	157.5	10829 ppb	157.5	1.45%	
QC value within limits for SiO2 Recovery = 101.25%							
All analyte(s) passed QC.							

Sequence No.: 11
 Sample ID: LR1
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 15
 Date Collected: 3/31/2010 07:42:48
 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	3463.9	3463.9	96.5 %		07:45:00
1	Y RADIAL	3821.0	3821.0	93.96 %		07:45:00
1	Al 396.153Radial†	433718.9	449438.7	515720 ug/L	515720 ppb	07:44:40
1	Ca 317.933Radial†	227640.4	235817.6	482010 ug/L	482010 ppb	07:44:40
1	Fe 238.204 Radial†	29767.4	30830.5	435820 ug/L	435820 ppb	07:45:00
1	K 766.490 Radial†	2870.8	-44.8	-376.03 ug/L	-376.03 ppb	07:44:40
1	Mg 279.077 IEC†	10647.0	11029.6	486470 ug/L	486470 ppb	07:45:00
1	Na 589.592 Radial†	984965.2	1021312.1	526610 ug/L	526610 ppb	07:44:40
1	Sr 421.552†	1120.8	1147.4	9.0506 ug/L	9.0506 ppb	07:45:00
1	Sc 361.383	581979.9	581979.9	87.267 %		07:45:58
1	Y 371.029	457743.7	457743.7	86.680 %		07:45:58
1	Ag 328.068†	-19270.0	-22283.7	-12.848 ug/L	-12.848 ppb	07:45:58
1	As 188.979†	-145.0	-140.9	28.888 ug/L	28.888 ppb	07:46:19
1	B 249.677†	649.9	1159.9	-39.726 ug/L	-39.726 ppb	07:45:58
1	Ba 233.527†	-1515.1	-1749.4	-4.3848 ug/L	-4.3848 ppb	07:46:19
1	Be 313.107†	-8941.0	-6067.3	-2.5851 ug/L	-2.5851 ppb	07:45:58
1	Cd 226.502†	2329.0	2868.0	2.2343 ug/L	2.2343 ppb	07:46:19
1	Co 228.616†	204.7	284.5	1.0268 ug/L	1.0268 ppb	07:46:19
1	Cr 267.716†	-1338.8	-1629.3	15.100 ug/L	15.100 ppb	07:46:19
1	Cu 324.752†	-62.7	-5426.1	-4.6377 ug/L	-4.6377 ppb	07:45:58
1	Mn 257.610†	-20984.2	-24500.4	-10.577 ug/L	-10.577 ppb	07:45:58
1	Mo 202.031†	-400.1	-463.2	-5.7189 ug/L	-5.7189 ppb	07:46:19
1	Ni 231.604†	289.8	247.4	8.3308 ug/L	8.3308 ppb	07:46:19
1	P 214.914†	496.7	367.5	29.868 ug/L	29.868 ppb	07:46:19
1	Pb 220.353†	-564.1	-580.7	-0.8483 ug/L	-0.8483 ppb	07:46:19
1	S 181.975 Axial†	47.2	14.7	-73.339 ug/L	-73.339 ppb	07:46:19
1	Sb 206.836†	53.4	35.9	-6.2325 ug/L	-6.2325 ppb	07:46:19
1	Se 196.026†	-1868.9	-2115.0	-346.99 ug/L	-346.99 ppb	07:46:19
1	Si 251.611†	-424.3	-1022.6	-38.569 ug/L	-38.569 ppb	07:46:19
1	Sn 189.927†	-363.9	-426.8	-12.735 ug/L	-12.735 ppb	07:46:19
1	Ti 334.940†	-10078.7	-10143.6	-1.0427 ug/L	-1.0427 ppb	07:45:58
1	Tl 190.801†	-111.6	-96.4	-38.644 ug/L	-38.644 ppb	07:46:19
1	U 409.014†	332133.4	383000.2	15244 ug/L	15244 ppb	07:45:58
1	V 292.402†	736.5	2592.3	-1.5254 ug/L	-1.5254 ppb	07:46:19
1	Zn 213.857†	4460.9	4421.4	-11.887 ug/L	-11.887 ppb	07:46:19
1	SiO2†	-428.9	-1041.7	-83.496 ug/L	-83.496 ppb	07:47:15
2	Sc Radial	3540.0	3540.0	98.6 %		07:45:26
2	Y RADIAL	3895.3	3895.3	95.79 %		07:45:26
2	Al 396.153Radial†	426273.9	432243.7	495990 ug/L	495990 ppb	07:45:06
2	Ca 317.933Radial†	223835.8	226897.1	463780 ug/L	463780 ppb	07:45:06
2	Fe 238.204 Radial†	30244.8	30652.4	433300 ug/L	433300 ppb	07:45:26
2	K 766.490 Radial†	2811.5	-168.8	-386.77 ug/L	-386.77 ppb	07:45:06
2	Mg 279.077 IEC†	10872.0	11020.8	486090 ug/L	486090 ppb	07:45:26
2	Na 589.592 Radial†	961233.7	975344.9	502910 ug/L	502910 ppb	07:45:06
2	Sr 421.552†	1143.8	1145.8	9.1690 ug/L	9.1690 ppb	07:45:26
2	Sc 361.383	587383.9	587383.9	88.077 %		07:46:24
2	Y 371.029	461592.2	461592.2	87.409 %		07:46:24
2	Ag 328.068†	-19497.4	-22338.8	-13.671 ug/L	-13.671 ppb	07:46:24
2	As 188.979†	-159.6	-156.0	20.463 ug/L	20.463 ppb	07:46:44
2	B 249.677†	470.4	949.2	-44.960 ug/L	-44.960 ppb	07:46:24
2	Ba 233.527†	-1470.4	-1682.6	-3.7865 ug/L	-3.7865 ppb	07:46:44
2	Be 313.107†	-9014.5	-6056.5	-2.5803 ug/L	-2.5803 ppb	07:46:24
2	Cd 226.502†	2359.4	2878.1	2.6423 ug/L	2.6423 ppb	07:46:44
2	Co 228.616†	199.4	276.3	0.8584 ug/L	0.8584 ppb	07:46:44
2	Cr 267.716†	-1322.4	-1596.7	15.348 ug/L	15.348 ppb	07:46:44
2	Cu 324.752†	-162.2	-5538.4	-5.1510 ug/L	-5.1510 ppb	07:46:24
2	Mn 257.610†	-21447.5	-24805.2	-11.230 ug/L	-11.230 ppb	07:46:24
2	Mo 202.031†	-370.7	-425.7	-2.4633 ug/L	-2.4633 ppb	07:46:44
2	Ni 231.604†	259.5	209.9	7.0700 ug/L	7.0700 ppb	07:46:44

2	P 214.914†	490.7	355.5	18.920 ug/L	18.920 ppb	07:46:44
2	Pb 220.353†	-563.0	-573.5	-4.6304 ug/L	-4.6304 ppb	07:46:44
2	S 181.975 Axial†	72.4	42.8	-25.003 ug/L	-25.003 ppb	07:46:44
2	Sb 206.836†	46.2	27.2	-9.1731 ug/L	-9.1731 ppb	07:46:44
2	Se 196.026†	-1892.7	-2122.3	-364.82 ug/L	-364.82 ppb	07:46:44
2	Si 251.611†	-400.1	-990.6	-37.389 ug/L	-37.389 ppb	07:46:44
2	Sn 189.927†	-356.8	-414.9	-13.172 ug/L	-13.172 ppb	07:46:44
2	Ti 334.940†	-10116.5	-10080.2	-3.3222 ug/L	-3.3222 ppb	07:46:24
2	Tl 190.801†	-110.9	-94.4	-37.851 ug/L	-37.851 ppb	07:46:44
2	U 409.014†	334494.7	382179.6	15212 ug/L	15212 ppb	07:46:24
2	V 292.402†	714.8	2560.0	-1.4754 ug/L	-1.4754 ppb	07:46:44
2	Zn 213.857†	4503.2	4422.5	-11.489 ug/L	-11.489 ppb	07:46:44
2	SiO2†	-560.3	-1186.4	-95.360 ug/L	-95.360 ppb	07:47:20
3	Sc Radial	3521.8	3521.8	98.1 %		07:45:51
3	Y RADIAL	3897.8	3897.8	95.85 %		07:45:51
3	Al 396.153Radial†	440307.9	448773.4	514950 ug/L	514950 ppb	07:45:31
3	Ca 317.933Radial†	230754.0	235117.1	480580 ug/L	480580 ppb	07:45:31
3	Fe 238.204 Radial†	30464.8	31034.8	438710 ug/L	438710 ppb	07:45:51
3	K 766.490 Radial†	2818.5	-147.0	-395.56 ug/L	-395.56 ppb	07:45:31
3	Mg 279.077 IEC†	10968.4	11175.9	492930 ug/L	492930 ppb	07:45:51
3	Na 589.592 Radial†	994152.4	1013915.3	522800 ug/L	522800 ppb	07:45:31
3	Sr 421.552†	1146.4	1154.4	9.1389 ug/L	9.1389 ppb	07:45:51
3	Sc 361.383	575248.5	575248.5	86.258 %		07:46:50
3	Y 371.029	452380.7	452380.7	85.664 %		07:46:50
3	Ag 328.068†	-19087.3	-22330.3	-12.141 ug/L	-12.141 ppb	07:46:50
3	As 188.979†	-156.1	-155.7	21.849 ug/L	21.849 ppb	07:47:10
3	B 249.677†	359.9	832.3	-48.973 ug/L	-48.973 ppb	07:46:50
3	Ba 233.527†	-1452.9	-1697.6	-3.7744 ug/L	-3.7744 ppb	07:47:10
3	Be 313.107†	-8697.5	-5904.9	-2.5167 ug/L	-2.5167 ppb	07:46:50
3	Cd 226.502†	2342.1	2914.4	2.6347 ug/L	2.6347 ppb	07:47:10
3	Co 228.616†	259.6	350.8	2.7158 ug/L	2.7158 ppb	07:47:10
3	Cr 267.716†	-1308.2	-1611.8	15.706 ug/L	15.706 ppb	07:47:10
3	Cu 324.752†	-192.1	-5576.9	-4.9741 ug/L	-4.9741 ppb	07:46:50
3	Mn 257.610†	-21096.9	-24912.5	-11.123 ug/L	-11.123 ppb	07:46:50
3	Mo 202.031†	-363.4	-426.0	-1.8746 ug/L	-1.8746 ppb	07:47:10
3	Ni 231.604†	221.0	171.5	5.7738 ug/L	5.7738 ppb	07:47:10
3	P 214.914†	527.9	410.3	56.575 ug/L	56.575 ppb	07:47:10
3	Pb 220.353†	-553.8	-576.3	-0.6164 ug/L	-0.6164 ppb	07:47:10
3	S 181.975 Axial†	72.6	44.8	-25.437 ug/L	-25.437 ppb	07:47:10
3	Sb 206.836†	51.7	34.7	-6.5783 ug/L	-6.5783 ppb	07:47:10
3	Se 196.026†	-1864.2	-2134.6	-354.78 ug/L	-354.78 ppb	07:47:10
3	Si 251.611†	-374.1	-970.1	-36.604 ug/L	-36.604 ppb	07:47:10
3	Sn 189.927†	-340.9	-405.0	-7.8310 ug/L	-7.8310 ppb	07:47:10
3	Ti 334.940†	-9891.4	-10061.6	-1.5709 ug/L	-1.5709 ppb	07:46:50
3	Tl 190.801†	-81.8	-63.4	-25.555 ug/L	-25.555 ppb	07:47:10
3	U 409.014†	326516.2	380941.6	15162 ug/L	15162 ppb	07:46:50
3	V 292.402†	653.2	2505.6	-2.7261 ug/L	-2.7261 ppb	07:47:10
3	Zn 213.857†	4424.9	4439.4	-12.085 ug/L	-12.085 ppb	07:47:10
3	SiO2†	-398.9	-1012.6	-81.230 ug/L	-81.230 ppb	07:47:26

Mean Data: LRL

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	581537.4	87.201 %		0.9117			1.05%
Sc Radial	3508.6	97.8 %		1.11			1.13%
Y 371.029	457238.8	86.584 %		0.8761			1.01%
Y RADIAL	3871.4	95.20 %		1.074			1.13%
Ag 328.068†	-22317.6	-12.887 ug/L		0.7660	-12.887 ppb	0.7660	5.94%
Al 396.153Radial†	443485.3	508880 ug/L		11177.6	508880 ppb	11177.6	2.20%
QC value within limits for Al 396.153Radial Recovery = 101.78%							
As 188.979†	-150.9	23.734 ug/L		4.5175	23.734 ppb	4.5175	19.03%
B 249.677†	980.5	-44.553 ug/L		4.6372	-44.553 ppb	4.6372	10.41%
Ba 233.527†	-1709.9	-3.9819 ug/L		0.34898	-3.9819 ppb	0.34898	8.76%
Be 313.107†	-6009.6	-2.5607 ug/L		0.03817	-2.5607 ppb	0.03817	1.49%
Ca 317.933Radial†	232610.6	475460 ug/L		10139.1	475460 ppb	10139.1	2.13%
QC value within limits for Ca 317.933Radial Recovery = 95.09%							
Cd 226.502†	2886.9	2.5038 ug/L		0.23340	2.5038 ppb	0.23340	9.32%
Co 228.616†	303.9	1.5337 ug/L		1.02722	1.5337 ppb	1.02722	66.98%
Cr 267.716†	-1612.6	15.385 ug/L		0.3048	15.385 ppb	0.3048	1.98%
Cu 324.752†	-5513.8	-4.9209 ug/L		0.26077	-4.9209 ppb	0.26077	5.30%

Fe 238.204 Radial†	30839.2	435940 ug/L	2704.7	435940 ppb	2704.7	0.62%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 87.19%						
K 766.490 Radial†	-120.2	-386.12 ug/L	9.784	-386.12 ppb	9.784	2.53%
Mg 279.077 IEC†	11075.4	488500 ug/L	3843.3	488500 ppb	3843.3	0.79%
QC value within limits for Mg 279.077 IEC Recovery = 97.70%						
Mn 257.610†	-24739.4	-10.977 ug/L	0.3499	-10.977 ppb	0.3499	3.19%
Mo 202.031†	-438.3	-3.3523 ug/L	2.07059	-3.3523 ppb	2.07059	61.77%
Na 589.592 Radial†	1003524.1	517440 ug/L	12726.9	517440 ppb	12726.9	2.46%
QC value within limits for Na 589.592 Radial Recovery = 103.49%						
Ni 231.604†	209.6	7.0582 ug/L	1.27856	7.0582 ppb	1.27856	18.11%
P 214.914†	377.8	35.121 ug/L	19.3693	35.121 ppb	19.3693	55.15%
Pb 220.353†	-576.8	-2.0317 ug/L	2.25352	-2.0317 ppb	2.25352	110.92%
S 181.975 Axial†	34.1	-41.259 ug/L	27.7828	-41.259 ppb	27.7828	67.34%
Sb 206.836†	32.6	-7.3280 ug/L	1.60728	-7.3280 ppb	1.60728	21.93%
Se 196.026†	-2124.0	-355.53 ug/L	8.935	-355.53 ppb	8.935	2.51%
Si 251.611†	-994.5	-37.521 ug/L	0.9889	-37.521 ppb	0.9889	2.64%
Sn 189.927†	-415.5	-11.246 ug/L	2.9655	-11.246 ppb	2.9655	26.37%
Sr 421.552†	1149.2	9.1195 ug/L	0.06155	9.1195 ppb	0.06155	0.67%
Ti 334.940†	-10095.1	-1.9786 ug/L	1.19317	-1.9786 ppb	1.19317	60.30%
Tl 190.801†	-84.7	-34.016 ug/L	7.3385	-34.016 ppb	7.3385	21.57%
U 409.014†	382040.5	15206 ug/L	41.6	15206 ppb	41.6	0.27%
QC value within limits for U 409.014 Recovery = 101.37%						
V 292.402†	2552.7	-1.9089 ug/L	0.70810	-1.9089 ppb	0.70810	37.09%
Zn 213.857†	4427.8	-11.821 ug/L	0.3033	-11.821 ppb	0.3033	2.57%
SiO2†	-1080.2	-86.695 ug/L	7.5890	-86.695 ppb	7.5890	8.75%

QC Failed. Continue with analysis.

Sequence No.: 12

Sample ID: LR2

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 16

Date Collected: 3/31/2010 07:49:35

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	3821.7	3821.7	106 %		07:51:53
1	Y RADIAL	4260.0	4260.0	104.8 %		07:51:33
1	Al 396.153Radial†	361.8	449.7	56.410 ug/L	56.410 ppb	07:51:33
1	Ca 317.933Radial†	31.5	13.9	28.432 ug/L	28.432 ppb	07:51:53
1	Fe 238.204 Radial†	-14.0	-21.4	-24.421 ug/L	-24.421 ppb	07:51:53
1	K 766.490 Radial†	1524199.8	1428216.3	300560 ug/L	300560 ppb	07:51:28
1	Mg 279.077 IEC†	-2.4	-2.9	-29.843 ug/L	-29.843 ppb	07:51:53
1	Na 589.592 Radial†	-582.3	350.7	180.81 ug/L	180.81 ppb	07:51:33
1	Sr 421.552†	977339.7	917715.7	10118 ug/L	10118 ppb	07:51:28
1	Sc 361.383	676215.6	676215.6	101.40 %		07:53:10
1	Y 371.029	530305.9	530305.9	100.42 %		07:53:10
1	Ag 328.068†	-5610.8	-5735.6	7.4463 ug/L	7.4463 ppb	07:53:16
1	As 188.979†	19576.5	19331.9	10099 ug/L	10099 ppb	07:53:16
1	B 249.677†	191865.2	189636.0	5053.4 ug/L	5053.4 ppb	07:53:10
1	Ba 233.527†	1416268.9	1396736.7	14152 ug/L	14152 ppb	07:53:10
1	Be 313.107†	6893252.8	6802428.3	2871.9 ug/L	2871.9 ppb	07:53:04
1	Cd 226.502†	638678.6	630075.6	9731.4 ug/L	9731.4 ppb	07:53:10
1	Co 228.616†	362179.9	357238.3	9270.4 ug/L	9270.4 ppb	07:53:16
1	Cr 267.716†	1582942.6	1561031.3	24008 ug/L	24008 ppb	07:53:10
1	Cu 324.752†	5713527.1	5629429.1	19960 ug/L	19960 ppb	07:53:04
1	Mn 257.610†	7020920.5	6923703.8	9527.0 ug/L	9527.0 ppb	07:53:04
1	Mo 202.031†	98301.7	96942.1	9478.1 ug/L	9478.1 ppb	07:53:16
1	Ni 231.604†	291481.4	287379.4	9678.3 ug/L	9678.3 ppb	07:53:16
1	P 214.914†	25549.2	24995.4	13094 ug/L	13094 ppb	07:53:16
1	Pb 220.353†	146900.6	144941.8	23660 ug/L	23660 ppb	07:53:16
1	S 181.975 Axial†	32901.0	32408.2	51416 ug/L	51416 ppb	07:53:16
1	Sb 206.836†	24264.2	23904.5	10263 ug/L	10263 ppb	07:53:16
1	Se 196.026†	12989.0	12836.6	10030 ug/L	10030 ppb	07:53:16
1	Si 251.611†	1262025.3	1244095.7	47483 ug/L	47483 ppb	07:53:10
1	Sn 189.927†	42745.8	42147.0	9963.4 ug/L	9963.4 ppb	07:53:16
1	Ti 334.940†	5295861.9	5224280.1	9887.5 ug/L	9887.5 ppb	07:53:04
1	Tl 190.801†	24189.6	23887.7	9545.6 ug/L	9545.6 ppb	07:53:16
1	U 409.014†	-1357.1	1067.1	-11.050 ug/L	-11.050 ppb	07:53:16
1	V 292.402†	1105688.1	1092197.9	10178 ug/L	10178 ppb	07:53:10
1	Zn 213.857†	1173139.6	1156281.1	13866 ug/L	13866 ppb	07:53:10
1	SiO2†	1269262.6	1251219.5	101510 ug/L	101510 ppb	07:54:02
2	Sc Radial	3895.9	3895.9	109 %		07:52:24
2	Y RADIAL	4323.0	4323.0	106.3 %		07:52:04
2	Al 396.153Radial†	354.5	436.5	38.696 ug/L	38.696 ppb	07:52:04
2	Ca 317.933Radial†	21.4	4.0	8.1671 ug/L	8.1671 ppb	07:52:24
2	Fe 238.204 Radial†	-18.8	-25.5	-82.294 ug/L	-82.294 ppb	07:52:24
2	K 766.490 Radial†	1531647.6	1407815.4	296260 ug/L	296260 ppb	07:51:59
2	Mg 279.077 IEC†	-3.8	-4.1	-82.687 ug/L	-82.687 ppb	07:52:24
2	Na 589.592 Radial†	-619.3	327.0	168.60 ug/L	168.60 ppb	07:52:04
2	Sr 421.552†	972655.1	895920.3	9877.5 ug/L	9877.5 ppb	07:51:59
2	Sc 361.383	691932.2	691932.2	103.75 %		07:53:30
2	Y 371.029	542441.1	542441.1	102.72 %		07:53:30
2	Ag 328.068†	-5690.6	-5686.7	7.7186 ug/L	7.7186 ppb	07:53:35
2	As 188.979†	20311.0	19601.3	10237 ug/L	10237 ppb	07:53:35
2	B 249.677†	197813.3	191071.0	5091.7 ug/L	5091.7 ppb	07:53:30
2	Ba 233.527†	1444132.2	1391866.0	14102 ug/L	14102 ppb	07:53:30
2	Be 313.107†	6942122.4	6695113.8	2826.5 ug/L	2826.5 ppb	07:53:24
2	Cd 226.502†	653980.5	630516.8	9738.2 ug/L	9738.2 ppb	07:53:30
2	Co 228.616†	372334.6	358912.3	9314.4 ug/L	9314.4 ppb	07:53:35
2	Cr 267.716†	1618073.9	1559431.9	23984 ug/L	23984 ppb	07:53:30
2	Cu 324.752†	5746843.1	5533550.7	19620 ug/L	19620 ppb	07:53:24
2	Mn 257.610†	7045690.8	6790302.0	9343.4 ug/L	9343.4 ppb	07:53:24
2	Mo 202.031†	101152.9	97488.2	9531.5 ug/L	9531.5 ppb	07:53:35
2	Ni 231.604†	300172.0	289226.1	9740.5 ug/L	9740.5 ppb	07:53:35

2	P 214.914†	26467.8	25308.5	13375 ug/L	13375 ppb	07:53:35
2	Pb 220.353†	151129.5	145726.9	23789 ug/L	23789 ppb	07:53:35
2	S 181.975 Axial†	34194.8	32918.1	52225 ug/L	52225 ppb	07:53:35
2	Sb 206.836†	25129.2	24194.7	10385 ug/L	10385 ppb	07:53:35
2	Se 196.026†	13485.0	13023.7	10175 ug/L	10175 ppb	07:53:35
2	Si 251.611†	1296574.2	1249123.8	47675 ug/L	47675 ppb	07:53:30
2	Sn 189.927†	43904.4	42306.0	10001 ug/L	10001 ppb	07:53:35
2	Ti 334.940†	5316880.5	5125905.4	9701.1 ug/L	9701.1 ppb	07:53:24
2	Tl 190.801†	24888.1	24019.0	9595.1 ug/L	9595.1 ppb	07:53:35
2	U 409.014†	-1098.1	1347.2	0.1948 ug/L	0.1948 ppb	07:53:35
2	V 292.402†	1131871.9	1092665.7	10183 ug/L	10183 ppb	07:53:30
2	Zn 213.857†	1200908.1	1156765.3	13872 ug/L	13872 ppb	07:53:30
2	SiO2†	1262379.4	1216152.4	98658 ug/L	98658 ppb	07:54:07
3	Sc Radial	3938.8	3938.8	110 %		07:52:54
3	Y RADIAL	4400.0	4400.0	108.2 %		07:52:34
3	Al 396.153Radial†	377.2	453.7	65.303 ug/L	65.303 ppb	07:52:34
3	Ca 317.933Radial†	32.8	14.2	28.977 ug/L	28.977 ppb	07:52:54
3	Fe 238.204 Radial†	-14.5	-21.4	-28.056 ug/L	-28.056 ppb	07:52:54
3	K 766.490 Radial†	1584326.9	1440441.6	303130 ug/L	303130 ppb	07:52:29
3	Mg 279.077 IEC†	-6.1	-6.2	-173.79 ug/L	-173.79 ppb	07:52:54
3	Na 589.592 Radial†	-625.2	327.8	169.04 ug/L	169.04 ppb	07:52:34
3	Sr 421.552†	1018248.6	927699.9	10228 ug/L	10228 ppb	07:52:29
3	Sc 361.383	690757.5	690757.5	103.58 %		07:53:50
3	Y 371.029	541813.3	541813.3	102.60 %		07:53:50
3	Ag 328.068†	-5526.5	-5537.6	8.5590 ug/L	8.5590 ppb	07:53:55
3	As 188.979†	19868.1	19207.0	10034 ug/L	10034 ppb	07:53:55
3	B 249.677†	197249.0	190850.3	5086.3 ug/L	5086.3 ppb	07:53:50
3	Ba 233.527†	1439372.8	1389637.9	14080 ug/L	14080 ppb	07:53:50
3	Be 313.107†	7010548.1	6772554.0	2859.2 ug/L	2859.2 ppb	07:53:44
3	Cd 226.502†	650025.5	627770.2	9695.7 ug/L	9695.7 ppb	07:53:50
3	Co 228.616†	365321.7	352751.9	9153.9 ug/L	9153.9 ppb	07:53:55
3	Cr 267.716†	1612368.0	1556575.1	23940 ug/L	23940 ppb	07:53:50
3	Cu 324.752†	5817913.5	5611585.3	19897 ug/L	19897 ppb	07:53:44
3	Mn 257.610†	7102794.4	6856981.0	9435.2 ug/L	9435.2 ppb	07:53:44
3	Mo 202.031†	99457.5	96017.1	9387.7 ug/L	9387.7 ppb	07:53:55
3	Ni 231.604†	294251.8	284002.5	9564.5 ug/L	9564.5 ppb	07:53:55
3	P 214.914†	25804.6	24711.5	12913 ug/L	12913 ppb	07:53:55
3	Pb 220.353†	148344.0	143285.4	23390 ug/L	23390 ppb	07:53:55
3	S 181.975 Axial†	33326.7	32136.1	50984 ug/L	50984 ppb	07:53:55
3	Sb 206.836†	24637.2	23760.9	10199 ug/L	10199 ppb	07:53:55
3	Se 196.026†	13155.8	12727.9	9944.8 ug/L	9944.8 ppb	07:53:55
3	Si 251.611†	1293004.7	1247802.8	47626 ug/L	47626 ppb	07:53:50
3	Sn 189.927†	43040.6	41544.0	9820.9 ug/L	9820.9 ppb	07:53:55
3	Ti 334.940†	5366622.0	5182643.1	9808.6 ug/L	9808.6 ppb	07:53:44
3	Tl 190.801†	24456.6	23643.3	9448.1 ug/L	9448.1 ppb	07:53:55
3	U 409.014†	-1303.7	1146.9	-7.7107 ug/L	-7.7107 ppb	07:53:55
3	V 292.402†	1128691.2	1091450.1	10170 ug/L	10170 ppb	07:53:50
3	Zn 213.857†	1194504.4	1152551.1	13822 ug/L	13822 ppb	07:53:50
3	SiO2†	1286607.1	1241612.3	100730 ug/L	100730 ppb	07:54:13

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	686301.8	102.91 %	1.313			1.28%
Sc Radial	3885.5	108 %	1.7			1.52%
Y 371.029	538186.8	101.91 %	1.294			1.27%
Y RADIAL	4327.6	106.4 %	1.72			1.62%
Ag 328.068†	-5653.3	7.9080 ug/L	0.58002	7.9080 ppb	0.58002	7.33%
Al 396.153Radial†	446.6	53.470 ug/L	13.5454	53.470 ppb	13.5454	25.33%
As 188.979†	19380.1	10123 ug/L	103.9	10123 ppb	103.9	1.03%
QC value within limits for As 188.979 Recovery = 101.23%						
B 249.677†	190519.1	5077.2 ug/L	20.73	5077.2 ppb	20.73	0.41%
QC value within limits for B 249.677 Recovery = 101.54%						
Ba 233.527†	1392746.9	14111 ug/L	36.7	14111 ppb	36.7	0.26%
QC value within limits for Ba 233.527 Recovery = 94.08%						
Be 313.107†	6756698.7	2852.5 ug/L	23.41	2852.5 ppb	23.41	0.82%
QC value within limits for Be 313.107 Recovery = 95.08%						
Ca 317.933Radial†	10.7	21.859 ug/L	11.8603	21.859 ppb	11.8603	54.26%
Cd 226.502†	629454.2	9721.8 ug/L	22.82	9721.8 ppb	22.82	0.23%
QC value within limits for Cd 226.502 Recovery = 97.22%						

Co 228.616†	356300.8	9246.2 ug/L	82.92	9246.2 ppb	82.92	0.90%
QC value within limits for Co 228.616 Recovery = 92.46%						
Cr 267.716†	1559012.8	23977 ug/L	34.7	23977 ppb	34.7	0.14%
QC value within limits for Cr 267.716 Recovery = 95.91%						
Cu 324.752†	5591521.7	19825 ug/L	180.8	19825 ppb	180.8	0.91%
QC value within limits for Cu 324.752 Recovery = 99.13%						
Fe 238.204 Radial†	-22.8	-44.923 ug/L	32.4149	-44.923 ppb	32.4149	72.16%
K 766.490 Radial†	1425491.1	299980 ug/L	3468.9	299980 ppb	3468.9	1.16%
QC value within limits for K 766.490 Radial Recovery = 99.99%						
Mg 279.077 IEC†	-4.4	-95.440 ug/L	72.8151	-95.440 ppb	72.8151	76.29%
Mn 257.610†	6856995.6	9435.2 ug/L	91.78	9435.2 ppb	91.78	0.97%
QC value within limits for Mn 257.610 Recovery = 94.35%						
Mo 202.031†	96815.8	9465.8 ug/L	72.70	9465.8 ppb	72.70	0.77%
QC value within limits for Mo 202.031 Recovery = 94.66%						
Na 589.592 Radial†	335.2	172.82 ug/L	6.924	172.82 ppb	6.924	4.01%
Ni 231.604†	286869.3	9661.1 ug/L	89.21	9661.1 ppb	89.21	0.92%
QC value within limits for Ni 231.604 Recovery = 96.61%						
P 214.914†	25005.1	13127 ug/L	232.7	13127 ppb	232.7	1.77%
QC value less than the lower limit for P 214.914 Recovery = 87.52%						
Pb 220.353†	144651.4	23613 ug/L	203.6	23613 ppb	203.6	0.86%
QC value within limits for Pb 220.353 Recovery = 94.45%						
S 181.975 Axial†	32487.5	51541 ug/L	629.8	51541 ppb	629.8	1.22%
QC value within limits for S 181.975 Axial Recovery = 103.08%						
Sb 206.836†	23953.4	10282 ug/L	94.6	10282 ppb	94.6	0.92%
QC value within limits for Sb 206.836 Recovery = 102.82%						
Se 196.026†	12862.7	10050 ug/L	116.7	10050 ppb	116.7	1.16%
QC value within limits for Se 196.026 Recovery = 100.50%						
Si 251.611†	1247007.4	47594 ug/L	99.6	47594 ppb	99.6	0.21%
QC value within limits for Si 251.611 Recovery = 95.19%						
Sn 189.927†	41999.0	9928.5 ug/L	95.03	9928.5 ppb	95.03	0.96%
QC value within limits for Sn 189.927 Recovery = 99.28%						
Sr 421.552†	913778.6	10074 ug/L	179.2	10074 ppb	179.2	1.78%
QC value within limits for Sr 421.552 Recovery = 100.74%						
Ti 334.940†	5177609.5	9799.1 ug/L	93.54	9799.1 ppb	93.54	0.95%
QC value within limits for Ti 334.940 Recovery = 97.99%						
Tl 190.801†	23850.0	9529.6 ug/L	74.81	9529.6 ppb	74.81	0.78%
QC value within limits for Tl 190.801 Recovery = 95.30%						
U 409.014†	1187.1	-6.1886 ug/L	5.77480	-6.1886 ppb	5.77480	93.31%
V 292.402†	1092104.6	10177 ug/L	6.7	10177 ppb	6.7	0.07%
QC value within limits for V 292.402 Recovery = 101.77%						
Zn 213.857†	1155199.1	13853 ug/L	27.4	13853 ppb	27.4	0.20%
QC value within limits for Zn 213.857 Recovery = 92.36%						
SiO2†	1236328.1	100300 ug/L	1475.1	100300 ppb	1475.1	1.47%
QC value within limits for SiO2 Recovery = 93.74%						

QC Failed. Continue with analysis.

Sequence No.: 13

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/31/2010 07:56:23

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	3920.0	3920.0	109 %		07:58:35
1	Y RADIAL	4281.7	4281.7	105.3 %		07:58:15
1	Al 396.153Radial†	4653.4	4370.0	4990.5 ug/L	4990.5 ppb	07:58:15
1	Ca 317.933Radial†	2716.1	2470.8	5050.3 ug/L	5050.3 ppb	07:58:35
1	Fe 238.204 Radial†	402.8	360.5	5111.5 ug/L	5111.5 ppb	07:58:35
1	K 766.490 Radial†	30160.2	24591.5	5168.9 ug/L	5168.9 ppb	07:58:15
1	Mg 279.077 IEC†	130.2	118.5	5232.5 ug/L	5232.5 ppb	07:58:35
1	Na 589.592 Radial†	20652.1	19803.6	10211 ug/L	10211 ppb	07:58:15
1	Sr 421.552†	50263.2	46000.1	507.11 ug/L	507.11 ppb	07:58:15
1	Sc 361.383	683360.6	683360.6	102.47 %		07:59:33
1	Y 371.029	535161.1	535161.1	101.34 %		07:59:33
1	Ag 328.068†	87214.4	84911.0	493.44 ug/L	493.44 ppb	07:59:38
1	As 188.979†	951.8	954.2	499.59 ug/L	499.59 ppb	07:59:58
1	B 249.677†	19694.5	19635.1	523.72 ug/L	523.72 ppb	07:59:38
1	Ba 233.527†	49813.5	48600.1	492.88 ug/L	492.88 ppb	07:59:38
1	Be 313.107†	1206747.9	1181851.4	496.16 ug/L	496.16 ppb	07:59:33
1	Cd 226.502†	32745.3	32155.6	496.20 ug/L	496.20 ppb	07:59:38
1	Co 228.616†	19596.6	19174.4	497.78 ug/L	497.78 ppb	07:59:38
1	Cr 267.716†	32950.2	32061.1	493.84 ug/L	493.84 ppb	07:59:38
1	Cu 324.752†	147032.4	138135.6	489.78 ug/L	489.78 ppb	07:59:38
1	Mn 257.610†	367601.7	358290.4	493.30 ug/L	493.30 ppb	07:59:38
1	Mo 202.031†	5171.3	5042.0	493.41 ug/L	493.41 ppb	07:59:58
1	Ni 231.604†	15140.9	14691.3	494.75 ug/L	494.75 ppb	07:59:38
1	P 214.914†	3930.7	3634.3	2371.3 ug/L	2371.3 ppb	07:59:58
1	Pb 220.353†	3028.4	3021.2	494.70 ug/L	494.70 ppb	07:59:58
1	S 181.975 Axial†	686.1	630.2	998.88 ug/L	998.88 ppb	07:59:58
1	Sb 206.836†	1249.1	1193.7	512.72 ug/L	512.72 ppb	07:59:58
1	Se 196.026†	636.3	647.5	520.96 ug/L	520.96 ppb	07:59:58
1	Si 251.611†	67725.9	65557.8	2502.2 ug/L	2502.2 ppb	07:59:38
1	Sn 189.927†	2171.1	2109.1	499.51 ug/L	499.51 ppb	07:59:58
1	Ti 334.940†	263184.2	258248.9	489.05 ug/L	489.05 ppb	07:59:38
1	Tl 190.801†	1260.2	1261.3	503.74 ug/L	503.74 ppb	07:59:58
1	U 409.014†	9938.3	12104.4	481.66 ug/L	481.66 ppb	07:59:38
1	V 292.402†	52844.1	53319.3	497.83 ug/L	497.83 ppb	07:59:38
1	Zn 213.857†	42961.4	41235.9	493.08 ug/L	493.08 ppb	07:59:38
1	SiO2†	68156.1	65963.7	5351.8 ug/L	5351.8 ppb	08:01:05
2	Sc Radial	3870.1	3870.1	108 %		07:59:01
2	Y RADIAL	4396.5	4396.5	108.1 %		07:58:40
2	Al 396.153Radial†	4687.3	4456.4	5090.4 ug/L	5090.4 ppb	07:58:40
2	Ca 317.933Radial†	2670.1	2460.2	5028.6 ug/L	5028.6 ppb	07:59:01
2	Fe 238.204 Radial†	395.2	358.3	5080.1 ug/L	5080.1 ppb	07:59:01
2	K 766.490 Radial†	30528.6	25289.3	5315.7 ug/L	5315.7 ppb	07:58:40
2	Mg 279.077 IEC†	131.3	121.1	5346.4 ug/L	5346.4 ppb	07:59:01
2	Na 589.592 Radial†	20703.4	20095.1	10361 ug/L	10361 ppb	07:58:40
2	Sr 421.552†	50646.0	46948.7	517.57 ug/L	517.57 ppb	07:58:40
2	Sc 361.383	694716.7	694716.7	104.17 %		08:00:03
2	Y 371.029	542598.8	542598.8	102.75 %		08:00:03
2	Ag 328.068†	89769.7	85972.8	499.57 ug/L	499.57 ppb	08:00:09
2	As 188.979†	929.5	917.5	480.65 ug/L	480.65 ppb	08:00:29
2	B 249.677†	20189.0	19795.6	528.02 ug/L	528.02 ppb	08:00:09
2	Ba 233.527†	50971.4	48917.0	496.09 ug/L	496.09 ppb	08:00:09
2	Be 313.107†	1235780.9	1190471.1	499.79 ug/L	499.79 ppb	08:00:03
2	Cd 226.502†	33529.6	32386.1	499.77 ug/L	499.77 ppb	08:00:09
2	Co 228.616†	20050.4	19297.4	500.93 ug/L	500.93 ppb	08:00:09
2	Cr 267.716†	33672.5	32228.8	496.42 ug/L	496.42 ppb	08:00:09
2	Cu 324.752†	151621.2	140195.1	497.08 ug/L	497.08 ppb	08:00:09
2	Mn 257.610†	376110.7	360594.6	496.46 ug/L	496.46 ppb	08:00:09
2	Mo 202.031†	5093.1	4884.4	478.01 ug/L	478.01 ppb	08:00:29
2	Ni 231.604†	15510.0	14804.2	498.56 ug/L	498.56 ppb	08:00:09

2	P 214.914†	3870.9	3514.2	2288.2 ug/L	2288.2 ppb	08:00:29
2	Pb 220.353†	3000.1	2945.7	482.37 ug/L	482.37 ppb	08:00:29
2	S 181.975 Axial†	668.3	602.2	954.46 ug/L	954.46 ppb	08:00:29
2	Sb 206.836†	1217.8	1143.8	491.44 ug/L	491.44 ppb	08:00:29
2	Se 196.026†	618.4	620.2	499.54 ug/L	499.54 ppb	08:00:29
2	Si 251.611†	69585.6	66262.5	2529.3 ug/L	2529.3 ppb	08:00:09
2	Sn 189.927†	2136.8	2041.5	483.52 ug/L	483.52 ppb	08:00:29
2	Ti 334.940†	270543.1	261114.6	494.46 ug/L	494.46 ppb	08:00:09
2	Tl 190.801†	1244.9	1226.5	489.96 ug/L	489.96 ppb	08:00:29
2	U 409.014†	10208.3	12205.1	485.68 ug/L	485.68 ppb	08:00:09
2	V 292.402†	54172.3	53751.3	501.60 ug/L	501.60 ppb	08:00:09
2	Zn 213.857†	43910.0	41461.2	495.77 ug/L	495.77 ppb	08:00:09
2	SiO2†	69606.3	66268.6	5377.1 ug/L	5377.1 ppb	08:01:10
3	Sc Radial	3803.1	3803.1	106 %		07:59:26
3	Y RADIAL	4194.4	4194.4	103.1 %		07:59:06
3	Al 396.153Radial†	4507.2	4363.0	4982.5 ug/L	4982.5 ppb	07:59:06
3	Ca 317.933Radial†	2646.6	2481.6	5072.4 ug/L	5072.4 ppb	07:59:26
3	Fe 238.204 Radial†	392.4	362.1	5133.6 ug/L	5133.6 ppb	07:59:26
3	K 766.490 Radial†	29448.2	24768.4	5206.2 ug/L	5206.2 ppb	07:59:06
3	Mg 279.077 IEC†	125.6	117.9	5202.8 ug/L	5202.8 ppb	07:59:26
3	Na 589.592 Radial†	19746.2	19530.0	10070 ug/L	10070 ppb	07:59:06
3	Sr 421.552†	48570.3	45817.2	505.10 ug/L	505.10 ppb	07:59:06
3	Sc 361.383	675981.3	675981.3	101.36 %		08:00:34
3	Y 371.029	530395.1	530395.1	100.44 %		08:00:34
3	Ag 328.068†	88133.5	86746.9	504.08 ug/L	504.08 ppb	08:00:39
3	As 188.979†	938.6	951.2	498.17 ug/L	498.17 ppb	08:00:59
3	B 249.677†	19697.6	19848.0	529.40 ug/L	529.40 ppb	08:00:39
3	Ba 233.527†	50067.6	49381.4	500.80 ug/L	500.80 ppb	08:00:39
3	Be 313.107†	1191515.3	1179679.5	495.28 ug/L	495.28 ppb	08:00:34
3	Cd 226.502†	32816.8	32575.0	502.68 ug/L	502.68 ppb	08:00:39
3	Co 228.616†	19698.7	19483.8	505.79 ug/L	505.79 ppb	08:00:39
3	Cr 267.716†	33087.3	32547.4	501.33 ug/L	501.33 ppb	08:00:39
3	Cu 324.752†	148748.9	141395.5	501.34 ug/L	501.34 ppb	08:00:39
3	Mn 257.610†	369695.2	364272.0	501.53 ug/L	501.53 ppb	08:00:39
3	Mo 202.031†	5105.5	5032.1	492.46 ug/L	492.46 ppb	08:00:59
3	Ni 231.604†	15255.8	14966.0	504.01 ug/L	504.01 ppb	08:00:39
3	P 214.914†	3850.8	3597.3	2343.8 ug/L	2343.8 ppb	08:00:59
3	Pb 220.353†	3005.7	3031.0	496.30 ug/L	496.30 ppb	08:00:59
3	S 181.975 Axial†	669.6	621.3	984.70 ug/L	984.70 ppb	08:00:59
3	Sb 206.836†	1223.7	1182.0	507.79 ug/L	507.79 ppb	08:00:59
3	Se 196.026†	625.5	643.7	518.00 ug/L	518.00 ppb	08:00:59
3	Si 251.611†	68283.5	66829.4	2550.9 ug/L	2550.9 ppb	08:00:39
3	Sn 189.927†	2130.1	2091.8	495.42 ug/L	495.42 ppb	08:00:59
3	Ti 334.940†	265981.8	263812.7	499.59 ug/L	499.59 ppb	08:00:39
3	Tl 190.801†	1234.3	1249.2	499.02 ug/L	499.02 ppb	08:00:59
3	U 409.014†	9858.3	12131.4	482.72 ug/L	482.72 ppb	08:00:39
3	V 292.402†	53242.3	54275.1	506.60 ug/L	506.60 ppb	08:00:39
3	Zn 213.857†	43112.7	41842.8	500.33 ug/L	500.33 ppb	08:00:39
3	SiO2†	68976.6	67499.3	5476.8 ug/L	5476.8 ppb	08:01:15

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	684686.2	102.67 %	1.415			1.38%
Sc Radial	3864.4	108 %	1.6			1.52%
Y 371.029	536051.7	101.51 %	1.165			1.15%
Y RADIAL	4290.9	105.5 %	2.49			2.36%
Ag 328.068†	85876.9	499.03 ug/L	5.342	499.03 ppb	5.342	1.07%
QC value within limits for Ag 328.068 Recovery = 99.81%						
Al 396.153Radial†	4396.5	5021.1 ug/L	60.09	5021.1 ppb	60.09	1.20%
QC value within limits for Al 396.153Radial Recovery = 100.42%						
As 188.979†	941.0	492.81 ug/L	10.551	492.81 ppb	10.551	2.14%
QC value within limits for As 188.979 Recovery = 98.56%						
B 249.677†	19759.6	527.05 ug/L	2.961	527.05 ppb	2.961	0.56%
QC value within limits for B 249.677 Recovery = 105.41%						
Ba 233.527†	48966.2	496.59 ug/L	3.986	496.59 ppb	3.986	0.80%
QC value within limits for Ba 233.527 Recovery = 99.32%						
Be 313.107†	1184000.7	497.08 ug/L	2.389	497.08 ppb	2.389	0.48%
QC value within limits for Be 313.107 Recovery = 99.42%						
Ca 317.933Radial†	2470.9	5050.4 ug/L	21.88	5050.4 ppb	21.88	0.43%

QC value within limits for Ca 317.933Radial Recovery = 101.01%							
Cd	226.502†	32372.2	499.55 ug/L	3.244	499.55 ppb	3.244	0.65%
QC value within limits for Cd 226.502 Recovery = 99.91%							
Co	228.616†	19318.5	501.50 ug/L	4.034	501.50 ppb	4.034	0.80%
QC value within limits for Co 228.616 Recovery = 100.30%							
Cr	267.716†	32279.1	497.20 ug/L	3.804	497.20 ppb	3.804	0.77%
QC value within limits for Cr 267.716 Recovery = 99.44%							
Cu	324.752†	139908.7	496.07 ug/L	5.846	496.07 ppb	5.846	1.18%
QC value within limits for Cu 324.752 Recovery = 99.21%							
Fe	238.204 Radial†	360.3	5108.4 ug/L	26.86	5108.4 ppb	26.86	0.53%
QC value within limits for Fe 238.204 Radial Recovery = 102.17%							
K	766.490 Radial†	24883.0	5230.3 ug/L	76.32	5230.3 ppb	76.32	1.46%
QC value within limits for K 766.490 Radial Recovery = 104.61%							
Mg	279.077 IEC†	119.2	5260.6 ug/L	75.82	5260.6 ppb	75.82	1.44%
QC value within limits for Mg 279.077 IEC Recovery = 105.21%							
Mn	257.610†	361052.3	497.10 ug/L	4.154	497.10 ppb	4.154	0.84%
QC value within limits for Mn 257.610 Recovery = 99.42%							
Mo	202.031†	4986.2	487.96 ug/L	8.632	487.96 ppb	8.632	1.77%
QC value within limits for Mo 202.031 Recovery = 97.59%							
Na	589.592 Radial†	19809.6	10214 ug/L	145.7	10214 ppb	145.7	1.43%
QC value within limits for Na 589.592 Radial Recovery = 102.14%							
Ni	231.604†	14820.5	499.11 ug/L	4.651	499.11 ppb	4.651	0.93%
QC value within limits for Ni 231.604 Recovery = 99.82%							
P	214.914†	3582.0	2334.4 ug/L	42.34	2334.4 ppb	42.34	1.81%
QC value within limits for P 214.914 Recovery = 93.38%							
Pb	220.353†	2999.3	491.12 ug/L	7.622	491.12 ppb	7.622	1.55%
QC value within limits for Pb 220.353 Recovery = 98.22%							
S	181.975 Axial†	617.9	979.35 ug/L	22.690	979.35 ppb	22.690	2.32%
QC value within limits for S 181.975 Axial Recovery = 97.93%							
Sb	206.836†	1173.2	503.98 ug/L	11.138	503.98 ppb	11.138	2.21%
QC value within limits for Sb 206.836 Recovery = 100.80%							
Se	196.026†	637.1	512.83 ug/L	11.609	512.83 ppb	11.609	2.26%
QC value within limits for Se 196.026 Recovery = 102.57%							
Si	251.611†	66216.6	2527.5 ug/L	24.39	2527.5 ppb	24.39	0.96%
QC value within limits for Si 251.611 Recovery = 101.10%							
Sn	189.927†	2080.8	492.82 ug/L	8.305	492.82 ppb	8.305	1.69%
QC value within limits for Sn 189.927 Recovery = 98.56%							
Sr	421.552†	46255.3	509.93 ug/L	6.696	509.93 ppb	6.696	1.31%
QC value within limits for Sr 421.552 Recovery = 101.99%							
Ti	334.940†	261058.7	494.37 ug/L	5.271	494.37 ppb	5.271	1.07%
QC value within limits for Ti 334.940 Recovery = 98.87%							
Tl	190.801†	1245.7	497.57 ug/L	7.007	497.57 ppb	7.007	1.41%
QC value within limits for Tl 190.801 Recovery = 99.51%							
U	409.014†	12147.0	483.35 ug/L	2.082	483.35 ppb	2.082	0.43%
QC value within limits for U 409.014 Recovery = 96.67%							
V	292.402†	53781.9	502.01 ug/L	4.403	502.01 ppb	4.403	0.88%
QC value within limits for V 292.402 Recovery = 100.40%							
Zn	213.857†	41513.3	496.39 ug/L	3.663	496.39 ppb	3.663	0.74%
QC value within limits for Zn 213.857 Recovery = 99.28%							
SiO2†		66577.2	5401.9 ug/L	66.06	5401.9 ppb	66.06	1.22%
QC value within limits for SiO2 Recovery = 101.02%							
All analyte(s) passed QC.							

Sequence No.: 14
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 8
 Date Collected: 3/31/2010 08:03:25
 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	3870.1	3870.1	108 %		08:05:38
1	Y RADIAL	4323.3	4323.3	106.3 %		08:05:18
1	Al 396.153Radial†	-91.7	24.9	28.550 ug/L	28.550 ppb	08:05:18
1	Ca 317.933Radial†	16.2	-0.7	-1.4720 ug/L	-1.4720 ppb	08:05:38
1	Fe 238.204 Radial†	7.9	-0.9	-12.150 ug/L	-12.150 ppb	08:05:38
1	K 766.490 Radial†	3940.3	634.8	133.55 ug/L	133.55 ppb	08:05:18
1	Mg 279.077 IEC†	3.6	2.7	119.05 ug/L	119.05 ppb	08:05:38
1	Na 589.592 Radial†	-795.1	160.2	82.590 ug/L	82.590 ppb	08:05:18
1	Sr 421.552†	49.4	32.0	0.3531 ug/L	0.3531 ppb	08:05:18
1	Sc 361.383	667449.2	667449.2	100.08 %		08:06:35
1	Y 371.029	528816.5	528816.5	100.14 %		08:06:35
1	Ag 328.068†	99.7	-102.5	-0.5852 ug/L	-0.5852 ppb	08:06:35
1	As 188.979†	-23.7	1.6	0.8146 ug/L	0.8146 ppb	08:06:55
1	B 249.677†	325.3	740.1	19.827 ug/L	19.827 ppb	08:06:35
1	Ba 233.527†	26.7	13.5	0.1373 ug/L	0.1373 ppb	08:06:55
1	Be 313.107†	-4122.5	59.2	0.0246 ug/L	0.0246 ppb	08:06:35
1	Cd 226.502†	-155.4	43.9	0.6778 ug/L	0.6778 ppb	08:06:55
1	Co 228.616†	-44.9	5.1	0.1357 ug/L	0.1357 ppb	08:06:55
1	Cr 267.716†	118.5	23.2	0.3593 ug/L	0.3593 ppb	08:06:55
1	Cu 324.752†	5552.4	193.5	0.6910 ug/L	0.6910 ppb	08:06:35
1	Mn 257.610†	463.1	8.3	0.0054 ug/L	0.0054 ppb	08:06:55
1	Mo 202.031†	19.1	14.3	1.3970 ug/L	1.3970 ppb	08:06:55
1	Ni 231.604†	94.0	9.2	0.3101 ug/L	0.3101 ppb	08:06:55
1	P 214.914†	200.8	-1.1	-0.8049 ug/L	-0.8049 ppb	08:06:55
1	Pb 220.353†	-75.0	-9.2	-1.4861 ug/L	-1.4861 ppb	08:06:55
1	S 181.975 Axial†	35.5	-3.9	-6.1868 ug/L	-6.1868 ppb	08:06:55
1	Sb 206.836†	31.7	6.4	2.7496 ug/L	2.7496 ppb	08:06:55
1	Se 196.026†	-16.8	9.8	7.5906 ug/L	7.5906 ppb	08:06:55
1	Si 251.611†	597.0	60.1	2.2816 ug/L	2.2816 ppb	08:06:55
1	Sn 189.927†	24.5	14.7	3.4776 ug/L	3.4776 ppb	08:06:55
1	Ti 334.940†	-1468.1	-61.2	-0.1216 ug/L	-0.1216 ppb	08:06:35
1	Tl 190.801†	-20.7	10.8	4.2902 ug/L	4.2902 ppb	08:06:55
1	U 409.014†	-2657.3	-249.6	-9.9658 ug/L	-9.9658 ppb	08:06:35
1	V 292.402†	-1692.3	57.5	0.5346 ug/L	0.5346 ppb	08:06:35
1	Zn 213.857†	818.5	127.5	1.5376 ug/L	1.5376 ppb	08:06:55
1	SiO2†	594.4	43.7	3.5166 ug/L	3.5166 ppb	08:07:51
2	Sc Radial	3918.6	3918.6	109 %		08:06:03
2	Y RADIAL	4302.2	4302.2	105.8 %		08:05:43
2	Al 396.153Radial†	-98.0	20.3	23.154 ug/L	23.154 ppb	08:05:43
2	Ca 317.933Radial†	17.1	-0.1	-0.1891 ug/L	-0.1891 ppb	08:06:03
2	Fe 238.204 Radial†	6.7	-2.1	-29.427 ug/L	-29.427 ppb	08:06:03
2	K 766.490 Radial†	3775.1	438.3	92.200 ug/L	92.200 ppb	08:05:43
2	Mg 279.077 IEC†	0.9	0.1	6.6215 ug/L	6.6215 ppb	08:06:03
2	Na 589.592 Radial†	-783.0	180.4	93.009 ug/L	93.009 ppb	08:05:43
2	Sr 421.552†	28.3	12.1	0.1335 ug/L	0.1335 ppb	08:05:43
2	Sc 361.383	675502.8	675502.8	101.29 %		08:07:00
2	Y 371.029	534112.3	534112.3	101.14 %		08:07:00
2	Ag 328.068†	316.3	110.3	0.6313 ug/L	0.6313 ppb	08:07:00
2	As 188.979†	-28.2	-2.6	-1.3674 ug/L	-1.3674 ppb	08:07:20
2	B 249.677†	214.6	627.0	16.800 ug/L	16.800 ppb	08:07:00
2	Ba 233.527†	14.8	1.4	0.0151 ug/L	0.0151 ppb	08:07:20
2	Be 313.107†	-4376.6	-142.6	-0.0596 ug/L	-0.0596 ppb	08:07:00
2	Cd 226.502†	-154.4	46.8	0.7251 ug/L	0.7251 ppb	08:07:20
2	Co 228.616†	-45.2	5.3	0.1435 ug/L	0.1435 ppb	08:07:20
2	Cr 267.716†	89.1	-7.2	-0.1131 ug/L	-0.1131 ppb	08:07:20
2	Cu 324.752†	5479.8	55.7	0.1968 ug/L	0.1968 ppb	08:07:00
2	Mn 257.610†	458.3	-1.9	-0.0058 ug/L	-0.0058 ppb	08:07:20
2	Mo 202.031†	26.7	21.6	2.1084 ug/L	2.1084 ppb	08:07:20
2	Ni 231.604†	96.0	10.0	0.3383 ug/L	0.3383 ppb	08:07:20

2	P 214.914†	199.9	-4.3	-2.9067 ug/L	-2.9067 ppb	08:07:20
2	Pb 220.353†	-61.3	5.3	0.8706 ug/L	0.8706 ppb	08:07:20
2	S 181.975 Axial†	36.6	-3.2	-5.1122 ug/L	-5.1122 ppb	08:07:20
2	Sb 206.836†	19.5	-6.0	-2.4004 ug/L	-2.4004 ppb	08:07:20
2	Se 196.026†	-14.1	12.6	9.7759 ug/L	9.7759 ppb	08:07:20
2	Si 251.611†	580.1	36.3	1.3624 ug/L	1.3624 ppb	08:07:20
2	Sn 189.927†	19.9	9.9	2.3440 ug/L	2.3440 ppb	08:07:20
2	Ti 334.940†	-1403.1	20.4	0.0388 ug/L	0.0388 ppb	08:07:00
2	Tl 190.801†	-21.5	10.2	4.0437 ug/L	4.0437 ppb	08:07:20
2	U 409.014†	-2472.5	-35.5	-1.4132 ug/L	-1.4132 ppb	08:07:00
2	V 292.402†	-1701.9	68.1	0.6592 ug/L	0.6592 ppb	08:07:00
2	Zn 213.857†	802.0	101.4	1.2254 ug/L	1.2254 ppb	08:07:20
2	SiO2†	642.7	84.3	6.7960 ug/L	6.7960 ppb	08:07:56
3	Sc Radial	3837.5	3837.5	107 %		08:06:28
3	Y RADIAL	4385.6	4385.6	107.8 %		08:06:08
3	Al 396.153Radial†	-102.7	13.9	15.888 ug/L	15.888 ppb	08:06:08
3	Ca 317.933Radial†	18.7	1.8	3.6817 ug/L	3.6817 ppb	08:06:28
3	Fe 238.204 Radial†	7.9	-0.8	-11.120 ug/L	-11.120 ppb	08:06:28
3	K 766.490 Radial†	3870.4	600.4	126.33 ug/L	126.33 ppb	08:06:08
3	Mg 279.077 IEC†	2.8	2.0	86.688 ug/L	86.688 ppb	08:06:28
3	Na 589.592 Radial†	-826.5	124.6	64.232 ug/L	64.232 ppb	08:06:08
3	Sr 421.552†	29.3	13.6	0.1500 ug/L	0.1500 ppb	08:06:08
3	Sc 361.383	657539.8	657539.8	98.597 %		08:07:26
3	Y 371.029	520240.0	520240.0	98.514 %		08:07:26
3	Ag 328.068†	256.2	57.8	0.3334 ug/L	0.3334 ppb	08:07:26
3	As 188.979†	-21.8	3.1	1.5992 ug/L	1.5992 ppb	08:07:46
3	B 249.677†	190.4	608.2	16.293 ug/L	16.293 ppb	08:07:26
3	Ba 233.527†	13.6	0.6	0.0042 ug/L	0.0042 ppb	08:07:46
3	Be 313.107†	-4148.4	-29.2	-0.0125 ug/L	-0.0125 ppb	08:07:26
3	Cd 226.502†	-164.9	32.0	0.4943 ug/L	0.4943 ppb	08:07:46
3	Co 228.616†	-46.7	2.5	0.0704 ug/L	0.0704 ppb	08:07:46
3	Cr 267.716†	83.3	-10.7	-0.1638 ug/L	-0.1638 ppb	08:07:46
3	Cu 324.752†	5466.8	190.4	0.6782 ug/L	0.6782 ppb	08:07:26
3	Mn 257.610†	481.7	34.1	0.0423 ug/L	0.0423 ppb	08:07:46
3	Mo 202.031†	21.3	16.9	1.6512 ug/L	1.6512 ppb	08:07:46
3	Ni 231.604†	108.4	25.2	0.8501 ug/L	0.8501 ppb	08:07:46
3	P 214.914†	200.9	2.1	1.2916 ug/L	1.2916 ppb	08:07:46
3	Pb 220.353†	-75.5	-10.8	-1.7532 ug/L	-1.7532 ppb	08:07:46
3	S 181.975 Axial†	37.6	-1.2	-1.9230 ug/L	-1.9230 ppb	08:07:46
3	Sb 206.836†	30.7	5.9	2.5305 ug/L	2.5305 ppb	08:07:46
3	Se 196.026†	-19.2	7.2	5.5582 ug/L	5.5582 ppb	08:07:46
3	Si 251.611†	615.7	88.1	3.3497 ug/L	3.3497 ppb	08:07:46
3	Sn 189.927†	19.0	9.6	2.2604 ug/L	2.2604 ppb	08:07:46
3	Ti 334.940†	-1447.4	-62.3	-0.1215 ug/L	-0.1215 ppb	08:07:26
3	Tl 190.801†	-35.8	-4.8	-1.9214 ug/L	-1.9214 ppb	08:07:46
3	U 409.014†	-2540.7	-171.3	-6.8376 ug/L	-6.8376 ppb	08:07:26
3	V 292.402†	-1781.8	-58.8	-0.5278 ug/L	-0.5278 ppb	08:07:26
3	Zn 213.857†	779.2	99.9	1.2014 ug/L	1.2014 ppb	08:07:46
3	SiO2†	615.2	73.7	5.9514 ug/L	5.9514 ppb	08:08:01

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	666830.6	99.990 %	1.3492			1.35%
Sc Radial	3875.4	108 %	1.1			1.05%
Y 371.029	527722.9	99.931 %	1.3256			1.33%
Y RADIAL	4337.0	106.7 %	1.07			1.00%
Ag 328.068†	21.8	0.1265 ug/L	0.63411	0.1265 ppb	0.63411	501.33%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	19.7	22.531 ug/L	6.3541	22.531 ppb	6.3541	28.20%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	0.7	0.3488 ug/L	1.53721	0.3488 ppb	1.53721	440.70%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	658.4	17.640 ug/L	1.9106	17.640 ppb	1.9106	10.83%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	5.2	0.0522 ug/L	0.07390	0.0522 ppb	0.07390	141.54%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-37.5	-0.0159 ug/L	0.04220	-0.0159 ppb	0.04220	266.11%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	0.3	0.6735 ug/L	2.68296	0.6735 ppb	2.68296	398.33%

QC value within limits for Ca 317.933Radial Recovery = Not calculated							
Cd 226.502†	40.9	0.6324 ug/L	0.12190	0.6324 ppb	0.12190	19.28%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	4.3	0.1165 ug/L	0.04013	0.1165 ppb	0.04013	34.45%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	1.7	0.0275 ug/L	0.28849	0.0275 ppb	0.28849	>999.9%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	146.5	0.5220 ug/L	0.28167	0.5220 ppb	0.28167	53.96%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-1.2	-17.565 ug/L	10.2852	-17.565 ppb	10.2852	58.55%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	557.8	117.36 ug/L	22.087	117.36 ppb	22.087	18.82%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	1.6	70.787 ug/L	57.8768	70.787 ppb	57.8768	81.76%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	13.5	0.0139 ug/L	0.02518	0.0139 ppb	0.02518	180.66%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	17.6	1.7189 ug/L	0.36049	1.7189 ppb	0.36049	20.97%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	155.0	79.944 ug/L	14.5698	79.944 ppb	14.5698	18.23%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	14.8	0.4995 ug/L	0.30394	0.4995 ppb	0.30394	60.85%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-1.1	-0.8067 ug/L	2.09913	-0.8067 ppb	2.09913	260.22%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	-4.9	-0.7896 ug/L	1.44392	-0.7896 ppb	1.44392	182.87%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-2.8	-4.4073 ug/L	2.21754	-4.4073 ppb	2.21754	50.31%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	2.1	0.9599 ug/L	2.91217	0.9599 ppb	2.91217	303.38%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	9.9	7.6416 ug/L	2.10932	7.6416 ppb	2.10932	27.60%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	61.5	2.3312 ug/L	0.99455	2.3312 ppb	0.99455	42.66%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	11.4	2.6940 ug/L	0.67992	2.6940 ppb	0.67992	25.24%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	19.2	0.2122 ug/L	0.12231	0.2122 ppb	0.12231	57.64%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-34.3	-0.0681 ug/L	0.09256	-0.0681 ppb	0.09256	135.94%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	5.4	2.1375 ug/L	3.51726	2.1375 ppb	3.51726	164.55%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-152.1	-6.0722 ug/L	4.32738	-6.0722 ppb	4.32738	71.27%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	22.3	0.2220 ug/L	0.65234	0.2220 ppb	0.65234	293.82%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	109.6	1.3214 ug/L	0.18759	1.3214 ppb	0.18759	14.20%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	67.2	5.4213 ug/L	1.70272	5.4213 ppb	1.70272	31.41%	
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

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Analysis Begun

Start Time: 3/31/2010 08:11:20

Plasma On Time: 3/30/2010 17:10:22

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\033110.sif

Batch ID:

Results Data Set: 033110

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

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Method Loaded

Method Name: General Eng.2AX

Method Last Saved: 3/31/2010 05:48:28

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

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Sequence No.: 1

Autosampler Location: 37

Sample ID: LR1

Date Collected: 3/31/2010 08:11:22

Analyst: HSC

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	3775.6	3775.6	105 %		08:13:35
1	Y RADIAL	4175.3	4175.3	102.7 %		08:13:15
1	Al 396.153Radial†	-125.5	-9.3	-9.5186 ug/L	-9.5186 ppb	08:13:15

1	Ca 317.933Radial†	14.2	-2.2	-4.4607 ug/L	-4.4607 ppb	08:13:35
1	Fe 238.204 Radial†	29195.0	27741.1	392150 ug/L	392150 ppb	08:13:15
1	K 766.490 Radial†	3196.7	19.5	4.1362 ug/L	4.1362 ppb	08:13:15
1	Mg 279.077 IEC†	9.0	8.0	-59.416 ug/L	-59.416 ppb	08:13:35
1	Na 589.592 Radial†	-853.0	86.7	44.698 ug/L	44.698 ppb	08:13:15
1	Sr 421.552†	73.6	56.2	0.6191 ug/L	0.6191 ppb	08:13:15
1	Sc 361.383	681715.9	681715.9	102.22 %		08:14:32
1	Y 371.029	540314.5	540314.5	102.32 %		08:14:32
1	Ag 328.068†	-22158.6	-21879.0	-4.9343 ug/L	-4.9343 ppb	08:14:32
1	As 188.979†	-179.6	-150.4	13.810 ug/L	13.810 ppb	08:14:53
1	B 249.677†	1157.5	1547.4	-22.292 ug/L	-22.292 ppb	08:14:32
1	Ba 233.527†	-1687.7	-1664.2	-4.7855 ug/L	-4.7855 ppb	08:14:32
1	Be 313.107†	-4109.0	158.6	0.0662 ug/L	0.0662 ppb	08:14:32
1	Cd 226.502†	2357.5	2505.5	-1.8128 ug/L	-1.8128 ppb	08:14:32
1	Co 228.616†	774.0	807.1	15.225 ug/L	15.225 ppb	08:14:53
1	Cr 267.716†	-572.7	-655.5	31.510 ug/L	31.510 ppb	08:14:32
1	Cu 324.752†	-3023.2	-8311.7	-8.7663 ug/L	-8.7663 ppb	08:14:32
1	Mn 257.610†	-35766.7	-35443.6	-10.054 ug/L	-10.054 ppb	08:14:32
1	Mo 202.031†	-253.0	-252.3	5.7759 ug/L	5.7759 ppb	08:14:32
1	Ni 231.604†	211.5	122.2	4.1035 ug/L	4.1035 ppb	08:14:53
1	P 214.914†	638.8	423.2	-22.853 ug/L	-22.853 ppb	08:14:53
1	Pb 220.353†	115.7	178.9	-8.9524 ug/L	-8.9524 ppb	08:14:53
1	S 181.975 Axial†	48.7	8.3	13.094 ug/L	13.094 ppb	08:14:53
1	Sb 206.836†	36.2	10.2	-0.6386 ug/L	-0.6386 ppb	08:14:53
1	Se 196.026†	-1820.8	-1754.6	-324.87 ug/L	-324.87 ppb	08:14:53
1	Si 251.611†	-293.6	-823.7	-31.210 ug/L	-31.210 ppb	08:14:32
1	Sn 189.927†	-33.4	-42.4	-7.5718 ug/L	-7.5718 ppb	08:14:53
1	Ti 334.940†	-1505.6	-67.1	-0.1944 ug/L	-0.1944 ppb	08:14:32
1	Tl 190.801†	-29.4	2.7	0.6602 ug/L	0.6602 ppb	08:14:53
1	U 409.014†	-37.5	2368.9	49.909 ug/L	49.909 ppb	08:14:32
1	V 292.402†	4175.4	5833.0	-3.5255 ug/L	-3.5255 ppb	08:14:32
1	Zn 213.857†	3684.4	2913.9	-23.504 ug/L	-23.504 ppb	08:14:53
1	SiO2†	-433.6	-974.4	-78.581 ug/L	-78.581 ppb	08:15:50
2	Sc Radial	3856.3	3856.3	107 %		08:14:00
2	Y RADIAL	4383.1	4383.1	107.8 %		08:13:40
2	Al 396.153Radial†	-116.3	1.8	3.2904 ug/L	3.2904 ppb	08:13:40
2	Ca 317.933Radial†	20.9	3.7	7.6227 ug/L	7.6227 ppb	08:14:00
2	Fe 238.204 Radial†	30518.9	28392.1	401350 ug/L	401350 ppb	08:13:40
2	K 766.490 Radial†	3217.7	-24.6	-5.1605 ug/L	-5.1605 ppb	08:13:40
2	Mg 279.077 IEC†	9.7	8.4	-48.009 ug/L	-48.009 ppb	08:14:00
2	Na 589.592 Radial†	-821.8	132.7	68.405 ug/L	68.405 ppb	08:13:40
2	Sr 421.552†	55.4	37.8	0.4169 ug/L	0.4169 ppb	08:13:40
2	Sc 361.383	679733.7	679733.7	101.92 %		08:14:58
2	Y 371.029	538841.0	538841.0	102.04 %		08:14:58
2	Ag 328.068†	-22117.4	-21901.7	-2.2173 ug/L	-2.2173 ppb	08:14:58
2	As 188.979†	-182.6	-153.9	14.192 ug/L	14.192 ppb	08:15:19
2	B 249.677†	1113.3	1507.4	-24.852 ug/L	-24.852 ppb	08:14:58
2	Ba 233.527†	-1649.6	-1631.6	-4.1762 ug/L	-4.1762 ppb	08:14:58
2	Be 313.107†	-4135.6	120.8	0.0504 ug/L	0.0504 ppb	08:14:58
2	Cd 226.502†	2428.8	2582.2	-1.5812 ug/L	-1.5812 ppb	08:14:58
2	Co 228.616†	693.1	729.9	13.084 ug/L	13.084 ppb	08:15:19
2	Cr 267.716†	-506.8	-592.4	33.455 ug/L	33.455 ppb	08:14:58
2	Cu 324.752†	-3039.6	-8336.4	-8.3652 ug/L	-8.3652 ppb	08:14:58
2	Mn 257.610†	-35573.7	-35356.3	-9.0256 ug/L	-9.0256 ppb	08:14:58
2	Mo 202.031†	-270.1	-269.8	4.7805 ug/L	4.7805 ppb	08:14:58
2	Ni 231.604†	183.0	94.8	3.1836 ug/L	3.1836 ppb	08:15:19
2	P 214.914†	673.6	459.2	-5.7912 ug/L	-5.7912 ppb	08:15:19
2	Pb 220.353†	145.6	208.6	-5.0058 ug/L	-5.0058 ppb	08:15:19
2	S 181.975 Axial†	47.5	7.2	11.414 ug/L	11.414 ppb	08:15:19
2	Sb 206.836†	11.8	-13.7	-10.652 ug/L	-10.652 ppb	08:15:19
2	Se 196.026†	-1852.2	-1790.6	-328.44 ug/L	-328.44 ppb	08:15:19
2	Si 251.611†	-352.5	-882.3	-33.432 ug/L	-33.432 ppb	08:14:58
2	Sn 189.927†	-22.7	-32.0	-5.0428 ug/L	-5.0428 ppb	08:15:19
2	Ti 334.940†	-1466.6	-33.2	-0.1292 ug/L	-0.1292 ppb	08:14:58
2	Tl 190.801†	-33.0	-0.9	-0.7790 ug/L	-0.7790 ppb	08:15:19
2	U 409.014†	-114.5	2293.2	45.836 ug/L	45.836 ppb	08:14:58
2	V 292.402†	4171.5	5841.1	-4.8210 ug/L	-4.8210 ppb	08:14:58
2	Zn 213.857†	3729.4	2968.6	-24.216 ug/L	-24.216 ppb	08:15:19
2	SiO2†	-469.0	-1010.4	-81.463 ug/L	-81.463 ppb	08:15:55
3	Sc Radial	3842.5	3842.5	107 %		08:14:25
3	Y RADIAL	4358.5	4358.5	107.2 %		08:14:05

3	Al 396.153Radial†	-98.7	17.8	21.652 ug/L	21.652 ppb	08:14:05
3	Ca 317.933Radial†	14.1	-2.6	-5.2735 ug/L	-5.2735 ppb	08:14:25
3	Fe 238.204 Radial†	30293.7	28283.7	399820 ug/L	399820 ppb	08:14:05
3	K 766.490 Radial†	3125.8	-99.7	-20.960 ug/L	-20.960 ppb	08:14:05
3	Mg 279.077 IEC†	7.7	6.6	-129.24 ug/L	-129.24 ppb	08:14:25
3	Na 589.592 Radial†	-786.6	162.9	83.975 ug/L	83.975 ppb	08:14:05
3	Sr 421.552†	66.8	48.6	0.5363 ug/L	0.5363 ppb	08:14:05
3	Sc 361.383	684685.4	684685.4	102.67 %		08:15:24
3	Y 371.029	542168.6	542168.6	102.67 %		08:15:24
3	Ag 328.068†	-22322.3	-21944.4	-2.9366 ug/L	-2.9366 ppb	08:15:24
3	As 188.979†	-182.4	-152.4	14.594 ug/L	14.594 ppb	08:15:45
3	B 249.677†	1110.9	1497.1	-24.873 ug/L	-24.873 ppb	08:15:24
3	Ba 233.527†	-1705.1	-1674.1	-4.6518 ug/L	-4.6518 ppb	08:15:24
3	Be 313.107†	-4193.9	93.3	0.0388 ug/L	0.0388 ppb	08:15:24
3	Cd 226.502†	2381.7	2519.1	-2.3961 ug/L	-2.3961 ppb	08:15:24
3	Co 228.616†	632.3	665.7	11.444 ug/L	11.444 ppb	08:15:45
3	Cr 267.716†	-539.9	-621.1	32.852 ug/L	32.852 ppb	08:15:24
3	Cu 324.752†	-3080.4	-8354.6	-8.5104 ug/L	-8.5104 ppb	08:15:24
3	Mn 257.610†	-35880.1	-35402.3	-9.2368 ug/L	-9.2368 ppb	08:15:24
3	Mo 202.031†	-259.0	-257.0	5.9133 ug/L	5.9133 ppb	08:15:24
3	Ni 231.604†	211.2	121.0	4.0662 ug/L	4.0662 ppb	08:15:45
3	P 214.914†	644.0	425.5	-27.370 ug/L	-27.370 ppb	08:15:45
3	Pb 220.353†	142.2	204.3	-5.5592 ug/L	-5.5592 ppb	08:15:45
3	S 181.975 Axial†	40.1	-0.3	-0.4163 ug/L	-0.4163 ppb	08:15:45
3	Sb 206.836†	17.9	-7.8	-8.1558 ug/L	-8.1558 ppb	08:15:45
3	Se 196.026†	-1823.8	-1749.8	-300.71 ug/L	-300.71 ppb	08:15:45
3	Si 251.611†	-412.9	-938.6	-35.603 ug/L	-35.603 ppb	08:15:24
3	Sn 189.927†	-18.7	-28.0	-4.1136 ug/L	-4.1136 ppb	08:15:45
3	Ti 334.940†	-1507.5	-62.7	-0.1796 ug/L	-0.1796 ppb	08:15:24
3	Tl 190.801†	-37.3	-4.9	-2.3512 ug/L	-2.3512 ppb	08:15:45
3	U 409.014†	-128.6	2280.2	45.495 ug/L	45.495 ppb	08:15:24
3	V 292.402†	4205.5	5844.6	-4.5504 ug/L	-4.5504 ppb	08:15:24
3	Zn 213.857†	3665.9	2880.3	-25.058 ug/L	-25.058 ppb	08:15:45
3	SiO2†	-404.4	-944.1	-76.108 ug/L	-76.108 ppb	08:16:00

Mean Data: LRL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	682045.0	102.27 %	0.374			0.37%
Sc Radial	3824.8	107 %	1.2			1.13%
Y 371.029	540441.4	102.34 %	0.316			0.31%
Y RADIAL	4305.7	105.9 %	2.79			2.64%
Ag 328.068†	-21908.4	-3.3627 ug/L	1.40773	-3.3627 ppb	1.40773	41.86%
Al 396.153Radial†	3.4	5.1411 ug/L	15.66725	5.1411 ppb	15.66725	304.74%
As 188.979†	-152.2	14.199 ug/L	0.3919	14.199 ppb	0.3919	2.76%
B 249.677†	1517.3	-24.005 ug/L	1.4843	-24.005 ppb	1.4843	6.18%
Ba 233.527†	-1656.6	-4.5378 ug/L	0.32027	-4.5378 ppb	0.32027	7.06%
Be 313.107†	124.2	0.0518 ug/L	0.01372	0.0518 ppb	0.01372	26.48%
Ca 317.933Radial†	-0.3	-0.7038 ug/L	7.22244	-0.7038 ppb	7.22244	>999.9%
Cd 226.502†	2535.6	-1.9300 ug/L	0.41993	-1.9300 ppb	0.41993	21.76%
Co 228.616†	734.2	13.251 ug/L	1.8964	13.251 ppb	1.8964	14.31%
Cr 267.716†	-623.0	32.606 ug/L	0.9957	32.606 ppb	0.9957	3.05%
Cu 324.752†	-8334.3	-8.5473 ug/L	0.20312	-8.5473 ppb	0.20312	2.38%
Fe 238.204 Radial†	28139.0	397770 ug/L	4930.5	397770 ppb	4930.5	1.24%
K 766.490 Radial†	-34.9	-7.3281 ug/L	12.68769	-7.3281 ppb	12.68769	173.14%
Mg 279.077 IEC†	7.6	-78.887 ug/L	43.9746	-78.887 ppb	43.9746	55.74%
Mn 257.610†	-35400.7	-9.4387 ug/L	0.54295	-9.4387 ppb	0.54295	5.75%
Mo 202.031†	-259.7	5.4899 ug/L	0.61816	5.4899 ppb	0.61816	11.26%
Na 589.592 Radial†	127.4	65.693 ug/L	19.7785	65.693 ppb	19.7785	30.11%
Ni 231.604†	112.6	3.7844 ug/L	0.52066	3.7844 ppb	0.52066	13.76%
P 214.914†	436.0	-18.671 ug/L	11.3807	-18.671 ppb	11.3807	60.95%
Pb 220.353†	197.3	-6.5058 ug/L	2.13678	-6.5058 ppb	2.13678	32.84%
S 181.975 Axial†	5.1	8.0307 ug/L	7.36341	8.0307 ppb	7.36341	91.69%
Sb 206.836†	-3.8	-6.4821 ug/L	5.21217	-6.4821 ppb	5.21217	80.41%
Se 196.026†	-1765.0	-318.01 ug/L	15.086	-318.01 ppb	15.086	4.74%
Si 251.611†	-881.5	-33.415 ug/L	2.1965	-33.415 ppb	2.1965	6.57%
Sn 189.927†	-34.1	-5.5761 ug/L	1.78967	-5.5761 ppb	1.78967	32.10%
Sr 421.552†	47.5	0.5241 ug/L	0.10164	0.5241 ppb	0.10164	19.39%
Ti 334.940†	-54.3	-0.1677 ug/L	0.03415	-0.1677 ppb	0.03415	20.36%
Tl 190.801†	-1.0	-0.8234 ug/L	1.50620	-0.8234 ppb	1.50620	182.93%

U 409.014†	2314.1	47.080 ug/L	2.4559	47.080 ppb	2.4559	5.22%
V 292.402†	5839.6	-4.2990 ug/L	0.68338	-4.2990 ppb	0.68338	15.90%
Zn 213.857†	2920.9	-24.259 ug/L	0.7776	-24.259 ppb	0.7776	3.21%
SiO2†	-976.3	-78.717 ug/L	2.6805	-78.717 ppb	2.6805	3.41%

Sequence No.: 2

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/31/2010 08:18:12

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	3835.1	3835.1	107 %		08:20:25
1	Y RADIAL	4375.2	4375.2	107.6 %		08:20:05
1	Al 396.153Radial†	4669.7	4479.6	5117.0 ug/L	5117.0 ppb	08:20:05
1	Ca 317.933Radial†	2665.8	2478.8	5066.7 ug/L	5066.7 ppb	08:20:25
1	Fe 238.204 Radial†	393.4	359.9	5102.2 ug/L	5102.2 ppb	08:20:25
1	K 766.490 Radial†	28801.4	23931.5	5030.1 ug/L	5030.1 ppb	08:20:05
1	Mg 279.077 IEC†	125.0	116.3	5134.9 ug/L	5134.9 ppb	08:20:25
1	Na 589.592 Radial†	19733.7	19362.9	9984.0 ug/L	9984.0 ppb	08:20:05
1	Sr 421.552†	49694.3	46487.0	512.48 ug/L	512.48 ppb	08:20:05
1	Sc 361.383	698307.8	698307.8	104.71 %		08:21:22
1	Y 371.029	546156.5	546156.5	103.42 %		08:21:22
1	Ag 328.068†	87826.5	83673.8	486.26 ug/L	486.26 ppb	08:21:27
1	As 188.979†	948.9	931.5	487.79 ug/L	487.79 ppb	08:21:47
1	B 249.677†	18790.7	18360.6	489.61 ug/L	489.61 ppb	08:21:27
1	Ba 233.527†	50015.0	47752.0	484.28 ug/L	484.28 ppb	08:21:27
1	Be 313.107†	1233833.8	1182511.0	496.42 ug/L	496.42 ppb	08:21:22
1	Cd 226.502†	32738.0	31464.6	485.53 ug/L	485.53 ppb	08:21:27
1	Co 228.616†	19694.2	18858.2	489.55 ug/L	489.55 ppb	08:21:27
1	Cr 267.716†	33068.0	31485.3	484.98 ug/L	484.98 ppb	08:21:27
1	Cu 324.752†	147994.4	135983.0	482.15 ug/L	482.15 ppb	08:21:27
1	Mn 257.610†	369174.2	352113.4	484.80 ug/L	484.80 ppb	08:21:27
1	Mo 202.031†	5112.8	4878.1	477.39 ug/L	477.39 ppb	08:21:47
1	Ni 231.604†	15286.0	14513.6	488.77 ug/L	488.77 ppb	08:21:27
1	P 214.914†	3905.4	3528.0	2300.5 ug/L	2300.5 ppb	08:21:47
1	Pb 220.353†	3018.1	2948.1	482.78 ug/L	482.78 ppb	08:21:47
1	S 181.975 Axial†	675.8	606.0	960.49 ug/L	960.49 ppb	08:21:47
1	Sb 206.836†	1223.2	1142.9	491.02 ug/L	491.02 ppb	08:21:47
1	Se 196.026†	625.9	624.3	502.84 ug/L	502.84 ppb	08:21:47
1	Si 251.611†	68172.6	64569.6	2464.6 ug/L	2464.6 ppb	08:21:27
1	Sn 189.927†	2136.2	2030.4	480.90 ug/L	480.90 ppb	08:21:47
1	Ti 334.940†	264843.2	254335.5	481.65 ug/L	481.65 ppb	08:21:27
1	Tl 190.801†	1237.1	1213.0	484.51 ug/L	484.51 ppb	08:21:47
1	U 409.014†	10067.4	12020.1	478.31 ug/L	478.31 ppb	08:21:27
1	V 292.402†	52934.3	52301.5	488.23 ug/L	488.23 ppb	08:21:27
1	Zn 213.857†	42949.7	40327.3	482.16 ug/L	482.16 ppb	08:21:27
1	SiO2†	68476.6	64846.2	5261.4 ug/L	5261.4 ppb	08:22:54
2	Sc Radial	3802.7	3802.7	106 %		08:20:50
2	Y RADIAL	4348.4	4348.4	106.9 %		08:20:30
2	Al 396.153Radial†	4659.5	4507.2	5148.3 ug/L	5148.3 ppb	08:20:30
2	Ca 317.933Radial†	2646.0	2481.3	5071.8 ug/L	5071.8 ppb	08:20:50
2	Fe 238.204 Radial†	390.3	360.1	5105.9 ug/L	5105.9 ppb	08:20:50
2	K 766.490 Radial†	29199.4	24536.7	5157.4 ug/L	5157.4 ppb	08:20:30
2	Mg 279.077 IEC†	128.4	120.5	5319.5 ug/L	5319.5 ppb	08:20:50
2	Na 589.592 Radial†	19851.9	19631.8	10123 ug/L	10123 ppb	08:20:30
2	Sr 421.552†	49658.0	46848.8	516.47 ug/L	516.47 ppb	08:20:30
2	Sc 361.383	690868.4	690868.4	103.59 %		08:21:52
2	Y 371.029	542241.2	542241.2	102.68 %		08:21:52
2	Ag 328.068†	88163.8	84902.5	493.39 ug/L	493.39 ppb	08:21:58
2	As 188.979†	960.1	952.0	498.49 ug/L	498.49 ppb	08:22:18
2	B 249.677†	18907.0	18666.0	497.77 ug/L	497.77 ppb	08:21:58
2	Ba 233.527†	50279.8	48521.9	492.09 ug/L	492.09 ppb	08:21:58
2	Be 313.107†	1217751.4	1179675.0	495.25 ug/L	495.25 ppb	08:21:52
2	Cd 226.502†	32899.1	31956.8	493.13 ug/L	493.13 ppb	08:21:58
2	Co 228.616†	19747.3	19112.0	496.15 ug/L	496.15 ppb	08:21:58
2	Cr 267.716†	33275.0	32025.2	493.29 ug/L	493.29 ppb	08:21:58
2	Cu 324.752†	148741.3	138225.8	490.10 ug/L	490.10 ppb	08:21:58
2	Mn 257.610†	370359.3	357053.8	491.59 ug/L	491.59 ppb	08:21:58
2	Mo 202.031†	5151.7	4968.2	486.20 ug/L	486.20 ppb	08:22:18
2	Ni 231.604†	15312.3	14696.2	494.92 ug/L	494.92 ppb	08:21:58

2	P 214.914†	3912.4	3575.0	2330.9 ug/L	2330.9 ppb	08:22:18
2	Pb 220.353†	3034.4	2994.9	490.43 ug/L	490.43 ppb	08:22:18
2	S 181.975 Axial†	677.1	614.2	973.53 ug/L	973.53 ppb	08:22:18
2	Sb 206.836†	1226.4	1158.6	497.85 ug/L	497.85 ppb	08:22:18
2	Se 196.026†	627.9	632.7	509.42 ug/L	509.42 ppb	08:22:18
2	Si 251.611†	68460.1	65548.2	2501.9 ug/L	2501.9 ppb	08:21:58
2	Sn 189.927†	2147.4	2063.2	488.66 ug/L	488.66 ppb	08:22:18
2	Ti 334.940†	265877.2	258057.2	488.68 ug/L	488.68 ppb	08:21:58
2	Tl 190.801†	1248.7	1236.8	494.01 ug/L	494.01 ppb	08:22:18
2	U 409.014†	9982.3	12041.5	479.15 ug/L	479.15 ppb	08:21:58
2	V 292.402†	53461.9	53355.2	498.05 ug/L	498.05 ppb	08:21:58
2	Zn 213.857†	43165.4	40977.2	489.96 ug/L	489.96 ppb	08:21:58
2	SiO2†	67783.2	64881.0	5264.0 ug/L	5264.0 ppb	08:22:59
3	Sc Radial	3886.4	3886.4	108 %		08:21:15
3	Y RADIAL	4363.7	4363.7	107.3 %		08:20:55
3	Al 396.153Radial†	4656.2	4409.4	5036.1 ug/L	5036.1 ppb	08:20:55
3	Ca 317.933Radial†	2674.9	2454.2	5016.5 ug/L	5016.5 ppb	08:21:15
3	Fe 238.204 Radial†	394.4	356.0	5047.8 ug/L	5047.8 ppb	08:21:15
3	K 766.490 Radial†	29082.1	23834.6	5009.7 ug/L	5009.7 ppb	08:20:55
3	Mg 279.077 IEC†	131.0	120.4	5313.5 ug/L	5313.5 ppb	08:21:15
3	Na 589.592 Radial†	19876.0	19250.4	9925.9 ug/L	9925.9 ppb	08:20:55
3	Sr 421.552†	49837.3	46004.4	507.16 ug/L	507.16 ppb	08:20:55
3	Sc 361.383	691183.5	691183.5	103.64 %		08:22:23
3	Y 371.029	541049.9	541049.9	102.46 %		08:22:23
3	Ag 328.068†	89062.0	85730.4	498.16 ug/L	498.16 ppb	08:22:29
3	As 188.979†	939.2	931.4	487.82 ug/L	487.82 ppb	08:22:49
3	B 249.677†	19093.5	18837.7	502.37 ug/L	502.37 ppb	08:22:29
3	Ba 233.527†	50642.3	48849.6	495.41 ug/L	495.41 ppb	08:22:29
3	Be 313.107†	1221676.2	1182926.1	496.62 ug/L	496.62 ppb	08:22:23
3	Cd 226.502†	33061.4	32098.9	495.34 ug/L	495.34 ppb	08:22:29
3	Co 228.616†	19848.5	19201.0	498.45 ug/L	498.45 ppb	08:22:29
3	Cr 267.716†	33475.9	32204.3	496.04 ug/L	496.04 ppb	08:22:29
3	Cu 324.752†	149967.5	139343.6	494.06 ug/L	494.06 ppb	08:22:29
3	Mn 257.610†	372862.7	359306.3	494.69 ug/L	494.69 ppb	08:22:29
3	Mo 202.031†	5136.9	4951.7	484.58 ug/L	484.58 ppb	08:22:49
3	Ni 231.604†	15366.5	14741.8	496.45 ug/L	496.45 ppb	08:22:29
3	P 214.914†	3891.0	3552.6	2314.9 ug/L	2314.9 ppb	08:22:49
3	Pb 220.353†	3014.3	2974.2	487.03 ug/L	487.03 ppb	08:22:49
3	S 181.975 Axial†	675.5	612.4	970.67 ug/L	970.67 ppb	08:22:49
3	Sb 206.836†	1239.8	1171.0	502.91 ug/L	502.91 ppb	08:22:49
3	Se 196.026†	623.5	628.2	505.68 ug/L	505.68 ppb	08:22:49
3	Si 251.611†	68879.1	65922.4	2516.3 ug/L	2516.3 ppb	08:22:29
3	Sn 189.927†	2142.9	2057.9	487.39 ug/L	487.39 ppb	08:22:49
3	Ti 334.940†	268027.6	260015.0	492.38 ug/L	492.38 ppb	08:22:29
3	Tl 190.801†	1248.5	1236.1	493.77 ug/L	493.77 ppb	08:22:49
3	U 409.014†	10146.7	12195.7	485.31 ug/L	485.31 ppb	08:22:29
3	V 292.402†	53852.8	53708.9	501.30 ug/L	501.30 ppb	08:22:29
3	Zn 213.857†	43301.9	41090.0	491.31 ug/L	491.31 ppb	08:22:29
3	SiO2†	68490.3	65533.4	5317.1 ug/L	5317.1 ppb	08:23:04

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	693453.2	103.98 %	0.631			0.61%
Sc Radial	3841.4	107 %	1.2			1.10%
Y 371.029	543149.2	102.85 %	0.506			0.49%
Y RADIAL	4362.4	107.3 %	0.33			0.31%
Ag 328.068†	84768.9	492.60 ug/L	5.993	492.60 ppb	5.993	1.22%
QC value within limits for Ag 328.068 Recovery = 98.52%						
Al 396.153Radial†	4465.4	5100.5 ug/L	57.87	5100.5 ppb	57.87	1.13%
QC value within limits for Al 396.153Radial Recovery = 102.01%						
As 188.979†	938.3	491.37 ug/L	6.168	491.37 ppb	6.168	1.26%
QC value within limits for As 188.979 Recovery = 98.27%						
B 249.677†	18621.4	496.58 ug/L	6.464	496.58 ppb	6.464	1.30%
QC value within limits for B 249.677 Recovery = 99.32%						
Ba 233.527†	48374.5	490.59 ug/L	5.714	490.59 ppb	5.714	1.16%
QC value within limits for Ba 233.527 Recovery = 98.12%						
Be 313.107†	1181704.1	496.10 ug/L	0.741	496.10 ppb	0.741	0.15%
QC value within limits for Be 313.107 Recovery = 99.22%						
Ca 317.933Radial†	2471.4	5051.7 ug/L	30.58	5051.7 ppb	30.58	0.61%

QC value within limits for Ca 317.933 Radial Recovery = 101.03%							
Cd 226.502†	31840.1	491.33 ug/L	5.143	491.33 ppb	5.143	1.05%	
QC value within limits for Cd 226.502 Recovery = 98.27%							
Co 228.616†	19057.1	494.72 ug/L	4.616	494.72 ppb	4.616	0.93%	
QC value within limits for Co 228.616 Recovery = 98.94%							
Cr 267.716†	31905.0	491.44 ug/L	5.759	491.44 ppb	5.759	1.17%	
QC value within limits for Cr 267.716 Recovery = 98.29%							
Cu 324.752†	137850.8	488.77 ug/L	6.065	488.77 ppb	6.065	1.24%	
QC value within limits for Cu 324.752 Recovery = 97.75%							
Fe 238.204 Radial†	358.7	5085.3 ug/L	32.51	5085.3 ppb	32.51	0.64%	
QC value within limits for Fe 238.204 Radial Recovery = 101.71%							
K 766.490 Radial†	24100.9	5065.8 ug/L	80.03	5065.8 ppb	80.03	1.58%	
QC value within limits for K 766.490 Radial Recovery = 101.32%							
Mg 279.077 IEC†	119.1	5255.9 ug/L	104.89	5255.9 ppb	104.89	2.00%	
QC value within limits for Mg 279.077 IEC Recovery = 105.12%							
Mn 257.610†	356157.8	490.36 ug/L	5.056	490.36 ppb	5.056	1.03%	
QC value within limits for Mn 257.610 Recovery = 98.07%							
Mo 202.031†	4932.6	482.72 ug/L	4.690	482.72 ppb	4.690	0.97%	
QC value within limits for Mo 202.031 Recovery = 96.54%							
Na 589.592 Radial†	19415.0	10011 ug/L	101.1	10011 ppb	101.1	1.01%	
QC value within limits for Na 589.592 Radial Recovery = 100.11%							
Ni 231.604†	14650.5	493.38 ug/L	4.066	493.38 ppb	4.066	0.82%	
QC value within limits for Ni 231.604 Recovery = 98.68%							
P 214.914†	3551.9	2315.4 ug/L	15.20	2315.4 ppb	15.20	0.66%	
QC value within limits for P 214.914 Recovery = 92.62%							
Pb 220.353†	2972.4	486.75 ug/L	3.833	486.75 ppb	3.833	0.79%	
QC value within limits for Pb 220.353 Recovery = 97.35%							
S 181.975 Axial†	610.9	968.23 ug/L	6.856	968.23 ppb	6.856	0.71%	
QC value within limits for S 181.975 Axial Recovery = 96.82%							
Sb 206.836†	1157.5	497.26 ug/L	5.966	497.26 ppb	5.966	1.20%	
QC value within limits for Sb 206.836 Recovery = 99.45%							
Se 196.026†	628.4	505.98 ug/L	3.300	505.98 ppb	3.300	0.65%	
QC value within limits for Se 196.026 Recovery = 101.20%							
Si 251.611†	65346.7	2494.2 ug/L	26.67	2494.2 ppb	26.67	1.07%	
QC value within limits for Si 251.611 Recovery = 99.77%							
Sn 189.927†	2050.5	485.65 ug/L	4.163	485.65 ppb	4.163	0.86%	
QC value within limits for Sn 189.927 Recovery = 97.13%							
Sr 421.552†	46446.7	512.04 ug/L	4.670	512.04 ppb	4.670	0.91%	
QC value within limits for Sr 421.552 Recovery = 102.41%							
Ti 334.940†	257469.3	487.57 ug/L	5.451	487.57 ppb	5.451	1.12%	
QC value within limits for Ti 334.940 Recovery = 97.51%							
Tl 190.801†	1228.6	490.77 ug/L	5.418	490.77 ppb	5.418	1.10%	
QC value within limits for Tl 190.801 Recovery = 98.15%							
U 409.014†	12085.7	480.92 ug/L	3.820	480.92 ppb	3.820	0.79%	
QC value within limits for U 409.014 Recovery = 96.18%							
V 292.402†	53121.9	495.86 ug/L	6.809	495.86 ppb	6.809	1.37%	
QC value within limits for V 292.402 Recovery = 99.17%							
Zn 213.857†	40798.2	487.81 ug/L	4.937	487.81 ppb	4.937	1.01%	
QC value within limits for Zn 213.857 Recovery = 97.56%							
SiO2†	65086.9	5280.8 ug/L	31.44	5280.8 ppb	31.44	0.60%	
QC value within limits for SiO2 Recovery = 98.75%							
All analyte(s) passed QC.							

Sequence No.: 3

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/31/2010 08:25:15

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	3906.9	3906.9	109 %		08:27:28
1	Y RADIAL	4457.5	4457.5	109.6 %		08:27:08
1	Al 396.153Radial†	-111.8	7.3	8.3012 ug/L	8.3012 ppb	08:27:08
1	Ca 317.933Radial†	21.2	3.7	7.6626 ug/L	7.6626 ppb	08:27:28
1	Fe 238.204 Radial†	8.1	-0.7	-9.9991 ug/L	-9.9991 ppb	08:27:28
1	K 766.490 Radial†	3461.6	160.7	33.799 ug/L	33.799 ppb	08:27:08
1	Mg 279.077 IEC†	0.7	-0.0	-1.0774 ug/L	-1.0774 ppb	08:27:28
1	Na 589.592 Radial†	-922.9	49.7	25.620 ug/L	25.620 ppb	08:27:08
1	Sr 421.552†	6.7	-7.6	-0.0838 ug/L	-0.0838 ppb	08:27:08
1	Sc 361.383	693792.1	693792.1	104.03 %		08:28:25
1	Y 371.029	549354.4	549354.4	104.03 %		08:28:25
1	Ag 328.068†	210.6	0.4	-0.0041 ug/L	-0.0041 ppb	08:28:25
1	As 188.979†	-22.9	3.3	1.6984 ug/L	1.6984 ppb	08:28:45
1	B 249.677†	17.0	431.4	11.559 ug/L	11.559 ppb	08:28:25
1	Ba 233.527†	17.1	3.3	0.0332 ug/L	0.0332 ppb	08:28:45
1	Be 313.107†	-4275.1	69.0	0.0290 ug/L	0.0290 ppb	08:28:25
1	Cd 226.502†	-202.7	4.4	0.0710 ug/L	0.0710 ppb	08:28:45
1	Co 228.616†	-53.6	-1.6	-0.0411 ug/L	-0.0411 ppb	08:28:45
1	Cr 267.716†	102.5	3.3	0.0473 ug/L	0.0473 ppb	08:28:45
1	Cu 324.752†	5586.3	15.5	0.0517 ug/L	0.0517 ppb	08:28:25
1	Mn 257.610†	447.6	-24.2	-0.0342 ug/L	-0.0342 ppb	08:28:45
1	Mo 202.031†	12.4	7.2	0.6994 ug/L	0.6994 ppb	08:28:45
1	Ni 231.604†	106.8	17.9	0.6049 ug/L	0.6049 ppb	08:28:45
1	P 214.914†	195.3	-13.9	-9.4549 ug/L	-9.4549 ppb	08:28:45
1	Pb 220.353†	-74.8	-6.2	-0.9993 ug/L	-0.9993 ppb	08:28:45
1	S 181.975 Axial†	36.1	-4.7	-7.4578 ug/L	-7.4578 ppb	08:28:45
1	Sb 206.836†	27.0	0.7	0.3085 ug/L	0.3085 ppb	08:28:45
1	Se 196.026†	-14.6	12.6	9.7865 ug/L	9.7865 ppb	08:28:45
1	Si 251.611†	566.4	8.0	0.2971 ug/L	0.2971 ppb	08:28:45
1	Sn 189.927†	12.9	2.7	0.6327 ug/L	0.6327 ppb	08:28:45
1	Ti 334.940†	-1436.5	24.9	0.0460 ug/L	0.0460 ppb	08:28:25
1	Tl 190.801†	-30.2	2.4	0.9592 ug/L	0.9592 ppb	08:28:45
1	U 409.014†	-2372.6	125.0	4.9909 ug/L	4.9909 ppb	08:28:25
1	V 292.402†	-1792.7	25.2	0.2529 ug/L	0.2529 ppb	08:28:25
1	Zn 213.857†	739.1	20.1	0.2399 ug/L	0.2399 ppb	08:28:45
1	SiO2†	527.8	-42.9	-3.5083 ug/L	-3.5083 ppb	08:29:41
2	Sc Radial	3862.1	3862.1	108 %		08:27:53
2	Y RADIAL	4390.4	4390.4	108.0 %		08:27:33
2	Al 396.153Radial†	-92.8	23.8	27.216 ug/L	27.216 ppb	08:27:33
2	Ca 317.933Radial†	23.6	6.2	12.707 ug/L	12.707 ppb	08:27:53
2	Fe 238.204 Radial†	5.6	-3.0	-41.791 ug/L	-41.791 ppb	08:27:53
2	K 766.490 Radial†	3498.3	231.6	48.721 ug/L	48.721 ppb	08:27:33
2	Mg 279.077 IEC†	3.8	2.9	126.35 ug/L	126.35 ppb	08:27:53
2	Na 589.592 Radial†	-908.4	53.4	27.541 ug/L	27.541 ppb	08:27:33
2	Sr 421.552†	27.4	11.7	0.1285 ug/L	0.1285 ppb	08:27:33
2	Sc 361.383	710275.8	710275.8	106.50 %		08:28:50
2	Y 371.029	562547.9	562547.9	106.53 %		08:28:50
2	Ag 328.068†	196.0	-18.0	-0.1186 ug/L	-0.1186 ppb	08:28:50
2	As 188.979†	-21.0	5.5	2.8619 ug/L	2.8619 ppb	08:29:10
2	B 249.677†	-93.7	327.1	8.7686 ug/L	8.7686 ppb	08:28:50
2	Ba 233.527†	16.4	2.2	0.0226 ug/L	0.0226 ppb	08:29:10
2	Be 313.107†	-4364.6	80.3	0.0338 ug/L	0.0338 ppb	08:28:50
2	Cd 226.502†	-202.4	9.2	0.1475 ug/L	0.1475 ppb	08:29:10
2	Co 228.616†	-44.3	8.3	0.2190 ug/L	0.2190 ppb	08:29:10
2	Cr 267.716†	106.3	4.6	0.0650 ug/L	0.0650 ppb	08:29:10
2	Cu 324.752†	5690.9	-10.9	-0.0444 ug/L	-0.0444 ppb	08:28:50
2	Mn 257.610†	432.1	-48.7	-0.0763 ug/L	-0.0763 ppb	08:29:10
2	Mo 202.031†	17.6	11.7	1.1454 ug/L	1.1454 ppb	08:29:10
2	Ni 231.604†	106.7	15.4	0.5198 ug/L	0.5198 ppb	08:29:10

2	P 214.914†	195.8	-17.8	-12.035 ug/L	-12.035 ppb	08:29:10
2	Pb 220.353†	-63.4	6.3	1.0369 ug/L	1.0369 ppb	08:29:10
2	S 181.975 Axial†	34.0	-7.5	-11.869 ug/L	-11.869 ppb	08:29:10
2	Sb 206.836†	29.1	2.1	0.9187 ug/L	0.9187 ppb	08:29:10
2	Se 196.026†	-29.4	-1.0	-0.9120 ug/L	-0.9120 ppb	08:29:10
2	Si 251.611†	583.0	11.0	0.4076 ug/L	0.4076 ppb	08:29:10
2	Sn 189.927†	14.4	3.7	0.8882 ug/L	0.8882 ppb	08:29:10
2	Ti 334.940†	-1456.1	38.5	0.0615 ug/L	0.0615 ppb	08:28:50
2	Tl 190.801†	-33.5	0.0	0.0155 ug/L	0.0155 ppb	08:29:10
2	U 409.014†	-2389.7	161.8	6.4658 ug/L	6.4658 ppb	08:28:50
2	V 292.402†	-1758.2	97.6	0.9360 ug/L	0.9360 ppb	08:28:50
2	Zn 213.857†	734.9	-0.4	-0.0018 ug/L	-0.0018 ppb	08:29:10
2	SiO2†	599.5	12.6	0.9952 ug/L	0.9952 ppb	08:29:46
3	Sc Radial	3869.2	3869.2	108 %		08:28:18
3	Y RADIAL	4338.7	4338.7	106.7 %		08:27:58
3	Al 396.153Radial†	-111.6	6.5	7.3888 ug/L	7.3888 ppb	08:27:58
3	Ca 317.933Radial†	16.2	-0.7	-1.3833 ug/L	-1.3833 ppb	08:28:18
3	Fe 238.204 Radial†	7.3	-1.4	-20.114 ug/L	-20.114 ppb	08:28:18
3	K 766.490 Radial†	3285.7	28.4	5.9752 ug/L	5.9752 ppb	08:27:58
3	Mg 279.077 IEC†	-1.2	-1.8	-77.586 ug/L	-77.586 ppb	08:28:18
3	Na 589.592 Radial†	-940.1	25.5	13.173 ug/L	13.173 ppb	08:27:58
3	Sr 421.552†	36.2	19.8	0.2179 ug/L	0.2179 ppb	08:27:58
3	Sc 361.383	671961.9	671961.9	100.76 %		08:29:15
3	Y 371.029	532330.0	532330.0	100.80 %		08:29:15
3	Ag 328.068†	251.5	47.5	0.2737 ug/L	0.2737 ppb	08:29:15
3	As 188.979†	-21.3	4.2	2.1459 ug/L	2.1459 ppb	08:29:35
3	B 249.677†	-81.1	334.6	8.9668 ug/L	8.9668 ppb	08:29:15
3	Ba 233.527†	4.0	-9.3	-0.0944 ug/L	-0.0944 ppb	08:29:35
3	Be 313.107†	-4145.4	64.2	0.0266 ug/L	0.0266 ppb	08:29:15
3	Cd 226.502†	-183.8	16.8	0.2608 ug/L	0.2608 ppb	08:29:35
3	Co 228.616†	-47.5	2.8	0.0765 ug/L	0.0765 ppb	08:29:35
3	Cr 267.716†	101.7	5.7	0.0886 ug/L	0.0886 ppb	08:29:35
3	Cu 324.752†	5397.9	2.9	0.0128 ug/L	0.0128 ppb	08:29:15
3	Mn 257.610†	446.6	-11.2	-0.0142 ug/L	-0.0142 ppb	08:29:35
3	Mo 202.031†	21.3	16.4	1.6058 ug/L	1.6058 ppb	08:29:35
3	Ni 231.604†	108.7	23.1	0.7798 ug/L	0.7798 ppb	08:29:35
3	P 214.914†	189.1	-14.0	-9.4754 ug/L	-9.4754 ppb	08:29:35
3	Pb 220.353†	-80.6	-14.2	-2.3057 ug/L	-2.3057 ppb	08:29:35
3	S 181.975 Axial†	34.0	-5.7	-8.9963 ug/L	-8.9963 ppb	08:29:35
3	Sb 206.836†	38.0	12.5	5.2398 ug/L	5.2398 ppb	08:29:35
3	Se 196.026†	-16.8	9.9	7.6687 ug/L	7.6687 ppb	08:29:35
3	Si 251.611†	583.7	42.9	1.6231 ug/L	1.6231 ppb	08:29:35
3	Sn 189.927†	14.4	4.5	1.0671 ug/L	1.0671 ppb	08:29:35
3	Ti 334.940†	-1475.4	-58.6	-0.1022 ug/L	-0.1022 ppb	08:29:15
3	Tl 190.801†	-35.6	-3.8	-1.5198 ug/L	-1.5198 ppb	08:29:35
3	U 409.014†	-2581.0	-156.0	-6.2275 ug/L	-6.2275 ppb	08:29:15
3	V 292.402†	-1752.7	8.9	0.0945 ug/L	0.0945 ppb	08:29:15
3	Zn 213.857†	740.2	44.3	0.5321 ug/L	0.5321 ppb	08:29:35
3	SiO2†	614.1	59.2	4.7746 ug/L	4.7746 ppb	08:29:51

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	692009.9	103.77 %		2.882			2.78%
Sc Radial	3879.4	108 %		0.7			0.62%
Y 371.029	548077.5	103.79 %		2.869			2.76%
Y RADIAL	4395.5	108.1 %		1.46			1.35%
Ag 328.068†	10.0	0.0503 ug/L		0.20171	0.0503 ppb	0.20171	400.73%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	12.5	14.302 ug/L		11.1931	14.302 ppb	11.1931	78.26%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	4.3	2.2354 ug/L		0.58690	2.2354 ppb	0.58690	26.25%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	364.4	9.7648 ug/L		1.55687	9.7648 ppb	1.55687	15.94%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	-1.3	-0.0128 ug/L		0.07079	-0.0128 ppb	0.07079	551.03%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	71.1	0.0298 ug/L		0.00365	0.0298 ppb	0.00365	12.25%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	3.1	6.3287 ug/L		7.13910	6.3287 ppb	7.13910	112.81%

QC value within limits for Ca 317.933 Radial	Recovery = Not calculated		
Cd 226.502†	10.1 0.1598 ug/L	0.09548 0.1598 ppb	0.09548 59.76%
QC value within limits for Cd 226.502	Recovery = Not calculated		
Co 228.616†	3.2 0.0848 ug/L	0.13025 0.0848 ppb	0.13025 153.59%
QC value within limits for Co 228.616	Recovery = Not calculated		
Cr 267.716†	4.5 0.0670 ug/L	0.02070 0.0670 ppb	0.02070 30.92%
QC value within limits for Cr 267.716	Recovery = Not calculated		
Cu 324.752†	2.5 0.0067 ug/L	0.04836 0.0067 ppb	0.04836 721.08%
QC value within limits for Cu 324.752	Recovery = Not calculated		
Fe 238.204 Radial†	-1.7 -23.968 ug/L	16.2425 -23.968 ppb	16.2425 67.77%
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
K 766.490 Radial†	140.2 29.498 ug/L	21.6949 29.498 ppb	21.6949 73.55%
QC value within limits for K 766.490 Radial	Recovery = Not calculated		
Mg 279.077 IEC†	0.4 15.895 ug/L	103.0216 15.895 ppb	103.0216 648.14%
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
Mn 257.610†	-28.0 -0.0416 ug/L	0.03173 -0.0416 ppb	0.03173 76.30%
QC value within limits for Mn 257.610	Recovery = Not calculated		
Mo 202.031†	11.8 1.1502 ug/L	0.45322 1.1502 ppb	0.45322 39.40%
QC value within limits for Mo 202.031	Recovery = Not calculated		
Na 589.592 Radial†	42.9 22.111 ug/L	7.8001 22.111 ppb	7.8001 35.28%
QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
Ni 231.604†	18.8 0.6348 ug/L	0.13261 0.6348 ppb	0.13261 20.89%
QC value within limits for Ni 231.604	Recovery = Not calculated		
P 214.914†	-15.3 -10.322 ug/L	1.4839 -10.322 ppb	1.4839 14.38%
QC value within limits for P 214.914	Recovery = Not calculated		
Pb 220.353†	-4.7 -0.7560 ug/L	1.68454 -0.7560 ppb	1.68454 222.82%
QC value within limits for Pb 220.353	Recovery = Not calculated		
S 181.975 Axial†	-5.9 -9.4409 ug/L	2.23873 -9.4409 ppb	2.23873 23.71%
QC value within limits for S 181.975 Axial	Recovery = Not calculated		
Sb 206.836†	5.1 2.1557 ug/L	2.68829 2.1557 ppb	2.68829 124.71%
QC value within limits for Sb 206.836	Recovery = Not calculated		
Se 196.026†	7.1 5.5144 ug/L	5.66530 5.5144 ppb	5.66530 102.74%
QC value within limits for Se 196.026	Recovery = Not calculated		
Si 251.611†	20.7 0.7759 ug/L	0.73572 0.7759 ppb	0.73572 94.82%
QC value within limits for Si 251.611	Recovery = Not calculated		
Sn 189.927†	3.6 0.8627 ug/L	0.21835 0.8627 ppb	0.21835 25.31%
QC value within limits for Sn 189.927	Recovery = Not calculated		
Sr 421.552†	7.9 0.0875 ug/L	0.15498 0.0875 ppb	0.15498 177.11%
QC value within limits for Sr 421.552	Recovery = Not calculated		
Ti 334.940†	1.6 0.0018 ug/L	0.09038 0.0018 ppb	0.09038 >999.9%
QC value within limits for Ti 334.940	Recovery = Not calculated		
Tl 190.801†	-0.5 -0.1817 ug/L	1.25121 -0.1817 ppb	1.25121 688.62%
QC value within limits for Tl 190.801	Recovery = Not calculated		
U 409.014†	43.6 1.7431 ug/L	6.94197 1.7431 ppb	6.94197 398.26%
QC value within limits for U 409.014	Recovery = Not calculated		
V 292.402†	43.9 0.4278 ug/L	0.44719 0.4278 ppb	0.44719 104.53%
QC value within limits for V 292.402	Recovery = Not calculated		
Zn 213.857†	21.3 0.2567 ug/L	0.26738 0.2567 ppb	0.26738 104.15%
QC value within limits for Zn 213.857	Recovery = Not calculated		
SiO2†	9.7 0.7538 ug/L	4.14671 0.7538 ppb	4.14671 550.10%
QC value within limits for SiO2	Recovery = Not calculated		

All analyte(s) passed QC.

Sequence No.: 11

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/31/2010 09:19:24

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	3890.4	3890.4	108 %		09:21:36
1	Y RADIAL	4316.9	4316.9	106.2 %		09:21:16
1	Al 396.153Radial†	4668.4	4416.2	5043.6 ug/L	5043.6 ppb	09:21:16
1	Ca 317.933Radial†	2683.2	2459.3	5026.9 ug/L	5026.9 ppb	09:21:36
1	Fe 238.204 Radial†	398.4	359.3	5094.3 ug/L	5094.3 ppb	09:21:36
1	K 766.490 Radial†	28702.7	23457.1	4930.2 ug/L	4930.2 ppb	09:21:16
1	Mg 279.077 IEC†	125.9	115.5	5100.8 ug/L	5100.8 ppb	09:21:36
1	Na 589.592 Radial†	20358.9	19676.9	10146 ug/L	10146 ppb	09:21:16
1	Sr 421.552†	50580.8	46643.1	514.20 ug/L	514.20 ppb	09:21:16
1	Sc 361.383	683600.3	683600.3	102.50 %		09:22:33
1	Y 371.029	535310.4	535310.4	101.37 %		09:22:33
1	Ag 328.068†	87913.6	85563.3	497.21 ug/L	497.21 ppb	09:22:39
1	As 188.979†	951.6	953.6	499.33 ug/L	499.33 ppb	09:22:59
1	B 249.677†	18387.5	18353.3	489.39 ug/L	489.39 ppb	09:22:39
1	Ba 233.527†	50029.1	48793.4	494.84 ug/L	494.84 ppb	09:22:39
1	Be 313.107†	1204549.5	1179293.6	495.10 ug/L	495.10 ppb	09:22:33
1	Cd 226.502†	32630.3	32032.2	494.30 ug/L	494.30 ppb	09:22:39
1	Co 228.616†	19623.3	19193.7	498.27 ug/L	498.27 ppb	09:22:39
1	Cr 267.716†	33047.4	32144.7	495.13 ug/L	495.13 ppb	09:22:39
1	Cu 324.752†	147870.5	138902.9	492.50 ug/L	492.50 ppb	09:22:39
1	Mn 257.610†	368801.8	359335.4	494.74 ug/L	494.74 ppb	09:22:39
1	Mo 202.031†	5158.3	5027.5	492.00 ug/L	492.00 ppb	09:22:59
1	Ni 231.604†	15216.1	14759.5	497.05 ug/L	497.05 ppb	09:22:39
1	P 214.914†	3922.9	3625.3	2364.6 ug/L	2364.6 ppb	09:22:59
1	Pb 220.353†	3033.5	3025.1	495.35 ug/L	495.35 ppb	09:22:59
1	S 181.975 Axial†	671.9	616.1	976.47 ug/L	976.47 ppb	09:22:59
1	Sb 206.836†	1227.9	1172.6	503.82 ug/L	503.82 ppb	09:22:59
1	Se 196.026†	625.1	636.4	512.27 ug/L	512.27 ppb	09:22:59
1	Si 251.611†	67937.9	65741.4	2509.2 ug/L	2509.2 ppb	09:22:39
1	Sn 189.927†	2139.4	2077.4	492.02 ug/L	492.02 ppb	09:22:59
1	Ti 334.940†	265076.8	260005.1	492.38 ug/L	492.38 ppb	09:22:39
1	Tl 190.801†	1245.7	1246.7	497.97 ug/L	497.97 ppb	09:22:59
1	U 409.014†	10026.9	12187.4	484.98 ug/L	484.98 ppb	09:22:39
1	V 292.402†	53199.2	53647.6	500.83 ug/L	500.83 ppb	09:22:39
1	Zn 213.857†	42771.7	41036.2	490.65 ug/L	490.65 ppb	09:22:39
1	SiO2†	68342.2	66122.0	5364.8 ug/L	5364.8 ppb	09:24:06
2	Sc Radial	3913.2	3913.2	109 %		09:22:01
2	Y RADIAL	4352.7	4352.7	107.0 %		09:21:41
2	Al 396.153Radial†	4685.8	4407.1	5033.2 ug/L	5033.2 ppb	09:21:41
2	Ca 317.933Radial†	2704.6	2464.6	5037.6 ug/L	5037.6 ppb	09:22:01
2	Fe 238.204 Radial†	401.4	359.9	5102.5 ug/L	5102.5 ppb	09:22:01
2	K 766.490 Radial†	28715.1	23314.6	4900.2 ug/L	4900.2 ppb	09:21:41
2	Mg 279.077 IEC†	126.5	115.4	5092.9 ug/L	5092.9 ppb	09:22:01
2	Na 589.592 Radial†	20332.8	19543.9	10077 ug/L	10077 ppb	09:21:41
2	Sr 421.552†	50612.6	46401.1	511.54 ug/L	511.54 ppb	09:21:41
2	Sc 361.383	699922.8	699922.8	104.95 %		09:23:04
2	Y 371.029	548266.9	548266.9	103.82 %		09:23:04
2	Ag 328.068†	89725.4	85289.5	495.61 ug/L	495.61 ppb	09:23:10
2	As 188.979†	969.8	949.2	497.06 ug/L	497.06 ppb	09:23:30
2	B 249.677†	18838.6	18364.8	489.71 ug/L	489.71 ppb	09:23:10
2	Ba 233.527†	50795.3	48385.3	490.71 ug/L	490.71 ppb	09:23:10
2	Be 313.107†	1229289.0	1175461.7	493.49 ug/L	493.49 ppb	09:23:04
2	Cd 226.502†	33077.7	31716.1	489.42 ug/L	489.42 ppb	09:23:10
2	Co 228.616†	19864.8	18977.4	492.66 ug/L	492.66 ppb	09:23:10
2	Cr 267.716†	33518.1	31841.2	490.46 ug/L	490.46 ppb	09:23:10
2	Cu 324.752†	151412.9	138914.0	492.54 ug/L	492.54 ppb	09:23:10
2	Mn 257.610†	374673.3	356539.5	490.89 ug/L	490.89 ppb	09:23:10
2	Mo 202.031†	5276.3	5022.5	491.51 ug/L	491.51 ppb	09:23:30
2	Ni 231.604†	15362.3	14552.6	490.08 ug/L	490.08 ppb	09:23:10

2	P 214.914†	4013.6	3622.6	2362.7 ug/L	2362.7 ppb	09:23:30
2	Pb 220.353†	3086.0	3006.2	492.26 ug/L	492.26 ppb	09:23:30
2	S 181.975 Axial†	689.4	617.5	978.71 ug/L	978.71 ppb	09:23:30
2	Sb 206.836†	1269.3	1184.2	508.61 ug/L	508.61 ppb	09:23:30
2	Se 196.026†	644.5	640.7	515.61 ug/L	515.61 ppb	09:23:30
2	Si 251.611†	69149.0	65349.7	2494.3 ug/L	2494.3 ppb	09:23:10
2	Sn 189.927†	2190.9	2077.7	492.10 ug/L	492.10 ppb	09:23:30
2	Ti 334.940†	270270.1	258922.8	490.33 ug/L	490.33 ppb	09:23:10
2	Tl 190.801†	1269.1	1240.7	495.57 ug/L	495.57 ppb	09:23:30
2	U 409.014†	10422.5	12336.3	490.93 ug/L	490.93 ppb	09:23:10
2	V 292.402†	54095.3	53291.1	497.56 ug/L	497.56 ppb	09:23:10
2	Zn 213.857†	43491.9	40749.3	487.24 ug/L	487.24 ppb	09:23:10
2	SiO2†	69019.0	65212.1	5290.8 ug/L	5290.8 ppb	09:24:11
3	Sc Radial	3875.4	3875.4	108 %		09:22:27
3	Y RADIAL	4385.7	4385.7	107.9 %		09:22:07
3	Al 396.153Radial†	4663.1	4428.0	5057.8 ug/L	5057.8 ppb	09:22:07
3	Ca 317.933Radial†	2672.1	2458.6	5025.4 ug/L	5025.4 ppb	09:22:27
3	Fe 238.204 Radial†	396.4	358.8	5087.2 ug/L	5087.2 ppb	09:22:27
3	K 766.490 Radial†	28859.8	23704.9	4982.3 ug/L	4982.3 ppb	09:22:07
3	Mg 279.077 IEC†	125.4	115.5	5098.0 ug/L	5098.0 ppb	09:22:27
3	Na 589.592 Radial†	20490.6	19871.6	10246 ug/L	10246 ppb	09:22:07
3	Sr 421.552†	50786.4	47013.9	518.29 ug/L	518.29 ppb	09:22:07
3	Sc 361.383	709824.8	709824.8	106.44 %		09:23:35
3	Y 371.029	555511.9	555511.9	105.19 %		09:23:35
3	Ag 328.068†	89571.1	83951.9	487.87 ug/L	487.87 ppb	09:23:40
3	As 188.979†	967.9	934.6	489.45 ug/L	489.45 ppb	09:24:00
3	B 249.677†	18813.7	18091.0	482.39 ug/L	482.39 ppb	09:23:40
3	Ba 233.527†	50928.6	47835.3	485.13 ug/L	485.13 ppb	09:23:40
3	Be 313.107†	1250002.7	1178583.4	494.78 ug/L	494.78 ppb	09:23:35
3	Cd 226.502†	33221.5	31411.6	484.71 ug/L	484.71 ppb	09:23:40
3	Co 228.616†	20011.7	18851.4	489.37 ug/L	489.37 ppb	09:23:40
3	Cr 267.716†	33605.7	31478.1	484.87 ug/L	484.87 ppb	09:23:40
3	Cu 324.752†	151002.6	136516.1	484.04 ug/L	484.04 ppb	09:23:40
3	Mn 257.610†	375817.0	352634.0	485.52 ug/L	485.52 ppb	09:23:40
3	Mo 202.031†	5200.8	4881.6	477.73 ug/L	477.73 ppb	09:24:00
3	Ni 231.604†	15500.7	14478.5	487.59 ug/L	487.59 ppb	09:23:40
3	P 214.914†	3954.0	3513.2	2290.0 ug/L	2290.0 ppb	09:24:00
3	Pb 220.353†	3065.0	2945.4	482.33 ug/L	482.33 ppb	09:24:00
3	S 181.975 Axial†	684.1	603.3	956.23 ug/L	956.23 ppb	09:24:00
3	Sb 206.836†	1246.0	1145.4	492.09 ug/L	492.09 ppb	09:24:00
3	Se 196.026†	620.1	609.2	490.99 ug/L	490.99 ppb	09:24:00
3	Si 251.611†	69362.6	64631.3	2466.9 ug/L	2466.9 ppb	09:23:40
3	Sn 189.927†	2177.1	2035.7	482.15 ug/L	482.15 ppb	09:24:00
3	Ti 334.940†	270210.8	255274.7	483.43 ug/L	483.43 ppb	09:23:40
3	Tl 190.801†	1271.7	1226.3	489.81 ug/L	489.81 ppb	09:24:00
3	U 409.014†	10178.9	11968.8	476.27 ug/L	476.27 ppb	09:23:40
3	V 292.402†	54006.1	52488.3	489.95 ug/L	489.95 ppb	09:23:40
3	Zn 213.857†	43668.8	40337.4	482.29 ug/L	482.29 ppb	09:23:40
3	SiO2†	68938.8	64219.3	5210.4 ug/L	5210.4 ppb	09:24:16

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	697782.6	104.63 %		1.986			1.90%
Sc Radial	3893.0	108 %		0.5			0.49%
Y 371.029	546363.1	103.46 %		1.938			1.87%
Y RADIAL	4351.8	107.0 %		0.85			0.79%
Ag 328.068†	84934.9	493.56 ug/L		4.998	493.56 ppb	4.998	1.01%
QC value within limits for Ag 328.068 Recovery = 98.71%							
Al 396.153Radial†	4417.1	5044.9 ug/L		12.37	5044.9 ppb	12.37	0.25%
QC value within limits for Al 396.153Radial Recovery = 100.90%							
As 188.979†	945.8	495.28 ug/L		5.174	495.28 ppb	5.174	1.04%
QC value within limits for As 188.979 Recovery = 99.06%							
B 249.677†	18269.7	487.16 ug/L		4.138	487.16 ppb	4.138	0.85%
QC value within limits for B 249.677 Recovery = 97.43%							
Ba 233.527†	48338.0	490.22 ug/L		4.876	490.22 ppb	4.876	0.99%
QC value within limits for Ba 233.527 Recovery = 98.04%							
Be 313.107†	1177779.6	494.46 ug/L		0.853	494.46 ppb	0.853	0.17%
QC value within limits for Be 313.107 Recovery = 98.89%							
Ca 317.933Radial†	2460.8	5030.0 ug/L		6.63	5030.0 ppb	6.63	0.13%

QC value within limits for Ca 317.933 Radial Recovery = 100.60%							
Cd	226.502†	31720.0	489.48 ug/L	4.793	489.48 ppb	4.793	0.98%
QC value within limits for Cd 226.502 Recovery = 97.90%							
Co	228.616†	19007.5	493.44 ug/L	4.500	493.44 ppb	4.500	0.91%
QC value within limits for Co 228.616 Recovery = 98.69%							
Cr	267.716†	31821.3	490.15 ug/L	5.136	490.15 ppb	5.136	1.05%
QC value within limits for Cr 267.716 Recovery = 98.03%							
Cu	324.752†	138111.0	489.69 ug/L	4.894	489.69 ppb	4.894	1.00%
QC value within limits for Cu 324.752 Recovery = 97.94%							
Fe	238.204 Radial†	359.4	5094.6 ug/L	7.66	5094.6 ppb	7.66	0.15%
QC value within limits for Fe 238.204 Radial Recovery = 101.89%							
K	766.490 Radial†	23492.2	4937.6 ug/L	41.55	4937.6 ppb	41.55	0.84%
QC value within limits for K 766.490 Radial Recovery = 98.75%							
Mg	279.077 IEC†	115.5	5097.2 ug/L	4.03	5097.2 ppb	4.03	0.08%
QC value within limits for Mg 279.077 IEC Recovery = 101.94%							
Mn	257.610†	356169.6	490.38 ug/L	4.632	490.38 ppb	4.632	0.94%
QC value within limits for Mn 257.610 Recovery = 98.08%							
Mo	202.031†	4977.2	487.08 ug/L	8.102	487.08 ppb	8.102	1.66%
QC value within limits for Mo 202.031 Recovery = 97.42%							
Na	589.592 Radial†	19697.4	10156 ug/L	85.0	10156 ppb	85.0	0.84%
QC value within limits for Na 589.592 Radial Recovery = 101.56%							
Ni	231.604†	14596.9	491.57 ug/L	4.905	491.57 ppb	4.905	1.00%
QC value within limits for Ni 231.604 Recovery = 98.31%							
P	214.914†	3587.0	2339.1 ug/L	42.49	2339.1 ppb	42.49	1.82%
QC value within limits for P 214.914 Recovery = 93.56%							
Pb	220.353†	2992.2	489.98 ug/L	6.807	489.98 ppb	6.807	1.39%
QC value within limits for Pb 220.353 Recovery = 98.00%							
S	181.975 Axial†	612.3	970.47 ug/L	12.379	970.47 ppb	12.379	1.28%
QC value within limits for S 181.975 Axial Recovery = 97.05%							
Sb	206.836†	1167.4	501.51 ug/L	8.497	501.51 ppb	8.497	1.69%
QC value within limits for Sb 206.836 Recovery = 100.30%							
Se	196.026†	628.8	506.29 ug/L	13.353	506.29 ppb	13.353	2.64%
QC value within limits for Se 196.026 Recovery = 101.26%							
Si	251.611†	65240.8	2490.1 ug/L	21.45	2490.1 ppb	21.45	0.86%
QC value within limits for Si 251.611 Recovery = 99.61%							
Sn	189.927†	2063.6	488.75 ug/L	5.720	488.75 ppb	5.720	1.17%
QC value within limits for Sn 189.927 Recovery = 97.75%							
Sr	421.552†	46686.0	514.68 ug/L	3.403	514.68 ppb	3.403	0.66%
QC value within limits for Sr 421.552 Recovery = 102.94%							
Ti	334.940†	258067.5	488.72 ug/L	4.691	488.72 ppb	4.691	0.96%
QC value within limits for Ti 334.940 Recovery = 97.74%							
Tl	190.801†	1237.9	494.45 ug/L	4.194	494.45 ppb	4.194	0.85%
QC value within limits for Tl 190.801 Recovery = 98.89%							
U	409.014†	12164.2	484.06 ug/L	7.372	484.06 ppb	7.372	1.52%
QC value within limits for U 409.014 Recovery = 96.81%							
V	292.402†	53142.3	496.11 ug/L	5.585	496.11 ppb	5.585	1.13%
QC value within limits for V 292.402 Recovery = 99.22%							
Zn	213.857†	40707.6	486.73 ug/L	4.203	486.73 ppb	4.203	0.86%
QC value within limits for Zn 213.857 Recovery = 97.35%							
SiO2†		65184.4	5288.6 ug/L	77.21	5288.6 ppb	77.21	1.46%
QC value within limits for SiO2 Recovery = 98.90%							

All analyte(s) passed QC.

Sequence No.: 12

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/31/2010 09:26:26

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	3885.8	3885.8	108 %		09:28:40
1	Y RADIAL	4349.7	4349.7	107.0 %		09:28:20
1	Al 396.153Radial†	-103.4	14.5	16.570 ug/L	16.570 ppb	09:28:20
1	Ca 317.933Radial†	20.6	3.3	6.6847 ug/L	6.6847 ppb	09:28:40
1	Fe 238.204 Radial†	7.5	-1.2	-17.570 ug/L	-17.570 ppb	09:28:40
1	K 766.490 Radial†	3287.8	17.4	3.6611 ug/L	3.6611 ppb	09:28:20
1	Mg 279.077 IEC†	0.5	-0.2	-8.4725 ug/L	-8.4725 ppb	09:28:40
1	Na 589.592 Radial†	-963.0	8.0	4.1497 ug/L	4.1497 ppb	09:28:20
1	Sr 421.552†	0.2	-13.6	-0.1501 ug/L	-0.1501 ppb	09:28:20
1	Sc 361.383	686335.3	686335.3	102.91 %		09:29:36
1	Y 371.029	543029.2	543029.2	102.83 %		09:29:36
1	Ag 328.068†	216.3	8.1	0.0456 ug/L	0.0456 ppb	09:29:36
1	As 188.979†	-28.6	-2.5	-1.3056 ug/L	-1.3056 ppb	09:29:56
1	B 249.677†	-337.9	86.8	2.3274 ug/L	2.3274 ppb	09:29:56
1	Ba 233.527†	4.2	-9.1	-0.0908 ug/L	-0.0908 ppb	09:29:56
1	Be 313.107†	-4326.9	-26.1	-0.0112 ug/L	-0.0112 ppb	09:29:36
1	Cd 226.502†	-197.1	7.8	0.1220 ug/L	0.1220 ppb	09:29:56
1	Co 228.616†	-55.9	-4.4	-0.1129 ug/L	-0.1129 ppb	09:29:56
1	Cr 267.716†	89.2	-8.5	-0.1313 ug/L	-0.1313 ppb	09:29:56
1	Cu 324.752†	5573.4	61.3	0.2172 ug/L	0.2172 ppb	09:29:36
1	Mn 257.610†	447.0	-20.1	-0.0290 ug/L	-0.0290 ppb	09:29:56
1	Mo 202.031†	13.2	8.1	0.7871 ug/L	0.7871 ppb	09:29:56
1	Ni 231.604†	112.0	24.1	0.8129 ug/L	0.8129 ppb	09:29:56
1	P 214.914†	198.1	-9.2	-6.2397 ug/L	-6.2397 ppb	09:29:56
1	Pb 220.353†	-69.9	-2.1	-0.3413 ug/L	-0.3413 ppb	09:29:56
1	S 181.975 Axial†	40.9	0.4	0.5710 ug/L	0.5710 ppb	09:29:56
1	Sb 206.836†	20.1	-5.7	-2.3639 ug/L	-2.3639 ppb	09:29:56
1	Se 196.026†	-15.8	11.2	8.6873 ug/L	8.6873 ppb	09:29:56
1	Si 251.611†	560.4	8.1	0.2992 ug/L	0.2992 ppb	09:29:56
1	Sn 189.927†	8.8	-1.2	-0.2921 ug/L	-0.2921 ppb	09:29:56
1	Ti 334.940†	-1500.8	-52.6	-0.0973 ug/L	-0.0973 ppb	09:29:36
1	Tl 190.801†	-29.2	3.1	1.2344 ug/L	1.2344 ppb	09:29:56
1	U 409.014†	-2517.4	-40.5	-1.6165 ug/L	-1.6165 ppb	09:29:36
1	V 292.402†	-1717.7	79.4	0.7418 ug/L	0.7418 ppb	09:29:36
1	Zn 213.857†	710.8	0.3	0.0010 ug/L	0.0010 ppb	09:29:56
1	SiO2†	555.5	-10.5	-0.8729 ug/L	-0.8729 ppb	09:30:52
2	Sc Radial	3939.3	3939.3	110 %		09:29:05
2	Y RADIAL	4380.5	4380.5	107.7 %		09:28:45
2	Al 396.153Radial†	-81.0	36.2	41.533 ug/L	41.533 ppb	09:28:45
2	Ca 317.933Radial†	16.7	-0.5	-1.0532 ug/L	-1.0532 ppb	09:29:05
2	Fe 238.204 Radial†	8.9	-0.0	-0.6860 ug/L	-0.6860 ppb	09:29:05
2	K 766.490 Radial†	3162.5	-138.0	-29.050 ug/L	-29.050 ppb	09:28:45
2	Mg 279.077 IEC†	-0.0	-0.7	-29.045 ug/L	-29.045 ppb	09:29:05
2	Na 589.592 Radial†	-947.2	34.6	17.829 ug/L	17.829 ppb	09:28:45
2	Sr 421.552†	25.9	9.8	0.1085 ug/L	0.1085 ppb	09:28:45
2	Sc 361.383	688270.5	688270.5	103.21 %		09:30:02
2	Y 371.029	544506.6	544506.6	103.11 %		09:30:02
2	Ag 328.068†	223.4	14.4	0.0842 ug/L	0.0842 ppb	09:30:02
2	As 188.979†	-25.8	0.2	0.1232 ug/L	0.1232 ppb	09:30:22
2	B 249.677†	-368.1	58.5	1.5667 ug/L	1.5667 ppb	09:30:22
2	Ba 233.527†	3.8	-9.6	-0.0947 ug/L	-0.0947 ppb	09:30:22
2	Be 313.107†	-4331.4	-18.6	-0.0077 ug/L	-0.0077 ppb	09:30:02
2	Cd 226.502†	-194.6	10.7	0.1664 ug/L	0.1664 ppb	09:30:22
2	Co 228.616†	-50.6	0.9	0.0239 ug/L	0.0239 ppb	09:30:22
2	Cr 267.716†	69.7	-27.7	-0.4261 ug/L	-0.4261 ppb	09:30:22
2	Cu 324.752†	5551.0	24.4	0.0847 ug/L	0.0847 ppb	09:30:02
2	Mn 257.610†	452.2	-16.3	-0.0213 ug/L	-0.0213 ppb	09:30:22
2	Mo 202.031†	12.6	7.4	0.7276 ug/L	0.7276 ppb	09:30:22
2	Ni 231.604†	102.1	14.2	0.4785 ug/L	0.4785 ppb	09:30:22

2	P 214.914†	191.0	-16.6	-11.283 ug/L	-11.283 ppb	09:30:22
2	Pb 220.353†	-68.5	-0.6	-0.0889 ug/L	-0.0889 ppb	09:30:22
2	S 181.975 Axial†	30.7	-9.7	-15.327 ug/L	-15.327 ppb	09:30:22
2	Sb 206.836†	29.9	3.7	1.5432 ug/L	1.5432 ppb	09:30:22
2	Se 196.026†	-22.7	4.6	3.5578 ug/L	3.5578 ppb	09:30:22
2	Si 251.611†	542.0	-11.2	-0.4381 ug/L	-0.4381 ppb	09:30:22
2	Sn 189.927†	10.1	-0.0	-0.0013 ug/L	-0.0013 ppb	09:30:22
2	Ti 334.940†	-1418.1	31.6	0.0610 ug/L	0.0610 ppb	09:30:02
2	Tl 190.801†	-18.7	13.3	5.2871 ug/L	5.2871 ppb	09:30:22
2	U 409.014†	-2404.0	76.2	3.0445 ug/L	3.0445 ppb	09:30:02
2	V 292.402†	-1697.5	103.6	0.9705 ug/L	0.9705 ppb	09:30:02
2	Zn 213.857†	716.6	3.9	0.0444 ug/L	0.0444 ppb	09:30:22
2	SiO2†	515.1	-51.1	-4.1797 ug/L	-4.1797 ppb	09:30:57
3	Sc Radial	3986.7	3986.7	111 %		09:29:30
3	Y RADIAL	4520.6	4520.6	111.2 %		09:29:10
3	Al 396.153Radial†	-109.3	11.6	13.229 ug/L	13.229 ppb	09:29:10
3	Ca 317.933Radial†	20.1	2.4	4.8195 ug/L	4.8195 ppb	09:29:30
3	Fe 238.204 Radial†	8.6	-0.4	-6.1322 ug/L	-6.1322 ppb	09:29:30
3	K 766.490 Radial†	3016.7	-303.4	-63.866 ug/L	-63.866 ppb	09:29:10
3	Mg 279.077 IEC†	3.1	2.1	93.675 ug/L	93.675 ppb	09:29:30
3	Na 589.592 Radial†	-969.5	24.7	12.740 ug/L	12.740 ppb	09:29:10
3	Sr 421.552†	-28.2	-39.2	-0.4322 ug/L	-0.4322 ppb	09:29:10
3	Sc 361.383	685400.2	685400.2	102.77 %		09:30:27
3	Y 371.029	542512.3	542512.3	102.73 %		09:30:27
3	Ag 328.068†	185.9	-21.2	-0.1210 ug/L	-0.1210 ppb	09:30:27
3	As 188.979†	-21.5	4.3	2.2253 ug/L	2.2253 ppb	09:30:47
3	B 249.677†	-395.6	30.2	0.8089 ug/L	0.8089 ppb	09:30:47
3	Ba 233.527†	14.9	1.2	0.0159 ug/L	0.0159 ppb	09:30:47
3	Be 313.107†	-4351.3	-55.5	-0.0231 ug/L	-0.0231 ppb	09:30:27
3	Cd 226.502†	-198.5	6.1	0.0964 ug/L	0.0964 ppb	09:30:47
3	Co 228.616†	-47.4	3.8	0.1041 ug/L	0.1041 ppb	09:30:47
3	Cr 267.716†	83.8	-13.7	-0.2100 ug/L	-0.2100 ppb	09:30:47
3	Cu 324.752†	5408.5	-91.7	-0.3275 ug/L	-0.3275 ppb	09:30:27
3	Mn 257.610†	456.4	-10.3	-0.0186 ug/L	-0.0186 ppb	09:30:47
3	Mo 202.031†	27.9	22.4	2.1851 ug/L	2.1851 ppb	09:30:47
3	Ni 231.604†	102.7	15.2	0.5113 ug/L	0.5113 ppb	09:30:47
3	P 214.914†	196.1	-10.8	-7.2930 ug/L	-7.2930 ppb	09:30:47
3	Pb 220.353†	-97.7	-29.3	-4.7741 ug/L	-4.7741 ppb	09:30:47
3	S 181.975 Axial†	39.8	-0.6	-1.0240 ug/L	-1.0240 ppb	09:30:47
3	Sb 206.836†	29.6	3.6	1.5152 ug/L	1.5152 ppb	09:30:47
3	Se 196.026†	-33.6	-6.1	-4.7708 ug/L	-4.7708 ppb	09:30:47
3	Si 251.611†	541.7	-9.3	-0.3835 ug/L	-0.3835 ppb	09:30:47
3	Sn 189.927†	6.9	-3.0	-0.7151 ug/L	-0.7151 ppb	09:30:47
3	Ti 334.940†	-1404.0	39.6	0.0665 ug/L	0.0665 ppb	09:30:27
3	Tl 190.801†	-26.8	5.4	2.1505 ug/L	2.1505 ppb	09:30:47
3	U 409.014†	-2382.1	87.8	3.5066 ug/L	3.5066 ppb	09:30:27
3	V 292.402†	-1623.9	168.3	1.5914 ug/L	1.5914 ppb	09:30:27
3	Zn 213.857†	718.8	9.0	0.1065 ug/L	0.1065 ppb	09:30:47
3	SiO2†	552.7	-12.4	-1.0685 ug/L	-1.0685 ppb	09:31:03

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	686668.7	102.96 %		0.220			0.21%
Sc Radial	3937.3	110 %		1.4			1.28%
Y 371.029	543349.4	102.89 %		0.196			0.19%
Y RADIAL	4416.9	108.6 %		2.24			2.06%
Ag 328.068†	0.4	0.0029 ug/L		0.10904	0.0029 ppb	0.10904	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	20.8	23.778 ug/L		15.4668	23.778 ppb	15.4668	65.05%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	0.7	0.3476 ug/L		1.77616	0.3476 ppb	1.77616	510.94%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	58.5	1.5677 ug/L		0.75926	1.5677 ppb	0.75926	48.43%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	-5.8	-0.0566 ug/L		0.06274	-0.0566 ppb	0.06274	110.93%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	-33.4	-0.0140 ug/L		0.00809	-0.0140 ppb	0.00809	57.94%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	1.7	3.4837 ug/L		4.03822	3.4837 ppb	4.03822	115.92%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd	226.502†	8.2	0.1283 ug/L	0.03542	0.1283 ppb	0.03542	27.61%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co	228.616†	0.1	0.0050 ug/L	0.10972	0.0050 ppb	0.10972	>999.9%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr	267.716†	-16.6	-0.2558 ug/L	0.15267	-0.2558 ppb	0.15267	59.68%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu	324.752†	-2.0	-0.0085 ug/L	0.28408	-0.0085 ppb	0.28408	>999.9%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	-0.6	-8.1294 ug/L	8.61736	-8.1294 ppb	8.61736	106.00%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	-141.3	-29.752 ug/L	33.7691	-29.752 ppb	33.7691	113.50%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	0.4	18.719 ug/L	65.7236	18.719 ppb	65.7236	351.11%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	-15.6	-0.0230 ug/L	0.00541	-0.0230 ppb	0.00541	23.57%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	12.6	1.2333 ug/L	0.82484	1.2333 ppb	0.82484	66.88%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	22.4	11.573 ug/L	6.9139	11.573 ppb	6.9139	59.74%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	17.8	0.6009 ug/L	0.18431	0.6009 ppb	0.18431	30.67%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	-12.2	-8.2720 ug/L	2.66046	-8.2720 ppb	2.66046	32.16%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	-10.7	-1.7348 ug/L	2.63515	-1.7348 ppb	2.63515	151.90%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	-3.3	-5.2601 ug/L	8.75482	-5.2601 ppb	8.75482	166.44%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	0.5	0.2315 ug/L	2.24772	0.2315 ppb	2.24772	970.88%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	3.2	2.4915 ug/L	6.79214	2.4915 ppb	6.79214	272.62%
QC value within limits for Se 196.026 Recovery = Not calculated							
Si	251.611†	-4.2	-0.1741 ug/L	0.41081	-0.1741 ppb	0.41081	235.91%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	-1.4	-0.3362 ug/L	0.35896	-0.3362 ppb	0.35896	106.77%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	-14.3	-0.1579 ug/L	0.27041	-0.1579 ppb	0.27041	171.22%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	6.2	0.0101 ug/L	0.09302	0.0101 ppb	0.09302	923.80%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	7.3	2.8907 ug/L	2.12532	2.8907 ppb	2.12532	73.52%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	41.2	1.6449 ug/L	2.83388	1.6449 ppb	2.83388	172.29%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	117.1	1.1012 ug/L	0.43962	1.1012 ppb	0.43962	39.92%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	4.4	0.0507 ug/L	0.05304	0.0507 ppb	0.05304	104.70%
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†		-24.7	-2.0404 ug/L	1.85527	-2.0404 ppb	1.85527	90.93%
QC value within limits for SiO2 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 10

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/31/2010 10:35:14

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4066.7	4066.7	113 %		10:37:26
1	Y RADIAL	4408.3	4408.3	108.4 %		10:37:06
1	Al 396.153Radial†	4815.5	4359.4	4979.3 ug/L	4979.3 ppb	10:37:06
1	Ca 317.933Radial†	2621.8	2297.8	4696.8 ug/L	4696.8 ppb	10:37:26
1	Fe 238.204 Radial†	384.0	330.7	4689.4 ug/L	4689.4 ppb	10:37:26
1	K 766.490 Radial†	29408.1	22931.9	4820.0 ug/L	4820.0 ppb	10:37:06
1	Mg 279.077 IEC†	125.0	109.7	4843.1 ug/L	4843.1 ppb	10:37:26
1	Na 589.592 Radial†	20367.5	18870.5	9730.1 ug/L	9730.1 ppb	10:37:06
1	Sr 421.552†	51637.5	45553.1	502.19 ug/L	502.19 ppb	10:37:06
1	Sc 361.383	722108.9	722108.9	108.28 %		10:38:23
1	Y 371.029	564459.4	564459.4	106.89 %		10:38:23
1	Ag 328.068†	89992.9	82909.9	481.70 ug/L	481.70 ppb	10:38:29
1	As 188.979†	964.0	915.5	479.36 ug/L	479.36 ppb	10:38:49
1	B 249.677†	18874.5	17846.5	475.93 ug/L	475.93 ppb	10:38:29
1	Ba 233.527†	50934.3	47026.6	476.92 ug/L	476.92 ppb	10:38:29
1	Be 313.107†	1265356.1	1172784.6	492.34 ug/L	492.34 ppb	10:38:23
1	Cd 226.502†	33203.0	30863.5	476.29 ug/L	476.29 ppb	10:38:29
1	Co 228.616†	19969.8	18492.8	480.08 ug/L	480.08 ppb	10:38:29
1	Cr 267.716†	33672.3	31002.5	477.51 ug/L	477.51 ppb	10:38:29
1	Cu 324.752†	151538.7	134597.7	477.22 ug/L	477.22 ppb	10:38:29
1	Mn 257.610†	375729.1	346546.2	477.11 ug/L	477.11 ppb	10:38:29
1	Mo 202.031†	5252.1	4845.7	474.19 ug/L	474.19 ppb	10:38:49
1	Ni 231.604†	15461.7	14194.8	478.03 ug/L	478.03 ppb	10:38:29
1	P 214.914†	3980.4	3474.4	2265.3 ug/L	2265.3 ppb	10:38:49
1	Pb 220.353†	3059.1	2891.0	473.46 ug/L	473.46 ppb	10:38:49
1	S 181.975 Axial†	693.0	600.7	952.00 ug/L	952.00 ppb	10:38:49
1	Sb 206.836†	1253.4	1132.3	486.45 ug/L	486.45 ppb	10:38:49
1	Se 196.026†	637.5	615.3	494.66 ug/L	494.66 ppb	10:38:49
1	Si 251.611†	69922.8	64040.1	2444.4 ug/L	2444.4 ppb	10:38:29
1	Sn 189.927†	2171.7	1995.9	472.69 ug/L	472.69 ppb	10:38:49
1	Ti 334.940†	270740.5	251445.2	476.15 ug/L	476.15 ppb	10:38:29
1	Tl 190.801†	1264.0	1198.8	478.87 ug/L	478.87 ppb	10:38:49
1	U 409.014†	10477.4	12081.9	480.85 ug/L	480.85 ppb	10:38:29
1	V 292.402†	54108.6	51719.8	482.89 ug/L	482.89 ppb	10:38:29
1	Zn 213.857†	43703.7	39671.7	474.39 ug/L	474.39 ppb	10:38:29
1	SiO2†	68452.0	62667.9	5084.3 ug/L	5084.3 ppb	10:39:56
2	Sc Radial	4023.9	4023.9	112 %		10:37:51
2	Y RADIAL	4654.2	4654.2	114.5 %		10:37:31
2	Al 396.153Radial†	4870.2	4453.4	5086.5 ug/L	5086.5 ppb	10:37:31
2	Ca 317.933Radial†	2698.1	2390.5	4886.3 ug/L	4886.3 ppb	10:37:51
2	Fe 238.204 Radial†	395.5	344.5	4884.9 ug/L	4884.9 ppb	10:37:51
2	K 766.490 Radial†	29451.2	23246.3	4886.0 ug/L	4886.0 ppb	10:37:31
2	Mg 279.077 IEC†	125.9	111.6	4928.7 ug/L	4928.7 ppb	10:37:51
2	Na 589.592 Radial†	20451.8	19136.8	9867.4 ug/L	9867.4 ppb	10:37:31
2	Sr 421.552†	52160.4	46504.0	512.67 ug/L	512.67 ppb	10:37:31
2	Sc 361.383	697078.3	697078.3	104.53 %		10:38:54
2	Y 371.029	546068.1	546068.1	103.41 %		10:38:54
2	Ag 328.068†	89116.1	85055.4	494.19 ug/L	494.19 ppb	10:38:59
2	As 188.979†	964.6	948.1	496.41 ug/L	496.41 ppb	10:39:19
2	B 249.677†	18590.7	18200.9	485.36 ug/L	485.36 ppb	10:38:59
2	Ba 233.527†	50454.5	48256.7	489.39 ug/L	489.39 ppb	10:38:59
2	Be 313.107†	1225632.7	1176743.1	494.02 ug/L	494.02 ppb	10:38:54
2	Cd 226.502†	32853.9	31630.6	488.12 ug/L	488.12 ppb	10:38:59
2	Co 228.616†	19758.9	18953.3	492.03 ug/L	492.03 ppb	10:38:59
2	Cr 267.716†	33320.2	31782.3	489.53 ug/L	489.53 ppb	10:38:59
2	Cu 324.752†	150376.5	138511.2	491.10 ug/L	491.10 ppb	10:38:59
2	Mn 257.610†	372273.1	355699.9	489.72 ug/L	489.72 ppb	10:38:59
2	Mo 202.031†	5210.5	4980.2	487.35 ug/L	487.35 ppb	10:39:19
2	Ni 231.604†	15310.9	14563.3	490.44 ug/L	490.44 ppb	10:38:59

2	P 214.914†	3960.4	3587.3	2339.1 ug/L	2339.1 ppb	10:39:19
2	Pb 220.353†	3031.0	2965.5	485.65 ug/L	485.65 ppb	10:39:19
2	S 181.975 Axial†	684.6	615.6	975.73 ug/L	975.73 ppb	10:39:19
2	Sb 206.836†	1232.4	1153.8	495.80 ug/L	495.80 ppb	10:39:19
2	Se 196.026†	632.9	632.1	508.32 ug/L	508.32 ppb	10:39:19
2	Si 251.611†	69150.8	65620.3	2504.7 ug/L	2504.7 ppb	10:38:59
2	Sn 189.927†	2149.2	2046.4	484.67 ug/L	484.67 ppb	10:39:19
2	Ti 334.940†	268501.9	258281.9	489.12 ug/L	489.12 ppb	10:38:59
2	Tl 190.801†	1250.8	1228.1	490.58 ug/L	490.58 ppb	10:39:19
2	U 409.014†	10232.9	12195.4	485.33 ug/L	485.33 ppb	10:38:59
2	V 292.402†	53618.6	53045.4	495.25 ug/L	495.25 ppb	10:38:59
2	Zn 213.857†	43222.6	40660.8	486.20 ug/L	486.20 ppb	10:38:59
2	SiO2†	69679.2	66112.0	5364.1 ug/L	5364.1 ppb	10:40:01
3	Sc Radial	4020.3	4020.3	112 %		10:38:16
3	Y RADIAL	4554.5	4554.5	112.0 %		10:37:56
3	Al 396.153Radial†	4858.7	4447.0	5079.0 ug/L	5079.0 ppb	10:37:56
3	Ca 317.933Radial†	2719.8	2412.0	4930.2 ug/L	4930.2 ppb	10:38:16
3	Fe 238.204 Radial†	401.0	349.7	4958.7 ug/L	4958.7 ppb	10:38:16
3	K 766.490 Radial†	29457.3	23275.2	4892.0 ug/L	4892.0 ppb	10:37:56
3	Mg 279.077 IEC†	130.1	115.5	5099.6 ug/L	5099.6 ppb	10:38:16
3	Na 589.592 Radial†	20536.2	19228.4	9914.6 ug/L	9914.6 ppb	10:37:56
3	Sr 421.552†	52189.3	46571.4	513.41 ug/L	513.41 ppb	10:37:56
3	Sc 361.383	696227.4	696227.4	104.40 %		10:39:25
3	Y 371.029	546455.0	546455.0	103.48 %		10:39:25
3	Ag 328.068†	90740.9	86716.1	503.83 ug/L	503.83 ppb	10:39:30
3	As 188.979†	974.5	958.7	502.02 ug/L	502.02 ppb	10:39:50
3	B 249.677†	19034.5	18647.7	497.29 ug/L	497.29 ppb	10:39:30
3	Ba 233.527†	51310.3	49135.5	498.31 ug/L	498.31 ppb	10:39:30
3	Be 313.107†	1233072.1	1185302.2	497.63 ug/L	497.63 ppb	10:39:25
3	Cd 226.502†	33378.5	32171.5	496.47 ug/L	496.47 ppb	10:39:30
3	Co 228.616†	20040.2	19245.9	499.62 ug/L	499.62 ppb	10:39:30
3	Cr 267.716†	33918.2	32394.0	498.95 ug/L	498.95 ppb	10:39:30
3	Cu 324.752†	153598.2	141773.0	502.66 ug/L	502.66 ppb	10:39:30
3	Mn 257.610†	378578.5	362174.9	498.63 ug/L	498.63 ppb	10:39:30
3	Mo 202.031†	5244.0	5018.3	491.09 ug/L	491.09 ppb	10:39:50
3	Ni 231.604†	15542.0	14802.5	498.50 ug/L	498.50 ppb	10:39:30
3	P 214.914†	3991.4	3621.6	2360.1 ug/L	2360.1 ppb	10:39:50
3	Pb 220.353†	3075.2	3011.4	493.13 ug/L	493.13 ppb	10:39:50
3	S 181.975 Axial†	686.8	618.5	980.31 ug/L	980.31 ppb	10:39:50
3	Sb 206.836†	1260.1	1181.8	507.59 ug/L	507.59 ppb	10:39:50
3	Se 196.026†	644.1	643.6	517.48 ug/L	517.48 ppb	10:39:50
3	Si 251.611†	70496.9	66990.5	2557.0 ug/L	2557.0 ppb	10:39:30
3	Sn 189.927†	2178.1	2076.6	491.80 ug/L	491.80 ppb	10:39:50
3	Ti 334.940†	273272.8	263165.7	498.35 ug/L	498.35 ppb	10:39:30
3	Tl 190.801†	1264.2	1242.4	496.32 ug/L	496.32 ppb	10:39:50
3	U 409.014†	10464.2	12428.9	494.63 ug/L	494.63 ppb	10:39:30
3	V 292.402†	54568.3	54017.8	504.26 ug/L	504.26 ppb	10:39:30
3	Zn 213.857†	44089.9	41542.1	496.76 ug/L	496.76 ppb	10:39:30
3	SiO2†	70143.2	66637.9	5406.7 ug/L	5406.7 ppb	10:40:06

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	705138.2	105.73 %	2.205			2.09%
Sc Radial	4037.0	112 %	0.7			0.64%
Y 371.029	552327.5	104.59 %	1.990			1.90%
Y RADIAL	4539.0	111.6 %	3.04			2.72%
Ag 328.068†	84893.8	493.24 ug/L	11.097	493.24 ppb	11.097	2.25%
QC value within limits for Ag 328.068 Recovery = 98.65%						
Al 396.153Radial†	4419.9	5048.2 ug/L	59.83	5048.2 ppb	59.83	1.19%
QC value within limits for Al 396.153Radial Recovery = 100.96%						
As 188.979†	940.8	492.60 ug/L	11.801	492.60 ppb	11.801	2.40%
QC value within limits for As 188.979 Recovery = 98.52%						
B 249.677†	18231.7	486.19 ug/L	10.706	486.19 ppb	10.706	2.20%
QC value within limits for B 249.677 Recovery = 97.24%						
Ba 233.527†	48139.6	488.21 ug/L	10.744	488.21 ppb	10.744	2.20%
QC value within limits for Ba 233.527 Recovery = 97.64%						
Be 313.107†	1178276.6	494.66 ug/L	2.704	494.66 ppb	2.704	0.55%
QC value within limits for Be 313.107 Recovery = 98.93%						
Ca 317.933Radial†	2366.8	4837.8 ug/L	124.03	4837.8 ppb	124.03	2.56%

QC value within limits for Ca 317.933 Radial Recovery = 96.76%							
Cd 226.502†	31555.2	486.96 ug/L	10.139	486.96 ppb	10.139	2.08%	
QC value within limits for Cd 226.502 Recovery = 97.39%							
Co 228.616†	18897.3	490.58 ug/L	9.850	490.58 ppb	9.850	2.01%	
QC value within limits for Co 228.616 Recovery = 98.12%							
Cr 267.716†	31726.3	488.66 ug/L	10.748	488.66 ppb	10.748	2.20%	
QC value within limits for Cr 267.716 Recovery = 97.73%							
Cu 324.752†	138294.0	490.33 ug/L	12.741	490.33 ppb	12.741	2.60%	
QC value within limits for Cu 324.752 Recovery = 98.07%							
Fe 238.204 Radial†	341.7	4844.3 ug/L	139.17	4844.3 ppb	139.17	2.87%	
QC value within limits for Fe 238.204 Radial Recovery = 96.89%							
K 766.490 Radial†	23151.1	4866.0 ug/L	39.98	4866.0 ppb	39.98	0.82%	
QC value within limits for K 766.490 Radial Recovery = 97.32%							
Mg 279.077 IEC†	112.3	4957.1 ug/L	130.61	4957.1 ppb	130.61	2.63%	
QC value within limits for Mg 279.077 IEC Recovery = 99.14%							
Mn 257.610†	354807.0	488.49 ug/L	10.813	488.49 ppb	10.813	2.21%	
QC value within limits for Mn 257.610 Recovery = 97.70%							
Mo 202.031†	4948.1	484.21 ug/L	8.877	484.21 ppb	8.877	1.83%	
QC value within limits for Mo 202.031 Recovery = 96.84%							
Na 589.592 Radial†	19078.6	9837.4 ug/L	95.86	9837.4 ppb	95.86	0.97%	
QC value within limits for Na 589.592 Radial Recovery = 98.37%							
Ni 231.604†	14520.2	488.99 ug/L	10.309	488.99 ppb	10.309	2.11%	
QC value within limits for Ni 231.604 Recovery = 97.80%							
P 214.914†	3561.1	2321.5 ug/L	49.81	2321.5 ppb	49.81	2.15%	
QC value within limits for P 214.914 Recovery = 92.86%							
Pb 220.353†	2956.0	484.08 ug/L	9.929	484.08 ppb	9.929	2.05%	
QC value within limits for Pb 220.353 Recovery = 96.82%							
S 181.975 Axial†	611.6	969.35 ug/L	15.197	969.35 ppb	15.197	1.57%	
QC value within limits for S 181.975 Axial Recovery = 96.93%							
Sb 206.836†	1156.0	496.62 ug/L	10.593	496.62 ppb	10.593	2.13%	
QC value within limits for Sb 206.836 Recovery = 99.32%							
Se 196.026†	630.3	506.82 ug/L	11.481	506.82 ppb	11.481	2.27%	
QC value within limits for Se 196.026 Recovery = 101.36%							
Si 251.611†	65550.3	2502.0 ug/L	56.38	2502.0 ppb	56.38	2.25%	
QC value within limits for Si 251.611 Recovery = 100.08%							
Sn 189.927†	2039.6	483.05 ug/L	9.654	483.05 ppb	9.654	2.00%	
QC value within limits for Sn 189.927 Recovery = 96.61%							
Sr 421.552†	46209.5	509.42 ug/L	6.277	509.42 ppb	6.277	1.23%	
QC value within limits for Sr 421.552 Recovery = 101.88%							
Ti 334.940†	257631.0	487.87 ug/L	11.151	487.87 ppb	11.151	2.29%	
QC value within limits for Ti 334.940 Recovery = 97.57%							
Tl 190.801†	1223.1	488.59 ug/L	8.894	488.59 ppb	8.894	1.82%	
QC value within limits for Tl 190.801 Recovery = 97.72%							
U 409.014†	12235.4	486.93 ug/L	7.029	486.93 ppb	7.029	1.44%	
QC value within limits for U 409.014 Recovery = 97.39%							
V 292.402†	52927.7	494.14 ug/L	10.730	494.14 ppb	10.730	2.17%	
QC value within limits for V 292.402 Recovery = 98.83%							
Zn 213.857†	40624.9	485.78 ug/L	11.190	485.78 ppb	11.190	2.30%	
QC value within limits for Zn 213.857 Recovery = 97.16%							
SiO2†	65139.3	5285.0 ug/L	175.15	5285.0 ppb	175.15	3.31%	
QC value within limits for SiO2 Recovery = 98.83%							
All analyte(s) passed QC.							

Sequence No.: 11
 Sample ID: CCB
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 8
 Date Collected: 3/31/2010 10:42:17
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4027.6	4027.6	112 %		10:44:29
1	Y RADIAL	4384.8	4384.8	107.8 %		10:44:09
1	Al 396.153Radial†	-102.7	18.5	21.076 ug/L	21.076 ppb	10:44:09
1	Ca 317.933Radial†	23.3	5.0	10.319 ug/L	10.319 ppb	10:44:29
1	Fe 238.204 Radial†	7.3	-1.6	-23.081 ug/L	-23.081 ppb	10:44:29
1	K 766.490 Radial†	3146.7	-215.2	-45.302 ug/L	-45.302 ppb	10:44:09
1	Mg 279.077 IEC†	1.4	0.6	27.558 ug/L	27.558 ppb	10:44:29
1	Na 589.592 Radial†	-983.1	21.5	11.076 ug/L	11.076 ppb	10:44:09
1	Sr 421.552†	8.5	-6.2	-0.0687 ug/L	-0.0687 ppb	10:44:09
1	Sc 361.383	698790.0	698790.0	104.78 %		10:45:26
1	Y 371.029	552478.6	552478.6	104.62 %		10:45:26
1	Ag 328.068†	184.7	-25.8	-0.1516 ug/L	-0.1516 ppb	10:45:26
1	As 188.979†	-20.4	5.8	3.0050 ug/L	3.0050 ppb	10:45:46
1	B 249.677†	-404.8	28.8	0.7755 ug/L	0.7755 ppb	10:45:46
1	Ba 233.527†	3.4	-9.9	-0.0970 ug/L	-0.0970 ppb	10:45:46
1	Be 313.107†	-4356.8	20.3	0.0089 ug/L	0.0089 ppb	10:45:26
1	Cd 226.502†	-206.7	2.0	0.0341 ug/L	0.0341 ppb	10:45:46
1	Co 228.616†	-47.8	4.3	0.1154 ug/L	0.1154 ppb	10:45:46
1	Cr 267.716†	103.5	3.5	0.0529 ug/L	0.0529 ppb	10:45:46
1	Cu 324.752†	5655.4	43.0	0.1491 ug/L	0.1491 ppb	10:45:26
1	Mn 257.610†	492.2	15.3	0.0177 ug/L	0.0177 ppb	10:45:46
1	Mo 202.031†	26.8	20.8	2.0330 ug/L	2.0330 ppb	10:45:46
1	Ni 231.604†	83.3	-5.2	-0.1758 ug/L	-0.1758 ppb	10:45:46
1	P 214.914†	209.9	-1.4	-0.9599 ug/L	-0.9599 ppb	10:45:46
1	Pb 220.353†	-67.8	1.1	0.1842 ug/L	0.1842 ppb	10:45:46
1	S 181.975 Axial†	37.6	-3.5	-5.5265 ug/L	-5.5265 ppb	10:45:46
1	Sb 206.836†	25.4	-1.0	-0.3774 ug/L	-0.3774 ppb	10:45:46
1	Se 196.026†	-28.6	-0.7	-0.6235 ug/L	-0.6235 ppb	10:45:46
1	Si 251.611†	702.7	134.2	5.1110 ug/L	5.1110 ppb	10:45:46
1	Sn 189.927†	3.2	-6.7	-1.5746 ug/L	-1.5746 ppb	10:45:46
1	Ti 334.940†	-1369.3	98.9	0.1847 ug/L	0.1847 ppb	10:45:26
1	Tl 190.801†	-23.8	8.8	3.4884 ug/L	3.4884 ppb	10:45:46
1	U 409.014†	-2416.2	99.6	3.9805 ug/L	3.9805 ppb	10:45:26
1	V 292.402†	-1608.5	213.3	2.0053 ug/L	2.0053 ppb	10:45:26
1	Zn 213.857†	736.0	12.0	0.1492 ug/L	0.1492 ppb	10:45:46
1	SiO2†	730.1	146.6	11.867 ug/L	11.867 ppb	10:46:42
2	Sc Radial	3926.2	3926.2	109 %		10:44:54
2	Y RADIAL	4308.1	4308.1	105.9 %		10:44:34
2	Al 396.153Radial†	-94.9	23.2	26.647 ug/L	26.647 ppb	10:44:34
2	Ca 317.933Radial†	20.7	3.2	6.5941 ug/L	6.5941 ppb	10:44:54
2	Fe 238.204 Radial†	7.1	-1.7	-24.101 ug/L	-24.101 ppb	10:44:54
2	K 766.490 Radial†	3146.2	-143.3	-30.139 ug/L	-30.139 ppb	10:44:34
2	Mg 279.077 IEC†	3.3	2.4	105.19 ug/L	105.19 ppb	10:44:54
2	Na 589.592 Radial†	-1043.5	-56.4	-29.064 ug/L	-29.064 ppb	10:44:34
2	Sr 421.552†	30.2	13.8	0.1526 ug/L	0.1526 ppb	10:44:34
2	Sc 361.383	693536.4	693536.4	103.99 %		10:45:51
2	Y 371.029	548151.6	548151.6	103.80 %		10:45:51
2	Ag 328.068†	307.3	93.5	0.5340 ug/L	0.5340 ppb	10:45:51
2	As 188.979†	-22.4	3.8	1.9461 ug/L	1.9461 ppb	10:46:11
2	B 249.677†	-472.9	-39.6	-1.0575 ug/L	-1.0575 ppb	10:46:11
2	Ba 233.527†	25.5	11.3	0.1143 ug/L	0.1143 ppb	10:46:11
2	Be 313.107†	-4233.8	107.1	0.0450 ug/L	0.0450 ppb	10:45:51
2	Cd 226.502†	-195.4	11.4	0.1791 ug/L	0.1791 ppb	10:46:11
2	Co 228.616†	-38.9	12.5	0.3252 ug/L	0.3252 ppb	10:46:11
2	Cr 267.716†	100.7	1.6	0.0219 ug/L	0.0219 ppb	10:46:11
2	Cu 324.752†	5585.5	16.7	0.0578 ug/L	0.0578 ppb	10:45:51
2	Mn 257.610†	493.0	19.7	0.0204 ug/L	0.0204 ppb	10:46:11
2	Mo 202.031†	4.5	-0.4	-0.0441 ug/L	-0.0441 ppb	10:46:11
2	Ni 231.604†	126.4	36.8	1.2403 ug/L	1.2403 ppb	10:46:11

2	P 214.914†	193.6	-15.5	-10.520 ug/L	-10.520 ppb	10:46:11
2	Pb 220.353†	-72.7	-4.1	-0.6666 ug/L	-0.6666 ppb	10:46:11
2	S 181.975 Axial†	32.9	-7.7	-12.276 ug/L	-12.276 ppb	10:46:11
2	Sb 206.836†	25.5	-0.7	-0.3202 ug/L	-0.3202 ppb	10:46:11
2	Se 196.026†	-19.8	7.6	5.8592 ug/L	5.8592 ppb	10:46:11
2	Si 251.611†	670.6	108.5	4.1509 ug/L	4.1509 ppb	10:46:11
2	Sn 189.927†	6.6	-3.4	-0.8144 ug/L	-0.8144 ppb	10:46:11
2	Ti 334.940†	-1424.6	35.8	0.0600 ug/L	0.0600 ppb	10:45:51
2	Tl 190.801†	-28.0	4.6	1.8192 ug/L	1.8192 ppb	10:46:11
2	U 409.014†	-2493.6	7.7	0.3099 ug/L	0.3099 ppb	10:45:51
2	V 292.402†	-1763.7	52.5	0.4888 ug/L	0.4888 ppb	10:45:51
2	Zn 213.857†	733.4	14.9	0.1752 ug/L	0.1752 ppb	10:46:11
2	SiO2†	674.9	98.8	8.0341 ug/L	8.0341 ppb	10:46:47
3	Sc Radial	3972.3	3972.3	111 %		10:45:19
3	Y RADIAL	4464.8	4464.8	109.8 %		10:44:59
3	Al 396.153Radial†	-62.2	53.8	61.642 ug/L	61.642 ppb	10:44:59
3	Ca 317.933Radial†	21.1	3.3	6.7663 ug/L	6.7663 ppb	10:45:19
3	Fe 238.204 Radial†	6.4	-2.4	-33.595 ug/L	-33.595 ppb	10:45:19
3	K 766.490 Radial†	3100.3	-218.1	-45.899 ug/L	-45.899 ppb	10:44:59
3	Mg 279.077 IEC†	1.9	1.0	45.917 ug/L	45.917 ppb	10:45:19
3	Na 589.592 Radial†	-1000.9	-6.8	-3.5220 ug/L	-3.5220 ppb	10:44:59
3	Sr 421.552†	15.2	-0.0	-0.0003 ug/L	-0.0003 ppb	10:44:59
3	Sc 361.383	688516.4	688516.4	103.24 %		10:46:17
3	Y 371.029	546086.9	546086.9	103.41 %		10:46:17
3	Ag 328.068†	268.4	58.0	0.3255 ug/L	0.3255 ppb	10:46:17
3	As 188.979†	-27.1	-1.0	-0.5284 ug/L	-0.5284 ppb	10:46:37
3	B 249.677†	-439.3	-10.4	-0.2737 ug/L	-0.2737 ppb	10:46:37
3	Ba 233.527†	19.4	5.5	0.0560 ug/L	0.0560 ppb	10:46:37
3	Be 313.107†	-4259.0	53.0	0.0229 ug/L	0.0229 ppb	10:46:17
3	Cd 226.502†	-207.0	-1.3	-0.0154 ug/L	-0.0154 ppb	10:46:37
3	Co 228.616†	-40.7	10.5	0.2747 ug/L	0.2747 ppb	10:46:37
3	Cr 267.716†	98.2	-0.1	-0.0052 ug/L	-0.0052 ppb	10:46:37
3	Cu 324.752†	5481.6	-44.8	-0.1609 ug/L	-0.1609 ppb	10:46:17
3	Mn 257.610†	495.2	25.2	0.0295 ug/L	0.0295 ppb	10:46:37
3	Mo 202.031†	16.1	10.8	1.0551 ug/L	1.0551 ppb	10:46:37
3	Ni 231.604†	108.4	20.2	0.6818 ug/L	0.6818 ppb	10:46:37
3	P 214.914†	186.2	-21.3	-14.393 ug/L	-14.393 ppb	10:46:37
3	Pb 220.353†	-61.9	5.9	0.9767 ug/L	0.9767 ppb	10:46:37
3	S 181.975 Axial†	32.0	-8.4	-13.365 ug/L	-13.365 ppb	10:46:37
3	Sb 206.836†	36.7	10.3	4.2760 ug/L	4.2760 ppb	10:46:37
3	Se 196.026†	-22.8	4.5	3.4086 ug/L	3.4086 ppb	10:46:37
3	Si 251.611†	666.9	109.6	4.1787 ug/L	4.1787 ppb	10:46:37
3	Sn 189.927†	6.4	-3.5	-0.8311 ug/L	-0.8311 ppb	10:46:37
3	Ti 334.940†	-1298.5	148.0	0.2771 ug/L	0.2771 ppb	10:46:17
3	Tl 190.801†	-25.4	6.9	2.7426 ug/L	2.7426 ppb	10:46:37
3	U 409.014†	-2463.5	19.4	0.7782 ug/L	0.7782 ppb	10:46:17
3	V 292.402†	-1751.6	51.8	0.4995 ug/L	0.4995 ppb	10:46:17
3	Zn 213.857†	730.3	17.0	0.2055 ug/L	0.2055 ppb	10:46:37
3	SiO2†	672.4	101.1	8.1916 ug/L	8.1916 ppb	10:46:52

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	693614.3	104.01 %		0.770			0.74%
Sc Radial	3975.4	111 %		1.4			1.28%
Y 371.029	548905.7	103.94 %		0.618			0.59%
Y RADIAL	4385.9	107.9 %		1.93			1.79%
Ag 328.068†	41.9	0.2360 ug/L		0.35146	0.2360 ppb	0.35146	148.94%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	31.8	36.455 ug/L		21.9899	36.455 ppb	21.9899	60.32%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	2.9	1.4742 ug/L		1.81334	1.4742 ppb	1.81334	123.00%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	-7.1	-0.1852 ug/L		0.91970	-0.1852 ppb	0.91970	496.46%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	2.3	0.0245 ug/L		0.10912	0.0245 ppb	0.10912	446.30%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	60.1	0.0256 ug/L		0.01820	0.0256 ppb	0.01820	71.10%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	3.9	7.8930 ug/L		2.10236	7.8930 ppb	2.10236	26.64%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd 226.502†	4.0	0.0659 ug/L	0.10108	0.0659 ppb	0.10108	153.39%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	9.1	0.2384 ug/L	0.10949	0.2384 ppb	0.10949	45.92%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	1.6	0.0232 ug/L	0.02907	0.0232 ppb	0.02907	125.29%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	5.0	0.0153 ug/L	0.15931	0.0153 ppb	0.15931	>999.9%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-1.9	-26.925 ug/L	5.7987	-26.925 ppb	5.7987	21.54%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	-192.2	-40.447 ug/L	8.9316	-40.447 ppb	8.9316	22.08%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	1.3	59.556 ug/L	40.5744	59.556 ppb	40.5744	68.13%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	20.1	0.0225 ug/L	0.00618	0.0225 ppb	0.00618	27.47%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	10.4	1.0147 ug/L	1.03916	1.0147 ppb	1.03916	102.41%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-13.9	-7.1699 ug/L	20.31738	-7.1699 ppb	20.31738	283.37%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	17.3	0.5821 ug/L	0.71328	0.5821 ppb	0.71328	122.54%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-12.7	-8.6244 ug/L	6.91443	-8.6244 ppb	6.91443	80.17%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	0.9	0.1648 ug/L	0.82184	0.1648 ppb	0.82184	498.80%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-6.5	-10.389 ug/L	4.2464	-10.389 ppb	4.2464	40.87%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	2.9	1.1928 ug/L	2.67027	1.1928 ppb	2.67027	223.86%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	3.8	2.8814 ug/L	3.27335	2.8814 ppb	3.27335	113.60%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	117.4	4.4802 ug/L	0.54647	4.4802 ppb	0.54647	12.20%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	-4.5	-1.0734 ug/L	0.43415	-1.0734 ppb	0.43415	40.45%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	2.5	0.0279 ug/L	0.11335	0.0279 ppb	0.11335	406.68%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	94.2	0.1739 ug/L	0.10895	0.1739 ppb	0.10895	62.65%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	6.8	2.6834 ug/L	0.83617	2.6834 ppb	0.83617	31.16%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	42.2	1.6895 ug/L	1.99777	1.6895 ppb	1.99777	118.24%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	105.9	0.9978 ug/L	0.87247	0.9978 ppb	0.87247	87.44%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	14.6	0.1766 ug/L	0.02817	0.1766 ppb	0.02817	15.95%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	115.5	9.3643 ug/L	2.16895	9.3643 ppb	2.16895	23.16%
QC value within limits for SiO2 Recovery = Not calculated						
All analyte(s) passed QC.						

Sequence No.: 21

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/31/2010 11:53:11

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	4099.7	4099.7	114 %		11:55:04
1	Y RADIAL	4477.8	4477.8	110.1 %		11:55:04
1	Al 396.153Radial†	4721.1	4242.6	4844.8 ug/L	4844.8 ppb	11:55:04
1	Ca 317.933Radial†	2657.6	2310.6	4722.8 ug/L	4722.8 ppb	11:55:24
1	Fe 238.204 Radial†	397.2	339.5	4814.7 ug/L	4814.7 ppb	11:55:24
1	K 766.490 Radial†	28528.4	21953.2	4614.0 ug/L	4614.0 ppb	11:55:04
1	Mg 279.077 IEC†	128.5	111.9	4938.5 ug/L	4938.5 ppb	11:55:24
1	Na 589.592 Radial†	20255.4	18627.9	9604.9 ug/L	9604.9 ppb	11:55:04
1	Sr 421.552†	51099.7	44716.0	492.96 ug/L	492.96 ppb	11:55:04
1	Sc 361.383	704321.1	704321.1	105.61 %		11:56:21
1	Y 371.029	552263.2	552263.2	104.58 %		11:56:21
1	Ag 328.068†	90679.5	85659.1	497.67 ug/L	497.67 ppb	11:56:27
1	As 188.979†	968.4	942.2	493.39 ug/L	493.39 ppb	11:56:47
1	B 249.677†	18705.6	18126.8	483.37 ug/L	483.37 ppb	11:56:27
1	Ba 233.527†	51182.1	48449.3	491.35 ug/L	491.35 ppb	11:56:27
1	Be 313.107†	1239043.3	1177383.3	494.30 ug/L	494.30 ppb	11:56:21
1	Cd 226.502†	33299.8	31729.6	489.66 ug/L	489.66 ppb	11:56:27
1	Co 228.616†	20110.8	19092.1	495.62 ug/L	495.62 ppb	11:56:27
1	Cr 267.716†	33801.4	31910.0	491.49 ug/L	491.49 ppb	11:56:27
1	Cu 324.752†	152926.0	139445.8	494.41 ug/L	494.41 ppb	11:56:27
1	Mn 257.610†	378182.2	357632.5	492.37 ug/L	492.37 ppb	11:56:27
1	Mo 202.031†	5215.4	4933.5	482.78 ug/L	482.78 ppb	11:56:47
1	Ni 231.604†	15506.9	14598.2	491.62 ug/L	491.62 ppb	11:56:27
1	P 214.914†	3923.7	3513.5	2288.4 ug/L	2288.4 ppb	11:56:47
1	Pb 220.353†	3034.5	2939.0	481.26 ug/L	481.26 ppb	11:56:47
1	S 181.975 Axial†	672.1	597.0	946.28 ug/L	946.28 ppb	11:56:47
1	Sb 206.836†	1247.7	1156.2	496.62 ug/L	496.62 ppb	11:56:47
1	Se 196.026†	635.3	628.2	505.01 ug/L	505.01 ppb	11:56:47
1	Si 251.611†	70069.3	65809.6	2512.0 ug/L	2512.0 ppb	11:56:27
1	Sn 189.927†	2150.3	2026.3	479.87 ug/L	479.87 ppb	11:56:47
1	Ti 334.940†	272868.1	259774.5	491.92 ug/L	491.92 ppb	11:56:27
1	Tl 190.801†	1261.3	1225.8	489.66 ug/L	489.66 ppb	11:56:47
1	U 409.014†	10335.2	12191.5	485.18 ug/L	485.18 ppb	11:56:27
1	V 292.402†	54556.3	53405.8	498.52 ug/L	498.52 ppb	11:56:27
1	Zn 213.857†	43831.5	40812.1	488.02 ug/L	488.02 ppb	11:56:27
1	SiO2†	69234.5	65005.4	5274.2 ug/L	5274.2 ppb	11:57:54
2	Sc Radial	4070.6	4070.6	113 %		11:55:29
2	Y RADIAL	4489.4	4489.4	110.4 %		11:55:29
2	Al 396.153Radial†	4969.7	4491.2	5129.6 ug/L	5129.6 ppb	11:55:29
2	Ca 317.933Radial†	2732.3	2393.0	4891.4 ug/L	4891.4 ppb	11:55:49
2	Fe 238.204 Radial†	408.7	352.1	4992.7 ug/L	4992.7 ppb	11:55:49
2	K 766.490 Radial†	29785.5	23239.9	4884.5 ug/L	4884.5 ppb	11:55:29
2	Mg 279.077 IEC†	131.5	115.3	5091.8 ug/L	5091.8 ppb	11:55:49
2	Na 589.592 Radial†	21366.0	19733.7	10175 ug/L	10175 ppb	11:55:29
2	Sr 421.552†	54137.9	47714.1	526.01 ug/L	526.01 ppb	11:55:29
2	Sc 361.383	690487.9	690487.9	103.54 %		11:56:52
2	Y 371.029	541772.5	541772.5	102.59 %		11:56:52
2	Ag 328.068†	91341.8	88018.9	511.39 ug/L	511.39 ppb	11:56:58
2	As 188.979†	964.7	957.0	501.17 ug/L	501.17 ppb	11:57:18
2	B 249.677†	19034.0	18798.7	501.31 ug/L	501.31 ppb	11:56:58
2	Ba 233.527†	51559.8	49785.0	504.89 ug/L	504.89 ppb	11:56:58
2	Be 313.107†	1217295.5	1179882.6	495.38 ug/L	495.38 ppb	11:56:52
2	Cd 226.502†	33482.5	32537.7	502.12 ug/L	502.12 ppb	11:56:58
2	Co 228.616†	20174.1	19534.8	507.10 ug/L	507.10 ppb	11:56:58
2	Cr 267.716†	34060.6	32801.6	505.23 ug/L	505.23 ppb	11:56:58
2	Cu 324.752†	154437.4	143806.5	509.87 ug/L	509.87 ppb	11:56:58
2	Mn 257.610†	380365.4	366915.1	505.16 ug/L	505.16 ppb	11:56:58
2	Mo 202.031†	5221.8	5038.7	493.08 ug/L	493.08 ppb	11:57:18
2	Ni 231.604†	15595.8	14978.2	504.42 ug/L	504.42 ppb	11:56:58

2	P 214.914†	3966.8	3629.5	2364.1 ug/L	2364.1 ppb	11:57:18
2	Pb 220.353†	3054.2	3015.6	493.82 ug/L	493.82 ppb	11:57:18
2	S 181.975 Axial†	695.3	632.2	1002.0 ug/L	1002.0 ppb	11:57:18
2	Sb 206.836†	1256.4	1188.2	510.28 ug/L	510.28 ppb	11:57:18
2	Se 196.026†	625.4	630.6	507.47 ug/L	507.47 ppb	11:57:18
2	Si 251.611†	70709.0	67756.7	2586.3 ug/L	2586.3 ppb	11:56:58
2	Sn 189.927†	2156.9	2073.5	491.07 ug/L	491.07 ppb	11:57:18
2	Ti 334.940†	274985.6	266995.9	505.60 ug/L	505.60 ppb	11:56:58
2	Tl 190.801†	1268.6	1256.7	502.03 ug/L	502.03 ppb	11:57:18
2	U 409.014†	10492.8	12539.8	499.04 ug/L	499.04 ppb	11:56:58
2	V 292.402†	54939.3	54810.6	511.59 ug/L	511.59 ppb	11:56:58
2	Zn 213.857†	44149.7	41950.9	501.64 ug/L	501.64 ppb	11:56:58
2	SiO2†	70102.1	67156.7	5448.9 ug/L	5448.9 ppb	11:57:59
3	Sc Radial	4064.4	4064.4	113 %		11:55:54
3	Y RADIAL	4464.5	4464.5	109.8 %		11:55:54
3	Al 396.153Radial†	4872.9	4412.5	5039.7 ug/L	5039.7 ppb	11:55:54
3	Ca 317.933Radial†	2711.5	2378.4	4861.4 ug/L	4861.4 ppb	11:56:15
3	Fe 238.204 Radial†	405.1	349.5	4955.8 ug/L	4955.8 ppb	11:56:15
3	K 766.490 Radial†	29412.1	22950.2	4823.7 ug/L	4823.7 ppb	11:55:54
3	Mg 279.077 IEC†	129.2	113.4	5006.7 ug/L	5006.7 ppb	11:56:15
3	Na 589.592 Radial†	20929.1	19376.6	9991.0 ug/L	9991.0 ppb	11:55:54
3	Sr 421.552†	53191.2	46950.9	517.60 ug/L	517.60 ppb	11:55:54
3	Sc 361.383	693127.3	693127.3	103.93 %		11:57:23
3	Y 371.029	543407.2	543407.2	102.90 %		11:57:23
3	Ag 328.068†	88444.2	84895.0	493.29 ug/L	493.29 ppb	11:57:28
3	As 188.979†	958.3	947.3	496.01 ug/L	496.01 ppb	11:57:48
3	B 249.677†	18240.0	17964.8	479.02 ug/L	479.02 ppb	11:57:28
3	Ba 233.527†	50280.4	48364.4	490.49 ug/L	490.49 ppb	11:57:28
3	Be 313.107†	1222977.7	1180872.6	495.75 ug/L	495.75 ppb	11:57:23
3	Cd 226.502†	32617.8	31582.6	487.37 ug/L	487.37 ppb	11:57:28
3	Co 228.616†	19692.9	18997.5	493.17 ug/L	493.17 ppb	11:57:28
3	Cr 267.716†	33243.3	31889.9	491.19 ug/L	491.19 ppb	11:57:28
3	Cu 324.752†	148924.8	137934.5	489.06 ug/L	489.06 ppb	11:57:28
3	Mn 257.610†	370869.1	356379.2	490.66 ug/L	490.66 ppb	11:57:28
3	Mo 202.031†	5156.3	4956.4	485.03 ug/L	485.03 ppb	11:57:48
3	Ni 231.604†	15242.9	14581.3	491.05 ug/L	491.05 ppb	11:57:28
3	P 214.914†	3901.3	3551.9	2315.4 ug/L	2315.4 ppb	11:57:48
3	Pb 220.353†	3010.5	2962.4	485.11 ug/L	485.11 ppb	11:57:48
3	S 181.975 Axial†	669.1	604.4	957.97 ug/L	957.97 ppb	11:57:48
3	Sb 206.836†	1237.5	1165.4	500.49 ug/L	500.49 ppb	11:57:48
3	Se 196.026†	620.7	623.8	502.05 ug/L	502.05 ppb	11:57:48
3	Si 251.611†	68401.5	65276.5	2491.5 ug/L	2491.5 ppb	11:57:28
3	Sn 189.927†	2115.6	2025.8	479.78 ug/L	479.78 ppb	11:57:48
3	Ti 334.940†	267025.5	258325.7	489.19 ug/L	489.19 ppb	11:57:28
3	Tl 190.801†	1235.8	1220.5	487.57 ug/L	487.57 ppb	11:57:48
3	U 409.014†	10193.2	12213.0	486.02 ug/L	486.02 ppb	11:57:28
3	V 292.402†	53459.1	53184.3	496.49 ug/L	496.49 ppb	11:57:28
3	Zn 213.857†	42936.0	40620.7	485.70 ug/L	485.70 ppb	11:57:28
3	SiO2†	69673.8	66486.8	5394.6 ug/L	5394.6 ppb	11:58:04

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	695978.8	104.36 %	1.101			1.06%
Sc Radial	4078.2	114 %	0.5			0.46%
Y 371.029	545814.3	103.36 %	1.069			1.03%
Y RADIAL	4477.3	110.1 %	0.31			0.28%
Ag 328.068†	86191.0	500.79 ug/L	9.444	500.79 ppb	9.444	1.89%
QC value within limits for Ag 328.068 Recovery = 100.16%						
Al 396.153Radial†	4382.1	5004.7 ug/L	145.60	5004.7 ppb	145.60	2.91%
QC value within limits for Al 396.153Radial Recovery = 100.09%						
As 188.979†	948.8	496.86 ug/L	3.962	496.86 ppb	3.962	0.80%
QC value within limits for As 188.979 Recovery = 99.37%						
B 249.677†	18296.8	487.90 ug/L	11.817	487.90 ppb	11.817	2.42%
QC value within limits for B 249.677 Recovery = 97.58%						
Ba 233.527†	48866.2	495.58 ug/L	8.080	495.58 ppb	8.080	1.63%
QC value within limits for Ba 233.527 Recovery = 99.12%						
Be 313.107†	1179379.5	495.14 ug/L	0.755	495.14 ppb	0.755	0.15%
QC value within limits for Be 313.107 Recovery = 99.03%						
Ca 317.933Radial†	2360.7	4825.2 ug/L	89.93	4825.2 ppb	89.93	1.86%

QC value within limits for Ca 317.933 Radial Recovery = 96.50%							
Cd 226.502†	31950.0	493.05 ug/L	7.939	493.05 ppb	7.939	1.61%	
QC value within limits for Cd 226.502 Recovery = 98.61%							
Co 228.616†	19208.1	498.63 ug/L	7.437	498.63 ppb	7.437	1.49%	
QC value within limits for Co 228.616 Recovery = 99.73%							
Cr 267.716†	32200.5	495.97 ug/L	8.017	495.97 ppb	8.017	1.62%	
QC value within limits for Cr 267.716 Recovery = 99.19%							
Cu 324.752†	140395.6	497.78 ug/L	10.809	497.78 ppb	10.809	2.17%	
QC value within limits for Cu 324.752 Recovery = 99.56%							
Fe 238.204 Radial†	347.1	4921.1 ug/L	93.97	4921.1 ppb	93.97	1.91%	
QC value within limits for Fe 238.204 Radial Recovery = 98.42%							
K 766.490 Radial†	22714.4	4774.1 ug/L	141.89	4774.1 ppb	141.89	2.97%	
QC value within limits for K 766.490 Radial Recovery = 95.48%							
Mg 279.077 IEC†	113.5	5012.3 ug/L	76.79	5012.3 ppb	76.79	1.53%	
QC value within limits for Mg 279.077 IEC Recovery = 100.25%							
Mn 257.610†	360309.0	496.06 ug/L	7.922	496.06 ppb	7.922	1.60%	
QC value within limits for Mn 257.610 Recovery = 99.21%							
Mo 202.031†	4976.2	486.97 ug/L	5.414	486.97 ppb	5.414	1.11%	
QC value within limits for Mo 202.031 Recovery = 97.39%							
Na 589.592 Radial†	19246.1	9923.7 ug/L	291.00	9923.7 ppb	291.00	2.93%	
QC value within limits for Na 589.592 Radial Recovery = 99.24%							
Ni 231.604†	14719.2	495.69 ug/L	7.559	495.69 ppb	7.559	1.52%	
QC value within limits for Ni 231.604 Recovery = 99.14%							
P 214.914†	3565.0	2322.6 ug/L	38.36	2322.6 ppb	38.36	1.65%	
QC value within limits for P 214.914 Recovery = 92.91%							
Pb 220.353†	2972.3	486.73 ug/L	6.438	486.73 ppb	6.438	1.32%	
QC value within limits for Pb 220.353 Recovery = 97.35%							
S 181.975 Axial†	611.2	968.76 ug/L	29.404	968.76 ppb	29.404	3.04%	
QC value within limits for S 181.975 Axial Recovery = 96.88%							
Sb 206.836†	1169.9	502.46 ug/L	7.038	502.46 ppb	7.038	1.40%	
QC value within limits for Sb 206.836 Recovery = 100.49%							
Se 196.026†	627.5	504.84 ug/L	2.717	504.84 ppb	2.717	0.54%	
QC value within limits for Se 196.026 Recovery = 100.97%							
Si 251.611†	66280.9	2529.9 ug/L	49.89	2529.9 ppb	49.89	1.97%	
QC value within limits for Si 251.611 Recovery = 101.20%							
Sn 189.927†	2041.8	483.57 ug/L	6.489	483.57 ppb	6.489	1.34%	
QC value within limits for Sn 189.927 Recovery = 96.71%							
Sr 421.552†	46460.3	512.19 ug/L	17.177	512.19 ppb	17.177	3.35%	
QC value within limits for Sr 421.552 Recovery = 102.44%							
Ti 334.940†	261698.7	495.57 ug/L	8.792	495.57 ppb	8.792	1.77%	
QC value within limits for Ti 334.940 Recovery = 99.11%							
Tl 190.801†	1234.3	493.09 ug/L	7.817	493.09 ppb	7.817	1.59%	
QC value within limits for Tl 190.801 Recovery = 98.62%							
U 409.014†	12314.8	490.08 ug/L	7.769	490.08 ppb	7.769	1.59%	
QC value within limits for U 409.014 Recovery = 98.02%							
V 292.402†	53800.2	502.20 ug/L	8.195	502.20 ppb	8.195	1.63%	
QC value within limits for V 292.402 Recovery = 100.44%							
Zn 213.857†	41127.9	491.79 ug/L	8.609	491.79 ppb	8.609	1.75%	
QC value within limits for Zn 213.857 Recovery = 98.36%							
SiO2†	66216.3	5372.6 ug/L	89.41	5372.6 ppb	89.41	1.66%	
QC value within limits for SiO2 Recovery = 100.47%							
All analyte(s) passed QC.							

Sequence No.: 22

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/31/2010 12:00:15

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	3925.8	3925.8	109 %		12:02:28
1	Y RADIAL	4436.7	4436.7	109.1 %		12:02:08
1	Al 396.153Radial†	-102.8	16.0	18.336 ug/L	18.336 ppb	12:02:08
1	Ca 317.933Radial†	17.4	0.2	0.4079 ug/L	0.4079 ppb	12:02:28
1	Fe 238.204 Radial†	7.7	-1.2	-16.521 ug/L	-16.521 ppb	12:02:28
1	K 766.490 Radial†	3082.0	-201.7	-42.448 ug/L	-42.448 ppb	12:02:08
1	Mg 279.077 IEC†	5.8	4.6	204.10 ug/L	204.10 ppb	12:02:28
1	Na 589.592 Radial†	-986.4	-4.2	-2.1677 ug/L	-2.1677 ppb	12:02:08
1	Sr 421.552†	29.4	13.1	0.1446 ug/L	0.1446 ppb	12:02:08
1	Sc 361.383	651612.7	651612.7	97.708 %		12:03:25
1	Y 371.029	515823.7	515823.7	97.678 %		12:03:25
1	Ag 328.068†	159.0	-39.3	-0.2330 ug/L	-0.2330 ppb	12:03:25
1	As 188.979†	-24.2	0.5	0.2625 ug/L	0.2625 ppb	12:03:45
1	B 249.677†	-491.7	-88.1	-2.3574 ug/L	-2.3574 ppb	12:03:45
1	Ba 233.527†	15.5	2.6	0.0263 ug/L	0.0263 ppb	12:03:45
1	Be 313.107†	-4078.9	3.7	0.0014 ug/L	0.0014 ppb	12:03:25
1	Cd 226.502†	-191.8	2.9	0.0475 ug/L	0.0475 ppb	12:03:45
1	Co 228.616†	-56.3	-7.7	-0.1981 ug/L	-0.1981 ppb	12:03:45
1	Cr 267.716†	57.3	-36.6	-0.5652 ug/L	-0.5652 ppb	12:03:45
1	Cu 324.752†	5298.2	68.3	0.2401 ug/L	0.2401 ppb	12:03:25
1	Mn 257.610†	508.7	66.2	0.0810 ug/L	0.0810 ppb	12:03:45
1	Mo 202.031†	10.9	6.4	0.6242 ug/L	0.6242 ppb	12:03:45
1	Ni 231.604†	98.3	15.8	0.5339 ug/L	0.5339 ppb	12:03:45
1	P 214.914†	207.1	10.3	6.9303 ug/L	6.9303 ppb	12:03:45
1	Pb 220.353†	-105.3	-42.0	-6.8442 ug/L	-6.8442 ppb	12:03:45
1	S 181.975 Axial†	37.8	-0.7	-1.1231 ug/L	-1.1231 ppb	12:03:45
1	Sb 206.836†	28.1	3.5	1.4720 ug/L	1.4720 ppb	12:03:45
1	Se 196.026†	-28.6	-2.6	-2.0987 ug/L	-2.0987 ppb	12:03:45
1	Si 251.611†	605.8	83.6	3.1922 ug/L	3.1922 ppb	12:03:45
1	Sn 189.927†	8.1	-1.5	-0.3443 ug/L	-0.3443 ppb	12:03:45
1	Ti 334.940†	-1415.9	-43.5	-0.0996 ug/L	-0.0996 ppb	12:03:25
1	Tl 190.801†	-27.4	3.4	1.3412 ug/L	1.3412 ppb	12:03:45
1	U 409.014†	-2303.2	48.3	1.9332 ug/L	1.9332 ppb	12:03:25
1	V 292.402†	-1694.4	14.3	0.1507 ug/L	0.1507 ppb	12:03:25
1	Zn 213.857†	728.8	55.5	0.6687 ug/L	0.6687 ppb	12:03:45
1	SiO2†	631.5	96.1	7.7971 ug/L	7.7971 ppb	12:04:41
2	Sc Radial	3813.8	3813.8	106 %		12:02:53
2	Y RADIAL	4366.1	4366.1	107.4 %		12:02:33
2	Al 396.153Radial†	-103.7	12.4	14.245 ug/L	14.245 ppb	12:02:33
2	Ca 317.933Radial†	19.1	2.3	4.6236 ug/L	4.6236 ppb	12:02:53
2	Fe 238.204 Radial†	7.2	-1.4	-20.431 ug/L	-20.431 ppb	12:02:53
2	K 766.490 Radial†	3069.7	-130.5	-27.443 ug/L	-27.443 ppb	12:02:33
2	Mg 279.077 IEC†	0.6	-0.1	-2.8408 ug/L	-2.8408 ppb	12:02:53
2	Na 589.592 Radial†	-1048.9	-89.5	-46.157 ug/L	-46.157 ppb	12:02:33
2	Sr 421.552†	31.9	16.3	0.1794 ug/L	0.1794 ppb	12:02:33
2	Sc 361.383	683535.9	683535.9	102.50 %		12:03:50
2	Y 371.029	541414.9	541414.9	102.52 %		12:03:50
2	Ag 328.068†	284.3	75.4	0.4325 ug/L	0.4325 ppb	12:03:50
2	As 188.979†	-22.2	3.6	1.8523 ug/L	1.8523 ppb	12:04:10
2	B 249.677†	-479.2	-52.4	-1.4014 ug/L	-1.4014 ppb	12:04:10
2	Ba 233.527†	10.0	-3.4	-0.0324 ug/L	-0.0324 ppb	12:04:10
2	Be 313.107†	-4198.3	82.2	0.0347 ug/L	0.0347 ppb	12:03:50
2	Cd 226.502†	-201.0	3.2	0.0512 ug/L	0.0512 ppb	12:04:10
2	Co 228.616†	-44.2	6.8	0.1776 ug/L	0.1776 ppb	12:04:10
2	Cr 267.716†	96.4	-1.2	-0.0192 ug/L	-0.0192 ppb	12:04:10
2	Cu 324.752†	5565.2	75.5	0.2657 ug/L	0.2657 ppb	12:03:50
2	Mn 257.610†	483.2	17.0	0.0216 ug/L	0.0216 ppb	12:04:10
2	Mo 202.031†	10.7	5.7	0.5571 ug/L	0.5571 ppb	12:04:10
2	Ni 231.604†	84.1	-2.7	-0.0897 ug/L	-0.0897 ppb	12:04:10

2	P 214.914†	182.1	-24.0	-16.316 ug/L	-16.316 ppb	12:04:10
2	Pb 220.353†	-73.5	-5.9	-0.9562 ug/L	-0.9562 ppb	12:04:10
2	S 181.975 Axial†	31.5	-8.6	-13.686 ug/L	-13.686 ppb	12:04:10
2	Sb 206.836†	33.2	7.2	2.9901 ug/L	2.9901 ppb	12:04:10
2	Se 196.026†	-18.4	8.6	6.6797 ug/L	6.6797 ppb	12:04:10
2	Si 251.611†	608.7	57.4	2.1907 ug/L	2.1907 ppb	12:04:10
2	Sn 189.927†	8.4	-1.5	-0.3589 ug/L	-0.3589 ppb	12:04:10
2	Ti 334.940†	-1370.9	68.2	0.1293 ug/L	0.1293 ppb	12:03:50
2	Tl 190.801†	-24.2	7.8	3.1013 ug/L	3.1013 ppb	12:04:10
2	U 409.014†	-2425.1	39.5	1.5781 ug/L	1.5781 ppb	12:03:50
2	V 292.402†	-1653.7	134.9	1.2567 ug/L	1.2567 ppb	12:03:50
2	Zn 213.857†	734.8	26.5	0.3234 ug/L	0.3234 ppb	12:04:10
2	SiO2†	591.5	26.8	2.1675 ug/L	2.1675 ppb	12:04:46
3	Sc Radial	3759.5	3759.5	105 %		12:03:18
3	Y RADIAL	4446.5	4446.5	109.3 %		12:02:58
3	Al 396.153Radial†	-124.1	-8.4	-9.7331 ug/L	-9.7331 ppb	12:02:58
3	Ca 317.933Radial†	23.6	6.8	13.931 ug/L	13.931 ppb	12:03:18
3	Fe 238.204 Radial†	6.4	-2.1	-29.902 ug/L	-29.902 ppb	12:03:18
3	K 766.490 Radial†	3026.1	-130.4	-27.442 ug/L	-27.442 ppb	12:02:58
3	Mg 279.077 IEC†	1.8	1.1	47.330 ug/L	47.330 ppb	12:03:18
3	Na 589.592 Radial†	-1021.3	-77.4	-39.933 ug/L	-39.933 ppb	12:02:58
3	Sr 421.552†	41.4	25.7	0.2836 ug/L	0.2836 ppb	12:02:58
3	Sc 361.383	684446.5	684446.5	102.63 %		12:04:15
3	Y 371.029	541397.5	541397.5	102.52 %		12:04:15
3	Ag 328.068†	197.6	-9.5	-0.0591 ug/L	-0.0591 ppb	12:04:15
3	As 188.979†	-25.9	-0.0	-0.0081 ug/L	-0.0081 ppb	12:04:35
3	B 249.677†	-488.0	-60.4	-1.6138 ug/L	-1.6138 ppb	12:04:35
3	Ba 233.527†	0.6	-12.6	-0.1262 ug/L	-0.1262 ppb	12:04:35
3	Be 313.107†	-4304.4	-15.7	-0.0060 ug/L	-0.0060 ppb	12:04:15
3	Cd 226.502†	-197.3	7.0	0.1106 ug/L	0.1106 ppb	12:04:35
3	Co 228.616†	-47.9	3.2	0.0860 ug/L	0.0860 ppb	12:04:35
3	Cr 267.716†	92.2	-5.4	-0.0848 ug/L	-0.0848 ppb	12:04:35
3	Cu 324.752†	5559.6	62.8	0.2215 ug/L	0.2215 ppb	12:04:15
3	Mn 257.610†	511.8	44.2	0.0559 ug/L	0.0559 ppb	12:04:35
3	Mo 202.031†	17.0	11.8	1.1525 ug/L	1.1525 ppb	12:04:35
3	Ni 231.604†	103.6	16.2	0.5469 ug/L	0.5469 ppb	12:04:35
3	P 214.914†	191.6	-15.0	-10.209 ug/L	-10.209 ppb	12:04:35
3	Pb 220.353†	-62.4	5.0	0.8184 ug/L	0.8184 ppb	12:04:35
3	S 181.975 Axial†	36.1	-4.2	-6.6794 ug/L	-6.6794 ppb	12:04:35
3	Sb 206.836†	32.4	6.3	2.6748 ug/L	2.6748 ppb	12:04:35
3	Se 196.026†	-12.4	14.5	11.235 ug/L	11.235 ppb	12:04:35
3	Si 251.611†	621.5	69.2	2.6334 ug/L	2.6334 ppb	12:04:35
3	Sn 189.927†	16.4	6.2	1.4756 ug/L	1.4756 ppb	12:04:35
3	Ti 334.940†	-1303.3	135.8	0.2557 ug/L	0.2557 ppb	12:04:15
3	Tl 190.801†	-38.7	-6.3	-2.4907 ug/L	-2.4907 ppb	12:04:35
3	U 409.014†	-2494.1	-24.6	-0.9769 ug/L	-0.9769 ppb	12:04:15
3	V 292.402†	-1672.7	118.5	1.1117 ug/L	1.1117 ppb	12:04:15
3	Zn 213.857†	728.9	19.8	0.2395 ug/L	0.2395 ppb	12:04:35
3	SiO2†	619.1	53.0	4.2786 ug/L	4.2786 ppb	12:04:51

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	673198.4	100.95 %	2.804			2.78%
Sc Radial	3833.1	107 %	2.4			2.21%
Y 371.029	532878.7	100.91 %	2.797			2.77%
Y RADIAL	4416.4	108.6 %	1.08			0.99%
Ag 328.068†	8.9	0.0468 ug/L	0.34519	0.0468 ppb	0.34519	737.59%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	6.7	7.6159 ug/L	15.16328	7.6159 ppb	15.16328	199.10%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	1.4	0.7022 ug/L	1.00515	0.7022 ppb	1.00515	143.13%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-67.0	-1.7909 ug/L	0.50199	-1.7909 ppb	0.50199	28.03%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-4.5	-0.0441 ug/L	0.07691	-0.0441 ppb	0.07691	174.40%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	23.4	0.0100 ug/L	0.02170	0.0100 ppb	0.02170	216.07%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	3.1	6.3209 ug/L	6.91969	6.3209 ppb	6.91969	109.47%

QC value within limits for Ca 317.933 Radial	Recovery = Not calculated		
Cd 226.502†	4.3 0.0698 ug/L	0.03541 0.0698 ppb	0.03541 50.75%
QC value within limits for Cd 226.502	Recovery = Not calculated		
Co 228.616†	0.8 0.0218 ug/L	0.19587 0.0218 ppb	0.19587 897.66%
QC value within limits for Co 228.616	Recovery = Not calculated		
Cr 267.716†	-14.4 -0.2231 ug/L	0.29810 -0.2231 ppb	0.29810 133.63%
QC value within limits for Cr 267.716	Recovery = Not calculated		
Cu 324.752†	68.8 0.2424 ug/L	0.02222 0.2424 ppb	0.02222 9.16%
QC value within limits for Cu 324.752	Recovery = Not calculated		
Fe 238.204 Radial†	-1.6 -22.285 ug/L	6.8804 -22.285 ppb	6.8804 30.88%
QC value within limits for Fe 238.204 Radial	Recovery = Not calculated		
K 766.490 Radial†	-154.2 -32.444 ug/L	8.6633 -32.444 ppb	8.6633 26.70%
QC value within limits for K 766.490 Radial	Recovery = Not calculated		
Mg 279.077 IEC†	1.9 82.862 ug/L	107.9470 82.862 ppb	107.9470 130.27%
QC value within limits for Mg 279.077 IEC	Recovery = Not calculated		
Mn 257.610†	42.5 0.0529 ug/L	0.02987 0.0529 ppb	0.02987 56.52%
QC value within limits for Mn 257.610	Recovery = Not calculated		
Mo 202.031†	8.0 0.7779 ug/L	0.32612 0.7779 ppb	0.32612 41.92%
QC value within limits for Mo 202.031	Recovery = Not calculated		
Na 589.592 Radial†	-57.1 -29.419 ug/L	23.8048 -29.419 ppb	23.8048 80.92%
QC value within limits for Na 589.592 Radial	Recovery = Not calculated		
Ni 231.604†	9.8 0.3304 ug/L	0.36385 0.3304 ppb	0.36385 110.13%
QC value within limits for Ni 231.604	Recovery = Not calculated		
P 214.914†	-9.6 -6.5317 ug/L	12.05160 -6.5317 ppb	12.05160 184.51%
QC value within limits for P 214.914	Recovery = Not calculated		
Pb 220.353†	-14.3 -2.3273 ug/L	4.01110 -2.3273 ppb	4.01110 172.35%
QC value within limits for Pb 220.353	Recovery = Not calculated		
S 181.975 Axial†	-4.5 -7.1627 ug/L	6.29521 -7.1627 ppb	6.29521 87.89%
QC value within limits for S 181.975 Axial	Recovery = Not calculated		
Sb 206.836†	5.7 2.3790 ug/L	0.80110 2.3790 ppb	0.80110 33.67%
QC value within limits for Sb 206.836	Recovery = Not calculated		
Se 196.026†	6.8 5.2721 ug/L	6.77748 5.2721 ppb	6.77748 128.55%
QC value within limits for Se 196.026	Recovery = Not calculated		
Si 251.611†	70.1 2.6721 ug/L	0.50188 2.6721 ppb	0.50188 18.78%
QC value within limits for Si 251.611	Recovery = Not calculated		
Sn 189.927†	1.1 0.2575 ug/L	1.05499 0.2575 ppb	1.05499 409.78%
QC value within limits for Sn 189.927	Recovery = Not calculated		
Sr 421.552†	18.4 0.2025 ug/L	0.07236 0.2025 ppb	0.07236 35.73%
QC value within limits for Sr 421.552	Recovery = Not calculated		
Ti 334.940†	53.5 0.0952 ug/L	0.18010 0.0952 ppb	0.18010 189.27%
QC value within limits for Ti 334.940	Recovery = Not calculated		
Tl 190.801†	1.6 0.6506 ug/L	2.85928 0.6506 ppb	2.85928 439.49%
QC value within limits for Tl 190.801	Recovery = Not calculated		
U 409.014†	21.1 0.8448 ug/L	1.58763 0.8448 ppb	1.58763 187.93%
QC value within limits for U 409.014	Recovery = Not calculated		
V 292.402†	89.2 0.8397 ug/L	0.60109 0.8397 ppb	0.60109 71.58%
QC value within limits for V 292.402	Recovery = Not calculated		
Zn 213.857†	33.9 0.4105 ug/L	0.22744 0.4105 ppb	0.22744 55.40%
QC value within limits for Zn 213.857	Recovery = Not calculated		
SiO2†	58.6 4.7477 ug/L	2.84394 4.7477 ppb	2.84394 59.90%
QC value within limits for SiO2	Recovery = Not calculated		
All analyte(s) passed QC.			

Sequence No.: 31

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/31/2010 13:03:25

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	3890.8	3890.8	108 %		13:05:38
1	Y RADIAL	4368.8	4368.8	107.4 %		13:05:18
1	Al 396.153Radial†	4794.5	4532.1	5176.4 ug/L	5176.4 ppb	13:05:18
1	Ca 317.933Radial†	2702.0	2476.4	5061.9 ug/L	5061.9 ppb	13:05:38
1	Fe 238.204 Radial†	399.0	359.8	5101.5 ug/L	5101.5 ppb	13:05:38
1	K 766.490 Radial†	28940.7	23673.8	4975.9 ug/L	4975.9 ppb	13:05:18
1	Mg 279.077 IEC†	132.3	121.4	5359.8 ug/L	5359.8 ppb	13:05:38
1	Na 589.592 Radial†	20045.8	19386.3	9996.0 ug/L	9996.0 ppb	13:05:18
1	Sr 421.552†	51449.5	47439.5	522.98 ug/L	522.98 ppb	13:05:18
1	Sc 361.383	694679.1	694679.1	104.17 %		13:06:35
1	Y 371.029	544257.1	544257.1	103.06 %		13:06:35
1	Ag 328.068†	90382.4	86565.6	503.02 ug/L	503.02 ppb	13:06:40
1	As 188.979†	985.8	971.6	508.74 ug/L	508.74 ppb	13:07:00
1	B 249.677†	18838.4	18500.1	493.31 ug/L	493.31 ppb	13:06:40
1	Ba 233.527†	51226.0	49164.0	498.60 ug/L	498.60 ppb	13:06:40
1	Be 313.107†	1234406.7	1189216.0	499.27 ug/L	499.27 ppb	13:06:35
1	Cd 226.502†	33514.3	32373.2	499.57 ug/L	499.57 ppb	13:06:40
1	Co 228.616†	20087.0	19333.5	501.90 ug/L	501.90 ppb	13:06:40
1	Cr 267.716†	33876.6	32426.5	499.47 ug/L	499.47 ppb	13:06:40
1	Cu 324.752†	152492.0	141039.0	500.07 ug/L	500.07 ppb	13:06:40
1	Mn 257.610†	377691.3	362131.4	498.58 ug/L	498.58 ppb	13:06:40
1	Mo 202.031†	5277.4	5061.6	495.33 ug/L	495.33 ppb	13:07:00
1	Ni 231.604†	15572.0	14864.4	500.59 ug/L	500.59 ppb	13:06:40
1	P 214.914†	4022.3	3659.7	2386.5 ug/L	2386.5 ppb	13:07:00
1	Pb 220.353†	3085.4	3027.8	495.83 ug/L	495.83 ppb	13:07:00
1	S 181.975 Axial†	699.0	631.7	1001.3 ug/L	1001.3 ppb	13:07:00
1	Sb 206.836†	1270.1	1194.1	512.84 ug/L	512.84 ppb	13:07:00
1	Se 196.026†	643.3	644.1	518.35 ug/L	518.35 ppb	13:07:00
1	Si 251.611†	70032.1	66694.9	2545.7 ug/L	2545.7 ppb	13:06:40
1	Sn 189.927†	2187.1	2089.8	494.96 ug/L	494.96 ppb	13:07:00
1	Ti 334.940†	272371.3	262883.8	497.81 ug/L	497.81 ppb	13:06:40
1	Tl 190.801†	1291.7	1271.5	507.85 ug/L	507.85 ppb	13:07:00
1	U 409.014†	10369.4	12360.2	491.86 ug/L	491.86 ppb	13:06:40
1	V 292.402†	54685.4	54246.7	506.41 ug/L	506.41 ppb	13:06:40
1	Zn 213.857†	43996.1	41546.1	496.77 ug/L	496.77 ppb	13:06:40
1	SiO2†	68315.6	65033.1	5276.1 ug/L	5276.1 ppb	13:08:07
2	Sc Radial	3874.1	3874.1	108 %		13:06:03
2	Y RADIAL	4439.4	4439.4	109.2 %		13:05:43
2	Al 396.153Radial†	4903.3	4652.0	5314.4 ug/L	5314.4 ppb	13:05:43
2	Ca 317.933Radial†	2675.7	2462.8	5034.0 ug/L	5034.0 ppb	13:06:03
2	Fe 238.204 Radial†	396.5	359.1	5090.7 ug/L	5090.7 ppb	13:06:03
2	K 766.490 Radial†	29302.4	24124.5	5070.7 ug/L	5070.7 ppb	13:05:43
2	Mg 279.077 IEC†	125.4	115.5	5098.7 ug/L	5098.7 ppb	13:06:03
2	Na 589.592 Radial†	20223.7	19631.1	10122 ug/L	10122 ppb	13:05:43
2	Sr 421.552†	52185.1	48326.3	532.76 ug/L	532.76 ppb	13:05:43
2	Sc 361.383	701453.4	701453.4	105.18 %		13:07:06
2	Y 371.029	549120.5	549120.5	103.98 %		13:07:06
2	Ag 328.068†	91494.5	86784.9	504.27 ug/L	504.27 ppb	13:07:11
2	As 188.979†	974.4	951.7	498.40 ug/L	498.40 ppb	13:07:31
2	B 249.677†	19003.1	18482.0	492.82 ug/L	492.82 ppb	13:07:11
2	Ba 233.527†	51736.0	49174.0	498.70 ug/L	498.70 ppb	13:07:11
2	Be 313.107†	1243136.5	1186071.1	497.96 ug/L	497.96 ppb	13:07:06
2	Cd 226.502†	33740.0	32277.0	498.09 ug/L	498.09 ppb	13:07:11
2	Co 228.616†	20343.1	19390.8	503.37 ug/L	503.37 ppb	13:07:11
2	Cr 267.716†	34126.0	32349.6	498.28 ug/L	498.28 ppb	13:07:11
2	Cu 324.752†	154685.4	141710.5	502.45 ug/L	502.45 ppb	13:07:11
2	Mn 257.610†	382550.0	363249.1	500.12 ug/L	500.12 ppb	13:07:11
2	Mo 202.031†	5255.1	4991.5	488.48 ug/L	488.48 ppb	13:07:31
2	Ni 231.604†	15747.3	14886.8	501.34 ug/L	501.34 ppb	13:07:11

2	P 214.914†	4006.2	3607.1	2350.3 ug/L	2350.3 ppb	13:07:31
2	Pb 220.353†	3074.6	2988.9	489.50 ug/L	489.50 ppb	13:07:31
2	S 181.975 Axial†	703.7	629.7	998.03 ug/L	998.03 ppb	13:07:31
2	Sb 206.836†	1270.7	1182.8	507.95 ug/L	507.95 ppb	13:07:31
2	Se 196.026†	636.3	631.6	508.52 ug/L	508.52 ppb	13:07:31
2	Si 251.611†	70999.8	66965.6	2556.1 ug/L	2556.1 ppb	13:07:11
2	Sn 189.927†	2188.2	2070.6	490.41 ug/L	490.41 ppb	13:07:31
2	Ti 334.940†	275888.3	263702.3	499.38 ug/L	499.38 ppb	13:07:11
2	Tl 190.801†	1282.3	1250.6	499.57 ug/L	499.57 ppb	13:07:31
2	U 409.014†	10667.1	12547.2	499.34 ug/L	499.34 ppb	13:07:11
2	V 292.402†	55216.1	54244.3	506.30 ug/L	506.30 ppb	13:07:11
2	Zn 213.857†	44452.5	41572.1	497.08 ug/L	497.08 ppb	13:07:11
2	SiO2†	69110.7	65155.7	5286.3 ug/L	5286.3 ppb	13:08:12
3	Sc Radial	3941.8	3941.8	110 %		13:06:28
3	Y RADIAL	4384.9	4384.9	107.8 %		13:06:08
3	Al 396.153Radial†	4829.5	4506.8	5147.9 ug/L	5147.9 ppb	13:06:08
3	Ca 317.933Radial†	2710.9	2452.2	5012.4 ug/L	5012.4 ppb	13:06:28
3	Fe 238.204 Radial†	399.9	355.9	5046.1 ug/L	5046.1 ppb	13:06:28
3	K 766.490 Radial†	29130.6	23501.5	4939.7 ug/L	4939.7 ppb	13:06:08
3	Mg 279.077 IEC†	131.2	118.8	5243.6 ug/L	5243.6 ppb	13:06:28
3	Na 589.592 Radial†	19897.7	19012.3	9803.2 ug/L	9803.2 ppb	13:06:08
3	Sr 421.552†	51572.3	46937.6	517.45 ug/L	517.45 ppb	13:06:08
3	Sc 361.383	693656.6	693656.6	104.01 %		13:07:36
3	Y 371.029	542969.5	542969.5	102.82 %		13:07:36
3	Ag 328.068†	88849.5	85219.7	495.20 ug/L	495.20 ppb	13:07:42
3	As 188.979†	948.8	937.5	490.94 ug/L	490.94 ppb	13:08:02
3	B 249.677†	18361.2	18067.9	481.76 ug/L	481.76 ppb	13:07:42
3	Ba 233.527†	50565.0	48601.1	492.89 ug/L	492.89 ppb	13:07:42
3	Be 313.107†	1232945.6	1189558.2	499.39 ug/L	499.39 ppb	13:07:36
3	Cd 226.502†	32916.6	31845.9	491.43 ug/L	491.43 ppb	13:07:42
3	Co 228.616†	19836.5	19121.2	496.38 ug/L	496.38 ppb	13:07:42
3	Cr 267.716†	33341.3	31959.8	492.28 ug/L	492.28 ppb	13:07:42
3	Cu 324.752†	149262.9	138150.2	489.83 ug/L	489.83 ppb	13:07:42
3	Mn 257.610†	372451.1	357627.9	492.38 ug/L	492.38 ppb	13:07:42
3	Mo 202.031†	5151.6	4948.1	484.24 ug/L	484.24 ppb	13:08:02
3	Ni 231.604†	15305.9	14630.7	492.71 ug/L	492.71 ppb	13:07:42
3	P 214.914†	3899.2	3547.1	2312.0 ug/L	2312.0 ppb	13:08:02
3	Pb 220.353†	3008.8	2958.5	484.50 ug/L	484.50 ppb	13:08:02
3	S 181.975 Axial†	679.7	614.1	973.35 ug/L	973.35 ppb	13:08:02
3	Sb 206.836†	1230.7	1158.0	497.42 ug/L	497.42 ppb	13:08:02
3	Se 196.026†	624.5	627.0	504.80 ug/L	504.80 ppb	13:08:02
3	Si 251.611†	68846.8	65654.3	2506.0 ug/L	2506.0 ppb	13:07:42
3	Sn 189.927†	2126.2	2034.4	481.84 ug/L	481.84 ppb	13:08:02
3	Ti 334.940†	267565.1	258648.4	489.80 ug/L	489.80 ppb	13:07:42
3	Tl 190.801†	1230.9	1214.9	485.33 ug/L	485.33 ppb	13:08:02
3	U 409.014†	9976.4	11997.1	477.39 ug/L	477.39 ppb	13:07:42
3	V 292.402†	53537.7	53220.7	496.79 ug/L	496.79 ppb	13:07:42
3	Zn 213.857†	43139.8	40785.1	487.66 ug/L	487.66 ppb	13:07:42
3	SiO2†	70000.4	66749.7	5416.0 ug/L	5416.0 ppb	13:08:17

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	696596.4	104.45 %	0.635			0.61%
Sc Radial	3902.2	109 %	1.0			0.90%
Y 371.029	545449.0	103.29 %	0.614			0.59%
Y RADIAL	4397.7	108.1 %	0.91			0.84%
Ag 328.068†	86190.1	500.83 ug/L	4.915	500.83 ppb	4.915	0.98%
QC value within limits for Ag 328.068 Recovery = 100.17%						
Al 396.153Radial†	4563.6	5212.9 ug/L	89.03	5212.9 ppb	89.03	1.71%
QC value within limits for Al 396.153Radial Recovery = 104.26%						
As 188.979†	953.6	499.36 ug/L	8.940	499.36 ppb	8.940	1.79%
QC value within limits for As 188.979 Recovery = 99.87%						
B 249.677†	18350.0	489.30 ug/L	6.533	489.30 ppb	6.533	1.34%
QC value within limits for B 249.677 Recovery = 97.86%						
Ba 233.527†	48979.7	496.73 ug/L	3.330	496.73 ppb	3.330	0.67%
QC value within limits for Ba 233.527 Recovery = 99.35%						
Be 313.107†	1188281.8	498.87 ug/L	0.797	498.87 ppb	0.797	0.16%
QC value within limits for Be 313.107 Recovery = 99.77%						
Ca 317.933Radial†	2463.8	5036.1 ug/L	24.80	5036.1 ppb	24.80	0.49%

QC value within limits for Ca 317.933 Radial Recovery = 100.72%							
Cd 226.502†	32165.4	496.36 ug/L	4.336	496.36 ppb	4.336	0.87%	
QC value within limits for Cd 226.502 Recovery = 99.27%							
Co 228.616†	19281.8	500.55 ug/L	3.684	500.55 ppb	3.684	0.74%	
QC value within limits for Co 228.616 Recovery = 100.11%							
Cr 267.716†	32245.3	496.68 ug/L	3.853	496.68 ppb	3.853	0.78%	
QC value within limits for Cr 267.716 Recovery = 99.34%							
Cu 324.752†	140299.9	497.45 ug/L	6.703	497.45 ppb	6.703	1.35%	
QC value within limits for Cu 324.752 Recovery = 99.49%							
Fe 238.204 Radial†	358.3	5079.4 ug/L	29.35	5079.4 ppb	29.35	0.58%	
QC value within limits for Fe 238.204 Radial Recovery = 101.59%							
K 766.490 Radial†	23766.6	4995.4 ug/L	67.64	4995.4 ppb	67.64	1.35%	
QC value within limits for K 766.490 Radial Recovery = 99.91%							
Mg 279.077 IEC†	118.6	5234.0 ug/L	130.83	5234.0 ppb	130.83	2.50%	
QC value within limits for Mg 279.077 IEC Recovery = 104.68%							
Mn 257.610†	361002.8	497.03 ug/L	4.099	497.03 ppb	4.099	0.82%	
QC value within limits for Mn 257.610 Recovery = 99.41%							
Mo 202.031†	5000.4	489.35 ug/L	5.601	489.35 ppb	5.601	1.14%	
QC value within limits for Mo 202.031 Recovery = 97.87%							
Na 589.592 Radial†	19343.2	9973.8 ug/L	160.69	9973.8 ppb	160.69	1.61%	
QC value within limits for Na 589.592 Radial Recovery = 99.74%							
Ni 231.604†	14794.0	498.21 ug/L	4.777	498.21 ppb	4.777	0.96%	
QC value within limits for Ni 231.604 Recovery = 99.64%							
P 214.914†	3604.7	2349.6 ug/L	37.25	2349.6 ppb	37.25	1.59%	
QC value within limits for P 214.914 Recovery = 93.98%							
Pb 220.353†	2991.7	489.94 ug/L	5.678	489.94 ppb	5.678	1.16%	
QC value within limits for Pb 220.353 Recovery = 97.99%							
S 181.975 Axial†	625.2	990.88 ug/L	15.268	990.88 ppb	15.268	1.54%	
QC value within limits for S 181.975 Axial Recovery = 99.09%							
Sb 206.836†	1178.3	506.07 ug/L	7.877	506.07 ppb	7.877	1.56%	
QC value within limits for Sb 206.836 Recovery = 101.21%							
Se 196.026†	634.2	510.55 ug/L	7.001	510.55 ppb	7.001	1.37%	
QC value within limits for Se 196.026 Recovery = 102.11%							
Si 251.611†	66438.3	2535.9 ug/L	26.44	2535.9 ppb	26.44	1.04%	
QC value within limits for Si 251.611 Recovery = 101.44%							
Sn 189.927†	2064.9	489.07 ug/L	6.662	489.07 ppb	6.662	1.36%	
QC value within limits for Sn 189.927 Recovery = 97.81%							
Sr 421.552†	47567.8	524.40 ug/L	7.753	524.40 ppb	7.753	1.48%	
QC value within limits for Sr 421.552 Recovery = 104.88%							
Ti 334.940†	261744.8	495.67 ug/L	5.137	495.67 ppb	5.137	1.04%	
QC value within limits for Ti 334.940 Recovery = 99.13%							
Tl 190.801†	1245.7	497.59 ug/L	11.390	497.59 ppb	11.390	2.29%	
QC value within limits for Tl 190.801 Recovery = 99.52%							
U 409.014†	12301.5	489.53 ug/L	11.159	489.53 ppb	11.159	2.28%	
QC value within limits for U 409.014 Recovery = 97.91%							
V 292.402†	53903.9	503.17 ug/L	5.523	503.17 ppb	5.523	1.10%	
QC value within limits for V 292.402 Recovery = 100.63%							
Zn 213.857†	41301.1	493.84 ug/L	5.352	493.84 ppb	5.352	1.08%	
QC value within limits for Zn 213.857 Recovery = 98.77%							
SiO2†	65646.2	5326.1 ug/L	78.02	5326.1 ppb	78.02	1.46%	
QC value within limits for SiO2 Recovery = 99.60%							
All analyte(s) passed QC.							

Sequence No.: 32

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/31/2010 13:10:28

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	3844.2	3844.2	107 %		13:12:40
1	Y RADIAL	4259.4	4259.4	104.7 %		13:12:20
1	Al 396.153Radial†	-108.6	8.6	9.7812 ug/L	9.7812 ppb	13:12:20
1	Ca 317.933Radial†	19.8	2.7	5.5844 ug/L	5.5844 ppb	13:12:40
1	Fe 238.204 Radial†	7.0	-1.6	-22.657 ug/L	-22.657 ppb	13:12:40
1	K 766.490 Radial†	3179.9	-50.5	-10.622 ug/L	-10.622 ppb	13:12:20
1	Mg 279.077 IEC†	0.3	-0.3	-14.762 ug/L	-14.762 ppb	13:12:40
1	Na 589.592 Radial†	-1008.5	-44.0	-22.675 ug/L	-22.675 ppb	13:12:20
1	Sr 421.552†	36.5	20.3	0.2234 ug/L	0.2234 ppb	13:12:20
1	Sc 361.383	660916.8	660916.8	99.103 %		13:13:37
1	Y 371.029	523253.2	523253.2	99.085 %		13:13:37
1	Ag 328.068†	150.4	-50.3	-0.2905 ug/L	-0.2905 ppb	13:13:37
1	As 188.979†	-25.5	-0.4	-0.2429 ug/L	-0.2429 ppb	13:13:57
1	B 249.677†	-499.8	-89.2	-2.3867 ug/L	-2.3867 ppb	13:13:57
1	Ba 233.527†	2.4	-10.8	-0.1090 ug/L	-0.1090 ppb	13:13:57
1	Be 313.107†	-4100.9	40.3	0.0162 ug/L	0.0162 ppb	13:13:37
1	Cd 226.502†	-189.1	8.5	0.1321 ug/L	0.1321 ppb	13:13:57
1	Co 228.616†	-47.1	2.4	0.0678 ug/L	0.0678 ppb	13:13:57
1	Cr 267.716†	105.4	11.1	0.1712 ug/L	0.1712 ppb	13:13:57
1	Cu 324.752†	5538.4	234.2	0.8329 ug/L	0.8329 ppb	13:13:37
1	Mn 257.610†	474.8	24.7	0.0323 ug/L	0.0323 ppb	13:13:57
1	Mo 202.031†	27.2	22.7	2.2151 ug/L	2.2151 ppb	13:13:57
1	Ni 231.604†	90.7	6.8	0.2302 ug/L	0.2302 ppb	13:13:57
1	P 214.914†	195.7	-4.2	-2.9920 ug/L	-2.9920 ppb	13:13:57
1	Pb 220.353†	-89.3	-24.3	-3.9595 ug/L	-3.9595 ppb	13:13:57
1	S 181.975 Axial†	34.1	-4.9	-7.8001 ug/L	-7.8001 ppb	13:13:57
1	Sb 206.836†	38.9	14.0	5.8161 ug/L	5.8161 ppb	13:13:57
1	Se 196.026†	-28.4	-2.1	-1.6960 ug/L	-1.6960 ppb	13:13:57
1	Si 251.611†	598.2	67.2	2.5434 ug/L	2.5434 ppb	13:13:57
1	Sn 189.927†	1.7	-8.1	-1.9111 ug/L	-1.9111 ppb	13:13:57
1	Ti 334.940†	-1537.2	-145.5	-0.2708 ug/L	-0.2708 ppb	13:13:37
1	Tl 190.801†	-39.8	-8.7	-3.4633 ug/L	-3.4633 ppb	13:13:57
1	U 409.014†	-2544.3	-161.7	-6.4561 ug/L	-6.4561 ppb	13:13:37
1	V 292.402†	-1685.6	47.6	0.4604 ug/L	0.4604 ppb	13:13:37
1	Zn 213.857†	745.3	61.7	0.7453 ug/L	0.7453 ppb	13:13:57
1	SiO2†	583.3	38.4	3.0604 ug/L	3.0604 ppb	13:14:53
2	Sc Radial	3891.3	3891.3	108 %		13:13:05
2	Y RADIAL	4422.6	4422.6	108.8 %		13:12:45
2	Al 396.153Radial†	-116.6	2.5	2.8047 ug/L	2.8047 ppb	13:12:45
2	Ca 317.933Radial†	18.1	1.0	1.9615 ug/L	1.9615 ppb	13:13:05
2	Fe 238.204 Radial†	5.8	-2.8	-39.596 ug/L	-39.596 ppb	13:13:05
2	K 766.490 Radial†	3148.5	-115.3	-24.271 ug/L	-24.271 ppb	13:12:45
2	Mg 279.077 IEC†	2.0	1.2	55.018 ug/L	55.018 ppb	13:13:05
2	Na 589.592 Radial†	-979.0	-5.4	-2.7713 ug/L	-2.7713 ppb	13:12:45
2	Sr 421.552†	6.0	-8.2	-0.0904 ug/L	-0.0904 ppb	13:12:45
2	Sc 361.383	669151.4	669151.4	100.34 %		13:14:03
2	Y 371.029	529645.7	529645.7	100.30 %		13:14:03
2	Ag 328.068†	170.9	-31.7	-0.1909 ug/L	-0.1909 ppb	13:14:03
2	As 188.979†	-33.5	-8.1	-4.2392 ug/L	-4.2392 ppb	13:14:23
2	B 249.677†	-511.1	-94.3	-2.5185 ug/L	-2.5185 ppb	13:14:23
2	Ba 233.527†	6.1	-7.1	-0.0726 ug/L	-0.0726 ppb	13:14:23
2	Be 313.107†	-4146.9	45.3	0.0188 ug/L	0.0188 ppb	13:14:03
2	Cd 226.502†	-203.4	-3.5	-0.0503 ug/L	-0.0503 ppb	13:14:23
2	Co 228.616†	-49.5	0.6	0.0182 ug/L	0.0182 ppb	13:14:23
2	Cr 267.716†	91.9	-3.6	-0.0579 ug/L	-0.0579 ppb	13:14:23
2	Cu 324.752†	5416.7	44.2	0.1566 ug/L	0.1566 ppb	13:14:03
2	Mn 257.610†	488.1	32.1	0.0380 ug/L	0.0380 ppb	13:14:23
2	Mo 202.031†	18.0	13.2	1.2904 ug/L	1.2904 ppb	13:14:23
2	Ni 231.604†	95.3	10.2	0.3448 ug/L	0.3448 ppb	13:14:23

2	P 214.914†	182.6	-19.7	-13.389 ug/L	-13.389 ppb	13:14:23
2	Pb 220.353†	-73.4	-7.3	-1.1892 ug/L	-1.1892 ppb	13:14:23
2	S 181.975 Axial†	30.3	-9.2	-14.525 ug/L	-14.525 ppb	13:14:23
2	Sb 206.836†	38.1	12.8	5.3258 ug/L	5.3258 ppb	13:14:23
2	Se 196.026†	-14.1	12.5	9.6609 ug/L	9.6609 ppb	13:14:23
2	Si 251.611†	600.4	62.0	2.3548 ug/L	2.3548 ppb	13:14:23
2	Sn 189.927†	11.3	1.5	0.3582 ug/L	0.3582 ppb	13:14:23
2	Ti 334.940†	-1461.6	-51.0	-0.0992 ug/L	-0.0992 ppb	13:14:03
2	Tl 190.801†	-35.4	-3.8	-1.5012 ug/L	-1.5012 ppb	13:14:23
2	U 409.014†	-2499.1	-85.1	-3.3954 ug/L	-3.3954 ppb	13:14:03
2	V 292.402†	-1711.3	42.8	0.4135 ug/L	0.4135 ppb	13:14:03
2	Zn 213.857†	739.7	46.8	0.5687 ug/L	0.5687 ppb	13:14:23
2	SiO2†	616.2	63.9	5.1635 ug/L	5.1635 ppb	13:14:58
3	Sc Radial	3859.0	3859.0	108 %		13:13:31
3	Y RADIAL	4404.1	4404.1	108.3 %		13:13:11
3	Al 396.153Radial†	-99.3	17.7	20.240 ug/L	20.240 ppb	13:13:11
3	Ca 317.933Radial†	22.7	5.4	11.093 ug/L	11.093 ppb	13:13:31
3	Fe 238.204 Radial†	8.9	0.1	1.3981 ug/L	1.3981 ppb	13:13:31
3	K 766.490 Radial†	2943.6	-281.6	-59.273 ug/L	-59.273 ppb	13:13:11
3	Mg 279.077 IEC†	2.1	1.4	59.831 ug/L	59.831 ppb	13:13:31
3	Na 589.592 Radial†	-960.0	4.7	2.4245 ug/L	2.4245 ppb	13:13:11
3	Sr 421.552†	22.8	7.5	0.0821 ug/L	0.0821 ppb	13:13:11
3	Sc 361.383	671859.5	671859.5	100.74 %		13:14:28
3	Y 371.029	531547.5	531547.5	100.66 %		13:14:28
3	Ag 328.068†	130.5	-72.5	-0.4184 ug/L	-0.4184 ppb	13:14:28
3	As 188.979†	-30.0	-4.5	-2.3413 ug/L	-2.3413 ppb	13:14:48
3	B 249.677†	-475.5	-56.9	-1.5235 ug/L	-1.5235 ppb	13:14:48
3	Ba 233.527†	13.5	0.2	0.0024 ug/L	0.0024 ppb	13:14:48
3	Be 313.107†	-4201.1	8.2	0.0036 ug/L	0.0036 ppb	13:14:28
3	Cd 226.502†	-191.2	9.4	0.1458 ug/L	0.1458 ppb	13:14:48
3	Co 228.616†	-44.8	5.4	0.1424 ug/L	0.1424 ppb	13:14:48
3	Cr 267.716†	85.5	-10.3	-0.1587 ug/L	-0.1587 ppb	13:14:48
3	Cu 324.752†	5485.3	90.6	0.3202 ug/L	0.3202 ppb	13:14:28
3	Mn 257.610†	494.9	36.9	0.0484 ug/L	0.0484 ppb	13:14:48
3	Mo 202.031†	12.8	8.0	0.7805 ug/L	0.7805 ppb	13:14:48
3	Ni 231.604†	88.2	2.8	0.0944 ug/L	0.0944 ppb	13:14:48
3	P 214.914†	195.1	-8.0	-5.5045 ug/L	-5.5045 ppb	13:14:48
3	Pb 220.353†	-64.1	2.1	0.3575 ug/L	0.3575 ppb	13:14:48
3	S 181.975 Axial†	45.0	5.3	8.3746 ug/L	8.3746 ppb	13:14:48
3	Sb 206.836†	28.6	3.2	1.3611 ug/L	1.3611 ppb	13:14:48
3	Se 196.026†	-26.1	0.7	0.5457 ug/L	0.5457 ppb	13:14:48
3	Si 251.611†	591.8	51.0	1.9423 ug/L	1.9423 ppb	13:14:48
3	Sn 189.927†	15.7	5.9	1.3886 ug/L	1.3886 ppb	13:14:48
3	Ti 334.940†	-1370.5	45.3	0.0818 ug/L	0.0818 ppb	13:14:28
3	Tl 190.801†	-24.1	7.5	2.9823 ug/L	2.9823 ppb	13:14:48
3	U 409.014†	-2381.1	42.1	1.6794 ug/L	1.6794 ppb	13:14:28
3	V 292.402†	-1722.3	38.8	0.3729 ug/L	0.3729 ppb	13:14:28
3	Zn 213.857†	727.9	32.1	0.3866 ug/L	0.3866 ppb	13:14:48
3	SiO2†	603.1	48.4	3.9151 ug/L	3.9151 ppb	13:15:03

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	667309.2	100.06 %		0.855			0.85%
Sc Radial	3864.8	108 %		0.7			0.62%
Y 371.029	528148.8	100.01 %		0.823			0.82%
Y RADIAL	4362.0	107.3 %		2.20			2.05%
Ag 328.068†	-51.5	-0.2999 ug/L		0.11403	-0.2999 ppb	0.11403	38.02%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Al 396.153Radial†	9.6	10.942 ug/L		8.7752	10.942 ppb	8.7752	80.20%
QC value within limits for Al 396.153Radial Recovery = Not calculated							
As 188.979†	-4.4	-2.2745 ug/L		1.99897	-2.2745 ppb	1.99897	87.89%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	-80.1	-2.1429 ug/L		0.54045	-2.1429 ppb	0.54045	25.22%
QC value within limits for B 249.677 Recovery = Not calculated							
Ba 233.527†	-5.9	-0.0597 ug/L		0.05680	-0.0597 ppb	0.05680	95.08%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.107†	31.3	0.0129 ug/L		0.00811	0.0129 ppb	0.00811	62.92%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 317.933Radial†	3.0	6.2128 ug/L		4.59783	6.2128 ppb	4.59783	74.01%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd 226.502†	4.8	0.0759 ug/L	0.10946	0.0759 ppb	0.10946	144.29%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	2.8	0.0761 ug/L	0.06250	0.0761 ppb	0.06250	82.10%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	-1.0	-0.0151 ug/L	0.16905	-0.0151 ppb	0.16905	>999.9%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	123.0	0.4366 ug/L	0.35281	0.4366 ppb	0.35281	80.81%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	-1.4	-20.285 ug/L	20.5997	-20.285 ppb	20.5997	101.55%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	-149.1	-31.389 ug/L	25.0947	-31.389 ppb	25.0947	79.95%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	0.8	33.363 ug/L	41.7462	33.363 ppb	41.7462	125.13%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	31.2	0.0396 ug/L	0.00816	0.0396 ppb	0.00816	20.62%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	14.6	1.4287 ug/L	0.72722	1.4287 ppb	0.72722	50.90%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	-14.9	-7.6739 ug/L	13.24853	-7.6739 ppb	13.24853	172.64%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	6.6	0.2231 ug/L	0.12535	0.2231 ppb	0.12535	56.18%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-10.6	-7.2953 ug/L	5.42510	-7.2953 ppb	5.42510	74.36%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-9.8	-1.5971 ug/L	2.18722	-1.5971 ppb	2.18722	136.95%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	-2.9	-4.6501 ug/L	11.77025	-4.6501 ppb	11.77025	253.12%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	10.0	4.1677 ug/L	2.44292	4.1677 ppb	2.44292	58.62%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	3.7	2.8369 ug/L	6.01513	2.8369 ppb	6.01513	212.03%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si 251.611†	60.1	2.2801 ug/L	0.30744	2.2801 ppb	0.30744	13.48%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	-0.2	-0.0548 ug/L	1.68820	-0.0548 ppb	1.68820	>999.9%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	6.5	0.0717 ug/L	0.15718	0.0717 ppb	0.15718	219.21%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-50.4	-0.0961 ug/L	0.17631	-0.0961 ppb	0.17631	183.49%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-1.7	-0.6607 ug/L	3.30400	-0.6607 ppb	3.30400	500.04%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	-68.3	-2.7240 ug/L	4.10909	-2.7240 ppb	4.10909	150.85%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	43.1	0.4156 ug/L	0.04382	0.4156 ppb	0.04382	10.54%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	46.9	0.5669 ug/L	0.17934	0.5669 ppb	0.17934	31.64%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†	50.2	4.0463 ug/L	1.05767	4.0463 ppb	1.05767	26.14%
QC value within limits for SiO2 Recovery = Not calculated						
All analyte(s) passed QC.						

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Analysis Begun

Start Time: 3/31/2010 13:18:33

Plasma On Time: 3/30/2010 17:10:22

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\033110.sif

Batch ID:

Results Data Set: 033110

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

=====
Sequence No.: 1

Autosampler Location: 38

Sample ID: 1202056967|959146|1

Date Collected: 3/31/2010 13:18:35

Analyst: HSC

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: 1202056967|959146|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	3879.8	3879.8	108 %		13:20:48
1	Y RADIAL	4302.4	4302.4	105.8 %		13:20:28
1	Al 396.153Radial†	-105.9	12.0	13.718 ug/L	13.718 ppb	13:20:28
1	Ca 317.933Radial†	27.0	9.2	18.867 ug/L	18.867 ppb	13:20:48
1	Fe 238.204 Radial†	7.3	-1.5	-20.677 ug/L	-20.677 ppb	13:20:48
1	K 766.490 Radial†	2990.8	-252.6	-53.184 ug/L	-53.184 ppb	13:20:28
1	Mg 279.077 IEC†	3.5	2.6	113.78 ug/L	113.78 ppb	13:20:48
1	Na 589.592 Radial†	-938.0	29.9	15.401 ug/L	15.401 ppb	13:20:28
1	Sr 421.552†	35.6	19.2	0.2111 ug/L	0.2111 ppb	13:20:28
1	Sc 361.383	690920.7	690920.7	103.60 %		13:21:45
1	Y 371.029	546075.7	546075.7	103.41 %		13:21:45
1	Ag 328.068†	108.0	-97.8	-0.5695 ug/L	-0.5695 ppb	13:21:45
1	As 188.979†	-26.9	-0.8	-0.3978 ug/L	-0.3978 ppb	13:22:05
1	B 249.677†	-556.4	-121.9	-3.2639 ug/L	-3.2639 ppb	13:22:05
1	Ba 233.527†	68.7	53.1	0.5383 ug/L	0.5383 ppb	13:22:05
1	Be 313.107†	-4300.9	27.0	0.0119 ug/L	0.0119 ppb	13:21:45
1	Cd 226.502†	-217.0	-10.2	-0.1550 ug/L	-0.1550 ppb	13:22:05
1	Co 228.616†	-42.1	9.3	0.2442 ug/L	0.2442 ppb	13:22:05
1	Cr 267.716†	78.9	-19.0	-0.2944 ug/L	-0.2944 ppb	13:22:05
1	Cu 324.752†	5380.9	-160.5	-0.5714 ug/L	-0.5714 ppb	13:21:45
1	Mn 257.610†	709.5	230.4	0.3104 ug/L	0.3104 ppb	13:22:05
1	Mo 202.031†	17.5	12.2	1.1897 ug/L	1.1897 ppb	13:22:05
1	Ni 231.604†	107.0	18.5	0.6247 ug/L	0.6247 ppb	13:22:05
1	P 214.914†	188.9	-19.4	-13.023 ug/L	-13.023 ppb	13:22:05
1	Pb 220.353†	-84.3	-15.6	-2.5396 ug/L	-2.5396 ppb	13:22:05
1	S 181.975 Axial†	34.2	-6.3	-10.073 ug/L	-10.073 ppb	13:22:05
1	Sb 206.836†	26.6	0.4	0.1743 ug/L	0.1743 ppb	13:22:05
1	Se 196.026†	-12.3	14.7	11.392 ug/L	11.392 ppb	13:22:05
1	Si 251.611†	1092.1	517.7	19.792 ug/L	19.792 ppb	13:22:05
1	Sn 189.927†	5.4	-4.5	-1.0614 ug/L	-1.0614 ppb	13:22:05
1	Ti 334.940†	-1304.1	146.9	0.2706 ug/L	0.2706 ppb	13:21:45
1	Tl 190.801†	-37.0	-4.3	-1.6975 ug/L	-1.6975 ppb	13:22:05
1	U 409.014†	-2434.9	55.3	2.2130 ug/L	2.2130 ppb	13:21:45
1	V 292.402†	-1712.3	95.6	0.9072 ug/L	0.9072 ppb	13:21:45
1	Zn 213.857†	789.1	71.3	0.8607 ug/L	0.8607 ppb	13:22:05
1	SiO2†	1154.8	564.5	45.878 ug/L	45.878 ppb	13:23:01
2	Sc Radial	3936.9	3936.9	110 %		13:21:13
2	Y RADIAL	4440.1	4440.1	109.2 %		13:20:53
2	Al 396.153Radial†	-85.4	32.2	36.847 ug/L	36.847 ppb	13:20:53
2	Ca 317.933Radial†	26.2	8.2	16.665 ug/L	16.665 ppb	13:21:13
2	Fe 238.204 Radial†	11.7	2.5	35.309 ug/L	35.309 ppb	13:21:13
2	K 766.490 Radial†	3097.1	-195.8	-41.218 ug/L	-41.218 ppb	13:20:53
2	Mg 279.077 IEC†	3.3	2.4	106.74 ug/L	106.74 ppb	13:21:13
2	Na 589.592 Radial†	-969.2	13.9	7.1876 ug/L	7.1876 ppb	13:20:53
2	Sr 421.552†	5.6	-8.7	-0.0958 ug/L	-0.0958 ppb	13:20:53
2	Sc 361.383	647581.2	647581.2	97.104 %		13:22:10
2	Y 371.029	511448.4	511448.4	96.850 %		13:22:10

2	Ag 328.068†	221.9	26.4	0.1619 ug/L	0.1619 ppb	13:22:10
2	As 188.979†	-25.6	-1.1	-0.5476 ug/L	-0.5476 ppb	13:22:30
2	B 249.677†	-564.6	-166.3	-4.4596 ug/L	-4.4596 ppb	13:22:30
2	Ba 233.527†	84.9	74.2	0.7526 ug/L	0.7526 ppb	13:22:30
2	Be 313.107†	-4360.9	-312.7	-0.1303 ug/L	-0.1303 ppb	13:22:10
2	Cd 226.502†	-210.7	-17.8	-0.2764 ug/L	-0.2764 ppb	13:22:30
2	Co 228.616†	-60.7	-12.6	-0.3246 ug/L	-0.3246 ppb	13:22:30
2	Cr 267.716†	93.8	1.3	0.0232 ug/L	0.0232 ppb	13:22:30
2	Cu 324.752†	5601.3	414.1	1.4678 ug/L	1.4678 ppb	13:22:10
2	Mn 257.610†	688.9	255.0	0.3500 ug/L	0.3500 ppb	13:22:30
2	Mo 202.031†	17.5	13.3	1.3036 ug/L	1.3036 ppb	13:22:30
2	Ni 231.604†	120.3	39.1	1.3185 ug/L	1.3185 ppb	13:22:30
2	P 214.914†	190.8	-5.2	-3.8279 ug/L	-3.8279 ppb	13:22:30
2	Pb 220.353†	-78.6	-15.2	-2.4718 ug/L	-2.4718 ppb	13:22:30
2	S 181.975 Axial†	39.4	1.2	1.8514 ug/L	1.8514 ppb	13:22:30
2	Sb 206.836†	37.9	13.8	5.7437 ug/L	5.7437 ppb	13:22:30
2	Se 196.026†	-23.9	2.0	1.6573 ug/L	1.6573 ppb	13:22:30
2	Si 251.611†	1107.5	604.2	23.099 ug/L	23.099 ppb	13:22:30
2	Sn 189.927†	12.6	3.2	0.7656 ug/L	0.7656 ppb	13:22:30
2	Ti 334.940†	-1206.4	163.3	0.3010 ug/L	0.3010 ppb	13:22:10
2	Tl 190.801†	-36.3	-5.9	-2.3421 ug/L	-2.3421 ppb	13:22:30
2	U 409.014†	-2235.9	103.0	4.1091 ug/L	4.1091 ppb	13:22:10
2	V 292.402†	-1649.4	49.8	0.4819 ug/L	0.4819 ppb	13:22:10
2	Zn 213.857†	782.3	115.3	1.3752 ug/L	1.3752 ppb	13:22:30
2	SiO2†	1105.2	588.0	47.789 ug/L	47.789 ppb	13:23:06
3	Sc Radial	3959.6	3959.6	110 %		13:21:38
3	Y RADIAL	4566.9	4566.9	112.3 %		13:21:18
3	Al 396.153Radial†	-108.7	11.5	13.120 ug/L	13.120 ppb	13:21:18
3	Ca 317.933Radial†	23.1	5.2	10.713 ug/L	10.713 ppb	13:21:38
3	Fe 238.204 Radial†	9.6	0.5	6.9587 ug/L	6.9587 ppb	13:21:38
3	K 766.490 Radial†	3014.5	-286.9	-60.396 ug/L	-60.396 ppb	13:21:18
3	Mg 279.077 IEC†	1.1	0.3	14.680 ug/L	14.680 ppb	13:21:38
3	Na 589.592 Radial†	-951.5	35.1	18.114 ug/L	18.114 ppb	13:21:18
3	Sr 421.552†	33.5	16.6	0.1826 ug/L	0.1826 ppb	13:21:18
3	Sc 361.383	691326.0	691326.0	103.66 %		13:22:35
3	Y 371.029	546713.6	546713.6	103.53 %		13:22:35
3	Ag 328.068†	184.3	-24.2	-0.1378 ug/L	-0.1378 ppb	13:22:35
3	As 188.979†	-27.6	-1.4	-0.7191 ug/L	-0.7191 ppb	13:22:55
3	B 249.677†	-565.1	-130.0	-3.4842 ug/L	-3.4842 ppb	13:22:55
3	Ba 233.527†	68.1	52.5	0.5336 ug/L	0.5336 ppb	13:22:55
3	Be 313.107†	-4218.8	108.5	0.0463 ug/L	0.0463 ppb	13:22:35
3	Cd 226.502†	-220.7	-13.7	-0.2108 ug/L	-0.2108 ppb	13:22:55
3	Co 228.616†	-50.9	0.8	0.0245 ug/L	0.0245 ppb	13:22:55
3	Cr 267.716†	108.1	9.0	0.1387 ug/L	0.1387 ppb	13:22:55
3	Cu 324.752†	5483.3	-64.7	-0.2318 ug/L	-0.2318 ppb	13:22:35
3	Mn 257.610†	687.6	208.9	0.2875 ug/L	0.2875 ppb	13:22:55
3	Mo 202.031†	21.4	15.9	1.5552 ug/L	1.5552 ppb	13:22:55
3	Ni 231.604†	107.3	18.8	0.6323 ug/L	0.6323 ppb	13:22:55
3	P 214.914†	205.8	-3.2	-2.1159 ug/L	-2.1159 ppb	13:22:55
3	Pb 220.353†	-65.8	2.3	0.3897 ug/L	0.3897 ppb	13:22:55
3	S 181.975 Axial†	42.3	1.5	2.3594 ug/L	2.3594 ppb	13:22:55
3	Sb 206.836†	32.7	6.3	2.6252 ug/L	2.6252 ppb	13:22:55
3	Se 196.026†	-25.4	2.0	1.6170 ug/L	1.6170 ppb	13:22:55
3	Si 251.611†	1077.4	503.0	19.224 ug/L	19.224 ppb	13:22:55
3	Sn 189.927†	5.6	-4.4	-1.0347 ug/L	-1.0347 ppb	13:22:55
3	Ti 334.940†	-1263.7	186.6	0.3516 ug/L	0.3516 ppb	13:22:35
3	Tl 190.801†	-32.9	-0.3	-0.1047 ug/L	-0.1047 ppb	13:22:55
3	U 409.014†	-2372.7	116.7	4.6595 ug/L	4.6595 ppb	13:22:35
3	V 292.402†	-1700.4	108.1	1.0255 ug/L	1.0255 ppb	13:22:35
3	Zn 213.857†	788.9	70.7	0.8481 ug/L	0.8481 ppb	13:22:55
3	SiO2†	1143.5	552.9	44.925 ug/L	44.925 ppb	13:23:11

Mean Data: 1202056967|959146|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	676609.3	101.46 %	3.770			3.72%
Sc Radial	3925.4	109 %	1.1			1.05%
Y 371.029	534745.9	101.26 %	3.821			3.77%
Y RADIAL	4436.5	109.1 %	3.25			2.98%
Ag 328.068†	-31.9	-0.1818 ug/L	0.36766	-0.1818 ppb	0.36766	202.25%

Al 396.153Radial†	18.6	21.229 ug/L	13.5295	21.229 ppb	13.5295	63.73%
As 188.979†	-1.1	-0.5549 ug/L	0.16079	-0.5549 ppb	0.16079	28.98%
B 249.677†	-139.4	-3.7359 ug/L	0.63637	-3.7359 ppb	0.63637	17.03%
Ba 233.527†	59.9	0.6082 ug/L	0.12515	0.6082 ppb	0.12515	20.58%
Be 313.107†	-59.1	-0.0240 ug/L	0.09361	-0.0240 ppb	0.09361	389.53%
Ca 317.933Radial†	7.5	15.415 ug/L	4.2184	15.415 ppb	4.2184	27.37%
Cd 226.502†	-13.9	-0.2141 ug/L	0.06078	-0.2141 ppb	0.06078	28.40%
Co 228.616†	-0.8	-0.0186 ug/L	0.28683	-0.0186 ppb	0.28683	>999.9%
Cr 267.716†	-2.9	-0.0442 ug/L	0.22430	-0.0442 ppb	0.22430	507.79%
Cu 324.752†	63.0	0.2216 ug/L	1.09258	0.2216 ppb	1.09258	493.13%
Fe 238.204 Radial†	0.5	7.1969 ug/L	27.99373	7.1969 ppb	27.99373	388.97%
K 766.490 Radial†	-245.1	-51.599 ug/L	9.6868	-51.599 ppb	9.6868	18.77%
Mg 279.077 IEC†	1.8	78.399 ug/L	55.2950	78.399 ppb	55.2950	70.53%
Mn 257.610†	231.4	0.3160 ug/L	0.03159	0.3160 ppb	0.03159	10.00%
Mo 202.031†	13.8	1.3495 ug/L	0.18705	1.3495 ppb	0.18705	13.86%
Na 589.592 Radial†	26.3	13.568 ug/L	5.6892	13.568 ppb	5.6892	41.93%
Ni 231.604†	25.5	0.8585 ug/L	0.39837	0.8585 ppb	0.39837	46.40%
P 214.914†	-9.2	-6.3222 ug/L	5.86576	-6.3222 ppb	5.86576	92.78%
Pb 220.353†	-9.5	-1.5406 ug/L	1.67199	-1.5406 ppb	1.67199	108.53%
S 181.975 Axial†	-1.2	-1.9539 ug/L	7.03559	-1.9539 ppb	7.03559	360.07%
Sb 206.836†	6.8	2.8477 ug/L	2.79141	2.8477 ppb	2.79141	98.02%
Se 196.026†	6.2	4.8887 ug/L	5.63177	4.8887 ppb	5.63177	115.20%
Si 251.611†	541.6	20.705 ug/L	2.0929	20.705 ppb	2.0929	10.11%
Sn 189.927†	-1.9	-0.4435 ug/L	1.04718	-0.4435 ppb	1.04718	236.14%
Sr 421.552†	9.0	0.0993 ug/L	0.16959	0.0993 ppb	0.16959	170.78%
Ti 334.940†	165.6	0.3078 ug/L	0.04091	0.3078 ppb	0.04091	13.29%
Tl 190.801†	-3.5	-1.3815 ug/L	1.15171	-1.3815 ppb	1.15171	83.37%
U 409.014†	91.7	3.6605 ug/L	1.28344	3.6605 ppb	1.28344	35.06%
V 292.402†	84.5	0.8049 ug/L	0.28588	0.8049 ppb	0.28588	35.52%
Zn 213.857†	85.7	1.0280 ug/L	0.30076	1.0280 ppb	0.30076	29.26%
Sio2†	568.4	46.197 ug/L	1.4582	46.197 ppb	1.4582	3.16%

Sequence No.: 2

Sample ID: 1202056972|959146|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 39

Date Collected: 3/31/2010 13:25:21

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056972|959146|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4376.2	4376.2	122 %		13:27:34
1	Y RADIAL	5263.8	5263.8	129.4 %		13:27:34
1	Al 396.153Radial†	90844.3	74604.5	85581 ug/L	85581 ppb	13:27:14
1	Ca 317.933Radial†	54650.1	44798.7	91569 ug/L	91569 ppb	13:27:14
1	Fe 238.204 Radial†	14215.2	11648.6	164690 ug/L	164690 ppb	13:27:34
1	K 766.490 Radial†	221021.0	178223.5	37471 ug/L	37471 ppb	13:27:14
1	Mg 279.077 IEC†	966.3	791.8	34788 ug/L	34788 ppb	13:27:34
1	Na 589.592 Radial†	21997.6	18936.0	9763.8 ug/L	9763.8 ppb	13:27:14
1	Sr 421.552†	247843.2	203223.6	2239.9 ug/L	2239.9 ppb	13:27:14
1	Sc 361.383	681530.5	681530.5	102.19 %		13:28:38
1	Y 371.029	589388.7	589388.7	111.61 %		13:28:38
1	Ag 328.068†	47438.9	46218.2	322.01 ug/L	322.01 ppb	13:28:38
1	As 188.979†	2062.5	2043.5	1146.8 ug/L	1146.8 ppb	13:28:58
1	B 249.677†	61028.9	60133.5	1581.3 ug/L	1581.3 ppb	13:28:38
1	Ba 233.527†	213987.3	209379.2	2126.0 ug/L	2126.0 ppb	13:28:38
1	Be 313.107†	1919524.1	1882484.4	801.27 ug/L	801.27 ppb	13:28:32
1	Cd 226.502†	42645.9	41929.5	631.05 ug/L	631.05 ppb	13:28:58
1	Co 228.616†	37659.7	36901.0	944.80 ug/L	944.80 ppb	13:28:58
1	Cr 267.716†	167512.4	163820.2	2537.4 ug/L	2537.4 ppb	13:28:38
1	Cu 324.752†	564860.7	547377.2	1949.6 ug/L	1949.6 ppb	13:28:38
1	Mn 257.610†	4012153.6	3925546.2	5416.4 ug/L	5416.4 ppb	13:28:32
1	Mo 202.031†	5287.3	5169.0	519.25 ug/L	519.25 ppb	13:28:58
1	Ni 231.604†	43433.2	42415.8	1428.7 ug/L	1428.7 ppb	13:28:38
1	P 214.914†	12904.4	12425.6	7946.6 ug/L	7946.6 ppb	13:28:58
1	Pb 220.353†	5192.3	5146.5	846.62 ug/L	846.62 ppb	13:28:58
1	S 181.975 Axial†	2734.7	2636.6	4167.0 ug/L	4167.0 ppb	13:28:58
1	Sb 206.836†	3265.6	3170.2	1322.8 ug/L	1322.8 ppb	13:28:58
1	Se 196.026†	3349.9	3304.5	3037.5 ug/L	3037.5 ppb	13:28:58
1	Si 251.611†	1101949.1	1077750.5	41229 ug/L	41229 ppb	13:28:32
1	Sn 189.927†	4470.7	4364.9	1049.1 ug/L	1049.1 ppb	13:28:58
1	Ti 334.940†	3025044.8	2961493.7	5618.4 ug/L	5618.4 ppb	13:28:32
1	Tl 190.801†	3013.7	2980.5	1248.2 ug/L	1248.2 ppb	13:28:58
1	U 409.014†	-6741.5	-4191.2	-191.77 ug/L	-191.77 ppb	13:28:38
1	V 292.402†	143437.2	142105.5	1286.0 ug/L	1286.0 ppb	13:28:38
1	Zn 213.857†	541542.2	529223.3	6350.6 ug/L	6350.6 ppb	13:28:38
1	SiO2†	1137673.7	1112694.2	90489 ug/L	90489 ppb	13:30:08
2	Sc Radial	4079.0	4079.0	114 %		13:27:59
2	Y RADIAL	4940.1	4940.1	121.5 %		13:27:59
2	Al 396.153Radial†	93567.9	82428.8	94560 ug/L	94560 ppb	13:27:39
2	Ca 317.933Radial†	55914.4	49176.4	100520 ug/L	100520 ppb	13:27:39
2	Fe 238.204 Radial†	14497.0	12745.9	180200 ug/L	180200 ppb	13:27:59
2	K 766.490 Radial†	226905.7	196607.3	41336 ug/L	41336 ppb	13:27:39
2	Mg 279.077 IEC†	979.4	861.0	37827 ug/L	37827 ppb	13:27:59
2	Na 589.592 Radial†	22510.0	20701.2	10674 ug/L	10674 ppb	13:27:39
2	Sr 421.552†	254533.8	223919.0	2468.0 ug/L	2468.0 ppb	13:27:39
2	Sc 361.383	692667.8	692667.8	103.86 %		13:29:10
2	Y 371.029	595836.0	595836.0	112.83 %		13:29:10
2	Ag 328.068†	46662.1	44723.9	317.85 ug/L	317.85 ppb	13:29:10
2	As 188.979†	2019.6	1969.7	1113.4 ug/L	1113.4 ppb	13:29:30
2	B 249.677†	59939.4	58124.3	1525.1 ug/L	1525.1 ppb	13:29:10
2	Ba 233.527†	209995.9	202169.4	2053.4 ug/L	2053.4 ppb	13:29:10
2	Be 313.107†	1997982.1	1927822.5	820.56 ug/L	820.56 ppb	13:29:04
2	Cd 226.502†	42009.2	40645.5	609.60 ug/L	609.60 ppb	13:29:30
2	Co 228.616†	37021.4	35693.9	912.93 ug/L	912.93 ppb	13:29:30
2	Cr 267.716†	164084.0	157883.8	2447.7 ug/L	2447.7 ppb	13:29:10
2	Cu 324.752†	553467.0	527520.2	1880.0 ug/L	1880.0 ppb	13:29:10
2	Mn 257.610†	4167241.6	4011738.7	5536.4 ug/L	5536.4 ppb	13:29:04
2	Mo 202.031†	5194.5	4996.5	503.69 ug/L	503.69 ppb	13:29:30
2	Ni 231.604†	42652.8	40981.1	1380.4 ug/L	1380.4 ppb	13:29:10

2	P 214.914†	12658.4	11985.7	7651.4 ug/L	7651.4 ppb	13:29:30
2	Pb 220.353†	5108.9	4984.6	821.07 ug/L	821.07 ppb	13:29:30
2	S 181.975 Axial†	2688.1	2548.7	4025.9 ug/L	4025.9 ppb	13:29:30
2	Sb 206.836†	3191.8	3047.8	1270.2 ug/L	1270.2 ppb	13:29:30
2	Se 196.026†	3248.5	3154.2	2964.0 ug/L	2964.0 ppb	13:29:30
2	Si 251.611†	1144281.0	1101169.9	42125 ug/L	42125 ppb	13:29:04
2	Sn 189.927†	4394.7	4221.4	1016.9 ug/L	1016.9 ppb	13:29:30
2	Ti 334.940†	3146710.5	3031038.1	5751.1 ug/L	5751.1 ppb	13:29:04
2	Tl 190.801†	2960.0	2881.4	1210.8 ug/L	1210.8 ppb	13:29:30
2	U 409.014†	-6557.7	-3908.2	-182.03 ug/L	-182.03 ppb	13:29:10
2	V 292.402†	140482.4	137003.9	1236.5 ug/L	1236.5 ppb	13:29:10
2	Zn 213.857†	531738.5	511264.0	6131.9 ug/L	6131.9 ppb	13:29:10
2	SiO2†	1130144.2	1087545.2	88444 ug/L	88444 ppb	13:30:14
3	Sc Radial	4233.9	4233.9	118 %		13:28:24
3	Y RADIAL	5094.3	5094.3	125.3 %		13:28:24
3	Al 396.153Radial†	91252.7	77455.2	88853 ug/L	88853 ppb	13:28:04
3	Ca 317.933Radial†	54623.3	46282.6	94602 ug/L	94602 ppb	13:28:04
3	Fe 238.204 Radial†	14207.8	12034.3	170140 ug/L	170140 ppb	13:28:24
3	K 766.490 Radial†	221742.6	184928.6	38881 ug/L	38881 ppb	13:28:04
3	Mg 279.077 IEC†	967.3	819.2	35994 ug/L	35994 ppb	13:28:24
3	Na 589.592 Radial†	22010.5	19553.4	10082 ug/L	10082 ppb	13:28:04
3	Sr 421.552†	248556.8	210661.3	2321.8 ug/L	2321.8 ppb	13:28:04
3	Sc 361.383	688558.6	688558.6	103.25 %		13:29:42
3	Y 371.029	592953.6	592953.6	112.28 %		13:29:42
3	Ag 328.068†	46262.8	44605.3	314.14 ug/L	314.14 ppb	13:29:42
3	As 188.979†	2054.9	2015.5	1134.5 ug/L	1134.5 ppb	13:30:02
3	B 249.677†	59618.8	58158.2	1527.6 ug/L	1527.6 ppb	13:29:42
3	Ba 233.527†	209642.6	203033.8	2061.9 ug/L	2061.9 ppb	13:29:42
3	Be 313.107†	1975738.8	1917758.8	816.27 ug/L	816.27 ppb	13:29:37
3	Cd 226.502†	42671.1	41527.9	624.26 ug/L	624.26 ppb	13:30:02
3	Co 228.616†	37684.2	36548.5	935.36 ug/L	935.36 ppb	13:30:02
3	Cr 267.716†	163481.9	158243.4	2452.2 ug/L	2452.2 ppb	13:29:42
3	Cu 324.752†	548265.3	525662.1	1872.9 ug/L	1872.9 ppb	13:29:42
3	Mn 257.610†	4124925.5	3994697.6	5512.0 ug/L	5512.0 ppb	13:29:37
3	Mo 202.031†	5282.3	5111.3	514.07 ug/L	514.07 ppb	13:30:02
3	Ni 231.604†	42428.3	41008.7	1381.3 ug/L	1381.3 ppb	13:29:42
3	P 214.914†	12933.8	12325.2	7890.0 ug/L	7890.0 ppb	13:30:02
3	Pb 220.353†	5178.6	5081.4	836.36 ug/L	836.36 ppb	13:30:02
3	S 181.975 Axial†	2750.7	2624.8	4147.6 ug/L	4147.6 ppb	13:30:02
3	Sb 206.836†	3237.0	3110.0	1297.0 ug/L	1297.0 ppb	13:30:02
3	Se 196.026†	3347.5	3268.7	3025.0 ug/L	3025.0 ppb	13:30:02
3	Si 251.611†	1130470.6	1094368.7	41865 ug/L	41865 ppb	13:29:37
3	Sn 189.927†	4484.3	4333.5	1042.3 ug/L	1042.3 ppb	13:30:02
3	Ti 334.940†	3109012.9	3012606.6	5715.6 ug/L	5715.6 ppb	13:29:37
3	Tl 190.801†	3040.8	2976.6	1248.1 ug/L	1248.1 ppb	13:30:02
3	U 409.014†	-6541.2	-3929.9	-181.76 ug/L	-181.76 ppb	13:29:42
3	V 292.402†	139689.9	137043.5	1238.4 ug/L	1238.4 ppb	13:29:42
3	Zn 213.857†	528817.2	511489.8	6136.2 ug/L	6136.2 ppb	13:29:42
3	SiO2†	1160779.7	1123710.4	91385 ug/L	91385 ppb	13:30:20

Mean Data: 1202056972|959146|1

Analyte	Mean Corrected	Conc.	Calib.	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	687585.6	103.10	%	0.845				0.82%
Sc Radial	4229.7	118	%	4.1				3.51%
Y 371.029	592726.1	112.24	%	0.612				0.54%
Y RADIAL	5099.4	125.4	%	3.98				3.17%
Ag 328.068†	45182.5	318.00	ug/L	3.935	318.00	ppb	3.935	1.24%
Al 396.153Radial†	78162.8	89665	ug/L	4544.2	89665	ppb	4544.2	5.07%
As 188.979†	2009.6	1131.5	ug/L	16.93	1131.5	ppb	16.93	1.50%
B 249.677†	58805.4	1544.7	ug/L	31.78	1544.7	ppb	31.78	2.06%
Ba 233.527†	204860.8	2080.4	ug/L	39.68	2080.4	ppb	39.68	1.91%
Be 313.107†	1909355.2	812.70	ug/L	10.128	812.70	ppb	10.128	1.25%
Ca 317.933Radial†	46752.6	95563	ug/L	4550.8	95563	ppb	4550.8	4.76%
Cd 226.502†	41367.6	621.63	ug/L	10.963	621.63	ppb	10.963	1.76%
Co 228.616†	36381.1	931.03	ug/L	16.369	931.03	ppb	16.369	1.76%
Cr 267.716†	159982.5	2479.1	ug/L	50.53	2479.1	ppb	50.53	2.04%
Cu 324.752†	533519.8	1900.8	ug/L	42.38	1900.8	ppb	42.38	2.23%
Fe 238.204 Radial†	12142.9	171680	ug/L	7868.7	171680	ppb	7868.7	4.58%
K 766.490 Radial†	186586.5	39229	ug/L	1956.2	39229	ppb	1956.2	4.99%

Mg 279.077 IEC†	824.0	36203 ug/L	1530.3	36203 ppb	1530.3	4.23%
Mn 257.610†	3977327.5	5488.3 ug/L	63.43	5488.3 ppb	63.43	1.16%
Mo 202.031†	5092.3	512.34 ug/L	7.922	512.34 ppb	7.922	1.55%
Na 589.592 Radial†	19730.2	10173 ug/L	461.9	10173 ppb	461.9	4.54%
Ni 231.604†	41468.5	1396.8 ug/L	27.64	1396.8 ppb	27.64	1.98%
P 214.914†	12245.5	7829.3 ug/L	156.68	7829.3 ppb	156.68	2.00%
Pb 220.353†	5070.8	834.68 ug/L	12.858	834.68 ppb	12.858	1.54%
S 181.975 Axial†	2603.4	4113.5 ug/L	76.50	4113.5 ppb	76.50	1.86%
Sb 206.836†	3109.3	1296.7 ug/L	26.32	1296.7 ppb	26.32	2.03%
Se 196.026†	3242.5	3008.8 ug/L	39.31	3008.8 ppb	39.31	1.31%
Si 251.611†	1091096.4	41740 ug/L	461.0	41740 ppb	461.0	1.10%
Sn 189.927†	4306.6	1036.1 ug/L	16.99	1036.1 ppb	16.99	1.64%
Sr 421.552†	212601.3	2343.2 ug/L	115.54	2343.2 ppb	115.54	4.93%
Ti 334.940†	3001712.8	5695.1 ug/L	68.70	5695.1 ppb	68.70	1.21%
Tl 190.801†	2946.2	1235.7 ug/L	21.58	1235.7 ppb	21.58	1.75%
U 409.014†	-4009.8	-185.19 ug/L	5.701	-185.19 ppb	5.701	3.08%
V 292.402†	138717.6	1253.6 ug/L	28.04	1253.6 ppb	28.04	2.24%
Zn 213.857†	517325.7	6206.2 ug/L	125.04	6206.2 ppb	125.04	2.01%
SiO2†	1107983.3	90106 ug/L	1507.6	90106 ppb	1507.6	1.67%

Sequence No.: 3
 Sample ID: 248241001|959146|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 40
 Date Collected: 3/31/2010 13:32:31
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 248241001|959146|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib.	Sample Conc. Units	Analysis Time
1	Sc Radial	4099.7	4099.7	114 %			13:34:44
1	Y RADIAL	4949.5	4949.5	121.7 %			13:34:23
1	Al 396.153Radial†	58170.2	51028.0	58553 ug/L		58553 ppb	13:34:23
1	Ca 317.933Radial†	15194.7	13284.6	27154 ug/L		27154 ppb	13:34:23
1	Fe 238.204 Radial†	6637.9	5802.1	82020 ug/L		82020 ppb	13:34:23
1	K 766.490 Radial†	77037.1	64413.9	13546 ug/L		13546 ppb	13:34:23
1	Mg 279.077 IEC†	294.1	256.8	11252 ug/L		11252 ppb	13:34:44
1	Na 589.592 Radial†	1009.9	1781.4	918.54 ug/L		918.54 ppb	13:34:23
1	Sr 421.552†	24386.3	21332.3	234.99 ug/L		234.99 ppb	13:34:23
1	Sc 361.383	700807.7	700807.7	105.09 %			13:35:41
1	Y 371.029	610400.7	610400.7	115.59 %			13:35:41
1	Ag 328.068†	-4143.8	-4145.4	1.7206 ug/L		1.7206 ppb	13:35:46
1	As 188.979†	-33.9	-7.0	36.637 ug/L		36.637 ppb	13:36:06
1	B 249.677†	2660.7	2947.0	65.544 ug/L		65.544 ppb	13:35:46
1	Ba 233.527†	77928.5	74144.4	752.82 ug/L		752.82 ppb	13:35:46
1	Be 313.107†	-4394.7	-3.7	5.5164 ug/L		5.5164 ppb	13:35:46
1	Cd 226.502†	400.3	580.2	0.4835 ug/L		0.4835 ppb	13:36:06
1	Co 228.616†	1076.2	1074.0	21.930 ug/L		21.930 ppb	13:36:06
1	Cr 267.716†	5329.3	4976.2	85.430 ug/L		85.430 ppb	13:36:06
1	Cu 324.752†	18505.5	12255.8	47.901 ug/L		47.901 ppb	13:35:46
1	Mn 257.610†	1765840.5	1679938.0	2319.2 ug/L		2319.2 ppb	13:35:41
1	Mo 202.031†	3.7	-1.2	6.5719 ug/L		6.5719 ppb	13:36:06
1	Ni 231.604†	1924.5	1746.6	58.839 ug/L		58.839 ppb	13:36:06
1	P 214.914†	3740.3	3357.7	2218.6 ug/L		2218.6 ppb	13:36:06
1	Pb 220.353†	419.1	464.6	82.899 ug/L		82.899 ppb	13:36:06
1	S 181.975 Axial†	1461.5	1351.4	2133.0 ug/L		2133.0 ppb	13:36:06
1	Sb 206.836†	51.4	23.7	-0.7723 ug/L		-0.7723 ppb	13:36:06
1	Se 196.026†	-379.9	-334.9	-26.757 ug/L		-26.757 ppb	13:36:06
1	Si 251.611†	813710.6	773799.2	29606 ug/L		29606 ppb	13:35:41
1	Sn 189.927†	-124.3	-128.1	-24.953 ug/L		-24.953 ppb	13:36:06
1	Ti 334.940†	1346872.6	1283103.9	2433.3 ug/L		2433.3 ppb	13:35:41
1	Tl 190.801†	-111.5	-74.7	1.2342 ug/L		1.2342 ppb	13:36:06
1	U 409.014†	-7551.4	-4780.4	-200.41 ug/L		-200.41 ppb	13:35:46
1	V 292.402†	12494.4	13638.2	110.96 ug/L		110.96 ppb	13:35:46
1	Zn 213.857†	27994.8	25949.8	300.47 ug/L		300.47 ppb	13:35:46
1	SiO2†	795331.5	756295.6	61515 ug/L		61515 ppb	13:37:14
2	Sc Radial	3986.6	3986.6	111 %			13:35:09
2	Y RADIAL	4864.0	4864.0	119.6 %			13:34:49
2	Al 396.153Radial†	57460.9	51834.1	59478 ug/L		59478 ppb	13:34:49
2	Ca 317.933Radial†	15009.3	13495.1	27584 ug/L		27584 ppb	13:34:49
2	Fe 238.204 Radial†	6526.2	5866.5	82929 ug/L		82929 ppb	13:34:49
2	K 766.490 Radial†	75872.8	65278.9	13728 ug/L		13728 ppb	13:34:49
2	Mg 279.077 IEC†	285.3	256.2	11222 ug/L		11222 ppb	13:35:09
2	Na 589.592 Radial†	1032.6	1827.0	942.03 ug/L		942.03 ppb	13:34:49
2	Sr 421.552†	23920.8	21518.8	237.04 ug/L		237.04 ppb	13:34:49
2	Sc 361.383	727451.9	727451.9	109.08 %			13:36:12
2	Y 371.029	631982.6	631982.6	119.67 %			13:36:12
2	Ag 328.068†	-4039.2	-3905.0	3.3596 ug/L		3.3596 ppb	13:36:17
2	As 188.979†	-30.6	-2.8	38.210 ug/L		38.210 ppb	13:36:37
2	B 249.677†	2600.0	2798.7	61.424 ug/L		61.424 ppb	13:36:17
2	Ba 233.527†	78223.6	71698.7	728.10 ug/L		728.10 ppb	13:36:17
2	Be 313.107†	-4383.7	159.5	5.3723 ug/L		5.3723 ppb	13:36:17
2	Cd 226.502†	375.9	543.9	-0.1704 ug/L		-0.1704 ppb	13:36:37
2	Co 228.616†	1087.4	1046.8	21.396 ug/L		21.396 ppb	13:36:37
2	Cr 267.716†	5383.2	4839.8	83.421 ug/L		83.421 ppb	13:36:37
2	Cu 324.752†	18505.3	11610.6	45.655 ug/L		45.655 ppb	13:36:17
2	Mn 257.610†	1757371.0	1610626.3	2223.9 ug/L		2223.9 ppb	13:36:12
2	Mo 202.031†	8.3	2.9	7.0457 ug/L		7.0457 ppb	13:36:37
2	Ni 231.604†	1925.4	1680.4	56.609 ug/L		56.609 ppb	13:36:37

2	P 214.914†	3786.9	3270.0	2159.0 ug/L	2159.0 ppb	13:36:37
2	Pb 220.353†	383.1	416.9	75.281 ug/L	75.281 ppb	13:36:37
2	S 181.975 Axial†	1458.1	1297.4	2047.1 ug/L	2047.1 ppb	13:36:37
2	Sb 206.836†	68.7	37.7	5.3522 ug/L	5.3522 ppb	13:36:37
2	Se 196.026†	-361.7	-305.0	-0.7449 ug/L	-0.7449 ppb	13:36:37
2	Si 251.611†	812756.8	744563.4	28487 ug/L	28487 ppb	13:36:12
2	Sn 189.927†	-117.7	-117.7	-22.408 ug/L	-22.408 ppb	13:36:37
2	Ti 334.940†	1344190.3	1233700.4	2339.8 ug/L	2339.8 ppb	13:36:12
2	Tl 190.801†	-116.3	-75.2	-0.1922 ug/L	-0.1922 ppb	13:36:37
2	U 409.014†	-7505.5	-4475.1	-188.32 ug/L	-188.32 ppb	13:36:17
2	V 292.402†	12554.1	13257.4	107.45 ug/L	107.45 ppb	13:36:17
2	Zn 213.857†	28041.8	25017.1	289.09 ug/L	289.09 ppb	13:36:17
2	SiO2†	809860.6	741894.5	60343 ug/L	60343 ppb	13:37:20
3	Sc Radial	3942.2	3942.2	110 %		13:35:34
3	Y RADIAL	4955.6	4955.6	121.9 %		13:35:14
3	Al 396.153Radial†	55194.8	50353.9	57779 ug/L	57779 ppb	13:35:14
3	Ca 317.933Radial†	14417.4	13108.4	26794 ug/L	26794 ppb	13:35:14
3	Fe 238.204 Radial†	6255.5	5686.2	80381 ug/L	80381 ppb	13:35:14
3	K 766.490 Radial†	73164.3	63582.6	13371 ug/L	13371 ppb	13:35:14
3	Mg 279.077 IEC†	283.0	257.0	11262 ug/L	11262 ppb	13:35:34
3	Na 589.592 Radial†	877.3	1696.0	874.52 ug/L	874.52 ppb	13:35:14
3	Sr 421.552†	23016.1	20937.8	230.64 ug/L	230.64 ppb	13:35:14
3	Sc 361.383	707288.8	707288.8	106.06 %		13:36:43
3	Y 371.029	617045.4	617045.4	116.85 %		13:36:43
3	Ag 328.068†	-4267.8	-4226.1	0.7552 ug/L	0.7552 ppb	13:36:48
3	As 188.979†	-32.5	-5.4	36.981 ug/L	36.981 ppb	13:37:09
3	B 249.677†	2590.5	2857.7	63.419 ug/L	63.419 ppb	13:36:48
3	Ba 233.527†	79086.7	74556.9	756.95 ug/L	756.95 ppb	13:36:48
3	Be 313.107†	-4423.1	7.8	5.4998 ug/L	5.4998 ppb	13:36:48
3	Cd 226.502†	380.1	557.6	0.3028 ug/L	0.3028 ppb	13:37:09
3	Co 228.616†	1066.0	1055.1	21.485 ug/L	21.485 ppb	13:37:09
3	Cr 267.716†	5325.9	4926.5	84.494 ug/L	84.494 ppb	13:37:09
3	Cu 324.752†	18819.9	12390.8	48.293 ug/L	48.293 ppb	13:36:48
3	Mn 257.610†	1768933.2	1667456.2	2301.9 ug/L	2301.9 ppb	13:36:43
3	Mo 202.031†	17.0	11.3	7.6637 ug/L	7.6637 ppb	13:37:09
3	Ni 231.604†	1880.7	1688.6	56.883 ug/L	56.883 ppb	13:37:09
3	P 214.914†	3702.5	3289.4	2173.3 ug/L	2173.3 ppb	13:37:09
3	Pb 220.353†	365.6	410.5	74.036 ug/L	74.036 ppb	13:37:09
3	S 181.975 Axial†	1441.2	1319.5	2082.6 ug/L	2082.6 ppb	13:37:09
3	Sb 206.836†	52.8	24.5	-0.3234 ug/L	-0.3234 ppb	13:37:09
3	Se 196.026†	-372.9	-325.1	-23.631 ug/L	-23.631 ppb	13:37:09
3	Si 251.611†	816936.1	769745.0	29451 ug/L	29451 ppb	13:36:43
3	Sn 189.927†	-123.1	-125.9	-24.502 ug/L	-24.502 ppb	13:37:09
3	Ti 334.940†	1354055.9	1278132.4	2423.8 ug/L	2423.8 ppb	13:36:43
3	Tl 190.801†	-106.4	-68.9	3.3723 ug/L	3.3723 ppb	13:37:09
3	U 409.014†	-7605.5	-4765.6	-199.63 ug/L	-199.63 ppb	13:36:48
3	V 292.402†	12704.3	13727.1	112.05 ug/L	112.05 ppb	13:36:48
3	Zn 213.857†	28431.1	26117.1	302.75 ug/L	302.75 ppb	13:36:48
3	SiO2†	820783.1	773358.5	62902 ug/L	62902 ppb	13:37:25

Mean Data: 248241001|959146|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	711849.5	106.74 %	2.084			1.95%
Sc Radial	4009.5	112 %	2.3			2.03%
Y 371.029	619809.6	117.37 %	2.093			1.78%
Y RADIAL	4923.0	121.1 %	1.26			1.04%
Ag 328.068†	-4092.2	1.9452 ug/L	1.31666	1.9452 ppb	1.31666	67.69%
Al 396.153Radial†	51072.0	58603 ug/L	850.4	58603 ppb	850.4	1.45%
As 188.979†	-5.1	37.276 ug/L	0.8269	37.276 ppb	0.8269	2.22%
B 249.677†	2867.8	63.462 ug/L	2.0602	63.462 ppb	2.0602	3.25%
Ba 233.527†	73466.7	745.96 ug/L	15.600	745.96 ppb	15.600	2.09%
Be 313.107†	54.5	5.4629 ug/L	0.07884	5.4629 ppb	0.07884	1.44%
Ca 317.933Radial†	13296.0	27177 ug/L	395.7	27177 ppb	395.7	1.46%
Cd 226.502†	560.5	0.2053 ug/L	0.33768	0.2053 ppb	0.33768	164.49%
Co 228.616†	1058.6	21.604 ug/L	0.2859	21.604 ppb	0.2859	1.32%
Cr 267.716†	4914.2	84.448 ug/L	1.0055	84.448 ppb	1.0055	1.19%
Cu 324.752†	12085.7	47.283 ug/L	1.4235	47.283 ppb	1.4235	3.01%
Fe 238.204 Radial†	5784.9	81776 ug/L	1291.5	81776 ppb	1291.5	1.58%
K 766.490 Radial†	64425.1	13548 ug/L	178.4	13548 ppb	178.4	1.32%

Mg 279.077 IEC†	256.7	11245 ug/L	20.5	11245 ppb	20.5	0.18%
Mn. 257.610†	1652673.5	2281.7 ug/L	50.75	2281.7 ppb	50.75	2.22%
Mo 202.031†	4.3	7.0938 ug/L	0.54751	7.0938 ppb	0.54751	7.72%
Na 589.592 Radial†	1768.2	911.70 ug/L	34.272	911.70 ppb	34.272	3.76%
Ni 231.604†	1705.2	57.444 ug/L	1.2161	57.444 ppb	1.2161	2.12%
P 214.914†	3305.7	2183.6 ug/L	31.09	2183.6 ppb	31.09	1.42%
Pb 220.353†	430.7	77.405 ug/L	4.7979	77.405 ppb	4.7979	6.20%
S 181.975 Axial†	1322.7	2087.6 ug/L	43.14	2087.6 ppb	43.14	2.07%
Sb 206.836†	28.6	1.4189 ug/L	3.41380	1.4189 ppb	3.41380	240.60%
Se 196.026†	-321.6	-17.044 ug/L	14.2018	-17.044 ppb	14.2018	83.32%
Si 251.611†	762702.5	29181 ug/L	606.0	29181 ppb	606.0	2.08%
Sn 189.927†	-123.9	-23.954 ug/L	1.3579	-23.954 ppb	1.3579	5.67%
Sr 421.552†	21263.0	234.22 ug/L	3.268	234.22 ppb	3.268	1.40%
Ti 334.940†	1264978.9	2399.0 ug/L	51.48	2399.0 ppb	51.48	2.15%
Tl 190.801†	-72.9	1.4714 ug/L	1.79402	1.4714 ppb	1.79402	121.92%
U 409.014†	-4673.7	-196.12 ug/L	6.768	-196.12 ppb	6.768	3.45%
V 292.402†	13540.9	110.16 ug/L	2.404	110.16 ppb	2.404	2.18%
Zn 213.857†	25694.7	297.44 ug/L	7.314	297.44 ppb	7.314	2.46%
SiO2†	757182.9	61587 ug/L	1281.1	61587 ppb	1281.1	2.08%

Sequence No.: 4
 Sample ID: 1202056968|959146|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 41
 Date Collected: 3/31/2010 13:39:36
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 1202056968|959146|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4003.2	4003.2	112 %		13:41:48
1	Y RADIAL	4972.2	4972.2	122.3 %		13:41:28
1	Al 396.153Radial†	56661.4	50903.1	58409 ug/L	58409 ppb	13:41:28
1	Ca 317.933Radial†	16131.5	14445.1	29526 ug/L	29526 ppb	13:41:28
1	Fe 238.204 Radial†	6398.3	5727.5	80964 ug/L	80964 ppb	13:41:28
1	K 766.490 Radial†	76964.4	65974.4	13873 ug/L	13873 ppb	13:41:28
1	Mg 279.077 IEC†	280.8	251.1	11000 ug/L	11000 ppb	13:41:48
1	Na 589.592 Radial†	1114.6	1896.6	977.91 ug/L	977.91 ppb	13:41:28
1	Sr 421.552†	24693.8	22122.5	243.68 ug/L	243.68 ppb	13:41:28
1	Sc 361.383	707964.7	707964.7	106.16 %		13:42:46
1	Y 371.029	611402.4	611402.4	115.78 %		13:42:46
1	Ag 328.068†	-3977.6	-3948.9	2.4790 ug/L	2.4790 ppb	13:42:51
1	As 188.979†	-26.1	0.7	41.015 ug/L	41.015 ppb	13:43:11
1	B 249.677†	2374.4	2651.7	57.807 ug/L	57.807 ppb	13:42:51
1	Ba 233.527†	78481.3	73915.4	750.47 ug/L	750.47 ppb	13:42:51
1	Be 313.107†	-5461.5	-966.3	5.2830 ug/L	5.2830 ppb	13:42:51
1	Cd 226.502†	386.6	563.4	0.3326 ug/L	0.3326 ppb	13:43:11
1	Co 228.616†	1063.1	1051.3	21.202 ug/L	21.202 ppb	13:43:11
1	Cr 267.716†	4867.3	4489.7	77.834 ug/L	77.834 ppb	13:43:11
1	Cu 324.752†	19148.8	12683.7	49.358 ug/L	49.358 ppb	13:42:51
1	Mn 257.610†	1919230.7	1807442.7	2494.6 ug/L	2494.6 ppb	13:42:46
1	Mo 202.031†	9.8	4.5	7.0787 ug/L	7.0787 ppb	13:43:11
1	Ni 231.604†	1814.8	1624.8	54.735 ug/L	54.735 ppb	13:43:11
1	P 214.914†	3825.2	3401.6	2248.9 ug/L	2248.9 ppb	13:43:11
1	Pb 220.353†	423.3	464.5	82.991 ug/L	82.991 ppb	13:43:11
1	S 181.975 Axial†	1461.4	1337.2	2110.6 ug/L	2110.6 ppb	13:43:11
1	Sb 206.836†	64.7	35.7	3.9829 ug/L	3.9829 ppb	13:43:11
1	Se 196.026†	-357.0	-309.7	-9.9545 ug/L	-9.9545 ppb	13:43:11
1	Si 251.611†	916531.7	862827.7	33012 ug/L	33012 ppb	13:42:46
1	Sn 189.927†	-126.6	-129.0	-24.764 ug/L	-24.764 ppb	13:43:11
1	Ti 334.940†	1402552.3	1322596.7	2508.5 ug/L	2508.5 ppb	13:42:46
1	Tl 190.801†	-130.9	-91.8	-4.0999 ug/L	-4.0999 ppb	13:43:11
1	U 409.014†	-7382.9	-4549.1	-191.04 ug/L	-191.04 ppb	13:42:51
1	V 292.402†	12345.8	13378.0	108.66 ug/L	108.66 ppb	13:42:51
1	Zn 213.857†	28140.4	25817.6	299.06 ug/L	299.06 ppb	13:42:51
1	SiO2†	920816.7	866850.4	70507 ug/L	70507 ppb	13:44:20
2	Sc Radial	4067.6	4067.6	113 %		13:42:14
2	Y RADIAL	5084.3	5084.3	125.0 %		13:41:54
2	Al 396.153Radial†	55838.5	49372.7	56653 ug/L	56653 ppb	13:41:54
2	Ca 317.933Radial†	15773.6	13900.3	28412 ug/L	28412 ppb	13:41:54
2	Fe 238.204 Radial†	6295.1	5545.6	78393 ug/L	78393 ppb	13:41:54
2	K 766.490 Radial†	75771.9	63829.8	13422 ug/L	13422 ppb	13:41:54
2	Mg 279.077 IEC†	283.4	249.4	10929 ug/L	10929 ppb	13:42:14
2	Na 589.592 Radial†	1107.4	1874.4	966.48 ug/L	966.48 ppb	13:41:54
2	Sr 421.552†	24349.9	21468.6	236.48 ug/L	236.48 ppb	13:41:54
2	Sc 361.383	707160.8	707160.8	106.04 %		13:43:17
2	Y 371.029	611031.7	611031.7	115.71 %		13:43:17
2	Ag 328.068†	-4076.6	-4046.5	1.1359 ug/L	1.1359 ppb	13:43:22
2	As 188.979†	-43.1	-15.4	31.987 ug/L	31.987 ppb	13:43:42
2	B 249.677†	2423.9	2701.0	59.544 ug/L	59.544 ppb	13:43:22
2	Ba 233.527†	79160.5	74640.0	757.72 ug/L	757.72 ppb	13:43:22
2	Be 313.107†	-5659.1	-1158.6	5.1753 ug/L	5.1753 ppb	13:43:22
2	Cd 226.502†	383.6	561.0	0.5628 ug/L	0.5628 ppb	13:43:42
2	Co 228.616†	1051.0	1041.0	21.003 ug/L	21.003 ppb	13:43:42
2	Cr 267.716†	4866.9	4494.5	77.635 ug/L	77.635 ppb	13:43:42
2	Cu 324.752†	19444.4	12983.0	50.279 ug/L	50.279 ppb	13:43:22
2	Mn 257.610†	1906205.1	1797214.0	2480.3 ug/L	2480.3 ppb	13:43:17
2	Mo 202.031†	19.6	13.8	7.7708 ug/L	7.7708 ppb	13:43:42
2	Ni 231.604†	1846.0	1656.1	55.790 ug/L	55.790 ppb	13:43:42

2	P 214.914†	3852.3	3431.3	2270.5 ug/L	2270.5 ppb	13:43:42
2	Pb 220.353†	395.3	438.6	78.554 ug/L	78.554 ppb	13:43:42
2	S 181.975 Axial†	1492.2	1367.9	2159.5 ug/L	2159.5 ppb	13:43:42
2	Sb 206.836†	46.6	18.7	-2.9662 ug/L	-2.9662 ppb	13:43:42
2	Se 196.026†	-367.3	-319.8	-25.095 ug/L	-25.095 ppb	13:43:42
2	Si 251.611†	910412.4	858038.4	32829 ug/L	32829 ppb	13:43:17
2	Sn 189.927†	-130.6	-132.9	-25.886 ug/L	-25.886 ppb	13:43:42
2	Ti 334.940†	1394257.4	1316276.0	2496.3 ug/L	2496.3 ppb	13:43:17
2	Tl 190.801†	-100.9	-63.7	6.8845 ug/L	6.8845 ppb	13:43:42
2	U 409.014†	-7181.5	-4367.0	-183.47 ug/L	-183.47 ppb	13:43:22
2	V 292.402†	12512.2	13548.1	110.64 ug/L	110.64 ppb	13:43:22
2	Zn 213.857†	28451.1	26140.8	303.33 ug/L	303.33 ppb	13:43:22
2	SiO2†	930449.6	876920.9	71326 ug/L	71326 ppb	13:44:26
3	Sc Radial	4004.5	4004.5	112 %		13:42:39
3	Y RADIAL	4972.5	4972.5	122.3 %		13:42:19
3	Al 396.153Radial†	54714.0	49141.5	56388 ug/L	56388 ppb	13:42:19
3	Ca 317.933Radial†	15502.7	13876.9	28364 ug/L	28364 ppb	13:42:19
3	Fe 238.204 Radial†	6151.5	5504.4	77812 ug/L	77812 ppb	13:42:19
3	K 766.490 Radial†	74310.6	63573.9	13369 ug/L	13369 ppb	13:42:19
3	Mg 279.077 IEC†	278.1	248.6	10893 ug/L	10893 ppb	13:42:39
3	Na 589.592 Radial†	994.3	1788.5	922.17 ug/L	922.17 ppb	13:42:19
3	Sr 421.552†	23767.9	21285.6	234.46 ug/L	234.46 ppb	13:42:19
3	Sc 361.383	726359.0	726359.0	108.92 %		13:43:48
3	Y 371.029	626218.0	626218.0	118.58 %		13:43:48
3	Ag 328.068†	-4114.8	-3980.0	1.3420 ug/L	1.3420 ppb	13:43:53
3	As 188.979†	-36.6	-8.3	35.530 ug/L	35.530 ppb	13:44:13
3	B 249.677†	2510.1	2719.7	60.142 ug/L	60.142 ppb	13:43:53
3	Ba 233.527†	80746.5	74123.0	752.48 ug/L	752.48 ppb	13:43:53
3	Be 313.107†	-5707.7	-1062.2	5.2229 ug/L	5.2229 ppb	13:43:53
3	Cd 226.502†	386.2	553.8	0.5114 ug/L	0.5114 ppb	13:44:13
3	Co 228.616†	1074.3	1036.3	20.877 ug/L	20.877 ppb	13:44:13
3	Cr 267.716†	4964.5	4462.8	77.086 ug/L	77.086 ppb	13:44:13
3	Cu 324.752†	19684.3	12718.6	49.310 ug/L	49.310 ppb	13:43:53
3	Mn 257.610†	1961843.4	1800783.8	2485.1 ug/L	2485.1 ppb	13:43:48
3	Mo 202.031†	12.3	6.5	7.0151 ug/L	7.0151 ppb	13:44:13
3	Ni 231.604†	1820.5	1586.7	53.451 ug/L	53.451 ppb	13:44:13
3	P 214.914†	3951.3	3426.2	2267.6 ug/L	2267.6 ppb	13:44:13
3	Pb 220.353†	420.2	451.6	80.667 ug/L	80.667 ppb	13:44:13
3	S 181.975 Axial†	1529.2	1364.6	2154.4 ug/L	2154.4 ppb	13:44:13
3	Sb 206.836†	58.6	28.6	1.1782 ug/L	1.1782 ppb	13:44:13
3	Se 196.026†	-365.1	-308.6	-18.013 ug/L	-18.013 ppb	13:44:13
3	Si 251.611†	938613.9	861238.4	32951 ug/L	32951 ppb	13:43:48
3	Sn 189.927†	-119.4	-119.4	-22.712 ug/L	-22.712 ppb	13:44:13
3	Ti 334.940†	1433930.0	1317947.8	2499.5 ug/L	2499.5 ppb	13:43:48
3	Tl 190.801†	-124.0	-82.4	-0.4874 ug/L	-0.4874 ppb	13:44:13
3	U 409.014†	-7336.9	-4330.7	-181.95 ug/L	-181.95 ppb	13:43:53
3	V 292.402†	12920.5	13611.2	111.30 ug/L	111.30 ppb	13:43:53
3	Zn 213.857†	29080.7	26009.6	301.85 ug/L	301.85 ppb	13:43:53
3	SiO2†	915396.6	839908.0	68315 ug/L	68315 ppb	13:44:32

Mean Data: 1202056968|959146|1

Analyte	Mean Corrected	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample	Std.Dev.	RSD
Sc 361.383	713828.2	107.04 %		1.628				1.52%
Sc Radial	4025.1	112 %		1.0				0.91%
Y 371.029	616217.3	116.69 %		1.640				1.41%
Y RADIAL	5009.7	123.2 %		1.59				1.29%
Ag 328.068†	-3991.8	1.6523 ug/L		0.72329	1.6523 ppb		0.72329	43.77%
Al 396.153Radial†	49805.8	57150 ug/L		1098.5	57150 ppb		1098.5	1.92%
As 188.979†	-7.7	36.177 ug/L		4.5489	36.177 ppb		4.5489	12.57%
B 249.677†	2690.8	59.164 ug/L		1.2125	59.164 ppb		1.2125	2.05%
Ba 233.527†	74226.2	753.56 ug/L		3.746	753.56 ppb		3.746	0.50%
Be 313.107†	-1062.4	5.2271 ug/L		0.05398	5.2271 ppb		0.05398	1.03%
Ca 317.933Radial†	14074.1	28768 ug/L		657.2	28768 ppb		657.2	2.28%
Cd 226.502†	559.4	0.4689 ug/L		0.12084	0.4689 ppb		0.12084	25.77%
Co 228.616†	1042.9	21.027 ug/L		0.1635	21.027 ppb		0.1635	0.78%
Cr 267.716†	4482.4	77.518 ug/L		0.3875	77.518 ppb		0.3875	0.50%
Cu 324.752†	12795.1	49.649 ug/L		0.5461	49.649 ppb		0.5461	1.10%
Fe 238.204 Radial†	5592.5	79056 ug/L		1677.5	79056 ppb		1677.5	2.12%
K 766.490 Radial†	64459.3	13555 ug/L		277.2	13555 ppb		277.2	2.05%

Mg 279.077 IEC†	249.7	10941 ug/L	54.5	10941 ppb	54.5	0.50%
Mn 257.610†	1801813.5	2486.7 ug/L	7.29	2486.7 ppb	7.29	0.29%
Mo 202.031†	8.3	7.2882 ug/L	0.41918	7.2882 ppb	0.41918	5.75%
Na 589.592 Radial†	1853.1	955.52 ug/L	29.441	955.52 ppb	29.441	3.08%
Ni 231.604†	1622.5	54.659 ug/L	1.1717	54.659 ppb	1.1717	2.14%
P 214.914†	3419.7	2262.3 ug/L	11.71	2262.3 ppb	11.71	0.52%
Pb 220.353†	451.6	80.738 ug/L	2.2192	80.738 ppb	2.2192	2.75%
S 181.975 Axial†	1356.6	2141.5 ug/L	26.91	2141.5 ppb	26.91	1.26%
Sb 206.836†	27.6	0.7317 ug/L	3.49598	0.7317 ppb	3.49598	477.82%
Se 196.026†	-312.7	-17.688 ug/L	7.5757	-17.688 ppb	7.5757	42.83%
Si 251.611†	860701.5	32931 ug/L	93.3	32931 ppb	93.3	0.28%
Sn 189.927†	-127.1	-24.454 ug/L	1.6096	-24.454 ppb	1.6096	6.58%
Sr 421.552†	21625.6	238.21 ug/L	4.846	238.21 ppb	4.846	2.03%
Ti 334.940†	1318940.2	2501.4 ug/L	6.29	2501.4 ppb	6.29	0.25%
Tl 190.801†	-79.3	0.7657 ug/L	5.59840	0.7657 ppb	5.59840	731.14%
U 409.014†	-4415.6	-185.49 ug/L	4.864	-185.49 ppb	4.864	2.62%
V 292.402†	13512.4	110.20 ug/L	1.372	110.20 ppb	1.372	1.24%
Zn 213.857†	25989.3	301.41 ug/L	2.172	301.41 ppb	2.172	0.72%
SiO2†	861226.4	70049 ug/L	1556.5	70049 ppb	1556.5	2.22%

Sequence No.: 5

Sample ID: 1202056970|959146|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 42

Date Collected: 3/31/2010 13:46:42

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056970|959146|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4076.4	4076.4	114 %		13:48:55
1	Y RADIAL	4948.4	4948.4	121.7 %		13:48:55
1	Al 396.153Radial†	94725.6	83501.4	95793 ug/L	95793 ppb	13:48:35
1	Ca 317.933Radial†	18565.9	16328.7	33376 ug/L	33376 ppb	13:48:35
1	Fe 238.204 Radial†	7026.8	6177.9	87344 ug/L	87344 ppb	13:48:55
1	K 766.490 Radial†	117023.4	100002.3	21031 ug/L	21031 ppb	13:48:35
1	Mg 279.077 IEC†	479.1	421.2	18507 ug/L	18507 ppb	13:48:55
1	Na 589.592 Radial†	10976.7	10560.8	5445.4 ug/L	5445.4 ppb	13:48:35
1	Sr 421.552†	75222.5	66208.1	729.70 ug/L	729.70 ppb	13:48:35
1	Sc 361.383	703887.6	703887.6	105.55 %		13:49:54
1	Y 371.029	610881.7	610881.7	115.68 %		13:49:54
1	Ag 328.068†	74533.7	70414.6	435.50 ug/L	435.50 ppb	13:49:54
1	As 188.979†	842.9	823.9	476.16 ug/L	476.16 ppb	13:50:14
1	B 249.677†	20068.8	19429.2	504.98 ug/L	504.98 ppb	13:49:54
1	Ba 233.527†	132380.4	125410.2	1272.7 ug/L	1272.7 ppb	13:49:54
1	Be 313.107†	1145935.4	1089891.0	464.15 ug/L	464.15 ppb	13:49:54
1	Cd 226.502†	29477.2	28127.3	425.52 ug/L	425.52 ppb	13:50:14
1	Co 228.616†	18386.5	17470.2	446.61 ug/L	446.61 ppb	13:50:14
1	Cr 267.716†	39417.7	37250.9	582.60 ug/L	582.60 ppb	13:49:54
1	Cu 324.752†	175909.7	161310.8	576.41 ug/L	576.41 ppb	13:49:54
1	Mn 257.610†	2197925.8	2081963.1	2872.6 ug/L	2872.6 ppb	13:49:54
1	Mo 202.031†	4938.7	4674.4	464.20 ug/L	464.20 ppb	13:50:14
1	Ni 231.604†	16976.7	15999.8	538.87 ug/L	538.87 ppb	13:50:14
1	P 214.914†	4763.6	4311.5	2770.4 ug/L	2770.4 ppb	13:50:14
1	Pb 220.353†	3128.0	3029.4	511.13 ug/L	511.13 ppb	13:50:14
1	S 181.975 Axial†	4801.8	4510.1	7137.3 ug/L	7137.3 ppb	13:50:14
1	Sb 206.836†	1131.6	1046.9	437.74 ug/L	437.74 ppb	13:50:14
1	Se 196.026†	249.2	262.7	464.72 ug/L	464.72 ppb	13:50:14
1	Si 251.611†	865023.5	819027.2	31331 ug/L	31331 ppb	13:49:54
1	Sn 189.927†	1960.9	1848.1	443.35 ug/L	443.35 ppb	13:50:14
1	Ti 334.940†	1869009.2	1772192.3	3359.6 ug/L	3359.6 ppb	13:49:54
1	Tl 190.801†	964.6	945.4	413.44 ug/L	413.44 ppb	13:50:14
1	U 409.014†	5348.0	7472.5	287.15 ug/L	287.15 ppb	13:49:54
1	V 292.402†	70737.3	68768.2	624.52 ug/L	624.52 ppb	13:49:54
1	Zn 213.857†	71541.2	67091.1	792.42 ug/L	792.42 ppb	13:49:54
1	SiO2†	879787.7	833001.7	67741 ug/L	67741 ppb	13:51:15
2	Sc Radial	4033.2	4033.2	112 %		13:49:20
2	Y RADIAL	4906.2	4906.2	120.7 %		13:49:20
2	Al 396.153Radial†	92860.6	82735.0	94913 ug/L	94913 ppb	13:49:00
2	Ca 317.933Radial†	18189.2	16168.6	33049 ug/L	33049 ppb	13:49:00
2	Fe 238.204 Radial†	7002.6	6222.6	87976 ug/L	87976 ppb	13:49:20
2	K 766.490 Radial†	115063.0	99361.1	20896 ug/L	20896 ppb	13:49:00
2	Mg 279.077 IEC†	474.3	421.4	18517 ug/L	18517 ppb	13:49:20
2	Na 589.592 Radial†	10744.3	10457.4	5392.1 ug/L	5392.1 ppb	13:49:00
2	Sr 421.552†	73302.8	65209.1	718.69 ug/L	718.69 ppb	13:49:00
2	Sc 361.383	698611.5	698611.5	104.76 %		13:50:21
2	Y 371.029	607212.1	607212.1	114.98 %		13:50:21
2	Ag 328.068†	74025.8	70463.2	435.98 ug/L	435.98 ppb	13:50:21
2	As 188.979†	849.2	835.9	482.55 ug/L	482.55 ppb	13:50:41
2	B 249.677†	19884.7	19397.1	504.01 ug/L	504.01 ppb	13:50:21
2	Ba 233.527†	131390.0	125412.0	1272.8 ug/L	1272.8 ppb	13:50:21
2	Be 313.107†	1142499.0	1094810.4	466.23 ug/L	466.23 ppb	13:50:21
2	Cd 226.502†	29439.3	28302.1	428.16 ug/L	428.16 ppb	13:50:41
2	Co 228.616†	18374.9	17590.6	449.72 ug/L	449.72 ppb	13:50:41
2	Cr 267.716†	39240.8	37364.1	584.41 ug/L	584.41 ppb	13:50:21
2	Cu 324.752†	174778.7	161489.9	577.07 ug/L	577.07 ppb	13:50:21
2	Mn 257.610†	2184496.3	2084870.5	2876.7 ug/L	2876.7 ppb	13:50:21
2	Mo 202.031†	4950.3	4720.8	468.78 ug/L	468.78 ppb	13:50:41
2	Ni 231.604†	16976.0	16120.6	542.94 ug/L	542.94 ppb	13:50:41

2	P 214.914†	4774.5	4356.1	2799.8 ug/L	2799.8 ppb	13:50:41
2	Pb 220.353†	3123.9	3047.8	513.86 ug/L	513.86 ppb	13:50:41
2	S 181.975 Axial†	4803.1	4545.7	7194.0 ug/L	7194.0 ppb	13:50:41
2	Sb 206.836†	1100.9	1025.7	429.10 ug/L	429.10 ppb	13:50:41
2	Se 196.026†	259.6	274.4	475.28 ug/L	475.28 ppb	13:50:41
2	Si 251.611†	859041.4	819506.4	31349 ug/L	31349 ppb	13:50:21
2	Sn 189.927†	1954.9	1856.4	445.25 ug/L	445.25 ppb	13:50:41
2	Ti 334.940†	1857466.7	1774547.4	3364.0 ug/L	3364.0 ppb	13:50:21
2	Tl 190.801†	985.8	972.5	424.24 ug/L	424.24 ppb	13:50:41
2	U 409.014†	5357.0	7519.3	288.94 ug/L	288.94 ppb	13:50:21
2	V 292.402†	70409.3	68961.3	626.27 ug/L	626.27 ppb	13:50:21
2	Zn 213.857†	71083.3	67165.9	793.20 ug/L	793.20 ppb	13:50:21
2	SiO2†	865430.0	825591.2	67138 ug/L	67138 ppb	13:51:21
3	Sc Radial	4109.5	4109.5	115 %		13:49:45
3	Y RADIAL	4985.7	4985.7	122.6 %		13:49:45
3	Al 396.153Radial†	95057.1	83119.4	95354 ug/L	95354 ppb	13:49:25
3	Ca 317.933Radial†	18666.5	16285.0	33287 ug/L	33287 ppb	13:49:25
3	Fe 238.204 Radial†	7078.8	6173.4	87281 ug/L	87281 ppb	13:49:45
3	K 766.490 Radial†	117825.7	99873.3	21004 ug/L	21004 ppb	13:49:25
3	Mg 279.077 IEC†	482.6	420.8	18489 ug/L	18489 ppb	13:49:45
3	Na 589.592 Radial†	11002.3	10505.3	5416.8 ug/L	5416.8 ppb	13:49:25
3	Sr 421.552†	75067.2	65539.2	722.32 ug/L	722.32 ppb	13:49:25
3	Sc 361.383	709757.9	709757.9	106.43 %		13:50:49
3	Y 371.029	616493.7	616493.7	116.74 %		13:50:49
3	Ag 328.068†	74861.4	70138.5	433.88 ug/L	433.88 ppb	13:50:49
3	As 188.979†	849.7	823.7	475.95 ug/L	475.95 ppb	13:51:09
3	B 249.677†	20270.8	19461.7	505.87 ug/L	505.87 ppb	13:50:49
3	Ba 233.527†	133169.4	125114.2	1269.7 ug/L	1269.7 ppb	13:50:49
3	Be 313.107†	1159483.0	1093640.8	465.70 ug/L	465.70 ppb	13:50:49
3	Cd 226.502†	29534.8	27950.4	422.80 ug/L	422.80 ppb	13:51:09
3	Co 228.616†	18409.8	17348.0	443.45 ug/L	443.45 ppb	13:51:09
3	Cr 267.716†	39687.0	37195.1	581.73 ug/L	581.73 ppb	13:50:49
3	Cu 324.752†	176681.1	160657.2	574.09 ug/L	574.09 ppb	13:50:49
3	Mn 257.610†	2211667.0	2077651.2	2866.7 ug/L	2866.7 ppb	13:50:49
3	Mo 202.031†	4983.2	4677.5	464.50 ug/L	464.50 ppb	13:51:09
3	Ni 231.604†	17000.2	15888.8	535.13 ug/L	535.13 ppb	13:51:09
3	P 214.914†	4772.3	4282.4	2751.1 ug/L	2751.1 ppb	13:51:09
3	Pb 220.353†	3132.2	3008.8	507.67 ug/L	507.67 ppb	13:51:09
3	S 181.975 Axial†	4806.6	4477.0	7084.8 ug/L	7084.8 ppb	13:51:09
3	Sb 206.836†	1126.4	1033.1	432.08 ug/L	432.08 ppb	13:51:09
3	Se 196.026†	230.5	243.2	449.20 ug/L	449.20 ppb	13:51:09
3	Si 251.611†	870579.1	817468.9	31271 ug/L	31271 ppb	13:50:49
3	Sn 189.927†	1976.9	1847.8	443.25 ug/L	443.25 ppb	13:51:09
3	Ti 334.940†	1879159.3	1767083.6	3349.9 ug/L	3349.9 ppb	13:50:49
3	Tl 190.801†	975.4	948.0	414.38 ug/L	414.38 ppb	13:51:09
3	U 409.014†	5406.9	7486.0	287.70 ug/L	287.70 ppb	13:50:49
3	V 292.402†	71194.0	68643.0	623.39 ug/L	623.39 ppb	13:50:49
3	Zn 213.857†	72086.4	67042.7	791.87 ug/L	791.87 ppb	13:50:49
3	SiO2†	856356.8	804091.7	65390 ug/L	65390 ppb	13:51:27

Mean Data: 1202056970|959146|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	704085.7	105.58 %		0.836			0.79%
Sc Radial	4073.0	113 %		1.1			0.94%
Y 371.029	611529.2	115.80 %		0.885			0.76%
Y RADIAL	4946.8	121.6 %		0.98			0.80%
Ag 328.068†	70338.8	435.12 ug/L		1.101	435.12 ppb	1.101	0.25%
Al 396.153Radial†	83118.6	95353 ug/L		439.8	95353 ppb	439.8	0.46%
As 188.979†	827.8	478.22 ug/L		3.749	478.22 ppb	3.749	0.78%
B 249.677†	19429.4	504.95 ug/L		0.932	504.95 ppb	0.932	0.18%
Ba 233.527†	125312.1	1271.7 ug/L		1.74	1271.7 ppb	1.74	0.14%
Be 313.107†	1092780.7	465.36 ug/L		1.077	465.36 ppb	1.077	0.23%
Ca 317.933Radial†	16260.8	33237 ug/L		169.2	33237 ppb	169.2	0.51%
Cd 226.502†	28126.6	425.49 ug/L		2.681	425.49 ppb	2.681	0.63%
Co 228.616†	17469.6	446.59 ug/L		3.135	446.59 ppb	3.135	0.70%
Cr 267.716†	37270.1	582.92 ug/L		1.364	582.92 ppb	1.364	0.23%
Cu 324.752†	161152.6	575.86 ug/L		1.569	575.86 ppb	1.569	0.27%
Fe 238.204 Radial†	6191.3	87534 ug/L		384.5	87534 ppb	384.5	0.44%
K 766.490 Radial†	99745.6	20977 ug/L		71.3	20977 ppb	71.3	0.34%

Mg 279.077 IEC†	421.1	18504 ug/L	14.2	18504 ppb	14.2	0.08%
Mn 257.610†	2081494.9	2872.0 ug/L	5.03	2872.0 ppb	5.03	0.18%
Mo 202.031†	4690.9	465.82 ug/L	2.565	465.82 ppb	2.565	0.55%
Na 589.592 Radial†	10507.8	5418.1 ug/L	26.67	5418.1 ppb	26.67	0.49%
Ni 231.604†	16003.1	538.98 ug/L	3.905	538.98 ppb	3.905	0.72%
P 214.914†	4316.7	2773.8 ug/L	24.55	2773.8 ppb	24.55	0.89%
Pb 220.353†	3028.7	510.89 ug/L	3.102	510.89 ppb	3.102	0.61%
S 181.975 Axial†	4510.9	7138.7 ug/L	54.57	7138.7 ppb	54.57	0.76%
Sb 206.836†	1035.2	432.97 ug/L	4.391	432.97 ppb	4.391	1.01%
Se 196.026†	260.1	463.07 ug/L	13.117	463.07 ppb	13.117	2.83%
Si 251.611†	818667.5	31317 ug/L	40.7	31317 ppb	40.7	0.13%
Sn 189.927†	1850.7	443.95 ug/L	1.130	443.95 ppb	1.130	0.25%
Sr 421.552†	65652.2	723.57 ug/L	5.610	723.57 ppb	5.610	0.78%
Ti 334.940†	1771274.5	3357.9 ug/L	7.21	3357.9 ppb	7.21	0.21%
Tl 190.801†	955.3	417.36 ug/L	5.980	417.36 ppb	5.980	1.43%
U 409.014†	7492.6	287.93 ug/L	0.918	287.93 ppb	0.918	0.32%
V 292.402†	68790.8	624.73 ug/L	1.450	624.73 ppb	1.450	0.23%
Zn 213.857†	67099.9	792.50 ug/L	0.668	792.50 ppb	0.668	0.08%
SiO2†	820894.9	66756 ug/L	1221.4	66756 ppb	1221.4	1.83%

Sequence No.: 6
 Sample ID: 1202056971|959146|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 43
 Date Collected: 3/31/2010 13:53:37
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 1202056971|959146|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4092.3	4092.3	114 %		13:55:50
1	Y RADIAL	5039.2	5039.2	123.9 %		13:55:50
1	Al 396.153Radial†	95293.1	83674.2	95990 ug/L	95990 ppb	13:55:30
1	Ca 317.933Radial†	19164.9	16790.3	34320 ug/L	34320 ppb	13:55:30
1	Fe 238.204 Radial†	7102.6	6220.2	87942 ug/L	87942 ppb	13:55:50
1	K 766.490 Radial†	120064.0	102267.3	21507 ug/L	21507 ppb	13:55:30
1	Mg 279.077 IEC†	486.7	426.2	18728 ug/L	18728 ppb	13:55:50
1	Na 589.592 Radial†	11396.2	10891.0	5615.6 ug/L	5615.6 ppb	13:55:30
1	Sr 421.552†	76981.8	67492.9	743.85 ug/L	743.85 ppb	13:55:30
1	Sc 361.383	694307.9	694307.9	104.11 %		13:56:49
1	Y 371.029	606542.1	606542.1	114.86 %		13:56:49
1	Ag 328.068†	75063.0	71897.4	444.27 ug/L	444.27 ppb	13:56:49
1	As 188.979†	842.5	834.5	480.51 ug/L	480.51 ppb	13:57:09
1	B 249.677†	20143.5	19763.3	513.80 ug/L	513.80 ppb	13:56:49
1	Ba 233.527†	135597.4	130230.7	1321.5 ug/L	1321.5 ppb	13:56:49
1	Be 313.107†	1158268.2	1116717.1	475.06 ug/L	475.06 ppb	13:56:49
1	Cd 226.502†	29789.2	28812.4	436.05 ug/L	436.05 ppb	13:57:09
1	Co 228.616†	18562.4	17879.4	457.56 ug/L	457.56 ppb	13:57:09
1	Cr 267.716†	40615.7	38916.9	608.29 ug/L	608.29 ppb	13:56:49
1	Cu 324.752†	177507.7	165145.3	590.04 ug/L	590.04 ppb	13:56:49
1	Mn 257.610†	2259784.3	2170111.6	2994.0 ug/L	2994.0 ppb	13:56:49
1	Mo 202.031†	4988.4	4786.7	475.23 ug/L	475.23 ppb	13:57:09
1	Ni 231.604†	17301.9	16534.0	556.87 ug/L	556.87 ppb	13:57:09
1	P 214.914†	4837.7	4445.0	2858.0 ug/L	2858.0 ppb	13:57:09
1	Pb 220.353†	3190.1	3129.9	527.56 ug/L	527.56 ppb	13:57:09
1	S 181.975 Axial†	4861.3	4630.0	7327.6 ug/L	7327.6 ppb	13:57:09
1	Sb 206.836†	1144.5	1074.0	449.93 ug/L	449.93 ppb	13:57:09
1	Se 196.026†	260.4	276.7	477.27 ug/L	477.27 ppb	13:57:09
1	Si 251.611†	781811.1	750408.1	28705 ug/L	28705 ppb	13:56:49
1	Sn 189.927†	1993.0	1904.6	456.88 ug/L	456.88 ppb	13:57:09
1	Ti 334.940†	1764529.4	1696269.9	3215.9 ug/L	3215.9 ppb	13:56:49
1	Tl 190.801†	994.1	986.3	429.01 ug/L	429.01 ppb	13:57:09
1	U 409.014†	5163.9	7365.6	282.75 ug/L	282.75 ppb	13:56:49
1	V 292.402†	70701.2	69658.2	632.93 ug/L	632.93 ppb	13:56:49
1	Zn 213.857†	72226.8	68684.8	811.43 ug/L	811.43 ppb	13:56:49
1	SiO2†	797507.9	765471.4	62248 ug/L	62248 ppb	13:58:09
2	Sc Radial	4067.9	4067.9	113 %		13:56:15
2	Y RADIAL	5008.9	5008.9	123.2 %		13:56:15
2	Al 396.153Radial†	95857.0	84673.2	97137 ug/L	97137 ppb	13:55:55
2	Ca 317.933Radial†	19243.8	16960.8	34668 ug/L	34668 ppb	13:55:55
2	Fe 238.204 Radial†	7065.1	6224.5	88004 ug/L	88004 ppb	13:56:15
2	K 766.490 Radial†	120268.6	103079.7	21678 ug/L	21678 ppb	13:55:55
2	Mg 279.077 IEC†	483.5	425.9	18716 ug/L	18716 ppb	13:56:15
2	Na 589.592 Radial†	11261.8	10832.3	5585.4 ug/L	5585.4 ppb	13:55:55
2	Sr 421.552†	76980.7	67897.2	748.31 ug/L	748.31 ppb	13:55:55
2	Sc 361.383	700236.9	700236.9	105.00 %		13:57:16
2	Y 371.029	611977.8	611977.8	115.89 %		13:57:16
2	Ag 328.068†	75544.8	71745.8	443.41 ug/L	443.41 ppb	13:57:16
2	As 188.979†	873.5	857.2	492.32 ug/L	492.32 ppb	13:57:36
2	B 249.677†	20251.8	19702.6	512.17 ug/L	512.17 ppb	13:57:16
2	Ba 233.527†	136052.0	129560.9	1314.7 ug/L	1314.7 ppb	13:57:16
2	Be 313.107†	1170250.4	1118708.8	475.89 ug/L	475.89 ppb	13:57:16
2	Cd 226.502†	29939.3	28713.0	434.51 ug/L	434.51 ppb	13:57:36
2	Co 228.616†	18667.9	17829.0	456.25 ug/L	456.25 ppb	13:57:36
2	Cr 267.716†	40734.0	38699.3	604.94 ug/L	604.94 ppb	13:57:16
2	Cu 324.752†	178943.2	165068.8	589.77 ug/L	589.77 ppb	13:57:16
2	Mn 257.610†	2271487.4	2162879.2	2984.0 ug/L	2984.0 ppb	13:57:16
2	Mo 202.031†	5018.7	4775.0	474.10 ug/L	474.10 ppb	13:57:36
2	Ni 231.604†	17502.8	16584.7	558.58 ug/L	558.58 ppb	13:57:36

2	P 214.914†	4862.8	4429.5	2847.8 ug/L	2847.8 ppb	13:57:36
2	Pb 220.353†	3191.9	3105.7	523.90 ug/L	523.90 ppb	13:57:36
2	S 181.975 Axial†	4901.2	4628.5	7324.9 ug/L	7324.9 ppb	13:57:36
2	Sb 206.836†	1147.3	1067.4	447.09 ug/L	447.09 ppb	13:57:36
2	Se 196.026†	256.6	271.0	473.28 ug/L	473.28 ppb	13:57:36
2	Si 251.611†	786839.1	748838.4	28645 ug/L	28645 ppb	13:57:16
2	Sn 189.927†	1994.9	1890.2	453.53 ug/L	453.53 ppb	13:57:36
2	Ti 334.940†	1778393.4	1695123.3	3213.8 ug/L	3213.8 ppb	13:57:16
2	Tl 190.801†	1009.7	993.1	431.65 ug/L	431.65 ppb	13:57:36
2	U 409.014†	5211.8	7369.2	282.90 ug/L	282.90 ppb	13:57:16
2	V 292.402†	71205.3	69563.3	632.03 ug/L	632.03 ppb	13:57:16
2	Zn 213.857†	72435.5	68296.2	806.72 ug/L	806.72 ppb	13:57:16
2	SiO2†	789518.3	751376.2	61102 ug/L	61102 ppb	13:58:15
3	Sc Radial	4068.4	4068.4	113 %		13:56:40
3	Y RADIAL	4991.2	4991.2	122.7 %		13:56:40
3	Al 396.153Radial†	94791.3	83723.2	96046 ug/L	96046 ppb	13:56:20
3	Ca 317.933Radial†	19097.8	16830.0	34401 ug/L	34401 ppb	13:56:20
3	Fe 238.204 Radial†	7050.3	6210.7	87808 ug/L	87808 ppb	13:56:40
3	K 766.490 Radial†	118719.2	101700.5	21388 ug/L	21388 ppb	13:56:20
3	Mg 279.077 IEC†	484.3	426.6	18746 ug/L	18746 ppb	13:56:40
3	Na 589.592 Radial†	11098.7	10687.3	5510.6 ug/L	5510.6 ppb	13:56:20
3	Sr 421.552†	76057.2	67074.5	739.24 ug/L	739.24 ppb	13:56:20
3	Sc 361.383	700061.9	700061.9	104.97 %		13:57:43
3	Y 371.029	613684.7	613684.7	116.21 %		13:57:43
3	Ag 328.068†	75926.4	72127.3	445.56 ug/L	445.56 ppb	13:57:43
3	As 188.979†	871.9	855.8	491.71 ug/L	491.71 ppb	13:58:03
3	B 249.677†	20425.7	19873.1	516.77 ug/L	516.77 ppb	13:57:43
3	Ba 233.527†	137234.8	130720.1	1326.5 ug/L	1326.5 ppb	13:57:43
3	Be 313.107†	1181844.7	1130032.4	480.68 ug/L	480.68 ppb	13:57:43
3	Cd 226.502†	30037.6	28813.8	436.08 ug/L	436.08 ppb	13:58:03
3	Co 228.616†	18723.3	17886.2	457.71 ug/L	457.71 ppb	13:58:03
3	Cr 267.716†	41232.7	39184.0	612.38 ug/L	612.38 ppb	13:57:43
3	Cu 324.752†	179931.9	166053.3	593.25 ug/L	593.25 ppb	13:57:43
3	Mn 257.610†	2287181.6	2178370.6	3005.3 ug/L	3005.3 ppb	13:57:43
3	Mo 202.031†	5064.9	4820.2	478.50 ug/L	478.50 ppb	13:58:03
3	Ni 231.604†	17471.7	16559.2	557.72 ug/L	557.72 ppb	13:58:03
3	P 214.914†	4842.1	4411.1	2834.4 ug/L	2834.4 ppb	13:58:03
3	Pb 220.353†	3206.6	3120.5	526.06 ug/L	526.06 ppb	13:58:03
3	S 181.975 Axial†	4935.0	4661.8	7378.0 ug/L	7378.0 ppb	13:58:03
3	Sb 206.836†	1137.4	1058.3	443.43 ug/L	443.43 ppb	13:58:03
3	Se 196.026†	270.2	284.0	482.64 ug/L	482.64 ppb	13:58:03
3	Si 251.611†	792611.8	754525.0	28863 ug/L	28863 ppb	13:57:43
3	Sn 189.927†	2007.7	1902.8	456.46 ug/L	456.46 ppb	13:58:03
3	Ti 334.940†	1788714.3	1705378.6	3233.2 ug/L	3233.2 ppb	13:57:43
3	Tl 190.801†	1026.8	1009.7	438.47 ug/L	438.47 ppb	13:58:03
3	U 409.014†	5334.0	7486.8	287.60 ug/L	287.60 ppb	13:57:43
3	V 292.402†	71675.4	70028.2	636.39 ug/L	636.39 ppb	13:57:43
3	Zn 213.857†	73038.6	68888.0	813.89 ug/L	813.89 ppb	13:57:43
3	SiO2†	794364.4	756180.7	61492 ug/L	61492 ppb	13:58:20

Mean Data: 1202056971|959146|1

	Mean Corrected	Calib.		Sample		
Analyte	Intensity	Conc. Units	Std.Dev.	Conc. Units	Std.Dev.	RSD
Sc 361.383	698202.2	104.69 %	0.506			0.48%
Sc Radial	4076.2	114 %	0.4			0.34%
Y 371.029	610734.9	115.65 %	0.706			0.61%
Y RADIAL	5013.1	123.3 %	0.60			0.48%
Ag 328.068†	71923.5	444.41 ug/L	1.087	444.41 ppb	1.087	0.24%
Al 396.153Radial†	84023.5	96391 ug/L	646.3	96391 ppb	646.3	0.67%
As 188.979†	849.2	488.18 ug/L	6.649	488.18 ppb	6.649	1.36%
B 249.677†	19779.7	514.25 ug/L	2.330	514.25 ppb	2.330	0.45%
Ba 233.527†	130170.5	1320.9 ug/L	5.89	1320.9 ppb	5.89	0.45%
Be 313.107†	1121819.4	477.21 ug/L	3.032	477.21 ppb	3.032	0.64%
Ca 317.933Radial†	16860.4	34463 ug/L	182.3	34463 ppb	182.3	0.53%
Cd 226.502†	28779.7	435.55 ug/L	0.899	435.55 ppb	0.899	0.21%
Co 228.616†	17864.9	457.17 ug/L	0.803	457.17 ppb	0.803	0.18%
Cr 267.716†	38933.4	608.54 ug/L	3.724	608.54 ppb	3.724	0.61%
Cu 324.752†	165422.4	591.02 ug/L	1.935	591.02 ppb	1.935	0.33%
Fe 238.204 Radial†	6218.5	87918 ug/L	100.0	87918 ppb	100.0	0.11%
K 766.490 Radial†	102349.2	21524 ug/L	145.8	21524 ppb	145.8	0.68%

Mg 279.077 IEC†	426.2	18730 ug/L	15.4	18730 ppb	15.4	0.08%
Mn 257.610†	2170453.8	2994.5 ug/L	10.66	2994.5 ppb	10.66	0.36%
Mo 202.031†	4794.0	475.95 ug/L	2.284	475.95 ppb	2.284	0.48%
Na 589.592 Radial†	10803.6	5570.6 ug/L	54.06	5570.6 ppb	54.06	0.97%
Ni 231.604†	16559.3	557.72 ug/L	0.854	557.72 ppb	0.854	0.15%
P 214.914†	4428.5	2846.7 ug/L	11.81	2846.7 ppb	11.81	0.41%
Pb 220.353†	3118.7	525.84 ug/L	1.840	525.84 ppb	1.840	0.35%
S 181.975 Axial†	4640.1	7343.5 ug/L	29.90	7343.5 ppb	29.90	0.41%
Sb 206.836†	1066.6	446.82 ug/L	3.260	446.82 ppb	3.260	0.73%
Se 196.026†	277.2	477.73 ug/L	4.696	477.73 ppb	4.696	0.98%
Si 251.611†	751257.2	28738 ug/L	112.3	28738 ppb	112.3	0.39%
Sn 189.927†	1899.2	455.62 ug/L	1.826	455.62 ppb	1.826	0.40%
Sr 421.552†	67488.2	743.80 ug/L	4.534	743.80 ppb	4.534	0.61%
Ti 334.940†	1698923.9	3220.9 ug/L	10.63	3220.9 ppb	10.63	0.33%
Tl 190.801†	996.4	433.04 ug/L	4.882	433.04 ppb	4.882	1.13%
U 409.014†	7407.2	284.42 ug/L	2.758	284.42 ppb	2.758	0.97%
V 292.402†	69749.9	633.79 ug/L	2.303	633.79 ppb	2.303	0.36%
Zn 213.857†	68623.0	810.68 ug/L	3.644	810.68 ppb	3.644	0.45%
SiO2†	757676.1	61614 ug/L	582.8	61614 ppb	582.8	0.95%

Sequence No.: 7
 Sample ID: 1202056969|959146|5
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 44
 Date Collected: 3/31/2010 14:00:31
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 1202056969|959146|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4173.0	4173.0	116 %		14:02:23
1	Y RADIAL	4700.6	4700.6	115.6 %		14:02:23
1	Al 396.153Radial†	10964.8	9539.2	10946 ug/L	10946 ppb	14:02:23
1	Ca 317.933Radial†	2908.0	2485.0	5079.4 ug/L	5079.4 ppb	14:02:43
1	Fe 238.204 Radial†	1296.0	1106.3	15639 ug/L	15639 ppb	14:02:43
1	K 766.490 Radial†	17034.0	11629.4	2445.5 ug/L	2445.5 ppb	14:02:23
1	Mg 279.077 IEC†	60.0	51.0	2234.0 ug/L	2234.0 ppb	14:02:43
1	Na 589.592 Radial†	-565.8	410.9	211.86 ug/L	211.86 ppb	14:02:23
1	Sr 421.552†	4547.5	3896.9	42.925 ug/L	42.925 ppb	14:02:23
1	Sc 361.383	701056.8	701056.8	105.12 %		14:03:40
1	Y 371.029	562695.1	562695.1	106.55 %		14:03:40
1	Ag 328.068†	-743.6	-909.4	-0.3600 ug/L	-0.3600 ppb	14:03:40
1	As 188.979†	-31.3	-4.5	5.4976 ug/L	5.4976 ppb	14:04:00
1	B 249.677†	121.9	531.1	11.670 ug/L	11.670 ppb	14:04:00
1	Ba 233.527†	15766.0	14984.6	152.12 ug/L	152.12 ppb	14:03:40
1	Be 313.107†	-4491.6	-94.5	1.0599 ug/L	1.0599 ppb	14:03:40
1	Cd 226.502†	-89.1	114.5	0.1538 ug/L	0.1538 ppb	14:04:00
1	Co 228.616†	181.2	222.3	4.5965 ug/L	4.5965 ppb	14:04:00
1	Cr 267.716†	1129.3	979.0	16.752 ug/L	16.752 ppb	14:04:00
1	Cu 324.752†	8073.1	2325.5	9.0884 ug/L	9.0884 ppb	14:03:40
1	Mn 257.610†	359787.3	341801.3	471.77 ug/L	471.77 ppb	14:03:40
1	Mo 202.031†	11.8	6.5	1.9123 ug/L	1.9123 ppb	14:04:00
1	Ni 231.604†	458.7	351.6	11.844 ug/L	11.844 ppb	14:04:00
1	P 214.914†	915.8	669.5	442.82 ug/L	442.82 ppb	14:04:00
1	Pb 220.353†	25.0	89.6	15.915 ug/L	15.915 ppb	14:04:00
1	S 181.975 Axial†	328.3	272.9	430.94 ug/L	430.94 ppb	14:04:00
1	Sb 206.836†	43.6	16.2	4.6031 ug/L	4.6031 ppb	14:04:00
1	Se 196.026†	-85.1	-54.4	2.2186 ug/L	2.2186 ppb	14:04:00
1	Si 251.611†	165054.5	156475.4	5986.8 ug/L	5986.8 ppb	14:03:40
1	Sn 189.927†	-31.9	-40.1	-8.4808 ug/L	-8.4808 ppb	14:04:00
1	Ti 334.940†	267276.6	255658.5	484.79 ug/L	484.79 ppb	14:03:40
1	Tl 190.801†	-46.1	-12.4	1.2889 ug/L	1.2889 ppb	14:04:00
1	U 409.014†	-3253.3	-689.2	-29.339 ug/L	-29.339 ppb	14:03:40
1	V 292.402†	1038.1	2735.9	22.412 ug/L	22.412 ppb	14:04:00
1	Zn 213.857†	6136.5	5147.1	59.691 ug/L	59.691 ppb	14:04:00
1	SiO2†	163777.5	155246.8	12627 ug/L	12627 ppb	14:04:57
2	Sc Radial	4136.8	4136.8	115 %		14:02:48
2	Y RADIAL	4660.1	4660.1	114.6 %		14:02:48
2	Al 396.153Radial†	10925.7	9587.9	11002 ug/L	11002 ppb	14:02:48
2	Ca 317.933Radial†	2878.5	2481.3	5071.9 ug/L	5071.9 ppb	14:03:08
2	Fe 238.204 Radial†	1280.2	1102.4	15584 ug/L	15584 ppb	14:03:08
2	K 766.490 Radial†	16905.3	11646.3	2449.0 ug/L	2449.0 ppb	14:02:48
2	Mg 279.077 IEC†	60.5	51.8	2272.2 ug/L	2272.2 ppb	14:03:08
2	Na 589.592 Radial†	-581.7	392.8	202.54 ug/L	202.54 ppb	14:02:48
2	Sr 421.552†	4593.4	3971.0	43.742 ug/L	43.742 ppb	14:02:48
2	Sc 361.383	699700.3	699700.3	104.92 %		14:04:06
2	Y 371.029	563730.8	563730.8	106.75 %		14:04:06
2	Ag 328.068†	-626.6	-799.3	0.2599 ug/L	0.2599 ppb	14:04:06
2	As 188.979†	-26.4	0.1	7.8755 ug/L	7.8755 ppb	14:04:26
2	B 249.677†	120.6	530.0	11.649 ug/L	11.649 ppb	14:04:26
2	Ba 233.527†	15685.2	14936.6	151.63 ug/L	151.63 ppb	14:04:06
2	Be 313.107†	-4412.2	-27.1	1.0833 ug/L	1.0833 ppb	14:04:06
2	Cd 226.502†	-82.1	121.0	0.2608 ug/L	0.2608 ppb	14:04:26
2	Co 228.616†	202.6	243.0	5.1401 ug/L	5.1401 ppb	14:04:26
2	Cr 267.716†	1158.4	1008.9	17.205 ug/L	17.205 ppb	14:04:26
2	Cu 324.752†	8099.9	2365.9	9.2291 ug/L	9.2291 ppb	14:04:06
2	Mn 257.610†	357728.6	340502.6	469.98 ug/L	469.98 ppb	14:04:06
2	Mo 202.031†	10.0	4.8	1.7368 ug/L	1.7368 ppb	14:04:26
2	Ni 231.604†	477.2	370.1	12.466 ug/L	12.466 ppb	14:04:26

2	P 214.914†	913.1	668.6	442.21 ug/L	442.21 ppb	14:04:26
2	Pb 220.353†	39.1	103.0	18.126 ug/L	18.126 ppb	14:04:26
2	S 181.975 Axial†	315.4	261.3	412.46 ug/L	412.46 ppb	14:04:26
2	Sb 206.836†	35.1	8.2	1.2748 ug/L	1.2748 ppb	14:04:26
2	Se 196.026†	-91.2	-60.4	-2.5812 ug/L	-2.5812 ppb	14:04:26
2	Si 251.611†	163951.4	155728.4	5958.2 ug/L	5958.2 ppb	14:04:06
2	Sn 189.927†	-31.2	-39.5	-8.3435 ug/L	-8.3435 ppb	14:04:26
2	Ti 334.940†	265595.5	254549.2	482.68 ug/L	482.68 ppb	14:04:06
2	Tl 190.801†	-50.7	-16.9	-0.5216 ug/L	-0.5216 ppb	14:04:26
2	U 409.014†	-3265.2	-706.6	-30.025 ug/L	-30.025 ppb	14:04:06
2	V 292.402†	1049.2	2748.4	22.534 ug/L	22.534 ppb	14:04:26
2	Zn 213.857†	6216.3	5234.5	60.750 ug/L	60.750 ppb	14:04:26
2	SiO2†	163108.0	154910.7	12600 ug/L	12600 ppb	14:05:02
3	Sc Radial	4108.5	4108.5	114 %		14:03:14
3	Y RADIAL	4642.9	4642.9	114.2 %		14:03:14
3	Al 396.153Radial†	10929.3	9656.3	11080 ug/L	11080 ppb	14:03:14
3	Ca 317.933Radial†	2885.0	2504.2	5118.7 ug/L	5118.7 ppb	14:03:34
3	Fe 238.204 Radial†	1280.2	1110.0	15692 ug/L	15692 ppb	14:03:34
3	K 766.490 Radial†	16947.3	11783.8	2478.0 ug/L	2478.0 ppb	14:03:14
3	Mg 279.077 IEC†	59.7	51.5	2259.2 ug/L	2259.2 ppb	14:03:34
3	Na 589.592 Radial†	-610.1	364.5	187.95 ug/L	187.95 ppb	14:03:14
3	Sr 421.552†	4527.5	3940.8	43.409 ug/L	43.409 ppb	14:03:14
3	Sc 361.383	706464.6	706464.6	105.93 %		14:04:31
3	Y 371.029	566869.8	566869.8	107.34 %		14:04:31
3	Ag 328.068†	-719.2	-881.0	-0.1796 ug/L	-0.1796 ppb	14:04:31
3	As 188.979†	-24.0	2.5	9.1642 ug/L	9.1642 ppb	14:04:51
3	B 249.677†	109.7	518.7	11.331 ug/L	11.331 ppb	14:04:51
3	Ba 233.527†	15731.7	14837.4	150.63 ug/L	150.63 ppb	14:04:31
3	Be 313.107†	-4467.2	-38.7	1.0761 ug/L	1.0761 ppb	14:04:31
3	Cd 226.502†	-73.1	130.2	0.3918 ug/L	0.3918 ppb	14:04:51
3	Co 228.616†	175.4	215.5	4.4258 ug/L	4.4258 ppb	14:04:51
3	Cr 267.716†	1152.1	992.3	16.962 ug/L	16.962 ppb	14:04:51
3	Cu 324.752†	8087.2	2280.0	8.9295 ug/L	8.9295 ppb	14:04:31
3	Mn 257.610†	359995.1	339377.6	468.44 ug/L	468.44 ppb	14:04:31
3	Mo 202.031†	12.3	6.8	1.9467 ug/L	1.9467 ppb	14:04:51
3	Ni 231.604†	493.5	381.1	12.838 ug/L	12.838 ppb	14:04:51
3	P 214.914†	922.4	669.1	442.56 ug/L	442.56 ppb	14:04:51
3	Pb 220.353†	9.8	75.0	13.569 ug/L	13.569 ppb	14:04:51
3	S 181.975 Axial†	325.1	267.6	422.41 ug/L	422.41 ppb	14:04:51
3	Sb 206.836†	39.5	12.0	2.8595 ug/L	2.8595 ppb	14:04:51
3	Se 196.026†	-97.0	-64.9	-5.8185 ug/L	-5.8185 ppb	14:04:51
3	Si 251.611†	165237.6	155446.4	5947.4 ug/L	5947.4 ppb	14:04:31
3	Sn 189.927†	-32.5	-40.4	-8.5464 ug/L	-8.5464 ppb	14:04:51
3	Ti 334.940†	267571.8	253991.0	481.63 ug/L	481.63 ppb	14:04:31
3	Tl 190.801†	-47.7	-13.6	0.7745 ug/L	0.7745 ppb	14:04:51
3	U 409.014†	-3256.6	-668.6	-28.522 ug/L	-28.522 ppb	14:04:31
3	V 292.402†	1077.7	2765.7	22.685 ug/L	22.685 ppb	14:04:51
3	Zn 213.857†	6188.3	5151.3	59.728 ug/L	59.728 ppb	14:04:51
3	SiO2†	164500.0	154736.2	12586 ug/L	12586 ppb	14:05:07

Mean Data: 1202056969|959146|5

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	702407.2	105.32 %		0.537			0.51%
Sc Radial	4139.5	115 %		0.9			0.78%
Y 371.029	564431.9	106.88 %		0.412			0.39%
Y RADIAL	4667.8	114.8 %		0.73			0.63%
Ag 328.068†	-863.2	-0.0932 ug/L		0.31885	-0.0932 ppb	0.31885	341.98%
Al 396.153Radial†	9594.5	11009 ug/L		67.5	11009 ppb	67.5	0.61%
As 188.979†	-0.6	7.5124 ug/L		1.86009	7.5124 ppb	1.86009	24.76%
B 249.677†	526.6	11.550 ug/L		0.1902	11.550 ppb	0.1902	1.65%
Ba 233.527†	14919.5	151.46 ug/L		0.758	151.46 ppb	0.758	0.50%
Be 313.107†	-53.4	1.0731 ug/L		0.01201	1.0731 ppb	0.01201	1.12%
Ca 317.933Radial†	2490.2	5090.0 ug/L		25.11	5090.0 ppb	25.11	0.49%
Cd 226.502†	121.9	0.2688 ug/L		0.11920	0.2688 ppb	0.11920	44.35%
Co 228.616†	226.9	4.7208 ug/L		0.37302	4.7208 ppb	0.37302	7.90%
Cr 267.716†	993.4	16.973 ug/L		0.2269	16.973 ppb	0.2269	1.34%
Cu 324.752†	2323.8	9.0823 ug/L		0.14992	9.0823 ppb	0.14992	1.65%
Fe 238.204 Radial†	1106.2	15638 ug/L		54.0	15638 ppb	54.0	0.35%
K 766.490 Radial†	11686.5	2457.5 ug/L		17.82	2457.5 ppb	17.82	0.73%

Mg 279.077 IEC†	51.5	2255.1 ug/L	19.45	2255.1 ppb	19.45	0.86%
Mn 257.610†	340560.5	470.06 ug/L	1.667	470.06 ppb	1.667	0.35%
Mo 202.031†	6.0	1.8653 ug/L	0.11257	1.8653 ppb	0.11257	6.04%
Na 589.592 Radial†	389.4	200.78 ug/L	12.051	200.78 ppb	12.051	6.00%
Ni 231.604†	367.6	12.383 ug/L	0.5023	12.383 ppb	0.5023	4.06%
P 214.914†	669.1	442.53 ug/L	0.303	442.53 ppb	0.303	0.07%
Pb 220.353†	89.2	15.870 ug/L	2.2787	15.870 ppb	2.2787	14.36%
S 181.975 Axial†	267.3	421.94 ug/L	9.248	421.94 ppb	9.248	2.19%
Sb 206.836†	12.1	2.9124 ug/L	1.66479	2.9124 ppb	1.66479	57.16%
Se 196.026†	-59.9	-2.0604 ug/L	4.04379	-2.0604 ppb	4.04379	196.27%
Si 251.611†	155883.4	5964.1 ug/L	20.34	5964.1 ppb	20.34	0.34%
Sn 189.927†	-40.0	-8.4569 ug/L	0.10356	-8.4569 ppb	0.10356	1.22%
Sr 421.552†	3936.2	43.359 ug/L	0.4109	43.359 ppb	0.4109	0.95%
Ti 334.940†	254732.9	483.03 ug/L	1.607	483.03 ppb	1.607	0.33%
Tl 190.801†	-14.3	0.5140 ug/L	0.93298	0.5140 ppb	0.93298	181.53%
U 409.014†	-688.1	-29.295 ug/L	0.7526	-29.295 ppb	0.7526	2.57%
V 292.402†	2750.0	22.543 ug/L	0.1368	22.543 ppb	0.1368	0.61%
Zn 213.857†	5177.6	60.057 ug/L	0.6011	60.057 ppb	0.6011	1.00%
SiO2†	154964.6	12604 ug/L	21.1	12604 ppb	21.1	0.17%

Sequence No.: 8

Sample ID: 248241002|959146|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 45

Date Collected: 3/31/2010 14:07:18

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248241002|959146|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4126.3	4126.3	115 %		14:09:31
1	Y RADIAL	5385.9	5385.9	132.4 %		14:09:11
1	Al 396.153Radial†	22975.9	20092.2	23055 ug/L	23055 ppb	14:09:11
1	Ca 317.933Radial†	11798.2	10245.3	20941 ug/L	20941 ppb	14:09:11
1	Fe 238.204 Radial†	4184.8	3631.3	51333 ug/L	51333 ppb	14:09:11
1	K 766.490 Radial†	35137.2	27540.1	5787.0 ug/L	5787.0 ppb	14:09:11
1	Mg 279.077 IEC†	150.4	130.2	5693.9 ug/L	5693.9 ppb	14:09:31
1	Na 589.592 Radial†	1305.6	2032.9	1048.2 ug/L	1048.2 ppb	14:09:11
1	Sr 421.552†	12625.8	10966.9	120.75 ug/L	120.75 ppb	14:09:11
1	Sc 361.383	713143.9	713143.9	106.93 %		14:10:28
1	Y 371.029	652954.6	652954.6	123.65 %		14:10:28
1	Ag 328.068†	-2635.0	-2666.2	0.5680 ug/L	0.5680 ppb	14:10:34
1	As 188.979†	-25.8	1.2	27.802 ug/L	27.802 ppb	14:10:54
1	B 249.677†	1004.6	1354.5	27.899 ug/L	27.899 ppb	14:10:34
1	Ba 233.527†	48194.1	45055.4	457.48 ug/L	457.48 ppb	14:10:34
1	Be 313.107†	-7183.2	-2539.1	2.9150 ug/L	2.9150 ppb	14:10:34
1	Cd 226.502†	192.2	379.0	0.5409 ug/L	0.5409 ppb	14:10:54
1	Co 228.616†	661.0	668.1	13.128 ug/L	13.128 ppb	14:10:54
1	Cr 267.716†	3622.1	3292.0	56.188 ug/L	56.188 ppb	14:10:54
1	Cu 324.752†	17296.3	10820.4	41.174 ug/L	41.174 ppb	14:10:34
1	Mn 257.610†	2859871.0	2673952.1	3684.2 ug/L	3684.2 ppb	14:10:28
1	Mo 202.031†	16.2	10.4	5.2520 ug/L	5.2520 ppb	14:10:54
1	Ni 231.604†	1377.1	1203.0	40.528 ug/L	40.528 ppb	14:10:54
1	P 214.914†	2328.5	1975.8	1297.6 ug/L	1297.6 ppb	14:10:54
1	Pb 220.353†	472.2	507.3	83.850 ug/L	83.850 ppb	14:10:54
1	S 181.975 Axial†	831.0	737.7	1166.1 ug/L	1166.1 ppb	14:10:54
1	Sb 206.836†	54.2	25.4	3.3536 ug/L	3.3536 ppb	14:10:54
1	Se 196.026†	-257.2	-213.9	-23.855 ug/L	-23.855 ppb	14:10:54
1	Si 251.611†	850930.6	795210.8	30425 ug/L	30425 ppb	14:10:28
1	Sn 189.927†	-110.0	-112.6	-22.587 ug/L	-22.587 ppb	14:10:54
1	Ti 334.940†	987796.0	925142.4	1754.9 ug/L	1754.9 ppb	14:10:28
1	Tl 190.801†	-128.5	-88.7	-3.2647 ug/L	-3.2647 ppb	14:10:54
1	U 409.014†	-7028.9	-4167.6	-172.38 ug/L	-172.38 ppb	14:10:34
1	V 292.402†	4984.5	6409.6	49.513 ug/L	49.513 ppb	14:10:34
1	Zn 213.857†	29178.4	26595.8	312.98 ug/L	312.98 ppb	14:10:34
1	SiO2†	837048.6	782215.3	63623 ug/L	63623 ppb	14:12:02
2	Sc Radial	4085.1	4085.1	114 %		14:09:56
2	Y RADIAL	5375.2	5375.2	132.2 %		14:09:36
2	Al 396.153Radial†	23243.6	20528.9	23556 ug/L	23556 ppb	14:09:36
2	Ca 317.933Radial†	11940.3	10473.6	21408 ug/L	21408 ppb	14:09:36
2	Fe 238.204 Radial†	4218.9	3698.0	52276 ug/L	52276 ppb	14:09:36
2	K 766.490 Radial†	35409.4	28087.3	5902.1 ug/L	5902.1 ppb	14:09:36
2	Mg 279.077 IEC†	151.0	132.0	5772.3 ug/L	5772.3 ppb	14:09:56
2	Na 589.592 Radial†	1279.4	2021.4	1042.3 ug/L	1042.3 ppb	14:09:36
2	Sr 421.552†	12665.6	11112.6	122.36 ug/L	122.36 ppb	14:09:36
2	Sc 361.383	715780.0	715780.0	107.33 %		14:11:00
2	Y 371.029	655315.7	655315.7	124.09 %		14:11:00
2	Ag 328.068†	-2533.6	-2562.6	1.4543 ug/L	1.4543 ppb	14:11:05
2	As 188.979†	-22.8	4.0	29.429 ug/L	29.429 ppb	14:11:25
2	B 249.677†	1050.8	1394.1	28.807 ug/L	28.807 ppb	14:11:05
2	Ba 233.527†	48987.0	45628.3	463.30 ug/L	463.30 ppb	14:11:05
2	Be 313.107†	-7264.6	-2590.2	2.8752 ug/L	2.8752 ppb	14:11:05
2	Cd 226.502†	208.1	393.1	0.6625 ug/L	0.6625 ppb	14:11:25
2	Co 228.616†	653.3	658.6	12.888 ug/L	12.888 ppb	14:11:25
2	Cr 267.716†	3644.0	3299.9	56.410 ug/L	56.410 ppb	14:11:25
2	Cu 324.752†	17619.5	11062.0	42.080 ug/L	42.080 ppb	14:11:05
2	Mn 257.610†	2850885.5	2655730.8	3659.2 ug/L	3659.2 ppb	14:11:00
2	Mo 202.031†	17.3	11.3	5.4216 ug/L	5.4216 ppb	14:11:25
2	Ni 231.604†	1400.9	1220.5	41.116 ug/L	41.116 ppb	14:11:25

2	P 214.914†	2355.8	1993.2	1308.6 ug/L	1308.6 ppb	14:11:25
2	Pb 220.353†	471.6	505.2	83.543 ug/L	83.543 ppb	14:11:25
2	S 181.975 Axial†	837.3	740.8	1170.9 ug/L	1170.9 ppb	14:11:25
2	Sb 206.836†	43.7	15.4	-0.7909 ug/L	-0.7909 ppb	14:11:25
2	Se 196.026†	-262.1	-217.6	-24.090 ug/L	-24.090 ppb	14:11:25
2	Si 251.611†	850312.2	791704.0	30291 ug/L	30291 ppb	14:11:00
2	Sn 189.927†	-116.4	-118.2	-23.815 ug/L	-23.815 ppb	14:11:25
2	Ti 334.940†	986860.6	920869.0	1746.8 ug/L	1746.8 ppb	14:11:00
2	Tl 190.801†	-126.7	-86.6	-2.5964 ug/L	-2.5964 ppb	14:11:25
2	U 409.014†	-6997.6	-4114.1	-170.36 ug/L	-170.36 ppb	14:11:05
2	V 292.402†	5145.0	6542.0	50.611 ug/L	50.611 ppb	14:11:05
2	Zn 213.857†	29663.0	26946.8	317.07 ug/L	317.07 ppb	14:11:05
2	SiO2†	859632.4	800373.9	65100 ug/L	65100 ppb	14:12:08
3	Sc Radial	4127.1	4127.1	115 %		14:10:21
3	Y RADIAL	5475.9	5475.9	134.7 %		14:10:01
3	Al 396.153Radial†	23725.6	20740.2	23798 ug/L	23798 ppb	14:10:01
3	Ca 317.933Radial†	12134.2	10535.4	21535 ug/L	21535 ppb	14:10:01
3	Fe 238.204 Radial†	4279.4	3712.9	52486 ug/L	52486 ppb	14:10:01
3	K 766.490 Radial†	35867.3	28168.9	5919.2 ug/L	5919.2 ppb	14:10:01
3	Mg 279.077 IEC†	149.5	129.4	5655.6 ug/L	5655.6 ppb	14:10:21
3	Na 589.592 Radial†	1277.1	2008.0	1035.3 ug/L	1035.3 ppb	14:10:01
3	Sr 421.552†	12839.7	11150.8	122.78 ug/L	122.78 ppb	14:10:01
3	Sc 361.383	714447.5	714447.5	107.13 %		14:11:31
3	Y 371.029	655022.4	655022.4	124.04 %		14:11:31
3	Ag 328.068†	-2527.6	-2561.4	1.5270 ug/L	1.5270 ppb	14:11:36
3	As 188.979†	-28.9	-1.7	26.289 ug/L	26.289 ppb	14:11:56
3	B 249.677†	1023.6	1370.6	28.142 ug/L	28.142 ppb	14:11:36
3	Ba 233.527†	48323.1	45093.6	457.90 ug/L	457.90 ppb	14:11:36
3	Be 313.107†	-7402.8	-2731.8	2.7573 ug/L	2.7573 ppb	14:11:36
3	Cd 226.502†	223.5	407.8	0.8660 ug/L	0.8660 ppb	14:11:56
3	Co 228.616†	660.3	666.3	13.139 ug/L	13.139 ppb	14:11:56
3	Cr 267.716†	3608.5	3273.1	56.022 ug/L	56.022 ppb	14:11:56
3	Cu 324.752†	17530.5	11009.4	41.908 ug/L	41.908 ppb	14:11:36
3	Mn 257.610†	2794874.5	2608401.5	3594.1 ug/L	3594.1 ppb	14:11:31
3	Mo 202.031†	28.4	21.8	6.4580 ug/L	6.4580 ppb	14:11:56
3	Ni 231.604†	1373.6	1197.4	40.339 ug/L	40.339 ppb	14:11:56
3	P 214.914†	2347.4	1989.5	1305.9 ug/L	1305.9 ppb	14:11:56
3	Pb 220.353†	457.4	492.8	81.563 ug/L	81.563 ppb	14:11:56
3	S 181.975 Axial†	845.1	749.5	1184.7 ug/L	1184.7 ppb	14:11:56
3	Sb 206.836†	49.4	20.9	1.5551 ug/L	1.5551 ppb	14:11:56
3	Se 196.026†	-256.9	-213.2	-20.005 ug/L	-20.005 ppb	14:11:56
3	Si 251.611†	831858.7	775956.3	29688 ug/L	29688 ppb	14:11:31
3	Sn 189.927†	-115.6	-117.7	-23.670 ug/L	-23.670 ppb	14:11:56
3	Ti 334.940†	970423.5	907240.7	1721.0 ug/L	1721.0 ppb	14:11:31
3	Tl 190.801†	-133.4	-93.0	-5.6813 ug/L	-5.6813 ppb	14:11:56
3	U 409.014†	-7164.1	-4281.7	-177.07 ug/L	-177.07 ppb	14:11:36
3	V 292.402†	5053.8	6465.8	49.905 ug/L	49.905 ppb	14:11:36
3	Zn 213.857†	29390.7	26744.2	314.60 ug/L	314.60 ppb	14:11:36
3	SiO2†	850109.8	792978.8	64498 ug/L	64498 ppb	14:12:14

Mean Data: 248241002|959146|1

Analyte	Mean Corrected	Conc. Units	Calib.	Std.Dev.	Conc. Units	Std.Dev.	RSD
Sc 361.383	714457.1	107.13 %		0.198			0.18%
Sc Radial	4112.8	115 %		0.7			0.58%
Y 371.029	654430.9	123.93 %		0.244			0.20%
Y RADIAL	5412.3	133.1 %		1.36			1.02%
Ag 328.068†	-2596.7	1.1831 ug/L		0.53396	1.1831 ppb	0.53396	45.13%
Al 396.153Radial†	20453.8	23470 ug/L		379.2	23470 ppb	379.2	1.62%
As 188.979†	1.1	27.840 ug/L		1.5704	27.840 ppb	1.5704	5.64%
B 249.677†	1373.1	28.283 ug/L		0.4703	28.283 ppb	0.4703	1.66%
Ba 233.527†	45259.1	459.56 ug/L		3.249	459.56 ppb	3.249	0.71%
Be 313.107†	-2620.3	2.8492 ug/L		0.08202	2.8492 ppb	0.08202	2.88%
Ca 317.933Radial†	10418.1	21295 ug/L		312.4	21295 ppb	312.4	1.47%
Cd 226.502†	393.3	0.6898 ug/L		0.16424	0.6898 ppb	0.16424	23.81%
Co 228.616†	664.3	13.052 ug/L		0.1419	13.052 ppb	0.1419	1.09%
Cr 267.716†	3288.3	56.207 ug/L		0.1946	56.207 ppb	0.1946	0.35%
Cu 324.752†	10963.9	41.721 ug/L		0.4808	41.721 ppb	0.4808	1.15%
Fe 238.204 Radial†	3680.7	52031 ug/L		614.1	52031 ppb	614.1	1.18%
K 766.490 Radial†	27932.1	5869.4 ug/L		71.87	5869.4 ppb	71.87	1.22%

Mg 279.077 IEC†	130.5	5707.3 ug/L	59.49	5707.3 ppb	59.49	1.04%
Mn 257.610†	2646028.1	3645.8 ug/L	46.51	3645.8 ppb	46.51	1.28%
Mo 202.031†	14.5	5.7105 ug/L	0.65284	5.7105 ppb	0.65284	11.43%
Na 589.592 Radial†	2020.7	1041.9 ug/L	6.44	1041.9 ppb	6.44	0.62%
Ni 231.604†	1207.0	40.661 ug/L	0.4050	40.661 ppb	0.4050	1.00%
P 214.914†	1986.1	1304.0 ug/L	5.75	1304.0 ppb	5.75	0.44%
Pb 220.353†	501.8	82.985 ug/L	1.2415	82.985 ppb	1.2415	1.50%
S 181.975 Axial†	742.7	1173.9 ug/L	9.64	1173.9 ppb	9.64	0.82%
Sb 206.836†	20.6	1.3726 ug/L	2.07830	1.3726 ppb	2.07830	151.42%
Se 196.026†	-214.9	-22.650 ug/L	2.2934	-22.650 ppb	2.2934	10.13%
Si 251.611†	787623.7	30135 ug/L	392.4	30135 ppb	392.4	1.30%
Sn 189.927†	-116.1	-23.358 ug/L	0.6709	-23.358 ppb	0.6709	2.87%
Sr 421.552†	11076.8	121.96 ug/L	1.067	121.96 ppb	1.067	0.88%
Ti 334.940†	917750.7	1740.9 ug/L	17.67	1740.9 ppb	17.67	1.02%
Tl 190.801†	-89.4	-3.8475 ug/L	1.62289	-3.8475 ppb	1.62289	42.18%
U 409.014†	-4187.8	-173.27 ug/L	3.445	-173.27 ppb	3.445	1.99%
V 292.402†	6472.5	50.009 ug/L	0.5565	50.009 ppb	0.5565	1.11%
Zn 213.857†	26762.3	314.88 ug/L	2.060	314.88 ppb	2.060	0.65%
SiO2†	791856.0	64407 ug/L	742.7	64407 ppb	742.7	1.15%

Sequence No.: 9

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/31/2010 14:14:26

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	3803.8	3803.8	106 %		14:16:38
1	Y RADIAL	4483.3	4483.3	110.3 %		14:16:18
1	Al 396.153Radial†	4828.0	4664.8	5328.9 ug/L	5328.9 ppb	14:16:18
1	Ca 317.933Radial†	2642.0	2476.8	5062.6 ug/L	5062.6 ppb	14:16:38
1	Fe 238.204 Radial†	388.9	358.7	5085.5 ug/L	5085.5 ppb	14:16:38
1	K 766.490 Radial†	29261.6	24587.1	5168.1 ug/L	5168.1 ppb	14:16:18
1	Mg 279.077 IEC†	126.8	119.0	5254.7 ug/L	5254.7 ppb	14:16:38
1	Na 589.592 Radial†	19276.0	19082.8	9839.5 ug/L	9839.5 ppb	14:16:18
1	Sr 421.552†	50564.5	47689.9	525.74 ug/L	525.74 ppb	14:16:18
1	Sc 361.383	69833.6	69833.6	104.71 %		14:17:35
1	Y 371.029	545476.7	545476.7	103.29 %		14:17:35
1	Ag 328.068†	89865.8	85618.2	497.52 ug/L	497.52 ppb	14:17:40
1	As 188.979†	981.9	963.0	504.19 ug/L	504.19 ppb	14:18:00
1	B 249.677†	18833.1	18400.3	490.64 ug/L	490.64 ppb	14:17:40
1	Ba 233.527†	50804.9	48504.5	491.91 ug/L	491.91 ppb	14:17:40
1	Be 313.107†	1228993.7	1177845.1	494.49 ug/L	494.49 ppb	14:17:35
1	Cd 226.502†	33374.4	32071.2	494.90 ug/L	494.90 ppb	14:17:40
1	Co 228.616†	20159.9	19302.2	501.09 ug/L	501.09 ppb	14:17:40
1	Cr 267.716†	33533.9	31929.1	491.81 ug/L	491.81 ppb	14:17:40
1	Cu 324.752†	151699.7	139516.2	494.68 ug/L	494.68 ppb	14:17:40
1	Mn 257.610†	376453.1	359051.4	494.34 ug/L	494.34 ppb	14:17:40
1	Mo 202.031†	5274.8	5032.6	492.49 ug/L	492.49 ppb	14:18:00
1	Ni 231.604†	15494.8	14712.5	495.47 ug/L	495.47 ppb	14:17:40
1	P 214.914†	4066.9	3682.2	2402.8 ug/L	2402.8 ppb	14:18:00
1	Pb 220.353†	3094.8	3021.3	494.80 ug/L	494.80 ppb	14:18:00
1	S 181.975 Axial†	713.7	642.2	1017.8 ug/L	1017.8 ppb	14:18:00
1	Sb 206.836†	1279.9	1197.0	513.96 ug/L	513.96 ppb	14:18:00
1	Se 196.026†	652.0	649.2	522.30 ug/L	522.30 ppb	14:18:00
1	Si 251.611†	69987.5	66300.4	2530.6 ug/L	2530.6 ppb	14:17:40
1	Sn 189.927†	2194.2	2085.7	493.97 ug/L	493.97 ppb	14:18:00
1	Ti 334.940†	270649.6	259871.2	492.12 ug/L	492.12 ppb	14:17:40
1	Tl 190.801†	1276.5	1250.5	499.46 ug/L	499.46 ppb	14:18:00
1	U 409.014†	10101.7	12052.5	479.60 ug/L	479.60 ppb	14:17:40
1	V 292.402†	54056.8	53371.6	498.29 ug/L	498.29 ppb	14:17:40
1	Zn 213.857†	43887.6	41221.5	492.90 ug/L	492.90 ppb	14:17:40
1	SiO2†	70297.3	66582.5	5402.2 ug/L	5402.2 ppb	14:19:07
2	Sc Radial	3816.7	3816.7	106 %		14:17:03
2	Y RADIAL	4387.5	4387.5	107.9 %		14:16:43
2	Al 396.153Radial†	4832.8	4653.9	5315.7 ug/L	5315.7 ppb	14:16:43
2	Ca 317.933Radial†	2617.2	2445.0	4997.7 ug/L	4997.7 ppb	14:17:03
2	Fe 238.204 Radial†	380.6	349.7	4958.5 ug/L	4958.5 ppb	14:17:03
2	K 766.490 Radial†	29342.1	24569.5	5164.5 ug/L	5164.5 ppb	14:16:43
2	Mg 279.077 IEC†	126.5	118.3	5223.0 ug/L	5223.0 ppb	14:17:03
2	Na 589.592 Radial†	19049.8	18808.7	9698.2 ug/L	9698.2 ppb	14:16:43
2	Sr 421.552†	50552.3	47517.3	523.84 ug/L	523.84 ppb	14:16:43
2	Sc 361.383	686893.6	686893.6	103.00 %		14:18:06
2	Y 371.029	538197.6	538197.6	101.91 %		14:18:06
2	Ag 328.068†	92546.6	89650.2	520.84 ug/L	520.84 ppb	14:18:11
2	As 188.979†	995.3	991.6	519.17 ug/L	519.17 ppb	14:18:31
2	B 249.677†	19516.7	19363.6	516.42 ug/L	516.42 ppb	14:18:11
2	Ba 233.527†	52100.8	50570.8	512.86 ug/L	512.86 ppb	14:18:11
2	Be 313.107†	1218383.5	1187090.8	498.42 ug/L	498.42 ppb	14:18:06
2	Cd 226.502†	34132.8	33338.3	514.49 ug/L	514.49 ppb	14:18:11
2	Co 228.616†	20531.0	19983.2	518.76 ug/L	518.76 ppb	14:18:11
2	Cr 267.716†	34401.1	33304.4	512.96 ug/L	512.96 ppb	14:18:11
2	Cu 324.752†	156751.9	146834.1	520.61 ug/L	520.61 ppb	14:18:11
2	Mn 257.610†	385252.1	373581.8	514.32 ug/L	514.32 ppb	14:18:11
2	Mo 202.031†	5326.5	5166.7	505.60 ug/L	505.60 ppb	14:18:31
2	Ni 231.604†	15849.2	15303.1	515.36 ug/L	515.36 ppb	14:18:11

2	P 214.914†	4118.0	3796.5	2475.5 ug/L	2475.5 ppb	14:18:31
2	Pb 220.353†	3119.2	3094.2	506.72 ug/L	506.72 ppb	14:18:31
2	S 181.975 Axial†	724.2	663.7	1052.0 ug/L	1052.0 ppb	14:18:31
2	Sb 206.836†	1296.6	1233.6	529.57 ug/L	529.57 ppb	14:18:31
2	Se 196.026†	666.9	674.1	541.34 ug/L	541.34 ppb	14:18:31
2	Si 251.611†	71980.5	69348.5	2647.1 ug/L	2647.1 ppb	14:18:11
2	Sn 189.927†	2210.6	2136.5	505.98 ug/L	505.98 ppb	14:18:31
2	Ti 334.940†	278545.4	271841.8	514.78 ug/L	514.78 ppb	14:18:11
2	Tl 190.801†	1280.4	1274.6	509.21 ug/L	509.21 ppb	14:18:31
2	U 409.014†	10342.8	12447.3	495.33 ug/L	495.33 ppb	14:18:11
2	V 292.402†	55616.2	55745.4	520.37 ug/L	520.37 ppb	14:18:11
2	Zn 213.857†	44918.2	42920.1	513.26 ug/L	513.26 ppb	14:18:11
2	SiO2†	70408.0	67807.9	5501.5 ug/L	5501.5 ppb	14:19:13
3	Sc Radial	3871.3	3871.3	108 %		14:17:28
3	Y RADIAL	4343.9	4343.9	106.8 %		14:17:08
3	Al 396.153Radial†	4697.4	4464.4	5099.2 ug/L	5099.2 ppb	14:17:08
3	Ca 317.933Radial†	2639.3	2430.9	4968.7 ug/L	4968.7 ppb	14:17:28
3	Fe 238.204 Radial†	388.1	351.6	4984.6 ug/L	4984.6 ppb	14:17:28
3	K 766.490 Radial†	28541.7	23438.7	4926.7 ug/L	4926.7 ppb	14:17:08
3	Mg 279.077 IEC†	128.3	118.3	5220.5 ug/L	5220.5 ppb	14:17:28
3	Na 589.592 Radial†	18452.2	18002.3	9282.4 ug/L	9282.4 ppb	14:17:08
3	Sr 421.552†	49041.5	45446.9	501.02 ug/L	501.02 ppb	14:17:08
3	Sc 361.383	698936.6	698936.6	104.80 %		14:18:37
3	Y 371.029	546105.6	546105.6	103.41 %		14:18:37
3	Ag 328.068†	88967.3	84686.8	492.09 ug/L	492.09 ppb	14:18:42
3	As 188.979†	972.2	952.9	498.92 ug/L	498.92 ppb	14:19:02
3	B 249.677†	18809.4	18362.2	489.66 ug/L	489.66 ppb	14:18:42
3	Ba 233.527†	50446.9	48121.1	488.02 ug/L	488.02 ppb	14:18:42
3	Be 313.107†	1243009.7	1190206.2	499.66 ug/L	499.66 ppb	14:18:37
3	Cd 226.502†	32997.6	31684.2	488.94 ug/L	488.94 ppb	14:18:42
3	Co 228.616†	19855.5	18995.1	493.12 ug/L	493.12 ppb	14:18:42
3	Cr 267.716†	33287.1	31665.9	487.75 ug/L	487.75 ppb	14:18:42
3	Cu 324.752†	150380.0	138132.0	489.76 ug/L	489.76 ppb	14:18:42
3	Mn 257.610†	373241.9	355677.4	489.69 ug/L	489.69 ppb	14:18:42
3	Mo 202.031†	5211.6	4967.9	486.16 ug/L	486.16 ppb	14:19:02
3	Ni 231.604†	15349.9	14561.5	490.38 ug/L	490.38 ppb	14:18:42
3	P 214.914†	3998.5	3613.5	2357.1 ug/L	2357.1 ppb	14:19:02
3	Pb 220.353†	3068.8	2993.9	490.26 ug/L	490.26 ppb	14:19:02
3	S 181.975 Axial†	689.2	618.2	979.82 ug/L	979.82 ppb	14:19:02
3	Sb 206.836†	1267.1	1183.8	508.26 ug/L	508.26 ppb	14:19:02
3	Se 196.026†	648.5	645.4	518.93 ug/L	518.93 ppb	14:19:02
3	Si 251.611†	69405.8	65687.7	2507.3 ug/L	2507.3 ppb	14:18:42
3	Sn 189.927†	2167.9	2058.8	487.60 ug/L	487.60 ppb	14:19:02
3	Ti 334.940†	268478.3	257576.5	487.77 ug/L	487.77 ppb	14:18:42
3	Tl 190.801†	1250.4	1224.6	489.17 ug/L	489.17 ppb	14:19:02
3	U 409.014†	10204.1	12141.9	483.19 ug/L	483.19 ppb	14:18:42
3	V 292.402†	53582.1	52874.2	493.65 ug/L	493.65 ppb	14:18:42
3	Zn 213.857†	43479.7	40796.1	487.82 ug/L	487.82 ppb	14:18:42
3	SiO2†	69109.8	65391.4	5305.5 ug/L	5305.5 ppb	14:19:18

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	694721.3	104.17 %	1.017			0.98%
Sc Radial	3830.6	107 %	1.0			0.93%
Y 371.029	543260.0	102.87 %	0.832			0.81%
Y RADIAL	4404.9	108.3 %	1.75			1.62%
Ag 328.068†	86651.7	503.48 ug/L	15.275	503.48 ppb	15.275	3.03%
QC value within limits for Ag 328.068 Recovery = 100.70%						
Al 396.153Radial†	4594.4	5247.9 ug/L	128.99	5247.9 ppb	128.99	2.46%
QC value within limits for Al 396.153Radial Recovery = 104.96%						
As 188.979†	969.1	507.43 ug/L	10.508	507.43 ppb	10.508	2.07%
QC value within limits for As 188.979 Recovery = 101.49%						
B 249.677†	18708.7	498.91 ug/L	15.172	498.91 ppb	15.172	3.04%
QC value within limits for B 249.677 Recovery = 99.78%						
Ba 233.527†	49065.4	497.60 ug/L	13.360	497.60 ppb	13.360	2.68%
QC value within limits for Ba 233.527 Recovery = 99.52%						
Be 313.107†	1185047.4	497.52 ug/L	2.697	497.52 ppb	2.697	0.54%
QC value within limits for Be 313.107 Recovery = 99.50%						
Ca 317.933Radial†	2450.9	5009.7 ug/L	48.07	5009.7 ppb	48.07	0.96%

QC value within limits for Ca 317.933Radial Recovery = 100.19%							
Cd 226.502†	32364.6	499.44 ug/L	13.367	499.44 ppb	13.367	2.68%	
QC value within limits for Cd 226.502 Recovery = 99.89%							
Co 228.616†	19426.9	504.32 ug/L	13.120	504.32 ppb	13.120	2.60%	
QC value within limits for Co 228.616 Recovery = 100.86%							
Cr 267.716†	32299.8	497.51 ug/L	13.538	497.51 ppb	13.538	2.72%	
QC value within limits for Cr 267.716 Recovery = 99.50%							
Cu 324.752†	141494.1	501.68 ug/L	16.573	501.68 ppb	16.573	3.30%	
QC value within limits for Cu 324.752 Recovery = 100.34%							
Fe 238.204 Radial†	353.3	5009.5 ug/L	67.10	5009.5 ppb	67.10	1.34%	
QC value within limits for Fe 238.204 Radial Recovery = 100.19%							
K 766.490 Radial†	24198.5	5086.4 ug/L	138.34	5086.4 ppb	138.34	2.72%	
QC value within limits for K 766.490 Radial Recovery = 101.73%							
Mg 279.077 IEC†	118.5	5232.8 ug/L	19.07	5232.8 ppb	19.07	0.36%	
QC value within limits for Mg 279.077 IEC Recovery = 104.66%							
Mn 257.610†	362770.2	499.45 ug/L	13.088	499.45 ppb	13.088	2.62%	
QC value within limits for Mn 257.610 Recovery = 99.89%							
Mo 202.031†	5055.7	494.75 ug/L	9.913	494.75 ppb	9.913	2.00%	
QC value within limits for Mo 202.031 Recovery = 98.95%							
Na 589.592 Radial†	18631.3	9606.7 ug/L	289.61	9606.7 ppb	289.61	3.01%	
QC value within limits for Na 589.592 Radial Recovery = 96.07%							
Ni 231.604†	14859.0	500.40 ug/L	13.198	500.40 ppb	13.198	2.64%	
QC value within limits for Ni 231.604 Recovery = 100.08%							
P 214.914†	3697.4	2411.8 ug/L	59.67	2411.8 ppb	59.67	2.47%	
QC value within limits for P 214.914 Recovery = 96.47%							
Pb 220.353†	3036.4	497.26 ug/L	8.498	497.26 ppb	8.498	1.71%	
QC value within limits for Pb 220.353 Recovery = 99.45%							
S 181.975 Axial†	641.4	1016.5 ug/L	36.12	1016.5 ppb	36.12	3.55%	
QC value within limits for S 181.975 Axial Recovery = 101.65%							
Sb 206.836†	1204.8	517.26 ug/L	11.035	517.26 ppb	11.035	2.13%	
QC value within limits for Sb 206.836 Recovery = 103.45%							
Se 196.026†	656.2	527.53 ug/L	12.084	527.53 ppb	12.084	2.29%	
QC value within limits for Se 196.026 Recovery = 105.51%							
Si 251.611†	67112.2	2561.6 ug/L	74.90	2561.6 ppb	74.90	2.92%	
QC value within limits for Si 251.611 Recovery = 102.47%							
Sn 189.927†	2093.7	495.85 ug/L	9.333	495.85 ppb	9.333	1.88%	
QC value within limits for Sn 189.927 Recovery = 99.17%							
Sr 421.552†	46884.7	516.87 ug/L	13.761	516.87 ppb	13.761	2.66%	
QC value within limits for Sr 421.552 Recovery = 103.37%							
Ti 334.940†	263096.5	498.22 ug/L	14.502	498.22 ppb	14.502	2.91%	
QC value within limits for Ti 334.940 Recovery = 99.64%							
Tl 190.801†	1249.9	499.28 ug/L	10.021	499.28 ppb	10.021	2.01%	
QC value within limits for Tl 190.801 Recovery = 99.86%							
U 409.014†	12213.9	486.04 ug/L	8.244	486.04 ppb	8.244	1.70%	
QC value within limits for U 409.014 Recovery = 97.21%							
V 292.402†	53997.1	504.10 ug/L	14.276	504.10 ppb	14.276	2.83%	
QC value within limits for V 292.402 Recovery = 100.82%							
Zn 213.857†	41645.9	497.99 ug/L	13.461	497.99 ppb	13.461	2.70%	
QC value within limits for Zn 213.857 Recovery = 99.60%							
SiO2†	66594.0	5403.1 ug/L	98.01	5403.1 ppb	98.01	1.81%	
QC value within limits for SiO2 Recovery = 101.04%							
All analyte(s) passed QC.							

Sequence No.: 10

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/31/2010 14:21:28

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	3933.1	3933.1	110 %		14:23:21
1	Y RADIAL	4346.4	4346.4	106.9 %		14:23:21
1	Al 396.153Radial†	-123.7	-2.8	-3.3471 ug/L	-3.3471 ppb	14:23:21
1	Ca 317.933Radial†	19.9	2.4	4.9525 ug/L	4.9525 ppb	14:23:41
1	Fe 238.204 Radial†	7.0	-1.8	-25.457 ug/L	-25.457 ppb	14:23:41
1	K 766.490 Radial†	3173.2	-123.6	-26.020 ug/L	-26.020 ppb	14:23:21
1	Mg 279.077 IEC†	1.8	1.0	45.038 ug/L	45.038 ppb	14:23:41
1	Na 589.592 Radial†	-992.7	-8.3	-4.2895 ug/L	-4.2895 ppb	14:23:21
1	Sr 421.552†	26.1	10.1	0.1111 ug/L	0.1111 ppb	14:23:21
1	Sc 361.383	677514.1	677514.1	101.59 %		14:24:37
1	Y 371.029	534217.9	534217.9	101.16 %		14:24:37
1	Ag 328.068†	144.5	-59.8	-0.3555 ug/L	-0.3555 ppb	14:24:37
1	As 188.979†	-19.0	6.5	3.3643 ug/L	3.3643 ppb	14:24:58
1	B 249.677†	-418.7	3.0	0.0838 ug/L	0.0838 ppb	14:24:58
1	Ba 233.527†	9.2	-4.1	-0.0436 ug/L	-0.0436 ppb	14:24:58
1	Be 313.107†	-4305.9	-60.1	-0.0250 ug/L	-0.0250 ppb	14:24:37
1	Cd 226.502†	-213.7	-11.1	-0.1682 ug/L	-0.1682 ppb	14:24:58
1	Co 228.616†	-57.0	-6.2	-0.1571 ug/L	-0.1571 ppb	14:24:58
1	Cr 267.716†	78.5	-18.0	-0.2802 ug/L	-0.2802 ppb	14:24:58
1	Cu 324.752†	5568.0	126.5	0.4470 ug/L	0.4470 ppb	14:24:37
1	Mn 257.610†	481.2	19.3	0.0222 ug/L	0.0222 ppb	14:24:58
1	Mo 202.031†	21.5	16.4	1.6036 ug/L	1.6036 ppb	14:24:58
1	Ni 231.604†	94.4	8.2	0.2755 ug/L	0.2755 ppb	14:24:58
1	P 214.914†	202.7	-2.2	-1.5414 ug/L	-1.5414 ppb	14:24:58
1	Pb 220.353†	-71.1	-4.2	-0.6789 ug/L	-0.6789 ppb	14:24:58
1	S 181.975 Axial†	29.4	-10.4	-16.510 ug/L	-16.510 ppb	14:24:58
1	Sb 206.836†	42.3	16.4	6.8212 ug/L	6.8212 ppb	14:24:58
1	Se 196.026†	-28.3	-1.3	-1.0777 ug/L	-1.0777 ppb	14:24:58
1	Si 251.611†	632.6	86.3	3.2805 ug/L	3.2805 ppb	14:24:58
1	Sn 189.927†	10.9	0.9	0.2247 ug/L	0.2247 ppb	14:24:58
1	Ti 334.940†	-1393.3	34.3	0.0618 ug/L	0.0618 ppb	14:24:37
1	Tl 190.801†	-24.7	7.2	2.8572 ug/L	2.8572 ppb	14:24:58
1	U 409.014†	-2433.1	10.6	0.4271 ug/L	0.4271 ppb	14:24:37
1	V 292.402†	-1828.8	-51.8	-0.4490 ug/L	-0.4490 ppb	14:24:37
1	Zn 213.857†	741.8	39.8	0.4819 ug/L	0.4819 ppb	14:24:58
1	SiO2†	596.4	36.8	2.9520 ug/L	2.9520 ppb	14:25:54
2	Sc Radial	3829.1	3829.1	107 %		14:23:46
2	Y RADIAL	4214.0	4214.0	103.6 %		14:23:46
2	Al 396.153Radial†	-115.8	1.5	1.6457 ug/L	1.6457 ppb	14:23:46
2	Ca 317.933Radial†	17.0	0.2	0.3713 ug/L	0.3713 ppb	14:24:06
2	Fe 238.204 Radial†	7.7	-0.9	-13.087 ug/L	-13.087 ppb	14:24:06
2	K 766.490 Radial†	3093.6	-119.6	-25.176 ug/L	-25.176 ppb	14:23:46
2	Mg 279.077 IEC†	0.7	0.0	2.1613 ug/L	2.1613 ppb	14:24:06
2	Na 589.592 Radial†	-968.8	-10.6	-5.4409 ug/L	-5.4409 ppb	14:23:46
2	Sr 421.552†	50.9	34.0	0.3745 ug/L	0.3745 ppb	14:23:46
2	Sc 361.383	756444.4	756444.4	113.43 %		14:25:03
2	Y 371.029	597694.3	597694.3	113.18 %		14:25:03
2	Ag 328.068†	142.3	-76.6	-0.4478 ug/L	-0.4478 ppb	14:25:03
2	As 188.979†	-31.0	-2.1	-1.0800 ug/L	-1.0800 ppb	14:25:23
2	B 249.677†	-429.4	36.6	0.9809 ug/L	0.9809 ppb	14:25:23
2	Ba 233.527†	23.5	7.5	0.0790 ug/L	0.0790 ppb	14:25:23
2	Be 313.107†	-4527.8	186.5	0.0786 ug/L	0.0786 ppb	14:25:03
2	Cd 226.502†	-215.4	9.3	0.1475 ug/L	0.1475 ppb	14:25:23
2	Co 228.616†	-44.6	10.6	0.2766 ug/L	0.2766 ppb	14:25:23
2	Cr 267.716†	70.3	-33.3	-0.5141 ug/L	-0.5141 ppb	14:25:23
2	Cu 324.752†	5599.7	-417.5	-1.4864 ug/L	-1.4864 ppb	14:25:03
2	Mn 257.610†	479.3	-31.9	-0.0453 ug/L	-0.0453 ppb	14:25:23
2	Mo 202.031†	13.3	7.0	0.6848 ug/L	0.6848 ppb	14:25:23
2	Ni 231.604†	99.1	2.6	0.0870 ug/L	0.0870 ppb	14:25:23

2	P 214.914†	198.8	-26.4	-17.632 ug/L	-17.632 ppb	14:25:23
2	Pb 220.353†	-81.2	-5.8	-0.9384 ug/L	-0.9384 ppb	14:25:23
2	S 181.975 Axial†	41.1	-3.1	-4.9275 ug/L	-4.9275 ppb	14:25:23
2	Sb 206.836†	37.9	8.2	3.4055 ug/L	3.4055 ppb	14:25:23
2	Se 196.026†	-12.3	15.8	12.251 ug/L	12.251 ppb	14:25:23
2	Si 251.611†	622.7	12.6	0.4735 ug/L	0.4735 ppb	14:25:23
2	Sn 189.927†	8.0	-2.7	-0.6293 ug/L	-0.6293 ppb	14:25:23
2	Ti 334.940†	-1477.5	103.1	0.1910 ug/L	0.1910 ppb	14:25:03
2	Tl 190.801†	-30.4	4.7	1.8421 ug/L	1.8421 ppb	14:25:23
2	U 409.014†	-2443.5	251.3	10.038 ug/L	10.038 ppb	14:25:03
2	V 292.402†	-1776.9	181.8	1.7062 ug/L	1.7062 ppb	14:25:03
2	Zn 213.857†	759.3	-21.0	-0.2497 ug/L	-0.2497 ppb	14:25:23
2	SiO2†	646.5	19.7	1.5870 ug/L	1.5870 ppb	14:25:59
3	Sc Radial	3779.4	3779.4	105 %		14:24:11
3	Y RADIAL	4187.4	4187.4	103.0 %		14:24:11
3	Al 396.153Radial†	-126.4	-10.0	-11.572 ug/L	-11.572 ppb	14:24:11
3	Ca 317.933Radial†	20.8	4.1	8.3195 ug/L	8.3195 ppb	14:24:31
3	Fe 238.204 Radial†	6.0	-2.5	-34.635 ug/L	-34.635 ppb	14:24:31
3	K 766.490 Radial†	3080.6	-93.9	-19.751 ug/L	-19.751 ppb	14:24:11
3	Mg 279.077 IEC†	2.0	1.2	54.655 ug/L	54.655 ppb	14:24:31
3	Na 589.592 Radial†	-980.4	-33.5	-17.256 ug/L	-17.256 ppb	14:24:11
3	Sr 421.552†	27.7	12.6	0.1385 ug/L	0.1385 ppb	14:24:11
3	Sc 361.383	678948.0	678948.0	101.81 %		14:25:28
3	Y 371.029	535198.8	535198.8	101.35 %		14:25:28
3	Ag 328.068†	243.7	37.4	0.2162 ug/L	0.2162 ppb	14:25:28
3	As 188.979†	-19.9	5.7	2.9549 ug/L	2.9549 ppb	14:25:48
3	B 249.677†	-443.2	-20.2	-0.5361 ug/L	-0.5361 ppb	14:25:48
3	Ba 233.527†	0.2	-13.0	-0.1302 ug/L	-0.1302 ppb	14:25:48
3	Be 313.107†	-4309.5	-54.7	-0.0227 ug/L	-0.0227 ppb	14:25:28
3	Cd 226.502†	-232.4	-29.0	-0.4458 ug/L	-0.4458 ppb	14:25:48
3	Co 228.616†	-41.9	8.8	0.2300 ug/L	0.2300 ppb	14:25:48
3	Cr 267.716†	93.6	-3.3	-0.0494 ug/L	-0.0494 ppb	14:25:48
3	Cu 324.752†	5407.2	-43.0	-0.1502 ug/L	-0.1502 ppb	14:25:28
3	Mn 257.610†	475.9	13.0	0.0122 ug/L	0.0122 ppb	14:25:48
3	Mo 202.031†	15.7	10.7	1.0450 ug/L	1.0450 ppb	14:25:48
3	Ni 231.604†	80.1	-6.1	-0.2059 ug/L	-0.2059 ppb	14:25:48
3	P 214.914†	201.2	-4.0	-2.6766 ug/L	-2.6766 ppb	14:25:48
3	Pb 220.353†	-73.6	-6.5	-1.0623 ug/L	-1.0623 ppb	14:25:48
3	S 181.975 Axial†	30.0	-9.9	-15.754 ug/L	-15.754 ppb	14:25:48
3	Sb 206.836†	42.4	16.4	6.8085 ug/L	6.8085 ppb	14:25:48
3	Se 196.026†	-26.1	0.9	0.6193 ug/L	0.6193 ppb	14:25:48
3	Si 251.611†	600.9	53.8	2.0474 ug/L	2.0474 ppb	14:25:48
3	Sn 189.927†	7.9	-2.0	-0.4780 ug/L	-0.4780 ppb	14:25:48
3	Ti 334.940†	-1386.5	43.8	0.0830 ug/L	0.0830 ppb	14:25:28
3	Tl 190.801†	-23.4	8.5	3.3742 ug/L	3.3742 ppb	14:25:48
3	U 409.014†	-2643.0	-190.5	-7.6034 ug/L	-7.6034 ppb	14:25:28
3	V 292.402†	-1644.1	133.4	1.2358 ug/L	1.2358 ppb	14:25:28
3	Zn 213.857†	746.2	42.6	0.5207 ug/L	0.5207 ppb	14:25:48
3	SiO2†	638.2	76.7	6.2083 ug/L	6.2083 ppb	14:26:04

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	704302.2	105.61 %	6.772			6.41%
Sc Radial	3847.2	107 %	2.2			2.04%
Y 371.029	555703.7	105.23 %	6.887			6.54%
Y RADIAL	4249.3	104.5 %	2.09			2.00%
Ag 328.068†	-33.0	-0.1957 ug/L	0.35968	-0.1957 ppb	0.35968	183.77%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	-3.8	-4.4245 ug/L	6.67441	-4.4245 ppb	6.67441	150.85%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	3.4	1.7464 ug/L	2.45627	1.7464 ppb	2.45627	140.65%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	6.4	0.1762 ug/L	0.76272	0.1762 ppb	0.76272	432.89%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-3.2	-0.0316 ug/L	0.10516	-0.0316 ppb	0.10516	332.94%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	23.9	0.0103 ug/L	0.05916	0.0103 ppb	0.05916	576.40%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	2.2	4.5478 ug/L	3.98949	4.5478 ppb	3.98949	87.72%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated						
Cd	226.502†	-10.3	-0.1555 ug/L	0.29681	-0.1555 ppb	0.29681 190.89%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co	228.616†	4.4	0.1165 ug/L	0.23804	0.1165 ppb	0.23804 204.35%
QC value within limits for Co 228.616 Recovery = Not calculated						
Cr	267.716†	-18.2	-0.2813 ug/L	0.23237	-0.2813 ppb	0.23237 82.62%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu	324.752†	-111.3	-0.3965 ug/L	0.98999	-0.3965 ppb	0.98999 249.68%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe	238.204 Radial†	-1.7	-24.393 ug/L	10.8136	-24.393 ppb	10.8136 44.33%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K	766.490 Radial†	-112.4	-23.649 ug/L	3.4019	-23.649 ppb	3.4019 14.39%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg	279.077 IEC†	0.8	33.951 ug/L	27.9479	33.951 ppb	27.9479 82.32%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn	257.610†	0.1	-0.0036 ug/L	0.03641	-0.0036 ppb	0.03641 >999.9%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo	202.031†	11.4	1.1111 ug/L	0.46299	1.1111 ppb	0.46299 41.67%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na	589.592 Radial†	-17.4	-8.9954 ug/L	7.17687	-8.9954 ppb	7.17687 79.78%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni	231.604†	1.6	0.0522 ug/L	0.24257	0.0522 ppb	0.24257 464.58%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P	214.914†	-10.9	-7.2835 ug/L	8.98041	-7.2835 ppb	8.98041 123.30%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb	220.353†	-5.5	-0.8932 ug/L	0.19567	-0.8932 ppb	0.19567 21.91%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S	181.975 Axial†	-7.8	-12.397 ug/L	6.4798	-12.397 ppb	6.4798 52.27%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb	206.836†	13.6	5.6784 ug/L	1.96842	5.6784 ppb	1.96842 34.66%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se	196.026†	5.1	3.9309 ug/L	7.25528	3.9309 ppb	7.25528 184.57%
QC value within limits for Se 196.026 Recovery = Not calculated						
Si	251.611†	50.9	1.9338 ug/L	1.40697	1.9338 ppb	1.40697 72.76%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn	189.927†	-1.2	-0.2942 ug/L	0.45571	-0.2942 ppb	0.45571 154.90%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr	421.552†	18.9	0.2080 ug/L	0.14483	0.2080 ppb	0.14483 69.62%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti	334.940†	60.4	0.1119 ug/L	0.06930	0.1119 ppb	0.06930 61.91%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl	190.801†	6.8	2.6912 ug/L	0.77946	2.6912 ppb	0.77946 28.96%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U	409.014†	23.8	0.9541 ug/L	8.83267	0.9541 ppb	8.83267 925.81%
QC value within limits for U 409.014 Recovery = Not calculated						
V	292.402†	87.8	0.8310 ug/L	1.13317	0.8310 ppb	1.13317 136.36%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn	213.857†	20.5	0.2509 ug/L	0.43399	0.2509 ppb	0.43399 172.94%
QC value within limits for Zn 213.857 Recovery = Not calculated						
SiO2†		44.4	3.5824 ug/L	2.37430	3.5824 ppb	2.37430 66.28%
QC value within limits for SiO2 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 11
 Sample ID: 248241003|959146|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 46
 Date Collected: 3/31/2010 14:28:14
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 248241003|959146|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	3910.1	3910.1	109 %		14:30:27
1	Y RADIAL	6261.0	6261.0	154.0 %		14:30:07
1	Al 396.153Radial†	14680.2	13583.3	15586 ug/L	15586 ppb	14:30:07
1	Ca 317.933Radial†	1519.9	1379.2	2819.1 ug/L	2819.1 ppb	14:30:27
1	Fe 238.204 Radial†	4840.3	4434.2	62682 ug/L	62682 ppb	14:30:07
1	K 766.490 Radial†	28456.1	23097.7	4857.4 ug/L	4857.4 ppb	14:30:07
1	Mg 279.077 IEC†	49.2	44.5	1899.7 ug/L	1899.7 ppb	14:30:27
1	Na 589.592 Radial†	5261.5	5726.4	2952.7 ug/L	2952.7 ppb	14:30:07
1	Sr 421.552†	1904.4	1734.1	19.097 ug/L	19.097 ppb	14:30:07
1	Sc 361.383	678090.1	678090.1	101.68 %		14:31:24
1	Y 371.029	785295.9	785295.9	148.71 %		14:31:24
1	Ag 328.068†	-3205.2	-3354.4	0.4240 ug/L	0.4240 ppb	14:31:29
1	As 188.979†	-30.5	-4.7	35.026 ug/L	35.026 ppb	14:31:49
1	B 249.677†	22.2	437.0	1.4828 ug/L	1.4828 ppb	14:31:29
1	Ba 233.527†	19446.2	19111.9	195.33 ug/L	195.33 ppb	14:31:29
1	Be 313.107†	-8473.4	-4155.2	4.2381 ug/L	4.2381 ppb	14:31:29
1	Cd 226.502†	240.0	435.3	0.2212 ug/L	0.2212 ppb	14:31:49
1	Co 228.616†	540.4	581.4	8.7273 ug/L	8.7273 ppb	14:31:49
1	Cr 267.716†	7306.3	7090.5	115.82 ug/L	115.82 ppb	14:31:29
1	Cu 324.752†	9664.2	4150.4	18.237 ug/L	18.237 ppb	14:31:29
1	Mn 257.610†	2733339.4	2687762.2	3704.5 ug/L	3704.5 ppb	14:31:24
1	Mo 202.031†	63.5	57.7	10.544 ug/L	10.544 ppb	14:31:49
1	Ni 231.604†	2387.0	2262.9	76.243 ug/L	76.243 ppb	14:31:49
1	P 214.914†	1234.8	1012.7	637.80 ug/L	637.80 ppb	14:31:49
1	Pb 220.353†	240.1	301.9	47.136 ug/L	47.136 ppb	14:31:49
1	S 181.975 Axial†	102.7	61.6	94.819 ug/L	94.819 ppb	14:31:49
1	Sb 206.836†	42.6	16.7	-2.6663 ug/L	-2.6663 ppb	14:31:49
1	Se 196.026†	-293.9	-262.4	-33.552 ug/L	-33.552 ppb	14:31:49
1	Si 251.611†	787163.7	773632.5	29599 ug/L	29599 ppb	14:31:24
1	Sn 189.927†	-0.1	-9.9	-1.4431 ug/L	-1.4431 ppb	14:31:49
1	Ti 334.940†	1412126.3	1390220.2	2633.8 ug/L	2633.8 ppb	14:31:24
1	Tl 190.801†	-135.7	-102.0	-1.0791 ug/L	-1.0791 ppb	14:31:49
1	U 409.014†	-11811.5	-9211.0	-375.20 ug/L	-375.20 ppb	14:31:24
1	V 292.402†	2272.3	3983.2	24.155 ug/L	24.155 ppb	14:31:29
1	Zn 213.857†	36458.1	35165.9	414.52 ug/L	414.52 ppb	14:31:29
1	SiO2†	776764.9	763391.6	62092 ug/L	62092 ppb	14:32:57
2	Sc Radial	3869.3	3869.3	108 %		14:30:52
2	Y RADIAL	6409.2	6409.2	157.6 %		14:30:32
2	Al 396.153Radial†	15028.4	14048.3	16120 ug/L	16120 ppb	14:30:32
2	Ca 317.933Radial†	1511.0	1385.6	2832.3 ug/L	2832.3 ppb	14:30:52
2	Fe 238.204 Radial†	4904.0	4540.1	64179 ug/L	64179 ppb	14:30:32
2	K 766.490 Radial†	29118.1	23986.9	5044.7 ug/L	5044.7 ppb	14:30:32
2	Mg 279.077 IEC†	47.9	43.7	1864.2 ug/L	1864.2 ppb	14:30:52
2	Na 589.592 Radial†	5365.4	5873.7	3028.6 ug/L	3028.6 ppb	14:30:32
2	Sr 421.552†	1944.9	1790.0	19.714 ug/L	19.714 ppb	14:30:32
2	Sc 361.383	718427.8	718427.8	107.73 %		14:31:55
2	Y 371.029	808196.4	808196.4	153.04 %		14:31:55
2	Ag 328.068†	-3232.6	-3202.8	1.7325 ug/L	1.7325 ppb	14:32:00
2	As 188.979†	-37.3	-9.4	31.147 ug/L	31.147 ppb	14:32:20
2	B 249.677†	-107.0	315.8	-2.0051 ug/L	-2.0051 ppb	14:32:00
2	Ba 233.527†	19427.6	18020.9	184.33 ug/L	184.33 ppb	14:32:00
2	Be 313.107†	-8514.5	-3725.5	3.9403 ug/L	3.9403 ppb	14:32:00
2	Cd 226.502†	249.6	430.9	0.0017 ug/L	0.0017 ppb	14:32:20
2	Co 228.616†	545.6	556.4	8.4894 ug/L	8.4894 ppb	14:32:20
2	Cr 267.716†	7325.4	6704.8	110.04 ug/L	110.04 ppb	14:32:00
2	Cu 324.752†	9770.3	3715.3	16.756 ug/L	16.756 ppb	14:32:00
2	Mn 257.610†	2669830.1	2477872.7	3415.8 ug/L	3415.8 ppb	14:31:55
2	Mo 202.031†	40.9	33.2	8.2620 ug/L	8.2620 ppb	14:32:20
2	Ni 231.604†	2376.8	2121.6	71.482 ug/L	71.482 ppb	14:32:20

2	P 214.914†	1252.7	961.2	602.12 ug/L	602.12 ppb	14:32:20
2	Pb 220.353†	233.5	282.5	43.955 ug/L	43.955 ppb	14:32:20
2	S 181.975 Axial†	89.1	43.3	65.746 ug/L	65.746 ppb	14:32:20
2	Sb 206.836†	52.3	23.3	0.7334 ug/L	0.7334 ppb	14:32:20
2	Se 196.026†	-294.2	-246.5	-16.981 ug/L	-16.981 ppb	14:32:20
2	Si 251.611†	768832.2	713148.6	27285 ug/L	27285 ppb	14:31:55
2	Sn 189.927†	14.9	4.1	1.8634 ug/L	1.8634 ppb	14:32:20
2	Ti 334.940†	1376439.5	1279115.2	2423.3 ug/L	2423.3 ppb	14:31:55
2	Tl 190.801†	-143.6	-101.9	-4.1443 ug/L	-4.1443 ppb	14:32:20
2	U 409.014†	-11660.2	-8418.3	-343.70 ug/L	-343.70 ppb	14:31:55
2	V 292.402†	2303.5	3886.7	23.299 ug/L	23.299 ppb	14:32:00
2	Zn 213.857†	36346.7	33049.2	388.78 ug/L	388.78 ppb	14:32:00
2	SiO2†	767853.7	712226.5	57930 ug/L	57930 ppb	14:33:03
3	Sc Radial	4071.4	4071.4	113 %		14:31:17
3	Y RADIAL	6703.4	6703.4	164.8 %		14:30:57
3	Al 396.153Radial†	15650.0	13904.3	15955 ug/L	15955 ppb	14:30:57
3	Ca 317.933Radial†	1585.1	1381.4	2823.6 ug/L	2823.6 ppb	14:31:17
3	Fe 238.204 Radial†	5091.4	4479.6	63323 ug/L	63323 ppb	14:30:57
3	K 766.490 Radial†	30123.3	23532.6	4949.0 ug/L	4949.0 ppb	14:30:57
3	Mg 279.077 IEC†	47.5	41.2	1753.2 ug/L	1753.2 ppb	14:31:17
3	Na 589.592 Radial†	5632.3	5861.9	3022.5 ug/L	3022.5 ppb	14:30:57
3	Sr 421.552†	1984.9	1735.7	19.115 ug/L	19.115 ppb	14:30:57
3	Sc 361.383	724856.5	724856.5	108.69 %		14:32:26
3	Y 371.029	817005.6	817005.6	154.71 %		14:32:26
3	Ag 328.068†	-3074.7	-3030.9	2.4533 ug/L	2.4533 ppb	14:32:31
3	As 188.979†	-31.0	-3.3	34.141 ug/L	34.141 ppb	14:32:51
3	B 249.677†	-155.2	272.3	-3.0300 ug/L	-3.0300 ppb	14:32:31
3	Ba 233.527†	18966.5	17436.7	178.40 ug/L	178.40 ppb	14:32:31
3	Be 313.107†	-8391.8	-3542.5	4.0254 ug/L	4.0254 ppb	14:32:31
3	Cd 226.502†	241.1	421.0	-0.0616 ug/L	-0.0616 ppb	14:32:51
3	Co 228.616†	541.0	547.6	8.2643 ug/L	8.2643 ppb	14:32:51
3	Cr 267.716†	7165.7	6497.5	106.76 ug/L	106.76 ppb	14:32:31
3	Cu 324.752†	9576.3	3456.3	15.790 ug/L	15.790 ppb	14:32:31
3	Mn 257.610†	2696048.2	2480014.4	3418.7 ug/L	3418.7 ppb	14:32:26
3	Mo 202.031†	43.3	35.1	8.3788 ug/L	8.3788 ppb	14:32:51
3	Ni 231.604†	2385.5	2110.0	71.092 ug/L	71.092 ppb	14:32:51
3	P 214.914†	1238.1	937.4	586.80 ug/L	586.80 ppb	14:32:51
3	Pb 220.353†	248.5	294.4	45.940 ug/L	45.940 ppb	14:32:51
3	S 181.975 Axial†	92.7	45.9	69.826 ug/L	69.826 ppb	14:32:51
3	Sb 206.836†	48.3	19.2	-0.9683 ug/L	-0.9683 ppb	14:32:51
3	Se 196.026†	-286.7	-237.2	-12.062 ug/L	-12.062 ppb	14:32:51
3	Si 251.611†	778080.1	715327.5	27369 ug/L	27369 ppb	14:32:26
3	Sn 189.927†	6.3	-4.0	-0.0406 ug/L	-0.0406 ppb	14:32:51
3	Ti 334.940†	1390890.8	1281079.1	2427.0 ug/L	2427.0 ppb	14:32:26
3	Tl 190.801†	-140.7	-98.0	-2.5719 ug/L	-2.5719 ppb	14:32:51
3	U 409.014†	-11632.4	-8296.8	-338.74 ug/L	-338.74 ppb	14:32:26
3	V 292.402†	2225.3	3795.7	22.593 ug/L	22.593 ppb	14:32:31
3	Zn 213.857†	35393.5	31873.0	374.72 ug/L	374.72 ppb	14:32:31
3	SiO2†	760064.4	698738.5	56833 ug/L	56833 ppb	14:33:08

Mean Data: 248241003|959146|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	707124.8	106.03 %		3.801			3.58%
Sc Radial	3950.2	110 %		3.0			2.71%
Y 371.029	803499.3	152.15 %		3.100			2.04%
Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 152.2%							
Y RADIAL	6457.9	158.8 %		5.54			3.49%
Ag 328.068†	-3196.0	1.5366 ug/L		1.02873	1.5366 ppb	1.02873	66.95%
Al 396.153Radial†	13845.3	15887 ug/L		273.2	15887 ppb	273.2	1.72%
As 188.979†	-5.8	33.438 ug/L		2.0332	33.438 ppb	2.0332	6.08%
B 249.677†	341.7	-1.1841 ug/L		2.36577	-1.1841 ppb	2.36577	199.80%
Ba 233.527†	18189.9	186.02 ug/L		8.590	186.02 ppb	8.590	4.62%
Be 313.107†	-3807.7	4.0679 ug/L		0.15340	4.0679 ppb	0.15340	3.77%
Ca 317.933Radial†	1382.1	2825.0 ug/L		6.67	2825.0 ppb	6.67	0.24%
Cd 226.502†	429.1	0.0538 ug/L		0.14842	0.0538 ppb	0.14842	275.88%
Co 228.616†	561.8	8.4936 ug/L		0.23156	8.4936 ppb	0.23156	2.73%
Cr 267.716†	6764.2	110.87 ug/L		4.589	110.87 ppb	4.589	4.14%
Cu 324.752†	3774.0	16.928 ug/L		1.2327	16.928 ppb	1.2327	7.28%
Fe 238.204 Radial†	4484.6	63395 ug/L		751.2	63395 ppb	751.2	1.18%

K 766.490 Radial†	23539.1	4950.4 ug/L	93.62	4950.4 ppb	93.62	1.89%
Mg 279.077 IEC†	43.2	1839.1 ug/L	76.45	1839.1 ppb	76.45	4.16%
Mn 257.610†	2548549.8	3513.0 ug/L	165.84	3513.0 ppb	165.84	4.72%
Mo 202.031†	42.0	9.0616 ug/L	1.28507	9.0616 ppb	1.28507	14.18%
Na 589.592 Radial†	5820.6	3001.3 ug/L	42.19	3001.3 ppb	42.19	1.41%
Ni 231.604†	2164.8	72.939 ug/L	2.8682	72.939 ppb	2.8682	3.93%
P 214.914†	970.4	608.91 ug/L	26.169	608.91 ppb	26.169	4.30%
Pb 220.353†	293.0	45.677 ug/L	1.6066	45.677 ppb	1.6066	3.52%
S 181.975 Axial†	50.3	76.797 ug/L	15.7400	76.797 ppb	15.7400	20.50%
Sb 206.836†	19.7	-0.9671 ug/L	1.69985	-0.9671 ppb	1.69985	175.78%
Se 196.026†	-248.7	-20.865 ug/L	11.2592	-20.865 ppb	11.2592	53.96%
Si 251.611†	734036.2	28084 ug/L	1312.6	28084 ppb	1312.6	4.67%
Sn 189.927†	-3.3	0.1265 ug/L	1.65958	0.1265 ppb	1.65958	>999.9%
Sr 421.552†	1753.3	19.309 ug/L	0.3509	19.309 ppb	0.3509	1.82%
Ti 334.940†	1316804.9	2494.7 ug/L	120.45	2494.7 ppb	120.45	4.83%
Tl 190.801†	-100.6	-2.5984 ug/L	1.53276	-2.5984 ppb	1.53276	58.99%
U 409.014†	-8642.0	-352.55 ug/L	19.772	-352.55 ppb	19.772	5.61%
V 292.402†	3888.5	23.349 ug/L	0.7823	23.349 ppb	0.7823	3.35%
Zn 213.857†	33362.7	392.67 ug/L	20.183	392.67 ppb	20.183	5.14%
SiO2†	724785.5	58952 ug/L	2774.1	58952 ppb	2774.1	4.71%

Internal Standard Check failed. Continue with analysis.

Sequence No.: 12
 Sample ID: 248241004|959146|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 47
 Date Collected: 3/31/2010 14:35:19
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 248241004|959146|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4099.8	4099.8	114 %		14:37:32
1	Y RADIAL	6397.7	6397.7	157.3 %		14:37:12
1	Al 396.153Radial†	45044.0	39538.1	45369 ug/L	45369 ppb	14:37:12
1	Ca 317.933Radial†	8291.0	7241.6	14802 ug/L	14802 ppb	14:37:12
1	Fe 238.204 Radial†	7315.5	6395.2	90403 ug/L	90403 ppb	14:37:12
1	K 766.490 Radial†	46345.4	37548.4	7896.0 ug/L	7896.0 ppb	14:37:12
1	Mg 279.077 IEC†	235.8	205.8	8988.9 ug/L	8988.9 ppb	14:37:32
1	Na 589.592 Radial†	352.0	1205.6	621.63 ug/L	621.63 ppb	14:37:12
1	Sr 421.552†	11680.4	10210.4	112.46 ug/L	112.46 ppb	14:37:12
1	Sc 361.383	716638.7	716638.7	107.46 %		14:38:30
1	Y 371.029	782780.0	782780.0	148.23 %		14:38:30
1	Ag 328.068†	-4840.8	-4706.8	1.3214 ug/L	1.3214 ppb	14:38:35
1	As 188.979†	-10.9	15.1	46.732 ug/L	46.732 ppb	14:38:55
1	B 249.677†	891.6	1244.8	18.611 ug/L	18.611 ppb	14:38:35
1	Ba 233.527†	40137.5	37338.3	380.72 ug/L	380.72 ppb	14:38:35
1	Be 313.107†	35410.1	37130.5	20.198 ug/L	20.198 ppb	14:38:35
1	Cd 226.502†	432.8	602.0	-0.0521 ug/L	-0.0521 ppb	14:38:55
1	Co 228.616†	707.0	707.9	12.893 ug/L	12.893 ppb	14:38:55
1	Cr 267.716†	11306.1	10426.1	170.13 ug/L	170.13 ppb	14:38:35
1	Cu 324.752†	14144.2	7808.2	32.668 ug/L	32.668 ppb	14:38:35
1	Mn 257.610†	2039790.6	1897752.2	2619.9 ug/L	2619.9 ppb	14:38:30
1	Mo 202.031†	6.3	1.1	7.3026 ug/L	7.3026 ppb	14:38:55
1	Ni 231.604†	3267.0	2955.5	99.581 ug/L	99.581 ppb	14:38:55
1	P 214.914†	1500.0	1194.2	743.37 ug/L	743.37 ppb	14:38:55
1	Pb 220.353†	262.8	310.4	53.448 ug/L	53.448 ppb	14:38:55
1	S 181.975 Axial†	367.3	302.4	471.27 ug/L	471.27 ppb	14:38:55
1	Sb 206.836†	47.9	19.3	-0.8911 ug/L	-0.8911 ppb	14:38:55
1	Se 196.026†	-421.8	-365.9	-32.283 ug/L	-32.283 ppb	14:38:55
1	Si 251.611†	1065048.0	990585.5	37900 ug/L	37900 ppb	14:38:30
1	Sn 189.927†	-77.7	-82.0	-16.205 ug/L	-16.205 ppb	14:38:55
1	Ti 334.940†	1159172.5	1080118.8	2047.4 ug/L	2047.4 ppb	14:38:30
1	Tl 190.801†	-123.4	-83.4	-3.9067 ug/L	-3.9067 ppb	14:38:55
1	U 409.014†	-12193.4	-8941.5	-367.71 ug/L	-367.71 ppb	14:38:30
1	V 292.402†	11246.8	12214.5	96.643 ug/L	96.643 ppb	14:38:35
1	Zn 213.857†	35014.8	31894.0	370.71 ug/L	370.71 ppb	14:38:35
1	SiO2†	1061857.3	987602.5	80328 ug/L	80328 ppb	14:40:04
2	Sc Radial	3994.9	3994.9	111 %		14:37:57
2	Y RADIAL	6260.2	6260.2	153.9 %		14:37:37
2	Al 396.153Radial†	43845.6	39496.5	45321 ug/L	45321 ppb	14:37:37
2	Ca 317.933Radial†	8030.9	7198.4	14714 ug/L	14714 ppb	14:37:37
2	Fe 238.204 Radial†	7069.3	6342.2	89653 ug/L	89653 ppb	14:37:37
2	K 766.490 Radial†	45112.1	37505.3	7886.9 ug/L	7886.9 ppb	14:37:37
2	Mg 279.077 IEC†	227.9	204.1	8914.8 ug/L	8914.8 ppb	14:37:57
2	Na 589.592 Radial†	311.2	1177.0	606.87 ug/L	606.87 ppb	14:37:37
2	Sr 421.552†	11219.7	10064.9	110.86 ug/L	110.86 ppb	14:37:37
2	Sc 361.383	711513.9	711513.9	106.69 %		14:39:01
2	Y 371.029	777251.8	777251.8	147.18 %		14:39:01
2	Ag 328.068†	-4916.8	-4810.6	0.4977 ug/L	0.4977 ppb	14:39:06
2	As 188.979†	-11.5	14.5	46.272 ug/L	46.272 ppb	14:39:26
2	B 249.677†	871.0	1231.4	18.374 ug/L	18.374 ppb	14:39:06
2	Ba 233.527†	40014.4	37492.0	382.25 ug/L	382.25 ppb	14:39:06
2	Be 313.107†	35306.9	37271.2	20.265 ug/L	20.265 ppb	14:39:06
2	Cd 226.502†	431.1	603.3	0.0468 ug/L	0.0468 ppb	14:39:26
2	Co 228.616†	721.2	725.9	13.364 ug/L	13.364 ppb	14:39:26
2	Cr 267.716†	11229.6	10430.2	170.12 ug/L	170.12 ppb	14:39:06
2	Cu 324.752†	14199.8	7955.1	33.151 ug/L	33.151 ppb	14:39:06
2	Mn 257.610†	2029270.2	1901563.6	2625.0 ug/L	2625.0 ppb	14:39:01
2	Mo 202.031†	-2.4	-7.0	6.4504 ug/L	6.4504 ppb	14:39:26
2	Ni 231.604†	3319.3	3026.4	101.97 ug/L	101.97 ppb	14:39:26

2	P 214.914†	1498.1	1202.5	749.51 ug/L	749.51 ppb	14:39:26
2	Pb 220.353†	278.5	326.8	56.186 ug/L	56.186 ppb	14:39:26
2	S 181.975 Axial†	377.2	314.2	490.02 ug/L	490.02 ppb	14:39:26
2	Sb 206.836†	47.3	19.1	-0.9709 ug/L	-0.9709 ppb	14:39:26
2	Se 196.026†	-419.3	-366.4	-34.662 ug/L	-34.662 ppb	14:39:26
2	Si 251.611†	1057968.5	991088.6	37919 ug/L	37919 ppb	14:39:01
2	Sn 189.927†	-70.6	-76.0	-14.786 ug/L	-14.786 ppb	14:39:26
2	Ti 334.940†	1152789.8	1081906.0	2050.7 ug/L	2050.7 ppb	14:39:01
2	Tl 190.801†	-124.3	-85.1	-4.5379 ug/L	-4.5379 ppb	14:39:26
2	U 409.014†	-12193.1	-9023.0	-370.88 ug/L	-370.88 ppb	14:39:01
2	V 292.402†	11259.2	12301.6	97.532 ug/L	97.532 ppb	14:39:06
2	Zn 213.857†	34979.7	32095.8	373.25 ug/L	373.25 ppb	14:39:06
2	SiO2†	1073509.7	1005641.5	81796 ug/L	81796 ppb	14:40:10
3	Sc Radial	4055.7	4055.7	113 %		14:38:23
3	Y RADIAL	6442.4	6442.4	158.4 %		14:38:03
3	Al 396.153Radial†	45062.8	39983.3	45879 ug/L	45879 ppb	14:38:03
3	Ca 317.933Radial†	8246.8	7281.4	14883 ug/L	14883 ppb	14:38:03
3	Fe 238.204 Radial†	7246.7	6404.0	90528 ug/L	90528 ppb	14:38:03
3	K 766.490 Radial†	45887.1	37583.7	7903.4 ug/L	7903.4 ppb	14:38:03
3	Mg 279.077 IEC†	233.6	206.0	9001.3 ug/L	9001.3 ppb	14:38:23
3	Na 589.592 Radial†	309.2	1171.0	603.79 ug/L	603.79 ppb	14:38:03
3	Sr 421.552†	11565.1	10219.5	112.56 ug/L	112.56 ppb	14:38:03
3	Sc 361.383	718576.8	718576.8	107.75 %		14:39:32
3	Y 371.029	786098.4	786098.4	148.86 %		14:39:32
3	Ag 328.068†	-4938.9	-4785.7	0.9119 ug/L	0.9119 ppb	14:39:37
3	As 188.979†	-18.8	7.8	42.966 ug/L	42.966 ppb	14:39:57
3	B 249.677†	888.3	1239.5	18.449 ug/L	18.449 ppb	14:39:37
3	Ba 233.527†	40647.6	37711.0	384.49 ug/L	384.49 ppb	14:39:37
3	Be 313.107†	36041.6	37627.7	20.403 ug/L	20.403 ppb	14:39:37
3	Cd 226.502†	418.4	587.5	-0.2890 ug/L	-0.2890 ppb	14:39:57
3	Co 228.616†	713.3	711.9	12.998 ug/L	12.998 ppb	14:39:57
3	Cr 267.716†	11458.5	10539.2	171.89 ug/L	171.89 ppb	14:39:37
3	Cu 324.752†	14506.9	8109.3	33.744 ug/L	33.744 ppb	14:39:37
3	Mn 257.610†	2039321.7	1892197.2	2612.2 ug/L	2612.2 ppb	14:39:32
3	Mo 202.031†	-2.1	-6.7	6.5465 ug/L	6.5465 ppb	14:39:57
3	Ni 231.604†	3302.5	2980.3	100.42 ug/L	100.42 ppb	14:39:57
3	P 214.914†	1499.4	1189.8	740.25 ug/L	740.25 ppb	14:39:57
3	Pb 220.353†	261.3	308.3	53.225 ug/L	53.225 ppb	14:39:57
3	S 181.975 Axial†	374.2	307.9	479.88 ug/L	479.88 ppb	14:39:57
3	Sb 206.836†	57.8	28.4	2.9279 ug/L	2.9279 ppb	14:39:57
3	Se 196.026†	-429.2	-371.7	-36.334 ug/L	-36.334 ppb	14:39:57
3	Si 251.611†	1065190.8	988044.8	37803 ug/L	37803 ppb	14:39:32
3	Sn 189.927†	-62.2	-67.5	-12.753 ug/L	-12.753 ppb	14:39:57
3	Ti 334.940†	1161393.6	1079270.7	2045.8 ug/L	2045.8 ppb	14:39:32
3	Tl 190.801†	-132.2	-91.2	-7.0832 ug/L	-7.0832 ppb	14:39:57
3	U 409.014†	-12327.2	-9035.0	-371.46 ug/L	-371.46 ppb	14:39:32
3	V 292.402†	11437.9	12363.7	97.983 ug/L	97.983 ppb	14:39:37
3	Zn 213.857†	35657.4	32402.5	376.83 ug/L	376.83 ppb	14:39:37
3	SiO2†	1078084.7	999997.6	81337 ug/L	81337 ppb	14:40:16

Mean Data: 248241004|959146|1

Analyte	Mean Corrected	Calib.	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity	Conc. Units		Conc. Units		
Sc 361.383	715576.4	107.30 %	0.547			0.51%
Sc Radial	4050.1	113 %	1.5			1.30%
Y 371.029	782043.4	148.09 %	0.846			0.57%
Y RADIAL	6366.8	156.6 %	2.33			1.49%
Ag 328.068†	-4767.7	0.9103 ug/L	0.41187	0.9103 ppb	0.41187	45.24%
Al 396.153Radial†	39672.7	45523 ug/L	309.6	45523 ppb	309.6	0.68%
As 188.979†	12.5	45.323 ug/L	2.0546	45.323 ppb	2.0546	4.53%
B 249.677†	1238.6	18.478 ug/L	0.1210	18.478 ppb	0.1210	0.66%
Ba 233.527†	37513.8	382.49 ug/L	1.899	382.49 ppb	1.899	0.50%
Be 313.107†	37343.1	20.289 ug/L	0.1044	20.289 ppb	0.1044	0.51%
Ca 317.933Radial†	7240.5	14800 ug/L	84.8	14800 ppb	84.8	0.57%
Cd 226.502†	597.6	-0.0981 ug/L	0.17256	-0.0981 ppb	0.17256	175.91%
Co 228.616†	715.2	13.085 ug/L	0.2471	13.085 ppb	0.2471	1.89%
Cr 267.716†	10465.2	170.71 ug/L	1.017	170.71 ppb	1.017	0.60%
Cu 324.752†	7957.5	33.188 ug/L	0.5392	33.188 ppb	0.5392	1.62%
Fe 238.204 Radial†	6380.5	90195 ug/L	473.0	90195 ppb	473.0	0.52%
K 766.490 Radial†	37545.8	7895.4 ug/L	8.24	7895.4 ppb	8.24	0.10%

Mg 279.077 IEC†	205.3	8968.3 ug/L	46.77	8968.3 ppb	46.77	0.52%
Mn 257.610†	1897171.0	2619.0 ug/L	6.44	2619.0 ppb	6.44	0.25%
Mo 202.031†	-4.2	6.7665 ug/L	0.46678	6.7665 ppb	0.46678	6.90%
Na 589.592 Radial†	1184.5	610.76 ug/L	9.535	610.76 ppb	9.535	1.56%
Ni 231.604†	2987.4	100.66 ug/L	1.212	100.66 ppb	1.212	1.20%
P 214.914†	1195.5	744.38 ug/L	4.709	744.38 ppb	4.709	0.63%
Pb 220.353†	315.1	54.286 ug/L	1.6488	54.286 ppb	1.6488	3.04%
S 181.975 Axial†	308.2	480.39 ug/L	9.382	480.39 ppb	9.382	1.95%
Sb 206.836†	22.3	0.3553 ug/L	2.22828	0.3553 ppb	2.22828	627.19%
Se 196.026†	-368.0	-34.426 ug/L	2.0359	-34.426 ppb	2.0359	5.91%
Si 251.611†	989906.3	37874 ug/L	62.4	37874 ppb	62.4	0.16%
Sn 189.927†	-75.2	-14.581 ug/L	1.7350	-14.581 ppb	1.7350	11.90%
Sr 421.552†	10164.9	111.96 ug/L	0.956	111.96 ppb	0.956	0.85%
Ti 334.940†	1080431.8	2048.0 ug/L	2.54	2048.0 ppb	2.54	0.12%
Tl 190.801†	-86.6	-5.1759 ug/L	1.68162	-5.1759 ppb	1.68162	32.49%
U 409.014†	-8999.8	-370.02 ug/L	2.020	-370.02 ppb	2.020	0.55%
V 292.402†	12293.3	97.386 ug/L	0.6817	97.386 ppb	0.6817	0.70%
Zn 213.857†	32130.8	373.60 ug/L	3.071	373.60 ppb	3.071	0.82%
SiO2†	997747.2	81153 ug/L	750.6	81153 ppb	750.6	0.92%

Sequence No.: 13

Sample ID: 248241005|959146|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 48

Date Collected: 3/31/2010 14:42:27

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248241005|959146|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4011.8	4011.8	112 %		14:44:40
1	Y RADIAL	5070.1	5070.1	124.7 %		14:44:20
1	Al 396.153Radial†	40445.1	36288.7	41640 ug/L	41640 ppb	14:44:20
1	Ca 317.933Radial†	8513.7	7599.9	15534 ug/L	15534 ppb	14:44:20
1	Fe 238.204 Radial†	6433.9	5747.0	81240 ug/L	81240 ppb	14:44:20
1	K 766.490 Radial†	32078.1	25675.3	5397.4 ug/L	5397.4 ppb	14:44:20
1	Mg 279.077 IEC†	250.9	223.8	9795.5 ug/L	9795.5 ppb	14:44:40
1	Na 589.592 Radial†	1010.8	1801.6	928.96 ug/L	928.96 ppb	14:44:20
1	Sr 421.552†	16938.6	15138.0	166.78 ug/L	166.78 ppb	14:44:20
1	Sc 361.383	705721.3	705721.3	105.82 %		14:45:38
1	Y 371.029	614506.0	614506.0	116.36 %		14:45:38
1	Ag 328.068†	-4334.2	-4297.8	0.7516 ug/L	0.7516 ppb	14:45:43
1	As 188.979†	-39.4	-12.0	36.604 ug/L	36.604 ppb	14:46:03
1	B 249.677†	404.7	797.6	8.1133 ug/L	8.1133 ppb	14:45:43
1	Ba 233.527†	52805.7	49887.3	507.43 ug/L	507.43 ppb	14:45:43
1	Be 313.107†	-11497.8	-6687.0	3.4339 ug/L	3.4339 ppb	14:45:43
1	Cd 226.502†	375.4	553.9	0.1697 ug/L	0.1697 ppb	14:46:03
1	Co 228.616†	781.8	788.7	13.736 ug/L	13.736 ppb	14:46:03
1	Cr 267.716†	8206.3	7659.6	126.59 ug/L	126.59 ppb	14:45:43
1	Cu 324.752†	14374.5	8229.4	33.564 ug/L	33.564 ppb	14:45:43
1	Mn 257.610†	910516.1	859969.7	1190.9 ug/L	1190.9 ppb	14:45:38
1	Mo 202.031†	7.9	2.7	6.7566 ug/L	6.7566 ppb	14:46:03
1	Ni 231.604†	2115.7	1914.6	64.503 ug/L	64.503 ppb	14:46:03
1	P 214.914†	1036.1	777.4	466.65 ug/L	466.65 ppb	14:46:03
1	Pb 220.353†	344.5	391.4	66.625 ug/L	66.625 ppb	14:46:03
1	S 181.975 Axial†	352.0	293.3	457.54 ug/L	457.54 ppb	14:46:03
1	Sb 206.836†	68.5	39.5	5.3978 ug/L	5.3978 ppb	14:46:03
1	Se 196.026†	-370.2	-323.2	-24.399 ug/L	-24.399 ppb	14:46:03
1	Si 251.611†	995544.9	940238.6	35974 ug/L	35974 ppb	14:45:38
1	Sn 189.927†	-74.7	-80.4	-15.742 ug/L	-15.742 ppb	14:46:03
1	Ti 334.940†	1532744.4	1449826.2	2747.6 ug/L	2747.6 ppb	14:45:38
1	Tl 190.801†	-90.0	-53.6	6.8442 ug/L	6.8442 ppb	14:46:03
1	U 409.014†	-6628.7	-3858.5	-163.60 ug/L	-163.60 ppb	14:45:43
1	V 292.402†	13278.0	14295.9	116.84 ug/L	116.84 ppb	14:45:43
1	Zn 213.857†	27146.2	24962.4	288.65 ug/L	288.65 ppb	14:45:43
1	SiO2†	988519.3	933585.7	75935 ug/L	75935 ppb	14:47:11
2	Sc Radial	4017.8	4017.8	112 %		14:45:05
2	Y RADIAL	4808.1	4808.1	118.2 %		14:44:45
2	Al 396.153Radial†	39306.5	35217.8	40411 ug/L	40411 ppb	14:44:45
2	Ca 317.933Radial†	8290.4	7389.1	15103 ug/L	15103 ppb	14:44:45
2	Fe 238.204 Radial†	6278.3	5599.4	79154 ug/L	79154 ppb	14:44:45
2	K 766.490 Radial†	31280.2	24919.9	5238.6 ug/L	5238.6 ppb	14:44:45
2	Mg 279.077 IEC†	251.2	223.7	9792.6 ug/L	9792.6 ppb	14:45:05
2	Na 589.592 Radial†	1007.9	1797.6	926.91 ug/L	926.91 ppb	14:44:45
2	Sr 421.552†	16420.3	14652.5	161.43 ug/L	161.43 ppb	14:44:45
2	Sc 361.383	708629.8	708629.8	106.26 %		14:46:09
2	Y 371.029	616727.9	616727.9	116.79 %		14:46:09
2	Ag 328.068†	-4364.6	-4309.6	0.0400 ug/L	0.0400 ppb	14:46:14
2	As 188.979†	-39.0	-11.4	36.124 ug/L	36.124 ppb	14:46:34
2	B 249.677†	405.9	797.1	8.4394 ug/L	8.4394 ppb	14:46:14
2	Ba 233.527†	52540.9	49433.4	502.77 ug/L	502.77 ppb	14:46:14
2	Be 313.107†	-11459.1	-6606.0	3.3987 ug/L	3.3987 ppb	14:46:14
2	Cd 226.502†	375.6	552.7	0.3646 ug/L	0.3646 ppb	14:46:34
2	Co 228.616†	795.5	798.6	14.086 ug/L	14.086 ppb	14:46:34
2	Cr 267.716†	8202.7	7624.4	125.82 ug/L	125.82 ppb	14:46:14
2	Cu 324.752†	14320.4	8122.7	33.076 ug/L	33.076 ppb	14:46:14
2	Mn 257.610†	904052.6	850355.2	1177.5 ug/L	1177.5 ppb	14:46:09
2	Mo 202.031†	13.7	8.2	7.1218 ug/L	7.1218 ppb	14:46:34
2	Ni 231.604†	2072.1	1865.3	62.842 ug/L	62.842 ppb	14:46:34

2	P 214.914†	1049.1	785.6	473.63 ug/L	473.63 ppb	14:46:34
2	Pb 220.353†	338.4	384.3	65.359 ug/L	65.359 ppb	14:46:34
2	S 181.975 Axial†	357.2	296.8	463.26 ug/L	463.26 ppb	14:46:34
2	Sb 206.836†	60.8	32.0	2.4803 ug/L	2.4803 ppb	14:46:34
2	Se 196.026†	-359.1	-311.4	-21.051 ug/L	-21.051 ppb	14:46:34
2	Si 251.611†	988211.5	929475.8	35562 ug/L	35562 ppb	14:46:09
2	Sn 189.927†	-72.0	-77.5	-15.157 ug/L	-15.157 ppb	14:46:34
2	Ti 334.940†	1521983.9	1433754.4	2717.1 ug/L	2717.1 ppb	14:46:09
2	Tl 190.801†	-106.6	-68.8	0.4776 ug/L	0.4776 ppb	14:46:34
2	U 409.014†	-6671.6	-3873.1	-163.95 ug/L	-163.95 ppb	14:46:14
2	V 292.402†	13189.5	14161.1	115.94 ug/L	115.94 ppb	14:46:14
2	Zn 213.857†	26904.2	24629.3	284.96 ug/L	284.96 ppb	14:46:14
2	SiO2†	993835.2	934754.4	76030 ug/L	76030 ppb	14:47:17
3	Sc Radial	4008.0	4008.0	112 %		14:45:30
3	Y RADIAL	5032.4	5032.4	123.8 %		14:45:10
3	Al 396.153Radial†	40883.1	36715.2	42129 ug/L	42129 ppb	14:45:10
3	Ca 317.933Radial†	8599.7	7684.1	15706 ug/L	15706 ppb	14:45:10
3	Fe 238.204 Radial†	6503.9	5815.2	82204 ug/L	82204 ppb	14:45:10
3	K 766.490 Radial†	32406.3	25996.4	5464.9 ug/L	5464.9 ppb	14:45:10
3	Mg 279.077 IEC†	247.4	220.9	9665.6 ug/L	9665.6 ppb	14:45:30
3	Na 589.592 Radial†	1036.1	1825.1	941.08 ug/L	941.08 ppb	14:45:10
3	Sr 421.552†	17075.2	15274.7	168.29 ug/L	168.29 ppb	14:45:10
3	Sc 361.383	702746.8	702746.8	105.38 %		14:46:40
3	Y 371.029	611696.6	611696.6	115.83 %		14:46:40
3	Ag 328.068†	-4283.4	-4266.9	1.2261 ug/L	1.2261 ppb	14:46:45
3	As 188.979†	-36.6	-9.5	38.055 ug/L	38.055 ppb	14:47:05
3	B 249.677†	414.9	808.9	8.2593 ug/L	8.2593 ppb	14:46:45
3	Ba 233.527†	52658.7	49959.1	508.18 ug/L	508.18 ppb	14:46:45
3	Be 313.107†	-11380.2	-6621.3	3.4462 ug/L	3.4462 ppb	14:46:45
3	Cd 226.502†	376.1	556.1	0.1033 ug/L	0.1033 ppb	14:47:05
3	Co 228.616†	787.6	797.4	13.960 ug/L	13.960 ppb	14:47:05
3	Cr 267.716†	8217.4	7702.9	127.36 ug/L	127.36 ppb	14:46:45
3	Cu 324.752†	14282.0	8199.2	33.507 ug/L	33.507 ppb	14:46:45
3	Mn 257.610†	906280.5	859591.9	1190.5 ug/L	1190.5 ppb	14:46:40
3	Mo 202.031†	1.8	-3.0	6.2720 ug/L	6.2720 ppb	14:47:05
3	Ni 231.604†	2090.9	1899.5	63.995 ug/L	63.995 ppb	14:47:05
3	P 214.914†	1033.8	779.3	467.30 ug/L	467.30 ppb	14:47:05
3	Pb 220.353†	337.6	386.1	65.801 ug/L	65.801 ppb	14:47:05
3	S 181.975 Axial†	346.0	289.0	450.60 ug/L	450.60 ppb	14:47:05
3	Sb 206.836†	51.7	23.8	-1.1239 ug/L	-1.1239 ppb	14:47:05
3	Se 196.026†	-364.2	-319.1	-18.448 ug/L	-18.448 ppb	14:47:05
3	Si 251.611†	988812.1	937831.2	35882 ug/L	35882 ppb	14:46:40
3	Sn 189.927†	-78.1	-83.9	-16.534 ug/L	-16.534 ppb	14:47:05
3	Ti 334.940†	1522569.3	1446300.7	2741.0 ug/L	2741.0 ppb	14:46:40
3	Tl 190.801†	-99.8	-63.2	2.9749 ug/L	2.9749 ppb	14:47:05
3	U 409.014†	-6594.4	-3852.4	-163.47 ug/L	-163.47 ppb	14:46:45
3	V 292.402†	13234.4	14307.7	116.80 ug/L	116.80 ppb	14:46:45
3	Zn 213.857†	26946.6	24881.5	287.54 ug/L	287.54 ppb	14:46:45
3	SiO2†	995647.8	944304.4	76807 ug/L	76807 ppb	14:47:23

Mean Data: 248241005|959146|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Sc 361.383	705699.3	105.82 %		0.441			0.42%
Sc Radial	4012.5	112 %		0.1			0.12%
Y 371.029	614310.2	116.33 %		0.477			0.41%
Y RADIAL	4970.2	122.2 %		3.48			2.85%
Ag 328.068†	-4291.4	0.6726 ug/L		0.59700	0.6726 ppb	0.59700	88.77%
Al 396.153Radial†	36073.9	41393 ug/L		885.2	41393 ppb	885.2	2.14%
As 188.979†	-11.0	36.928 ug/L		1.0054	36.928 ppb	1.0054	2.72%
B 249.677†	801.2	8.2707 ug/L		0.16336	8.2707 ppb	0.16336	1.98%
Ba 233.527†	49759.9	506.13 ug/L		2.932	506.13 ppb	2.932	0.58%
Be 313.107†	-6638.1	3.4263 ug/L		0.02466	3.4263 ppb	0.02466	0.72%
Ca 317.933Radial†	7557.7	15448 ug/L		310.6	15448 ppb	310.6	2.01%
Cd 226.502†	554.3	0.2125 ug/L		0.13581	0.2125 ppb	0.13581	63.91%
Co 228.616†	794.9	13.928 ug/L		0.1772	13.928 ppb	0.1772	1.27%
Cr 267.716†	7662.3	126.59 ug/L		0.766	126.59 ppb	0.766	0.61%
Cu 324.752†	8183.8	33.382 ug/L		0.2672	33.382 ppb	0.2672	0.80%
Fe 238.204 Radial†	5720.5	80866 ug/L		1558.9	80866 ppb	1558.9	1.93%
K 766.490 Radial†	25530.6	5367.0 ug/L		116.20	5367.0 ppb	116.20	2.17%

Mg 279.077 IEC†	222.8	9751.2 ug/L	74.21	9751.2 ppb	74.21	0.76%
Mn 257.610†	856638.9	1186.3 ug/L	7.64	1186.3 ppb	7.64	0.64%
Mo 202.031†	2.6	6.7168 ug/L	0.42630	6.7168 ppb	0.42630	6.35%
Na 589.592 Radial†	1808.1	932.32 ug/L	7.657	932.32 ppb	7.657	0.82%
Ni 231.604†	1893.1	63.780 ug/L	0.8507	63.780 ppb	0.8507	1.33%
P 214.914†	780.8	469.20 ug/L	3.857	469.20 ppb	3.857	0.82%
Pb 220.353†	387.2	65.928 ug/L	0.6424	65.928 ppb	0.6424	0.97%
S 181.975 Axial†	293.0	457.14 ug/L	6.340	457.14 ppb	6.340	1.39%
Sb 206.836†	31.8	2.2514 ug/L	3.26691	2.2514 ppb	3.26691	145.10%
Se 196.026†	-317.9	-21.299 ug/L	2.9830	-21.299 ppb	2.9830	14.01%
Si 251.611†	935848.5	35806 ug/L	216.1	35806 ppb	216.1	0.60%
Sn 189.927†	-80.6	-15.811 ug/L	0.6912	-15.811 ppb	0.6912	4.37%
Sr 421.552†	15021.7	165.50 ug/L	3.603	165.50 ppb	3.603	2.18%
Ti 334.940†	1443293.8	2735.3 ug/L	16.04	2735.3 ppb	16.04	0.59%
Tl 190.801†	-61.9	3.4322 ug/L	3.20785	3.4322 ppb	3.20785	93.46%
U 409.014†	-3861.3	-163.67 ug/L	0.246	-163.67 ppb	0.246	0.15%
V 292.402†	14254.9	116.52 ug/L	0.510	116.52 ppb	0.510	0.44%
Zn 213.857†	24824.4	287.05 ug/L	1.896	287.05 ppb	1.896	0.66%
SiO2†	937548.2	76257 ug/L	478.3	76257 ppb	478.3	0.63%

Sequence No.: 14

Sample ID: 248241006|959146|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 49

Date Collected: 3/31/2010 14:49:35

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248241006|959146|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Conc.	Sample Units	Analysis Time
1	Sc Radial	4021.5	4021.5	112 %			14:51:49
1	Y RADIAL	5035.0	5035.0	123.8 %			14:51:49
1	Al 396.153Radial†	54064.9	48355.2	55486 ug/L	55486	ppb	14:51:29
1	Ca 317.933Radial†	19746.4	17605.1	35985 ug/L	35985	ppb	14:51:29
1	Fe 238.204 Radial†	5880.8	5239.6	74068 ug/L	74068	ppb	14:51:49
1	K 766.490 Radial†	56155.3	47091.6	9896.8 ug/L	9896.8	ppb	14:51:29
1	Mg 279.077 IEC†	346.2	308.3	13534 ug/L	13534	ppb	14:51:49
1	Na 589.592 Radial†	551.9	1389.9	716.67 ug/L	716.67	ppb	14:51:29
1	Sr 421.552†	29742.3	26526.9	292.19 ug/L	292.19	ppb	14:51:29
1	Sc 361.383	707067.4	707067.4	106.02 %			14:52:46
1	Y 371.029	632343.8	632343.8	119.74 %			14:52:46
1	Ag 328.068†	-3792.6	-3779.2	1.2705 ug/L	1.2705	ppb	14:52:52
1	As 188.979†	-11.5	14.4	43.950 ug/L	43.950	ppb	14:53:12
1	B 249.677†	1334.0	1673.3	32.709 ug/L	32.709	ppb	14:52:52
1	Ba 233.527†	114916.4	108374.4	1098.9 ug/L	1098.9	ppb	14:52:52
1	Be 313.107†	511.2	4660.5	6.9597 ug/L	6.9597	ppb	14:52:52
1	Cd 226.502†	385.0	562.3	1.0208 ug/L	1.0208	ppb	14:53:12
1	Co 228.616†	1178.6	1161.5	24.963 ug/L	24.963	ppb	14:53:12
1	Cr 267.716†	3290.8	3008.6	54.350 ug/L	54.350	ppb	14:53:12
1	Cu 324.752†	23962.3	17246.6	65.179 ug/L	65.179	ppb	14:52:52
1	Mn 257.610†	2954207.1	2785912.4	3840.2 ug/L	3840.2	ppb	14:52:46
1	Mo 202.031†	-9.5	-13.7	4.8409 ug/L	4.8409	ppb	14:53:12
1	Ni 231.604†	1580.0	1405.5	47.342 ug/L	47.342	ppb	14:53:12
1	P 214.914†	2510.6	2166.3	1412.0 ug/L	1412.0	ppb	14:53:12
1	Pb 220.353†	695.1	721.4	124.92 ug/L	124.92	ppb	14:53:12
1	S 181.975 Axial†	1053.0	953.8	1502.9 ug/L	1502.9	ppb	14:53:12
1	Sb 206.836†	52.4	24.2	0.2392 ug/L	0.2392	ppb	14:53:12
1	Se 196.026†	-349.6	-303.1	-23.972 ug/L	-23.972	ppb	14:53:12
1	Si 251.611†	894836.3	843460.6	32271 ug/L	32271	ppb	14:52:46
1	Sn 189.927†	-149.3	-150.6	-28.761 ug/L	-28.761	ppb	14:53:12
1	Ti 334.940†	1233067.0	1164417.3	2209.5 ug/L	2209.5	ppb	14:52:46
1	Tl 190.801†	-138.5	-99.2	-3.1029 ug/L	-3.1029	ppb	14:53:12
1	U 409.014†	-7758.9	-4912.5	-204.71 ug/L	-204.71	ppb	14:52:52
1	V 292.402†	12895.4	13911.2	114.90 ug/L	114.90	ppb	14:52:52
1	Zn 213.857†	25838.0	23679.7	274.31 ug/L	274.31	ppb	14:52:52
1	SiO2†	884270.1	833480.9	67793 ug/L	67793	ppb	14:54:20
2	Sc Radial	3984.1	3984.1	111 %			14:52:14
2	Y RADIAL	5019.7	5019.7	123.4 %			14:52:14
2	Al 396.153Radial†	54598.2	49288.2	56556 ug/L	56556	ppb	14:51:54
2	Ca 317.933Radial†	19895.7	17904.9	36598 ug/L	36598	ppb	14:51:54
2	Fe 238.204 Radial†	5841.3	5253.3	74261 ug/L	74261	ppb	14:52:14
2	K 766.490 Radial†	56657.8	48014.3	10091 ug/L	10091	ppb	14:51:54
2	Mg 279.077 IEC†	348.6	313.3	13756 ug/L	13756	ppb	14:52:14
2	Na 589.592 Radial†	531.6	1376.2	709.62 ug/L	709.62	ppb	14:51:54
2	Sr 421.552†	29944.9	26958.5	296.94 ug/L	296.94	ppb	14:51:54
2	Sc 361.383	708900.5	708900.5	106.30 %			14:53:18
2	Y 371.029	633549.9	633549.9	119.97 %			14:53:18
2	Ag 328.068†	-3729.5	-3710.6	1.7090 ug/L	1.7090	ppb	14:53:23
2	As 188.979†	-28.5	-1.6	35.717 ug/L	35.717	ppb	14:53:43
2	B 249.677†	1353.3	1688.2	33.078 ug/L	33.078	ppb	14:53:23
2	Ba 233.527†	112927.5	106223.0	1077.1 ug/L	1077.1	ppb	14:53:23
2	Be 313.107†	506.7	4655.0	6.9644 ug/L	6.9644	ppb	14:53:23
2	Cd 226.502†	374.6	551.6	0.8352 ug/L	0.8352	ppb	14:53:43
2	Co 228.616†	1159.4	1140.6	24.403 ug/L	24.403	ppb	14:53:43
2	Cr 267.716†	3214.4	2928.7	53.140 ug/L	53.140	ppb	14:53:43
2	Cu 324.752†	23379.0	16639.5	63.036 ug/L	63.036	ppb	14:53:23
2	Mn 257.610†	2970147.9	2793703.4	3850.9 ug/L	3850.9	ppb	14:53:18
2	Mo 202.031†	-4.5	-9.0	5.3240 ug/L	5.3240	ppb	14:53:43
2	Ni 231.604†	1526.6	1351.4	45.522 ug/L	45.522	ppb	14:53:43

2	P 214.914†	2474.0	2125.7	1385.0 ug/L	1385.0 ppb	14:53:43
2	Pb 220.353†	702.7	726.9	126.07 ug/L	126.07 ppb	14:53:43
2	S 181.975 Axial†	1019.8	920.0	1449.1 ug/L	1449.1 ppb	14:53:43
2	Sb 206.836†	60.8	31.9	3.3888 ug/L	3.3888 ppb	14:53:43
2	Se 196.026†	-333.9	-287.5	-10.996 ug/L	-10.996 ppb	14:53:43
2	Si 251.611†	900133.9	846261.8	32378 ug/L	32378 ppb	14:53:18
2	Sn 189.927†	-155.1	-155.7	-29.847 ug/L	-29.847 ppb	14:53:43
2	Ti 334.940†	1237989.4	1166040.6	2212.6 ug/L	2212.6 ppb	14:53:18
2	Tl 190.801†	-143.5	-103.5	-4.7393 ug/L	-4.7393 ppb	14:53:43
2	U 409.014†	-7741.1	-4876.9	-203.31 ug/L	-203.31 ppb	14:53:23
2	V 292.402†	12703.6	13699.3	112.93 ug/L	112.93 ppb	14:53:23
2	Zn 213.857†	25305.8	23116.0	267.49 ug/L	267.49 ppb	14:53:23
2	SiO2†	887964.2	834799.5	67900 ug/L	67900 ppb	14:54:26
3	Sc Radial	4080.7	4080.7	114 %		14:52:39
3	Y RADIAL	5112.0	5112.0	125.7 %		14:52:39
3	Al 396.153Radial†	54425.0	47971.5	55046 ug/L	55046 ppb	14:52:19
3	Ca 317.933Radial†	19755.8	17357.6	35479 ug/L	35479 ppb	14:52:19
3	Fe 238.204 Radial†	5939.5	5215.0	73720 ug/L	73720 ppb	14:52:39
3	K 766.490 Radial†	56324.7	46513.1	9775.2 ug/L	9775.2 ppb	14:52:19
3	Mg 279.077 IEC†	351.5	308.4	13540 ug/L	13540 ppb	14:52:39
3	Na 589.592 Radial†	493.7	1331.6	686.58 ug/L	686.58 ppb	14:52:19
3	Sr 421.552†	29759.3	26156.6	288.11 ug/L	288.11 ppb	14:52:19
3	Sc 361.383	696882.3	696882.3	104.50 %		14:53:49
3	Y 371.029	624181.7	624181.7	118.20 %		14:53:49
3	Ag 328.068†	-3735.5	-3776.8	1.1756 ug/L	1.1756 ppb	14:53:54
3	As 188.979†	-16.4	9.6	41.345 ug/L	41.345 ppb	14:54:14
3	B 249.677†	1381.8	1737.5	34.486 ug/L	34.486 ppb	14:53:54
3	Ba 233.527†	112745.1	107880.5	1093.9 ug/L	1093.9 ppb	14:53:54
3	Be 313.107†	393.0	4554.4	6.9135 ug/L	6.9135 ppb	14:53:54
3	Cd 226.502†	379.6	562.5	1.0606 ug/L	1.0606 ppb	14:54:14
3	Co 228.616†	1136.7	1137.7	24.350 ug/L	24.350 ppb	14:54:14
3	Cr 267.716†	3228.0	2993.9	54.084 ug/L	54.084 ppb	14:54:14
3	Cu 324.752†	23497.3	17131.9	64.749 ug/L	64.749 ppb	14:53:54
3	Mn 257.610†	2917856.6	2791849.0	3848.3 ug/L	3848.3 ppb	14:53:49
3	Mo 202.031†	-3.3	-7.9	5.3722 ug/L	5.3722 ppb	14:54:14
3	Ni 231.604†	1540.0	1389.0	46.787 ug/L	46.787 ppb	14:54:14
3	P 214.914†	2447.7	2140.7	1394.9 ug/L	1394.9 ppb	14:54:14
3	Pb 220.353†	690.7	726.7	125.70 ug/L	125.70 ppb	14:54:14
3	S 181.975 Axial†	1015.6	932.5	1469.1 ug/L	1469.1 ppb	14:54:14
3	Sb 206.836†	52.1	24.6	0.4300 ug/L	0.4300 ppb	14:54:14
3	Se 196.026†	-334.6	-293.6	-17.594 ug/L	-17.594 ppb	14:54:14
3	Si 251.611†	879372.3	840997.2	32177 ug/L	32177 ppb	14:53:49
3	Sn 189.927†	-150.3	-153.6	-29.561 ug/L	-29.561 ppb	14:54:14
3	Ti 334.940†	1214874.0	1164004.6	2208.6 ug/L	2208.6 ppb	14:53:49
3	Tl 190.801†	-128.0	-91.0	0.1873 ug/L	0.1873 ppb	14:54:14
3	U 409.014†	-7405.4	-4681.2	-195.43 ug/L	-195.43 ppb	14:53:54
3	V 292.402†	12702.1	13903.9	114.91 ug/L	114.91 ppb	14:53:54
3	Zn 213.857†	25228.9	23452.9	271.63 ug/L	271.63 ppb	14:53:54
3	SiO2†	870289.2	832291.1	67696 ug/L	67696 ppb	14:54:32

Mean Data: 248241006|959146|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	704283.4	105.61 %		0.971			0.92%
Sc Radial	4028.8	112 %		1.4			1.21%
Y 371.029	630025.1	119.30 %		0.965			0.81%
Y RADIAL	5055.6	124.3 %		1.22			0.98%
Ag 328.068†	-3755.5	1.3850 ug/L		0.28456	1.3850 ppb	0.28456	20.55%
Al 396.153Radial†	48538.3	55696 ug/L		777.0	55696 ppb	777.0	1.40%
As 188.979†	7.5	40.337 ug/L		4.2078	40.337 ppb	4.2078	10.43%
B 249.677†	1699.7	33.425 ug/L		0.9376	33.425 ppb	0.9376	2.81%
Ba 233.527†	107492.6	1089.9 ug/L		11.40	1089.9 ppb	11.40	1.05%
Be 313.107†	4623.3	6.9459 ug/L		0.02812	6.9459 ppb	0.02812	0.40%
Ca 317.933Radial†	17622.5	36021 ug/L		560.2	36021 ppb	560.2	1.56%
Cd 226.502†	558.8	0.9722 ug/L		0.12030	0.9722 ppb	0.12030	12.37%
Co 228.616†	1146.6	24.572 ug/L		0.3399	24.572 ppb	0.3399	1.38%
Cr 267.716†	2977.1	53.858 ug/L		0.6358	53.858 ppb	0.6358	1.18%
Cu 324.752†	17006.0	64.322 ug/L		1.1338	64.322 ppb	1.1338	1.76%
Fe 238.204 Radial†	5236.0	74016 ug/L		274.1	74016 ppb	274.1	0.37%
K 766.490 Radial†	47206.4	9920.9 ug/L		159.15	9920.9 ppb	159.15	1.60%

Mg 279.077 IEC†	310.0	13610 ug/L	126.4	13610 ppb	126.4	0.93%
Mn 257.610†	2790488.3	3846.5 ug/L	5.60	3846.5 ppb	5.60	0.15%
Mo 202.031†	-10.2	5.1790 ug/L	0.29382	5.1790 ppb	0.29382	5.67%
Na 589.592 Radial†	1365.9	704.29 ug/L	15.737	704.29 ppb	15.737	2.23%
Ni 231.604†	1382.0	46.550 ug/L	0.9327	46.550 ppb	0.9327	2.00%
P 214.914†	2144.2	1397.3 ug/L	13.65	1397.3 ppb	13.65	0.98%
Pb 220.353†	725.0	125.56 ug/L	0.589	125.56 ppb	0.589	0.47%
S 181.975 Axial†	935.5	1473.7 ug/L	27.20	1473.7 ppb	27.20	1.85%
Sb 206.836†	26.9	1.3527 ug/L	1.76596	1.3527 ppb	1.76596	130.55%
Se 196.026†	-294.7	-17.521 ug/L	6.4883	-17.521 ppb	6.4883	37.03%
Si 251.611†	843573.2	32275 ug/L	100.8	32275 ppb	100.8	0.31%
Sn 189.927†	-153.3	-29.390 ug/L	0.5630	-29.390 ppb	0.5630	1.92%
Sr 421.552†	26547.3	292.42 ug/L	4.420	292.42 ppb	4.420	1.51%
Ti 334.940†	1164820.8	2210.3 ug/L	2.10	2210.3 ppb	2.10	0.10%
Tl 190.801†	-97.9	-2.5516 ug/L	2.50916	-2.5516 ppb	2.50916	98.34%
U 409.014†	-4823.5	-201.15 ug/L	5.001	-201.15 ppb	5.001	2.49%
V 292.402†	13838.1	114.25 ug/L	1.140	114.25 ppb	1.140	1.00%
Zn 213.857†	23416.2	271.15 ug/L	3.434	271.15 ppb	3.434	1.27%
SiO2†	833523.8	67796 ug/L	102.1	67796 ppb	102.1	0.15%

Sequence No.: 15

Sample ID: 248241007|959146|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 50

Date Collected: 3/31/2010 14:56:44

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248241007|959146|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4087.4	4087.4	114 %		14:58:57
1	Y RADIAL	5363.5	5363.5	131.9 %		14:58:57
1	Al 396.153Radial†	48143.1	42378.2	48628 ug/L	48628 ppb	14:58:37
1	Ca 317.933Radial†	20063.6	17599.5	35974 ug/L	35974 ppb	14:58:37
1	Fe 238.204 Radial†	5510.9	4830.2	68281 ug/L	68281 ppb	14:58:57
1	K 766.490 Radial†	69851.1	58308.3	12257 ug/L	12257 ppb	14:58:37
1	Mg 279.077 IEC†	312.2	273.4	12000 ug/L	12000 ppb	14:58:57
1	Na 589.592 Radial†	600.2	1424.4	734.45 ug/L	734.45 ppb	14:58:37
1	Sr 421.552†	25509.2	22382.6	246.50 ug/L	246.50 ppb	14:58:37
1	Sc 361.383	704126.6	704126.6	105.58 %		14:59:55
1	Y 371.029	660567.0	660567.0	125.09 %		14:59:55
1	Ag 328.068†	-3464.7	-3483.6	1.1716 ug/L	1.1716 ppb	15:00:01
1	As 188.979†	-6.6	19.0	39.762 ug/L	39.762 ppb	15:00:21
1	B 249.677†	2349.5	2640.3	59.564 ug/L	59.564 ppb	15:00:01
1	Ba 233.527†	85079.8	80568.0	817.36 ug/L	817.36 ppb	15:00:01
1	Be 313.107†	11579.5	15145.5	9.9858 ug/L	9.9858 ppb	15:00:01
1	Cd 226.502†	321.5	503.7	0.7132 ug/L	0.7132 ppb	15:00:21
1	Co 228.616†	1023.4	1019.2	22.477 ug/L	22.477 ppb	15:00:21
1	Cr 267.716†	3252.8	2985.5	53.383 ug/L	53.383 ppb	15:00:21
1	Cu 324.752†	20406.3	13973.1	53.297 ug/L	53.297 ppb	15:00:01
1	Mn 257.610†	4325455.2	4096293.3	5642.7 ug/L	5642.7 ppb	14:59:55
1	Mo 202.031†	-9.6	-13.9	4.3739 ug/L	4.3739 ppb	15:00:21
1	Ni 231.604†	2079.4	1884.7	63.494 ug/L	63.494 ppb	15:00:21
1	P 214.914†	3070.7	2706.7	1784.1 ug/L	1784.1 ppb	15:00:21
1	Pb 220.353†	509.5	548.3	95.520 ug/L	95.520 ppb	15:00:21
1	S 181.975 Axial†	1120.0	1021.4	1611.4 ug/L	1611.4 ppb	15:00:21
1	Sb 206.836†	52.4	24.4	2.5244 ug/L	2.5244 ppb	15:00:21
1	Se 196.026†	-333.5	-289.3	-30.489 ug/L	-30.489 ppb	15:00:21
1	Si 251.611†	835349.7	790644.4	30250 ug/L	30250 ppb	14:59:55
1	Sn 189.927†	-146.7	-148.7	-28.344 ug/L	-28.344 ppb	15:00:21
1	Ti 334.940†	892582.4	846793.0	1608.0 ug/L	1608.0 ppb	14:59:55
1	Tl 190.801†	-174.2	-133.5	-13.036 ug/L	-13.036 ppb	15:00:21
1	U 409.014†	-9202.7	-6310.5	-259.88 ug/L	-259.88 ppb	14:59:55
1	V 292.402†	11078.8	12241.4	100.86 ug/L	100.86 ppb	15:00:01
1	Zn 213.857†	25977.9	23914.0	277.92 ug/L	277.92 ppb	15:00:01
1	SiO2†	849654.2	804178.7	65409 ug/L	65409 ppb	15:01:31
2	Sc Radial	4102.1	4102.1	114 %		14:59:22
2	Y RADIAL	5395.3	5395.3	132.7 %		14:59:22
2	Al 396.153Radial†	48314.1	42376.2	48625 ug/L	48625 ppb	14:59:02
2	Ca 317.933Radial†	20111.4	17578.2	35930 ug/L	35930 ppb	14:59:02
2	Fe 238.204 Radial†	5502.1	4805.2	67926 ug/L	67926 ppb	14:59:22
2	K 766.490 Radial†	70467.2	58627.2	12324 ug/L	12324 ppb	14:59:02
2	Mg 279.077 IEC†	315.5	275.3	12085 ug/L	12085 ppb	14:59:22
2	Na 589.592 Radial†	570.2	1396.3	719.96 ug/L	719.96 ppb	14:59:02
2	Sr 421.552†	25535.2	22325.0	245.86 ug/L	245.86 ppb	14:59:02
2	Sc 361.383	710370.8	710370.8	106.52 %		15:00:27
2	Y 371.029	666210.8	666210.8	126.16 %		15:00:27
2	Ag 328.068†	-3464.8	-3454.8	1.2189 ug/L	1.2189 ppb	15:00:33
2	As 188.979†	-10.1	15.7	37.989 ug/L	37.989 ppb	15:00:53
2	B 249.677†	2258.7	2535.6	56.816 ug/L	56.816 ppb	15:00:33
2	Ba 233.527†	85103.1	79881.6	810.40 ug/L	810.40 ppb	15:00:33
2	Be 313.107†	11710.8	15172.4	10.000 ug/L	10.000 ppb	15:00:33
2	Cd 226.502†	326.7	505.9	0.7853 ug/L	0.7853 ppb	15:00:53
2	Co 228.616†	1024.2	1011.4	22.276 ug/L	22.276 ppb	15:00:53
2	Cr 267.716†	3224.2	2931.7	52.513 ug/L	52.513 ppb	15:00:53
2	Cu 324.752†	20476.5	13869.1	52.904 ug/L	52.904 ppb	15:00:33
2	Mn 257.610†	4367324.9	4099589.4	5647.2 ug/L	5647.2 ppb	15:00:27
2	Mo 202.031†	-9.5	-13.6	4.3665 ug/L	4.3665 ppb	15:00:53
2	Ni 231.604†	2072.6	1861.0	62.694 ug/L	62.694 ppb	15:00:53

2	P 214.914†	3043.1	2655.2	1749.4 ug/L	1749.4 ppb	15:00:53
2	Pb 220.353†	514.8	549.1	95.674 ug/L	95.674 ppb	15:00:53
2	S 181.975 Axial†	1120.0	1012.1	1596.6 ug/L	1596.6 ppb	15:00:53
2	Sb 206.836†	44.1	16.2	-0.9256 ug/L	-0.9256 ppb	15:00:53
2	Se 196.026†	-324.8	-278.4	-22.888 ug/L	-22.888 ppb	15:00:53
2	Si 251.611†	843722.9	791550.5	30285 ug/L	30285 ppb	15:00:27
2	Sn 189.927†	-166.0	-165.6	-32.355 ug/L	-32.355 ppb	15:00:53
2	Ti 334.940†	901255.5	847504.2	1609.3 ug/L	1609.3 ppb	15:00:27
2	Tl 190.801†	-158.7	-117.5	-6.6798 ug/L	-6.6798 ppb	15:00:53
2	U 409.014†	-9010.7	-6053.7	-249.58 ug/L	-249.58 ppb	15:00:27
2	V 292.402†	11136.0	12202.8	100.58 ug/L	100.58 ppb	15:00:33
2	Zn 213.857†	25962.0	23682.8	275.19 ug/L	275.19 ppb	15:00:33
2	SiO2†	841841.9	789770.8	64237 ug/L	64237 ppb	15:01:37
3	Sc Radial	4280.3	4280.3	119 %		14:59:47
3	Y RADIAL	5571.8	5571.8	137.0 %		14:59:47
3	Al 396.153Radial†	48681.6	40925.2	46960 ug/L	46960 ppb	14:59:27
3	Ca 317.933Radial†	20302.8	17006.4	34761 ug/L	34761 ppb	14:59:27
3	Fe 238.204 Radial†	5498.6	4601.9	65053 ug/L	65053 ppb	14:59:47
3	K 766.490 Radial†	70849.2	56381.8	11852 ug/L	11852 ppb	14:59:27
3	Mg 279.077 IEC†	310.3	259.5	11390 ug/L	11390 ppb	14:59:47
3	Na 589.592 Radial†	572.1	1377.1	710.05 ug/L	710.05 ppb	14:59:27
3	Sr 421.552†	25722.3	21552.0	237.35 ug/L	237.35 ppb	14:59:27
3	Sc 361.383	709006.4	709006.4	106.31 %		15:00:59
3	Y 371.029	665980.1	665980.1	126.11 %		15:00:59
3	Ag 328.068†	-3417.0	-3416.1	0.5721 ug/L	0.5721 ppb	15:01:05
3	As 188.979†	-16.0	10.2	34.474 ug/L	34.474 ppb	15:01:25
3	B 249.677†	2320.2	2597.5	58.942 ug/L	58.942 ppb	15:01:05
3	Ba 233.527†	85093.2	80026.0	811.78 ug/L	811.78 ppb	15:01:05
3	Be 313.107†	11627.9	15115.6	9.9842 ug/L	9.9842 ppb	15:01:05
3	Cd 226.502†	322.3	502.4	1.0275 ug/L	1.0275 ppb	15:01:25
3	Co 228.616†	1024.5	1013.5	22.362 ug/L	22.362 ppb	15:01:25
3	Cr 267.716†	3239.3	2951.7	52.517 ug/L	52.517 ppb	15:01:25
3	Cu 324.752†	20610.5	14032.1	53.331 ug/L	53.331 ppb	15:01:05
3	Mn 257.610†	4367446.8	4107594.2	5658.0 ug/L	5658.0 ppb	15:00:59
3	Mo 202.031†	-25.2	-28.5	2.6790 ug/L	2.6790 ppb	15:01:25
3	Ni 231.604†	2061.2	1854.1	62.461 ug/L	62.461 ppb	15:01:25
3	P 214.914†	3077.8	2693.3	1777.1 ug/L	1777.1 ppb	15:01:25
3	Pb 220.353†	519.9	554.8	96.456 ug/L	96.456 ppb	15:01:25
3	S 181.975 Axial†	1123.5	1017.4	1605.3 ug/L	1605.3 ppb	15:01:25
3	Sb 206.836†	54.9	26.4	3.3577 ug/L	3.3577 ppb	15:01:25
3	Se 196.026†	-323.2	-277.5	-30.295 ug/L	-30.295 ppb	15:01:25
3	Si 251.611†	843974.9	793311.8	30352 ug/L	30352 ppb	15:00:59
3	Sn 189.927†	-163.0	-163.1	-31.979 ug/L	-31.979 ppb	15:01:25
3	Ti 334.940†	901494.2	849357.0	1612.7 ug/L	1612.7 ppb	15:00:59
3	Tl 190.801†	-170.4	-128.8	-11.058 ug/L	-11.058 ppb	15:01:25
3	U 409.014†	-9057.0	-6113.5	-251.64 ug/L	-251.64 ppb	15:00:59
3	V 292.402†	11132.5	12219.7	101.11 ug/L	101.11 ppb	15:01:05
3	Zn 213.857†	25997.9	23763.4	276.59 ug/L	276.59 ppb	15:01:05
3	SiO2†	838684.4	788321.7	64120 ug/L	64120 ppb	15:01:43

Mean Data: 248241007|959146|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	707834.6	106.14 %		0.492			0.46%
Sc Radial	4156.6	116 %		3.0			2.58%
Y 371.029	664252.6	125.79 %		0.605			0.48%
Y RADIAL	5443.5	133.9 %		2.76			2.06%
Ag 328.068†	-3451.5	0.9875 ug/L		0.36053	0.9875 ppb	0.36053	36.51%
Al 396.153Radial†	41893.2	48071 ug/L		961.9	48071 ppb	961.9	2.00%
As 188.979†	15.0	37.408 ug/L		2.6914	37.408 ppb	2.6914	7.19%
B 249.677†	2591.1	58.440 ug/L		1.4412	58.440 ppb	1.4412	2.47%
Ba 233.527†	80158.5	813.18 ug/L		3.684	813.18 ppb	3.684	0.45%
Be 313.107†	15144.5	9.9900 ug/L		0.00873	9.9900 ppb	0.00873	0.09%
Ca 317.933Radial†	17394.7	35555 ug/L		687.7	35555 ppb	687.7	1.93%
Cd 226.502†	504.0	0.8420 ug/L		0.16462	0.8420 ppb	0.16462	19.55%
Co 228.616†	1014.7	22.371 ug/L		0.1009	22.371 ppb	0.1009	0.45%
Cr 267.716†	2956.3	52.804 ug/L		0.5012	52.804 ppb	0.5012	0.95%
Cu 324.752†	13958.1	53.177 ug/L		0.2374	53.177 ppb	0.2374	0.45%
Fe 238.204 Radial†	4745.8	67087 ug/L		1770.0	67087 ppb	1770.0	2.64%
K 766.490 Radial†	57772.4	12144 ug/L		255.4	12144 ppb	255.4	2.10%

Mg 279.077 IEC†	269.4	11825 ug/L	378.7	11825 ppb	378.7	3.20%
Mn 257.610†	4101159.0	5649.3 ug/L	7.84	5649.3 ppb	7.84	0.14%
Mo 202.031†	-18.7	3.8065 ug/L	0.97640	3.8065 ppb	0.97640	25.65%
Na 589.592 Radial†	1399.2	721.48 ug/L	12.272	721.48 ppb	12.272	1.70%
Ni 231.604†	1866.6	62.883 ug/L	0.5418	62.883 ppb	0.5418	0.86%
P 214.914†	2685.0	1770.2 ug/L	18.32	1770.2 ppb	18.32	1.03%
Pb 220.353†	550.7	95.883 ug/L	0.5017	95.883 ppb	0.5017	0.52%
S 181.975 Axial†	1017.0	1604.4 ug/L	7.45	1604.4 ppb	7.45	0.46%
Sb 206.836†	22.3	1.6522 ug/L	2.27095	1.6522 ppb	2.27095	137.45%
Se 196.026†	-281.7	-27.891 ug/L	4.3337	-27.891 ppb	4.3337	15.54%
Si 251.611†	791835.6	30296 ug/L	51.9	30296 ppb	51.9	0.17%
Sn 189.927†	-159.1	-30.893 ug/L	2.2149	-30.893 ppb	2.2149	7.17%
Sr 421.552†	22086.5	243.24 ug/L	5.108	243.24 ppb	5.108	2.10%
Ti 334.940†	847884.7	1610.0 ug/L	2.45	1610.0 ppb	2.45	0.15%
Tl 190.801†	-126.6	-10.258 ug/L	3.2529	-10.258 ppb	3.2529	31.71%
U 409.014†	-6159.2	-253.70 ug/L	5.449	-253.70 ppb	5.449	2.15%
V 292.402†	12221.3	100.85 ug/L	0.266	100.85 ppb	0.266	0.26%
Zn 213.857†	23786.7	276.57 ug/L	1.366	276.57 ppb	1.366	0.49%
SiO2†	794090.4	64589 ug/L	713.0	64589 ppb	713.0	1.10%

Sequence No.: 16

Sample ID: 248241008|959146|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 51

Date Collected: 3/31/2010 15:03:53

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248241008|959146|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	3817.0	3817.0	106 %		15:06:06
1	Y RADIAL	4932.1	4932.1	121.3 %		15:05:46
1	Al 396.153Radial†	38357.3	36172.0	41506 ug/L	41506 ppb	15:05:46
1	Ca 317.933Radial†	13153.9	12351.0	25246 ug/L	25246 ppb	15:05:46
1	Fe 238.204 Radial†	3478.9	3262.5	46119 ug/L	46119 ppb	15:06:06
1	K 766.490 Radial†	54024.8	47773.0	10044 ug/L	10044 ppb	15:05:46
1	Mg 279.077 IEC†	223.1	209.1	9184.8 ug/L	9184.8 ppb	15:06:06
1	Na 589.592 Radial†	933.3	1774.9	915.19 ug/L	915.19 ppb	15:05:46
1	Sr 421.552†	17808.3	16728.8	184.25 ug/L	184.25 ppb	15:05:46
1	Sc 361.383	734949.7	734949.7	110.20 %		15:07:03
1	Y 371.029	608459.4	608459.4	115.22 %		15:07:03
1	Ag 328.068†	-2119.7	-2125.4	1.9878 ug/L	1.9878 ppb	15:07:08
1	As 188.979†	-9.6	16.5	28.973 ug/L	28.973 ppb	15:07:29
1	B 249.677†	1611.5	1877.4	42.754 ug/L	42.754 ppb	15:07:08
1	Ba 233.527†	58937.0	53466.4	542.43 ug/L	542.43 ppb	15:07:08
1	Be 313.107†	-3130.4	1337.8	3.0750 ug/L	3.0750 ppb	15:07:08
1	Cd 226.502†	183.2	365.5	0.8844 ug/L	0.8844 ppb	15:07:29
1	Co 228.616†	643.2	633.6	13.704 ug/L	13.704 ppb	15:07:29
1	Cr 267.716†	2647.5	2307.1	40.475 ug/L	40.475 ppb	15:07:29
1	Cu 324.752†	18656.5	11574.7	43.521 ug/L	43.521 ppb	15:07:08
1	Mn 257.610†	1968192.8	1785490.7	2461.0 ug/L	2461.0 ppb	15:07:03
1	Mo 202.031†	9.1	3.5	4.2202 ug/L	4.2202 ppb	15:07:29
1	Ni 231.604†	1159.3	967.2	32.583 ug/L	32.583 ppb	15:07:29
1	P 214.914†	2717.4	2264.1	1501.5 ug/L	1501.5 ppb	15:07:29
1	Pb 220.353†	429.9	455.9	80.661 ug/L	80.661 ppb	15:07:29
1	S 181.975 Axial†	949.9	822.6	1297.3 ug/L	1297.3 ppb	15:07:29
1	Sb 206.836†	51.9	21.8	3.4866 ug/L	3.4866 ppb	15:07:29
1	Se 196.026†	-215.1	-168.6	2.7284 ug/L	2.7284 ppb	15:07:29
1	Si 251.611†	1195376.8	1084152.7	41480 ug/L	41480 ppb	15:07:03
1	Sn 189.927†	-142.0	-138.6	-27.996 ug/L	-27.996 ppb	15:07:29
1	Ti 334.940†	642865.6	584744.3	1110.3 ug/L	1110.3 ppb	15:07:03
1	Tl 190.801†	-90.8	-50.9	0.5412 ug/L	0.5412 ppb	15:07:29
1	U 409.014†	-4653.3	-1816.9	-77.888 ug/L	-77.888 ppb	15:07:08
1	V 292.402†	6457.5	7608.0	62.240 ug/L	62.240 ppb	15:07:08
1	Zn 213.857†	19865.7	17335.9	202.05 ug/L	202.05 ppb	15:07:08
1	SiO2†	1210321.3	1097699.6	89283 ug/L	89283 ppb	15:08:37
2	Sc Radial	3903.5	3903.5	109 %		15:06:31
2	Y RADIAL	4597.6	4597.6	113.1 %		15:06:11
2	Al 396.153Radial†	37650.5	34723.1	39843 ug/L	39843 ppb	15:06:11
2	Ca 317.933Radial†	12995.8	11931.6	24388 ug/L	24388 ppb	15:06:11
2	Fe 238.204 Radial†	3523.2	3230.8	45670 ug/L	45670 ppb	15:06:31
2	K 766.490 Radial†	53039.9	45742.0	9617.1 ug/L	9617.1 ppb	15:06:11
2	Mg 279.077 IEC†	227.6	208.6	9162.6 ug/L	9162.6 ppb	15:06:31
2	Na 589.592 Radial†	823.7	1654.7	853.19 ug/L	853.19 ppb	15:06:11
2	Sr 421.552†	17381.9	15965.8	175.84 ug/L	175.84 ppb	15:06:11
2	Sc 361.383	703582.3	703582.3	105.50 %		15:07:34
2	Y 371.029	584425.4	584425.4	110.67 %		15:07:34
2	Ag 328.068†	-2123.2	-2214.5	1.3653 ug/L	1.3653 ppb	15:07:40
2	As 188.979†	-19.3	6.9	24.212 ug/L	24.212 ppb	15:08:00
2	B 249.677†	1620.8	1951.3	44.807 ug/L	44.807 ppb	15:07:40
2	Ba 233.527†	58092.9	55050.6	558.44 ug/L	558.44 ppb	15:07:40
2	Be 313.107†	-3180.9	1163.3	3.0851 ug/L	3.0851 ppb	15:07:40
2	Cd 226.502†	158.8	349.8	0.6858 ug/L	0.6858 ppb	15:08:00
2	Co 228.616†	633.1	650.0	14.066 ug/L	14.066 ppb	15:08:00
2	Cr 267.716†	2575.0	2345.5	41.027 ug/L	41.027 ppb	15:08:00
2	Cu 324.752†	18264.9	11958.3	44.866 ug/L	44.866 ppb	15:07:40
2	Mn 257.610†	1944684.2	1842829.9	2539.9 ug/L	2539.9 ppb	15:07:34
2	Mo 202.031†	-1.9	-6.6	3.1930 ug/L	3.1930 ppb	15:08:00
2	Ni 231.604†	1151.7	1006.9	33.920 ug/L	33.920 ppb	15:08:00

2	P 214.914†	2686.9	2345.1	1556.1 ug/L	1556.1 ppb	15:08:00
2	Pb 220.353†	408.2	452.7	79.756 ug/L	79.756 ppb	15:08:00
2	S 181.975 Axial†	941.9	853.5	1346.6 ug/L	1346.6 ppb	15:08:00
2	Sb 206.836†	45.5	17.9	1.7516 ug/L	1.7516 ppb	15:08:00
2	Se 196.026†	-211.9	-174.2	-3.3520 ug/L	-3.3520 ppb	15:08:00
2	Si 251.611†	1176327.4	1114454.8	42639 ug/L	42639 ppb	15:07:34
2	Sn 189.927†	-136.1	-138.7	-28.191 ug/L	-28.191 ppb	15:08:00
2	Ti 334.940†	635823.2	604075.7	1146.8 ug/L	1146.8 ppb	15:07:34
2	Tl 190.801†	-90.3	-54.1	-0.0769 ug/L	-0.0769 ppb	15:08:00
2	U 409.014†	-4865.3	-2206.1	-93.378 ug/L	-93.378 ppb	15:07:40
2	V 292.402†	6364.7	7781.2	63.818 ug/L	63.818 ppb	15:07:40
2	Zn 213.857†	19510.5	17802.8	207.75 ug/L	207.75 ppb	15:07:40
2	SiO2†	1189905.9	1127311.6	91692 ug/L	91692 ppb	15:08:43
3	Sc Radial	3928.3	3928.3	109 %		15:06:56
3	Y RADIAL	4616.1	4616.1	113.5 %		15:06:36
3	Al 396.153Radial†	39637.0	36319.5	41675 ug/L	41675 ppb	15:06:36
3	Ca 317.933Radial†	13549.3	12362.0	25268 ug/L	25268 ppb	15:06:36
3	Fe 238.204 Radial†	3511.7	3199.8	45233 ug/L	45233 ppb	15:06:56
3	K 766.490 Radial†	55275.2	47476.5	9981.8 ug/L	9981.8 ppb	15:06:36
3	Mg 279.077 IEC†	226.3	206.1	9049.8 ug/L	9049.8 ppb	15:06:56
3	Na 589.592 Radial†	823.8	1650.0	850.77 ug/L	850.77 ppb	15:06:36
3	Sr 421.552†	18362.0	16760.4	184.60 ug/L	184.60 ppb	15:06:36
3	Sc 361.383	724415.6	724415.6	108.62 %		15:08:05
3	Y 371.029	600862.7	600862.7	113.78 %		15:08:05
3	Ag 328.068†	-2146.1	-2177.8	1.4231 ug/L	1.4231 ppb	15:08:11
3	As 188.979†	-16.0	10.5	25.690 ug/L	25.690 ppb	15:08:31
3	B 249.677†	1625.0	1911.1	43.799 ug/L	43.799 ppb	15:08:11
3	Ba 233.527†	58722.7	54046.8	548.27 ug/L	548.27 ppb	15:08:11
3	Be 313.107†	-3245.2	1190.8	3.0227 ug/L	3.0227 ppb	15:08:11
3	Cd 226.502†	181.9	366.7	0.9935 ug/L	0.9935 ppb	15:08:31
3	Co 228.616†	660.7	658.2	14.349 ug/L	14.349 ppb	15:08:31
3	Cr 267.716†	2664.2	2357.4	41.161 ug/L	41.161 ppb	15:08:31
3	Cu 324.752†	18602.1	11770.8	44.175 ug/L	44.175 ppb	15:08:11
3	Mn 257.610†	1944274.5	1789442.1	2466.4 ug/L	2466.4 ppb	15:08:05
3	Mo 202.031†	3.7	-1.4	3.6780 ug/L	3.6780 ppb	15:08:31
3	Ni 231.604†	1174.9	996.9	33.582 ug/L	33.582 ppb	15:08:31
3	P 214.914†	2772.7	2350.9	1561.0 ug/L	1561.0 ppb	15:08:31
3	Pb 220.353†	418.0	450.6	79.927 ug/L	79.927 ppb	15:08:31
3	S 181.975 Axial†	961.2	845.5	1333.6 ug/L	1333.6 ppb	15:08:31
3	Sb 206.836†	42.5	13.8	0.1657 ug/L	0.1657 ppb	15:08:31
3	Se 196.026†	-218.1	-174.2	-3.9637 ug/L	-3.9637 ppb	15:08:31
3	Si 251.611†	1179774.3	1085562.3	41534 ug/L	41534 ppb	15:08:05
3	Sn 189.927†	-137.2	-136.1	-27.403 ug/L	-27.403 ppb	15:08:31
3	Ti 334.940†	635984.7	586892.4	1114.4 ug/L	1114.4 ppb	15:08:05
3	Tl 190.801†	-101.3	-61.7	-3.7145 ug/L	-3.7145 ppb	15:08:31
3	U 409.014†	-4859.4	-2068.0	-87.816 ug/L	-87.816 ppb	15:08:11
3	V 292.402†	6468.6	7703.4	63.215 ug/L	63.215 ppb	15:08:11
3	Zn 213.857†	19838.6	17573.0	205.04 ug/L	205.04 ppb	15:08:11
3	SiO2†	1182031.9	1087626.8	88464 ug/L	88464 ppb	15:08:49

Mean Data: 248241008|959146|1

Analyte	Mean Corrected	Conc.	Calib.	Std.Dev.	Sample	Std.Dev.	RSD
	Intensity	Units	Units		Conc. Units		
Sc 361.383	720982.5	108.11 %		2.394			2.21%
Sc Radial	3883.0	108 %		1.6			1.50%
Y 371.029	597915.8	113.22 %		2.326			2.05%
Y RADIAL	4715.3	116.0 %		4.62			3.99%
Ag 328.068†	-2172.6	1.5921 ug/L		0.34393	1.5921 ppb	0.34393	21.60%
Al 396.153Radial†	35738.2	41008 ug/L		1012.3	41008 ppb	1012.3	2.47%
As 188.979†	11.3	26.292 ug/L		2.4367	26.292 ppb	2.4367	9.27%
B 249.677†	1913.3	43.787 ug/L		1.0263	43.787 ppb	1.0263	2.34%
Ba 233.527†	54188.0	549.72 ug/L		8.105	549.72 ppb	8.105	1.47%
Be 313.107†	1230.6	3.0609 ug/L		0.03348	3.0609 ppb	0.03348	1.09%
Ca 317.933Radial†	12214.9	24967 ug/L		501.5	24967 ppb	501.5	2.01%
Cd 226.502†	360.7	0.8546 ug/L		0.15602	0.8546 ppb	0.15602	18.26%
Co 228.616†	647.2	14.040 ug/L		0.3229	14.040 ppb	0.3229	2.30%
Cr 267.716†	2336.7	40.888 ug/L		0.3634	40.888 ppb	0.3634	0.89%
Cu 324.752†	11767.9	44.187 ug/L		0.6725	44.187 ppb	0.6725	1.52%
Fe 238.204 Radial†	3231.0	45674 ug/L		443.0	45674 ppb	443.0	0.97%
K 766.490 Radial†	46997.1	9881.0 ug/L		230.72	9881.0 ppb	230.72	2.33%

Mg 279.077 IEC†	207.9	9132.4 ug/L	72.38	9132.4 ppb	72.38	0.79%
Mn 257.610†	1805920.9	2489.1 ug/L	44.06	2489.1 ppb	44.06	1.77%
Mo 202.031†	-1.5	3.6971 ug/L	0.51389	3.6971 ppb	0.51389	13.90%
Na 589.592 Radial†	1693.2	873.05 ug/L	36.513	873.05 ppb	36.513	4.18%
Ni 231.604†	990.3	33.361 ug/L	0.6949	33.361 ppb	0.6949	2.08%
P 214.914†	2320.0	1539.5 ug/L	33.04	1539.5 ppb	33.04	2.15%
Pb 220.353†	453.1	80.115 ug/L	0.4810	80.115 ppb	0.4810	0.60%
S 181.975 Axial†	840.5	1325.8 ug/L	25.55	1325.8 ppb	25.55	1.93%
Sb 206.836†	17.9	1.8013 ug/L	1.66100	1.8013 ppb	1.66100	92.21%
Se 196.026†	-172.3	-1.5291 ug/L	3.69974	-1.5291 ppb	3.69974	241.95%
Si 251.611†	1094723.3	41884 ug/L	654.4	41884 ppb	654.4	1.56%
Sn 189.927†	-137.8	-27.863 ug/L	0.4105	-27.863 ppb	0.4105	1.47%
Sr 421.552†	16485.0	181.56 ug/L	4.956	181.56 ppb	4.956	2.73%
Ti 334.940†	591904.1	1123.8 ug/L	20.01	1123.8 ppb	20.01	1.78%
Tl 190.801†	-55.6	-1.0834 ug/L	2.29948	-1.0834 ppb	2.29948	212.24%
U 409.014†	-2030.3	-86.361 ug/L	7.8469	-86.361 ppb	7.8469	9.09%
V 292.402†	7697.5	63.091 ug/L	0.7965	63.091 ppb	0.7965	1.26%
Zn 213.857†	17570.6	204.95 ug/L	2.847	204.95 ppb	2.847	1.39%
SiO2†	1104212.7	89813 ug/L	1677.9	89813 ppb	1677.9	1.87%

Sequence No.: 17
 Sample ID: 248241009|959146|1
 Analyst: HSC
 Initial Sample Wt:
 Dilution:

Autosampler Location: 52
 Date Collected: 3/31/2010 15:11:01
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: 248241009|959146|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	4071.9	4071.9	113 %		15:13:14
1	Y RADIAL	5664.4	5664.4	139.3 %		15:12:54
1	Al 396.153Radial†	22170.4	19648.8	22546 ug/L	22546 ppb	15:12:54
1	Ca 317.933Radial†	9766.7	8591.7	17561 ug/L	17561 ppb	15:12:54
1	Fe 238.204 Radial†	4365.3	3839.0	54268 ug/L	54268 ppb	15:12:54
1	K 766.490 Radial†	33599.4	26592.3	5588.7 ug/L	5588.7 ppb	15:12:54
1	Mg 279.077 IEC†	129.6	113.6	4956.4 ug/L	4956.4 ppb	15:13:14
1	Na 589.592 Radial†	1601.6	2308.9	1190.5 ug/L	1190.5 ppb	15:12:54
1	Sr 421.552†	10632.8	9356.9	103.03 ug/L	103.03 ppb	15:12:54
1	Sc 361.383	710969.6	710969.6	106.61 %		15:14:11
1	Y 371.029	668036.3	668036.3	126.50 %		15:14:11
1	Ag 328.068†	-2531.7	-2576.8	2.0354 ug/L	2.0354 ppb	15:14:17
1	As 188.979†	-31.8	-4.6	26.057 ug/L	26.057 ppb	15:14:37
1	B 249.677†	664.3	1038.2	18.948 ug/L	18.948 ppb	15:14:17
1	Ba 233.527†	43750.5	41025.2	416.79 ug/L	416.79 ppb	15:14:17
1	Be 313.107†	-8128.4	-3446.2	2.6745 ug/L	2.6745 ppb	15:14:17
1	Cd 226.502†	202.7	389.4	0.3908 ug/L	0.3908 ppb	15:14:37
1	Co 228.616†	682.7	690.3	13.520 ug/L	13.520 ppb	15:14:37
1	Cr 267.716†	2898.5	2623.6	46.227 ug/L	46.227 ppb	15:14:37
1	Cu 324.752†	16372.6	10003.4	38.444 ug/L	38.444 ppb	15:14:17
1	Mn 257.610†	2778730.1	2606019.9	3591.0 ug/L	3591.0 ppb	15:14:11
1	Mo 202.031†	25.1	18.8	6.2565 ug/L	6.2565 ppb	15:14:37
1	Ni 231.604†	1210.1	1050.4	35.384 ug/L	35.384 ppb	15:14:37
1	P 214.914†	2272.4	1929.9	1264.5 ug/L	1264.5 ppb	15:14:37
1	Pb 220.353†	438.7	477.3	78.502 ug/L	78.502 ppb	15:14:37
1	S 181.975 Axial†	686.2	604.3	954.57 ug/L	954.57 ppb	15:14:37
1	Sb 206.836†	45.3	17.3	-0.1925 ug/L	-0.1925 ppb	15:14:37
1	Se 196.026†	-249.7	-207.6	-11.288 ug/L	-11.288 ppb	15:14:37
1	Si 251.611†	814557.9	763526.4	29213 ug/L	29213 ppb	15:14:11
1	Sn 189.927†	-98.1	-101.8	-20.615 ug/L	-20.615 ppb	15:14:37
1	Ti 334.940†	1019367.5	957581.7	1815.9 ug/L	1815.9 ppb	15:14:11
1	Tl 190.801†	-136.4	-96.5	-6.2775 ug/L	-6.2775 ppb	15:14:37
1	U 409.014†	-7555.2	-4681.3	-193.21 ug/L	-193.21 ppb	15:14:17
1	V 292.402†	4431.0	5904.7	44.330 ug/L	44.330 ppb	15:14:17
1	Zn 213.857†	29207.4	26706.4	313.91 ug/L	313.91 ppb	15:14:17
1	SiO2†	816904.4	765713.6	62281 ug/L	62281 ppb	15:15:45
2	Sc Radial	4091.2	4091.2	114 %		15:13:39
2	Y RADIAL	5675.2	5675.2	139.6 %		15:13:19
2	Al 396.153Radial†	22332.4	19699.0	22604 ug/L	22604 ppb	15:13:19
2	Ca 317.933Radial†	9750.5	8537.0	17450 ug/L	17450 ppb	15:13:19
2	Fe 238.204 Radial†	4322.2	3783.1	53478 ug/L	53478 ppb	15:13:19
2	K 766.490 Radial†	33592.5	26446.9	5558.2 ug/L	5558.2 ppb	15:13:19
2	Mg 279.077 IEC†	132.5	115.6	5045.5 ug/L	5045.5 ppb	15:13:39
2	Na 589.592 Radial†	1479.9	2195.5	1132.1 ug/L	1132.1 ppb	15:13:19
2	Sr 421.552†	10664.4	9340.6	102.85 ug/L	102.85 ppb	15:13:19
2	Sc 361.383	728218.5	728218.5	109.20 %		15:14:43
2	Y 371.029	683939.4	683939.4	129.51 %		15:14:43
2	Ag 328.068†	-2523.9	-2513.4	2.1606 ug/L	2.1606 ppb	15:14:48
2	As 188.979†	-30.0	-2.3	27.054 ug/L	27.054 ppb	15:15:08
2	B 249.677†	646.7	1007.4	18.252 ug/L	18.252 ppb	15:14:48
2	Ba 233.527†	44338.1	40591.2	412.37 ug/L	412.37 ppb	15:14:48
2	Be 313.107†	-8215.8	-3345.6	2.7142 ug/L	2.7142 ppb	15:14:48
2	Cd 226.502†	223.6	404.1	0.6970 ug/L	0.6970 ppb	15:15:08
2	Co 228.616†	647.2	642.6	12.296 ug/L	12.296 ppb	15:15:08
2	Cr 267.716†	2902.1	2562.5	45.204 ug/L	45.204 ppb	15:15:08
2	Cu 324.752†	16418.7	9681.8	37.264 ug/L	37.264 ppb	15:14:48
2	Mn 257.610†	2834113.5	2595001.4	3575.8 ug/L	3575.8 ppb	15:14:43
2	Mo 202.031†	28.3	21.2	6.4313 ug/L	6.4313 ppb	15:15:08
2	Ni 231.604†	1182.1	997.8	33.615 ug/L	33.615 ppb	15:15:08

2	P 214.914†	2239.5	1849.2	1210.7 ug/L	1210.7 ppb	15:15:08
2	Pb 220.353†	433.2	462.5	76.174 ug/L	76.174 ppb	15:15:08
2	S 181.975 Axial†	672.0	576.1	909.72 ug/L	909.72 ppb	15:15:08
2	Sb 206.836†	38.1	9.7	-3.3375 ug/L	-3.3375 ppb	15:15:08
2	Se 196.026†	-245.2	-198.0	-5.8515 ug/L	-5.8515 ppb	15:15:08
2	Si 251.611†	835179.1	764313.1	29243 ug/L	29243 ppb	15:14:43
2	Sn 189.927†	-99.5	-100.9	-20.430 ug/L	-20.430 ppb	15:15:08
2	Ti 334.940†	1043480.0	957015.3	1814.8 ug/L	1814.8 ppb	15:14:43
2	Tl 190.801†	-122.1	-80.4	0.0528 ug/L	0.0528 ppb	15:15:08
2	U 409.014†	-7830.9	-4766.0	-196.50 ug/L	-196.50 ppb	15:14:48
2	V 292.402†	4507.0	5875.8	44.179 ug/L	44.179 ppb	15:14:48
2	Zn 213.857†	29548.8	26370.1	309.99 ug/L	309.99 ppb	15:14:48
2	SiO2†	800670.8	732696.9	59595 ug/L	59595 ppb	15:15:51
3	Sc Radial	4063.0	4063.0	113 %		15:14:04
3	Y RADIAL	5578.1	5578.1	137.2 %		15:13:44
3	Al 396.153Radial†	21905.9	19458.1	22327 ug/L	22327 ppb	15:13:44
3	Ca 317.933Radial†	9651.8	8509.1	17393 ug/L	17393 ppb	15:13:44
3	Fe 238.204 Radial†	4279.1	3771.3	53312 ug/L	53312 ppb	15:13:44
3	K 766.490 Radial†	33012.0	26138.6	5493.3 ug/L	5493.3 ppb	15:13:44
3	Mg 279.077 IEC†	130.6	114.7	5007.2 ug/L	5007.2 ppb	15:14:04
3	Na 589.592 Radial†	1550.8	2267.2	1169.0 ug/L	1169.0 ppb	15:13:44
3	Sr 421.552†	10445.3	9211.9	101.43 ug/L	101.43 ppb	15:13:44
3	Sc 361.383	717239.1	717239.1	107.55 %		15:15:14
3	Y 371.029	675108.0	675108.0	127.84 %		15:15:14
3	Ag 328.068†	-2671.6	-2686.2	1.1180 ug/L	1.1180 ppb	15:15:19
3	As 188.979†	-26.3	0.8	28.590 ug/L	28.590 ppb	15:15:39
3	B 249.677†	623.3	994.6	17.936 ug/L	17.936 ppb	15:15:19
3	Ba 233.527†	44853.6	41692.1	423.51 ug/L	423.51 ppb	15:15:19
3	Be 313.107†	-8202.3	-3448.3	2.6699 ug/L	2.6699 ppb	15:15:19
3	Cd 226.502†	211.1	395.6	0.5841 ug/L	0.5841 ppb	15:15:39
3	Co 228.616†	671.4	674.2	13.123 ug/L	13.123 ppb	15:15:39
3	Cr 267.716†	2951.3	2649.0	46.518 ug/L	46.518 ppb	15:15:39
3	Cu 324.752†	16492.7	9980.8	38.316 ug/L	38.316 ppb	15:15:19
3	Mn 257.610†	2792789.3	2596308.7	3577.6 ug/L	3577.6 ppb	15:15:14
3	Mo 202.031†	25.8	19.2	6.2231 ug/L	6.2231 ppb	15:15:39
3	Ni 231.604†	1217.3	1047.1	35.273 ug/L	35.273 ppb	15:15:39
3	P 214.914†	2274.3	1913.0	1253.8 ug/L	1253.8 ppb	15:15:39
3	Pb 220.353†	442.9	477.5	78.573 ug/L	78.573 ppb	15:15:39
3	S 181.975 Axial†	663.3	577.4	911.87 ug/L	911.87 ppb	15:15:39
3	Sb 206.836†	43.9	15.5	-0.8422 ug/L	-0.8422 ppb	15:15:39
3	Se 196.026†	-261.9	-216.9	-21.132 ug/L	-21.132 ppb	15:15:39
3	Si 251.611†	820842.9	762691.4	29181 ug/L	29181 ppb	15:15:14
3	Sn 189.927†	-85.4	-89.2	-17.664 ug/L	-17.664 ppb	15:15:39
3	Ti 334.940†	1027423.8	956714.5	1814.3 ug/L	1814.3 ppb	15:15:14
3	Tl 190.801†	-126.0	-85.7	-2.0600 ug/L	-2.0600 ppb	15:15:39
3	U 409.014†	-7727.1	-4779.2	-197.01 ug/L	-197.01 ppb	15:15:19
3	V 292.402†	4590.4	6016.5	45.495 ug/L	45.495 ppb	15:15:19
3	Zn 213.857†	29873.8	27086.6	318.65 ug/L	318.65 ppb	15:15:19
3	SiO2†	808536.3	751234.8	61103 ug/L	61103 ppb	15:15:57

Mean Data: 248241009|959146|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Conc. Units	Sample Std.Dev.	RSD
Sc 361.383	718809.1	107.78 %		1.309			1.21%
Sc Radial	4075.4	114 %		0.4			0.35%
Y 371.029	675694.5	127.95 %		1.509			1.18%
Y RADIAL	5639.3	138.7 %		1.31			0.94%
Ag 328.068†	-2592.1	1.7713 ug/L		0.56922	1.7713 ppb	0.56922	32.14%
Al 396.153Radial†	19602.0	22492 ug/L		145.8	22492 ppb	145.8	0.65%
As 188.979†	-2.0	27.234 ug/L		1.2759	27.234 ppb	1.2759	4.68%
B 249.677†	1013.4	18.379 ug/L		0.5175	18.379 ppb	0.5175	2.82%
Ba 233.527†	41102.8	417.55 ug/L		5.607	417.55 ppb	5.607	1.34%
Be 313.107†	-3413.4	2.6862 ug/L		0.02435	2.6862 ppb	0.02435	0.91%
Ca 317.933Radial†	8545.9	17468 ug/L		85.8	17468 ppb	85.8	0.49%
Cd 226.502†	396.3	0.5573 ug/L		0.15487	0.5573 ppb	0.15487	27.79%
Co 228.616†	669.0	12.980 ug/L		0.6245	12.980 ppb	0.6245	4.81%
Cr 267.716†	2611.7	45.983 ug/L		0.6901	45.983 ppb	0.6901	1.50%
Cu 324.752†	9888.7	38.008 ug/L		0.6474	38.008 ppb	0.6474	1.70%
Fe 238.204 Radial†	3797.8	53686 ug/L		511.0	53686 ppb	511.0	0.95%
K 766.490 Radial†	26392.6	5546.7 ug/L		48.72	5546.7 ppb	48.72	0.88%

Mg 279.077 IEC†	114.6	5003.0 ug/L	44.65	5003.0 ppb	44.65	0.89%
Mn 257.610†	2599110.0	3581.5 ug/L	8.33	3581.5 ppb	8.33	0.23%
Mo 202.031†	19.7	6.3036 ug/L	0.11185	6.3036 ppb	0.11185	1.77%
Na 589.592 Radial†	2257.2	1163.9 ug/L	29.57	1163.9 ppb	29.57	2.54%
Ni 231.604†	1031.8	34.757 ug/L	0.9912	34.757 ppb	0.9912	2.85%
P 214.914†	1897.4	1243.0 ug/L	28.50	1243.0 ppb	28.50	2.29%
Pb 220.353†	472.5	77.750 ug/L	1.3652	77.750 ppb	1.3652	1.76%
S 181.975 Axial†	585.9	925.39 ug/L	25.293	925.39 ppb	25.293	2.73%
Sb 206.836†	14.2	-1.4574 ug/L	1.66030	-1.4574 ppb	1.66030	113.92%
Se 196.026†	-207.5	-12.757 ug/L	7.7456	-12.757 ppb	7.7456	60.72%
Si 251.611†	763510.3	29212 ug/L	31.0	29212 ppb	31.0	0.11%
Sn 189.927†	-97.3	-19.570 ug/L	1.6527	-19.570 ppb	1.6527	8.45%
Sr 421.552†	9303.2	102.44 ug/L	0.875	102.44 ppb	0.875	0.85%
Ti 334.940†	957103.8	1815.0 ug/L	0.85	1815.0 ppb	0.85	0.05%
Tl 190.801†	-87.5	-2.7616 ug/L	3.22291	-2.7616 ppb	3.22291	116.71%
U 409.014†	-4742.1	-195.57 ug/L	2.063	-195.57 ppb	2.063	1.05%
V 292.402†	5932.3	44.668 ug/L	0.7204	44.668 ppb	0.7204	1.61%
Zn 213.857†	26721.0	314.18 ug/L	4.336	314.18 ppb	4.336	1.38%
SiO2†	749881.8	60993 ug/L	1346.1	60993 ppb	1346.1	2.21%

Sequence No.: 18

Sample ID: 248241010|959146|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 53

Date Collected: 3/31/2010 15:18:08

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248241010|959146|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	3945.8	3945.8	110 %		15:20:21
1	Y RADIAL	5725.0	5725.0	140.8 %		15:20:01
1	Al 396.153Radial†	44009.5	40136.1	46055 ug/L	46055 ppb	15:20:01
1	Ca 317.933Radial†	18049.0	16399.6	33521 ug/L	33521 ppb	15:20:01
1	Fe 238.204 Radial†	5176.1	4699.4	66431 ug/L	66431 ppb	15:20:01
1	K 766.490 Radial†	64000.8	55188.9	11601 ug/L	11601 ppb	15:20:01
1	Mg 279.077 IEC†	286.9	260.3	11423 ug/L	11423 ppb	15:20:21
1	Na 589.592 Radial†	607.2	1449.7	747.51 ug/L	747.51 ppb	15:20:01
1	Sr 421.552†	22432.9	20388.7	224.54 ug/L	224.54 ppb	15:20:01
1	Sc 361.383	693901.8	693901.8	104.05 %		15:21:19
1	Y 371.029	636231.5	636231.5	120.48 %		15:21:19
1	Ag 328.068†	-3168.0	-3246.8	1.9472 ug/L	1.9472 ppb	15:21:24
1	As 188.979†	-19.6	6.4	33.890 ug/L	33.890 ppb	15:21:44
1	B 249.677†	2368.2	2691.1	61.239 ug/L	61.239 ppb	15:21:24
1	Ba 233.527†	72719.6	69876.3	709.12 ug/L	709.12 ppb	15:21:24
1	Be 313.107†	6609.2	10530.3	8.3438 ug/L	8.3438 ppb	15:21:24
1	Cd 226.502†	307.9	495.2	0.7689 ug/L	0.7689 ppb	15:21:44
1	Co 228.616†	801.5	820.2	17.020 ug/L	17.020 ppb	15:21:44
1	Cr 267.716†	3311.5	3087.4	54.732 ug/L	54.732 ppb	15:21:44
1	Cu 324.752†	18399.9	12329.6	47.361 ug/L	47.361 ppb	15:21:24
1	Mn 257.610†	3421262.7	3287657.2	4529.9 ug/L	4529.9 ppb	15:21:19
1	Mo 202.031†	-4.9	-9.4	4.6338 ug/L	4.6338 ppb	15:21:44
1	Ni 231.604†	1667.7	1518.1	51.142 ug/L	51.142 ppb	15:21:44
1	P 214.914†	2862.6	2549.5	1679.4 ug/L	1679.4 ppb	15:21:44
1	Pb 220.353†	422.9	472.2	82.602 ug/L	82.602 ppb	15:21:44
1	S 181.975 Axial†	1058.7	978.1	1543.2 ug/L	1543.2 ppb	15:21:44
1	Sb 206.836†	39.6	12.8	-2.6421 ug/L	-2.6421 ppb	15:21:44
1	Se 196.026†	-305.4	-267.0	-18.704 ug/L	-18.704 ppb	15:21:44
1	Si 251.611†	876506.4	841857.5	32210 ug/L	32210 ppb	15:21:19
1	Sn 189.927†	-151.4	-155.3	-30.355 ug/L	-30.355 ppb	15:21:44
1	Ti 334.940†	950086.4	914516.0	1736.0 ug/L	1736.0 ppb	15:21:19
1	Tl 190.801†	-154.6	-117.1	-10.741 ug/L	-10.741 ppb	15:21:44
1	U 409.014†	-8562.0	-5823.2	-240.21 ug/L	-240.21 ppb	15:21:19
1	V 292.402†	9880.0	11243.9	91.836 ug/L	91.836 ppb	15:21:24
1	Zn 213.857†	23927.5	22305.9	258.87 ug/L	258.87 ppb	15:21:24
1	SiO2†	894734.2	859362.0	69898 ug/L	69898 ppb	15:22:53
2	Sc Radial	3920.2	3920.2	109 %		15:20:46
2	Y RADIAL	5293.4	5293.4	130.2 %		15:20:26
2	Al 396.153Radial†	44410.9	40764.7	46776 ug/L	46776 ppb	15:20:26
2	Ca 317.933Radial†	18215.2	16658.9	34051 ug/L	34051 ppb	15:20:26
2	Fe 238.204 Radial†	5198.9	4751.0	67161 ug/L	67161 ppb	15:20:26
2	K 766.490 Radial†	64218.7	55768.2	11723 ug/L	11723 ppb	15:20:26
2	Mg 279.077 IEC†	275.6	251.7	11041 ug/L	11041 ppb	15:20:46
2	Na 589.592 Radial†	657.5	1499.4	773.11 ug/L	773.11 ppb	15:20:26
2	Sr 421.552†	22490.7	20574.7	226.58 ug/L	226.58 ppb	15:20:26
2	Sc 361.383	694515.2	694515.2	104.14 %		15:21:50
2	Y 371.029	641615.4	641615.4	121.50 %		15:21:50
2	Ag 328.068†	-3271.2	-3343.2	1.6166 ug/L	1.6166 ppb	15:21:55
2	As 188.979†	-14.9	10.9	36.990 ug/L	36.990 ppb	15:22:15
2	B 249.677†	2274.5	2599.1	58.658 ug/L	58.658 ppb	15:21:55
2	Ba 233.527†	73573.6	70634.5	716.82 ug/L	716.82 ppb	15:21:55
2	Be 313.107†	6604.9	10520.5	8.4874 ug/L	8.4874 ppb	15:21:55
2	Cd 226.502†	285.6	473.5	0.3576 ug/L	0.3576 ppb	15:22:15
2	Co 228.616†	788.5	807.0	16.533 ug/L	16.533 ppb	15:22:15
2	Cr 267.716†	3320.5	3093.2	54.901 ug/L	54.901 ppb	15:22:15
2	Cu 324.752†	18590.2	12496.7	47.993 ug/L	47.993 ppb	15:21:55
2	Mn 257.610†	3524342.6	3383733.9	4662.2 ug/L	4662.2 ppb	15:21:50
2	Mo 202.031†	-9.2	-13.6	4.2867 ug/L	4.2867 ppb	15:22:15
2	Ni 231.604†	1656.5	1505.9	50.731 ug/L	50.731 ppb	15:22:15

2	P 214.914†	2828.7	2514.5	1655.1 ug/L	1655.1 ppb	15:22:15
2	Pb 220.353†	422.1	471.1	82.543 ug/L	82.543 ppb	15:22:15
2	S 181.975 Axial†	1042.1	961.2	1516.3 ug/L	1516.3 ppb	15:22:15
2	Sb 206.836†	58.3	30.8	4.5670 ug/L	4.5670 ppb	15:22:15
2	Se 196.026†	-313.1	-274.1	-22.102 ug/L	-22.102 ppb	15:22:15
2	Si 251.611†	906822.7	870224.2	33295 ug/L	33295 ppb	15:21:50
2	Sn 189.927†	-145.2	-149.2	-28.806 ug/L	-28.806 ppb	15:22:15
2	Ti 334.940†	986709.2	948875.9	1801.2 ug/L	1801.2 ppb	15:21:50
2	Tl 190.801†	-161.3	-123.4	-12.091 ug/L	-12.091 ppb	15:22:15
2	U 409.014†	-8606.9	-5859.1	-241.72 ug/L	-241.72 ppb	15:21:50
2	V 292.402†	10067.9	11415.9	93.230 ug/L	93.230 ppb	15:21:55
2	Zn 213.857†	24289.0	22632.8	262.71 ug/L	262.71 ppb	15:21:55
2	SiO2†	900567.8	864204.3	70292 ug/L	70292 ppb	15:22:59
3	Sc Radial	3953.4	3953.4	110 %		15:21:12
3	Y RADIAL	5288.8	5288.8	130.1 %		15:20:52
3	Al 396.153Radial†	44710.2	40695.1	46696 ug/L	46696 ppb	15:20:52
3	Ca 317.933Radial†	18269.0	16567.7	33864 ug/L	33864 ppb	15:20:52
3	Fe 238.204 Radial†	5239.2	4747.7	67113 ug/L	67113 ppb	15:20:52
3	K 766.490 Radial†	64378.5	55419.8	11650 ug/L	11650 ppb	15:20:52
3	Mg 279.077 IEC†	281.3	254.7	11176 ug/L	11176 ppb	15:21:12
3	Na 589.592 Radial†	674.8	1510.0	778.58 ug/L	778.58 ppb	15:20:52
3	Sr 421.552†	22658.8	20554.4	226.36 ug/L	226.36 ppb	15:20:52
3	Sc 361.383	705514.9	705514.9	105.79 %		15:22:21
3	Y 371.029	648298.5	648298.5	122.76 %		15:22:21
3	Ag 328.068†	-3318.9	-3339.3	1.6158 ug/L	1.6158 ppb	15:22:26
3	As 188.979†	-24.9	1.7	31.668 ug/L	31.668 ppb	15:22:46
3	B 249.677†	2378.6	2663.5	60.390 ug/L	60.390 ppb	15:22:26
3	Ba 233.527†	74644.5	70545.4	715.92 ug/L	715.92 ppb	15:22:26
3	Be 313.107†	6855.1	10658.2	8.4069 ug/L	8.4069 ppb	15:22:26
3	Cd 226.502†	300.8	483.6	0.5218 ug/L	0.5218 ppb	15:22:46
3	Co 228.616†	791.7	798.3	16.433 ug/L	16.433 ppb	15:22:46
3	Cr 267.716†	3350.3	3071.7	54.561 ug/L	54.561 ppb	15:22:46
3	Cu 324.752†	18767.7	12386.2	47.590 ug/L	47.590 ppb	15:22:26
3	Mn 257.610†	3465029.9	3274904.9	4512.4 ug/L	4512.4 ppb	15:22:21
3	Mo 202.031†	-12.5	-16.6	3.9932 ug/L	3.9932 ppb	15:22:46
3	Ni 231.604†	1690.3	1513.0	50.971 ug/L	50.971 ppb	15:22:46
3	P 214.914†	2858.5	2500.4	1645.6 ug/L	1645.6 ppb	15:22:46
3	Pb 220.353†	439.6	481.4	84.194 ug/L	84.194 ppb	15:22:46
3	S 181.975 Axial†	1060.1	962.7	1518.6 ug/L	1518.6 ppb	15:22:46
3	Sb 206.836†	47.3	19.5	0.0475 ug/L	0.0475 ppb	15:22:46
3	Se 196.026†	-306.3	-263.0	-13.610 ug/L	-13.610 ppb	15:22:46
3	Si 251.611†	891829.0	842475.2	32233 ug/L	32233 ppb	15:22:21
3	Sn 189.927†	-158.7	-159.7	-31.341 ug/L	-31.341 ppb	15:22:46
3	Ti 334.940†	968328.4	916729.2	1740.2 ug/L	1740.2 ppb	15:22:21
3	Tl 190.801†	-146.2	-106.8	-6.7015 ug/L	-6.7015 ppb	15:22:46
3	U 409.014†	-8339.6	-5477.5	-226.48 ug/L	-226.48 ppb	15:22:21
3	V 292.402†	10261.5	11448.2	93.626 ug/L	93.626 ppb	15:22:26
3	Zn 213.857†	24705.5	22662.8	263.08 ug/L	263.08 ppb	15:22:26
3	SiO2†	913912.8	863336.4	70221 ug/L	70221 ppb	15:23:05

Mean Data: 248241010|959146|1

Analyte	Mean Corrected		Calib.	Std.Dev.	Sample		Std.Dev.	RSD
	Intensity	Conc.			Conc.	Units		
Sc 361.383	697977.3	104.66 %		0.980				0.94%
Sc Radial	3939.8	110 %		0.5				0.44%
Y 371.029	642048.5	121.58 %		1.145				0.94%
Y RADIAL	5435.7	133.7 %		6.16				4.61%
Ag 328.068†	-3309.8	1.7265 ug/L		0.19111	1.7265	ppb	0.19111	11.07%
Al 396.153Radial†	40531.9	46509 ug/L		395.4	46509	ppb	395.4	0.85%
As 188.979†	6.4	34.183 ug/L		2.6730	34.183	ppb	2.6730	7.82%
B 249.677†	2651.2	60.096 ug/L		1.3159	60.096	ppb	1.3159	2.19%
Ba 233.527†	70352.1	713.95 ug/L		4.207	713.95	ppb	4.207	0.59%
Be 313.107†	10569.7	8.4127 ug/L		0.07200	8.4127	ppb	0.07200	0.86%
Ca 317.933Radial†	16542.0	33812 ug/L		268.9	33812	ppb	268.9	0.80%
Cd 226.502†	484.1	0.5495 ug/L		0.20705	0.5495	ppb	0.20705	37.68%
Co 228.616†	808.5	16.662 ug/L		0.3140	16.662	ppb	0.3140	1.88%
Cr 267.716†	3084.1	54.731 ug/L		0.1703	54.731	ppb	0.1703	0.31%
Cu 324.752†	12404.1	47.648 ug/L		0.3199	47.648	ppb	0.3199	0.67%
Fe 238.204 Radial†	4732.7	66902 ug/L		408.4	66902	ppb	408.4	0.61%
K 766.490 Radial†	55459.0	11658 ug/L		61.3	11658	ppb	61.3	0.53%

Mg 279.077 IEC†	255.6	11213 ug/L	193.6	11213 ppb	193.6	1.73%
Mn 257.610†	3315432.0	4568.2 ug/L	81.89	4568.2 ppb	81.89	1.79%
Mo 202.031†	-13.2	4.3046 ug/L	0.32068	4.3046 ppb	0.32068	7.45%
Na 589.592 Radial†	1486.4	766.40 ug/L	16.586	766.40 ppb	16.586	2.16%
Ni 231.604†	1512.3	50.948 ug/L	0.2065	50.948 ppb	0.2065	0.41%
P 214.914†	2521.5	1660.0 ug/L	17.44	1660.0 ppb	17.44	1.05%
Pb 220.353†	474.9	83.113 ug/L	0.9370	83.113 ppb	0.9370	1.13%
S 181.975 Axial†	967.4	1526.0 ug/L	14.91	1526.0 ppb	14.91	0.98%
Sb 206.836†	21.0	0.6574 ug/L	3.64304	0.6574 ppb	3.64304	554.12%
Se 196.026†	-268.0	-18.139 ug/L	4.2739	-18.139 ppb	4.2739	23.56%
Si 251.611†	851519.0	32579 ug/L	619.9	32579 ppb	619.9	1.90%
Sn 189.927†	-154.7	-30.167 ug/L	1.2780	-30.167 ppb	1.2780	4.24%
Sr 421.552†	20505.9	225.83 ug/L	1.123	225.83 ppb	1.123	0.50%
Ti 334.940†	926707.0	1759.1 ug/L	36.47	1759.1 ppb	36.47	2.07%
Tl 190.801†	-115.8	-9.8446 ug/L	2.80437	-9.8446 ppb	2.80437	28.49%
U 409.014†	-5719.9	-236.14 ug/L	8.398	-236.14 ppb	8.398	3.56%
V 292.402†	11369.3	92.897 ug/L	0.9404	92.897 ppb	0.9404	1.01%
Zn 213.857†	22533.8	261.56 ug/L	2.329	261.56 ppb	2.329	0.89%
SiO2†	862300.9	70137 ug/L	210.0	70137 ppb	210.0	0.30%

Sequence No.: 19

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/31/2010 15:25:15

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc Radial	3825.8	3825.8	107 %		15:27:27
1	Y RADIAL	4432.4	4432.4	109.0 %		15:27:07
1	Al 396.153Radial†	4884.6	4691.8	5360.2 ug/L	5360.2 ppb	15:27:07
1	Ca 317.933Radial†	2627.5	2448.9	5005.6 ug/L	5005.6 ppb	15:27:27
1	Fe 238.204 Radial†	387.3	355.1	5035.3 ug/L	5035.3 ppb	15:27:27
1	K 766.490 Radial†	29328.3	24491.2	5147.9 ug/L	5147.9 ppb	15:27:07
1	Mg 279.077 IEC†	129.3	120.6	5324.2 ug/L	5324.2 ppb	15:27:27
1	Na 589.592 Radial†	19575.7	19259.6	9930.7 ug/L	9930.7 ppb	15:27:07
1	Sr 421.552†	51294.7	48100.8	530.28 ug/L	530.28 ppb	15:27:07
1	Sc 361.383	702325.2	702325.2	105.31 %		15:28:25
1	Y 371.029	548053.1	548053.1	103.78 %		15:28:25
1	Ag 328.068†	92021.5	87177.4	506.53 ug/L	506.53 ppb	15:28:30
1	As 188.979†	979.2	955.0	500.17 ug/L	500.17 ppb	15:28:50
1	B 249.677†	19414.8	18850.5	502.68 ug/L	502.68 ppb	15:28:30
1	Ba 233.527†	51981.1	49345.7	500.44 ug/L	500.44 ppb	15:28:30
1	Be 313.107†	1249494.1	1190640.9	499.88 ug/L	499.88 ppb	15:28:25
1	Cd 226.502†	34106.9	32585.6	502.86 ug/L	502.86 ppb	15:28:30
1	Co 228.616†	20623.4	19633.0	509.64 ug/L	509.64 ppb	15:28:30
1	Cr 267.716†	34247.1	32424.2	499.42 ug/L	499.42 ppb	15:28:30
1	Cu 324.752†	156128.2	142897.9	506.65 ug/L	506.65 ppb	15:28:30
1	Mn 257.610†	384995.2	365119.4	502.68 ug/L	502.68 ppb	15:28:30
1	Mo 202.031†	5199.7	4932.6	482.72 ug/L	482.72 ppb	15:28:50
1	Ni 231.604†	15856.4	14971.8	504.20 ug/L	504.20 ppb	15:28:30
1	P 214.914†	4027.5	3622.7	2360.0 ug/L	2360.0 ppb	15:28:50
1	Pb 220.353†	3065.4	2976.5	487.48 ug/L	487.48 ppb	15:28:50
1	S 181.975 Axial†	697.7	623.1	987.54 ug/L	987.54 ppb	15:28:50
1	Sb 206.836†	1270.2	1180.9	506.91 ug/L	506.91 ppb	15:28:50
1	Se 196.026†	641.6	635.9	511.72 ug/L	511.72 ppb	15:28:50
1	Si 251.611†	71989.9	67821.9	2589.0 ug/L	2589.0 ppb	15:28:30
1	Sn 189.927†	2164.7	2045.8	484.53 ug/L	484.53 ppb	15:28:50
1	Ti 334.940†	277659.0	265058.0	501.93 ug/L	501.93 ppb	15:28:30
1	Tl 190.801†	1248.5	1216.9	486.22 ug/L	486.22 ppb	15:28:50
1	U 409.014†	10610.7	12481.0	496.70 ug/L	496.70 ppb	15:28:30
1	V 292.402†	55312.7	54270.8	506.47 ug/L	506.47 ppb	15:28:30
1	Zn 213.857†	44951.8	41993.8	502.16 ug/L	502.16 ppb	15:28:30
1	SiO2†	69412.0	65360.3	5303.1 ug/L	5303.1 ppb	15:29:57
2	Sc Radial	3879.7	3879.7	108 %		15:27:53
2	Y RADIAL	4349.1	4349.1	107.0 %		15:27:33
2	Al 396.153Radial†	4797.2	4547.2	5194.7 ug/L	5194.7 ppb	15:27:33
2	Ca 317.933Radial†	2645.8	2431.6	4970.2 ug/L	4970.2 ppb	15:27:53
2	Fe 238.204 Radial†	396.1	358.2	5078.7 ug/L	5078.7 ppb	15:27:53
2	K 766.490 Radial†	28876.4	23690.7	4979.7 ug/L	4979.7 ppb	15:27:33
2	Mg 279.077 IEC†	130.2	119.8	5290.3 ug/L	5290.3 ppb	15:27:53
2	Na 589.592 Radial†	18888.7	18368.8	9471.4 ug/L	9471.4 ppb	15:27:33
2	Sr 421.552†	49953.2	46191.2	509.22 ug/L	509.22 ppb	15:27:33
2	Sc 361.383	703846.8	703846.8	105.54 %		15:28:55
2	Y 371.029	548518.9	548518.9	103.87 %		15:28:55
2	Ag 328.068†	89785.3	84869.7	493.17 ug/L	493.17 ppb	15:29:01
2	As 188.979†	964.0	938.7	491.59 ug/L	491.59 ppb	15:29:21
2	B 249.677†	18781.9	18211.0	485.59 ug/L	485.59 ppb	15:29:01
2	Ba 233.527†	50896.6	48211.4	488.94 ug/L	488.94 ppb	15:29:01
2	Be 313.107†	1248657.3	1187283.2	498.44 ug/L	498.44 ppb	15:28:55
2	Cd 226.502†	33397.9	31843.8	491.39 ug/L	491.39 ppb	15:29:01
2	Co 228.616†	20113.8	19107.7	496.02 ug/L	496.02 ppb	15:29:01
2	Cr 267.716†	33451.4	31600.0	486.74 ug/L	486.74 ppb	15:29:01
2	Cu 324.752†	151402.4	138099.8	489.65 ug/L	489.65 ppb	15:29:01
2	Mn 257.610†	376242.0	356035.5	490.19 ug/L	490.19 ppb	15:29:01
2	Mo 202.031†	5140.6	4866.0	476.20 ug/L	476.20 ppb	15:29:21
2	Ni 231.604†	15434.6	14539.5	489.64 ug/L	489.64 ppb	15:29:01

2	P 214.914†	3967.1	3557.1	2318.8 ug/L	2318.8 ppb	15:29:21
2	Pb 220.353†	3033.0	2939.6	481.40 ug/L	481.40 ppb	15:29:21
2	S 181.975 Axial†	694.4	618.6	980.46 ug/L	980.46 ppb	15:29:21
2	Sb 206.836†	1248.0	1157.3	496.97 ug/L	496.97 ppb	15:29:21
2	Se 196.026†	634.9	628.1	505.74 ug/L	505.74 ppb	15:29:21
2	Si 251.611†	69966.5	65757.0	2510.0 ug/L	2510.0 ppb	15:29:01
2	Sn 189.927†	2160.3	2037.2	482.49 ug/L	482.49 ppb	15:29:21
2	Ti 334.940†	270700.2	257894.6	488.36 ug/L	488.36 ppb	15:29:01
2	Tl 190.801†	1238.0	1204.5	481.18 ug/L	481.18 ppb	15:29:21
2	U 409.014†	10434.9	12292.6	489.20 ug/L	489.20 ppb	15:29:01
2	V 292.402†	53872.3	52792.5	492.75 ug/L	492.75 ppb	15:29:01
2	Zn 213.857†	43779.9	40791.2	487.75 ug/L	487.75 ppb	15:29:01
2	SiO2†	68656.1	64501.5	5233.4 ug/L	5233.4 ppb	15:30:02
3	Sc Radial	3900.9	3900.9	109 %		15:28:18
3	Y RADIAL	4434.1	4434.1	109.0 %		15:27:58
3	Al 396.153Radial†	4886.5	4605.3	5260.4 ug/L	5260.4 ppb	15:27:58
3	Ca 317.933Radial†	2664.8	2435.7	4978.6 ug/L	4978.6 ppb	15:28:18
3	Fe 238.204 Radial†	396.8	356.9	5059.4 ug/L	5059.4 ppb	15:28:18
3	K 766.490 Radial†	29428.9	24053.8	5056.0 ug/L	5056.0 ppb	15:27:58
3	Mg 279.077 IEC†	128.0	117.1	5171.5 ug/L	5171.5 ppb	15:28:18
3	Na 589.592 Radial†	19467.9	18806.7	9697.2 ug/L	9697.2 ppb	15:27:58
3	Sr 421.552†	51231.5	47116.0	519.42 ug/L	519.42 ppb	15:27:58
3	Sc 361.383	687257.2	687257.2	103.05 %		15:29:26
3	Y 371.029	537713.9	537713.9	101.82 %		15:29:26
3	Ag 328.068†	88785.3	85952.8	499.44 ug/L	499.44 ppb	15:29:32
3	As 188.979†	966.6	963.2	504.31 ug/L	504.31 ppb	15:29:52
3	B 249.677†	18746.3	18606.0	496.16 ug/L	496.16 ppb	15:29:32
3	Ba 233.527†	50244.3	48742.5	494.33 ug/L	494.33 ppb	15:29:32
3	Be 313.107†	1216785.0	1184913.9	497.46 ug/L	497.46 ppb	15:29:26
3	Cd 226.502†	32861.9	32087.5	495.16 ug/L	495.16 ppb	15:29:32
3	Co 228.616†	19789.2	19252.8	499.81 ug/L	499.81 ppb	15:29:32
3	Cr 267.716†	33110.9	32034.7	493.43 ug/L	493.43 ppb	15:29:32
3	Cu 324.752†	150065.3	140265.1	497.32 ug/L	497.32 ppb	15:29:32
3	Mn 257.610†	371825.0	360354.6	496.13 ug/L	496.13 ppb	15:29:32
3	Mo 202.031†	5202.4	5043.5	493.56 ug/L	493.56 ppb	15:29:52
3	Ni 231.604†	15307.5	14769.3	497.38 ug/L	497.38 ppb	15:29:32
3	P 214.914†	4023.6	3702.7	2416.3 ug/L	2416.3 ppb	15:29:52
3	Pb 220.353†	3053.2	3028.5	495.97 ug/L	495.97 ppb	15:29:52
3	S 181.975 Axial†	711.2	650.8	1031.5 ug/L	1031.5 ppb	15:29:52
3	Sb 206.836†	1269.9	1207.0	518.17 ug/L	518.17 ppb	15:29:52
3	Se 196.026†	644.1	651.6	524.05 ug/L	524.05 ppb	15:29:52
3	Si 251.611†	68967.4	66387.7	2533.9 ug/L	2533.9 ppb	15:29:32
3	Sn 189.927†	2171.7	2097.6	496.77 ug/L	496.77 ppb	15:29:52
3	Ti 334.940†	267852.4	261322.5	494.86 ug/L	494.86 ppb	15:29:32
3	Tl 190.801†	1257.0	1251.2	499.77 ug/L	499.77 ppb	15:29:52
3	U 409.014†	10271.7	12373.0	492.39 ug/L	492.39 ppb	15:29:32
3	V 292.402†	53502.5	53665.8	501.04 ug/L	501.04 ppb	15:29:32
3	Zn 213.857†	43289.7	41316.8	494.04 ug/L	494.04 ppb	15:29:32
3	SiO2†	69309.8	66706.1	5412.2 ug/L	5412.2 ppb	15:30:07

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	697809.8	104.64 %	1.375			1.31%
Sc Radial	3868.8	108 %	1.1			1.00%
Y 371.029	544762.0	103.16 %	1.157			1.12%
Y RADIAL	4405.2	108.3 %	1.19			1.10%
Ag 328.068†	86000.0	499.71 ug/L	6.685	499.71 ppb	6.685	1.34%
QC value within limits for Ag 328.068 Recovery = 99.94%						
Al 396.153Radial†	4614.7	5271.8 ug/L	83.34	5271.8 ppb	83.34	1.58%
QC value within limits for Al 396.153Radial Recovery = 105.44%						
As 188.979†	952.3	498.69 ug/L	6.492	498.69 ppb	6.492	1.30%
QC value within limits for As 188.979 Recovery = 99.74%						
B 249.677†	18555.8	494.81 ug/L	8.628	494.81 ppb	8.628	1.74%
QC value within limits for B 249.677 Recovery = 98.96%						
Ba 233.527†	48766.5	494.57 ug/L	5.755	494.57 ppb	5.755	1.16%
QC value within limits for Ba 233.527 Recovery = 98.91%						
Be 313.107†	1187612.7	498.59 ug/L	1.215	498.59 ppb	1.215	0.24%
QC value within limits for Be 313.107 Recovery = 99.72%						
Ca 317.933Radial†	2438.7	4984.8 ug/L	18.53	4984.8 ppb	18.53	0.37%

QC value within limits for Ca 317.933 Radial Recovery = 99.70%							
Cd	226.502†	32172.3	496.47 ug/L	5.843	496.47 ppb	5.843	1.18%
QC value within limits for Cd 226.502 Recovery = 99.29%							
Co	228.616†	19331.2	501.82 ug/L	7.030	501.82 ppb	7.030	1.40%
QC value within limits for Co 228.616 Recovery = 100.36%							
Cr	267.716†	32019.6	493.20 ug/L	6.343	493.20 ppb	6.343	1.29%
QC value within limits for Cr 267.716 Recovery = 98.64%							
Cu	324.752†	140421.0	497.88 ug/L	8.516	497.88 ppb	8.516	1.71%
QC value within limits for Cu 324.752 Recovery = 99.58%							
Fe	238.204 Radial†	356.7	5057.8 ug/L	21.77	5057.8 ppb	21.77	0.43%
QC value within limits for Fe 238.204 Radial Recovery = 101.16%							
K	766.490 Radial†	24078.6	5061.2 ug/L	84.25	5061.2 ppb	84.25	1.66%
QC value within limits for K 766.490 Radial Recovery = 101.22%							
Mg	279.077 IEC†	119.2	5262.0 ug/L	80.19	5262.0 ppb	80.19	1.52%
QC value within limits for Mg 279.077 IEC Recovery = 105.24%							
Mn	257.610†	360503.2	496.34 ug/L	6.249	496.34 ppb	6.249	1.26%
QC value within limits for Mn 257.610 Recovery = 99.27%							
Mo	202.031†	4947.4	484.16 ug/L	8.769	484.16 ppb	8.769	1.81%
QC value within limits for Mo 202.031 Recovery = 96.83%							
Na	589.592 Radial†	18811.7	9699.7 ug/L	229.66	9699.7 ppb	229.66	2.37%
QC value within limits for Na 589.592 Radial Recovery = 97.00%							
Ni	231.604†	14760.2	497.07 ug/L	7.284	497.07 ppb	7.284	1.47%
QC value within limits for Ni 231.604 Recovery = 99.41%							
P	214.914†	3627.5	2365.0 ug/L	48.92	2365.0 ppb	48.92	2.07%
QC value within limits for P 214.914 Recovery = 94.60%							
Pb	220.353†	2981.6	488.28 ug/L	7.316	488.28 ppb	7.316	1.50%
QC value within limits for Pb 220.353 Recovery = 97.66%							
S	181.975 Axial†	630.8	999.84 ug/L	27.657	999.84 ppb	27.657	2.77%
QC value within limits for S 181.975 Axial Recovery = 99.98%							
Sb	206.836†	1181.7	507.35 ug/L	10.607	507.35 ppb	10.607	2.09%
QC value within limits for Sb 206.836 Recovery = 101.47%							
Se	196.026†	638.5	513.84 ug/L	9.334	513.84 ppb	9.334	1.82%
QC value within limits for Se 196.026 Recovery = 102.77%							
Si	251.611†	66655.5	2544.3 ug/L	40.47	2544.3 ppb	40.47	1.59%
QC value within limits for Si 251.611 Recovery = 101.77%							
Sn	189.927†	2060.2	487.93 ug/L	7.725	487.93 ppb	7.725	1.58%
QC value within limits for Sn 189.927 Recovery = 97.59%							
Sr	421.552†	47136.0	519.64 ug/L	10.529	519.64 ppb	10.529	2.03%
QC value within limits for Sr 421.552 Recovery = 103.93%							
Ti	334.940†	261425.0	495.05 ug/L	6.784	495.05 ppb	6.784	1.37%
QC value within limits for Ti 334.940 Recovery = 99.01%							
Tl	190.801†	1224.2	489.06 ug/L	9.616	489.06 ppb	9.616	1.97%
QC value within limits for Tl 190.801 Recovery = 97.81%							
U	409.014†	12382.2	492.76 ug/L	3.763	492.76 ppb	3.763	0.76%
QC value within limits for U 409.014 Recovery = 98.55%							
V	292.402†	53576.4	500.09 ug/L	6.907	500.09 ppb	6.907	1.38%
QC value within limits for V 292.402 Recovery = 100.02%							
Zn	213.857†	41367.3	494.65 ug/L	7.222	494.65 ppb	7.222	1.46%
QC value within limits for Zn 213.857 Recovery = 98.93%							
SiO2†		65522.6	5316.2 ug/L	90.15	5316.2 ppb	90.15	1.70%
QC value within limits for SiO2 Recovery = 99.42%							
All analyte(s) passed QC.							

Sequence No.: 20

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/31/2010 15:32:18

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	3903.5	3903.5	109 %		15:34:30
1	Y RADIAL	4389.1	4389.1	107.9 %		15:34:10
1	Al 396.153Radial†	-95.5	22.2	25.375 ug/L	25.375 ppb	15:34:10
1	Ca 317.933Radial†	19.0	1.7	3.5116 ug/L	3.5116 ppb	15:34:30
1	Fe 238.204 Radial†	6.8	-2.0	-27.806 ug/L	-27.806 ppb	15:34:30
1	K 766.490 Radial†	3008.9	-252.8	-53.216 ug/L	-53.216 ppb	15:34:10
1	Mg 279.077 IEC†	6.3	5.1	227.28 ug/L	227.28 ppb	15:34:30
1	Na 589.592 Radial†	-910.2	60.7	31.300 ug/L	31.300 ppb	15:34:10
1	Sr 421.552†	17.7	2.5	0.0273 ug/L	0.0273 ppb	15:34:10
1	Sc 361.383	686905.6	686905.6	103.00 %		15:35:27
1	Y 371.029	541426.7	541426.7	102.53 %		15:35:27
1	Ag 328.068†	273.9	63.8	0.3687 ug/L	0.3687 ppb	15:35:27
1	As 188.979†	-18.6	7.2	3.7065 ug/L	3.7065 ppb	15:35:47
1	B 249.677†	-489.8	-60.4	-1.6152 ug/L	-1.6152 ppb	15:35:47
1	Ba 233.527†	4.7	-8.7	-0.0862 ug/L	-0.0862 ppb	15:35:47
1	Be 313.107†	-4323.2	-19.0	-0.0079 ug/L	-0.0079 ppb	15:35:27
1	Cd 226.502†	-193.4	11.5	0.1790 ug/L	0.1790 ppb	15:35:47
1	Co 228.616†	-42.7	8.4	0.2255 ug/L	0.2255 ppb	15:35:47
1	Cr 267.716†	89.3	-8.5	-0.1304 ug/L	-0.1304 ppb	15:35:47
1	Cu 324.752†	5472.8	-40.8	-0.1435 ug/L	-0.1435 ppb	15:35:27
1	Mn 257.610†	482.6	14.1	0.0074 ug/L	0.0074 ppb	15:35:47
1	Mo 202.031†	33.8	28.0	2.7378 ug/L	2.7378 ppb	15:35:47
1	Ni 231.604†	88.6	1.2	0.0418 ug/L	0.0418 ppb	15:35:47
1	P 214.914†	204.3	-3.3	-2.1732 ug/L	-2.1732 ppb	15:35:47
1	Pb 220.353†	-68.5	-0.7	-0.0951 ug/L	-0.0951 ppb	15:35:47
1	S 181.975 Axial†	32.3	-8.0	-12.678 ug/L	-12.678 ppb	15:35:47
1	Sb 206.836†	23.8	-2.2	-0.8403 ug/L	-0.8403 ppb	15:35:47
1	Se 196.026†	-30.9	-3.4	-2.7142 ug/L	-2.7142 ppb	15:35:47
1	Si 251.611†	598.4	44.5	1.6700 ug/L	1.6700 ppb	15:35:47
1	Sn 189.927†	10.0	-0.1	-0.0124 ug/L	-0.0124 ppb	15:35:47
1	Ti 334.940†	-1426.4	20.9	0.0238 ug/L	0.0238 ppb	15:35:27
1	Tl 190.801†	-27.3	5.0	1.9756 ug/L	1.9756 ppb	15:35:47
1	U 409.014†	-2609.3	-127.7	-5.0976 ug/L	-5.0976 ppb	15:35:27
1	V 292.402†	-1675.3	121.9	1.1604 ug/L	1.1604 ppb	15:35:27
1	Zn 213.857†	750.2	38.0	0.4623 ug/L	0.4623 ppb	15:35:47
1	SiO2†	573.9	6.9	0.4881 ug/L	0.4881 ppb	15:36:43
2	Sc Radial	3912.9	3912.9	109 %		15:34:55
2	Y RADIAL	4344.0	4344.0	106.8 %		15:34:35
2	Al 396.153Radial†	-123.9	-3.7	-4.2848 ug/L	-4.2848 ppb	15:34:35
2	Ca 317.933Radial†	15.7	-1.3	-2.6490 ug/L	-2.6490 ppb	15:34:55
2	Fe 238.204 Radial†	7.0	-1.8	-25.130 ug/L	-25.130 ppb	15:34:55
2	K 766.490 Radial†	3007.9	-260.3	-54.802 ug/L	-54.802 ppb	15:34:35
2	Mg 279.077 IEC†	2.3	1.5	66.450 ug/L	66.450 ppb	15:34:55
2	Na 589.592 Radial†	-919.8	53.9	27.784 ug/L	27.784 ppb	15:34:35
2	Sr 421.552†	69.0	49.5	0.5458 ug/L	0.5458 ppb	15:34:35
2	Sc 361.383	691569.0	691569.0	103.70 %		15:35:52
2	Y 371.029	546039.5	546039.5	103.40 %		15:35:52
2	Ag 328.068†	51.0	-152.9	-0.8909 ug/L	-0.8909 ppb	15:35:52
2	As 188.979†	-27.8	-1.5	-0.7991 ug/L	-0.7991 ppb	15:36:12
2	B 249.677†	-528.9	-95.0	-2.5396 ug/L	-2.5396 ppb	15:36:12
2	Ba 233.527†	-0.0	-13.3	-0.1331 ug/L	-0.1331 ppb	15:36:12
2	Be 313.107†	-4367.8	-33.6	-0.0139 ug/L	-0.0139 ppb	15:35:52
2	Cd 226.502†	-204.7	1.8	0.0319 ug/L	0.0319 ppb	15:36:12
2	Co 228.616†	-57.7	-5.7	-0.1449 ug/L	-0.1449 ppb	15:36:12
2	Cr 267.716†	95.6	-3.1	-0.0506 ug/L	-0.0506 ppb	15:36:12
2	Cu 324.752†	5521.4	-29.8	-0.1095 ug/L	-0.1095 ppb	15:35:52
2	Mn 257.610†	482.2	10.6	0.0094 ug/L	0.0094 ppb	15:36:12
2	Mo 202.031†	18.6	13.2	1.2855 ug/L	1.2855 ppb	15:36:12
2	Ni 231.604†	88.3	0.4	0.0150 ug/L	0.0150 ppb	15:36:12

2	P 214.914†	205.4	-3.6	-2.3864 ug/L	-2.3864 ppb	15:36:12
2	Pb 220.353†	-60.0	7.9	1.2955 ug/L	1.2955 ppb	15:36:12
2	S 181.975 Axial†	33.9	-6.7	-10.576 ug/L	-10.576 ppb	15:36:12
2	Sb 206.836†	38.1	11.5	4.7831 ug/L	4.7831 ppb	15:36:12
2	Se 196.026†	-31.8	-4.0	-3.2114 ug/L	-3.2114 ppb	15:36:12
2	Si 251.611†	600.1	42.3	1.6007 ug/L	1.6007 ppb	15:36:12
2	Sn 189.927†	8.7	-1.4	-0.3308 ug/L	-0.3308 ppb	15:36:12
2	Ti 334.940†	-1410.7	45.3	0.0782 ug/L	0.0782 ppb	15:35:52
2	Tl 190.801†	-17.8	14.3	5.6683 ug/L	5.6683 ppb	15:36:12
2	U 409.014†	-2385.7	105.0	4.1953 ug/L	4.1953 ppb	15:35:52
2	V 292.402†	-1722.8	87.1	0.8335 ug/L	0.8335 ppb	15:35:52
2	Zn 213.857†	752.0	34.8	0.4242 ug/L	0.4242 ppb	15:36:12
2	SiO2†	595.8	24.3	1.9414 ug/L	1.9414 ppb	15:36:48
3	Sc Radial	3841.8	3841.8	107 %		15:35:20
3	Y RADIAL	4320.4	4320.4	106.2 %		15:35:00
3	Al 396.153Radial†	-110.0	7.3	8.2605 ug/L	8.2605 ppb	15:35:00
3	Ca 317.933Radial†	24.7	7.4	15.114 ug/L	15.114 ppb	15:35:20
3	Fe 238.204 Radial†	7.6	-1.1	-15.712 ug/L	-15.712 ppb	15:35:20
3	K 766.490 Radial†	2977.3	-237.8	-50.060 ug/L	-50.060 ppb	15:35:00
3	Mg 279.077 IEC†	2.9	2.1	93.026 ug/L	93.026 ppb	15:35:20
3	Na 589.592 Radial†	-966.7	-5.6	-2.8722 ug/L	-2.8722 ppb	15:35:00
3	Sr 421.552†	9.9	-4.6	-0.0503 ug/L	-0.0503 ppb	15:35:00
3	Sc 361.383	675116.6	675116.6	101.23 %		15:36:18
3	Y 371.029	533126.3	533126.3	100.95 %		15:36:18
3	Ag 328.068†	166.7	-37.4	-0.2150 ug/L	-0.2150 ppb	15:36:18
3	As 188.979†	-29.5	-3.9	-2.0262 ug/L	-2.0262 ppb	15:36:38
3	B 249.677†	-503.2	-82.0	-2.1937 ug/L	-2.1937 ppb	15:36:38
3	Ba 233.527†	22.0	8.5	0.0859 ug/L	0.0859 ppb	15:36:38
3	Be 313.107†	-4205.3	24.2	0.0100 ug/L	0.0100 ppb	15:36:18
3	Cd 226.502†	-198.2	3.5	0.0545 ug/L	0.0545 ppb	15:36:38
3	Co 228.616†	-60.4	-9.8	-0.2507 ug/L	-0.2507 ppb	15:36:38
3	Cr 267.716†	94.6	-1.8	-0.0269 ug/L	-0.0269 ppb	15:36:38
3	Cu 324.752†	5414.0	-6.2	-0.0196 ug/L	-0.0196 ppb	15:36:18
3	Mn 257.610†	487.6	27.2	0.0321 ug/L	0.0321 ppb	15:36:38
3	Mo 202.031†	18.8	13.8	1.3464 ug/L	1.3464 ppb	15:36:38
3	Ni 231.604†	89.5	3.7	0.1238 ug/L	0.1238 ppb	15:36:38
3	P 214.914†	203.8	-0.3	-0.1887 ug/L	-0.1887 ppb	15:36:38
3	Pb 220.353†	-63.1	3.4	0.5673 ug/L	0.5673 ppb	15:36:38
3	S 181.975 Axial†	34.2	-5.6	-8.8816 ug/L	-8.8816 ppb	15:36:38
3	Sb 206.836†	34.4	8.8	3.6782 ug/L	3.6782 ppb	15:36:38
3	Se 196.026†	-27.3	-0.3	-0.2994 ug/L	-0.2994 ppb	15:36:38
3	Si 251.611†	591.0	47.4	1.7951 ug/L	1.7951 ppb	15:36:38
3	Sn 189.927†	14.9	5.0	1.1756 ug/L	1.1756 ppb	15:36:38
3	Ti 334.940†	-1454.1	-30.7	-0.0611 ug/L	-0.0611 ppb	15:36:18
3	Tl 190.801†	-29.5	2.4	0.9440 ug/L	0.9440 ppb	15:36:38
3	U 409.014†	-2583.7	-146.7	-5.8548 ug/L	-5.8548 ppb	15:36:18
3	V 292.402†	-1741.4	28.2	0.2721 ug/L	0.2721 ppb	15:36:18
3	Zn 213.857†	744.3	44.8	0.5425 ug/L	0.5425 ppb	15:36:38
3	SiO2†	634.1	76.2	6.1575 ug/L	6.1575 ppb	15:36:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	684530.4	102.64 %	1.271			1.24%
Sc Radial	3886.1	108 %	1.1			0.99%
Y 371.029	540197.5	102.29 %	1.239			1.21%
Y RADIAL	4351.2	107.0 %	0.86			0.80%
Ag 328.068†	-42.1	-0.2458 ug/L	0.63040	-0.2458 ppb	0.63040	256.51%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	8.6	9.7837 ug/L	14.88865	9.7837 ppb	14.88865	152.18%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	0.6	0.2937 ug/L	3.01858	0.2937 ppb	3.01858	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	-79.1	-2.1162 ug/L	0.46707	-2.1162 ppb	0.46707	22.07%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-4.5	-0.0445 ug/L	0.11528	-0.0445 ppb	0.11528	259.30%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-9.5	-0.0039 ug/L	0.01242	-0.0039 ppb	0.01242	316.89%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	2.6	5.3254 ug/L	9.01911	5.3254 ppb	9.01911	169.36%

QC value within limits for Ca 317.933 Radial Recovery = Not calculated							
Cd 226.502†	5.6	0.0885 ug/L	0.07918	0.0885 ppb	0.07918	89.50%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Co 228.616†	-2.4	-0.0567 ug/L	0.25010	-0.0567 ppb	0.25010	440.96%	
QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	-4.5	-0.0693 ug/L	0.05419	-0.0693 ppb	0.05419	78.20%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-25.6	-0.0908 ug/L	0.06402	-0.0908 ppb	0.06402	70.48%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	-1.6	-22.883 ug/L	6.3526	-22.883 ppb	6.3526	27.76%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	-250.3	-52.692 ug/L	2.4137	-52.692 ppb	2.4137	4.58%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	2.9	128.92 ug/L	86.215	128.92 ppb	86.215	66.88%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	17.3	0.0163 ug/L	0.01372	0.0163 ppb	0.01372	84.43%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	18.3	1.7899 ug/L	0.82145	1.7899 ppb	0.82145	45.89%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	36.3	18.737 ug/L	18.7966	18.737 ppb	18.7966	100.32%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	1.8	0.0602 ug/L	0.05668	0.0602 ppb	0.05668	94.12%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-2.4	-1.5828 ug/L	1.21197	-1.5828 ppb	1.21197	76.57%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	3.6	0.5892 ug/L	0.69559	0.5892 ppb	0.69559	118.05%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	-6.8	-10.712 ug/L	1.9020	-10.712 ppb	1.9020	17.76%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	6.0	2.5403 ug/L	2.97935	2.5403 ppb	2.97935	117.28%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-2.6	-2.0750 ug/L	1.55770	-2.0750 ppb	1.55770	75.07%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Si 251.611†	44.7	1.6886 ug/L	0.09853	1.6886 ppb	0.09853	5.83%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	1.2	0.2775 ug/L	0.79390	0.2775 ppb	0.79390	286.12%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	15.8	0.1743 ug/L	0.32408	0.1743 ppb	0.32408	185.96%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	11.8	0.0136 ug/L	0.07023	0.0136 ppb	0.07023	516.01%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	7.2	2.8626 ug/L	2.48392	2.8626 ppb	2.48392	86.77%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	-56.5	-2.2524 ug/L	5.59667	-2.2524 ppb	5.59667	248.48%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	79.1	0.7553 ug/L	0.44929	0.7553 ppb	0.44929	59.48%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	39.2	0.4763 ug/L	0.06040	0.4763 ppb	0.06040	12.68%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
SiO2†	35.8	2.8623 ug/L	2.94478	2.8623 ppb	2.94478	102.88%	
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: Monday, April 12, 2010 12:06:55

Sample Description:

Method File: c:\elandata\Method\Daily2.mth

Dataset File: c:\elandata\Dataset\default\Sample.1047

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	1600.7	1600.690	66.606	4.2
Mg	24.0	42537.5	42537.482	1284.267	3.0
Co	58.9	65006.2	65006.172	391.198	0.6
Rh	102.9	127267.0	127267.002	942.029	0.7
In	114.9	184150.5	184150.534	1137.512	0.6
Pb	208.0	214713.3	214713.337	559.415	0.3
[> Ba	137.9	172158.1	172158.058	849.562	0.5
[Ba++	69.0	1998.4	0.012	0.000	1.4
[> Ce	139.9	211469.3	211469.349	1635.986	0.8
[CeO	155.9	4156.7	0.020	0.001	2.7
Bkgd	220.0	20.6	20.600	2.559	12.4

Current Optimization File Data

Current Value	Description
0.86	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	21	7.0	3575.4
Co	59	21	8.3	64290.0
In	115	21	9.8	174307.3

ICPMS #5 Instrument Tuning Report

File Name: 100412.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	601	2072	0.537
Be	9.0	9.0	2052	2088	0.534
Mg	24.0	24.0	5693	2100	0.514
Mg	25.0	25.0	5933	2100	0.500
Mg	26.0	26.0	6180	2100	0.514
Co	58.9	58.9	14187	2125	0.535
Rh	102.9	102.9	24877	2180	0.538
In	114.9	114.9	27793	2200	0.533
Ce	139.9	139.9	33875	2220	0.545
Pb	206.0	206.0	49948	2305	0.528
Pb	207.0	207.0	50171	2240	0.592
Pb	208.0	208.0	50451	2280	0.646
U	238.1	238.0	57726	2295	0.643

ICPMS#5 - Summary Report

Sample ID: Blank

Sample Date/Time: Monday, April 12, 2010 22:46:19

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100412\Blank.212

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9		ug/L		18	
[> Sc	45		ug/L		689713	
[Ni	60		ug/L		108	
[> Ge	74		ug/L		288594	
[As	75		ug/L		-286	
[Se	77		ug/L		4767	
[Se	82		ug/L		-10	
[Kr	83		ug/L		90	
[> Lu	175		ug/L		398692	
[Tl	205		ug/L		4616	
[U	238		ug/L		894	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[Be	9					
[> Sc	45					
[Ni	60					
[> Ge	74					
[As	75					
[Se	77					
[Se	82					
[Kr	83					
[> Lu	175					
[Tl	205					
[U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

Sample ID: Blank

Report Date/Time: Monday, April 12, 2010 22:47:02

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Monday, April 12, 2010 22:50:25

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100412\Standard 1.213

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	10.000	ug/L	8.392	1754	0.003
> Sc	45		ug/L		685129	685129.095
Ni	60	10.000	ug/L	2.778	9781	0.014
> Ge	74		ug/L		287845	287844.807
As	75	10.000	ug/L	7.479	7197	0.026
Se	77		ug/L		5244	0.002
Se	82	10.000	ug/L	2.358	697	0.002
Kr	83		ug/L		86	-0.000
> Lu	175		ug/L		389071	389070.876
Tl	205	10.000	ug/L	1.453	164742	0.412
U	238	10.000	ug/L	0.543	381049	0.977

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % 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					
U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

Sample ID: Standard 1

Report Date/Time: Monday, April 12, 2010 22:51:05

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Monday, April 12, 2010 22:54:28

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100412\Standard 2.214

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	100.007	ug/L	7.265	17029	0.025
> Sc	45		ug/L		667126	667125.577
Ni	60	100.011	ug/L	2.682	95389	0.143
> Ge	74		ug/L		281596	281596.224
As	75	100.017	ug/L	2.272	74152	0.264
Se	77		ug/L		9887	0.019
Se	82	100.058	ug/L	4.520	7335	0.026
Kr	83		ug/L		107	0.000
> Lu	175		ug/L		380688	380688.230
Tl	205	99.961	ug/L	3.322	1512565	3.963
U	238	99.957	ug/L	1.551	3564394	9.363

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % 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					
U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

Sample ID: Standard 2

Report Date/Time: Monday, April 12, 2010 22:55:08

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Monday, April 12, 2010 22:58:31

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 1.215

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	49.740	ug/L	4.632	8319	0.013
[> Sc	45		ug/L		654677	654676.778
[Ni	60	51.300	ug/L	2.674	48067	0.073
[> Ge	74		ug/L		273811	273811.156
[As	75	51.239	ug/L	2.432	36805	0.135
[Se	77		ug/L		7325	0.010
[Se	82	50.618	ug/L	1.796	3605	0.013
[Kr	83		ug/L		82	-0.000
[> Lu	175		ug/L		376477	376476.708
[Tl	205	48.752	ug/L	0.949	732005	1.933
[U	238	50.847	ug/L	2.764	1793260	4.763

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[Be	9	99.480					
[> Sc	45		94.9				
[Ni	60	102.599					
[> Ge	74		94.9				
[As	75	102.477					
[Se	77						
[Se	82	101.236					
[Kr	83						
[> Lu	175		94.4				
[Tl	205	97.505					
[U	238	101.694					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

Sample ID: QC Std 1

Report Date/Time: Monday, April 12, 2010 22:59:12

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Monday, April 12, 2010 23:02:37

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 2.216

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.037	ug/L	63.773	24	0.000
> Sc	45		ug/L		675482	675481.760
Ni	60	-0.001	ug/L	1221.915	105	-0.000
> Ge	74		ug/L		284880	284879.794
As	75	0.115	ug/L	379.055	-193	0.000
Se	77		ug/L		4617	-0.000
Se	82	0.156	ug/L	133.673	2	0.000
Kr	83		ug/L		83	-0.000
> Lu	175		ug/L		392333	392332.786
Tl	205	0.351	ug/L	3.926	9996	0.014
U	238	0.003	ug/L	9.267	992	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
> Sc	45		97.9				
Ni	60						
> Ge	74		98.7				
As	75						
Se	77						
Se	82						
Kr	83						
> Lu	175		98.4				
Tl	205						
U	238						

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

Sample ID: QC Std 2

Report Date/Time: Monday, April 12, 2010 23:03:20

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Monday, April 12, 2010 23:06:43

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 3.217

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	0.511	ug/L	10.844	107	0.000
[>	Sc	45		ug/L		684653	684653.073
[	Ni	60	2.295	ug/L	3.924	2350	0.003
[>	Ge	74		ug/L		284514	284514.208
|	As	75	5.817	ug/L	8.467	4091	0.015
|	Se	77		ug/L		5061	0.001
|	Se	82	5.922	ug/L	11.256	430	0.002
[	Kr	83		ug/L		81	-0.000
[>	Lu	175		ug/L		394577	394576.597
|	Tl	205	1.153	ug/L	1.336	22598	0.046
[	U	238	0.246	ug/L	1.162	9971	0.023

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
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[	Be	9	102.110					
[>	Sc	45		99.3				
[	Ni	60	114.740					
[>	Ge	74		98.6				
|	As	75	116.332					
|	Se	77						
|	Se	82	118.441					
[	Kr	83						
[>	Lu	175		99.0				
|	Tl	205	115.264					
[	U	238	122.939					

QC Out Of Limits

Measurement Type Analyte

Mass Out of Limits Message

QC Action

Sample ID: QC Std 3

Report Date/Time: Monday, April 12, 2010 23:07:24

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Monday, April 12, 2010 23:10:47

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\anal soil.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 4.218

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.098	ug/L	23.614	32	0.000
> Sc	45		ug/L		625917	625917.064
Ni	60	2.740	ug/L	1.081	2547	0.004
> Ge	74		ug/L		260543	260543.071
As	75	-0.078	ug/L	519.695	-313	-0.000
Se	77		ug/L		4569	0.001
Se	82	-0.795	ug/L	60.137	-63	-0.000
Kr	83		ug/L		178	0.000
> Lu	175		ug/L		365199	365199.010
Ti	205	-0.059	ug/L	14.679	3371	-0.002
U	238	-0.018	ug/L	2.102	203	-0.002

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	
Ti	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
> Sc	45		90.8			
Ni	60	82.784				
> Ge	74		90.3			
As	75					
Se	77					
Se	82					
Kr	83					
> Lu	175		91.6			
Ti	205					
U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

Sample ID: QC Std 4

Report Date/Time: Monday, April 12, 2010 23:11:28

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Monday, April 12, 2010 23:14:52

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 5.219

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	20.290	ug/L	8.369	3272	0.005
[> Sc	45		ug/L		629359	629359.040
[Ni	60	21.124	ug/L	0.465	19087	0.030
[> Ge	74		ug/L		262929	262929.364
[As	75	19.741	ug/L	3.485	13463	0.052
[Se	77		ug/L		5305	0.004
[Se	82	19.410	ug/L	5.111	1322	0.005
[Kr	83		ug/L		178	0.000
[> Lu	175		ug/L		367361	367361.451
[Tl	205	17.940	ug/L	1.009	265546	0.711
[U	238	20.730	ug/L	0.847	714082	1.942

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[Be	9	101.448					
[> Sc	45		91.2				
[Ni	60	90.624					
[> Ge	74		91.1				
[As	75	98.707					
[Se	77						
[Se	82	97.051					
[Kr	83						
[> Lu	175		92.1				
[Tl	205	89.702					
[U	238	103.648					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

Sample ID: QC Std 5

Report Date/Time: Monday, April 12, 2010 23:15:34

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Monday, April 12, 2010 23:18:57

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\ani sol1.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 6.220

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	50.102	ug/L	7.754	8578	0.013
> Sc	45		ug/L		670330	670329.705
[Ni	60	50.158	ug/L	1.809	48129	0.072
[> Ge	74		ug/L		274993	274993.315
| As	75	49.763	ug/L	3.476	35889	0.132
| Se	77		ug/L		6912	0.009
| Se	82	50.415	ug/L	3.503	3605	0.013
[Kr	83		ug/L		82	-0.000
[> Lu	175		ug/L		387013	387012.629
| Tl	205	46.178	ug/L	4.631	712686	1.831
[U	238	49.375	ug/L	2.876	1790300	4.625

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[Be	9	100.204					
[> Sc	45		97.2				
[Ni	60	100.315					
[> Ge	74		95.3				
| As	75	99.525					
| Se	77						
| Se	82	100.830					
[Kr	83						
[> Lu	175		97.1				
| Tl	205	92.355					
[U	238	98.751					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

Sample ID: QC Std 6

Report Date/Time: Monday, April 12, 2010 23:19:39

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Monday, April 12, 2010 23:23:04

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 7.221

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.005	ug/L	367.475	18	0.000
> Sc	45		ug/L		658460	658459.709
Ni	60	0.007	ug/L	83.616	109	0.000
> Ge	74		ug/L		279395	279395.287
As	75	0.175	ug/L	259.499	-148	0.000
Se	77		ug/L		4364	-0.001
Se	82	0.144	ug/L	82.488	1	0.000
Kr	83		ug/L		74	-0.000
> Lu	175		ug/L		388034	388033.938
Tl	205	0.390	ug/L	9.143	10491	0.015
U	238	0.003	ug/L	5.095	982	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
> Sc	45		95.5				
Ni	60						
> Ge	74		96.8				
As	75						
Se	77						
Se	82						
Kr	83						
> Lu	175		97.3				
Tl	205						
U	238						

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

Sample ID: QC Std 7

Report Date/Time: Monday, April 12, 2010 23:23:47

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202056973

Sample Date/Time: Monday, April 12, 2010 23:27:11

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 959148|2|prb

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100412\1202056973.222

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	-0.016	ug/L	182.817	14	-0.000
> Sc	45		ug/L		667804	667804.425
Ni	60	0.031	ug/L	53.974	134	0.000
> Ge	74		ug/L		276306	276306.310
As	75	-0.210	ug/L	99.088	-427	-0.001
Se	77		ug/L		3297	-0.005
Se	82	0.172	ug/L	86.286	3	0.000
Kr	83		ug/L		76	-0.000
> Lu	175		ug/L		390952	390951.884
Ti	205	0.135	ug/L	8.659	6624	0.005
U	238	-0.021	ug/L	1.352	90	-0.002

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	
Ti	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
> Sc	45		96.8			
Ni	60					
> Ge	74		95.7			
As	75					
Se	77					
Se	82					
Kr	83					
> Lu	175		98.1			
Ti	205					
U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

Sample ID: 1202056973

Report Date/Time: Monday, April 12, 2010 23:27:53

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202056978

Sample Date/Time: Monday, April 12, 2010 23:31:17

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 959148|40|prb

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100412\1202056978.223

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	20.104	ug/L	4.666	3534	0.005
> Sc	45		ug/L		686155	686154.941
Ni	60	36.766	ug/L	1.758	36139	0.053
> Ge	74		ug/L		287267	287266.713
As	75	26.402	ug/L	0.629	19764	0.070
Se	77		ug/L		8322	0.012
Se	82	72.991	ug/L	2.125	5459	0.019
Kr	83		ug/L		91	0.000
> Lu	175		ug/L		397009	397008.840
Tl	205	32.170	ug/L	3.753	510777	1.276
U	238	0.481	ug/L	2.584	18767	0.045

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
> Sc	45		99.5				
Ni	60						
> Ge	74		99.5				
As	75						
Se	77						
Se	82						
Kr	83						
> Lu	175		99.6				
Tl	205						
U	238						

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

Sample ID: 1202056978

Report Date/Time: Monday, April 12, 2010 23:31:58

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 248241001

Sample Date/Time: Monday, April 12, 2010 23:35:22

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959148|2|prb

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100412\248241001.224

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	2.421	ug/L	7.960	458	0.001
> Sc	45		ug/L		712178	712177.770
[Ni	60	20.367	ug/L	2.164	20826	0.029
> Ge	74		ug/L		274035	274034.952
| As	75	6.543	ug/L	5.328	4466	0.017
| Se	77		ug/L		3059	-0.005
| Se	82	0.906	ug/L	47.782	56	0.000
[Kr	83		ug/L		127	0.000
> Lu	175		ug/L		399078	399077.667
| Tl	205	0.379	ug/L	3.743	10619	0.015
[U	238	2.848	ug/L	2.426	107333	0.267

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
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[Be	9						
> Sc	45		103.3				
[Ni	60						
> Ge	74		95.0				
| As	75						
| Se	77						
| Se	82						
[Kr	83						
> Lu	175		100.1				
| Tl	205						
[U	238						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

Sample ID: 248241001

Report Date/Time: Monday, April 12, 2010 23:36:04

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202056974

Sample Date/Time: Monday, April 12, 2010 23:39:28

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 959148|2|prb

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100412\1202056974.225

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	2.571	ug/L	9.921	483	0.001
> Sc	45		ug/L		710343	710343.155
Ni	60	21.649	ug/L	2.438	22072	0.031
> Ge	74		ug/L		268678	268678.082
As	75	6.926	ug/L	0.616	4652	0.018
Se	77		ug/L		2967	-0.005
Se	82	1.028	ug/L	13.962	63	0.000
Kr	83		ug/L		113	0.000
> Lu	175		ug/L		392356	392355.964
Tl	205	0.257	ug/L	2.204	8547	0.010
U	238	3.135	ug/L	2.733	116064	0.294

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
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
> Sc	45		103.0			
Ni	60					
> Ge	74		93.1			
As	75					
Se	77					
Se	82					
Kr	83					
> Lu	175		98.4			
Tl	205					
U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

Sample ID: 1202056974

Report Date/Time: Monday, April 12, 2010 23:40:10

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202056976

Sample Date/Time: Monday, April 12, 2010 23:43:33

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 959148|2|prb

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100412\1202056976.226

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	26.610	ug/L	4.888	4815	0.007
> Sc	45		ug/L		707228	707227.619
Li	60	46.738	ug/L	1.712	47323	0.067
> Ge	74		ug/L		265948	265948.224
As	75	44.518	ug/L	1.456	31029	0.118
Se	77		ug/L		3243	-0.004
Se	82	9.444	ug/L	9.808	646	0.002
Kr	83		ug/L		134	0.000
> Lu	175		ug/L		389356	389355.631
Tl	205	46.672	ug/L	3.566	724873	1.850
U	238	28.749	ug/L	1.180	1049286	2.693

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
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
> Sc	45		102.5				
Li	60						
> Ge	74		92.2				
As	75						
Se	77						
Se	82						
Kr	83						
> Lu	175		97.7				
Tl	205						
U	238						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

Sample ID: 1202056976

Report Date/Time: Monday, April 12, 2010 23:44:15

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202056977

Sample Date/Time: Monday, April 12, 2010 23:47:39

Sample Type:

Sample Description: LANL 6020 MSD

Number of Replicates: 3

Batch ID: 959148|2|prb

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100412\1202056977.227

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	27.144	ug/L	6.738	4843	0.007
> Sc	45		ug/L		697482	697481.740
Ni	60	45.882	ug/L	1.515	45817	0.066
> Ge	74		ug/L		266996	266996.369
As	75	43.304	ug/L	0.915	30298	0.114
Se	77		ug/L		3114	-0.005
Se	82	9.282	ug/L	5.779	637	0.002
Kr	83		ug/L		121	0.000
> Lu	175		ug/L		383257	383256.854
Tl	205	46.924	ug/L	2.565	717330	1.860
U	238	28.929	ug/L	1.430	1039446	2.710

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
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
> Sc	45		101.1				
Ni	60						
> Ge	74		92.5				
As	75						
Se	77						
Se	82						
Kr	83						
> Lu	175		96.1				
Tl	205						
U	238						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

Sample ID: 1202056977

Report Date/Time: Monday, April 12, 2010 23:48:21

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202056975

Sample Date/Time: Monday, April 12, 2010 23:51:45

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 959148|10|prb

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100412\1202056975.228

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.496	ug/L	7.587	104	0.000
> Sc	45		ug/L		683848	683848.264
Ni	60	4.298	ug/L	2.182	4304	0.006
> Ge	74		ug/L		278666	278665.962
As	75	1.221	ug/L	25.468	624	0.003
Se	77		ug/L		3525	-0.004
Se	82	0.248	ug/L	56.941	9	0.000
Kr	83		ug/L		88	0.000
> Lu	175		ug/L		383112	383111.712
Tl	205	-0.020	ug/L	19.195	4139	-0.001
U	238	0.562	ug/L	2.844	21014	0.053

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
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
> Sc	45		99.1				
Ni	60						
> Ge	74		96.6				
As	75						
Se	77						
Se	82						
Kr	83						
> Lu	175		96.1				
Tl	205						
U	238						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

Sample ID: 1202056975

Report Date/Time: Monday, April 12, 2010 23:52:27

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 248241002

Sample Date/Time: Monday, April 12, 2010 23:55:51

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959148[2]prb

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100412\248241002.229

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	1.413	ug/L	5.359	264	0.000
[> Sc	45		ug/L		685513	685512.530
[Ni	60	12.830	ug/L	2.290	12667	0.018
[> Ge	74		ug/L		269057	269056.906
[As	75	4.413	ug/L	9.826	2869	0.012
[Se	77		ug/L		2816	-0.006
[Se	82	0.645	ug/L	47.975	36	0.000
[Kr	83		ug/L		114	0.000
[> Lu	175		ug/L		393647	393646.744
[Tl	205	0.002	ug/L	152.114	4592	0.000
[U	238	3.450	ug/L	1.553	128078	0.323

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
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[Be	9						
[> Sc	45		99.4				
[Ni	60						
[> Ge	74		93.2				
[As	75						
[Se	77						
[Se	82						
[Kr	83						
[> Lu	175		98.7				
[Tl	205						
[U	238						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

Sample ID: 248241002

Report Date/Time: Monday, April 12, 2010 23:56:33

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Monday, April 12, 2010 23:59:56

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 8.230

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	51.749	ug/L	7.610	8844	0.013
Sc	45		ug/L		669529	669528.541
Ni	60	49.613	ug/L	1.575	47544	0.071
Ge	74		ug/L		279201	279201.020
As	75	49.593	ug/L	3.526	36311	0.131
Se	77		ug/L		6762	0.008
Se	82	48.493	ug/L	2.118	3521	0.013
Kr	83		ug/L		79	-0.000
Lu	175		ug/L		380263	380262.747
Tl	205	47.082	ug/L	1.798	714202	1.867
U	238	49.364	ug/L	1.530	1759026	4.624

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9	103.498				
Sc	45		97.1			
Ni	60	99.225				
Ge	74		96.7			
As	75	99.186				
Se	77					
Se	82	96.986				
Kr	83					
Lu	175		95.4			
Tl	205	94.165				
U	238	98.729				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

Sample ID: QC Std 8

Report Date/Time: Tuesday, April 13, 2010 00:00:38

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Tuesday, April 13, 2010 00:04:03

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 9.231

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.013	ug/L	452.007	19	0.000
> Sc	45		ug/L		667963	667962.831
Ni	60	-0.002	ug/L	418.642	102	-0.000
> Ge	74		ug/L		275417	275417.313
As	75	0.094	ug/L	317.814	-205	0.000
Se	77		ug/L		4211	-0.001
Se	82	0.260	ug/L	46.424	9	0.000
Kr	83		ug/L		77	-0.000
> Lu	175		ug/L		382378	382377.574
Tl	205	0.229	ug/L	13.953	7891	0.009
U	238	0.003	ug/L	19.306	981	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
> Sc	45		96.8			
Ni	60					
> Ge	74		95.4			
As	75					
Se	77					
Se	82					
Kr	83					
> Lu	175		95.9			
Tl	205					
U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

Sample ID: QC Std 9

Report Date/Time: Tuesday, April 13, 2010 00:04:46

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 248241003

Sample Date/Time: Tuesday, April 13, 2010 00:08:10

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959148|2|prb

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100412\248241003.232

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	1.681	ug/L	3.751	321	0.000
[> Sc	45		ug/L		707795	707794.806
[Ni	60	15.516	ug/L	2.256	15794	0.022
[> Ge	74		ug/L		272083	272083.127
[As	75	2.460	ug/L	15.146	1495	0.007
[Se	77		ug/L		3068	-0.005
[Se	82	0.725	ug/L	33.470	42	0.000
[Kr	83		ug/L		158	0.000
[> Lu	175		ug/L		424374	424374.089
[Tl	205	0.038	ug/L	20.430	5545	0.001
[U	238	2.445	ug/L	1.355	98152	0.229

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
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[Be	9						
[> Sc	45		102.6				
[Ni	60						
[> Ge	74		94.3				
[As	75						
[Se	77						
[Se	82						
[Kr	83						
[> Lu	175		106.4				
[Tl	205						
[U	238						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

Sample ID: 248241003

Report Date/Time: Tuesday, April 13, 2010 00:08:52

Page 1

QC Action Line: No QC out of limits detected

Sample ID: 248241003

Report Date/Time: Tuesday, April 13, 2010 00:08:52

Page 2

ICPMS#5 - Summary Report

Sample ID: 248241004

Sample Date/Time: Tuesday, April 13, 2010 00:12:16

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959148|2|prb

Method File: c:\elandata\MethodNanI solI.mth

Dataset File: C:\elandata\Dataset\100412\248241004.233

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	11.130	ug/L	7.707	1999	0.003
Sc	45		ug/L		698437	698437.277
Ni	60	24.795	ug/L	1.339	24842	0.035
Ge	74		ug/L		264020	264019.697
As	75	6.851	ug/L	2.832	4520	0.018
Se	77		ug/L		2742	-0.006
Se	82	0.821	ug/L	32.442	48	0.000
Kr	83		ug/L		168	0.000
Lu	175		ug/L		411061	411061.151
Tl	205	0.115	ug/L	2.062	6630	0.005
U	238	4.934	ug/L	0.349	190891	0.462

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Be	9					
Sc	45		101.3			
Ni	60					
Ge	74		91.5			
As	75					
Se	77					
Se	82					
Kr	83					
Lu	175		103.1			
Tl	205					
U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

Sample ID: 248241004

Report Date/Time: Tuesday, April 13, 2010 00:12:58

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 248241005

Sample Date/Time: Tuesday, April 13, 2010 00:16:22

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959148|2|prb

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100412\248241005.234

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	2.284	ug/L	6.341	419	0.001
> Sc	45		ug/L		688959	688958.811
Ni	60	18.176	ug/L	1.509	17993	0.026
> Ge	74		ug/L		263832	263831.676
As	75	6.344	ug/L	3.002	4161	0.017
Se	77		ug/L		2560	-0.007
Se	82	0.466	ug/L	52.424	23	0.000
Kr	83		ug/L		128	0.000
> Lu	175		ug/L		386075	386074.849
Tl	205	0.220	ug/L	5.289	7839	0.009
U	238	2.383	ug/L	1.205	87045	0.223

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Be	9					
> Sc	45		99.9			
Ni	60					
> Ge	74		91.4			
As	75					
Se	77					
Se	82					
Kr	83					
> Lu	175		96.8			
Tl	205					
U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

Sample ID: 248241005

Report Date/Time: Tuesday, April 13, 2010 00:17:05

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 248241006

Sample Date/Time: Tuesday, April 13, 2010 00:20:29

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959148|2|prb

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100412\248241006.235

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	2.963	ug/L	1.233	533	0.001
[> Sc	45		ug/L		682900	682900.478
[Ni	60	22.051	ug/L	1.439	21615	0.031
[> Ge	74		ug/L		260850	260850.235
[As	75	7.324	ug/L	1.507	4792	0.019
[Se	77		ug/L		2615	-0.006
[Se	82	0.524	ug/L	69.595	27	0.000
[Kr	83		ug/L		132	0.000
[> Lu	175		ug/L		381262	381261.823
[Tl	205	0.258	ug/L	6.883	8316	0.010
[U	238	8.944	ug/L	0.875	320259	0.838

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[Be	9						
[> Sc	45		99.0				
[Ni	60						
[> Ge	74		90.4				
[As	75						
[Se	77						
[Se	82						
[Kr	83						
[> Lu	175		95.6				
[Tl	205						
[U	238						

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

Sample ID: 248241006

Report Date/Time: Tuesday, April 13, 2010 00:21:11

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 248241007

Sample Date/Time: Tuesday, April 13, 2010 00:24:35

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959148|2|prb

Method File: c:\elandata\Method\lanl soli.mth

Dataset File: C:\elandata\Dataset\100412\248241007.236

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	4.644	ug/L	4.080	847	0.001
[> Sc	45		ug/L		700326	700326.084
[Ni	60	26.170	ug/L	1.955	26282	0.037
[> Ge	74		ug/L		263872	263872.494
[As	75	7.314	ug/L	3.273	4839	0.019
[Se	77		ug/L		2650	-0.006
[Se	82	0.643	ug/L	27.784	35	0.000
[Kr	83		ug/L		147	0.000
[> Lu	175		ug/L		388133	388133.169
[Tl	205	0.249	ug/L	1.617	8320	0.010
[U	238	6.577	ug/L	0.676	239979	0.616

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[Be	9						
[> Sc	45		101.5				
[Ni	60						
[> Ge	74		91.4				
[As	75						
[Se	77						
[Se	82						
[Kr	83						
[> Lu	175		97.4				
[Tl	205						
[U	238						

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

Sample ID: 248241007

Report Date/Time: Tuesday, April 13, 2010 00:25:17

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 248241008

Sample Date/Time: Tuesday, April 13, 2010 00:28:41

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959148|2|prb

Method File: c:\elandata\Method\lanl sol1.mth

Dataset File: C:\elandata\Dataset\100412\248241008.237

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	2.626	ug/L	7.406	492	0.001
> Sc	45		ug/L		708294	708293.561
Ni	60	25.406	ug/L	0.862	25814	0.036
> Ge	74		ug/L		268719	268719.467
As	75	9.447	ug/L	2.428	6442	0.025
Se	77		ug/L		2665	-0.007
Se	82	1.079	ug/L	29.081	66	0.000
Kr	83		ug/L		123	0.000
> Lu	175		ug/L		386426	386425.601
Tl	205	0.240	ug/L	2.551	8149	0.010
U	238	6.967	ug/L	1.834	253006	0.653

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
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
Be	9					
> Sc	45		102.7			
Ni	60					
> Ge	74		93.1			
As	75					
Se	77					
Se	82					
Kr	83					
> Lu	175		96.9			
Tl	205					
U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

Sample ID: 248241008

Report Date/Time: Tuesday, April 13, 2010 00:29:23

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 248241009

Sample Date/Time: Tuesday, April 13, 2010 00:32:46

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959148|2|prb

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100412\248241009.238

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	1.714	ug/L	3.700	311	0.000
[> Sc	45		ug/L		672970	672969.951
[Ni	60	14.565	ug/L	1.908	14105	0.021
[> Ge	74		ug/L		260870	260869.994
[As	75	4.954	ug/L	6.512	3158	0.013
[Se	77		ug/L		2605	-0.007
[Se	82	0.519	ug/L	55.297	27	0.000
[Kr	83		ug/L		129	0.000
[> Lu	175		ug/L		387180	387180.336
[Ti	205	-0.049	ug/L	5.632	3737	-0.002
[U	238	4.329	ug/L	2.532	157846	0.406

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	
Ti	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[Be	9						
[> Sc	45		97.6				
[Ni	60						
[> Ge	74		90.4				
[As	75						
[Se	77						
[Se	82						
[Kr	83						
[> Lu	175		97.1				
[Ti	205						
[U	238						

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

Sample ID: 248241009

Report Date/Time: Tuesday, April 13, 2010 00:33:29

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 248241010

Sample Date/Time: Tuesday, April 13, 2010 00:36:53

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959148|2|prb

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100412\248241010.239

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	4.854	ug/L	8.410	858	0.001
[> Sc	45		ug/L		679877	679876.674
[Ni	60	24.363	ug/L	2.569	23760	0.035
[> Ge	74		ug/L		254922	254922.368
[As	75	6.738	ug/L	2.054	4287	0.018
[Se	77		ug/L		2572	-0.006
[Se	82	0.544	ug/L	43.603	27	0.000
[Kr	83		ug/L		141	0.000
[> Lu	175		ug/L		378289	378288.904
[Ti	205	0.208	ug/L	2.502	7495	0.008
[U	238	6.177	ug/L	3.755	219599	0.579

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	
Ti	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[Be	9						
[> Sc	45		98.6				
[Ni	60						
[> Ge	74		88.3				
[As	75						
[Se	77						
[Se	82						
[Kr	83						
[> Lu	175		94.9				
[Ti	205						
[U	238						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

Sample ID: 248241010

Report Date/Time: Tuesday, April 13, 2010 00:37:35

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Tuesday, April 13, 2010 00:40:59

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lanl soil.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 8.240

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[Be	9	51.359	ug/L	6.455	8821	0.013
[> Sc	45		ug/L		672682	672682.304
[Ni	60	47.873	ug/L	1.009	46102	0.068
[> Ge	74		ug/L		273378	273378.264
[As	75	48.871	ug/L	2.898	35043	0.129
[Se	77		ug/L		6223	0.006
[Se	82	48.876	ug/L	0.983	3475	0.013
[Kr	83		ug/L		83	-0.000
[> Lu	175		ug/L		381710	381710.253
[Tl	205	46.848	ug/L	2.380	713279	1.857
[U	238	48.647	ug/L	1.518	1739979	4.557

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[Be	9	102.719					
[> Sc	45		97.5				
[Ni	60	95.747					
[> Ge	74		94.7				
[As	75	97.741					
[Se	77						
[Se	82	97.751					
[Kr	83						
[> Lu	175		95.7				
[Tl	205	93.695					
[U	238	97.293					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

Sample ID: QC Std 8

Report Date/Time: Tuesday, April 13, 2010 00:41:41

Page 1

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Tuesday, April 13, 2010 00:45:06

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\VanI soil.mth

Dataset File: C:\elandata\Dataset\100412\QC Std 9.241

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.030	ug/L	7.441	22	0.000
> Sc	45		ug/L		651803	651802.931
Ni	60	-0.004	ug/L	395.930	98	-0.000
> Ge	74		ug/L		266848	266847.626
As	75	0.370	ug/L	40.052	-4	0.001
Se	77		ug/L		3704	-0.003
Se	82	0.216	ug/L	70.196	6	0.000
Kr	83		ug/L		78	-0.000
> Lu	175		ug/L		370736	370736.068
Tl	205	0.165	ug/L	17.931	6707	0.007
U	238	0.004	ug/L	34.752	978	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
Be	9						
> Sc	45		94.5				
Ni	60						
> Ge	74		92.5				
As	75						
Se	77						
Se	82						
Kr	83						
> Lu	175		93.0				
Tl	205						
U	238						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

Sample ID: QC Std 9

Report Date/Time: Tuesday, April 13, 2010 00:45:49

Page 1

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\031610S1.SIF

Batch ID:

Results Data Set: 031610S1

Results Library: C:\data-AA\Administrator\Results\Results.mdb

=====
Method Loaded

Method Name: SOIL

Method Last Saved: 3/16/2010 09:36:57

Method Description: 7471A, ILM04 ANALYST JXL

Sequence No.: 1

Autosampler Location: 1

Sample ID: Calib Blank

Date Collected: 3/16/2010 09:37:07

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]	0.0004	0.0017	0.0004	09:38:00	Yes
2		[0.00]	0.0004	0.0029	0.0004	09:38:30	Yes
Mean:		[0.00]	0.0004				
SD:		0.00	0.0000				
%RSD:		0.00	12.48				

Auto-zero performed.

Sequence No.: 2

Autosampler Location: 2

Sample ID: S0.2

Date Collected: 3/16/2010 09:38:48

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]	0.0027	0.0138	0.0031	09:39:39	Yes
2		[0.2]	0.0027	0.0142	0.0031	09:40:09	Yes
Mean:		[0.2]	0.0027				
SD:		0.0	0.0000				
%RSD:		0.0	0.24				

Standard number 1 applied. [0.2]

Correlation Coef.: 1.000000 Slope: 0.01365 Intercept: 0.00000

Sequence No.: 3

Autosampler Location: 3

Sample ID: S0.5

Date Collected: 3/16/2010 09:40:28

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]	0.0067	0.0303	0.0070	09:41:19	Yes
2		[0.5]	0.0067	0.0307	0.0071	09:41:49	Yes
Mean:		[0.5]	0.0067				
SD:		0.0	0.0000				
%RSD:		0.0	0.46				

Standard number 2 applied. [0.5]

Correlation Coef.: 0.999945 Slope: 0.01333 Intercept: 0.00002

Sequence No.: 4

Autosampler Location: 4

Sample ID: S2.0

Date Collected: 3/16/2010 09:42:08

Analyst:

Data Type: Original

Replicate Data: S2.0

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0276	0.1221	0.0280	09:42:59	Yes
2		[2.0]	0.0276	0.1216	0.0280	09:43:29	Yes
Mean:		[2.0]	0.0276				
SD:		0.0	0.0000				
%RSD:		0.0	0.11				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999963 Slope: 0.01383 Intercept: -0.00008

Sequence No.: 5

Sample ID: S5.0

Analyst:

Autosampler Location: 5

Date Collected: 3/16/2010 09:43:49

Data Type: Original

Replicate Data: S5.0

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0664	0.2938	0.0668	09:44:41	Yes
2		[5.0]	0.0668	0.2936	0.0672	09:45:11	Yes
Mean:		[5.0]	0.0666				
SD:		0.0	0.0003				
%RSD:		0.0	0.47				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999886 Slope: 0.01334 Intercept: 0.00018

Sequence No.: 6

Sample ID: S10.0

Analyst:

Autosampler Location: 6

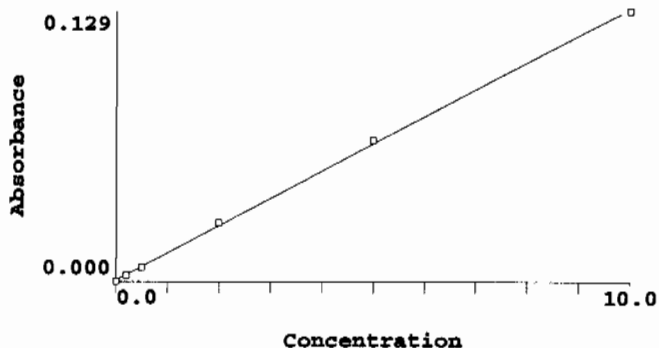
Date Collected: 3/16/2010 09:45:31

Data Type: Original

Replicate Data: S10.0

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1289	0.5704	0.1293	09:46:21	Yes
2		[10.0]	0.1287	0.5686	0.1290	09:46:51	Yes
Mean:		[10.0]	0.1288				
SD:		0.0	0.0002				
%RSD:		0.0	0.16				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999803 Slope: 0.01290 Intercept: 0.00067

-----
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	-0.052	0.00	12.5
S0.2	0.0027	0.2	0.159	0.00	0.2
S0.5	0.0067	0.5	0.465	0.00	0.5
S2.0	0.0276	2.0	2.087	0.00	0.1

S5.0 0.0666 5.0 5.111 0.00 0.5
S10.0 0.1288 10.0 9.930 0.00 0.2
Correlation Coef.: 0.999803 Slope: 0.01290 Intercept: 0.00067

Sequence No.: 7

Sample ID: ICV

Analyst:

Autosampler Location: 9

Date Collected: 3/16/2010 09:47:10

Data Type: Original

Replicate Data: ICV

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.242	5.242	0.0683	0.3021	0.0687	09:48:00	Yes
2	5.235	5.235	0.0682	0.2999	0.0686	09:48:30	Yes
Mean:	5.238	5.238	0.0683				
SD:	0.005	0.005	0.0001				
%RSD:	0.099	0.099	0.10				

QC value within limits for Hg 253.7 Recovery = 104.77%

All analyte(s) passed QC.

Sequence No.: 8

Sample ID: ICB

Analyst:

Autosampler Location: 10

Date Collected: 3/16/2010 09:48:50

Data Type: Original

Replicate Data: ICB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.051	-0.051	0.0000	0.0020	0.0004	09:49:41	Yes
2	-0.055	-0.055	-0.0000	0.0017	0.0004	09:50:11	Yes
Mean:	-0.053	-0.053	-0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	4.763	4.763	370.42				

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: 3/16/2010 09:50:31

Data Type: Original

Replicate Data: CRDL

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.166	0.166	0.0028	0.0153	0.0032	09:51:22	Yes
2	0.164	0.164	0.0028	0.0148	0.0032	09:51:52	Yes
Mean:	0.165	0.165	0.0028				
SD:	0.001	0.001	0.0000				
%RSD:	0.726	0.726	0.55				

QC value within limits for Hg 253.7 Recovery = 82.36%

All analyte(s) passed QC.

Sequence No.: 10

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 3/16/2010 09:52:12

Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.190	5.190	0.0676	0.2985	0.0680	09:53:02	Yes
2	5.167	5.167	0.0673	0.2970	0.0677	09:53:32	Yes
Mean:	5.178	5.178	0.0675				
SD:	0.016	0.016	0.0002				
%RSD:	0.318	0.318	0.31				

QC value within limits for Hg 253.7 Recovery = 103.56%

All analyte(s) passed QC.

Sequence No.: 11
Sample ID: CCB
Analyst:

Autosampler Location: 8
Date Collected: 3/16/2010 09:53:51
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.056	-0.056	-0.0000	0.0016	0.0003	09:54:42	Yes
2	-0.055	-0.055	-0.0000	0.0017	0.0004	09:55:12	Yes
Mean:	-0.055	-0.055	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	1.143	1.143	21.71				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12
Sample ID: 1202056625|958979|1
Analyst: JXL

Autosampler Location: 12
Date Collected: 3/16/2010 09:55:31
Data Type: Original

Replicate Data: 1202056625|958979|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.049	-0.049	0.0000	0.0032	0.0004	09:56:23	Yes
2	-0.049	-0.049	0.0000	0.0029	0.0004	09:56:53	Yes
Mean:	-0.049	-0.049	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	0.950	0.950	15.31				

Sequence No.: 13
Sample ID: 1202056626|958979|10
Analyst: JXL

Autosampler Location: 13
Date Collected: 3/16/2010 09:57:13
Data Type: Original

Replicate Data: 1202056626|958979|10

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.233	0.233	0.0037	0.0183	0.0041	09:58:04	Yes
2	0.233	0.233	0.0037	0.0184	0.0041	09:58:34	Yes
Mean:	0.233	0.233	0.0037				
SD:	0.000	0.000	0.0000				
%RSD:	0.026	0.026	0.02				

Sequence No.: 14
Sample ID: 248233001|958979|1
Analyst: JXL

Autosampler Location: 14
Date Collected: 3/16/2010 09:58:55
Data Type: Original

Replicate Data: 248233001|958979|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.384	0.384	0.0056	0.0256	0.0060	09:59:45	Yes
2	0.377	0.377	0.0055	0.0271	0.0059	10:00:15	Yes
Mean:	0.380	0.380	0.0056				
SD:	0.004	0.004	0.0001				
%RSD:	1.172	1.172	1.03				

Sequence No.: 15
Sample ID: 1202056627|958979|1
Analyst: JXL

Autosampler Location: 15
Date Collected: 3/16/2010 10:00:34
Data Type: Original

Replicate Data: 1202056627|958979|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
------	------------	---------	---------	------	------	------	------

=====
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\031610S1.SIF

Batch ID:

Results Data Set: 031610S1

Results Library: C:\data-AA\Administrator\Results\Results.mdb

=====
Method Loaded

Method Name: SOIL

Method Last Saved: 3/16/2010 09:36:57

Method Description: 7471A, ILM04 ANALYST JXL

=====
Sequence No.: 1

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/16/2010 10:08:34

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.082	5.082	0.0662	0.2944	0.0666	10:09:24	Yes
2	5.151	5.151	0.0671	0.2975	0.0675	10:09:54	Yes
Mean:	5.116	5.116	0.0667				
SD:	0.049	0.049	0.0006				
%RSD:	0.957	0.957	0.95				

QC value within limits for Hg 253.7 Recovery = 102.32%
All analyte(s) passed QC.=====
Sequence No.: 2

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/16/2010 10:10:13

Analyst:

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.059	-0.059	-0.0001	0.0016	0.0003	10:11:04	Yes
2	-0.058	-0.058	-0.0001	0.0017	0.0003	10:11:33	Yes
Mean:	-0.059	-0.059	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	0.883	0.883	8.02				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.=====
Sequence No.: 3

Autosampler Location: 12

Sample ID: 1202056697|959031|1

Date Collected: 3/16/2010 10:11:53

Analyst: JXL

Data Type: Original

Replicate Data: 1202056697|959031|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.048	-0.048	0.0001	0.0032	0.0005	10:12:45	Yes
2	-0.058	-0.058	-0.0001	0.0016	0.0003	10:13:15	Yes
Mean:	-0.053	-0.053	-0.0000				
SD:	0.007	0.007	0.0001				
%RSD:	13.78	13.78	>999.9%				

=====
Sequence No.: 4

Autosampler Location: 13

Sample ID: 247729001|959031|1

Date Collected: 3/16/2010 10:13:35

Analyst: JXL

Data Type: Original

Sequence No.: 9
Sample ID: 1202056627|958979|1
Analyst: JXL

Autosampler Location: 18
Date Collected: 3/16/2010 10:21:55
Data Type: Original

Replicate Data: 1202056627|958979|1

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.319	0.319	0.0048	0.0240	0.0052	10:22:46	Yes
2	0.316	0.316	0.0047	0.0237	0.0051	10:23:16	Yes
Mean:	0.318	0.318	0.0048				
SD:	0.003	0.003	0.0000				
%RSD:	0.808	0.808	0.69				

Sequence No.: 10
Sample ID: 1202056628|958979|1
Analyst: JXL

Autosampler Location: 19
Date Collected: 3/16/2010 10:23:35
Data Type: Original

Replicate Data: 1202056628|958979|1

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.432	2.432	0.0321	0.1461	0.0324	10:24:25	Yes
2	2.444	2.444	0.0322	0.1461	0.0326	10:24:55	Yes
Mean:	2.438	2.438	0.0321				
SD:	0.008	0.008	0.0001				
%RSD:	0.348	0.348	0.34				

Sequence No.: 11
Sample ID: 1202056630|958979|1
Analyst: JXL

Autosampler Location: 20
Date Collected: 3/16/2010 10:25:14
Data Type: Original

Replicate Data: 1202056630|958979|1

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.382	2.382	0.0314	0.1432	0.0318	10:26:06	Yes
2	2.374	2.374	0.0313	0.1421	0.0317	10:26:35	Yes
Mean:	2.378	2.378	0.0314				
SD:	0.006	0.006	0.0001				
%RSD:	0.244	0.244	0.24				

Sequence No.: 12
Sample ID: 1202056629|958979|5
Analyst: JXL

Autosampler Location: 21
Date Collected: 3/16/2010 10:26:55
Data Type: Original

Replicate Data: 1202056629|958979|5

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.012	0.012	0.0008	0.0055	0.0012	10:27:46	Yes
2	0.013	0.013	0.0008	0.0058	0.0012	10:28:16	Yes
Mean:	0.012	0.012	0.0008				
SD:	0.001	0.001	0.0000				
%RSD:	6.937	6.937	1.31				

Sequence No.: 13
Sample ID: CCV
Analyst:

Autosampler Location: 7
Date Collected: 3/16/2010 10:28:36
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.307	5.307	0.0692	0.3067	0.0696	10:29:26	Yes
2	5.280	5.280	0.0688	0.3048	0.0692	10:29:56	Yes
Mean:	5.294	5.294	0.0690				

SD: 0.019 0.019 0.0002
%RSD: 0.364 0.364 0.36
QC value within limits for Hg 253.7 Recovery = 105.88%
All analyte(s) passed QC.

Sequence No.: 14

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 3/16/2010 10:30:15

Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.060	-0.060	-0.0001	0.0013	0.0003	10:31:06	Yes
2	-0.058	-0.058	-0.0001	0.0015	0.0003	10:31:36	Yes
Mean:	-0.059	-0.059	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	3.147	3.147	26.72				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 15

Sample ID: 248233002|958979|1

Analyst: JXL

Autosampler Location: 22

Date Collected: 3/16/2010 10:31:56

Data Type: Original

Replicate Data: 248233002|958979|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.134	0.134	0.0024	0.0129	0.0028	10:32:47	Yes
2	0.133	0.133	0.0024	0.0125	0.0028	10:33:17	Yes
Mean:	0.133	0.133	0.0024				
SD:	0.001	0.001	0.0000				
%RSD:	0.676	0.676	0.49				

Sequence No.: 16

Sample ID: 248233003|958979|1

Analyst: JXL

Autosampler Location: 23

Date Collected: 3/16/2010 10:33:37

Data Type: Original

Replicate Data: 248233003|958979|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.095	0.095	0.0019	0.0102	0.0023	10:34:29	Yes
2	0.093	0.093	0.0019	0.0100	0.0023	10:34:59	Yes
Mean:	0.094	0.094	0.0019				
SD:	0.001	0.001	0.0000				
%RSD:	1.271	1.271	0.82				

Sequence No.: 17

Sample ID: 248233004|958979|1

Analyst: JXL

Autosampler Location: 24

Date Collected: 3/16/2010 10:35:19

Data Type: Original

Replicate Data: 248233004|958979|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.094	0.094	0.0019	0.0104	0.0023	10:36:10	Yes
2	0.086	0.086	0.0018	0.0099	0.0022	10:36:40	Yes
Mean:	0.090	0.090	0.0018				
SD:	0.005	0.005	0.0001				
%RSD:	5.907	5.907	3.74				

Sequence No.: 18

Sample ID: 248233005|958979|1

Analyst: JXL

Autosampler Location: 25

Date Collected: 3/16/2010 10:37:00

Data Type: Original

Sequence No.: 23

Sample ID: 248233010|958979|1

Analyst: JXL

Autosampler Location: 30

Date Collected: 3/16/2010 10:45:23

Data Type: Original

Replicate Data: 248233010|958979|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.086	0.086	0.0018	0.0095	0.0022	10:46:14	Yes
2	0.089	0.089	0.0018	0.0096	0.0022	10:46:44	Yes
Mean:	0.088	0.088	0.0018				
SD:	0.002	0.002	0.0000				
%RSD:	2.652	2.652	1.66				

Sequence No.: 24

Sample ID: 248233011|958979|1

Analyst: JXL

Autosampler Location: 31

Date Collected: 3/16/2010 10:47:03

Data Type: Original

Replicate Data: 248233011|958979|1

Repl #	SampleConc ug/L	StdndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.386	0.386	0.0057	0.0268	0.0060	10:47:53	Yes
2	0.386	0.386	0.0057	0.0265	0.0061	10:48:23	Yes
Mean:	0.386	0.386	0.0057				
SD:	0.000	0.000	0.0000				
%RSD:	0.085	0.085	0.08				

Sequence No.: 25

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 3/16/2010 10:48:43

Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StdndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.054	5.054	0.0659	0.2912	0.0663	10:49:33	Yes
2	5.057	5.057	0.0659	0.2906	0.0663	10:50:02	Yes
Mean:	5.055	5.055	0.0659				
SD:	0.002	0.002	0.0000				
%RSD:	0.041	0.041	0.04				

QC value within limits for Hg 253.7 Recovery = 101.10%
All analyte(s) passed QC.

Sequence No.: 26

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 3/16/2010 10:50:21

Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StdndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.064	-0.064	-0.0002	0.0009	0.0002	10:51:12	Yes
2	-0.062	-0.062	-0.0001	0.0011	0.0003	10:51:42	Yes
Mean:	-0.063	-0.063	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	2.738	2.738	15.95				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 27

Sample ID: 248233012|958979|1

Analyst: JXL

Autosampler Location: 32

Date Collected: 3/16/2010 10:52:02

Data Type: Original

Replicate Data: 248233012|958979|1

Analyst: JXL

Data Type: Original

Replicate Data: 248233017|958979|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.179	0.179	0.0030	0.0150	0.0034	11:01:18	Yes
2	0.181	0.181	0.0030	0.0149	0.0034	11:01:48	Yes
Mean:	0.180	0.180	0.0030				
SD:	0.001	0.001	0.0000				
%RSD:	0.739	0.739	0.57				

=====

Sequence No.: 33
Sample ID: 248233018|958979|1
Analyst: JXLAutosampler Location: 38
Date Collected: 3/16/2010 11:02:08
Data Type: Original-----
Replicate Data: 248233018|958979|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.064	0.064	0.0015	0.0083	0.0019	11:02:59	Yes
2	0.063	0.063	0.0015	0.0083	0.0019	11:03:29	Yes
Mean:	0.064	0.064	0.0015				
SD:	0.001	0.001	0.0000				
%RSD:	1.392	1.392	0.76				

=====

Sequence No.: 34
Sample ID: 248233019|958979|1
Analyst: JXLAutosampler Location: 39
Date Collected: 3/16/2010 11:03:48
Data Type: Original-----
Replicate Data: 248233019|958979|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.060	0.060	0.0015	0.0080	0.0018	11:04:39	Yes
2	0.058	0.058	0.0014	0.0077	0.0018	11:05:08	Yes
Mean:	0.059	0.059	0.0014				
SD:	0.002	0.002	0.0000				
%RSD:	2.706	2.706	1.44				

=====

Sequence No.: 35
Sample ID: 248233020|958979|1
Analyst: JXLAutosampler Location: 40
Date Collected: 3/16/2010 11:05:28
Data Type: Original-----
Replicate Data: 248233020|958979|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.082	0.082	0.0017	0.0094	0.0021	11:06:19	Yes
2	0.081	0.081	0.0017	0.0092	0.0021	11:06:49	Yes
Mean:	0.082	0.082	0.0017				
SD:	0.001	0.001	0.0000				
%RSD:	0.993	0.993	0.61				

=====

Sequence No.: 36
Sample ID: 1202056614|958974|1
Analyst: JXLAutosampler Location: 41
Date Collected: 3/16/2010 11:07:09
Data Type: Original-----
Replicate Data: 1202056614|958974|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.068	-0.068	-0.0002	0.0005	0.0002	11:08:00	Yes
2	-0.068	-0.068	-0.0002	0.0006	0.0002	11:08:30	Yes
Mean:	-0.068	-0.068	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.267	0.267	1.15				

Sequence No.: 37
Sample ID: CCV
Analyst:

Autosampler Location: 7
Date Collected: 3/16/2010 11:08:49
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.123	5.123	0.0668	0.2956	0.0672	11:09:40	Yes
2	5.128	5.128	0.0668	0.2937	0.0672	11:10:10	Yes
Mean:	5.125	5.125	0.0668				
SD:	0.003	0.003	0.0000				
%RSD:	0.062	0.062	0.06				

QC value within limits for Hg 253.7 Recovery = 102.51%
All analyte(s) passed QC.

Sequence No.: 38
Sample ID: CCB
Analyst:

Autosampler Location: 8
Date Collected: 3/16/2010 11:10:29
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.065	-0.065	-0.0002	0.0005	0.0002	11:11:20	Yes
2	-0.065	-0.065	-0.0002	0.0009	0.0002	11:11:50	Yes
Mean:	-0.065	-0.065	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.191	0.191	0.98				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 39
Sample ID: 1202056615|958974|10
Analyst: JXL

Autosampler Location: 42
Date Collected: 3/16/2010 11:12:09
Data Type: Original

Replicate Data: 1202056615|958974|10

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.940	3.940	0.0515	0.2271	0.0519	11:13:00	Yes
2	3.957	3.957	0.0517	0.2269	0.0521	11:13:30	Yes
Mean:	3.949	3.949	0.0516				
SD:	0.012	0.012	0.0001				
%RSD:	0.294	0.294	0.29				

Sequence No.: 40
Sample ID: 248237001|958974|1
Analyst: JXL

Autosampler Location: 43
Date Collected: 3/16/2010 11:13:50
Data Type: Original

Replicate Data: 248237001|958974|1

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.267	0.267	0.0041	0.0196	0.0045	11:14:41	Yes
2	0.262	0.262	0.0041	0.0186	0.0045	11:15:11	Yes
Mean:	0.264	0.264	0.0041				
SD:	0.003	0.003	0.0000				
%RSD:	1.137	1.137	0.95				

Sequence No.: 41
Sample ID: 248237002|958974|1
Analyst: JXL

Autosampler Location: 44
Date Collected: 3/16/2010 11:15:30
Data Type: Original

Sample ID: 248237007|958974|1
Analyst: JXL

Date Collected: 3/16/2010 11:23:54
Data Type: Original

Replicate Data: 248237007|958974|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.338	0.338	0.0050	0.0235	0.0054	11:24:47	Yes
2	0.339	0.339	0.0050	0.0234	0.0054	11:25:17	Yes
Mean:	0.338	0.338	0.0050				
SD:	0.001	0.001	0.0000				
%RSD:	0.283	0.283	0.25				

=====

Sequence No.: 47
Sample ID: 248241001|958974|1
Analyst: JXL

Autosampler Location: 50
Date Collected: 3/16/2010 11:25:37
Data Type: Original

Replicate Data: 248241001|958974|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.625	0.625	0.0087	0.0406	0.0091	11:26:28	Yes
2	0.621	0.621	0.0087	0.0402	0.0091	11:26:58	Yes
Mean:	0.623	0.623	0.0087				
SD:	0.003	0.003	0.0000				
%RSD:	0.455	0.455	0.42				

=====

Sequence No.: 48
Sample ID: 1202056616|958974|1
Analyst: JXL

Autosampler Location: 51
Date Collected: 3/16/2010 11:27:17
Data Type: Original

Replicate Data: 1202056616|958974|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.591	0.591	0.0083	0.0385	0.0087	11:28:09	Yes
2	0.594	0.594	0.0083	0.0383	0.0087	11:28:39	Yes
Mean:	0.592	0.592	0.0083				
SD:	0.002	0.002	0.0000				
%RSD:	0.363	0.363	0.33				

=====

Sequence No.: 49
Sample ID: CCV
Analyst:

Autosampler Location: 7
Date Collected: 3/16/2010 11:28:58
Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.419	5.419	0.0706	0.3085	0.0710	11:29:48	Yes
2	5.385	5.385	0.0702	0.3071	0.0706	11:30:18	Yes
Mean:	5.402	5.402	0.0704				
SD:	0.024	0.024	0.0003				
%RSD:	0.444	0.444	0.44				

QC value within limits for Hg 253.7 Recovery = 108.04%
All analyte(s) passed QC.

=====

Sequence No.: 50
Sample ID: CCB
Analyst:

Autosampler Location: 8
Date Collected: 3/16/2010 11:30:37
Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.066	-0.066	-0.0002	0.0007	0.0002	11:31:28	Yes
2	-0.067	-0.067	-0.0002	0.0007	0.0002	11:31:58	Yes

Mean: -0.066 -0.066 -0.0002
SD: 0.001 0.001 0.0000
%RSD: 1.652 1.652 7.69

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 51

Sample ID: 1202056617|958974|1

Analyst: JXL

Autosampler Location: 52

Date Collected: 3/16/2010 11:32:17

Data Type: Original

Replicate Data: 1202056617|958974|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.629	2.629	0.0346	0.1568	0.0350	11:33:08	Yes
2	2.643	2.643	0.0348	0.1559	0.0352	11:33:38	Yes
Mean:	2.636	2.636	0.0347				
SD:	0.010	0.010	0.0001				
%RSD:	0.389	0.389	0.38				

Sequence No.: 52

Sample ID: 1202056619|958974|1

Analyst: JXL

Autosampler Location: 53

Date Collected: 3/16/2010 11:33:58

Data Type: Original

Replicate Data: 1202056619|958974|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.649	2.649	0.0348	0.1567	0.0352	11:34:49	Yes
2	2.639	2.639	0.0347	0.1557	0.0351	11:35:18	Yes
Mean:	2.644	2.644	0.0348				
SD:	0.006	0.006	0.0001				
%RSD:	0.245	0.245	0.24				

Sequence No.: 53

Sample ID: 1202056618|958974|5

Analyst: JXL

Autosampler Location: 54

Date Collected: 3/16/2010 11:35:38

Data Type: Original

Replicate Data: 1202056618|958974|5

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.088	0.088	0.0018	0.0095	0.0022	11:36:29	Yes
2	0.088	0.088	0.0018	0.0096	0.0022	11:36:59	Yes
Mean:	0.088	0.088	0.0018				
SD:	0.000	0.000	0.0000				
%RSD:	0.137	0.137	0.09				

Sequence No.: 54

Sample ID: 248241002|958974|1

Analyst: JXL

Autosampler Location: 55

Date Collected: 3/16/2010 11:37:18

Data Type: Original

Replicate Data: 248241002|958974|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.416	0.416	0.0060	0.0295	0.0064	11:38:10	Yes
2	0.408	0.408	0.0059	0.0280	0.0063	11:38:40	Yes
Mean:	0.412	0.412	0.0060				
SD:	0.005	0.005	0.0001				
%RSD:	1.309	1.309	1.16				

Sequence No.: 55

Sample ID: 248241003|958974|1

Analyst: JXL

Autosampler Location: 56

Date Collected: 3/16/2010 11:38:59

Data Type: Original

Replicate Data: 248241003|958974|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.133	0.133	0.0024	0.0117	0.0028	11:39:51	Yes
2	0.129	0.129	0.0023	0.0112	0.0027	11:40:21	Yes
Mean:	0.131	0.131	0.0024				
SD:	0.003	0.003	0.0000				
%RSD:	2.086	2.086	1.49				

=====

Sequence No.: 56
Sample ID: 248241004|958974|1
Analyst: JXLAutosampler Location: 57
Date Collected: 3/16/2010 11:40:40
Data Type: Original-----
Replicate Data: 248241004|958974|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.372	0.372	0.0055	0.0250	0.0059	11:41:32	Yes
2	0.370	0.370	0.0054	0.0249	0.0058	11:42:01	Yes
Mean:	0.371	0.371	0.0055				
SD:	0.001	0.001	0.0000				
%RSD:	0.370	0.370	0.32				

=====

Sequence No.: 57
Sample ID: 248241005|958974|1
Analyst: JXLAutosampler Location: 58
Date Collected: 3/16/2010 11:42:21
Data Type: Original-----
Replicate Data: 248241005|958974|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.188	0.188	0.0031	0.0149	0.0035	11:43:13	Yes
2	0.188	0.188	0.0031	0.0151	0.0035	11:43:42	Yes
Mean:	0.188	0.188	0.0031				
SD:	0.000	0.000	0.0000				
%RSD:	0.001	0.001	0.00				

=====

Sequence No.: 58
Sample ID: 248241006|958974|1
Analyst: JXLAutosampler Location: 59
Date Collected: 3/16/2010 11:44:02
Data Type: Original-----
Replicate Data: 248241006|958974|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	1.034	1.034	0.0140	0.0639	0.0144	11:44:54	Yes
2	1.028	1.028	0.0139	0.0632	0.0143	11:45:24	Yes
Mean:	1.031	1.031	0.0140				
SD:	0.005	0.005	0.0001				
%RSD:	0.440	0.440	0.42				

=====

Sequence No.: 59
Sample ID: 248241007|958974|1
Analyst: JXLAutosampler Location: 60
Date Collected: 3/16/2010 11:45:44
Data Type: Original-----
Replicate Data: 248241007|958974|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	1.203	1.203	0.0162	0.0738	0.0166	11:46:36	Yes
2	1.207	1.207	0.0162	0.0738	0.0166	11:47:06	Yes
Mean:	1.205	1.205	0.0162				
SD:	0.003	0.003	0.0000				
%RSD:	0.210	0.210	0.20				

Sequence No.: 60
Sample ID: 248241008|958974|1
Analyst: JXL

Autosampler Location: 61
Date Collected: 3/16/2010 11:47:26
Data Type: Original

Replicate Data: 248241008|958974|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	1.306	1.306	0.0175	0.0804	0.0179	11:48:17	Yes
2	1.304	1.304	0.0175	0.0798	0.0179	11:48:47	Yes
Mean:	1.305	1.305	0.0175				
SD:	0.001	0.001	0.0000				
%RSD:	0.101	0.101	0.10				

Sequence No.: 61
Sample ID: CCV
Analyst:

Autosampler Location: 7
Date Collected: 3/16/2010 11:49:08
Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.141	5.141	0.0670	0.2942	0.0674	11:49:58	Yes
2	5.059	5.059	0.0660	0.2873	0.0664	11:50:28	Yes
Mean:	5.100	5.100	0.0665				
SD:	0.058	0.058	0.0007				
%RSD:	1.137	1.137	1.13				

QC value within limits for Hg 253.7 Recovery = 102.01%
All analyte(s) passed QC.

Sequence No.: 62
Sample ID: CCB
Analyst:

Autosampler Location: 8
Date Collected: 3/16/2010 11:50:47
Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.066	-0.066	-0.0002	0.0007	0.0002	11:51:38	Yes
2	-0.067	-0.067	-0.0002	0.0007	0.0002	11:52:08	Yes
Mean:	-0.066	-0.066	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	1.440	1.440	6.80				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 63
Sample ID: 248241009|958974|1
Analyst: JXL

Autosampler Location: 62
Date Collected: 3/16/2010 11:52:27
Data Type: Original

Replicate Data: 248241009|958974|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.405	0.405	0.0059	0.0280	0.0063	11:53:18	Yes
2	0.403	0.403	0.0059	0.0275	0.0063	11:53:48	Yes
Mean:	0.404	0.404	0.0059				
SD:	0.002	0.002	0.0000				
%RSD:	0.458	0.458	0.41				

Sequence No.: 64
Sample ID: 248241010|958974|1
Analyst: JXL

Autosampler Location: 63
Date Collected: 3/16/2010 11:54:08
Data Type: Original

Replicate Data: 248241010|958974|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
------	------------	---------	---------	------	------	------	------

#	ug/L	ug/L	Signal	Area	Height		Stored
1	1.298	1.298	0.0174	0.0791	0.0178	11:54:59	Yes
2	1.295	1.295	0.0174	0.0789	0.0178	11:55:29	Yes
Mean:	1.296	1.296	0.0174				
SD:	0.002	0.002	0.0000				
%RSD:	0.156	0.156	0.15				

Sequence No.: 65

Autosampler Location: 64

Sample ID: 1202069751|964735|1

Date Collected: 3/16/2010 11:55:49

Analyst: JXL

Data Type: Original

Replicate Data: 1202069751|964735|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.069	-0.069	-0.0002	0.0004	0.0002	11:56:40	Yes
2	-0.068	-0.068	-0.0002	0.0007	0.0002	11:57:10	Yes
Mean:	-0.069	-0.069	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	0.820	0.820	3.41				

Sequence No.: 66

Autosampler Location: 65

Sample ID: 1202069752|964735|5

Date Collected: 3/16/2010 11:57:29

Analyst: JXL

Data Type: Original

Replicate Data: 1202069752|964735|5

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	4.179	4.179	0.0546	0.2400	0.0550	11:58:21	Yes
2	4.203	4.203	0.0549	0.2398	0.0553	11:58:51	Yes
Mean:	4.191	4.191	0.0548				
SD:	0.017	0.017	0.0002				
%RSD:	0.398	0.398	0.39				

Sequence No.: 67

Autosampler Location: 66

Sample ID: 248383001|964735|1

Date Collected: 3/16/2010 11:59:11

Analyst: JXL

Data Type: Original

Replicate Data: 248383001|964735|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.096	0.096	0.0019	0.0095	0.0023	12:00:02	Yes
2	0.097	0.097	0.0019	0.0099	0.0023	12:00:31	Yes
Mean:	0.096	0.096	0.0019				
SD:	0.001	0.001	0.0000				
%RSD:	0.644	0.644	0.42				

Sequence No.: 68

Autosampler Location: 67

Sample ID: 1202069753|964735|1

Date Collected: 3/16/2010 12:00:51

Analyst: JXL

Data Type: Original

Replicate Data: 1202069753|964735|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.040	0.040	0.0012	0.0067	0.0016	12:01:42	Yes
2	0.046	0.046	0.0013	0.0071	0.0017	12:02:12	Yes
Mean:	0.043	0.043	0.0012				
SD:	0.004	0.004	0.0001				
%RSD:	9.525	9.525	4.30				

Sequence No.: 69

Autosampler Location: 68

Sample ID: 1202069754|964735|1

Date Collected: 3/16/2010 12:02:32

Analyst: JXL

Data Type: Original

Replicate Data: 1202069754|964735|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.343	2.343	0.0309	0.1371	0.0313	12:03:24	Yes
2	2.333	2.333	0.0308	0.1353	0.0312	12:03:53	Yes
Mean:	2.338	2.338	0.0308				
SD:	0.007	0.007	0.0001				
%RSD:	0.289	0.289	0.28				

=====

Sequence No.: 70
Sample ID: 1202069756|964735|1
Analyst: JXLAutosampler Location: 69
Date Collected: 3/16/2010 12:04:13
Data Type: Original-----
Replicate Data: 1202069756|964735|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.362	2.362	0.0312	0.1376	0.0315	12:05:05	Yes
2	2.330	2.330	0.0307	0.1359	0.0311	12:05:34	Yes
Mean:	2.346	2.346	0.0309				
SD:	0.023	0.023	0.0003				
%RSD:	0.970	0.970	0.95				

=====

Sequence No.: 71
Sample ID: 1202069755|964735|1
Analyst: JXLAutosampler Location: 70
Date Collected: 3/16/2010 12:05:54
Data Type: Original-----
Replicate Data: 1202069755|964735|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.032	-0.032	0.0003	0.0027	0.0007	12:06:46	Yes
2	-0.034	-0.034	0.0002	0.0025	0.0006	12:07:16	Yes
Mean:	-0.033	-0.033	0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	5.094	5.094	8.69				

=====

Sequence No.: 72
Sample ID: 248383002|964735|1
Analyst: JXLAutosampler Location: 71
Date Collected: 3/16/2010 12:07:36
Data Type: Original-----
Replicate Data: 248383002|964735|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.131	0.131	0.0024	0.0121	0.0028	12:08:27	Yes
2	0.130	0.130	0.0024	0.0120	0.0027	12:08:57	Yes
Mean:	0.131	0.131	0.0024				
SD:	0.001	0.001	0.0000				
%RSD:	0.628	0.628	0.45				

=====

Sequence No.: 73
Sample ID: CCV
Analyst:Autosampler Location: 7
Date Collected: 3/16/2010 12:09:17
Data Type: Original-----
Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.021	5.021	0.0655	0.2891	0.0659	12:10:07	Yes
2	5.073	5.073	0.0661	0.2890	0.0665	12:10:37	Yes
Mean:	5.047	5.047	0.0658				
SD:	0.037	0.037	0.0005				
%RSD:	0.730	0.730	0.72				

QC value within limits for Hg 253.7 Recovery = 100.94%

All analyte(s) passed QC.

Sequence No.: 74

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 3/16/2010 12:10:56

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.064	-0.064	-0.0001	0.0010	0.0002	12:11:46	Yes
2	-0.064	-0.064	-0.0002	0.0008	0.0002	12:12:16	Yes
Mean:	-0.064	-0.064	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.505	0.505	2.77				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 75

Sample ID: 248383003|964735|1

Analyst: JXL

Autosampler Location: 72

Date Collected: 3/16/2010 12:12:35

Data Type: Original

Replicate Data: 248383003|964735|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.236	0.236	0.0037	0.0180	0.0041	12:13:27	Yes
2	0.235	0.235	0.0037	0.0179	0.0041	12:13:57	Yes
Mean:	0.235	0.235	0.0037				
SD:	0.001	0.001	0.0000				
%RSD:	0.483	0.483	0.40				

Sequence No.: 76

Sample ID: 248383004|964735|1

Analyst: JXL

Autosampler Location: 73

Date Collected: 3/16/2010 12:14:17

Data Type: Original

Replicate Data: 248383004|964735|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.091	0.091	0.0018	0.0097	0.0022	12:15:09	Yes
2	0.092	0.092	0.0019	0.0096	0.0023	12:15:39	Yes
Mean:	0.091	0.091	0.0019				
SD:	0.001	0.001	0.0000				
%RSD:	0.822	0.822	0.52				

Sequence No.: 77

Sample ID: 248383005|964735|1

Analyst: JXL

Autosampler Location: 74

Date Collected: 3/16/2010 12:16:00

Data Type: Original

Replicate Data: 248383005|964735|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.145	0.145	0.0025	0.0126	0.0029	12:16:51	Yes
2	0.146	0.146	0.0026	0.0125	0.0029	12:17:20	Yes
Mean:	0.145	0.145	0.0025				
SD:	0.001	0.001	0.0000				
%RSD:	0.423	0.423	0.31				

Sequence No.: 78

Sample ID: 248383006|964735|1

Analyst: JXL

Autosampler Location: 75

Date Collected: 3/16/2010 12:17:40

Data Type: Original

Replicate Data: 248383006|964735|1

Miscellaneous

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 959147.0 Verified by: _____ Lab SOP: GL-MA-E-009 REV# 19
 Analyst: Anthony Green Instrument: BAL-001
 Method: SW846 3050B

Sample ID	Run Date	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check
1202056973 MB	09-MAR-2010 09:00:00	0.501	50	99.8004	1
1202056978 LCS	09-MAR-2010 09:00:00	0.512	50	97.65625	
248241001	09-MAR-2010 09:00:00	0.507	50	98.61933	
1202056974 DUP (248241001)	09-MAR-2010 09:00:00	0.501	50	99.8004	
1202056975 SDILT (248241001)	09-MAR-2010 09:00:00	0.507	50	98.61933	
1202056976 MS (248241001)	09-MAR-2010 09:00:00	0.52	50	96.15385	
1202056977 MSD (248241001)	09-MAR-2010 09:00:00	0.502	50	99.60159	
248241002	09-MAR-2010 09:00:00	0.519	50	96.33911	
248241003	09-MAR-2010 09:00:00	0.521	50	95.96929	
248241004	09-MAR-2010 09:00:00	0.505	50	99.0099	
248241005	09-MAR-2010 09:00:00	0.5	50	100	
248241006	09-MAR-2010 09:00:00	0.506	50	98.81423	
248241007	09-MAR-2010 09:00:00	0.534	50	93.63296	
248241008	09-MAR-2010 09:00:00	0.507	50	98.61933	
248241009	09-MAR-2010 09:00:00	0.541	50	92.42144	
248241010	09-MAR-2010 09:00:00	0.525	50	95.2381	

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments
LCS	1202056978	Metals Soil LCS SRM ICPMS	U1062540-MS	.512	g	
MS	1202056976	ICP-MS Spike for soil products	U1090827-A	.5	mL	
MS	1202056976	ICP-MS Spike for Soil Products	U1090827-B	.5	mL	
MSD	1202056977	ICP-MS Spike for soil products	U1090827-A	.5	mL	
MSD	1202056977	ICP-MS Spike for Soil Products	U1090827-B	.5	mL	
REGNT All		Hydrogen Peroxide 30%	1259038-02	1.5	mL	
REGNT All		Nitric Acid CONC.	1277919	5	mL	

Sample 248241001 consist of brown, soil with artifacts.

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 959145.0
Analyst: Anthony Green
Method: SW846 3050B
Lab SOP: GL-MA-E-009 REV# 19
Instrument: BAL-001

Verified by: _____

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202056972	Metals Soil LCS SRM ICP/Hg	UI062540-I	.505	g
MS	1202056970	Metals Spike Mix I	UI1268741-01	.25	mL
MS	1202056970	Metals Spike Mix II	UI1268744-06	.25	mL
MSD	1202056971	Metals Spike Mix I	UI1268741-01	.25	mL
MSD	1202056971	Metals Spike Mix II	UI1268744-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check I
1202056967 MB	09-MAR-2010 10:00:00	Soil	0.524	50	95.41985	
1202056972 LCS	09-MAR-2010 10:00:00	Soil	0.505	50	99.0099	
248241001	09-MAR-2010 10:00:00	Soil	0.509	50	98.23183	
1202056968 DUP (248241001)	09-MAR-2010 10:00:00	Soil	0.501	50	99.8004	
1202056969 SDILT (248241001)	09-MAR-2010 10:00:00	Soil	0.509	50	98.23183	
1202056970 MS (248241001)	09-MAR-2010 10:00:00	Soil	0.506	50	98.81423	
1202056971 MSD (248241001)	09-MAR-2010 10:00:00	Soil	0.515	50	97.08738	
248241002	09-MAR-2010 10:00:00	Soil	0.513	50	97.46589	
248241003	09-MAR-2010 10:00:00	Soil	0.516	50	96.89922	
248241004	09-MAR-2010 10:00:00	Soil	0.528	50	94.69697	
248241005	09-MAR-2010 10:00:00	Soil	0.505	50	99.0099	
248241006	09-MAR-2010 10:00:00	Soil	0.525	50	95.2381	
248241007	09-MAR-2010 10:00:00	Soil	0.512	50	97.65625	
248241008	09-MAR-2010 10:00:00	Soil	0.507	50	98.61933	
248241009	09-MAR-2010 10:00:00	Soil	0.506	50	98.81423	
248241010	09-MAR-2010 10:00:00	Soil	0.51	50	98.03922	

Reagent/Solvent Lot ID	Description	Amount	Comments:
1274969	Nitric Acid CONC.	1.25 mL	Sample 248241001 consist of brown, soil with artifacts.
1277916	HYDROCHLORIC ACID	10 mL	

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: 958973.0
Analyst: Tara Griffin
Method: SW846 7471A Prep
Lab SOP: GL-MA-E-010 REV# 23
Instrument: BAL-002

Verified by: _____

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202056615	Metals LCS Soil SRM	UJ031809A	.204	g
MS	1202056617	Mercury soil working intermediate standard for MS	WHG100315-14	.3	mL
MSD	1202056619	Mercury soil working intermediate standard for MS	WHG100315-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202056614 MB	15-MAR-2010 18:00:00	Soil	0.548	30	54.74453	
1202056615 LCS	15-MAR-2010 18:54:00	Soil	0.204	30	147.05882	
248237001	15-MAR-2010 18:54:00	Soil	0.506	30	59.28854	
248237002	15-MAR-2010 18:54:00	Soil	0.533	30	56.28518	
248237003	15-MAR-2010 18:54:00	Soil	0.543	30	55.24862	
248237004	15-MAR-2010 18:54:00	Soil	0.523	30	57.36138	
248237005	15-MAR-2010 18:54:00	Soil	0.53	30	56.60377	
248237006	15-MAR-2010 18:54:00	Soil	0.568	30	52.8169	
248237007	15-MAR-2010 18:54:00	Soil	0.522	30	57.47126	
248241001	15-MAR-2010 18:54:00	Soil	0.509	30	58.9391	
1202056616 DUP (248241001)	15-MAR-2010 18:54:00	Soil	0.506	30	59.28854	
1202056617 MS (248241001)	15-MAR-2010 18:54:00	Soil	0.574	30	52.26481	
1202056619 MSD (248241001)	15-MAR-2010 18:54:00	Soil	0.545	30	55.04587	
1202056618 SDIL.T (248241001)	15-MAR-2010 18:54:00	Soil	0.509	30	58.9391	
248241002	15-MAR-2010 18:54:00	Soil	0.553	30	54.24955	
248241003	15-MAR-2010 18:54:00	Soil	0.5	30	60	
248241004	15-MAR-2010 18:54:00	Soil	0.514	30	58.36576	
248241005	15-MAR-2010 18:54:00	Soil	0.576	30	52.08333	
248241006	15-MAR-2010 18:54:00	Soil	0.559	30	53.66726	
248241007	15-MAR-2010 18:54:00	Soil	0.563	30	53.28597	
248241008	15-MAR-2010 18:54:00	Soil	0.568	30	52.8169	
248241009	15-MAR-2010 18:54:00	Soil	0.548	30	54.74453	
248241010	15-MAR-2010 18:54:00	Soil	0.555	30	54.05405	

Reagent/Solvent Lot ID	Description	Amount	Comments:
1255532-C	Hg reducing agent	2 mL	Sample 248241001 is a brown dry soil.

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC

Prep Logbook

Batch ID: 958973.0
Analyst: Tara Griffin
Method: SW846 7471A Prep
Lab SOP: GL-MA-E-010 REV# 23
Instrument: BAL-002

Verified by:
Type **Sample Id** **Description** **Serial Number** **Spike Amount** **Spike Units**
 LCS 1202056615 Metals LCS Soil SRM UJ031809A .204 g
 MS 1202056617 Mercury soil working intermediate standard for MS WHG100315-14 .3 mL
 MSD 1202056619 Mercury soil working intermediate standard for MS WHG100315-14 .3 mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
125532-C	Hg reducing agent	2 mL				
1274391-1	NTTRIC ACID	.375 mL				
1277235-A	Hydrochloric Acid Conc.	1.125 mL				
1277238-C	5% KMnO4 solution	7.5 mL				
WHG100315-07	Mercury Working Standard 1st Source	CAL S 30 uL				
WHG100315-08	0.2/CRA Mercury Working Standard 1st Source	CAL S 75 uL				
WHG100315-09	Mercury Working 1st Source	CAL S 2.0 300 uL				
WHG100315-10	Mercury Working 1st Source	CAL S 5.0/CCV 750 uL				
WHG100315-11	Mercury Working 1st Source	CAL S 10.0 1.5 mL				
WHG100315-12	Mercury Working 2nd Source	S 5.0/ICV 750 uL				

Digestion Start Date: 15-MAR-10 18:00
 Digestion End Date: 15-MAR-10 18:30

DATA EXCEPTION REPORT

Mo. Day Yr. 05-APR-10	Division: Industrial	Quality Criteria: Specifications	Type: Process
Instrument Type: ICP	Test / Method: SW846 3050B/6010B	Matrix Type: Solid	Client Code: LANL
Batch ID: 959146	Sample Numbers: See Below		

Potentially affected work order(s)(SDG): 248241(10-2135)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202056970MS 2. Failed Recovery for MSD/PSD: QC 1202056971MSD	1./2. The matrix spike and matrix spike duplicate recovery failed outside of the control limits for magnesium and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Helen Camello 05-APR-10

Data Validator/Group Leader:

Louise Smith 05-APR-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:** 12-JUN-10
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:** 12-JAN-10
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: ENVIRONMENTAL EXPRESS
Description: SILICON 1000mg/L H2O/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100310-48 **Opened:** 19-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **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: 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: O2SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Standard Logbook

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

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

Standard Logbook

Analyte	Concentration	Analyte	Concentration
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: UI100325-40 **Opened:** 25-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 25-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 25-MAR-11 **Lot Number :** 1019348
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: UI100325-41 **Opened:** 25-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 25-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 25-MAR-11 **Lot Number :** 1019348
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

Standard Logbook

Serial ID: UI100405-12 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 05-APR-10 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019466
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: UI100405-13 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 05-APR-10 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019467
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: UI1268741-01 **Opened:** 11-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI1268744-06 **Opened:** 11-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

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: ICPMSCaISPIKEA **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: ICPMSCaISPIKEC **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: IHG100315-01 **Opened:** 15-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 15-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 16-MAR-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100315-02 **Opened:** 15-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 15-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 16-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

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: WHG100315-07 Opened: 15-MAR-10 Pipet Id : Hg1289245
 Name: MHGWORKCALS0.2CRA Received: 15-MAR-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 22-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.
IHG100315-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100315-08 Opened: 15-MAR-10 Pipet Id : Hg1289245
 Name: MHGWORKCALS0.5 Received: 15-MAR-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 22-MAR-10
 Employee: Tara Griffin Verified: 20-JUL-07
 Supplier: GEL
 Description: Mercury Working Standard 1st Source CAL S 0.5
 Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100315-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100315-09 Opened: 15-MAR-10 Pipet Id : Hg1289245
 Name: MHGWORKCALS2.0 Received: 15-MAR-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 22-MAR-10
 Employee: Tara Griffin Verified: 20-JUL-07
 Supplier: GEL
 Description: Mercury Working 1st Source CAL S 2.0
 Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100315-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100315-10 Opened: 15-MAR-10 Pipet Id : Hg1289245
 Name: MHGWORKCALS5.0CCV Received: 15-MAR-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 22-MAR-10
 Employee: Tara Griffin Verified: 20-JUL-07
 Supplier: GEL
 Description: Mercury Working 1st Source CAL S 5.0/CCV
 Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100315-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100315-11 Opened: 15-MAR-10 Pipet Id : Hq1289245
 Name: MHGWORKCAL510.0 Received: 15-MAR-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 22-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.
IHG100315-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100315-12 Opened: 15-MAR-10 Pipet Id : Hq1289245
 Name: MHGWORKS5.0ICV Received: 15-MAR-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 22-MAR-10
 Employee: Tara Griffin Verified: 20-JUL-07
 Supplier: GEL
 Description: Mercury Working 2nd Source S 5.0/ICV
 Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100315-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100315-14 Opened: 15-MAR-10 Pipet Id : Hq1289245
 Name: MHGSOILMSSPIKE Received: 15-MAR-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 22-MAR-10
 Employee: Tara Griffin Verified: 20-JUL-07
 Supplier: GEL
 Description: Mercury 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: WI100331-42 Opened: 31-MAR-10 Balance Id : 216
 Name: TRACE ICP 0.1 PPM STD. Received: 02-NOV-09 Pipet Id : 3581809
 Type: Working Expires: 01-APR-10 Solvent : 3%HCL and 1%HNO3 -1293083
 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.
WI100331-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100331-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100331-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100331-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100331-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100331-43 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
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: WI100331-44 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1 %HNO3-1293083
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: WI100331-45 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
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: WI100331-46 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL AND 1%HNO3-1293083
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: WI100331-47 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL &1%HNO3-1293083
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: WMS100412-04 **Opened:** 12-APR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 12-APR-10 **Balance Id :** 4025216
Type: Working **Expires:** 13-APR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1300209
Supplier: GEL

Standard Logbook

Description: ICPMS Calibration Standard (100 ppb)

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100226-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100226-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100412-04A **Opened:** 12-APR-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 12-APR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 13-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100412-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100412-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100412-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100412-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100412-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100412-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100412-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100412-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100412-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100412-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100412-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100412-05 Opened: 12-APR-10 Balance Id : 40245216
 Name: ICPMS ICV Received: 12-APR-10 Pipet Id : 3541598
 Type: Working Expires: 13-APR-10 Solvent : 2%HNO3/1%HCl - 1300209
 Employee: Paul Boyd
 Supplier: GEL
 Description: ICPMS ICV
 Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L

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: WMS100412-06 **Opened:** 12-APR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 12-APR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 13-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100412-07 Opened: 12-APR-10 Balance Id : 40245216
 Name: ICPMS ICSA Received: 12-APR-10 Lot Number : 1010773
 Type: Working Expires: 13-APR-10 Pipet Id : 3541598
 Employee: Paul Boyd Solvent : 2%HNO3/1%HCl - 1300209
 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.	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: WMS100412-08 **Opened:** 12-APR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 12-APR-10 **Pipet Id :** 1758088
Type: Working **Expres:** 13-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
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
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxylamine Hydrochloride
Comments: None

Serial ID: 1250038-02 **Opened:** 04-JAN-10 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 04-JAN-11
Employee: Bryan Davis
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Standard Logbook

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

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.	Allquot	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

Standard Logbook

Serial ID: 1277919 **Opened:** 02-MAR-10 **Lot Number :** J 04043 L
Name: I-HNO3 **Received:** 02-MAR-10
Type: Reagent/Solvent **Expires:** 02-MAR-11
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1291278 **Opened:** 25-MAR-10 **Lot Number :** J 08035 L
Name: I-HNO3 **Received:** 25-MAR-10
Type: Reagent/Solvent **Expires:** 25-MAR-11
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1293083 **Opened:** 29-MAR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 29-MAR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 04-APR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1300209 **Opened:** 12-APR-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCL-ICPMS **Received:** 12-APR-10
Type: Reagent/Solvent **Expires:** 19-APR-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.
1277916	I-HCL	36.5-38.0	90 mL	9 l	N/A
1291278	I-HNO3	69.0-70.0	180 mL	9 l	N/A

Metals Analysis

Case Narrative

**Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2135-1**

Sample Analysis

Sample ID	Client ID
248242001	RE36-10-7530
1202056957	Method Blank (MB) ICP
1202056958	Laboratory Control Sample (LCS)
1202056961	248257001(RE46-10-13544L) Serial Dilution (SD)
1202056959	248257001(RE46-10-13544D) Sample Duplicate (DUP)
1202056960	248257001(RE46-10-13544S) Matrix Spike (MS)
1202056962	Method Blank (MB) ICP-MS
1202056963	Laboratory Control Sample (LCS)
1202056966	248257001(RE46-10-13544L) Serial Dilution (SD)
1202056964	248257001(RE46-10-13544D) Sample Duplicate (DUP)
1202056965	248257001(RE46-10-13544S) Matrix Spike (MS)
1202056608	Method Blank (MB) CVAA
1202056609	Laboratory Control Sample (LCS)
1202056612	248257001(RE46-10-13544L) Serial Dilution (SD)
1202056610	248257001(RE46-10-13544D) Sample Duplicate (DUP)
1202056611	248257001(RE46-10-13544S) Matrix Spike (MS)

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

Method/Analysis Information

Analytical Batch:	959141, 959143 and 958969
Prep Batch :	959140, 959142 and 958967
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 7300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

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

Calibration Information

Instrument Calibration

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

CRDL Requirements

All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement

All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements

All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements

All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

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

The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement

The following samples were selected as the quality control (QC) samples for this SDG: 248257001 (RE46-10-13544)-ICP, ICP-MS and CVAA.

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: Nikhil A. Emora Date: 4.17.10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2135-1

CONTRACT: LANL01004

METHOD TYPE: SW846

SAMPLE ID: 248242001

BASIS: As Received

DATE COLLECTED 24-FEB-10

CLIENT ID: RE36-10-7530

LEVEL: Low

DATE RECEIVED 27-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	03/31/10 09:38	033110A-1	959141
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	PRB	04/13/10 12:14	100413-3	959143
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	03/31/10 09:38	033110A-1	959141
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 09:38	033110A-1	959141
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BCD1	04/12/10 07:33	100411-2	959143
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BCD1	04/12/10 07:33	100411-2	959143
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	03/31/10 09:38	033110A-1	959141
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 09:38	033110A-1	959141
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 09:38	033110A-1	959141
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	03/31/10 09:38	033110A-1	959141
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	03/31/10 09:38	033110A-1	959141
7439-92-1	Lead	0.659	ug/L	J	0.5	2	2	1	MS	BCD1	04/12/10 07:33	100411-2	959143
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	03/31/10 09:38	033110A-1	959141
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BCD1	04/12/10 07:33	100411-2	959143
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	03/02/10 12:35	030210W3-6	958969
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	03/31/10 09:38	033110A-1	959141
7440-09-7	Potassium	76.4	ug/L	J	50	150	150	1	P	HSC	03/31/10 09:38	033110A-1	959141
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	03/31/10 09:38	033110A-1	959141
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 09:38	033110A-1	959141
7440-23-5	Sodium	148	ug/L	J	100	300	300	1	P	HSC	03/31/10 09:38	033110A-1	959141
7440-28-0	Thallium	0.671	ug/L	J	0.3	1	1	1	MS	BCD1	04/12/10 07:33	100411-2	959143
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	PRB	04/13/10 15:32	100413-5	959143
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	03/31/10 09:38	033110A-1	959141
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	03/31/10 09:38	033110A-1	959141

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
958969	958967	SW846 7470A Prep	20	mL	20	mL	03/01/10	TXB3
959141	959140	SW846 3005A	50	mL	50	mL	03/11/10	LYH1
959143	959142	SW846 3005A	50	mL	50	mL	03/11/10	LYH1

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2135-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA4

<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	02-MAR-10 08:39	030210W3-6
	Aluminum	5230	ug/L	5000	ug/L	104.7	90.0 – 110.0	P	31-MAR-10 08:54	033110A-1
	Arsenic	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	31-MAR-10 08:54	033110A-1
	Barium	521	ug/L	500	ug/L	104.3	90.0 – 110.0	P	31-MAR-10 08:54	033110A-1
	Calcium	5150	ug/L	5000	ug/L	103	90.0 – 110.0	P	31-MAR-10 08:54	033110A-1
	Chromium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	31-MAR-10 08:54	033110A-1
	Cobalt	522	ug/L	500	ug/L	104.4	90.0 – 110.0	P	31-MAR-10 08:54	033110A-1
	Copper	524	ug/L	500	ug/L	104.7	90.0 – 110.0	P	31-MAR-10 08:54	033110A-1
	Iron	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	31-MAR-10 08:54	033110A-1
	Magnesium	5460	ug/L	5000	ug/L	109.1	90.0 – 110.0	P	31-MAR-10 08:54	033110A-1
	Nickel	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	31-MAR-10 08:54	033110A-1
	Potassium	2520	ug/L	2500	ug/L	100.7	90.0 – 110.0	P	31-MAR-10 08:54	033110A-1
	Selenium	2590	ug/L	2500	ug/L	103.6	90.0 – 110.0	P	31-MAR-10 08:54	033110A-1
	Silver	267	ug/L	250	ug/L	106.8	90.0 – 110.0	P	31-MAR-10 08:54	033110A-1
	Sodium	2560	ug/L	2500	ug/L	102.6	90.0 – 110.0	P	31-MAR-10 08:54	033110A-1
	Vanadium	526	ug/L	500	ug/L	105.2	90.0 – 110.0	P	31-MAR-10 08:54	033110A-1
	Zinc	520	ug/L	500	ug/L	103.9	90.0 – 110.0	P	31-MAR-10 08:54	033110A-1
	Beryllium	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	12-APR-10 06:19	100411-2
	Cadmium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	12-APR-10 06:19	100411-2
	Lead	52	ug/L	50	ug/L	104	90.0 – 110.0	MS	12-APR-10 06:19	100411-2
	Manganese	53.2	ug/L	50	ug/L	106.5	90.0 – 110.0	MS	12-APR-10 06:19	100411-2
	Thallium	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	12-APR-10 06:19	100411-2
	Antimony	53.1	ug/L	50	ug/L	106.3	90.0 – 110.0	MS	13-APR-10 11:52	100413-3
	Uranium	49.6	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	13-APR-10 15:17	100413-5
CCV01										
	Mercury	5.16	ug/L	5	ug/L	103.1	80.0 – 120.0	AV	02-MAR-10 08:45	030210W3-6
	Aluminum	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	31-MAR-10 09:17	033110A-1
	Arsenic	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	31-MAR-10 09:17	033110A-1
	Barium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	31-MAR-10 09:17	033110A-1
	Calcium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	31-MAR-10 09:17	033110A-1

METALS

-2a-

Initial and Continuing Calibration Verification

SDG No: 10-2135-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA4

<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	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	31-MAR-10 09:17	033110A-1
	Cobalt	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	31-MAR-10 09:17	033110A-1
	Copper	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	31-MAR-10 09:17	033110A-1
	Iron	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	31-MAR-10 09:17	033110A-1
	Magnesium	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	31-MAR-10 09:17	033110A-1
	Nickel	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	31-MAR-10 09:17	033110A-1
	Potassium	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	31-MAR-10 09:17	033110A-1
	Selenium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	31-MAR-10 09:17	033110A-1
	Silver	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	31-MAR-10 09:17	033110A-1
	Sodium	10100	ug/L	10000	ug/L	100.6	90.0 – 110.0	P	31-MAR-10 09:17	033110A-1
	Vanadium	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	31-MAR-10 09:17	033110A-1
	Zinc	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	31-MAR-10 09:17	033110A-1
	Beryllium	49.7	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	12-APR-10 06:50	100411-2
	Cadmium	52.2	ug/L	50	ug/L	104.3	90.0 – 110.0	MS	12-APR-10 06:50	100411-2
	Lead	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	12-APR-10 06:50	100411-2
	Manganese	53.2	ug/L	50	ug/L	106.5	90.0 – 110.0	MS	12-APR-10 06:50	100411-2
	Thallium	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	12-APR-10 06:50	100411-2
	Antimony	52.6	ug/L	50	ug/L	105.1	90.0 – 110.0	MS	13-APR-10 12:04	100413-3
	Uranium	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	13-APR-10 15:26	100413-5
CCV02	Mercury	5.13	ug/L	5	ug/L	102.6	80.0 – 120.0	AV	02-MAR-10 09:08	030210W3-6
	Aluminum	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	31-MAR-10 09:47	033110A-1
	Arsenic	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	31-MAR-10 09:47	033110A-1
	Barium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	31-MAR-10 09:47	033110A-1
	Calcium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	31-MAR-10 09:47	033110A-1
	Chromium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	31-MAR-10 09:47	033110A-1
	Cobalt	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	31-MAR-10 09:47	033110A-1
	Copper	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	31-MAR-10 09:47	033110A-1
	Iron	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	31-MAR-10 09:47	033110A-1
	Magnesium	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	31-MAR-10 09:47	033110A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2135-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA4

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>M</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
	Nickel	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	31-MAR-10 09:47	033110A-1
	Potassium	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	31-MAR-10 09:47	033110A-1
	Selenium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	31-MAR-10 09:47	033110A-1
	Silver	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	31-MAR-10 09:47	033110A-1
	Sodium	10100	ug/L	10000	ug/L	100.8	90.0 – 110.0	P	31-MAR-10 09:47	033110A-1
	Vanadium	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	31-MAR-10 09:47	033110A-1
	Zinc	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	31-MAR-10 09:47	033110A-1
	Beryllium	50.1	ug/L	50	ug/L	100.1	90.0 – 110.0	MS	12-APR-10 07:08	100411-2
	Cadmium	51.7	ug/L	50	ug/L	103.4	90.0 – 110.0	MS	12-APR-10 07:08	100411-2
	Lead	52.5	ug/L	50	ug/L	104.9	90.0 – 110.0	MS	12-APR-10 07:08	100411-2
	Manganese	53.9	ug/L	50	ug/L	107.7	90.0 – 110.0	MS	12-APR-10 07:08	100411-2
	Thallium	50.9	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	12-APR-10 07:08	100411-2
	Antimony	52.9	ug/L	50	ug/L	105.8	90.0 – 110.0	MS	13-APR-10 12:31	100413-3
	Uranium	50.4	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	13-APR-10 15:44	100413-5
CCV03	Mercury	5.06	ug/L	5	ug/L	101.1	80.0 – 120.0	AV	02-MAR-10 09:31	030210W3-6
	Beryllium	49.7	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	12-APR-10 08:16	100411-2
	Cadmium	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	12-APR-10 08:16	100411-2
	Lead	50.6	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	12-APR-10 08:16	100411-2
	Manganese	53.1	ug/L	50	ug/L	106.3	90.0 – 110.0	MS	12-APR-10 08:16	100411-2
	Thallium	49.6	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	12-APR-10 08:16	100411-2
CCV04	Mercury	5.02	ug/L	5	ug/L	100.3	80.0 – 120.0	AV	02-MAR-10 09:54	030210W3-6
CCV05	Mercury	5	ug/L	5	ug/L	99.9	80.0 – 120.0	AV	02-MAR-10 10:17	030210W3-6
CCV06	Mercury	5.06	ug/L	5	ug/L	101.2	80.0 – 120.0	AV	02-MAR-10 10:41	030210W3-6
CCV07	Mercury	5.01	ug/L	5	ug/L	100.3	80.0 – 120.0	AV	02-MAR-10 11:04	030210W3-6

METALS

-2a-

Initial and Continuing Calibration Verification

SDG No: 10-2135-1

Contract: LANL01004

Lab Code: GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA4

<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	Mercury	5.21	ug/L	5	ug/L	104.3	80.0 – 120.0	AV	02-MAR-10 11:27	030210W3-6
CCV09	Mercury	4.93	ug/L	5	ug/L	98.7	80.0 – 120.0	AV	02-MAR-10 11:50	030210W3-6
CCV10	Mercury	5.01	ug/L	5	ug/L	100.1	80.0 – 120.0	AV	02-MAR-10 12:14	030210W3-6
CCV11	Mercury	4.96	ug/L	5	ug/L	99.2	80.0 – 120.0	AV	02-MAR-10 12:37	030210W3-6
CCV12	Mercury	5.06	ug/L	5	ug/L	101.3	80.0 – 120.0	AV	02-MAR-10 13:00	030210W3-6

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-2135-1

Contract: LANL01004

Lab Code: GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA4

<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	.24	ug/L	.2	ug/L	120	70.0 – 130.0	AV	02-MAR-10 08:43	030210W3-6
	Lead	2.3	ug/L	2	ug/L	115.1	70.0 – 130.0	MS	12-APR-10 06:31	100411-2
	Thallium	1.04	ug/L	1	ug/L	104.3	70.0 – 130.0	MS	12-APR-10 06:31	100411-2
	Manganese	6.33	ug/L	5	ug/L	126.5	70.0 – 130.0	MS	12-APR-10 06:31	100411-2
	Cadmium	1.2	ug/L	1	ug/L	120.2	70.0 – 130.0	MS	12-APR-10 06:31	100411-2
	Beryllium	.587	ug/L	.5	ug/L	117.4	70.0 – 130.0	MS	12-APR-10 06:31	100411-2
	Antimony	2.94	ug/L	3	ug/L	98.1	70.0 – 130.0	MS	13-APR-10 11:57	100413-3
	Uranium	.216	ug/L	.2	ug/L	108	70.0 – 130.0	MS	13-APR-10 15:21	100413-5
PQL01										
	Aluminum	207	ug/L	200	ug/L	103.7	70.0 – 130.0	P	31-MAR-10 08:58	033110A-1
	Iron	105	ug/L	100	ug/L	104.6	70.0 – 130.0	P	31-MAR-10 08:58	033110A-1
	Magnesium	326	ug/L	300	ug/L	108.7	70.0 – 130.0	P	31-MAR-10 08:58	033110A-1
	Nickel	5.18	ug/L	5	ug/L	103.5	70.0 – 130.0	P	31-MAR-10 08:58	033110A-1
	Potassium	173	ug/L	150	ug/L	115.2	70.0 – 130.0	P	31-MAR-10 08:58	033110A-1
	Silver	5.2	ug/L	5	ug/L	104.1	70.0 – 130.0	P	31-MAR-10 08:58	033110A-1
	Sodium	310	ug/L	300	ug/L	103.4	70.0 – 130.0	P	31-MAR-10 08:58	033110A-1
	Arsenic	29.9	ug/L	30	ug/L	99.7	70.0 – 130.0	P	31-MAR-10 08:58	033110A-1
	Barium	5.14	ug/L	5	ug/L	102.8	70.0 – 130.0	P	31-MAR-10 08:58	033110A-1
	Chromium	5	ug/L	5	ug/L	100.1	70.0 – 130.0	P	31-MAR-10 08:58	033110A-1
	Cobalt	5.04	ug/L	5	ug/L	100.8	70.0 – 130.0	P	31-MAR-10 08:58	033110A-1
	Copper	10.1	ug/L	10	ug/L	101	70.0 – 130.0	P	31-MAR-10 08:58	033110A-1
	Vanadium	4.85	ug/L	5	ug/L	96.9	70.0 – 130.0	P	31-MAR-10 08:58	033110A-1
	Zinc	10.1	ug/L	10	ug/L	100.8	70.0 – 130.0	P	31-MAR-10 08:58	033110A-1
	Calcium	209	ug/L	200	ug/L	104.5	70.0 – 130.0	P	31-MAR-10 08:58	033110A-1
	Selenium	30.4	ug/L	30	ug/L	101.3	70.0 – 130.0	P	31-MAR-10 08:58	033110A-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-2135-1

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	02-MAR-10 08:41	030210W3-6
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	31-MAR-10 08:55	033110A-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	31-MAR-10 08:55	033110A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	31-MAR-10 08:55	033110A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	31-MAR-10 08:55	033110A-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	31-MAR-10 08:55	033110A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	31-MAR-10 08:55	033110A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	31-MAR-10 08:55	033110A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	31-MAR-10 08:55	033110A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	31-MAR-10 08:55	033110A-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	31-MAR-10 08:55	033110A-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	31-MAR-10 08:55	033110A-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	31-MAR-10 08:55	033110A-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	31-MAR-10 08:55	033110A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	31-MAR-10 08:55	033110A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	31-MAR-10 08:55	033110A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	31-MAR-10 08:55	033110A-1
	Beryllium	0.1	+/-5	U	0.1	0.5	LIQ	MS	12-APR-10 06:25	100411-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	12-APR-10 06:25	100411-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	12-APR-10 06:25	100411-2
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	12-APR-10 06:25	100411-2
	Thallium	0.362	+/-1	J	0.3	1.0	LIQ	MS	12-APR-10 06:25	100411-2
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	13-APR-10 11:54	100413-3
	Uranium	0.05	+/-2	U	0.05	0.2	LIQ	MS	13-APR-10 15:19	100413-5
CCB01										
	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	02-MAR-10 08:47	030210W3-6
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	31-MAR-10 09:19	033110A-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	31-MAR-10 09:19	033110A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	31-MAR-10 09:19	033110A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	31-MAR-10 09:19	033110A-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	31-MAR-10 09:19	033110A-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-2135-1

Contract: LANL01004

Lab Code: GEL

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u> <u>ng/L</u>	<u>Acceptance</u>	<u>Conc</u> <u>Qual</u>	<u>MDL</u>	<u>RDL</u>	<u>Matrix</u>	<u>M</u>	<u>Analysis</u> <u>Date/Time</u>	<u>Run</u>
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	31-MAR-10 09:19	033110A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	31-MAR-10 09:19	033110A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	31-MAR-10 09:19	033110A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	31-MAR-10 09:19	033110A-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	31-MAR-10 09:19	033110A-1
	Potassium	60.27	+/-150	J	50.0	150	LIQ	P	31-MAR-10 09:19	033110A-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	31-MAR-10 09:19	033110A-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	31-MAR-10 09:19	033110A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	31-MAR-10 09:19	033110A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	31-MAR-10 09:19	033110A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	31-MAR-10 09:19	033110A-1
	Beryllium	0.1	+/-5	U	0.1	0.5	LIQ	MS	12-APR-10 06:56	100411-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	12-APR-10 06:56	100411-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	12-APR-10 06:56	100411-2
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	12-APR-10 06:56	100411-2
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	12-APR-10 06:56	100411-2
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	13-APR-10 12:07	100413-3
	Uranium	0.05	+/-2	U	0.05	0.2	LIQ	MS	13-APR-10 15:27	100413-5
CCB02	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	02-MAR-10 09:10	030210W3-6
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	31-MAR-10 09:50	033110A-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	31-MAR-10 09:50	033110A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	31-MAR-10 09:50	033110A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	31-MAR-10 09:50	033110A-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	31-MAR-10 09:50	033110A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	31-MAR-10 09:50	033110A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	31-MAR-10 09:50	033110A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	31-MAR-10 09:50	033110A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	31-MAR-10 09:50	033110A-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	31-MAR-10 09:50	033110A-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	31-MAR-10 09:50	033110A-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-2135-1

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>
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	31-MAR-10 09:50	033110A-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	31-MAR-10 09:50	033110A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	31-MAR-10 09:50	033110A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	31-MAR-10 09:50	033110A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	31-MAR-10 09:50	033110A-1
	Beryllium	0.1	+/-5	U	0.1	0.5	LIQ	MS	12-APR-10 07:14	100411-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	12-APR-10 07:14	100411-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	12-APR-10 07:14	100411-2
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	12-APR-10 07:14	100411-2
	Thallium	0.523	+/-1	J	0.3	1.0	LIQ	MS	12-APR-10 07:14	100411-2
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	13-APR-10 12:34	100413-3
	Uranium	0.05	+/-2	U	0.05	0.2	LIQ	MS	13-APR-10 15:45	100413-5
CCB03	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	02-MAR-10 09:33	030210W3-6
	Beryllium	0.1	+/-5	U	0.1	0.5	LIQ	MS	12-APR-10 08:22	100411-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	12-APR-10 08:22	100411-2
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	12-APR-10 08:22	100411-2
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	12-APR-10 08:22	100411-2
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	12-APR-10 08:22	100411-2
CCB04	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	02-MAR-10 09:56	030210W3-6
CCB05	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	02-MAR-10 10:19	030210W3-6
CCB06	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	02-MAR-10 10:42	030210W3-6
CCB07	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	02-MAR-10 11:06	030210W3-6
CCB08	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	02-MAR-10 11:29	030210W3-6
CCB09	Mercury	0.066	+/-2	U	0.066	0.2	LIQ	AV	02-MAR-10 11:52	030210W3-6

SW846

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-2135-1

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>
CCB10	Mercury	0.066	+/- .2	U	0.066	0.2	LIQ	AV	02-MAR-10 12:15	030210W3-6
CCB11	Mercury	0.066	+/- .2	U	0.066	0.2	LIQ	AV	02-MAR-10 12:39	030210W3-6
CCB12	Mercury	0.066	+/- .2	U	0.066	0.2	LIQ	AV	02-MAR-10 13:02	030210W3-6

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 10-2135-1

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>
1202056608	Mercury	0.066	ug/L	+/-0.2	U	AV	0.066	0.2
1202056957	Aluminum	68	ug/L	+/-200	U	P	68	200
	Arsenic	5	ug/L	+/-30	U	P	5	30
	Barium	1	ug/L	+/-5	U	P	1	5
	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
	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
1202056962	Lead	0.896	ug/L	+/-2	J	MS	0.5	2
	Manganese	1	ug/L	+/-5	U	MS	1	5
	Thallium	0.3	ug/L	+/-1	U	MS	0.3	1
	Uranium	0.05	ug/L	+/-0.2	U	MS	0.05	0.2
	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

METALS
-4-
Interference Check Sample

SDG No: 10-2135-1

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: OPTIMA4

<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	505000	ug/L	500000	ug/L	101	80.0 - 120.0	31-MAR-10 09:00	033110A-1
	Arsenic	8.38	ug/L					31-MAR-10 09:00	033110A-1
	Barium	0.194	ug/L					31-MAR-10 09:00	033110A-1
	Calcium	484000	ug/L	500000	ug/L	96.8	80.0 - 120.0	31-MAR-10 09:00	033110A-1
	Chromium	1.01	ug/L					31-MAR-10 09:00	033110A-1
	Cobalt	-6.3	ug/L					31-MAR-10 09:00	033110A-1
	Copper	4.73	ug/L					31-MAR-10 09:00	033110A-1
	Iron	192000	ug/L	200000	ug/L	95.9	80.0 - 120.0	31-MAR-10 09:00	033110A-1
	Magnesium	489000	ug/L	500000	ug/L	97.7	80.0 - 120.0	31-MAR-10 09:00	033110A-1
	Nickel	3.27	ug/L					31-MAR-10 09:00	033110A-1
	Potassium	-150.0	ug/L					31-MAR-10 09:00	033110A-1
	Selenium	-7.77	ug/L					31-MAR-10 09:00	033110A-1
	Silver	-1.07	ug/L					31-MAR-10 09:00	033110A-1
	Sodium	44.9	ug/L					31-MAR-10 09:00	033110A-1
	Vanadium	-1.19	ug/L					31-MAR-10 09:00	033110A-1
	Zinc	8.88	ug/L					31-MAR-10 09:00	033110A-1
ICSAB01									
	Aluminum	509000	ug/L	500000	ug/L	102	80.0 - 120.0	31-MAR-10 09:02	033110A-1
	Arsenic	544	ug/L	500	ug/L	109	80.0 - 120.0	31-MAR-10 09:02	033110A-1
	Barium	506	ug/L	500	ug/L	101	80.0 - 120.0	31-MAR-10 09:02	033110A-1
	Calcium	487000	ug/L	500000	ug/L	97.4	80.0 - 120.0	31-MAR-10 09:02	033110A-1
	Chromium	491	ug/L	500	ug/L	98.3	80.0 - 120.0	31-MAR-10 09:02	033110A-1
	Cobalt	449	ug/L	500	ug/L	89.8	80.0 - 120.0	31-MAR-10 09:02	033110A-1
	Copper	549	ug/L	500	ug/L	110	80.0 - 120.0	31-MAR-10 09:02	033110A-1
	Iron	193000	ug/L	200000	ug/L	96.6	80.0 - 120.0	31-MAR-10 09:02	033110A-1
	Magnesium	496000	ug/L	500000	ug/L	99.3	80.0 - 120.0	31-MAR-10 09:02	033110A-1
	Nickel	463	ug/L	500	ug/L	92.6	80.0 - 120.0	31-MAR-10 09:02	033110A-1
	Potassium	5560	ug/L	5000	ug/L	111	80.0 - 120.0	31-MAR-10 09:02	033110A-1
	Selenium	2470	ug/L	2500	ug/L	98.8	80.0 - 120.0	31-MAR-10 09:02	033110A-1

METALS

-4-

Interference Check Sample

SDG No: 10-2135-1

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	270	ug/L	250	ug/L	108	80.0 - 120.0	31-MAR-10 09:02	033110A-1
	Sodium	5450	ug/L	5000	ug/L	109	80.0 - 120.0	31-MAR-10 09:02	033110A-1
	Vanadium	520	ug/L	500	ug/L	104	80.0 - 120.0	31-MAR-10 09:02	033110A-1
	Zinc	501	ug/L	500	ug/L	100	80.0 - 120.0	31-MAR-10 09:02	033110A-1

METALS
-4-
Interference Check Sample

SDG No: 10-2135-1

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: ICPMS4

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01									
	Beryllium	0.088	ug/L					12-APR-10 06:38	100411-2
	Cadmium	0.189	ug/L					12-APR-10 06:38	100411-2
	Lead	0.209	ug/L					12-APR-10 06:38	100411-2
	Manganese	5.99	ug/L					12-APR-10 06:38	100411-2
	Thallium	-0.142	ug/L					12-APR-10 06:38	100411-2
ICSAB01									
	Beryllium	18.4	ug/L	20	ug/L	92.2	80.0 - 120.0	12-APR-10 06:44	100411-2
	Cadmium	19.0	ug/L	20.44	ug/L	93	80.0 - 120.0	12-APR-10 06:44	100411-2
	Lead	18.8	ug/L	20.19	ug/L	93.3	80.0 - 120.0	12-APR-10 06:44	100411-2
	Manganese	25.9	ug/L	25.8	ug/L	100	80.0 - 120.0	12-APR-10 06:44	100411-2
	Thallium	17.5	ug/L	20	ug/L	87.5	80.0 - 120.0	12-APR-10 06:44	100411-2

METALS

-4-

Interference Check Sample

SDG No: 10-2135-1

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	0.265	ug/L					13-APR-10 11:59	100413-3
ICSAB01	Antimony	20.3	ug/L	20	ug/L	101	80.0 - 120.0	13-APR-10 12:02	100413-3

METALS

-4-

Interference Check Sample

SDG No: 10-2135-1

Contract: LANL01004

Lab Code: GEL

ICS: O2Si

Instrument: ICPMS5

<u>Sample ID</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>True Value</u>	<u>Units</u>	<u>% Recovery</u>	<u>Acceptance Window (%R)</u>	<u>Analysis Date/Time</u>	<u>Run Number</u>
ICSA01	Uranium	-0.002	ug/L					13-APR-10 15:22	100413-5
ICSAB01	Uranium	21.0	ug/L	20	ug/L	105	80.0 - 120.0	13-APR-10 15:24	100413-5

METALS

-5a-

Matrix Spike Summary

SDG NO. 10-2135-1 **Client ID** RE46-10-13544S**Contract:** LANL01004 **Level:** Low**Matrix:** WATER **% Solids:****Sample ID:** 248257001 **Spike ID:** 1202056611

<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	2.31		0.066	U	2	114		AV

METALS

-5a-

Matrix Spike Summary

SDG NO. 10-2135-1 Client ID RE46-10-13544S

Contract: LANL01004 Level: Low

Matrix: WATER % Solids:

Sample ID: 248257001 Spike ID: 1202056960

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/L	75-125	488		5	U	500	97.5		P
Barium	ug/L	75-125	485		1	U	500	97.1		P
Calcium	ug/L	75-125	4860		50	U	5000	96.9		P
Chromium	ug/L	75-125	511		1	U	500	102		P
Cobalt	ug/L	75-125	476		1	U	500	95.1		P
Copper	ug/L	75-125	518		3	U	500	103		P
Iron	ug/L	75-125	4790		30	U	5000	95.7		P
Magnesium	ug/L	75-125	4960		85	U	5000	99.1		P
Nickel	ug/L	75-125	517		1.5	U	500	103		P
Potassium	ug/L	75-125	4770		50	U	5000	95.2		P
Selenium	ug/L	75-125	502		5	U	500	100		P
Silver	ug/L	75-125	463		1	U	500	92.7		P
Sodium	ug/L	75-125	4820		100	U	5000	95.6		P
Vanadium	ug/L	75-125	518		1	U	500	104		P
Zinc	ug/L	75-125	499		3.3	U	500	99.5		P
Aluminum	ug/L	75-125	4850		68	U	5000	96.8		P

METALS

-5a-

Matrix Spike Summary

SDG NO. 10-2135-1 Client ID RE46-10-13544S

Contract: LANL01004 Level: Low

Matrix: WATER % Solids:

Sample ID: 248257001 Spike ID: 1202056965

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	75-125	228		1	U	200	114		MS
Beryllium	ug/L	75-125	51.6		0.1	U	50	103		MS
Cadmium	ug/L	75-125	10.8		0.11	U	10	108		MS
Lead	ug/L	75-125	44.2		0.508	J	40	109		MS
Manganese	ug/L	75-125	55.5		1	U	50	110		MS
Thallium	ug/L	75-125	97.7		0.3	U	100	97.7		MS
Uranium	ug/L	75-125	51		0.05	U	50	102		MS

Metals

-6-

Duplicate Sample Summary

SDG No.: 10-2135-1

Contract: LANL01004

Lab Code: GEL

Matrix: LIQUID

Level: Low

Client ID: RE46-10-13544D

Sample ID: 248257001

Duplicate ID: 1202056610

Percent Solids for Dup: N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066 U		0.066 U				AV

Metals

-6-

Duplicate Sample Summary

SDG No.: 10-2135-1

Contract: LANL01004

Lab Code: GEL

Matrix: LIQUID

Level: Low

Client ID: RE46-10-13544D

Sample ID: 248257001

Duplicate ID: 1202056959

Percent Solids for Dup: N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L		68 U		68 U				P
Arsenic	ug/L		5 U		5 U				P
Barium	ug/L		1 U		1 U				P
Calcium	ug/L		50 U		50 U				P
Chromium	ug/L		1 U		1 U				P
Cobalt	ug/L		1 U		1 U				P
Copper	ug/L		3 U		3 U				P
Iron	ug/L		30 U		30 U				P
Magnesium	ug/L		85 U		85 U				P
Nickel	ug/L		1.5 U		1.5 U				P
Potassium	ug/L		50 U		50 U				P
Selenium	ug/L		5 U		5 U				P
Silver	ug/L		1 U		1 U				P
Sodium	ug/L		100 U		100 U				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.: 10-2135-1

Contract: LANL01004

Lab Code: GEL

Matrix: LIQUID

Level: Low

Client ID: RE46-10-13544D

Sample ID: 248257001

Duplicate ID: 1202056964

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		0.508 J		0.5 U		200		MS
Manganese	ug/L		1 U		1 U				MS
Thallium	ug/L		0.3 U		0.3 U				MS
Uranium	ug/L		0.05 U		0.05 U				MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-2135-1

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>
1202056609	Mercury	ug/L	2	2.26		113	80-120	AV

METALS

-7-

Laboratory Control Sample Summary

SDG NO. 10-2135-1

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>
1202056958								
	Arsenic	ug/L	500	487		97.4	80-120	P
	Barium	ug/L	500	488		97.5	80-120	P
	Calcium	ug/L	5000	4900		98	80-120	P
	Chromium	ug/L	500	505		101	80-120	P
	Cobalt	ug/L	500	476		95.2	80-120	P
	Copper	ug/L	500	511		102	80-120	P
	Iron	ug/L	5000	4810		96.3	80-120	P
	Magnesium	ug/L	5000	5000		100	80-120	P
	Nickel	ug/L	500	512		102	80-120	P
	Potassium	ug/L	5000	4870		97.4	80-120	P
	Selenium	ug/L	500	493		98.6	80-120	P
	Silver	ug/L	500	467		93.3	80-120	P
	Sodium	ug/L	5000	4880		97.5	80-120	P
	Vanadium	ug/L	500	512		102	80-120	P
	Zinc	ug/L	500	495		99	80-120	P
	Aluminum	ug/L	5000	4890		97.9	80-120	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-2135-1

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>
1202056963								
	Antimony	ug/L	50	57.5		115	80-120	MS
	Beryllium	ug/L	50	49.4		98.8	80-120	MS
	Cadmium	ug/L	50	51.7		103	80-120	MS
	Lead	ug/L	50	52.7		105	80-120	MS
	Manganese	ug/L	50	54.9		110	80-120	MS
	Thallium	ug/L	50	46.4		92.8	80-120	MS
	Uranium	ug/L	50	48.9		97.9	80-120	MS

METALS

-9-

Serial Dilution Sample Summary

SDG NO. 10-2135-1 Client ID RE46-10-13544L

Contract: LANL01004

Matrix: LIQUID Level: Low

Sample ID: 248257001 Serial Dilution ID: 1202056612

Analyte	Initial Value ng/L	C	Serial Value ng/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS

-9-

Serial Dilution Sample Summary

SDG NO. 10-2135-1

Client ID RE46-10-13544L

Contract: LANL01004

Matrix: LIQUID

Level: Low

Sample ID: 248257001

Serial Dilution ID: 1202056961

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	50	U	250	U				P
Chromium	1	U	5	U				P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	30	U	150	U				P
Magnesium	85	U	425	U				P
Nickel	1.5	U	7.5	U				P
Potassium	50	U	250	U				P
Selenium	5	U	25	U				P
Silver	1	U	5	U				P
Sodium	100	U	500	U				P
Vanadium	1	U	5	U				P
Zinc	3.3	U	16.5	U				P

METALS

-9-

Serial Dilution Sample Summary

SDG NO. 10-2135-1 Client ID RE46-10-13544L

Contract: LANL01004

Matrix: LIQUID Level: Low

Sample ID: 248257001 Serial Dilution ID: 1202056966

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	.508	J	2.5	U	100			MS
Manganese	1	U	5	U				MS
Thallium	.3	U	6.35					MS
Uranium	.05	U	.25	U				MS

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2135-1

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	959140						
1202056957	MB for batch 959140	MB	W	11-MAR-10	50mL	50mL	
1202056958	LCS for batch 959140	LCS	W	11-MAR-10	50mL	50mL	
1202056960	RE46-10-13544S	MS	W	11-MAR-10	50mL	50mL	
1202056959	RE46-10-13544D	DUP	W	11-MAR-10	50mL	50mL	
248242001	RE36-10-7530	SAMPLE	W	11-MAR-10	50mL	50mL	

SW846

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2135-1

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	959142						
1202056962	MB for batch 959142	MB	W	11-MAR-10	50mL	50mL	
1202056963	LCS for batch 959142	LCS	W	11-MAR-10	50mL	50mL	
1202056965	RE46-10-13544S	MS	W	11-MAR-10	50mL	50mL	
1202056964	RE46-10-13544D	DUP	W	11-MAR-10	50mL	50mL	
248242001	RE36-10-7530	SAMPLE	W	11-MAR-10	50mL	50mL	

SW846

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2135-1

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	958967						
1202056608	MB for batch 958967	MB	W	01-MAR-10	20mL	20mL	
1202056609	LCS for batch 958967	LCS	W	01-MAR-10	20mL	20mL	
1202056611	RE46-10-13544S	MS	W	01-MAR-10	20mL	20mL	
1202056610	RE46-10-13544D	DUP	W	01-MAR-10	20mL	20mL	
248242001	RE36-10-7530	SAMPLE	W	01-MAR-10	20mL	20mL	

SW846

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: ICPMS5

Start Date: 13-APR-10

Client Sdg: 10-2135-1

Method MS

Data File: 100413-3

End Date: 13-APR-10

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	11:45:00		X																						
S10	1	11:47:00		X																						
S100	1	11:49:00		X																						
ICV01	1	11:52:00		X																						
ICB01	1	11:54:00		X																						
CRDL01	1	11:57:00		X																						
ICSA01	1	11:59:00		X																						
ICSAB01	1	12:02:00		X																						
CCV01	1	12:04:00		X																						
CCB01	1	12:07:00		X																						
1202056962	1	12:09:00		X																						
1202056963	1	12:12:00		X																						
248242001	1	12:14:00		X																						
ZZZZZZ	1	12:16:00																								
ZZZZZZ	1	12:19:00																								
1202056964	1	12:21:00		X																						
1202056965	1	12:24:00		X																						
1202056966	5	12:26:00		X																						
ZZZZZZ	1	12:29:00																								
CCV02	1	12:31:00		X																						
CCB02	1	12:34:00		X																						

Metals
-14-
Analysis Run Log

Contract: LANI.01004

Lab Code: GEL

Inst Name: ICPMS5

Start Date: 13-APR-10

End Date: 13-APR-10

Client Sdg: 10-2135-1

Method MS

Data File: 100413-5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	15:12:00																						X		
S10	1	15:14:00																						X		
S100	1	15:16:00																						X		
ICV01	1	15:17:00																						X		
ICB01	1	15:19:00																						X		
CRDL01	1	15:21:00																						X		
ICSA01	1	15:22:00																						X		
ICSAB01	1	15:24:00																						X		
CCV01	1	15:26:00																						X		
CCB01	1	15:27:00																						X		
1202056962	1	15:29:00																						X		
1202056963	1	15:31:00																						X		
248242001	1	15:32:00																						X		
ZZZZZZ	1	15:34:00																								
ZZZZZZ	1	15:35:00																								
1202056964	1	15:37:00																						X		
1202056965	1	15:39:00																						X		
1202056966	5	15:40:00																						X		
ZZZZZZ	1	15:42:00																								
CCV02	1	15:44:00																						X		
CCB02	1	15:45:00																						X		

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: HG3

Start Date: 02-MAR-10

End Date: 02-MAR-10

Client Sdg: 10-2135-1

Method: AV

Data File: 030210W3-6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	08:28:00															X									
S0.2	1	08:30:00															X									
S0.5	1	08:31:00															X									
S2.0	1	08:33:00															X									
S5.0	1	08:35:00															X									
S10.0	1	08:37:00															X									
ICV01	1	08:39:00															X									
ICB01	1	08:41:00															X									
CRDL01	1	08:43:00															X									
CCV01	1	08:45:00															X									
CCB01	1	08:47:00															X									
ZZZZZZ	1	08:49:00																								
ZZZZZZ	1	08:51:00																								
ZZZZZZ	1	08:53:00																								
ZZZZZZ	1	08:55:00																								
ZZZZZZ	1	08:57:00																								
ZZZZZZ	5	08:58:00																								
ZZZZZZ	1	09:00:00																								
ZZZZZZ	1	09:02:00																								
ZZZZZZ	1	09:04:00																								
ZZZZZZ	1	09:06:00																								
CCV02	1	09:08:00															X									
CCB02	1	09:10:00															X									
ZZZZZZ	1	09:12:00																								
ZZZZZZ	1	09:14:00																								
ZZZZZZ	1	09:16:00																								
ZZZZZZ	1	09:18:00																								
ZZZZZZ	1	09:20:00																								
ZZZZZZ	1	09:21:00																								
ZZZZZZ	1	09:23:00																								
ZZZZZZ	1	09:25:00																								
ZZZZZZ	5	09:27:00																								
ZZZZZZ	1	09:29:00																								
CCV03	1	09:31:00															X									
CCB03	1	09:33:00															X									
ZZZZZZ	1	09:35:00																								
ZZZZZZ	1	09:37:00																								
ZZZZZZ	1	09:39:00																								
ZZZZZZ	1	09:41:00																								
ZZZZZZ	1	09:43:00																								

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time
ZZZZZZ	1	09:45:00
ZZZZZZ	1	09:47:00
ZZZZZZ	1	09:48:00
ZZZZZZ	1	09:50:00
ZZZZZZ	1	09:52:00
CCV04	1	09:54:00
CCB04	1	09:56:00
ZZZZZZ	1	09:58:00
ZZZZZZ	1	10:00:00
ZZZZZZ	1	10:02:00
ZZZZZZ	5	10:04:00
ZZZZZZ	1	10:06:00
ZZZZZZ	1	10:08:00
ZZZZZZ	1	10:10:00
ZZZZZZ	1	10:12:00
ZZZZZZ	1	10:13:00
ZZZZZZ	1	10:15:00
CCV05	1	10:17:00
CCB05	1	10:19:00
ZZZZZZ	1	10:21:00
ZZZZZZ	1	10:23:00
ZZZZZZ	1	10:25:00
ZZZZZZ	1	10:27:00
ZZZZZZ	1	10:29:00
ZZZZZZ	5	10:31:00
ZZZZZZ	1	10:33:00
ZZZZZZ	1	10:35:00
ZZZZZZ	1	10:37:00
ZZZZZZ	1	10:39:00
CCV06	1	10:41:00
CCB06	1	10:42:00
ZZZZZZ	1	10:44:00
ZZZZZZ	1	10:46:00
ZZZZZZ	1	10:48:00
ZZZZZZ	1	10:50:00
ZZZZZZ	1	10:52:00
ZZZZZZ	1	10:54:00
ZZZZZZ	1	10:56:00
ZZZZZZ	1	10:58:00
ZZZZZZ	1	11:00:00

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
ZZZZZZ	5	11:02:00																								
CCV07	1	11:04:00															X									
CCB07	1	11:06:00															X									
ZZZZZZ	1	11:08:00																								
ZZZZZZ	1	11:09:00																								
ZZZZZZ	1	11:11:00																								
ZZZZZZ	1	11:13:00																								
ZZZZZZ	1	11:15:00																								
ZZZZZZ	1	11:17:00																								
ZZZZZZ	1	11:19:00																								
ZZZZZZ	1	11:21:00																								
ZZZZZZ	1	11:23:00																								
ZZZZZZ	1	11:25:00																								
CCV08	1	11:27:00															X									
CCB08	1	11:29:00															X									
ZZZZZZ	1	11:31:00																								
ZZZZZZ	1	11:33:00																								
ZZZZZZ	1	11:35:00																								
ZZZZZZ	1	11:37:00																								
ZZZZZZ	1	11:39:00																								
ZZZZZZ	1	11:40:00																								
ZZZZZZ	1	11:42:00																								
ZZZZZZ	1	11:44:00																								
ZZZZZZ	1	11:46:00																								
ZZZZZZ	1	11:48:00																								
CCV09	1	11:50:00															X									
CCB09	1	11:52:00															X									
ZZZZZZ	1	11:54:00																								
ZZZZZZ	1	11:56:00																								
ZZZZZZ	1	11:58:00																								
ZZZZZZ	1	12:00:00																								
ZZZZZZ	1	12:02:00																								
ZZZZZZ	1	12:04:00																								
ZZZZZZ	5	12:06:00																								
1202056608	1	12:08:00															X									
1202056609	1	12:10:00															X									
ZZZZZZ	1	12:12:00																								
CCV10	1	12:14:00															X									
CCB10	1	12:15:00															X									
ZZZZZZ	1	12:17:00																								

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time
ZZZZZZ	1	12:19:00
ZZZZZZ	1	12:21:00
ZZZZZZ	1	12:23:00
ZZZZZZ	1	12:25:00
ZZZZZZ	1	12:27:00
ZZZZZZ	1	12:29:00
ZZZZZZ	1	12:31:00
ZZZZZZ	1	12:33:00
248242001	1	12:35:00
CCV11	1	12:37:00
CCB11	1	12:39:00
ZZZZZZ	1	12:41:00
ZZZZZZ	1	12:43:00
1202056610	1	12:45:00
1202056611	1	12:47:00
1202056612	5	12:49:00
ZZZZZZ	1	12:51:00
ZZZZZZ	1	12:53:00
ZZZZZZ	1	12:55:00
ZZZZZZ	1	12:56:00
ZZZZZZ	1	12:58:00
CCV12	1	13:00:00
CCB12	1	13:02:00

Metals
-14-
Analysis Run Log

Contract: LANL01004

Lab Code: GEL

Inst Name: OPTIMA4

Start Date: 31-MAR-10

Client Sdg: 10-2135-1

Method P

Data File: 033110A-1

End Date: 31-MAR-10

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Ti	U	V	Zn
S0.0	1	08:43:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
S0.1	1	08:46:00			X	X				X	X	X						X	X	X	X				X	X
S0.5	1	08:48:00	X		X	X			X	X	X	X			X			X	X	X	X				X	X
SCAL	1	08:50:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
S10	1	08:53:00	X						X				X		X							X				
ICV01	1	08:54:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICB01	1	08:55:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
PQL01	1	08:58:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICSA01	1	09:00:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICSAB01	1	09:02:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR01	1	09:03:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR02	1	09:04:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	09:06:00																								
ZZZZZZ	1	09:08:00																								
CCV01	1	09:17:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB01	1	09:19:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202056957	1	09:22:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202056958	1	09:25:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	09:27:00																								
1202056959	1	09:30:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202056960	1	09:33:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202056961	5	09:35:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
248242001	1	09:38:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	09:41:00																								
ZZZZZZ	1	09:44:00																								
CCV02	1	09:47:00	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB02	1	09:50:00	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: ICPMS4

Start Date: 12-APR-10

End Date: 12-APR-10

Client Sdg: 10-2135-1

Method MS

Data File: 100411-2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	06:01:00					X	X						X	X								X			
S10	1	06:07:00					X	X						X	X								X			
S100	1	06:13:00					X	X						X	X								X			
ICV01	1	06:19:00					X	X						X	X								X			
ICB01	1	06:25:00					X	X						X	X								X			
CRDL01	1	06:31:00					X	X						X	X								X			
ICSA01	1	06:38:00					X	X						X	X								X			
ICSAB01	1	06:44:00					X	X						X	X								X			
CCV01	1	06:50:00					X	X						X	X								X			
CCB01	1	06:56:00					X	X						X	X								X			
LR01	1	07:02:00					X	X						X	X								X			
CCV02	1	07:08:00					X	X						X	X								X			
CCB02	1	07:14:00					X	X						X	X								X			
1202056962	1	07:21:00					X	X						X	X								X			
1202056963	1	07:27:00					X	X						X	X								X			
248242001	1	07:33:00					X	X						X	X								X			
ZZZZZZ	1	07:39:00																								
ZZZZZZ	1	07:46:00																								
1202056964	1	07:52:00					X	X						X	X								X			
1202056965	1	07:58:00					X	X						X	X								X			
1202056966	5	08:04:00					X	X						X	X								X			
ZZZZZZ	1	08:10:00																								
CCV03	1	08:16:00					X	X						X	X								X			
CCB03	1	08:22:00					X	X						X	X								X			

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-2135-1

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

ICP/MS	<u>Analyte</u>	<u>Wavelength (nm)</u>	<u>MDL</u>	<u>RDL</u>
			<u>ug/L</u>	<u>ug/L</u>
LIQUID	Aluminum		15.0	30
	Antimony		1.0	3
	Arsenic		1.6	5
	Barium		0.6	2
	Beryllium		0.1	.5
	Cadmium		0.11	1
	Calcium		65.0	200
	Chromium		2.0	10
	Cobalt		0.1	1
	Copper		0.33	1
	Iron		33.0	100
	Lead		0.5	2
	Magnesium		5.2	15
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Uranium		0.05	.2
	Vanadium		3.0	10
	Zinc		3.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-2135-1

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

	<u>Analyte</u>	<u>Wavelength</u> <u>(nm)</u>	<u>MDL</u> <u>ug/L</u>	<u>RDL</u> <u>ug/L</u>
MERCURY				
LIQUID	Mercury		0.066	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-2135-1

Contract: LANL01004

Lab Code: GEL

MDL Effective Date: 01-JUL-09

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

METALS
-11-
Interelement Correction Factors

Lab Code: GEL

GEL Job No: 10-2135-1

Contract: LANL01004

Instrument: OPTIMA4

Effective Dates: 22-MAR-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	0.00676	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	-0.98369	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.06206	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
Phosphorous	214.914	-0.22134	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.22220	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	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	-0.01674	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL

GEL Job No: 10-2135-1

Contract: LANL01004

Instrument: OPTIMA4

Effective Dates: 22-MAR-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	14.9992	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	-9.49960	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	3.47778	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	-0.18390	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	-0.60088	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.04741	0.32747
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
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	10.9289
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
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	-0.07359	0.00000	0.00000
Sodium	589.592	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	5.02864	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.33675	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.18768	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-4.30004	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.03286	0.12442	0.79397

METALS
-11-
Interelement Correction Factors

Lab Code: GEL

GEL Job No: 10-2135-1

Contract: LANL01004

Instrument: OPTIMA4

Effective Dates: 22-MAR-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Lead	Magnesium	Manganese	Molybdenum	Phosphorous
Aluminum	396.153	0.00000	0.00000	0.00000	46.4438	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-14.0269	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	-2.84596	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-0.32136	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	0.01216	0.24903	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	-0.02702	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	-2.77286	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	-24.4630	0.00000
Manganese	257.61	0.00000	0.03966	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.01826	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	10.3832	0.00000
Potassium	766.49	0.00000	0.07568	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	13.3443	0.00000
Silver	328.068	0.00000	0.00000	0.28019	-0.03095	0.00000
Sodium	589.592	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	-8.43314	0.00000
Thallium	190.801	0.00000	0.00000	-2.58065	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.08144	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	-6.48399	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	-10.3466	0.00000
Zinc	213.857	0.00000	0.00000	0.06887	-0.04597	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GELGEL Job No: **10-2135-1**

Contract: LANL01004

Instrument: OPTIMA4

Effective Dates: **22-MAR-10**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Potassium	Selenium	Silicon	Silver	Sodium
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
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
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.16274
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.88937	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL

GEL Job No: 10-2135-1

Contract: LANL01004

Instrument: OPTIMA4

Effective Dates: 22-MAR-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

		Strontium	Sulfur	Thallium	Tin	Titanium
Parmname	Wavelength					
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-1.82716	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
Lead	220.353	0.00000	0.00000	0.00000	0.00000	-1.32991
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
Phosphorous	214.914	0.00000	0.00000	0.00000	-8.61809	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
Silicon	251.611	0.00000	0.00000	0.00000	6.59640	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	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	-10.0432
Tin	189.927	0.00000	0.00000	0.00000	0.00000	-3.37234
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	0.92753
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	-0.56798

METALS
-11-
Interelement Correction Factors

Lab Code: GELGEL Job No: **10-2135-1**

Contract: LANL01004

Instrument: OPTIMA4

Effective Dates: **22-MAR-10**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	-1.62578	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000
Barium	233.527	0.00000	-0.63442	0.00000
Beryllium	313.107	-0.30229	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000
Chromium	267.716	0.78601	-0.47146	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000
Copper	324.752	-0.82619	0.00000	0.00000
Lead	220.353	0.74521	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.33953	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000
Selenium	196.026	-0.96499	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000
Silver	328.068	-1.22996	-11.9401	0.00000
Sodium	589.592	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-7.37871	0.00000
Tin	189.927	0.00000	0.00000	0.00000
Titanium	334.94	0.40930	0.00000	0.00000
Uranium	409.014	0.00000	-57.5852	0.00000
Vanadium	292.402	-0.67226	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000

METALS
-12-
Linear Ranges

SDG NO. 10-2135-1

Contract: LANL01004

Lab Code: GEL

Instrument IDICPMS5

<u>Analyte</u>	<u>Integration Time (msec)</u>	<u>LDR</u>	<u>Units</u>	<u>Effective Date</u>
Antimony	1000	250	ug/L	01-FEB-10
Arsenic	1000	1000	ug/L	01-FEB-10
Barium	1000	1000	ug/L	01-FEB-10
Beryllium	1000	1000	ug/L	01-FEB-10
Cadmium	1000	1000	ug/L	01-FEB-10
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
Aluminum	1	50000	ug/L	01-FEB-10
Lead	1000	5000	ug/L	01-FEB-10
Magnesium	1	50000	ug/L	01-FEB-10
Manganese	1000	1000	ug/L	01-FEB-10
Nickel	1000	1000	ug/L	01-FEB-10
Potassium	1	50000	ug/L	01-FEB-10
Selenium	1000	500	ug/L	01-FEB-10
Silver	1000	250	ug/L	01-FEB-10
Sodium	1	50000	ug/L	01-FEB-10
Thallium	1000	500	ug/L	01-FEB-10
Uranium	1000	5000	ug/L	01-FEB-10
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10

METALS
-12-
Linear Ranges

SDG NO. 10-2135-1

Contract: LANL01004

Lab Code: GEL

Instrument ID OPTIMA4

<u>Analyte</u>	<u>Integration Time (sec)</u>	<u>LDR</u>	<u>Units</u>	<u>Effective Date</u>
Magnesium	20	500000	ug/L	01-FEB-10
Manganese	20	10000	ug/L	01-FEB-10
Nickel	20	10000	ug/L	01-FEB-10
Potassium	20	300000	ug/L	01-FEB-10
Selenium	20	10000	ug/L	01-FEB-10
Silver	20	1000	ug/L	01-FEB-10
Sodium	20	500000	ug/L	01-FEB-10
Thallium	20	10000	ug/L	01-FEB-10
Uranium	20	15000	ug/L	01-FEB-10
Vanadium	20	10000	ug/L	01-FEB-10
Zinc	20	15000	ug/L	01-FEB-10
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

METALS
~12~
Linear Ranges

SDG NO. 10-2135-1

Contract: LANL01004

Lab Code: GEL

Instrument ID ICPMS4

<u>Analyte</u>	<u>Integration Time (msec)</u>	<u>LDR</u>	<u>Units</u>	<u>Effective Date</u>
Aluminum	1	50000	ug/L	01-FEB-10
Antimony	1000	250	ug/L	01-FEB-10
Arsenic	1000	1000	ug/L	01-FEB-10
Barium	1000	1000	ug/L	01-FEB-10
Beryllium	1000	1000	ug/L	01-FEB-10
Cadmium	1000	1000	ug/L	01-FEB-10
Calcium	500	50000	ug/L	01-FEB-10
Chromium	1000	1000	ug/L	01-FEB-10
Cobalt	1000	1000	ug/L	01-FEB-10
Copper	1000	1000	ug/L	01-FEB-10
Iron	500	50000	ug/L	01-FEB-10
Lead	1000	5000	ug/L	01-FEB-10
Magnesium	1	50000	ug/L	01-FEB-10
Manganese	1000	1000	ug/L	01-FEB-10
Nickel	1000	1000	ug/L	01-FEB-10
Potassium	1	50000	ug/L	01-FEB-10
Selenium	1000	500	ug/L	01-FEB-10
Silver	1000	250	ug/L	01-FEB-10
Sodium	1	50000	ug/L	01-FEB-10
Thallium	1000	500	ug/L	01-FEB-10
Uranium	1000	5000	ug/L	01-FEB-10
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10

Raw Data

=====
Analysis Begun

Start Time: 3/31/2010 8:43:46

Plasma On Time: 3/29/2010 18:07:58

Logged In Analyst: optima4

Technique: ICP Continuous

Spectrometer Model: Optima 7300 DV, S/N 077C0022701 Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif

Batch ID:

Results Data Set: 033110A

Results Library: C:\pe\optima4\Results\Results.mdb

Sequence No.: 1

Autosampler Location: 8

Sample ID: S0

Date Collected: 3/31/2010 8:43:47

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Analysis Time
1	Sc RADIAL	149659.0	149659.0	99.8 %	08:44:18
1	Al 396.153Radial†	-74.0	-74.2	[0.00] µg/L	08:44:38
1	Ca 317.933Radial†	671.4	673.0	[0.00] µg/L	08:44:38
1	Fe 238.204 Radial†	126.9	127.2	[0.00] µg/L	08:44:38
1	K 766.490 Radial†	1445.4	1449.0	[0.00] µg/L	08:44:18
1	Mg 279.077 IEC†	168.6	169.0	[0.00] µg/L	08:44:38
1	Na 589.592 Radial†	1117.8	1120.5	[0.00] µg/L	08:44:18
1	Sr 421.552†	-199.0	-199.5	[0.00] µg/L	08:44:18
1	Sc 361.383	1808766.6	1808766.6	100.92 %	08:45:26
1	Y 371.029	1088104.3	1088104.3	100.88 %	08:45:26
1	Ag 328.068†	3990.8	3954.4	[0.00] µg/L	08:45:28
1	As 188.979†	-21.2	-21.0	[0.00] µg/L	08:45:48
1	B 249.677†	3366.0	3335.2	[0.00] µg/L	08:45:28
1	Ba 233.527†	-153.2	-151.8	[0.00] µg/L	08:45:48
1	Be 313.107†	-904.3	-896.1	[0.00] µg/L	08:45:28
1	Cd 226.502†	-114.4	-113.4	[0.00] µg/L	08:45:48
1	Co 228.616†	-180.3	-178.6	[0.00] µg/L	08:45:48
1	Cr 267.716†	173.1	171.5	[0.00] µg/L	08:45:48
1	Cu 324.752†	3060.5	3032.6	[0.00] µg/L	08:45:28
1	Mn 257.610†	210.9	208.9	[0.00] µg/L	08:45:48
1	Mo 202.031†	-40.3	-39.9	[0.00] µg/L	08:45:48
1	Ni 231.604†	-110.6	-109.6	[0.00] µg/L	08:45:48
1	P 214.914†	-36.8	-36.5	[0.00] µg/L	08:45:48
1	Pb 220.353†	67.8	67.2	[0.00] µg/L	08:45:48
1	S 181.975 Axial†	95.1	94.3	[0.00] µg/L	08:45:48
1	Sb 206.836†	84.0	83.2	[0.00] µg/L	08:45:48
1	Se 196.026†	24.8	24.6	[0.00] µg/L	08:45:48
1	SiO2†	1800.2	1783.8	[0.00] µg/L	08:45:48
1	Si 251.611†	978.3	969.4	[0.00] µg/L	08:45:28
1	Sn 189.927†	-6.5	-6.4	[0.00] µg/L	08:45:48
1	Ti 334.940†	1055.4	1045.7	[0.00] µg/L	08:45:28
1	Tl 190.801†	-124.3	-123.1	[0.00] µg/L	08:45:48
1	U 409.014†	-371.9	-368.5	[0.00] µg/L	08:45:28
1	V 292.402†	393.6	390.0	[0.00] µg/L	08:45:28
1	Zn 213.857†	584.3	579.0	[0.00] µg/L	08:45:48
2	Sc RADIAL	149277.7	149277.7	99.5 %	08:44:40
2	Al 396.153Radial†	-64.9	-65.2	[0.00] µg/L	08:45:00
2	Ca 317.933Radial†	608.7	611.7	[0.00] µg/L	08:45:00
2	Fe 238.204 Radial†	145.7	146.4	[0.00] µg/L	08:45:00
2	K 766.490 Radial†	1684.9	1693.3	[0.00] µg/L	08:44:40
2	Mg 279.077 IEC†	167.2	168.0	[0.00] µg/L	08:45:00
2	Na 589.592 Radial†	990.6	995.6	[0.00] µg/L	08:44:40
2	Sr 421.552†	-277.8	-279.2	[0.00] µg/L	08:44:40
2	Sc 361.383	1779001.4	1779001.4	99.260 %	08:45:50
2	Y 371.029	1070661.1	1070661.1	99.267 %	08:45:50
2	Ag 328.068†	4021.6	4051.5	[0.00] µg/L	08:45:52
2	As 188.979†	-6.7	-6.7	[0.00] µg/L	08:46:12

2	B 249.677†	3362.9	3388.0	[0.00]	µg/L	08:45:52
2	Ba 233.527†	-125.2	-126.2	[0.00]	µg/L	08:46:12
2	Be 313.107†	-985.5	-992.8	[0.00]	µg/L	08:45:52
2	Cd 226.502†	-105.3	-106.1	[0.00]	µg/L	08:46:12
2	Co 228.616†	-169.5	-170.8	[0.00]	µg/L	08:46:12
2	Cr 267.716†	183.8	185.1	[0.00]	µg/L	08:46:12
2	Cu 324.752†	2966.6	2988.7	[0.00]	µg/L	08:45:52
2	Mn 257.610†	183.6	184.9	[0.00]	µg/L	08:46:12
2	Mo 202.031†	-37.5	-37.8	[0.00]	µg/L	08:46:12
2	Ni 231.604†	-88.6	-89.2	[0.00]	µg/L	08:46:12
2	P 214.914†	-26.8	-27.0	[0.00]	µg/L	08:46:12
2	Pb 220.353†	65.9	66.4	[0.00]	µg/L	08:46:12
2	S 181.975 Axial†	88.8	89.5	[0.00]	µg/L	08:46:12
2	Sb 206.836†	83.0	83.6	[0.00]	µg/L	08:46:12
2	Se 196.026†	19.2	19.4	[0.00]	µg/L	08:46:12
2	SiO2†	1783.8	1797.1	[0.00]	µg/L	08:46:12
2	Si 251.611†	926.4	933.3	[0.00]	µg/L	08:45:52
2	Sn 189.927†	0.7	0.7	[0.00]	µg/L	08:46:12
2	Ti 334.940†	943.8	950.8	[0.00]	µg/L	08:45:52
2	Tl 190.801†	-117.9	-118.7	[0.00]	µg/L	08:46:12
2	U 409.014†	-307.8	-310.1	[0.00]	µg/L	08:45:52
2	V 292.402†	296.9	299.1	[0.00]	µg/L	08:45:52
2	Zn 213.857†	597.0	601.4	[0.00]	µg/L	08:46:12
3	Sc RADIAL	151144.5	151144.5	101	%	08:45:02
3	Al 396.153Radial†	-83.0	-82.4	[0.00]	µg/L	08:45:22
3	Ca 317.933Radial†	618.8	614.2	[0.00]	µg/L	08:45:22
3	Fe 238.204 Radial†	139.9	138.9	[0.00]	µg/L	08:45:22
3	K 766.490 Radial†	1595.0	1583.2	[0.00]	µg/L	08:45:02
3	Mg 279.077 IEC†	181.0	179.6	[0.00]	µg/L	08:45:22
3	Na 589.592 Radial†	1246.9	1237.6	[0.00]	µg/L	08:45:02
3	Sr 421.552†	-290.2	-288.1	[0.00]	µg/L	08:45:02
3	Sc 361.383	1789002.5	1789002.5	99.818	%	08:46:14
3	Y 371.029	1076950.8	1076950.8	99.850	%	08:46:14
3	Ag 328.068†	3771.6	3778.4	[0.00]	µg/L	08:46:16
3	As 188.979†	-13.6	-13.7	[0.00]	µg/L	08:46:36
3	B 249.677†	3480.5	3486.8	[0.00]	µg/L	08:46:16
3	Ba 233.527†	-136.7	-136.9	[0.00]	µg/L	08:46:36
3	Be 313.107†	-1158.8	-1160.9	[0.00]	µg/L	08:46:16
3	Cd 226.502†	-109.6	-109.8	[0.00]	µg/L	08:46:36
3	Co 228.616†	-165.1	-165.4	[0.00]	µg/L	08:46:36
3	Cr 267.716†	185.1	185.5	[0.00]	µg/L	08:46:36
3	Cu 324.752†	2905.8	2911.1	[0.00]	µg/L	08:46:16
3	Mn 257.610†	185.0	185.3	[0.00]	µg/L	08:46:36
3	Mo 202.031†	-31.5	-31.6	[0.00]	µg/L	08:46:36
3	Ni 231.604†	-93.8	-94.0	[0.00]	µg/L	08:46:36
3	P 214.914†	-6.4	-6.5	[0.00]	µg/L	08:46:36
3	Pb 220.353†	52.0	52.1	[0.00]	µg/L	08:46:36
3	S 181.975 Axial†	92.8	92.9	[0.00]	µg/L	08:46:36
3	Sb 206.836†	75.9	76.1	[0.00]	µg/L	08:46:36
3	Se 196.026†	18.8	18.9	[0.00]	µg/L	08:46:36
3	SiO2†	1761.4	1764.6	[0.00]	µg/L	08:46:36
3	Si 251.611†	879.9	881.5	[0.00]	µg/L	08:46:16
3	Sn 189.927†	-1.7	-1.7	[0.00]	µg/L	08:46:36
3	Ti 334.940†	912.6	914.2	[0.00]	µg/L	08:46:16
3	Tl 190.801†	-108.3	-108.5	[0.00]	µg/L	08:46:36
3	U 409.014†	-276.3	-276.8	[0.00]	µg/L	08:46:16
3	V 292.402†	227.5	227.9	[0.00]	µg/L	08:46:16
3	Zn 213.857†	592.5	593.5	[0.00]	µg/L	08:46:36

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc. Units	Calib
Sc 361.383	1792256.8	15147.09	0.85%	100.00	%
Sc RADIAL	150027.1	986.34	0.66%	100	%
Y 371.029	1078572.0	8833.87	0.82%	100.00	%
Ag 328.068†	3928.1	138.43	3.52%	[0.00]	µg/L
Al 396.153Radial†	-73.9	8.57	11.59%	[0.00]	µg/L
As 188.979†	-13.8	7.15	51.81%	[0.00]	µg/L
B 249.677†	3403.3	76.94	2.26%	[0.00]	µg/L
Ba 233.527†	-138.3	12.85	9.30%	[0.00]	µg/L

Be 313.107†	-1016.6	133.98	13.18%	[0.00]	µg/L
Ca 317.933Radial†	633.0	34.70	5.48%	[0.00]	µg/L
Cd 226.502†	-109.8	3.64	3.32%	[0.00]	µg/L
Co 228.616†	-171.6	6.66	3.88%	[0.00]	µg/L
Cr 267.716†	180.7	7.97	4.41%	[0.00]	µg/L
Cu 324.752†	2977.4	61.52	2.07%	[0.00]	µg/L
Fe 238.204 Radial†	137.5	9.68	7.04%	[0.00]	µg/L
K 766.490 Radial†	1575.2	122.39	7.77%	[0.00]	µg/L
Mg 279.077 IEC†	172.2	6.43	3.73%	[0.00]	µg/L
Mn 257.610†	193.1	13.75	7.12%	[0.00]	µg/L
Mo 202.031†	-36.4	4.32	11.87%	[0.00]	µg/L
Na 589.592 Radial†	1117.9	121.05	10.83%	[0.00]	µg/L
Ni 231.604†	-97.6	10.66	10.92%	[0.00]	µg/L
P 214.914†	-23.3	15.35	65.87%	[0.00]	µg/L
Pb 220.353†	61.9	8.51	13.75%	[0.00]	µg/L
S 181.975 Axial†	92.2	2.46	2.66%	[0.00]	µg/L
Sb 206.836†	81.0	4.24	5.23%	[0.00]	µg/L
Se 196.026†	20.9	3.16	15.11%	[0.00]	µg/L
SiO2†	1781.8	16.34	0.92%	[0.00]	µg/L
Si 251.611†	928.1	44.17	4.76%	[0.00]	µg/L
Sn 189.927†	-2.5	3.62	146.05%	[0.00]	µg/L
Sr 421.552†	-255.6	48.78	19.09%	[0.00]	µg/L
Ti 334.940†	970.3	67.87	6.99%	[0.00]	µg/L
Tl 190.801†	-116.8	7.52	6.44%	[0.00]	µg/L
U 409.014†	-318.5	46.42	14.58%	[0.00]	µg/L
V 292.402†	305.7	81.25	26.58%	[0.00]	µg/L
Zn 213.857†	591.3	11.38	1.93%	[0.00]	µg/L

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

Autosampler Location: 2
 Date Collected: 3/31/2010 8:46:44
 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	150831.1	150831.1	101 %	08:47:15
1	K 766.490 Radial†	4035.4	2438.7	[1000] µg/L	08:47:15
1	Sr 421.552†	46130.8	46140.5	[100] µg/L	08:47:15
1	Sc 361.383	1795265.8	1795265.8	100.17 %	08:47:23
1	Y 371.029	1078939.8	1078939.8	100.03 %	08:47:23
1	Ag 328.068†	29977.9	25999.6	[100] µg/L	08:47:25
1	As 188.979†	299.7	313.0	[100] µg/L	08:47:45
1	B 249.677†	9719.2	6299.6	[100] µg/L	08:47:25
1	Ba 233.527†	24158.3	24256.1	[100] µg/L	08:47:25
1	Be 313.107†	343439.1	343880.0	[100] µg/L	08:47:23
1	Cd 226.502†	15256.4	15340.6	[100] µg/L	08:47:25
1	Co 228.616†	7489.1	7648.1	[100] µg/L	08:47:45
1	Cr 267.716†	12561.0	12359.2	[100] µg/L	08:47:25
1	Cu 324.752†	27584.8	24561.2	[100] µg/L	08:47:25
1	Mn 257.610†	80159.0	79831.6	[100] µg/L	08:47:25
1	Mo 202.031†	3135.8	3166.9	[100] µg/L	08:47:45
1	Ni 231.604†	8348.7	8432.3	[100] µg/L	08:47:25
1	P 214.914†	2083.1	2102.9	[500] µg/L	08:47:45
1	Pb 220.353†	1750.2	1685.3	[100] µg/L	08:47:45
1	S 181.975 Axial†	332.3	239.5	[200] µg/L	08:47:45
1	Sb 206.836†	832.0	749.6	[100] µg/L	08:47:45
1	Se 196.026†	280.8	259.4	[100] µg/L	08:47:45
1	SiO2†	12058.1	10256.1	[1069.5] µg/L	08:47:25
1	Si 251.611†	32642.1	31659.3	[500] µg/L	08:47:25
1	Sn 189.927†	1488.6	1488.6	[100] µg/L	08:47:45
1	Ti 334.940†	103076.8	101933.8	[100] µg/L	08:47:25
1	Tl 190.801†	678.7	794.4	[100] µg/L	08:47:45
1	U 409.014†	1409.4	1725.5	[100] µg/L	08:47:25
1	V 292.402†	19596.5	19258.0	[100] µg/L	08:47:25
1	Zn 213.857†	17537.5	16916.7	[100] µg/L	08:47:25
2	Sc RADIAL	152242.2	152242.2	101 %	08:47:17
2	K 766.490 Radial†	3929.0	2296.7	[1000] µg/L	08:47:17
2	Sr 421.552†	46586.1	46163.8	[100] µg/L	08:47:17
2	Sc 361.383	1770151.3	1770151.3	98.767 %	08:47:47
2	Y 371.029	1062909.6	1062909.6	98.548 %	08:47:47
2	Ag 328.068†	29448.5	25888.1	[100] µg/L	08:47:49
2	As 188.979†	298.0	315.6	[100] µg/L	08:48:09
2	B 249.677†	9477.2	6192.2	[100] µg/L	08:47:49
2	Ba 233.527†	23543.1	23975.4	[100] µg/L	08:47:49
2	Be 313.107†	340554.3	345823.8	[100] µg/L	08:47:47
2	Cd 226.502†	14788.6	15083.0	[100] µg/L	08:47:49
2	Co 228.616†	7496.1	7761.4	[100] µg/L	08:48:09
2	Cr 267.716†	12142.9	12113.8	[100] µg/L	08:47:49
2	Cu 324.752†	26906.1	24264.7	[100] µg/L	08:47:49
2	Mn 257.610†	78138.1	78920.8	[100] µg/L	08:47:49
2	Mo 202.031†	3116.5	3191.8	[100] µg/L	08:48:09
2	Ni 231.604†	8225.3	8425.6	[100] µg/L	08:47:49
2	P 214.914†	2085.2	2134.6	[500] µg/L	08:48:09
2	Pb 220.353†	1787.6	1748.0	[100] µg/L	08:48:09
2	S 181.975 Axial†	334.8	246.8	[200] µg/L	08:48:09
2	Sb 206.836†	838.1	767.7	[100] µg/L	08:48:09
2	Se 196.026†	284.6	267.2	[100] µg/L	08:48:09
2	SiO2†	11727.3	10091.9	[1069.5] µg/L	08:47:49
2	Si 251.611†	31871.6	31341.5	[500] µg/L	08:47:49
2	Sn 189.927†	1486.2	1507.2	[100] µg/L	08:48:09
2	Ti 334.940†	100561.0	100846.6	[100] µg/L	08:47:49
2	Tl 190.801†	678.1	803.4	[100] µg/L	08:48:09
2	U 409.014†	1242.2	1576.1	[100] µg/L	08:47:49
2	V 292.402†	19148.7	19082.1	[100] µg/L	08:47:49

2	Zn 213.857†	17217.8	16841.5	[100] µg/L	08:47:49
3	Sc RADIAL	149830.2	149830.2	99.9 %	08:47:19
3	K 766.490 Radial†	4045.5	2475.7	[1000] µg/L	08:47:19
3	Sr 421.552†	45809.4	46125.2	[100] µg/L	08:47:19
3	Sc 361.383	1775612.2	1775612.2	99.071 %	08:48:11
3	Y 371.029	1066163.6	1066163.6	98.850 %	08:48:11
3	Ag 328.068†	29682.6	26032.7	[100] µg/L	08:48:13
3	As 188.979†	298.7	315.3	[100] µg/L	08:48:33
3	B 249.677†	9666.2	6353.5	[100] µg/L	08:48:13
3	Ba 233.527†	23758.6	24119.6	[100] µg/L	08:48:13
3	Be 313.107†	339937.3	344140.4	[100] µg/L	08:48:11
3	Cd 226.502†	15062.9	15313.9	[100] µg/L	08:48:13
3	Co 228.616†	7534.1	7776.3	[100] µg/L	08:48:33
3	Cr 267.716†	12206.1	12139.8	[100] µg/L	08:48:13
3	Cu 324.752†	27250.8	24528.8	[100] µg/L	08:48:13
3	Mn 257.610†	79034.7	79582.6	[100] µg/L	08:48:13
3	Mo 202.031†	3134.0	3199.8	[100] µg/L	08:48:33
3	Ni 231.604†	8250.6	8425.5	[100] µg/L	08:48:13
3	P 214.914†	2107.4	2150.5	[500] µg/L	08:48:33
3	Pb 220.353†	1759.0	1713.6	[100] µg/L	08:48:33
3	S 181.975 Axial†	336.4	247.3	[200] µg/L	08:48:33
3	Sb 206.836†	857.6	784.7	[100] µg/L	08:48:33
3	Se 196.026†	280.7	262.4	[100] µg/L	08:48:33
3	SiO2†	11954.9	10285.1	[1069.5] µg/L	08:48:13
3	Si 251.611†	32134.0	31507.2	[500] µg/L	08:48:13
3	Sn 189.927†	1497.7	1514.2	[100] µg/L	08:48:33
3	Ti 334.940†	101603.0	101585.1	[100] µg/L	08:48:13
3	Tl 190.801†	659.8	782.8	[100] µg/L	08:48:33
3	U 409.014†	1363.2	1694.5	[100] µg/L	08:48:13
3	V 292.402†	19375.1	19251.0	[100] µg/L	08:48:13
3	Zn 213.857†	17255.0	16825.5	[100] µg/L	08:48:13

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1780343.1	13208.69	0.74%	99.335 %
Sc RADIAL	150967.8	1211.82	0.80%	101 %
Y 371.029	1069337.7	8473.39	0.79%	99.144 %
Ag 328.068†	25973.5	75.75	0.29%	[100] µg/L
As 188.979†	314.6	1.40	0.44%	[100] µg/L
B 249.677†	6281.8	82.08	1.31%	[100] µg/L
Ba 233.527†	24117.0	140.35	0.58%	[100] µg/L
Be 313.107†	344614.7	1055.10	0.31%	[100] µg/L
Cd 226.502†	15245.8	141.61	0.93%	[100] µg/L
Co 228.616†	7728.6	70.08	0.91%	[100] µg/L
Cr 267.716†	12204.3	134.81	1.10%	[100] µg/L
Cu 324.752†	24451.6	162.64	0.67%	[100] µg/L
K 766.490 Radial†	2403.7	94.49	3.93%	[1000] µg/L
Mn 257.610†	79445.0	470.70	0.59%	[100] µg/L
Mo 202.031†	3186.2	17.15	0.54%	[100] µg/L
Ni 231.604†	8427.8	3.91	0.05%	[100] µg/L
P 214.914†	2129.3	24.23	1.14%	[500] µg/L
Pb 220.353†	1715.7	31.40	1.83%	[100] µg/L
S 181.975 Axial†	244.5	4.34	1.78%	[200] µg/L
Sb 206.836†	767.3	17.56	2.29%	[100] µg/L
Se 196.026†	263.0	3.92	1.49%	[100] µg/L
SiO2†	10211.0	104.19	1.02%	[1069.5] µg/L
Si 251.611†	31502.7	158.95	0.50%	[500] µg/L
Sn 189.927†	1503.3	13.24	0.88%	[100] µg/L
Sr 421.552†	46143.2	19.48	0.04%	[100] µg/L
Ti 334.940†	101455.2	555.13	0.55%	[100] µg/L
Tl 190.801†	793.5	10.30	1.30%	[100] µg/L
U 409.014†	1665.4	78.81	4.73%	[100] µg/L
V 292.402†	19197.1	99.59	0.52%	[100] µg/L
Zn 213.857†	16861.2	48.74	0.29%	[100] µg/L

Sequence No.: 3

Sample ID: S0.5

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 3

Date Collected: 3/31/2010 8:48:41

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	149379.0	149379.0	99.6 %	08:49:12
1	Al 396.153Radial†	25586.2	25771.2	[5000] µg/L	08:49:12
1	Ca 317.933Radial†	84970.8	84706.4	[5000] µg/L	08:49:12
1	K 766.490 Radial†	13832.9	12317.8	[5000] µg/L	08:49:12
1	Mg 279.077 IEC†	12992.8	12877.0	[5000] µg/L	08:49:12
1	Sr 421.552†	227861.9	229106.0	[500] µg/L	08:49:10
1	Sc 361.383	1765930.6	1765930.6	98.531 %	08:49:39
1	Y 371.029	1051067.1	1051067.1	97.450 %	08:49:39
1	Ag 328.068†	128771.4	126763.0	[500] µg/L	08:49:39
1	As 188.979†	1554.6	1591.6	[500] µg/L	08:49:59
1	B 249.677†	34337.9	31446.5	[500] µg/L	08:49:39
1	Ba 233.527†	115647.4	117509.7	[500] µg/L	08:49:39
1	Be 313.107†	1718215.6	1744847.1	[500] µg/L	08:49:39
1	Cd 226.502†	73653.1	74860.9	[500] µg/L	08:49:39
1	Co 228.616†	37444.0	38173.8	[500] µg/L	08:49:39
1	Cr 267.716†	59362.6	60066.8	[500] µg/L	08:49:39
1	Cu 324.752†	121851.7	120690.8	[500] µg/L	08:49:39
1	Mn 257.610†	377852.5	383292.5	[500] µg/L	08:49:39
1	Mo 202.031†	15884.7	16157.9	[500] µg/L	08:49:59
1	Ni 231.604†	40111.5	40807.0	[500] µg/L	08:49:39
1	P 214.914†	10814.4	10999.0	[2500] µg/L	08:49:59
1	Pb 220.353†	8471.8	8536.2	[500] µg/L	08:49:59
1	S 181.975 Axial†	1339.6	1267.4	[1000] µg/L	08:49:59
1	Sb 206.836†	3977.9	3956.2	[500] µg/L	08:49:59
1	Se 196.026†	1305.1	1303.6	[500] µg/L	08:49:59
1	SiO2†	52900.3	51907.1	[5347.5] µg/L	08:49:39
1	Si 251.611†	159822.3	161276.8	[2500] µg/L	08:49:39
1	Sn 189.927†	7476.6	7590.5	[500] µg/L	08:49:59
1	Ti 334.940†	501083.9	507583.7	[500] µg/L	08:49:39
1	Tl 190.801†	3681.2	3852.9	[500] µg/L	08:49:59
1	U 409.014†	6908.9	7330.4	[500] µg/L	08:49:39
1	V 292.402†	94785.4	95892.8	[500] µg/L	08:49:39
1	Zn 213.857†	82476.3	83114.5	[500] µg/L	08:49:39
2	Sc RADIAL	148207.8	148207.8	98.8 %	08:49:16
2	Al 396.153Radial†	25652.7	26041.5	[5000] µg/L	08:49:16
2	Ca 317.933Radial†	84837.8	85246.2	[5000] µg/L	08:49:16
2	K 766.490 Radial†	14089.7	12687.5	[5000] µg/L	08:49:16
2	Mg 279.077 IEC†	12959.1	12945.9	[5000] µg/L	08:49:16
2	Sr 421.552†	225688.2	228714.0	[500] µg/L	08:49:14
2	Sc 361.383	1790055.3	1790055.3	99.877 %	08:50:02
2	Y 371.029	1064621.6	1064621.6	98.707 %	08:50:02
2	Ag 328.068†	130624.8	126857.3	[500] µg/L	08:50:02
2	As 188.979†	1551.5	1567.2	[500] µg/L	08:50:22
2	B 249.677†	35048.9	31688.7	[500] µg/L	08:50:02
2	Ba 233.527†	117767.6	118050.7	[500] µg/L	08:50:02
2	Be 313.107†	1748524.0	1751691.0	[500] µg/L	08:50:02
2	Cd 226.502†	75299.5	75501.9	[500] µg/L	08:50:02
2	Co 228.616†	38037.6	38256.0	[500] µg/L	08:50:02
2	Cr 267.716†	60370.8	60264.3	[500] µg/L	08:50:02
2	Cu 324.752†	123487.2	120661.7	[500] µg/L	08:50:02
2	Mn 257.610†	384103.0	384382.3	[500] µg/L	08:50:02
2	Mo 202.031†	15797.2	15853.1	[500] µg/L	08:50:22
2	Ni 231.604†	40746.3	40894.0	[500] µg/L	08:50:02
2	P 214.914†	10742.3	10778.8	[2500] µg/L	08:50:22
2	Pb 220.353†	8427.9	8376.4	[500] µg/L	08:50:22
2	S 181.975 Axial†	1332.1	1241.5	[1000] µg/L	08:50:22
2	Sb 206.836†	3943.4	3867.3	[500] µg/L	08:50:22
2	Se 196.026†	1296.5	1277.2	[500] µg/L	08:50:22
2	SiO2†	53903.6	52188.1	[5347.5] µg/L	08:50:02

2	Si 251.611†	162723.7	161995.8	[2500]	µg/L	08:50:02
2	Sn 189.927†	7418.1	7429.7	[500]	µg/L	08:50:22
2	Ti 334.940†	508483.1	508138.2	[500]	µg/L	08:50:02
2	Tl 190.801†	3708.0	3829.3	[500]	µg/L	08:50:22
2	U 409.014†	7098.2	7425.4	[500]	µg/L	08:50:02
2	V 292.402†	96265.0	96077.8	[500]	µg/L	08:50:02
2	Zn 213.857†	84053.6	83565.6	[500]	µg/L	08:50:02
3	Sc RADIAL	147993.9	147993.9	98.6	%	08:49:20
3	Al 396.153Radial†	25573.3	25998.6	[5000]	µg/L	08:49:20
3	Ca 317.933Radial†	84375.9	84902.1	[5000]	µg/L	08:49:20
3	K 766.490 Radial†	13918.1	12534.2	[5000]	µg/L	08:49:20
3	Mg 279.077 IEC†	12913.9	12919.1	[5000]	µg/L	08:49:20
3	Sr 421.552†	225905.5	229264.7	[500]	µg/L	08:49:18
3	Sc 361.383	1772403.5	1772403.5	98.892	%	08:50:25
3	Y 371.029	1054621.1	1054621.1	97.779	%	08:50:25
3	Ag 328.068†	129393.3	126914.5	[500]	µg/L	08:50:25
3	As 188.979†	1560.8	1592.1	[500]	µg/L	08:50:46
3	B 249.677†	34661.5	31646.4	[500]	µg/L	08:50:25
3	Ba 233.527†	116729.0	118174.8	[500]	µg/L	08:50:25
3	Be 313.107†	1731034.3	1751440.9	[500]	µg/L	08:50:25
3	Cd 226.502†	74490.0	75434.2	[500]	µg/L	08:50:25
3	Co 228.616†	37692.0	38285.8	[500]	µg/L	08:50:25
3	Cr 267.716†	59925.7	60416.3	[500]	µg/L	08:50:25
3	Cu 324.752†	122618.3	121014.3	[500]	µg/L	08:50:25
3	Mn 257.610†	380992.6	385067.2	[500]	µg/L	08:50:25
3	Mo 202.031†	15880.0	16094.3	[500]	µg/L	08:50:46
3	Ni 231.604†	40491.3	41042.5	[500]	µg/L	08:50:25
3	P 214.914†	10843.0	10987.8	[2500]	µg/L	08:50:46
3	Pb 220.353†	8495.2	8528.5	[500]	µg/L	08:50:46
3	S 181.975 Axial†	1344.1	1266.9	[1000]	µg/L	08:50:46
3	Sb 206.836†	3996.0	3959.8	[500]	µg/L	08:50:46
3	Se 196.026†	1303.9	1297.6	[500]	µg/L	08:50:46
3	SiO2†	53607.4	52426.0	[5347.5]	µg/L	08:50:25
3	Si 251.611†	161209.6	162087.3	[2500]	µg/L	08:50:25
3	Sn 189.927†	7466.1	7552.2	[500]	µg/L	08:50:46
3	Ti 334.940†	504282.2	508960.6	[500]	µg/L	08:50:25
3	Tl 190.801†	3712.5	3870.9	[500]	µg/L	08:50:46
3	U 409.014†	7172.1	7570.9	[500]	µg/L	08:50:25
3	V 292.402†	95506.9	96271.1	[500]	µg/L	08:50:25
3	Zn 213.857†	83161.0	83501.2	[500]	µg/L	08:50:25

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1776129.8	12486.57	0.70%	99.100	%
Sc RADIAL	148526.9	745.65	0.50%	99.0	%
Y 371.029	1056770.0	7028.09	0.67%	97.979	%
Ag 328.068†	126845.0	76.52	0.06%	[500]	µg/L
Al 396.153Radial†	25937.1	145.28	0.56%	[5000]	µg/L
As 188.979†	1583.6	14.22	0.90%	[500]	µg/L
B 249.677†	31593.8	129.37	0.41%	[500]	µg/L
Ba 233.527†	117911.7	353.66	0.30%	[500]	µg/L
Be 313.107†	1749326.3	3881.15	0.22%	[500]	µg/L
Ca 317.933Radial†	84951.6	273.26	0.32%	[5000]	µg/L
Cd 226.502†	75265.6	352.18	0.47%	[500]	µg/L
Co 228.616†	38238.5	57.96	0.15%	[500]	µg/L
Cr 267.716†	60249.1	175.21	0.29%	[500]	µg/L
Cu 324.752†	120788.9	195.74	0.16%	[500]	µg/L
K 766.490 Radial†	12513.1	185.77	1.48%	[5000]	µg/L
Mg 279.077 IEC†	12914.0	34.75	0.27%	[5000]	µg/L
Mn 257.610†	384247.3	895.04	0.23%	[500]	µg/L
Mo 202.031†	16035.1	160.80	1.00%	[500]	µg/L
Ni 231.604†	40914.5	119.03	0.29%	[500]	µg/L
P 214.914†	10921.9	124.03	1.14%	[2500]	µg/L
Pb 220.353†	8480.3	90.13	1.06%	[500]	µg/L
S 181.975 Axial†	1258.6	14.78	1.17%	[1000]	µg/L
Sb 206.836†	3927.8	52.41	1.33%	[500]	µg/L
Se 196.026†	1292.8	13.83	1.07%	[500]	µg/L
SiO2†	52173.7	259.77	0.50%	[5347.5]	µg/L
Si 251.611†	161786.6	443.87	0.27%	[2500]	µg/L

Sn 189.927†	7524.1	83.99	1.12%	[500] µg/L
Sr 421.552†	229028.2	283.44	0.12%	[500] µg/L
Ti 334.940†	508227.5	692.78	0.14%	[500] µg/L
Tl 190.801†	3851.0	20.84	0.54%	[500] µg/L
U 409.014†	7442.2	121.13	1.63%	[500] µg/L
V 292.402†	96080.5	189.15	0.20%	[500] µg/L
Zn 213.857†	83393.8	244.00	0.29%	[500] µg/L

Sequence No.: 4

Sample ID: SCAL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 4

Date Collected: 3/31/2010 8:50:54

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	148748.7	148748.7	99.1	%	08:51:25
1	Al 396.153Radial†	51170.1	51683.8	[10000]	µg/L	08:51:25
1	Ca 317.933Radial†	168454.2	169269.0	[10000]	µg/L	08:51:25
1	Fe 238.204 Radial†	150151.8	151304.7	[10000]	µg/L	08:51:25
1	K 766.490 Radial†	26343.9	24995.1	[10000]	µg/L	08:51:25
1	Mg 279.077 IEC†	25756.9	25806.1	[10000]	µg/L	08:51:25
1	Na 589.592 Radial†	67814.0	67278.9	[10000]	µg/L	08:51:25
1	Sr 421.552†	453368.5	457520.5	[1000]	µg/L	08:51:23
1	Sc 361.383	1762899.2	1762899.2	98.362	%	08:51:52
1	Y 371.029	1044342.9	1044342.9	96.826	%	08:51:52
1	Ag 328.068†	256251.8	256591.1	[1000]	µg/L	08:51:54
1	As 188.979†	3110.5	3176.1	[1000]	µg/L	08:52:14
1	B 249.677†	65952.0	63646.9	[1000]	µg/L	08:51:54
1	Ba 233.527†	232557.6	236568.7	[1000]	µg/L	08:51:54
1	Be 313.107†	3402888.6	3460573.6	[1000]	µg/L	08:51:52
1	Cd 226.502†	147842.7	150414.5	[1000]	µg/L	08:51:54
1	Co 228.616†	74799.3	76216.5	[1000]	µg/L	08:51:54
1	Cr 267.716†	119535.3	121345.2	[1000]	µg/L	08:51:54
1	Cu 324.752†	242914.2	243982.0	[1000]	µg/L	08:51:54
1	Mn 257.610†	744346.9	756549.5	[1000]	µg/L	08:51:52
1	Mo 202.031†	31429.2	31989.0	[1000]	µg/L	08:52:14
1	Ni 231.604†	80284.9	81719.5	[1000]	µg/L	08:51:54
1	P 214.914†	21363.8	21742.8	[5000]	µg/L	08:52:14
1	Pb 220.353†	16543.4	16757.0	[1000]	µg/L	08:52:14
1	S 181.975 Axial†	2555.2	2505.5	[2000]	µg/L	08:52:14
1	Sb 206.836†	7823.4	7872.7	[1000]	µg/L	08:52:14
1	Se 196.026†	2544.4	2565.8	[1000]	µg/L	08:52:14
1	SiO2†	102746.2	102675.4	[10695]	µg/L	08:51:54
1	Si 251.611†	314059.0	318361.0	[5000]	µg/L	08:51:54
1	Sn 189.927†	14775.9	15024.4	[1000]	µg/L	08:52:14
1	Ti 334.940†	994117.8	1009702.7	[1000]	µg/L	08:51:52
1	Tl 190.801†	7393.8	7633.7	[1000]	µg/L	08:52:14
1	U 409.014†	15686.8	16266.5	[1000]	µg/L	08:51:54
1	V 292.402†	191393.6	194275.3	[1000]	µg/L	08:51:54
1	Zn 213.857†	164442.6	166589.8	[1000]	µg/L	08:51:54
2	Sc RADIAL	148381.8	148381.8	98.9	%	08:51:29
2	Al 396.153Radial†	51160.1	51801.3	[10000]	µg/L	08:51:29
2	Ca 317.933Radial†	168613.9	169850.5	[10000]	µg/L	08:51:29
2	Fe 238.204 Radial†	150106.3	151633.3	[10000]	µg/L	08:51:29
2	K 766.490 Radial†	26541.8	25261.0	[10000]	µg/L	08:51:29
2	Mg 279.077 IEC†	25758.2	25871.6	[10000]	µg/L	08:51:29
2	Na 589.592 Radial†	67966.8	67602.5	[10000]	µg/L	08:51:29
2	Sr 421.552†	443935.7	449113.8	[1000]	µg/L	08:51:27
2	Sc 361.383	1768187.6	1768187.6	98.657	%	08:52:17
2	Y 371.029	1046483.9	1046483.9	97.025	%	08:52:17
2	Ag 328.068†	254047.5	253577.6	[1000]	µg/L	08:52:19
2	As 188.979†	3056.2	3111.6	[1000]	µg/L	08:52:39
2	B 249.677†	65336.8	62822.8	[1000]	µg/L	08:52:19
2	Ba 233.527†	230214.6	233486.6	[1000]	µg/L	08:52:19
2	Be 313.107†	3419671.5	3467237.9	[1000]	µg/L	08:52:17
2	Cd 226.502†	146015.0	148112.3	[1000]	µg/L	08:52:19
2	Co 228.616†	74085.9	75266.0	[1000]	µg/L	08:52:19
2	Cr 267.716†	118088.5	119515.2	[1000]	µg/L	08:52:19
2	Cu 324.752†	240497.7	240794.0	[1000]	µg/L	08:52:19
2	Mn 257.610†	749179.8	759184.8	[1000]	µg/L	08:52:17
2	Mo 202.031†	31127.7	31587.8	[1000]	µg/L	08:52:39
2	Ni 231.604†	79506.6	80686.5	[1000]	µg/L	08:52:19
2	P 214.914†	21133.3	21444.3	[5000]	µg/L	08:52:39
2	Pb 220.353†	16375.6	16536.6	[1000]	µg/L	08:52:39

2	S 181.975 Axial†	2524.0	2466.1	[2000]	µg/L	08:52:39
2	Sb 206.836†	7757.9	7782.5	[1000]	µg/L	08:52:39
2	Se 196.026†	2518.0	2531.3	[1000]	µg/L	08:52:39
2	SiO2†	101688.7	101291.1	[10695]	µg/L	08:52:19
2	Si 251.611†	310977.5	314282.5	[5000]	µg/L	08:52:19
2	Sn 189.927†	14603.5	14804.8	[1000]	µg/L	08:52:39
2	Ti 334.940†	999702.8	1012340.9	[1000]	µg/L	08:52:17
2	Tl 190.801†	7341.0	7557.7	[1000]	µg/L	08:52:39
2	U 409.014†	15809.9	16343.6	[1000]	µg/L	08:52:19
2	V 292.402†	189539.2	191813.6	[1000]	µg/L	08:52:19
2	Zn 213.857†	163137.7	164767.1	[1000]	µg/L	08:52:19
3	Sc RADIAL	149198.9	149198.9	99.4	%	08:51:34
3	Al 396.153Radial†	51585.0	51945.3	[10000]	µg/L	08:51:34
3	Ca 317.933Radial†	170226.3	170538.2	[10000]	µg/L	08:51:34
3	Fe 238.204 Radial†	151619.1	152323.2	[10000]	µg/L	08:51:34
3	K 766.490 Radial†	26517.5	25089.6	[10000]	µg/L	08:51:34
3	Mg 279.077 IEC†	25875.4	25846.8	[10000]	µg/L	08:51:34
3	Na 589.592 Radial†	68500.0	67762.3	[10000]	µg/L	08:51:34
3	Sr 421.552†	448196.1	450939.6	[1000]	µg/L	08:51:32
3	Sc 361.383	1754313.8	1754313.8	97.883	%	08:52:42
3	Y 371.029	1037656.0	1037656.0	96.206	%	08:52:42
3	Ag 328.068†	254875.1	256459.6	[1000]	µg/L	08:52:44
3	As 188.979†	3094.3	3175.0	[1000]	µg/L	08:53:04
3	B 249.677†	65718.3	63736.3	[1000]	µg/L	08:52:44
3	Ba 233.527†	230793.8	235923.8	[1000]	µg/L	08:52:44
3	Be 313.107†	3407192.3	3481901.0	[1000]	µg/L	08:52:42
3	Cd 226.502†	146605.1	149885.7	[1000]	µg/L	08:52:44
3	Co 228.616†	74185.7	75961.8	[1000]	µg/L	08:52:44
3	Cr 267.716†	118380.2	120759.9	[1000]	µg/L	08:52:44
3	Cu 324.752†	241120.6	243358.2	[1000]	µg/L	08:52:44
3	Mn 257.610†	746476.7	762428.8	[1000]	µg/L	08:52:42
3	Mo 202.031†	31351.6	32066.1	[1000]	µg/L	08:53:04
3	Ni 231.604†	79575.1	81393.8	[1000]	µg/L	08:52:44
3	P 214.914†	21265.1	21748.3	[5000]	µg/L	08:53:04
3	Pb 220.353†	16578.0	16874.6	[1000]	µg/L	08:53:04
3	S 181.975 Axial†	2548.1	2511.0	[2000]	µg/L	08:53:04
3	Sb 206.836†	7814.9	7903.0	[1000]	µg/L	08:53:04
3	Se 196.026†	2550.7	2584.9	[1000]	µg/L	08:53:04
3	SiO2†	102125.4	102552.4	[10695]	µg/L	08:52:44
3	Si 251.611†	311969.2	317788.5	[5000]	µg/L	08:52:44
3	Sn 189.927†	14699.3	15019.7	[1000]	µg/L	08:53:04
3	Ti 334.940†	995301.4	1015857.9	[1000]	µg/L	08:52:42
3	Tl 190.801†	7397.1	7673.8	[1000]	µg/L	08:53:04
3	U 409.014†	15919.3	16582.0	[1000]	µg/L	08:52:44
3	V 292.402†	190091.9	193897.6	[1000]	µg/L	08:52:44
3	Zn 213.857†	163532.7	166478.3	[1000]	µg/L	08:52:44

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc. Units
Sc 361.383	1761800.2	7001.87	0.40%	98.301 %
Sc RADIAL	148776.4	409.25	0.28%	99.2 %
Y 371.029	1042827.6	4604.86	0.44%	96.686 %
Ag 328.068†	255542.8	1703.14	0.67%	[1000] µg/L
Al 396.153Radial†	51810.1	130.97	0.25%	[10000] µg/L
As 188.979†	3154.2	36.94	1.17%	[1000] µg/L
B 249.677†	63402.0	503.59	0.79%	[1000] µg/L
Ba 233.527†	235326.4	1625.55	0.69%	[1000] µg/L
Be 313.107†	3469904.2	10910.83	0.31%	[1000] µg/L
Ca 317.933Radial†	169885.9	635.36	0.37%	[10000] µg/L
Cd 226.502†	149470.8	1205.84	0.81%	[1000] µg/L
Co 228.616†	75814.7	492.02	0.65%	[1000] µg/L
Cr 267.716†	120540.1	934.58	0.78%	[1000] µg/L
Cu 324.752†	242711.4	1689.57	0.70%	[1000] µg/L
Fe 238.204 Radial†	151753.7	519.81	0.34%	[10000] µg/L
K 766.490 Radial†	25115.2	134.77	0.54%	[10000] µg/L
Mg 279.077 IEC†	25841.5	33.09	0.13%	[10000] µg/L
Mn 257.610†	759387.7	2944.90	0.39%	[1000] µg/L
Mo 202.031†	31881.0	256.80	0.81%	[1000] µg/L
Na 589.592 Radial†	67547.9	246.30	0.36%	[10000] µg/L

Ni 231.604†	81266.6	528.12	0.65%	[1000]	µg/L
P 214.914†	21645.2	173.95	0.80%	[5000]	µg/L
Pb 220.353†	16722.8	171.59	1.03%	[1000]	µg/L
S 181.975 Axial†	2494.2	24.50	0.98%	[2000]	µg/L
Sb 206.836†	7852.7	62.68	0.80%	[1000]	µg/L
Se 196.026†	2560.7	27.18	1.06%	[1000]	µg/L
SiO2†	102173.0	766.22	0.75%	[10695]	µg/L
Si 251.611†	316810.7	2208.05	0.70%	[5000]	µg/L
Sn 189.927†	14949.6	125.48	0.84%	[1000]	µg/L
Sr 421.552†	452524.6	4421.81	0.98%	[1000]	µg/L
Ti 334.940†	1012633.8	3088.06	0.30%	[1000]	µg/L
Tl 190.801†	7621.7	58.99	0.77%	[1000]	µg/L
U 409.014†	16397.4	164.50	1.00%	[1000]	µg/L
V 292.402†	193328.8	1325.76	0.69%	[1000]	µg/L
Zn 213.857†	165945.1	1021.66	0.62%	[1000]	µg/L

Sequence No.: 5
 Sample ID: S10
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 5
 Date Collected: 3/31/2010 8:53:12
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Analysis Time
1	Sc RADIAL	147084.6	147084.6	98.0 %		08:53:41
1	Al 396.153Radial†	248919.9	253973.5	[50000] µg/L		08:53:41
1	Ca 317.933Radial†	821798.3	837605.4	[50000] µg/L		08:53:41
1	Fe 238.204 Radial†	295796.6	301576.5	[20000] µg/L		08:53:41
1	Mg 279.077 IEC†	123088.9	125379.1	[50000] µg/L		08:53:41
1	Na 589.592 Radial†	134043.5	135607.1	[20000] µg/L		08:53:41
1	Sc 361.383	1721419.1	1721419.1	96.048 %		08:53:49
1	Y 371.029	1020186.5	1020186.5	94.587 %		08:53:49
2	Sc RADIAL	147158.7	147158.7	98.1 %		08:53:43
2	Al 396.153Radial†	248290.2	253203.7	[50000] µg/L		08:53:43
2	Ca 317.933Radial†	816382.3	831661.8	[50000] µg/L		08:53:43
2	Fe 238.204 Radial†	294279.2	299877.6	[20000] µg/L		08:53:43
2	Mg 279.077 IEC†	122198.2	124407.8	[50000] µg/L		08:53:43
2	Na 589.592 Radial†	132756.9	134226.6	[20000] µg/L		08:53:43
2	Sc 361.383	1710078.5	1710078.5	95.415 %		08:53:52
2	Y 371.029	1012755.8	1012755.8	93.898 %		08:53:52
3	Sc RADIAL	146036.7	146036.7	97.3 %		08:53:45
3	Al 396.153Radial†	250009.8	256915.1	[50000] µg/L		08:53:45
3	Ca 317.933Radial†	822271.1	844106.1	[50000] µg/L		08:53:45
3	Fe 238.204 Radial†	296030.4	303981.7	[20000] µg/L		08:53:45
3	Mg 279.077 IEC†	122911.6	126097.9	[50000] µg/L		08:53:45
3	Na 589.592 Radial†	133716.0	136251.8	[20000] µg/L		08:53:45
3	Sc 361.383	1708052.8	1708052.8	95.302 %		08:53:54
3	Y 371.029	1011466.2	1011466.2	93.778 %		08:53:54

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc. Units	Calib. Units
Sc 361.383	1713183.5	7203.85	0.42%	95.588 %	
Sc RADIAL	146760.0	627.50	0.43%	97.8 %	
Y 371.029	1014802.8	4706.79	0.46%	94.088 %	
Al 396.153Radial†	254697.5	1958.71	0.77%	[50000] µg/L	
Ca 317.933Radial†	837791.1	6224.22	0.74%	[50000] µg/L	
Fe 238.204 Radial†	301812.0	2062.14	0.68%	[20000] µg/L	
Mg 279.077 IEC†	125294.9	848.16	0.68%	[50000] µg/L	
Na 589.592 Radial†	135361.8	1034.65	0.76%	[20000] µg/L	

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	255.2	0.00000	0.999995	
Al 396.153Radial	3	Lin Thru 0	0.0	5.098	0.00000	0.999993	
As 188.979	3	Lin Thru 0	0.0	3.157	0.00000	0.999999	
B 249.677	3	Lin Thru 0	0.0	63.35	0.00000	0.999999	
Ba 233.527	3	Lin Thru 0	0.0	235.5	0.00000	0.999997	
Be 313.107	3	Lin Thru 0	0.0	3475	0.00000	0.999994	
Ca 317.933Radial	3	Lin Thru 0	0.0	16.77	0.00000	0.999996	
Cd 226.502	3	Lin Thru 0	0.0	149.7	0.00000	0.999995	
Co 228.616	3	Lin Thru 0	0.0	75.96	0.00000	0.999993	
Cr 267.716	3	Lin Thru 0	0.0	120.5	0.00000	0.999999	
Cu 324.752	3	Lin Thru 0	0.0	242.5	0.00000	0.999998	
Fe 238.204 Radia	2	Lin Thru 0	0.0	15.11	0.00000	0.999997	
K 766.490 Radial	3	Lin Thru 0	0.0	2.509	0.00000	0.999992	
Mg 279.077 IEC	3	Lin Thru 0	0.0	2.510	0.00000	0.999978	
Mn 257.610	3	Lin Thru 0	0.0	761.5	0.00000	0.999981	
Mo 202.031	3	Lin Thru 0	0.0	31.92	0.00000	0.999997	
Na 589.592 Radia	2	Lin Thru 0	0.0	6.765	0.00000	1.000000	

Ni 231.604	3	Lin Thru 0	0.0	81.40	0.00000	0.999991
P 214.914	3	Lin Thru 0	0.0	4.336	0.00000	0.999992
Pb 220.353	3	Lin Thru 0	0.0	16.77	0.00000	0.999982
S 181.975 Axial	3	Lin Thru 0	0.0	1.249	0.00000	0.999991
Sb 206.836	3	Lin Thru 0	0.0	7.852	0.00000	0.999998
Se 196.026	3	Lin Thru 0	0.0	2.566	0.00000	0.999990
SiO2	3	Lin Thru 0	0.0	9.594	0.00000	0.999964
Si 251.611	3	Lin Thru 0	0.0	63.63	0.00000	0.999964
Sn 189.927	3	Lin Thru 0	0.0	14.97	0.00000	0.999996
Sr 421.552	3	Lin Thru 0	0.0	453.7	0.00000	0.999987
Ti 334.940	3	Lin Thru 0	0.0	1013	0.00000	0.999999
Tl 190.801	3	Lin Thru 0	0.0	7.640	0.00000	0.999985
U 409.014	3	Lin Thru 0	0.0	16.10	0.00000	0.999295
V 292.402	3	Lin Thru 0	0.0	193.1	0.00000	0.999997
Zn 213.857	3	Lin Thru 0	0.0	166.1	0.00000	0.999997

Sequence No.: 6

Sample ID: ICV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 9

Date Collected: 3/31/2010 8:54:02

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	149423.2	149423.2	99.6 %		08:54:34
1	Al 396.153Radial†	26685.0	26866.8	5244.1 µg/L	5244.1 ppb	08:54:34
1	Ca 317.933Radial†	86534.1	86250.9	5144.1 µg/L	5144.1 ppb	08:54:34
1	Fe 238.204 Radial†	77699.5	77876.0	5154.8 µg/L	5154.8 ppb	08:54:34
1	K 766.490 Radial†	7867.2	6323.8	2517.6 µg/L	2517.6 ppb	08:54:34
1	Mg 279.077 IEC†	13680.6	13563.7	5413.9 µg/L	5413.9 ppb	08:54:34
1	Na 589.592 Radial†	18227.0	17182.7	2537.5 µg/L	2537.5 ppb	08:54:34
1	Sr 421.552†	243534.2	244773.9	539.47 µg/L	539.47 ppb	08:54:32
1	Sc 361.383	1760650.5	1760650.5	98.237 %		08:54:47
1	Y 371.029	1051232.3	1051232.3	97.465 %		08:54:47
1	Ag 328.068†	69278.4	66593.9	267.47 µg/L	267.47 ppb	08:54:47
1	As 188.979†	1502.4	1543.2	496.37 µg/L	496.37 ppb	08:54:49
1	B 249.677†	36002.8	33245.7	522.94 µg/L	522.94 ppb	08:54:47
1	Ba 233.527†	120355.0	122653.8	521.33 µg/L	521.33 ppb	08:54:47
1	Be 313.107†	914266.3	931695.3	268.23 µg/L	268.23 ppb	08:54:47
1	Cd 226.502†	75126.7	76585.1	511.28 µg/L	511.28 ppb	08:54:47
1	Co 228.616†	38836.4	39705.2	523.06 µg/L	523.06 ppb	08:54:49
1	Cr 267.716†	59851.1	60744.8	503.77 µg/L	503.77 ppb	08:54:49
1	Cu 324.752†	127386.5	126695.8	524.06 µg/L	524.06 ppb	08:54:47
1	Mn 257.610†	398138.7	405092.8	531.76 µg/L	531.76 ppb	08:54:47
1	Mo 202.031†	17419.9	17769.1	557.18 µg/L	557.18 ppb	08:54:49
1	Ni 231.604†	41648.2	42493.4	522.02 µg/L	522.02 ppb	08:54:49
1	P 214.914†	11104.3	11327.0	2603.0 µg/L	2603.0 ppb	08:54:49
1	Pb 220.353†	8683.6	8777.6	525.13 µg/L	525.13 ppb	08:54:49
1	S 181.975 Axial†	3239.8	3205.7	2570.9 µg/L	2570.9 ppb	08:54:49
1	Sb 206.836†	4038.4	4030.0	515.25 µg/L	515.25 ppb	08:54:49
1	Se 196.026†	6571.6	6668.7	2600 µg/L	2600 ppb	08:54:49
1	SiO2†	102374.2	102430.2	10653 µg/L	10653 ppb	08:54:47
1	Si 251.611†	312204.0	316880.4	4969.2 µg/L	4969.2 ppb	08:54:47
1	Sn 189.927†	8106.1	8254.1	553.09 µg/L	553.09 ppb	08:54:49
1	Ti 334.940†	506402.4	514522.8	507.04 µg/L	507.04 ppb	08:54:47
1	Tl 190.801†	3973.7	4161.8	552.40 µg/L	552.40 ppb	08:54:49
1	U 409.014†	7296.3	7745.7	512.90 µg/L	512.90 ppb	08:54:47
1	V 292.402†	98727.2	100193.8	526.14 µg/L	526.14 ppb	08:54:47
1	Zn 213.857†	86030.5	86983.6	519.41 µg/L	519.41 ppb	08:54:47
2	Sc RADIAL	150108.5	150108.5	100 %		08:54:38
2	Al 396.153Radial†	26793.1	26852.5	5241.7 µg/L	5241.7 ppb	08:54:38
2	Ca 317.933Radial†	87179.9	86499.6	5158.9 µg/L	5158.9 ppb	08:54:38
2	Fe 238.204 Radial†	78361.8	78181.7	5175.0 µg/L	5175.0 ppb	08:54:38
2	K 766.490 Radial†	7962.2	6382.7	2541.0 µg/L	2541.0 ppb	08:54:38
2	Mg 279.077 IEC†	13924.5	13744.7	5485.8 µg/L	5485.8 ppb	08:54:38
2	Na 589.592 Radial†	18575.7	17447.7	2576.7 µg/L	2576.7 ppb	08:54:38
2	Sr 421.552†	240639.7	240764.7	530.64 µg/L	530.64 ppb	08:54:36
2	Sc 361.383	1776122.2	1776122.2	99.100 %		08:54:52
2	Y 371.029	1059169.1	1059169.1	98.201 %		08:54:52
2	Ag 328.068†	69790.7	66496.5	267.08 µg/L	267.08 ppb	08:54:52
2	As 188.979†	1503.0	1530.5	492.27 µg/L	492.27 ppb	08:54:54
2	B 249.677†	36611.5	33540.7	527.60 µg/L	527.60 ppb	08:54:52
2	Ba 233.527†	121925.1	123170.9	523.52 µg/L	523.52 ppb	08:54:52
2	Be 313.107†	925455.9	934879.5	269.14 µg/L	269.14 ppb	08:54:52
2	Cd 226.502†	76174.5	76976.3	513.89 µg/L	513.89 ppb	08:54:52
2	Co 228.616†	38900.9	39425.9	519.39 µg/L	519.39 ppb	08:54:54
2	Cr 267.716†	59554.4	59914.7	496.90 µg/L	496.90 ppb	08:54:54
2	Cu 324.752†	128890.7	127084.2	525.65 µg/L	525.65 ppb	08:54:52
2	Mn 257.610†	402388.2	405850.5	532.75 µg/L	532.75 ppb	08:54:52
2	Mo 202.031†	17237.5	17430.5	546.58 µg/L	546.58 ppb	08:54:54
2	Ni 231.604†	41290.0	41762.7	513.04 µg/L	513.04 ppb	08:54:54
2	P 214.914†	11040.9	11164.5	2565.6 µg/L	2565.6 ppb	08:54:54
2	Pb 220.353†	8628.2	8644.7	517.19 µg/L	517.19 ppb	08:54:54

2	S 181.975 Axial†	3235.0	3172.2	2544.0 µg/L	2544.0 ppb	08:54:54
2	Sb 206.836†	4036.0	3991.7	510.32 µg/L	510.32 ppb	08:54:54
2	Se 196.026†	6524.6	6522.9	2560 µg/L	2560 ppb	08:54:54
2	SiO2†	103430.3	102588.0	10670 µg/L	10670 ppb	08:54:52
2	Si 251.611†	315881.4	317822.8	4984.2 µg/L	4984.2 ppb	08:54:52
2	Sn 189.927†	8060.7	8136.4	545.24 µg/L	545.24 ppb	08:54:54
2	Ti 334.940†	511927.5	515607.7	508.12 µg/L	508.12 ppb	08:54:52
2	Tl 190.801†	4017.6	4170.9	553.64 µg/L	553.64 ppb	08:54:54
2	U 409.014†	7012.8	7394.9	491.22 µg/L	491.22 ppb	08:54:52
2	V 292.402†	99903.8	100505.7	527.60 µg/L	527.60 ppb	08:54:52
2	Zn 213.857†	87309.9	87511.7	522.65 µg/L	522.65 ppb	08:54:52
3	Sc RADIAL	150818.5	150818.5	101 %		08:54:42
3	Al 396.153Radial†	26764.8	26698.3	5211.2 µg/L	5211.2 ppb	08:54:42
3	Ca 317.933Radial†	87295.5	86204.5	5141.3 µg/L	5141.3 ppb	08:54:42
3	Fe 238.204 Radial†	78325.3	77776.7	5148.2 µg/L	5148.2 ppb	08:54:42
3	K 766.490 Radial†	7886.2	6269.6	2496.0 µg/L	2496.0 ppb	08:54:42
3	Mg 279.077 IEC†	13949.0	13703.6	5469.5 µg/L	5469.5 ppb	08:54:42
3	Na 589.592 Radial†	18685.9	17469.9	2580.0 µg/L	2580.0 ppb	08:54:42
3	Sr 421.552†	240823.2	239815.1	528.54 µg/L	528.54 ppb	08:54:40
3	Sc 361.383	1756601.1	1756601.1	98.011 %		08:54:57
3	Y 371.029	1047343.1	1047343.1	97.105 %		08:54:57
3	Ag 328.068†	68904.4	66374.9	266.57 µg/L	266.57 ppb	08:54:57
3	As 188.979†	1485.6	1529.6	492.06 µg/L	492.06 ppb	08:54:59
3	B 249.677†	35848.2	33172.5	521.78 µg/L	521.78 ppb	08:54:57
3	Ba 233.527†	119504.5	122068.5	518.84 µg/L	518.84 ppb	08:54:57
3	Be 313.107†	907680.8	927121.6	266.91 µg/L	266.91 ppb	08:54:57
3	Cd 226.502†	74656.9	76282.1	509.26 µg/L	509.26 ppb	08:54:57
3	Co 228.616†	38723.5	39681.1	522.74 µg/L	522.74 ppb	08:54:59
3	Cr 267.716†	59662.8	60693.1	503.35 µg/L	503.35 ppb	08:54:59
3	Cu 324.752†	126468.0	126057.7	521.42 µg/L	521.42 ppb	08:54:57
3	Mn 257.610†	395003.4	402828.2	528.78 µg/L	528.78 ppb	08:54:57
3	Mo 202.031†	17232.1	17618.3	552.46 µg/L	552.46 ppb	08:54:59
3	Ni 231.604†	41172.9	42106.2	517.26 µg/L	517.26 ppb	08:54:59
3	P 214.914†	10914.9	11159.7	2564.5 µg/L	2564.5 ppb	08:54:59
3	Pb 220.353†	8654.3	8768.1	524.55 µg/L	524.55 ppb	08:54:59
3	S 181.975 Axial†	3234.3	3207.7	2572.5 µg/L	2572.5 ppb	08:54:59
3	Sb 206.836†	4045.0	4046.2	517.25 µg/L	517.25 ppb	08:54:59
3	Se 196.026†	6551.7	6663.8	2600 µg/L	2600 ppb	08:54:59
3	SiO2†	101512.0	101790.7	10587 µg/L	10587 ppb	08:54:57
3	Si 251.611†	309506.8	314861.1	4937.5 µg/L	4937.5 ppb	08:54:57
3	Sn 189.927†	8066.5	8232.7	551.66 µg/L	551.66 ppb	08:54:59
3	Ti 334.940†	503581.2	512832.7	505.38 µg/L	505.38 ppb	08:54:57
3	Tl 190.801†	4002.1	4200.2	557.38 µg/L	557.38 ppb	08:54:59
3	U 409.014†	7077.2	7539.3	499.94 µg/L	499.94 ppb	08:54:57
3	V 292.402†	98096.5	99782.0	523.95 µg/L	523.95 ppb	08:54:57
3	Zn 213.857†	85382.2	86524.0	516.68 µg/L	516.68 ppb	08:54:57

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1764457.9	98.449 %	0.5748			0.58%
Sc RADIAL	150116.8	100 %	0.5			0.46%
Y 371.029	1052581.5	97.590 %	0.5588			0.57%
Ag 328.068†	66488.5	267.04 µg/L	0.451	267.04 ppb	0.451	0.17%
QC value within limits for Ag 328.068 Recovery = 106.82%						
Al 396.153Radial†	26805.9	5232.3 µg/L	18.33	5232.3 ppb	18.33	0.35%
QC value within limits for Al 396.153Radial Recovery = 104.65%						
As 188.979†	1534.4	493.57 µg/L	2.432	493.57 ppb	2.432	0.49%
QC value within limits for As 188.979 Recovery = 98.71%						
B 249.677†	33319.6	524.11 µg/L	3.083	524.11 ppb	3.083	0.59%
QC value within limits for B 249.677 Recovery = 104.82%						
Ba 233.527†	122631.1	521.23 µg/L	2.343	521.23 ppb	2.343	0.45%
QC value within limits for Ba 233.527 Recovery = 104.25%						
Be 313.107†	931232.2	268.09 µg/L	1.121	268.09 ppb	1.121	0.42%
QC value within limits for Be 313.107 Recovery = 107.24%						
Ca 317.933Radial†	86318.3	5148.1 µg/L	9.46	5148.1 ppb	9.46	0.18%
QC value within limits for Ca 317.933Radial Recovery = 102.96%						
Cd 226.502†	76614.5	511.48 µg/L	2.322	511.48 ppb	2.322	0.45%
QC value within limits for Cd 226.502 Recovery = 102.30%						
Co 228.616†	39604.1	521.73 µg/L	2.037	521.73 ppb	2.037	0.39%

QC value within limits for Co 228.616 Recovery = 104.35%						
Cr 267.716†	60450.9	501.34 µg/L	3.850	501.34 ppb	3.850	0.77%
QC value within limits for Cr 267.716 Recovery = 100.27%						
Cu 324.752†	126612.6	523.71 µg/L	2.136	523.71 ppb	2.136	0.41%
QC value within limits for Cu 324.752 Recovery = 104.74%						
Fe 238.204 Radial†	77944.8	5159.3 µg/L	13.97	5159.3 ppb	13.97	0.27%
QC value within limits for Fe 238.204 Radial Recovery = 103.19%						
K 766.490 Radial†	6325.4	2518.2 µg/L	22.53	2518.2 ppb	22.53	0.89%
QC value within limits for K 766.490 Radial Recovery = 100.73%						
Mg 279.077 IEC†	13670.7	5456.4 µg/L	37.69	5456.4 ppb	37.69	0.69%
QC value within limits for Mg 279.077 IEC Recovery = 109.13%						
Mn 257.610†	404590.5	531.10 µg/L	2.065	531.10 ppb	2.065	0.39%
QC value within limits for Mn 257.610 Recovery = 106.22%						
Mo 202.031†	17605.9	552.07 µg/L	5.313	552.07 ppb	5.313	0.96%
QC value greater than the upper limit for Mo 202.031 Recovery = 110.41%						
Na 589.592 Radial†	17366.8	2564.7 µg/L	23.62	2564.7 ppb	23.62	0.92%
QC value within limits for Na 589.592 Radial Recovery = 102.59%						
Ni 231.604†	42120.8	517.44 µg/L	4.491	517.44 ppb	4.491	0.87%
QC value within limits for Ni 231.604 Recovery = 103.49%						
P 214.914†	11217.1	2577.7 µg/L	21.94	2577.7 ppb	21.94	0.85%
QC value within limits for P 214.914 Recovery = 103.11%						
Pb 220.353†	8730.1	522.29 µg/L	4.426	522.29 ppb	4.426	0.85%
QC value within limits for Pb 220.353 Recovery = 104.46%						
S 181.975 Axial†	3195.2	2562.5 µg/L	16.02	2562.5 ppb	16.02	0.63%
QC value within limits for S 181.975 Axial Recovery = 102.50%						
Sb 206.836†	4022.6	514.27 µg/L	3.568	514.27 ppb	3.568	0.69%
QC value within limits for Sb 206.836 Recovery = 102.85%						
Se 196.026†	6631.8	2590 µg/L	23.3	2590 ppb	23.3	0.90%
QC value within limits for Se 196.026 Recovery = 103.46%						
SiO2†	102269.6	10637 µg/L	44.1	10637 ppb	44.1	0.41%
QC value within limits for SiO2 Recovery = 99.45%						
Si 251.611†	316521.5	4963.6 µg/L	23.82	4963.6 ppb	23.82	0.48%
QC value within limits for Si 251.611 Recovery = 99.27%						
Sn 189.927†	8207.8	550.00 µg/L	4.184	550.00 ppb	4.184	0.76%
QC value within limits for Sn 189.927 Recovery = 110.00%						
Sr 421.552†	241784.6	532.89 µg/L	5.801	532.89 ppb	5.801	1.09%
QC value within limits for Sr 421.552 Recovery = 106.58%						
Ti 334.940†	514321.1	506.85 µg/L	1.382	506.85 ppb	1.382	0.27%
QC value within limits for Ti 334.940 Recovery = 101.37%						
Tl 190.801†	4177.6	554.47 µg/L	2.595	554.47 ppb	2.595	0.47%
QC value greater than the upper limit for Tl 190.801 Recovery = 110.89%						
U 409.014†	7560.0	501.36 µg/L	10.911	501.36 ppb	10.911	2.18%
QC value within limits for U 409.014 Recovery = 100.27%						
V 292.402†	100160.5	525.90 µg/L	1.836	525.90 ppb	1.836	0.35%
QC value within limits for V 292.402 Recovery = 105.18%						
Zn 213.857†	87006.4	519.58 µg/L	2.988	519.58 ppb	2.988	0.58%
QC value within limits for Zn 213.857 Recovery = 103.92%						
QC Failed. Continue with analysis.						

Sequence No.: 7

Sample ID: ICB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 10

Date Collected: 3/31/2010 8:55:07

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	148819.0	148819.0	99.2 %		08:55:36
1	Al 396.153Radial†	-69.0	4.4	0.8529 µg/L	0.8529 ppb	08:55:56
1	Ca 317.933Radial†	604.8	-23.3	-1.3920 µg/L	-1.3920 ppb	08:55:56
1	Fe 238.204 Radial†	179.3	43.2	2.8617 µg/L	2.8617 ppb	08:55:56
1	K 766.490 Radial†	1630.5	68.6	27.324 µg/L	27.324 ppb	08:55:36
1	Mg 279.077 IEC†	170.5	-0.4	-0.1461 µg/L	-0.1461 ppb	08:55:56
1	Na 589.592 Radial†	1344.4	237.4	35.066 µg/L	35.066 ppb	08:55:36
1	Sr 421.552†	-59.7	195.4	0.4306 µg/L	0.4306 ppb	08:55:36
1	Sc 361.383	1747477.1	1747477.1	97.501 %		08:56:44
1	Y 371.029	1051488.4	1051488.4	97.489 %		08:56:44
1	Ag 328.068†	4048.3	223.9	0.8870 µg/L	0.8870 ppb	08:56:46
1	As 188.979†	-16.2	-2.8	-0.8942 µg/L	-0.8942 ppb	08:57:06
1	B 249.677†	3485.1	171.0	2.6998 µg/L	2.6998 ppb	08:57:06
1	Ba 233.527†	-150.2	-15.7	-0.0667 µg/L	-0.0667 ppb	08:57:06
1	Be 313.107†	-961.9	30.0	0.0107 µg/L	0.0107 ppb	08:56:46
1	Cd 226.502†	-115.8	-9.0	-0.0603 µg/L	-0.0603 ppb	08:57:06
1	Co 228.616†	-175.5	-8.4	-0.1102 µg/L	-0.1102 ppb	08:57:06
1	Cr 267.716†	190.3	14.5	0.1147 µg/L	0.1147 ppb	08:57:06
1	Cu 324.752†	3032.4	132.7	0.5530 µg/L	0.5530 ppb	08:56:46
1	Mn 257.610†	294.6	109.1	0.1432 µg/L	0.1432 ppb	08:57:06
1	Mo 202.031†	-28.6	7.1	0.2216 µg/L	0.2216 ppb	08:57:06
1	Ni 231.604†	-97.1	-1.9	-0.0239 µg/L	-0.0239 ppb	08:57:06
1	P 214.914†	-29.5	-7.0	-1.6106 µg/L	-1.6106 ppb	08:57:06
1	Pb 220.353†	106.3	47.1	2.8056 µg/L	2.8056 ppb	08:57:06
1	S 181.975 Axial†	89.4	-0.5	-0.4127 µg/L	-0.4127 ppb	08:57:06
1	Sb 206.836†	87.6	8.9	1.1388 µg/L	1.1388 ppb	08:57:06
1	Se 196.026†	18.2	-2.2	-0.865 µg/L	-0.865 ppb	08:57:06
1	SiO2†	1792.5	56.6	5.8756 µg/L	5.8756 ppb	08:57:06
1	Si 251.611†	1092.4	192.3	3.0104 µg/L	3.0104 ppb	08:56:46
1	Sn 189.927†	18.9	21.8	1.4576 µg/L	1.4576 ppb	08:57:06
1	Ti 334.940†	794.0	-155.9	-0.1566 µg/L	-0.1566 ppb	08:56:46
1	Tl 190.801†	-102.0	12.2	1.5977 µg/L	1.5977 ppb	08:57:06
1	U 409.014†	-205.6	107.6	6.6876 µg/L	6.6876 ppb	08:56:46
1	V 292.402†	318.8	21.3	0.1173 µg/L	0.1173 ppb	08:56:46
1	Zn 213.857†	599.5	23.5	0.1408 µg/L	0.1408 ppb	08:57:06
2	Sc RADIAL	150230.5	150230.5	100 %		08:55:58
2	Al 396.153Radial†	-60.1	13.9	2.7247 µg/L	2.7247 ppb	08:56:18
2	Ca 317.933Radial†	567.6	-66.2	-3.9487 µg/L	-3.9487 ppb	08:56:18
2	Fe 238.204 Radial†	172.9	35.1	2.3249 µg/L	2.3249 ppb	08:56:18
2	K 766.490 Radial†	1738.5	161.0	64.172 µg/L	64.172 ppb	08:55:58
2	Mg 279.077 IEC†	172.3	-0.1	-0.0390 µg/L	-0.0390 ppb	08:56:18
2	Na 589.592 Radial†	1329.1	209.4	30.893 µg/L	30.893 ppb	08:55:58
2	Sr 421.552†	-163.7	92.1	0.2029 µg/L	0.2029 ppb	08:55:58
2	Sc 361.383	1782283.3	1782283.3	99.444 %		08:57:08
2	Y 371.029	1071082.2	1071082.2	99.306 %		08:57:08
2	Ag 328.068†	3888.7	-17.6	-0.0603 µg/L	-0.0603 ppb	08:57:11
2	As 188.979†	-10.8	3.0	0.9438 µg/L	0.9438 ppb	08:57:31
2	B 249.677†	3415.8	31.5	0.4985 µg/L	0.4985 ppb	08:57:31
2	Ba 233.527†	-129.3	8.2	0.0353 µg/L	0.0353 ppb	08:57:31
2	Be 313.107†	-1047.4	-36.6	-0.0096 µg/L	-0.0096 ppb	08:57:11
2	Cd 226.502†	-84.9	24.4	0.1629 µg/L	0.1629 ppb	08:57:31
2	Co 228.616†	-185.4	-14.8	-0.1950 µg/L	-0.1950 ppb	08:57:31
2	Cr 267.716†	202.0	22.4	0.1837 µg/L	0.1837 ppb	08:57:31
2	Cu 324.752†	2906.1	-55.1	-0.2244 µg/L	-0.2244 ppb	08:57:11
2	Mn 257.610†	303.9	112.6	0.1479 µg/L	0.1479 ppb	08:57:31
2	Mo 202.031†	-34.2	2.0	0.0644 µg/L	0.0644 ppb	08:57:31
2	Ni 231.604†	-87.3	9.8	0.1206 µg/L	0.1206 ppb	08:57:31
2	P 214.914†	-25.9	-2.7	-0.6228 µg/L	-0.6228 ppb	08:57:31
2	Pb 220.353†	74.3	12.9	0.7651 µg/L	0.7651 ppb	08:57:31

2	S 181.975 Axial†	98.7	7.0	5.6244 µg/L	5.6244 ppb	08:57:31
2	Sb 206.836†	76.9	-3.6	-0.4598 µg/L	-0.4598 ppb	08:57:31
2	Se 196.026†	18.7	-2.1	-0.810 µg/L	-0.810 ppb	08:57:31
2	SiO2†	1806.9	35.1	3.6466 µg/L	3.6466 ppb	08:57:31
2	Si 251.611†	892.3	-30.8	-0.4912 µg/L	-0.4912 ppb	08:57:11
2	Sn 189.927†	11.9	14.4	0.9627 µg/L	0.9627 ppb	08:57:31
2	Ti 334.940†	1019.7	55.1	0.0529 µg/L	0.0529 ppb	08:57:11
2	Tl 190.801†	-122.8	-6.7	-0.8711 µg/L	-0.8711 ppb	08:57:31
2	U 409.014†	-266.5	50.5	3.1583 µg/L	3.1583 ppb	08:57:11
2	V 292.402†	381.6	78.1	0.4076 µg/L	0.4076 ppb	08:57:11
2	Zn 213.857†	597.2	9.2	0.0548 µg/L	0.0548 ppb	08:57:31
3	Sc RADIAL	148943.6	148943.6	99.3 %		08:56:20
3	Al 396.153Radial†	-67.9	5.6	1.0831 µg/L	1.0831 ppb	08:56:40
3	Ca 317.933Radial†	596.9	-31.7	-1.8923 µg/L	-1.8923 ppb	08:56:40
3	Fe 238.204 Radial†	171.0	34.8	2.3023 µg/L	2.3023 ppb	08:56:40
3	K 766.490 Radial†	1596.5	32.9	13.122 µg/L	13.122 ppb	08:56:20
3	Mg 279.077 IEC†	190.0	19.1	7.6322 µg/L	7.6322 ppb	08:56:40
3	Na 589.592 Radial†	1199.8	90.6	13.379 µg/L	13.379 ppb	08:56:20
3	Sr 421.552†	-282.8	-29.3	-0.0645 µg/L	-0.0645 ppb	08:56:20
3	Sc 361.383	1766524.3	1766524.3	98.564 %		08:57:33
3	Y 371.029	1062999.0	1062999.0	98.556 %		08:57:33
3	Ag 328.068†	3864.1	-7.7	-0.0252 µg/L	-0.0252 ppb	08:57:35
3	As 188.979†	-20.6	-7.0	-2.2290 µg/L	-2.2290 ppb	08:57:55
3	B 249.677†	3384.5	30.5	0.4809 µg/L	0.4809 ppb	08:57:55
3	Ba 233.527†	-166.1	-30.2	-0.1283 µg/L	-0.1283 ppb	08:57:55
3	Be 313.107†	-1031.9	-30.3	-0.0071 µg/L	-0.0071 ppb	08:57:35
3	Cd 226.502†	-113.5	-5.4	-0.0362 µg/L	-0.0362 ppb	08:57:55
3	Co 228.616†	-164.5	4.7	0.0612 µg/L	0.0612 ppb	08:57:55
3	Cr 267.716†	211.7	34.1	0.2782 µg/L	0.2782 ppb	08:57:55
3	Cu 324.752†	3053.8	120.8	0.5033 µg/L	0.5033 ppb	08:57:35
3	Mn 257.610†	307.2	118.6	0.1554 µg/L	0.1554 ppb	08:57:55
3	Mo 202.031†	-28.2	7.8	0.2453 µg/L	0.2453 ppb	08:57:55
3	Ni 231.604†	-85.8	10.6	0.1300 µg/L	0.1300 ppb	08:57:55
3	P 214.914†	-24.3	-1.3	-0.3042 µg/L	-0.3042 ppb	08:57:55
3	Pb 220.353†	62.8	1.8	0.1040 µg/L	0.1040 ppb	08:57:55
3	S 181.975 Axial†	91.0	0.0	0.0410 µg/L	0.0410 ppb	08:57:55
3	Sb 206.836†	66.7	-13.3	-1.6905 µg/L	-1.6905 ppb	08:57:55
3	Se 196.026†	13.4	-7.3	-2.85 µg/L	-2.85 ppb	08:57:55
3	SiO2†	1810.3	54.8	5.6888 µg/L	5.6888 ppb	08:57:55
3	Si 251.611†	897.2	-17.8	-0.2932 µg/L	-0.2932 ppb	08:57:35
3	Sn 189.927†	19.3	22.1	1.4741 µg/L	1.4741 ppb	08:57:55
3	Ti 334.940†	941.7	-14.8	-0.0176 µg/L	-0.0176 ppb	08:57:35
3	Tl 190.801†	-106.3	8.9	1.1698 µg/L	1.1698 ppb	08:57:55
3	U 409.014†	-229.3	85.8	5.3227 µg/L	5.3227 ppb	08:57:35
3	V 292.402†	274.1	-27.5	-0.1355 µg/L	-0.1355 ppb	08:57:35
3	Zn 213.857†	610.1	27.6	0.1648 µg/L	0.1648 ppb	08:57:55

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1765428.2	98.503 %	0.9725			0.99%
Sc RADIAL	149331.1	99.5 %	0.52			0.52%
Y 371.029	1061856.5	98.450 %	0.9129			0.93%
Ag 328.068†	66.2	0.2672 µg/L	0.53707	0.2672 ppb	0.53707	201.03%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	8.0	1.5536 µg/L	1.02072	1.5536 ppb	1.02072	65.70%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-2.3	-0.7265 µg/L	1.59304	-0.7265 ppb	1.59304	219.29%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	77.7	1.2264 µg/L	1.27604	1.2264 ppb	1.27604	104.05%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	-12.6	-0.0533 µg/L	0.08262	-0.0533 ppb	0.08262	155.14%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-12.3	-0.0020 µg/L	0.01104	-0.0020 ppb	0.01104	548.42%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	-40.4	-2.4110 µg/L	1.35502	-2.4110 ppb	1.35502	56.20%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	3.3	0.0221 µg/L	0.12252	0.0221 ppb	0.12252	553.98%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	-6.2	-0.0814 µg/L	0.13054	-0.0814 ppb	0.13054	160.43%

QC value within limits for Co 228.616 Recovery = Not calculated							
Cr 267.716†	23.6	0.1922 µg/L	0.08205	0.1922 ppb	0.08205	42.69%	
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	66.1	0.2773 µg/L	0.43516	0.2773 ppb	0.43516	156.93%	
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe 238.204 Radial†	37.7	2.4963 µg/L	0.31668	2.4963 ppb	0.31668	12.69%	
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K 766.490 Radial†	87.5	34.873 µg/L	26.3491	34.873 ppb	26.3491	75.56%	
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg 279.077 IEC†	6.2	2.4824 µg/L	4.46021	2.4824 ppb	4.46021	179.68%	
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn 257.610†	113.4	0.1488 µg/L	0.00617	0.1488 ppb	0.00617	4.14%	
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo 202.031†	5.6	0.1771 µg/L	0.09832	0.1771 ppb	0.09832	55.51%	
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 589.592 Radial†	179.1	26.446 µg/L	11.5075	26.446 ppb	11.5075	43.51%	
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni 231.604†	6.2	0.0756 µg/L	0.08624	0.0756 ppb	0.08624	114.13%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
P 214.914†	-3.7	-0.8458 µg/L	0.68117	-0.8458 ppb	0.68117	80.53%	
QC value within limits for P 214.914 Recovery = Not calculated							
Pb 220.353†	20.6	1.2249 µg/L	1.40825	1.2249 ppb	1.40825	114.97%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
S 181.975 Axial†	2.2	1.7509 µg/L	3.36221	1.7509 ppb	3.36221	192.03%	
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb 206.836†	-2.7	-0.3372 µg/L	1.41863	-0.3372 ppb	1.41863	420.76%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026†	-3.9	-1.51 µg/L	1.163	-1.51 ppb	1.163	77.09%	
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†	48.9	5.0703 µg/L	1.23653	5.0703 ppb	1.23653	24.39%	
QC value within limits for SiO2 Recovery = Not calculated							
Si 251.611†	47.9	0.7420 µg/L	1.96701	0.7420 ppb	1.96701	265.10%	
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn 189.927†	19.4	1.2982 µg/L	0.29060	1.2982 ppb	0.29060	22.39%	
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr 421.552†	86.0	0.1897 µg/L	0.24782	0.1897 ppb	0.24782	130.65%	
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti 334.940†	-38.5	-0.0404 µg/L	0.10663	-0.0404 ppb	0.10663	263.76%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl 190.801†	4.8	0.6321 µg/L	1.31930	0.6321 ppb	1.31930	208.72%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
U 409.014†	81.3	5.0562 µg/L	1.77968	5.0562 ppb	1.77968	35.20%	
QC value within limits for U 409.014 Recovery = Not calculated							
V 292.402†	23.9	0.1298 µg/L	0.27174	0.1298 ppb	0.27174	209.35%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 213.857†	20.1	0.1201 µg/L	0.05786	0.1201 ppb	0.05786	48.17%	
QC value within limits for Zn 213.857 Recovery = Not calculated							
All analyte(s) passed QC.							

Sequence No.: 8

Sample ID: PQL

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 101

Date Collected: 3/31/2010 8:58:02

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	151523.0	151523.0	101 %		08:58:32
1	Al 396.153Radial†	955.4	1019.9	199.59 µg/L	199.59 ppb	08:58:34
1	Ca 317.933Radial†	4160.8	3486.8	207.95 µg/L	207.95 ppb	08:58:34
1	Fe 238.204 Radial†	1697.5	1543.3	102.15 µg/L	102.15 ppb	08:58:34
1	K 766.490 Radial†	1860.3	266.7	106.15 µg/L	106.15 ppb	08:58:32
1	Mg 279.077 IEC†	960.0	778.3	310.30 µg/L	310.30 ppb	08:58:34
1	Na 589.592 Radial†	3201.8	2052.2	303.25 µg/L	303.25 ppb	08:58:34
1	Sr 421.552†	2361.8	2594.1	5.7161 µg/L	5.7161 ppb	08:58:34
1	Sc 361.383	1768403.3	1768403.3	98.669 %		08:58:46
1	Y 371.029	1065976.0	1065976.0	98.832 %		08:58:46
1	Ag 328.068†	5148.6	1289.9	5.1814 µg/L	5.1814 ppb	08:58:48
1	As 188.979†	73.7	88.5	28.146 µg/L	28.146 ppb	08:59:08
1	B 249.677†	6461.0	3144.8	49.619 µg/L	49.619 ppb	08:58:48
1	Ba 233.527†	1036.3	1188.6	5.0525 µg/L	5.0525 ppb	08:59:08
1	Be 313.107†	15768.1	16997.4	4.9104 µg/L	4.9104 ppb	08:58:48
1	Cd 226.502†	635.4	753.7	5.0267 µg/L	5.0267 ppb	08:59:08
1	Co 228.616†	217.5	392.0	5.1615 µg/L	5.1615 ppb	08:59:08
1	Cr 267.716†	784.3	614.1	5.0431 µg/L	5.0431 ppb	08:59:08
1	Cu 324.752†	5278.1	2371.9	9.8610 µg/L	9.8610 ppb	08:58:48
1	Mn 257.610†	8137.3	8054.0	10.564 µg/L	10.564 ppb	08:58:48
1	Mo 202.031†	279.2	319.4	10.018 µg/L	10.018 ppb	08:59:08
1	Ni 231.604†	329.9	432.0	5.3065 µg/L	5.3065 ppb	08:59:08
1	P 214.914†	621.6	653.3	150.51 µg/L	150.51 ppb	08:59:08
1	Pb 220.353†	240.6	181.9	10.836 µg/L	10.836 ppb	08:59:08
1	S 181.975 Axial†	225.1	135.9	108.89 µg/L	108.89 ppb	08:59:08
1	Sb 206.836†	152.4	73.5	9.4457 µg/L	9.4457 ppb	08:59:08
1	Se 196.026†	95.4	75.7	29.6 µg/L	29.6 ppb	08:59:08
1	SiO2†	3853.0	2123.1	220.86 µg/L	220.86 ppb	08:58:48
1	Si 251.611†	7373.1	6544.4	102.65 µg/L	102.65 ppb	08:58:48
1	Sn 189.927†	161.9	166.5	11.140 µg/L	11.140 ppb	08:59:08
1	Ti 334.940†	5791.9	4899.7	4.7867 µg/L	4.7867 ppb	08:58:48
1	Tl 190.801†	47.5	164.9	21.667 µg/L	21.667 ppb	08:59:08
1	U 409.014†	718.0	1046.2	65.298 µg/L	65.298 ppb	08:58:48
1	V 292.402†	1185.5	895.9	4.7936 µg/L	4.7936 ppb	08:58:48
1	Zn 213.857†	2239.8	1678.7	10.054 µg/L	10.054 ppb	08:59:08
2	Sc RADIAL	150385.1	150385.1	100 %		08:58:36
2	Al 396.153Radial†	1022.9	1094.4	214.20 µg/L	214.20 ppb	08:58:38
2	Ca 317.933Radial†	4248.7	3605.6	215.04 µg/L	215.04 ppb	08:58:38
2	Fe 238.204 Radial†	1768.2	1626.5	107.66 µg/L	107.66 ppb	08:58:38
2	K 766.490 Radial†	2059.1	479.0	190.77 µg/L	190.77 ppb	08:58:36
2	Mg 279.077 IEC†	975.4	800.9	319.29 µg/L	319.29 ppb	08:58:38
2	Na 589.592 Radial†	3208.6	2083.0	307.72 µg/L	307.72 ppb	08:58:38
2	Sr 421.552†	2413.8	2663.7	5.8694 µg/L	5.8694 ppb	08:58:38
2	Sc 361.383	1774879.8	1774879.8	99.030 %		08:59:10
2	Y 371.029	1069956.4	1069956.4	99.201 %		08:59:10
2	Ag 328.068†	5229.8	1352.9	5.4305 µg/L	5.4305 ppb	08:59:12
2	As 188.979†	79.4	94.0	29.867 µg/L	29.867 ppb	08:59:32
2	B 249.677†	6602.1	3263.4	51.493 µg/L	51.493 ppb	08:59:12
2	Ba 233.527†	1073.3	1222.1	5.1949 µg/L	5.1949 ppb	08:59:32
2	Be 313.107†	16138.9	17313.5	5.0021 µg/L	5.0021 ppb	08:59:12
2	Cd 226.502†	673.3	789.6	5.2658 µg/L	5.2658 ppb	08:59:32
2	Co 228.616†	203.1	376.7	4.9591 µg/L	4.9591 ppb	08:59:32
2	Cr 267.716†	779.3	606.3	4.9756 µg/L	4.9756 ppb	08:59:32
2	Cu 324.752†	5316.4	2391.0	9.9430 µg/L	9.9430 ppb	08:59:12
2	Mn 257.610†	8332.8	8221.4	10.784 µg/L	10.784 ppb	08:59:12
2	Mo 202.031†	286.3	325.5	10.210 µg/L	10.210 ppb	08:59:32
2	Ni 231.604†	318.5	419.2	5.1498 µg/L	5.1498 ppb	08:59:32
2	P 214.914†	626.3	655.7	151.07 µg/L	151.07 ppb	08:59:32
2	Pb 220.353†	253.4	194.0	11.558 µg/L	11.558 ppb	08:59:32

2	S 181.975 Axial†	216.0	125.9	100.90 µg/L	100.90 ppb	08:59:32
2	Sb 206.836†	151.7	72.3	9.2963 µg/L	9.2963 ppb	08:59:32
2	Se 196.026†	89.6	69.5	27.2 µg/L	27.2 ppb	08:59:32
2	SiO2†	3880.8	2136.9	222.30 µg/L	222.30 ppb	08:59:12
2	Si 251.611†	7629.1	6775.7	106.28 µg/L	106.28 ppb	08:59:12
2	Sn 189.927†	153.1	157.1	10.512 µg/L	10.512 ppb	08:59:32
2	Ti 334.940†	6025.7	5114.4	4.9970 µg/L	4.9970 ppb	08:59:12
2	Tl 190.801†	45.4	162.6	21.376 µg/L	21.376 ppb	08:59:32
2	U 409.014†	761.6	1087.5	67.864 µg/L	67.864 ppb	08:59:12
2	V 292.402†	1178.0	883.9	4.7342 µg/L	4.7342 ppb	08:59:12
2	Zn 213.857†	2262.7	1693.5	10.144 µg/L	10.144 ppb	08:59:32
3	Sc RADIAL	149101.1	149101.1	99.4 %		08:58:40
3	Al 396.153Radial†	983.8	1063.9	208.22 µg/L	208.22 ppb	08:58:42
3	Ca 317.933Radial†	4028.1	3420.1	203.98 µg/L	203.98 ppb	08:58:42
3	Fe 238.204 Radial†	1698.2	1571.3	104.01 µg/L	104.01 ppb	08:58:42
3	K 766.490 Radial†	2117.9	555.9	221.41 µg/L	221.41 ppb	08:58:40
3	Mg 279.077 IEC†	1039.8	874.0	348.42 µg/L	348.42 ppb	08:58:42
3	Na 589.592 Radial†	3261.4	2163.8	319.63 µg/L	319.63 ppb	08:58:42
3	Sr 421.552†	2201.5	2470.7	5.4441 µg/L	5.4441 ppb	08:58:42
3	Sc 361.383	1775996.3	1775996.3	99.093 %		08:59:34
3	Y 371.029	1071001.6	1071001.6	99.298 %		08:59:34
3	Ag 328.068†	5128.9	1247.8	5.0019 µg/L	5.0019 ppb	08:59:36
3	As 188.979†	85.1	99.7	31.669 µg/L	31.669 ppb	08:59:56
3	B 249.677†	6550.9	3207.6	50.611 µg/L	50.611 ppb	08:59:36
3	Ba 233.527†	1069.9	1218.0	5.1776 µg/L	5.1776 ppb	08:59:56
3	Be 313.107†	16335.8	17501.9	5.0513 µg/L	5.0513 ppb	08:59:36
3	Cd 226.502†	636.6	752.2	5.0159 µg/L	5.0159 ppb	08:59:56
3	Co 228.616†	205.9	379.4	4.9951 µg/L	4.9951 ppb	08:59:56
3	Cr 267.716†	780.0	606.4	4.9895 µg/L	4.9895 ppb	08:59:56
3	Cu 324.752†	5454.9	2527.4	10.492 µg/L	10.492 ppb	08:59:36
3	Mn 257.610†	8261.9	8144.5	10.682 µg/L	10.682 ppb	08:59:36
3	Mo 202.031†	274.5	313.4	9.8313 µg/L	9.8313 ppb	08:59:56
3	Ni 231.604†	312.6	413.1	5.0744 µg/L	5.0744 ppb	08:59:56
3	P 214.914†	642.7	671.9	154.80 µg/L	154.80 ppb	08:59:56
3	Pb 220.353†	246.9	187.2	11.165 µg/L	11.165 ppb	08:59:56
3	S 181.975 Axial†	218.7	128.4	102.91 µg/L	102.91 ppb	08:59:56
3	Sb 206.836†	151.3	71.8	9.2281 µg/L	9.2281 ppb	08:59:56
3	Se 196.026†	108.1	88.1	34.4 µg/L	34.4 ppb	08:59:56
3	SiO2†	3848.8	2102.3	218.69 µg/L	218.69 ppb	08:59:36
3	Si 251.611†	7449.4	6589.5	103.36 µg/L	103.36 ppb	08:59:36
3	Sn 189.927†	158.2	162.1	10.847 µg/L	10.847 ppb	08:59:56
3	Ti 334.940†	6090.6	5176.1	5.0620 µg/L	5.0620 ppb	08:59:36
3	Tl 190.801†	53.9	171.2	22.494 µg/L	22.494 ppb	08:59:56
3	U 409.014†	498.3	821.3	51.344 µg/L	51.344 ppb	08:59:36
3	V 292.402†	1234.9	940.6	5.0131 µg/L	5.0131 ppb	08:59:36
3	Zn 213.857†	2246.6	1675.9	10.038 µg/L	10.038 ppb	08:59:56

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1773093.1	98.931 %	0.2287			0.23%
Sc RADIAL	150336.4	100 %	0.8			0.81%
Y 371.029	1068978.0	99.110 %	0.2459			0.25%
Ag 328.068†	1296.9	5.2046 µg/L	0.21521	5.2046 ppb	0.21521	4.13%
QC value within limits for Ag 328.068 Recovery = 104.09%						
Al 396.153Radial†	1059.4	207.33 µg/L	7.344	207.33 ppb	7.344	3.54%
QC value within limits for Al 396.153Radial Recovery = 103.67%						
As 188.979†	94.1	29.894 µg/L	1.7614	29.894 ppb	1.7614	5.89%
QC value within limits for As 188.979 Recovery = 99.65%						
B 249.677†	3205.3	50.575 µg/L	0.9373	50.575 ppb	0.9373	1.85%
QC value within limits for B 249.677 Recovery = 101.15%						
Ba 233.527†	1209.6	5.1416 µg/L	0.07772	5.1416 ppb	0.07772	1.51%
QC value within limits for Ba 233.527 Recovery = 102.83%						
Be 313.107†	17271.0	4.9880 µg/L	0.07154	4.9880 ppb	0.07154	1.43%
QC value within limits for Be 313.107 Recovery = 99.76%						
Ca 317.933Radial†	3504.2	208.99 µg/L	5.604	208.99 ppb	5.604	2.68%
QC value within limits for Ca 317.933Radial Recovery = 104.50%						
Cd 226.502†	765.2	5.1028 µg/L	0.14128	5.1028 ppb	0.14128	2.77%
QC value within limits for Cd 226.502 Recovery = 102.06%						
Co 228.616†	382.7	5.0385 µg/L	0.10796	5.0385 ppb	0.10796	2.14%

QC value within limits for Co 228.616 Recovery = 100.77%							
Cr 267.716†	608.9	5.0027 µg/L	0.03561	5.0027 ppb	0.03561	0.71%	
QC value within limits for Cr 267.716 Recovery = 100.05%							
Cu 324.752†	2430.1	10.099 µg/L	0.3431	10.099 ppb	0.3431	3.40%	
QC value within limits for Cu 324.752 Recovery = 100.99%							
Fe 238.204 Radial†	1580.3	104.61 µg/L	2.802	104.61 ppb	2.802	2.68%	
QC value within limits for Fe 238.204 Radial Recovery = 104.61%							
K 766.490 Radial†	433.9	172.78 µg/L	59.697	172.78 ppb	59.697	34.55%	
QC value within limits for K 766.490 Radial Recovery = 115.18%							
Mg 279.077 IEC†	817.8	326.00 µg/L	19.926	326.00 ppb	19.926	6.11%	
QC value within limits for Mg 279.077 IEC Recovery = 108.67%							
Mn 257.610†	8140.0	10.677 µg/L	0.1098	10.677 ppb	0.1098	1.03%	
QC value within limits for Mn 257.610 Recovery = 106.77%							
Mo 202.031†	319.4	10.020 µg/L	0.1894	10.020 ppb	0.1894	1.89%	
QC value within limits for Mo 202.031 Recovery = 100.20%							
Na 589.592 Radial†	2099.7	310.20 µg/L	8.467	310.20 ppb	8.467	2.73%	
QC value within limits for Na 589.592 Radial Recovery = 103.40%							
Ni 231.604†	421.4	5.1769 µg/L	0.11842	5.1769 ppb	0.11842	2.29%	
QC value within limits for Ni 231.604 Recovery = 103.54%							
P 214.914†	660.3	152.13 µg/L	2.337	152.13 ppb	2.337	1.54%	
QC value within limits for P 214.914 Recovery = 101.42%							
Pb 220.353†	187.7	11.187 µg/L	0.3616	11.187 ppb	0.3616	3.23%	
QC value within limits for Pb 220.353 Recovery = 111.87%							
S 181.975 Axial†	130.1	104.23 µg/L	4.156	104.23 ppb	4.156	3.99%	
QC value within limits for S 181.975 Axial Recovery = 104.23%							
Sb 206.836†	72.5	9.3233 µg/L	0.11128	9.3233 ppb	0.11128	1.19%	
QC value within limits for Sb 206.836 Recovery = 93.23%							
Se 196.026†	77.8	30.4 µg/L	3.69	30.4 ppb	3.69	12.14%	
QC value within limits for Se 196.026 Recovery = 101.36%							
SiO2†	2120.8	220.62 µg/L	1.817	220.62 ppb	1.817	0.82%	
QC value within limits for SiO2 Recovery = 103.58%							
Si 251.611†	6636.5	104.10 µg/L	1.927	104.10 ppb	1.927	1.85%	
QC value within limits for Si 251.611 Recovery = 104.10%							
Sn 189.927†	161.9	10.833 µg/L	0.3143	10.833 ppb	0.3143	2.90%	
QC value within limits for Sn 189.927 Recovery = 108.33%							
Sr 421.552†	2576.1	5.6765 µg/L	0.21536	5.6765 ppb	0.21536	3.79%	
QC value within limits for Sr 421.552 Recovery = 113.53%							
Ti 334.940†	5063.4	4.9486 µg/L	0.14388	4.9486 ppb	0.14388	2.91%	
QC value within limits for Ti 334.940 Recovery = 98.97%							
Tl 190.801†	166.2	21.846 µg/L	0.5801	21.846 ppb	0.5801	2.66%	
QC value within limits for Tl 190.801 Recovery = 109.23%							
U 409.014†	985.0	61.502 µg/L	8.8899	61.502 ppb	8.8899	14.45%	
QC value within limits for U 409.014 Recovery = 123.00%							
V 292.402†	906.8	4.8470 µg/L	0.14690	4.8470 ppb	0.14690	3.03%	
QC value within limits for V 292.402 Recovery = 96.94%							
Zn 213.857†	1682.7	10.079 µg/L	0.0572	10.079 ppb	0.0572	0.57%	
QC value within limits for Zn 213.857 Recovery = 100.79%							
All analyte(s) passed QC.							

Sequence No.: 9

Sample ID: ICSA

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 103

Date Collected: 3/31/2010 9:00:04

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	140520.2	140520.2	93.7 %		09:00:37
1	Al 396.153Radial†	2400769.3	2563267.8	502780 µg/L	502780 ppb	09:00:35
1	Ca 317.933Radial†	7549731.0	8059876.7	480700 µg/L	480700 ppb	09:00:35
1	Fe 238.204 Radial†	2696149.9	2878421.0	190530 µg/L	190530 ppb	09:00:35
1	K 766.490 Radial†	1657.4	194.3	-162.25 µg/L	-162.25 ppb	09:00:37
1	Mg 279.077 IEC†	1139883.9	1216830.8	484700 µg/L	484700 ppb	09:00:35
1	Na 589.592 Radial†	1329.2	301.2	44.453 µg/L	44.453 ppb	09:00:37
1	Sr 421.552†	1349.1	1696.0	-0.0243 µg/L	-0.0243 ppb	09:00:37
1	Sc 361.383	1573725.9	1573725.9	87.807 %		09:01:04
1	Y 371.029	931192.8	931192.8	86.336 %		09:01:04
1	Ag 328.068†	6098.7	3017.5	-1.4469 µg/L	-1.4469 ppb	09:01:04
1	As 188.979†	-101.9	-102.2	10.311 µg/L	10.311 ppb	09:01:24
1	B 249.677†	3454.3	530.6	8.3612 µg/L	8.3612 ppb	09:01:04
1	Ba 233.527†	463.2	665.8	0.3916 µg/L	0.3916 ppb	09:01:24
1	Be 313.107†	-1381.4	-556.6	-0.1520 µg/L	-0.1520 ppb	09:01:04
1	Cd 226.502†	2298.4	2727.4	-1.8163 µg/L	-1.8163 ppb	09:01:24
1	Co 228.616†	110.4	297.3	-6.0220 µg/L	-6.0220 ppb	09:01:24
1	Cr 267.716†	183.5	28.3	0.9157 µg/L	0.9157 ppb	09:01:24
1	Cu 324.752†	-5034.3	-8710.9	4.9514 µg/L	4.9514 ppb	09:01:04
1	Mn 257.610†	16228.4	18288.9	4.2892 µg/L	4.2892 ppb	09:01:04
1	Mo 202.031†	-562.0	-603.7	-2.5173 µg/L	-2.5173 ppb	09:01:24
1	Ni 231.604†	138.9	255.7	3.1417 µg/L	3.1417 ppb	09:01:24
1	P 214.914†	184.8	233.7	36.249 µg/L	36.249 ppb	09:01:24
1	Pb 220.353†	-401.5	-519.2	-5.9450 µg/L	-5.9450 ppb	09:01:24
1	S 181.975 Axial†	166.5	97.4	77.774 µg/L	77.774 ppb	09:01:24
1	Sb 206.836†	111.7	46.2	-0.1312 µg/L	-0.1312 ppb	09:01:24
1	Se 196.026†	-149.3	-191.0	-8.30 µg/L	-8.30 ppb	09:01:24
1	SiO2†	1629.5	74.0	8.2124 µg/L	8.2124 ppb	09:01:24
1	Si 251.611†	516.4	-340.0	-5.1084 µg/L	-5.1084 ppb	09:01:24
1	Sn 189.927†	31.6	38.5	2.6492 µg/L	2.6492 ppb	09:01:24
1	Ti 334.940†	21828.5	23889.4	-3.3961 µg/L	-3.3961 ppb	09:01:04
1	Tl 190.801†	-145.0	-48.4	-5.9104 µg/L	-5.9104 ppb	09:01:24
1	U 409.014†	101.9	434.5	5.5681 µg/L	5.5681 ppb	09:01:04
1	V 292.402†	3531.8	3716.5	-1.0510 µg/L	-1.0510 ppb	09:01:24
1	Zn 213.857†	4216.5	4210.7	8.9881 µg/L	8.9881 ppb	09:01:24
2	Sc RADIAL	141123.3	141123.3	94.1 %		09:00:42
2	Al 396.153Radial†	2426718.8	2579899.5	506050 µg/L	506050 ppb	09:00:40
2	Ca 317.933Radial†	7651902.3	8134043.7	485120 µg/L	485120 ppb	09:00:40
2	Fe 238.204 Radial†	2733731.5	2906070.8	192360 µg/L	192360 ppb	09:00:40
2	K 766.490 Radial†	1636.9	165.0	-175.91 µg/L	-175.91 ppb	09:00:42
2	Mg 279.077 IEC†	1157803.7	1230679.7	490220 µg/L	490220 ppb	09:00:40
2	Na 589.592 Radial†	1425.1	397.1	58.630 µg/L	58.630 ppb	09:00:42
2	Sr 421.552†	1446.2	1793.0	0.1549 µg/L	0.1549 ppb	09:00:42
2	Sc 361.383	1581092.3	1581092.3	88.218 %		09:01:27
2	Y 371.029	935435.6	935435.6	86.729 %		09:01:27
2	Ag 328.068†	6261.3	3169.4	-0.9812 µg/L	-0.9812 ppb	09:01:27
2	As 188.979†	-111.2	-112.2	7.5642 µg/L	7.5642 ppb	09:01:47
2	B 249.677†	3479.6	540.9	8.5247 µg/L	8.5247 ppb	09:01:27
2	Ba 233.527†	419.5	613.8	0.1477 µg/L	0.1477 ppb	09:01:47
2	Be 313.107†	-1377.7	-545.1	-0.1504 µg/L	-0.1504 ppb	09:01:27
2	Cd 226.502†	2351.3	2775.1	-1.6898 µg/L	-1.6898 ppb	09:01:47
2	Co 228.616†	106.0	291.7	-6.1911 µg/L	-6.1911 ppb	09:01:47
2	Cr 267.716†	187.2	31.5	0.9432 µg/L	0.9432 ppb	09:01:47
2	Cu 324.752†	-5125.7	-8787.7	5.0455 µg/L	5.0455 ppb	09:01:27
2	Mn 257.610†	16378.3	18372.7	4.1756 µg/L	4.1756 ppb	09:01:27
2	Mo 202.031†	-545.5	-581.9	-1.6616 µg/L	-1.6616 ppb	09:01:47
2	Ni 231.604†	134.9	250.5	3.0770 µg/L	3.0770 ppb	09:01:47
2	P 214.914†	165.0	210.3	30.335 µg/L	30.335 ppb	09:01:47
2	Pb 220.353†	-381.9	-494.8	-4.3446 µg/L	-4.3446 ppb	09:01:47

2	S 181.975 Axial†	164.7	94.4	75.437 µg/L	75.437 ppb	09:01:47
2	Sb 206.836†	136.5	73.8	3.3441 µg/L	3.3441 ppb	09:01:47
2	Se 196.026†	-161.6	-204.1	-12.8 µg/L	-12.8 ppb	09:01:47
2	SiO2†	1627.0	62.5	6.9918 µg/L	6.9918 ppb	09:01:47
2	Si 251.611†	483.7	-379.8	-5.7443 µg/L	-5.7443 ppb	09:01:47
2	Sn 189.927†	36.4	43.7	2.9988 µg/L	2.9988 ppb	09:01:47
2	Ti 334.940†	21304.6	23179.7	-4.4282 µg/L	-4.4282 ppb	09:01:27
2	Tl 190.801†	-175.9	-82.6	-10.392 µg/L	-10.392 ppb	09:01:47
2	U 409.014†	21.8	343.2	-0.3135 µg/L	-0.3135 ppb	09:01:27
2	V 292.402†	3584.6	3757.7	-1.0268 µg/L	-1.0268 ppb	09:01:47
2	Zn 213.857†	4230.8	4204.5	8.7692 µg/L	8.7692 ppb	09:01:47
3	Sc RADIAL	140112.5	140112.5	93.4 %		09:00:46
3	Al 396.153Radial†	2413123.4	2583953.2	506840 µg/L	506840 ppb	09:00:44
3	Ca 317.933Radial†	7619796.2	8158350.4	486570 µg/L	486570 ppb	09:00:44
3	Fe 238.204 Radial†	2717980.3	2910170.8	192630 µg/L	192630 ppb	09:00:44
3	K 766.490 Radial†	1778.9	329.6	-110.80 µg/L	-110.80 ppb	09:00:46
3	Mg 279.077 IEC†	1150715.2	1231969.1	490730 µg/L	490730 ppb	09:00:44
3	Na 589.592 Radial†	1243.5	213.6	31.457 µg/L	31.457 ppb	09:00:46
3	Sr 421.552†	1375.4	1728.3	0.0010 µg/L	0.0010 ppb	09:00:46
3	Sc 361.383	1573760.4	1573760.4	87.809 %		09:01:50
3	Y 371.029	931881.2	931881.2	86.400 %		09:01:50
3	Ag 328.068†	6286.7	3231.4	-0.7822 µg/L	-0.7822 ppb	09:01:50
3	As 188.979†	-111.7	-113.3	7.2615 µg/L	7.2615 ppb	09:02:10
3	B 249.677†	3128.2	159.2	2.5013 µg/L	2.5013 ppb	09:01:50
3	Ba 233.527†	396.6	590.0	0.0426 µg/L	0.0426 ppb	09:02:10
3	Be 313.107†	-1254.6	-412.2	-0.1122 µg/L	-0.1122 ppb	09:01:50
3	Cd 226.502†	2335.9	2769.9	-1.7527 µg/L	-1.7527 ppb	09:02:10
3	Co 228.616†	72.8	254.6	-6.6947 µg/L	-6.6947 ppb	09:02:10
3	Cr 267.716†	209.8	58.3	1.1682 µg/L	1.1682 ppb	09:02:10
3	Cu 324.752†	-5296.7	-9009.5	4.1841 µg/L	4.1841 ppb	09:01:50
3	Mn 257.610†	16035.5	18068.7	3.7553 µg/L	3.7553 ppb	09:01:50
3	Mo 202.031†	-570.7	-613.5	-2.6316 µg/L	-2.6316 ppb	09:02:10
3	Ni 231.604†	171.3	292.7	3.5963 µg/L	3.5963 ppb	09:02:10
3	P 214.914†	189.3	238.9	36.927 µg/L	36.927 ppb	09:02:10
3	Pb 220.353†	-377.3	-491.6	-4.1140 µg/L	-4.1140 ppb	09:02:10
3	S 181.975 Axial†	162.9	93.3	74.499 µg/L	74.499 ppb	09:02:10
3	Sb 206.836†	124.9	61.3	1.7293 µg/L	1.7293 ppb	09:02:10
3	Se 196.026†	-137.3	-177.3	-2.24 µg/L	-2.24 ppb	09:02:10
3	SiO2†	1688.4	141.0	15.196 µg/L	15.196 ppb	09:02:10
3	Si 251.611†	521.8	-333.8	-5.0121 µg/L	-5.0121 ppb	09:02:10
3	Sn 189.927†	43.1	51.5	3.5175 µg/L	3.5175 ppb	09:02:10
3	Ti 334.940†	20663.8	22562.4	-5.0415 µg/L	-5.0415 ppb	09:01:50
3	Tl 190.801†	-161.0	-66.5	-8.3012 µg/L	-8.3012 ppb	09:02:10
3	U 409.014†	22.7	344.3	-0.2760 µg/L	-0.2760 ppb	09:01:50
3	V 292.402†	3493.0	3672.3	-1.5062 µg/L	-1.5062 ppb	09:02:10
3	Zn 213.857†	4233.8	4230.3	8.8923 µg/L	8.8923 ppb	09:02:10

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1576192.8	87.945 %	0.2367			0.27%
Sc RADIAL	140585.3	93.7 %	0.34			0.36%
Y 371.029	932836.5	86.488 %	0.2111			0.24%
Ag 328.068†	3139.4	-1.0701 µg/L	0.34117	-1.0701 ppb	0.34117	31.88%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	2575706.8	505220 µg/L	2150.1	505220 ppb	2150.1	0.43%
QC value within limits for Al 396.153Radial Recovery = 101.04%						
As 188.979†	-109.3	8.3790 µg/L	1.68017	8.3790 ppb	1.68017	20.05%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	410.2	6.4624 µg/L	3.43139	6.4624 ppb	3.43139	53.10%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	623.2	0.1940 µg/L	0.17907	0.1940 ppb	0.17907	92.32%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-504.7	-0.1382 µg/L	0.02256	-0.1382 ppb	0.02256	16.33%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	8117423.6	484130 µg/L	3059.4	484130 ppb	3059.4	0.63%
QC value within limits for Ca 317.933Radial Recovery = 96.83%						
Cd 226.502†	2757.5	-1.7530 µg/L	0.06323	-1.7530 ppb	0.06323	3.61%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	281.2	-6.3026 µg/L	0.34993	-6.3026 ppb	0.34993	5.55%

QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	39.4	1.0090 µg/L	0.13855	1.0090 ppb	0.13855	13.73%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-8836.0	4.7270 µg/L	0.47249	4.7270 ppb	0.47249	10.00%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	2898220.9	191840 µg/L	1143.1	191840 ppb	1143.1	0.60%
QC value within limits for Fe 238.204 Radial Recovery = 95.92%						
K 766.490 Radial†	229.6	-149.65 µg/L	34.335	-149.65 ppb	34.335	22.94%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	1226493.2	488550 µg/L	3343.2	488550 ppb	3343.2	0.68%
QC value within limits for Mg 279.077 IEC Recovery = 97.71%						
Mn 257.610†	18243.4	4.0734 µg/L	0.28121	4.0734 ppb	0.28121	6.90%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	-599.7	-2.2701 µg/L	0.53012	-2.2701 ppb	0.53012	23.35%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	304.0	44.847 µg/L	13.5911	44.847 ppb	13.5911	30.31%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	266.3	3.2717 µg/L	0.28298	3.2717 ppb	0.28298	8.65%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	227.6	34.504 µg/L	3.6262	34.504 ppb	3.6262	10.51%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-501.9	-4.8012 µg/L	0.99727	-4.8012 ppb	0.99727	20.77%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	95.0	75.903 µg/L	1.6863	75.903 ppb	1.6863	2.22%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	60.5	1.6474 µg/L	1.73909	1.6474 ppb	1.73909	105.57%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-190.8	-7.77 µg/L	5.278	-7.77 ppb	5.278	67.94%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	92.5	10.133 µg/L	4.4267	10.133 ppb	4.4267	43.68%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	-351.2	-5.2883 µg/L	0.39786	-5.2883 ppb	0.39786	7.52%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	44.6	3.0552 µg/L	0.43692	3.0552 ppb	0.43692	14.30%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	1739.1	0.0438 µg/L	0.09697	0.0438 ppb	0.09697	221.16%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	23210.5	-4.2886 µg/L	0.83152	-4.2886 ppb	0.83152	19.39%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	-65.8	-8.2011 µg/L	2.24242	-8.2011 ppb	2.24242	27.34%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	374.0	1.6596 µg/L	3.38492	1.6596 ppb	3.38492	203.97%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	3715.5	-1.1947 µg/L	0.27008	-1.1947 ppb	0.27008	22.61%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	4215.2	8.8832 µg/L	0.10975	8.8832 ppb	0.10975	1.24%
QC value within limits for Zn 213.857 Recovery = Not calculated						
All analyte(s) passed QC.						

Sequence No.: 10

Sample ID: ICSAB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 104

Date Collected: 3/31/2010 9:02:18

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	137224.0	137224.0	91.5 %		09:02:50
1	Al 396.153Radial†	2402511.5	2626740.3	515210 µg/L	515210 ppb	09:02:48
1	Ca 317.933Radial†	7555342.5	8259624.5	492610 µg/L	492610 ppb	09:02:48
1	Fe 238.204 Radial†	2701130.0	2953008.5	195470 µg/L	195470 ppb	09:02:48
1	K 766.490 Radial†	14843.4	14653.1	5594.1 µg/L	5594.1 ppb	09:02:50
1	Mg 279.077 IEC†	1136616.0	1242490.3	494940 µg/L	494940 ppb	09:02:50
1	Na 589.592 Radial†	34719.0	36840.4	5440.2 µg/L	5440.2 ppb	09:02:50
1	Sr 421.552†	214286.7	234535.3	513.09 µg/L	513.09 ppb	09:02:50
1	Sc 361.383	1575015.8	1575015.8	87.879 %		09:03:18
1	Y 371.029	933295.6	933295.6	86.531 %		09:03:18
1	Ag 328.068†	65324.3	70406.3	268.89 µg/L	268.89 ppb	09:03:18
1	As 188.979†	1328.1	1525.1	533.05 µg/L	533.05 ppb	09:03:20
1	B 249.677†	32335.8	33392.5	525.46 µg/L	525.46 ppb	09:03:18
1	Ba 233.527†	104295.9	118819.7	502.59 µg/L	502.59 ppb	09:03:18
1	Be 313.107†	753131.6	858027.2	247.03 µg/L	247.03 ppb	09:03:18
1	Cd 226.502†	65820.7	75009.1	480.72 µg/L	480.72 ppb	09:03:18
1	Co 228.616†	30695.8	35101.3	452.51 µg/L	452.51 ppb	09:03:20
1	Cr 267.716†	52614.9	59691.3	495.67 µg/L	495.67 ppb	09:03:20
1	Cu 324.752†	110061.3	122264.6	546.71 µg/L	546.71 ppb	09:03:18
1	Mn 257.610†	341595.0	388517.9	490.07 µg/L	490.07 ppb	09:03:18
1	Mo 202.031†	13577.0	15486.1	502.13 µg/L	502.13 ppb	09:03:20
1	Ni 231.604†	33452.1	38163.8	468.83 µg/L	468.83 ppb	09:03:20
1	P 214.914†	10280.0	11721.3	2677.9 µg/L	2677.9 ppb	09:03:20
1	Pb 220.353†	6785.4	7659.4	483.79 µg/L	483.79 ppb	09:03:20
1	S 181.975 Axial†	3170.9	3516.1	2818.8 µg/L	2818.8 ppb	09:03:20
1	Sb 206.836†	3636.5	4057.1	511.92 µg/L	511.92 ppb	09:03:20
1	Se 196.026†	5465.0	6197.9	2480 µg/L	2480 ppb	09:03:20
1	SiO2†	95702.4	107120.7	11145 µg/L	11145 ppb	09:03:18
1	Si 251.611†	292431.7	331838.6	5205.6 µg/L	5205.6 ppb	09:03:18
1	Sn 189.927†	6518.4	7419.9	497.46 µg/L	497.46 ppb	09:03:20
1	Ti 334.940†	477257.4	542115.0	507.09 µg/L	507.09 ppb	09:03:18
1	Tl 190.801†	3012.4	3544.6	472.24 µg/L	472.24 ppb	09:03:20
1	U 409.014†	6707.0	7950.5	503.93 µg/L	503.93 ppb	09:03:18
1	V 292.402†	90601.2	102792.2	518.73 µg/L	518.73 ppb	09:03:18
1	Zn 213.857†	76141.8	86052.7	497.90 µg/L	497.90 ppb	09:03:18
2	Sc RADIAL	137560.8	137560.8	91.7 %		09:02:55
2	Al 396.153Radial†	2382542.5	2598532.0	509680 µg/L	509680 ppb	09:02:53
2	Ca 317.933Radial†	7508366.4	8188171.7	488350 µg/L	488350 ppb	09:02:53
2	Fe 238.204 Radial†	2685190.4	2928395.6	193840 µg/L	193840 ppb	09:02:53
2	K 766.490 Radial†	14802.4	14568.7	5562.3 µg/L	5562.3 ppb	09:02:55
2	Mg 279.077 IEC†	1145560.0	1249203.0	497610 µg/L	497610 ppb	09:02:55
2	Na 589.592 Radial†	34975.6	37027.3	5467.9 µg/L	5467.9 ppb	09:02:55
2	Sr 421.552†	215471.0	235253.4	514.71 µg/L	514.71 ppb	09:02:55
2	Sc 361.383	1593260.8	1593260.8	88.897 %		09:03:23
2	Y 371.029	943047.1	943047.1	87.435 %		09:03:23
2	Ag 328.068†	66773.5	71185.3	272.09 µg/L	272.09 ppb	09:03:23
2	As 188.979†	1405.2	1594.5	554.59 µg/L	554.59 ppb	09:03:25
2	B 249.677†	33133.6	33868.6	533.01 µg/L	533.01 ppb	09:03:23
2	Ba 233.527†	106703.2	120168.5	508.34 µg/L	508.34 ppb	09:03:23
2	Be 313.107†	769626.0	866767.8	249.55 µg/L	249.55 ppb	09:03:23
2	Cd 226.502†	67526.4	76070.1	487.97 µg/L	487.97 ppb	09:03:23
2	Co 228.616†	30469.2	34446.3	443.97 µg/L	443.97 ppb	09:03:25
2	Cr 267.716†	52334.4	58690.1	487.26 µg/L	487.26 ppb	09:03:25
2	Cu 324.752†	112332.4	123385.1	551.17 µg/L	551.17 ppb	09:03:23
2	Mn 257.610†	348511.9	391847.5	494.34 µg/L	494.34 ppb	09:03:23
2	Mo 202.031†	13530.3	15256.7	494.93 µg/L	494.93 ppb	09:03:25
2	Ni 231.604†	32918.7	37127.8	456.10 µg/L	456.10 ppb	09:03:25
2	P 214.914†	10074.9	11356.5	2593.6 µg/L	2593.6 ppb	09:03:25
2	Pb 220.353†	6720.3	7497.8	473.84 µg/L	473.84 ppb	09:03:25

2	S 181.975 Axial†	3158.0	3460.2	2774.0 µg/L	2774.0 ppb	09:03:25
2	Sb 206.836†	3595.1	3963.2	500.03 µg/L	500.03 ppb	09:03:25
2	Se 196.026†	5456.0	6116.5	2450 µg/L	2450 ppb	09:03:25
2	SiO2†	97429.8	107816.8	11218 µg/L	11218 ppb	09:03:23
2	Si 251.611†	298847.8	335245.4	5259.3 µg/L	5259.3 ppb	09:03:23
2	Sn 189.927†	6474.7	7285.8	488.52 µg/L	488.52 ppb	09:03:25
2	Ti 334.940†	486394.1	546173.8	510.77 µg/L	510.77 ppb	09:03:23
2	Tl 190.801†	3058.9	3557.7	474.06 µg/L	474.06 ppb	09:03:25
2	U 409.014†	6977.2	8167.1	517.69 µg/L	517.69 ppb	09:03:23
2	V 292.402†	91895.4	103067.4	520.22 µg/L	520.22 ppb	09:03:23
2	Zn 213.857†	78103.7	87267.4	505.42 µg/L	505.42 ppb	09:03:23
3	Sc RADIAL	138834.0	138834.0	92.5 %		09:02:59
3	Al 396.153Radial†	2368832.5	2559886.7	502100 µg/L	502100 ppb	09:02:57
3	Ca 317.933Radial†	7451379.6	8051492.6	480200 µg/L	480200 ppb	09:02:57
3	Fe 238.204 Radial†	2661225.9	2875642.1	190340 µg/L	190340 ppb	09:02:57
3	K 766.490 Radial†	14843.9	14465.5	5524.5 µg/L	5524.5 ppb	09:02:59
3	Mg 279.077 IEC†	1153142.8	1245939.4	496320 µg/L	496320 ppb	09:02:59
3	Na 589.592 Radial†	35167.6	36885.0	5446.9 µg/L	5446.9 ppb	09:02:59
3	Sr 421.552†	216639.9	234361.4	512.81 µg/L	512.81 ppb	09:02:59
3	Sc 361.383	1568437.9	1568437.9	87.512 %		09:03:28
3	Y 371.029	929595.9	929595.9	86.188 %		09:03:28
3	Ag 328.068†	65204.5	70581.2	269.96 µg/L	269.96 ppb	09:03:28
3	As 188.979†	1354.4	1561.5	543.41 µg/L	543.41 ppb	09:03:30
3	B 249.677†	32673.8	33933.0	534.00 µg/L	534.00 ppb	09:03:28
3	Ba 233.527†	104483.6	119531.9	505.68 µg/L	505.68 ppb	09:03:28
3	Be 313.107†	753316.5	861832.8	248.13 µg/L	248.13 ppb	09:03:28
3	Cd 226.502†	65909.6	75424.7	484.03 µg/L	484.03 ppb	09:03:28
3	Co 228.616†	30419.9	34932.5	450.55 µg/L	450.55 ppb	09:03:30
3	Cr 267.716†	51979.5	59216.4	491.52 µg/L	491.52 ppb	09:03:30
3	Cu 324.752†	110087.6	122819.9	548.31 µg/L	548.31 ppb	09:03:28
3	Mn 257.610†	341681.3	390246.7	492.30 µg/L	492.30 ppb	09:03:28
3	Mo 202.031†	13558.7	15529.9	503.33 µg/L	503.33 ppb	09:03:30
3	Ni 231.604†	33011.5	37820.0	464.61 µg/L	464.61 ppb	09:03:30
3	P 214.914†	10273.0	11762.2	2687.9 µg/L	2687.9 ppb	09:03:30
3	Pb 220.353†	6718.9	7615.8	480.54 µg/L	480.54 ppb	09:03:30
3	S 181.975 Axial†	3113.8	3465.9	2778.6 µg/L	2778.6 ppb	09:03:30
3	Sb 206.836†	3667.8	4110.3	518.93 µg/L	518.93 ppb	09:03:30
3	Se 196.026†	5425.2	6178.5	2470 µg/L	2470 ppb	09:03:30
3	SiO2†	95689.5	107562.7	11191 µg/L	11191 ppb	09:03:28
3	Si 251.611†	292758.9	333608.1	5233.3 µg/L	5233.3 ppb	09:03:28
3	Sn 189.927†	6527.0	7460.9	500.21 µg/L	500.21 ppb	09:03:30
3	Ti 334.940†	478186.2	545454.0	509.95 µg/L	509.95 ppb	09:03:28
3	Tl 190.801†	2945.7	3482.8	464.20 µg/L	464.20 ppb	09:03:30
3	U 409.014†	6961.1	8273.0	524.65 µg/L	524.65 ppb	09:03:28
3	V 292.402†	90345.0	102931.7	520.00 µg/L	520.00 ppb	09:03:28
3	Zn 213.857†	76175.3	86454.4	500.79 µg/L	500.79 ppb	09:03:28

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1578904.9	88.096 %	0.7175			0.81%
Sc RADIAL	137872.9	91.9 %	0.57			0.62%
Y 371.029	935312.9	86.718 %	0.6443			0.74%
Ag 328.068†	70724.3	270.31 µg/L	1.631	270.31 ppb	1.631	0.60%
QC value within limits for Ag 328.068 Recovery = 108.12%						
Al 396.153Radial†	2595053.0	509000 µg/L	6583.3	509000 ppb	6583.3	1.29%
QC value within limits for Al 396.153Radial Recovery = 101.80%						
As 188.979†	1560.4	543.68 µg/L	10.774	543.68 ppb	10.774	1.98%
QC value within limits for As 188.979 Recovery = 108.74%						
B 249.677†	33731.4	530.83 µg/L	4.670	530.83 ppb	4.670	0.88%
QC value within limits for B 249.677 Recovery = 106.17%						
Ba 233.527†	119506.7	505.54 µg/L	2.877	505.54 ppb	2.877	0.57%
QC value within limits for Ba 233.527 Recovery = 101.11%						
Be 313.107†	862209.2	248.24 µg/L	1.263	248.24 ppb	1.263	0.51%
QC value within limits for Be 313.107 Recovery = 99.30%						
Ca 317.933Radial†	8166429.6	487060 µg/L	6307.4	487060 ppb	6307.4	1.30%
QC value within limits for Ca 317.933Radial Recovery = 97.41%						
Cd 226.502†	75501.3	484.24 µg/L	3.631	484.24 ppb	3.631	0.75%
QC value within limits for Cd 226.502 Recovery = 96.85%						
Co 228.616†	34826.7	449.01 µg/L	4.471	449.01 ppb	4.471	1.00%

QC value within limits for Co 228.616 Recovery = 89.80%							
Cr 267.716†	59199.3	491.48 µg/L	4.203	491.48 ppb	4.203	0.86%	
QC value within limits for Cr 267.716 Recovery = 98.30%							
Cu 324.752†	122823.2	548.73 µg/L	2.261	548.73 ppb	2.261	0.41%	
QC value within limits for Cu 324.752 Recovery = 109.75%							
Fe 238.204 Radial†	2919015.4	193220 µg/L	2616.4	193220 ppb	2616.4	1.35%	
QC value within limits for Fe 238.204 Radial Recovery = 96.61%							
K 766.490 Radial†	14562.4	5560.3 µg/L	34.84	5560.3 ppb	34.84	0.63%	
QC value within limits for K 766.490 Radial Recovery = 111.21%							
Mg 279.077 IEC†	1245877.6	496290 µg/L	1338.2	496290 ppb	1338.2	0.27%	
QC value within limits for Mg 279.077 IEC Recovery = 99.26%							
Mn 257.610†	390204.0	492.24 µg/L	2.136	492.24 ppb	2.136	0.43%	
QC value within limits for Mn 257.610 Recovery = 98.45%							
Mo 202.031†	15424.2	500.13 µg/L	4.543	500.13 ppb	4.543	0.91%	
QC value within limits for Mo 202.031 Recovery = 100.03%							
Na 589.592 Radial†	36917.6	5451.6 µg/L	14.44	5451.6 ppb	14.44	0.26%	
QC value within limits for Na 589.592 Radial Recovery = 109.03%							
Ni 231.604†	37703.8	463.18 µg/L	6.482	463.18 ppb	6.482	1.40%	
QC value within limits for Ni 231.604 Recovery = 92.64%							
P 214.914†	11613.3	2653.1 µg/L	51.79	2653.1 ppb	51.79	1.95%	
QC value within limits for P 214.914 Recovery = 106.13%							
Pb 220.353†	7591.0	479.39 µg/L	5.073	479.39 ppb	5.073	1.06%	
QC value within limits for Pb 220.353 Recovery = 95.88%							
S 181.975 Axial†	3480.7	2790.5 µg/L	24.63	2790.5 ppb	24.63	0.88%	
QC value within limits for S 181.975 Axial Recovery = 111.62%							
Sb 206.836†	4043.5	510.29 µg/L	9.553	510.29 ppb	9.553	1.87%	
QC value within limits for Sb 206.836 Recovery = 102.06%							
Se 196.026†	6164.3	2470 µg/L	16.6	2470 ppb	16.6	0.67%	
QC value within limits for Se 196.026 Recovery = 98.79%							
SiO2†	107500.1	11184 µg/L	36.9	11184 ppb	36.9	0.33%	
QC value within limits for SiO2 Recovery = 104.58%							
Si 251.611†	333564.0	5232.7 µg/L	26.85	5232.7 ppb	26.85	0.51%	
QC value within limits for Si 251.611 Recovery = 104.65%							
Sn 189.927†	7388.9	495.40 µg/L	6.114	495.40 ppb	6.114	1.23%	
QC value within limits for Sn 189.927 Recovery = 99.08%							
Sr 421.552†	234716.7	513.53 µg/L	1.026	513.53 ppb	1.026	0.20%	
QC value within limits for Sr 421.552 Recovery = 102.71%							
Ti 334.940†	544580.9	509.27 µg/L	1.928	509.27 ppb	1.928	0.38%	
QC value within limits for Ti 334.940 Recovery = 101.85%							
Tl 190.801†	3528.4	470.17 µg/L	5.246	470.17 ppb	5.246	1.12%	
QC value within limits for Tl 190.801 Recovery = 94.03%							
U 409.014†	8130.2	515.42 µg/L	10.544	515.42 ppb	10.544	2.05%	
QC value within limits for U 409.014 Recovery = 103.08%							
V 292.402†	102930.4	519.65 µg/L	0.805	519.65 ppb	0.805	0.15%	
QC value within limits for V 292.402 Recovery = 103.93%							
Zn 213.857†	86591.5	501.37 µg/L	3.791	501.37 ppb	3.791	0.76%	
QC value within limits for Zn 213.857 Recovery = 100.27%							
All analyte(s) passed QC.							

Sequence No.: 11
 Sample ID: LR1
 Analyst:
 Initial Sample Wt:
 Dilution:

Autosampler Location: 105
 Date Collected: 3/31/2010 9:03:37
 Data Type: Original
 Initial Sample Vol:
 Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	134993.8	134993.8	90.0 %		09:04:09
1	Al 396.153Radial†	2305054.5	2561824.9	502500 µg/L	502500 ppb	09:04:07
1	Ca 317.933Radial†	7304116.7	8116887.7	484100 µg/L	484100 ppb	09:04:07
1	Fe 238.204 Radial†	6249097.2	6944874.2	459700 µg/L	459700 ppb	09:04:07
1	K 766.490 Radial†	1922.3	561.2	-99.320 µg/L	-99.320 ppb	09:04:09
1	Mg 279.077 IEC†	1093633.0	1215250.4	483840 µg/L	483840 ppb	09:04:07
1	Na 589.592 Radial†	3097635.6	3441477.8	508690 µg/L	508690 ppb	09:04:07
1	Sr 421.552†	5022.6	5837.5	9.0775 µg/L	9.0775 ppb	09:04:09
1	Sc 361.383	1524303.7	1524303.7	85.049 %		09:04:22
1	Y 371.029	899112.8	899112.8	83.361 %		09:04:22
1	Ag 328.068†	1922.2	-1668.0	-0.9725 µg/L	-0.9725 ppb	09:04:22
1	As 188.979†	-242.0	-270.8	17.290 µg/L	17.290 ppb	09:04:24
1	B 249.677†	4201.2	1536.4	24.204 µg/L	24.204 ppb	09:04:22
1	Ba 233.527†	746.7	1016.2	-1.5620 µg/L	-1.5620 ppb	09:04:24
1	Be 313.107†	-15272.1	-16940.1	0.1514 µg/L	0.1514 ppb	09:04:22
1	Cd 226.502†	5856.3	6995.6	-1.6102 µg/L	-1.6102 ppb	09:04:24
1	Co 228.616†	729.0	1028.7	-10.432 µg/L	-10.432 ppb	09:04:24
1	Cr 267.716†	354.8	236.4	-1.0724 µg/L	-1.0724 ppb	09:04:24
1	Cu 324.752†	-15096.2	-20727.4	8.3015 µg/L	8.3015 ppb	09:04:24
1	Mn 257.610†	18016.1	20990.0	7.1585 µg/L	7.1585 ppb	09:04:22
1	Mo 202.031†	-868.3	-984.5	-3.8090 µg/L	-3.8090 ppb	09:04:24
1	Ni 231.604†	264.5	408.6	5.0192 µg/L	5.0192 ppb	09:04:24
1	P 214.914†	977.0	1172.1	70.312 µg/L	70.312 ppb	09:04:24
1	Pb 220.353†	-34.1	-102.0	-2.1820 µg/L	-2.1820 ppb	09:04:24
1	S 181.975 Axial†	116.1	44.3	35.186 µg/L	35.186 ppb	09:04:24
1	Sb 206.836†	154.8	101.1	3.3333 µg/L	3.3333 ppb	09:04:24
1	Se 196.026†	-409.1	-502.0	-20.1 µg/L	-20.1 ppb	09:04:24
1	SiO2†	1935.9	494.4	52.250 µg/L	52.250 ppb	09:04:24
1	Si 251.611†	-1907.0	-3170.3	-49.488 µg/L	-49.488 ppb	09:04:24
1	Sn 189.927†	140.3	167.4	11.280 µg/L	11.280 ppb	09:04:24
1	Ti 334.940†	25194.4	28653.0	-5.3501 µg/L	-5.3501 ppb	09:04:22
1	Tl 190.801†	-188.5	-104.8	-13.152 µg/L	-13.152 ppb	09:04:24
1	U 409.014†	227370.4	267657.7	16544 µg/L	16544 ppb	09:04:22
1	V 292.402†	6465.9	7296.8	0.1330 µg/L	0.1330 ppb	09:04:24
1	Zn 213.857†	8366.8	9246.3	10.848 µg/L	10.848 ppb	09:04:24
2	Sc RADIAL	135565.5	135565.5	90.4 %		09:04:14
2	Al 396.153Radial†	2329997.8	2578627.0	505800 µg/L	505800 ppb	09:04:12
2	Ca 317.933Radial†	7371784.7	8157545.6	486530 µg/L	486530 ppb	09:04:12
2	Fe 238.204 Radial†	6306633.8	6979264.0	461970 µg/L	461970 ppb	09:04:12
2	K 766.490 Radial†	2046.2	689.3	-50.120 µg/L	-50.120 ppb	09:04:14
2	Mg 279.077 IEC†	1103724.8	1221293.7	486250 µg/L	486250 ppb	09:04:12
2	Na 589.592 Radial†	3128701.2	3461341.2	511620 µg/L	511620 ppb	09:04:12
2	Sr 421.552†	4928.7	5710.0	8.7776 µg/L	8.7776 ppb	09:04:14
2	Sc 361.383	1512003.0	1512003.0	84.363 %		09:04:27
2	Y 371.029	891400.5	891400.5	82.646 %		09:04:27
2	Ag 328.068†	1911.8	-1661.9	-1.0774 µg/L	-1.0774 ppb	09:04:27
2	As 188.979†	-269.5	-305.6	6.7508 µg/L	6.7508 ppb	09:04:29
2	B 249.677†	4124.3	1485.4	23.403 µg/L	23.403 ppb	09:04:27
2	Ba 233.527†	569.8	813.7	-2.4509 µg/L	-2.4509 ppb	09:04:29
2	Be 313.107†	-15085.3	-16864.8	0.1600 µg/L	0.1600 ppb	09:04:27
2	Cd 226.502†	5924.8	7132.7	-0.9338 µg/L	-0.9338 ppb	09:04:29
2	Co 228.616†	645.6	936.9	-11.761 µg/L	-11.761 ppb	09:04:29
2	Cr 267.716†	188.8	43.1	-2.5927 µg/L	-2.5927 ppb	09:04:29
2	Cu 324.752†	-15141.0	-20924.8	7.8474 µg/L	7.8474 ppb	09:04:29
2	Mn 257.610†	17914.0	21041.4	7.1245 µg/L	7.1245 ppb	09:04:27
2	Mo 202.031†	-847.9	-968.7	-3.1803 µg/L	-3.1803 ppb	09:04:29
2	Ni 231.604†	220.5	359.0	4.4098 µg/L	4.4098 ppb	09:04:29
2	P 214.914†	1034.6	1249.6	87.358 µg/L	87.358 ppb	09:04:29
2	Pb 220.353†	-44.0	-114.0	-2.7339 µg/L	-2.7339 ppb	09:04:29

2	S 181.975 Axial†	117.5	47.0	37.365 µg/L	37.365 ppb	09:04:29
2	Sb 206.836†	140.7	85.8	1.3659 µg/L	1.3659 ppb	09:04:29
2	Se 196.026†	-377.1	-467.9	-6.05 µg/L	-6.05 ppb	09:04:29
2	SiO2†	1779.2	327.1	34.836 µg/L	34.836 ppb	09:04:29
2	Si 251.611†	-1874.4	-3149.9	-49.157 µg/L	-49.157 ppb	09:04:29
2	Sn 189.927†	106.5	128.8	8.6993 µg/L	8.6993 ppb	09:04:29
2	Ti 334.940†	25550.5	29316.1	-4.8104 µg/L	-4.8104 ppb	09:04:27
2	Tl 190.801†	-215.3	-138.4	-17.531 µg/L	-17.531 ppb	09:04:29
2	U 409.014†	224948.9	266962.2	16501 µg/L	16501 ppb	09:04:27
2	V 292.402†	6430.3	7316.5	-0.0366 µg/L	-0.0366 ppb	09:04:29
2	Zn 213.857†	8247.9	9185.4	10.277 µg/L	10.277 ppb	09:04:29
3	Sc RADIAL	135158.1	135158.1	90.1 %		09:04:18
3	Al 396.153Radial†	2315562.2	2570374.8	504180 µg/L	504180 ppb	09:04:16
3	Ca 317.933Radial†	7324764.6	8129940.6	484880 µg/L	484880 ppb	09:04:16
3	Fe 238.204 Radial†	6265812.2	6954986.6	460360 µg/L	460360 ppb	09:04:16
3	K 766.490 Radial†	2012.8	659.1	-61.149 µg/L	-61.149 ppb	09:04:18
3	Mg 279.077 IEC†	1095455.9	1215796.6	484060 µg/L	484060 ppb	09:04:16
3	Na 589.592 Radial†	3112355.9	3453633.2	510480 µg/L	510480 ppb	09:04:16
3	Sr 421.552†	4748.7	5526.7	8.3864 µg/L	8.3864 ppb	09:04:18
3	Sc 361.383	1517177.0	1517177.0	84.652 %		09:04:32
3	Y 371.029	895335.4	895335.4	83.011 %		09:04:32
3	Ag 328.068†	2045.0	-1512.3	-0.4888 µg/L	-0.4888 ppb	09:04:32
3	As 188.979†	-246.8	-277.7	15.232 µg/L	15.232 ppb	09:04:34
3	B 249.677†	4242.0	1607.7	25.329 µg/L	25.329 ppb	09:04:32
3	Ba 233.527†	695.7	960.1	-1.8083 µg/L	-1.8083 ppb	09:04:34
3	Be 313.107†	-15202.0	-16941.7	0.1241 µg/L	0.1241 ppb	09:04:32
3	Cd 226.502†	5857.4	7029.2	-1.4561 µg/L	-1.4561 ppb	09:04:34
3	Co 228.616†	727.6	1031.2	-10.435 µg/L	-10.435 ppb	09:04:34
3	Cr 267.716†	295.7	168.7	-1.5441 µg/L	-1.5441 ppb	09:04:34
3	Cu 324.752†	-14999.8	-20696.9	8.4574 µg/L	8.4574 ppb	09:04:34
3	Mn 257.610†	17929.4	20987.2	7.1444 µg/L	7.1444 ppb	09:04:32
3	Mo 202.031†	-846.3	-963.3	-3.1145 µg/L	-3.1145 ppb	09:04:34
3	Ni 231.604†	230.0	369.4	4.5375 µg/L	4.5375 ppb	09:04:34
3	P 214.914†	981.2	1182.4	72.568 µg/L	72.568 ppb	09:04:34
3	Pb 220.353†	-18.0	-83.2	-0.9089 µg/L	-0.9089 ppb	09:04:34
3	S 181.975 Axial†	153.6	89.3	71.194 µg/L	71.194 ppb	09:04:34
3	Sb 206.836†	153.8	100.7	3.2773 µg/L	3.2773 ppb	09:04:34
3	Se 196.026†	-367.5	-455.0	-1.64 µg/L	-1.64 ppb	09:04:34
3	SiO2†	1882.2	441.6	46.764 µg/L	46.764 ppb	09:04:34
3	Si 251.611†	-1870.8	-3138.1	-48.975 µg/L	-48.975 ppb	09:04:34
3	Sn 189.927†	109.4	131.7	8.8923 µg/L	8.8923 ppb	09:04:34
3	Ti 334.940†	25483.6	29133.8	-4.8366 µg/L	-4.8366 ppb	09:04:32
3	Tl 190.801†	-272.7	-205.4	-26.310 µg/L	-26.310 ppb	09:04:34
3	U 409.014†	225099.1	266230.4	16455 µg/L	16455 ppb	09:04:32
3	V 292.402†	6532.3	7411.1	0.5983 µg/L	0.5983 ppb	09:04:34
3	Zn 213.857†	8160.5	9048.8	9.6121 µg/L	9.6121 ppb	09:04:34

Mean Data: LRI

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1517827.9	84.688 %	0.3446			0.41%
Sc RADIAL	135239.1	90.1 %	0.20			0.22%
Y 371.029	895282.9	83.006 %	0.3575			0.43%
Ag 328.068†	-1614.1	-0.8462 µg/L	0.31399	-0.8462 ppb	0.31399	37.11%
Al 396.153Radial†	2570275.6	504160 µg/L	1647.9	504160 ppb	1647.9	0.33%
QC value within limits for Al 396.153Radial Recovery = 100.83%						
As 188.979†	-284.7	13.091 µg/L	5.5862	13.091 ppb	5.5862	42.67%
B 249.677†	1543.2	24.312 µg/L	0.9677	24.312 ppb	0.9677	3.98%
Ba 233.527†	930.0	-1.9404 µg/L	0.45891	-1.9404 ppb	0.45891	23.65%
Be 313.107†	-16915.5	0.1452 µg/L	0.01872	0.1452 ppb	0.01872	12.89%
Ca 317.933Radial†	8134791.3	485170 µg/L	1238.1	485170 ppb	1238.1	0.26%
QC value within limits for Ca 317.933Radial Recovery = 97.03%						
Cd 226.502†	7052.5	-1.3334 µg/L	0.35454	-1.3334 ppb	0.35454	26.59%
Co 228.616†	998.9	-10.876 µg/L	0.7661	-10.876 ppb	0.7661	7.04%
Cr 267.716†	149.4	-1.7364 µg/L	0.77817	-1.7364 ppb	0.77817	44.81%
Cu 324.752†	-20783.0	8.2021 µg/L	0.31693	8.2021 ppb	0.31693	3.86%
Fe 238.204 Radial†	6959708.3	460680 µg/L	1169.9	460680 ppb	1169.9	0.25%
QC value within limits for Fe 238.204 Radial Recovery = 92.14%						
K 766.490 Radial†	636.5	-70.196 µg/L	25.8178	-70.196 ppb	25.8178	36.78%
Mg 279.077 IEC†	1217446.9	484720 µg/L	1330.9	484720 ppb	1330.9	0.27%

QC value within limits for Mg 279.077 IEC Recovery = 96.94%							
Mn 257.610†	21006.2	7.1425 µg/L	0.01710	7.1425 ppb	0.01710	0.24%	
Mo 202.031†	-972.1	-3.3679 µg/L	0.38335	-3.3679 ppb	0.38335	11.38%	
Na 589.592 Radial†	3452150.8	510260 µg/L	1480.2	510260 ppb	1480.2	0.29%	
QC value within limits for Na 589.592 Radial Recovery = 102.05%							
Ni 231.604†	379.0	4.6555 µg/L	0.32140	4.6555 ppb	0.32140	6.90%	
P 214.914†	1201.4	76.746 µg/L	9.2590	76.746 ppb	9.2590	12.06%	
Pb 220.353†	-99.7	-1.9416 µg/L	0.93591	-1.9416 ppb	0.93591	48.20%	
S 181.975 Axial†	60.2	47.915 µg/L	20.1895	47.915 ppb	20.1895	42.14%	
Sb 206.836†	95.9	2.6589 µg/L	1.12006	2.6589 ppb	1.12006	42.13%	
Se 196.026†	-475.0	-9.25 µg/L	9.620	-9.25 ppb	9.620	103.98%	
SiO2†	421.1	44.617 µg/L	8.9033	44.617 ppb	8.9033	19.96%	
Si 251.611†	-3152.8	-49.207 µg/L	0.2597	-49.207 ppb	0.2597	0.53%	
Sn 189.927†	142.6	9.6238 µg/L	1.43738	9.6238 ppb	1.43738	14.94%	
Sr 421.552†	5691.4	8.7471 µg/L	0.34654	8.7471 ppb	0.34654	3.96%	
Ti 334.940†	29034.3	-4.9990 µg/L	0.30430	-4.9990 ppb	0.30430	6.09%	
Tl 190.801†	-149.5	-18.998 µg/L	6.7004	-18.998 ppb	6.7004	35.27%	
U 409.014†	266950.1	16500 µg/L	44.4	16500 ppb	44.4	0.27%	
QC value within limits for U 409.014 Recovery = 110.00%							
V 292.402†	7341.5	0.2316 µg/L	0.32875	0.2316 ppb	0.32875	141.96%	
Zn 213.857†	9160.2	10.246 µg/L	0.6183	10.246 ppb	0.6183	6.03%	
All analyte(s) passed QC.							

Sequence No.: 12

Sample ID: LR2

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 108

Date Collected: 3/31/2010 9:04:41

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	152044.8	152044.8	101 %		09:05:15
1	Al 396.153Radial†	2244.7	2288.8	-9.0241 µg/L	-9.0241 ppb	09:05:17
1	Ca 317.933Radial†	1277.3	627.4	37.417 µg/L	37.417 ppb	09:05:17
1	Fe 238.204 Radial†	-654.0	-782.8	-51.814 µg/L	-51.814 ppb	09:05:17
1	K 766.490 Radial†	761684.5	750001.6	298940 µg/L	298940 ppb	09:05:15
1	Mg 279.077 IEC†	-394.6	-561.6	17.481 µg/L	17.481 ppb	09:05:17
1	Na 589.592 Radial†	4229.8	3055.8	185.81 µg/L	185.81 ppb	09:05:17
1	Sr 421.552†	4339138.4	4281812.5	9437.7 µg/L	9437.7 ppb	09:05:13
1	Sc 361.383	1735492.4	1735492.4	96.833 %		09:05:53
1	Y 371.029	1016562.2	1016562.2	94.251 %		09:05:53
1	Ag 328.068†	-28769.0	-33638.1	-11.842 µg/L	-11.842 ppb	09:05:55
1	As 188.979†	31318.0	32356.2	10509 µg/L	10509 ppb	09:05:55
1	B 249.677†	315698.0	322620.5	5059.0 µg/L	5059.0 ppb	09:05:53
1	Ba 233.527†	3181109.3	3285295.2	13962 µg/L	13962 ppb	09:05:53
1	Be 313.107†	9887637.0	10212058.3	2938.1 µg/L	2938.1 ppb	09:05:50
1	Cd 226.502†	1432306.1	1479263.7	9886.0 µg/L	9886.0 ppb	09:05:53
1	Co 228.616†	704433.2	727645.3	9597.8 µg/L	9597.8 ppb	09:05:53
1	Cr 267.716†	2845204.5	2938084.7	24377 µg/L	24377 ppb	09:05:53
1	Cu 324.752†	4785681.3	4939233.9	20373 µg/L	20373 ppb	09:05:53
1	Mn 257.610†	7046749.5	7277041.4	9556.5 µg/L	9556.5 ppb	09:05:53
1	Mo 202.031†	304738.2	314742.0	9864.3 µg/L	9864.3 ppb	09:05:55
1	Ni 231.604†	783978.2	809718.1	9947.1 µg/L	9947.1 ppb	09:05:53
1	P 214.914†	65372.8	67534.3	15336 µg/L	15336 ppb	09:05:55
1	Pb 220.353†	393505.2	406314.0	24258 µg/L	24258 ppb	09:05:53
1	S 181.975 Axial†	63915.2	65913.5	52848 µg/L	52848 ppb	09:05:55
1	Sb 206.836†	77245.8	79691.4	9957.0 µg/L	9957.0 ppb	09:05:55
1	Se 196.026†	24806.9	25597.4	9970 µg/L	9970 ppb	09:05:55
1	SiO2†	955833.8	985315.4	102280 µg/L	102280 ppb	09:05:53
1	Si 251.611†	2948716.1	3044234.6	47647 µg/L	47647 ppb	09:05:53
1	Sn 189.927†	145761.8	150531.8	10090 µg/L	10090 ppb	09:05:55
1	Ti 334.940†	9980633.8	10306109.9	10162 µg/L	10162 ppb	09:05:50
1	Tl 190.801†	71185.1	73630.2	9790.9 µg/L	9790.9 ppb	09:05:55
1	U 409.014†	-11758.3	-11824.4	-115.72 µg/L	-115.72 ppb	09:05:55
1	V 292.402†	1902045.3	1963951.7	10368 µg/L	10368 ppb	09:05:53
1	Zn 213.857†	2364981.3	2441743.8	14619 µg/L	14619 ppb	09:05:53
2	Sc RADIAL	148253.4	148253.4	98.8 %		09:05:21
2	Al 396.153Radial†	2365.4	2467.6	26.261 µg/L	26.261 ppb	09:05:23
2	Ca 317.933Radial†	1200.1	581.4	34.677 µg/L	34.677 ppb	09:05:23
2	Fe 238.204 Radial†	-643.3	-788.5	-52.191 µg/L	-52.191 ppb	09:05:23
2	K 766.490 Radial†	747645.5	755015.1	300930 µg/L	300930 ppb	09:05:21
2	Mg 279.077 IEC†	-498.8	-677.0	-28.613 µg/L	-28.613 ppb	09:05:23
2	Na 589.592 Radial†	3930.1	2859.2	154.98 µg/L	154.98 ppb	09:05:23
2	Sr 421.552†	4350427.9	4402731.7	9704.2 µg/L	9704.2 ppb	09:05:19
2	Sc 361.383	1732192.4	1732192.4	96.649 %		09:06:03
2	Y 371.029	1013481.0	1013481.0	93.965 %		09:06:03
2	Ag 328.068†	-28448.6	-33363.1	-10.791 µg/L	-10.791 ppb	09:06:05
2	As 188.979†	31099.2	32191.4	10457 µg/L	10457 ppb	09:06:05
2	B 249.677†	314843.1	322357.0	5054.8 µg/L	5054.8 ppb	09:06:03
2	Ba 233.527†	3175134.9	3285372.2	13962 µg/L	13962 ppb	09:06:03
2	Be 313.107†	9812283.7	10153545.1	2921.3 µg/L	2921.3 ppb	09:05:59
2	Cd 226.502†	1428182.8	1477815.4	9876.3 µg/L	9876.3 ppb	09:06:03
2	Co 228.616†	702659.0	727195.6	9591.9 µg/L	9591.9 ppb	09:06:03
2	Cr 267.716†	2838191.9	2936426.6	24363 µg/L	24363 ppb	09:06:03
2	Cu 324.752†	4778483.3	4941201.6	20381 µg/L	20381 ppb	09:06:03
2	Mn 257.610†	7030735.4	7274335.8	9553.0 µg/L	9553.0 ppb	09:06:03
2	Mo 202.031†	304019.5	314597.9	9859.8 µg/L	9859.8 ppb	09:06:05
2	Ni 231.604†	781307.3	808497.0	9932.1 µg/L	9932.1 ppb	09:06:03
2	P 214.914†	65048.4	67327.2	15288 µg/L	15288 ppb	09:06:05
2	Pb 220.353†	392805.2	406363.9	24261 µg/L	24261 ppb	09:06:03

2	S 181.975 Axial†	63801.6	65921.7	52854 µg/L	52854 ppb	09:06:05
2	Sb 206.836†	77037.0	79627.3	9948.9 µg/L	9948.9 ppb	09:06:05
2	Se 196.026†	24823.6	25663.5	10000 µg/L	10000 ppb	09:06:05
2	SiO2†	953981.3	985279.2	102280 µg/L	102280 ppb	09:06:03
2	Si 251.611†	2943217.7	3044346.8	47649 µg/L	47649 ppb	09:06:03
2	Sn 189.927†	145155.4	150191.2	10067 µg/L	10067 ppb	09:06:05
2	Ti 334.940†	9912077.4	10254812.2	10111 µg/L	10111 ppb	09:05:59
2	Tl 190.801†	70976.1	73554.0	9780.5 µg/L	9780.5 ppb	09:06:05
2	U 409.014†	-11935.2	-12030.6	-128.58 µg/L	-128.58 ppb	09:06:05
2	V 292.402†	1898264.6	1963782.0	10367 µg/L	10367 ppb	09:06:03
2	Zn 213.857†	2359611.7	2440840.8	14614 µg/L	14614 ppb	09:06:03
3	Sc RADIAL	149064.9	149064.9	99.4 %		09:05:28
3	Al 396.153Radial†	2288.5	2377.2	2.5602 µg/L	2.5602 ppb	09:05:30
3	Ca 317.933Radial†	1186.9	561.5	33.490 µg/L	33.490 ppb	09:05:30
3	Fe 238.204 Radial†	-703.5	-845.6	-55.970 µg/L	-55.970 ppb	09:05:30
3	K 766.490 Radial†	753846.1	757136.8	301780 µg/L	301780 ppb	09:05:28
3	Mg 279.077 IEC†	-484.8	-660.2	-18.749 µg/L	-18.749 ppb	09:05:30
3	Na 589.592 Radial†	3563.1	2468.2	96.426 µg/L	96.426 ppb	09:05:30
3	Sr 421.552†	4320721.6	4348866.5	9585.5 µg/L	9585.5 ppb	09:05:26
3	Sc 361.383	1734266.2	1734266.2	96.764 %		09:06:12
3	Y 371.029	1016235.7	1016235.7	94.220 %		09:06:12
3	Ag 328.068†	-28647.1	-33533.1	-11.171 µg/L	-11.171 ppb	09:06:15
3	As 188.979†	31669.9	32742.6	10632 µg/L	10632 ppb	09:06:15
3	B 249.677†	316052.2	323217.1	5068.3 µg/L	5068.3 ppb	09:06:12
3	Ba 233.527†	3184654.9	3291282.1	13987 µg/L	13987 ppb	09:06:12
3	Be 313.107†	9885352.1	10216916.5	2939.5 µg/L	2939.5 ppb	09:06:09
3	Cd 226.502†	1431994.7	1479987.7	9890.9 µg/L	9890.9 ppb	09:06:12
3	Co 228.616†	704707.6	728443.3	9608.3 µg/L	9608.3 ppb	09:06:12
3	Cr 267.716†	2845821.1	2940799.4	24399 µg/L	24399 ppb	09:06:12
3	Cu 324.752†	4793149.5	4950446.1	20419 µg/L	20419 ppb	09:06:12
3	Mn 257.610†	7051765.3	7287370.2	9570.1 µg/L	9570.1 ppb	09:06:12
3	Mo 202.031†	308349.9	318697.0	9988.2 µg/L	9988.2 ppb	09:06:15
3	Ni 231.604†	783535.7	809833.3	9948.6 µg/L	9948.6 ppb	09:06:12
3	P 214.914†	66392.5	68635.8	15589 µg/L	15589 ppb	09:06:15
3	Pb 220.353†	393771.2	406876.3	24292 µg/L	24292 ppb	09:06:12
3	S 181.975 Axial†	65149.1	67235.4	53907 µg/L	53907 ppb	09:06:15
3	Sb 206.836†	78307.7	80845.2	10106 µg/L	10106 ppb	09:06:15
3	Se 196.026†	25144.1	25963.9	10100 µg/L	10100 ppb	09:06:15
3	SiO2†	957337.6	987567.4	102510 µg/L	102510 ppb	09:06:12
3	Si 251.611†	2954957.2	3052837.5	47779 µg/L	47779 ppb	09:06:12
3	Sn 189.927†	147571.9	152508.9	10222 µg/L	10222 ppb	09:06:15
3	Ti 334.940†	9977470.6	10310128.4	10166 µg/L	10166 ppb	09:06:09
3	Tl 190.801†	71948.0	74470.6	9901.1 µg/L	9901.1 ppb	09:06:15
3	U 409.014†	-12023.7	-12107.3	-131.88 µg/L	-131.88 ppb	09:06:15
3	V 292.402†	1905071.9	1968468.3	10393 µg/L	10393 ppb	09:06:12
3	Zn 213.857†	2364502.3	2442975.5	14627 µg/L	14627 ppb	09:06:12

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1733983.6	96.749 %	0.0931			0.10%
Sc RADIAL	149787.7	99.8 %	1.33			1.33%
Y 371.029	1015426.3	94.145 %	0.1569			0.17%
Ag 328.068†	-33511.4	-11.268 µg/L	0.5321	-11.268 ppb	0.5321	4.72%
Al 396.153Radial†	2377.9	6.5990 µg/L	17.98580	6.5990 ppb	17.98580	272.55%
As 188.979†	32430.1	10533 µg/L	90.0	10533 ppb	90.0	0.85%
QC value within limits for As 188.979 Recovery = 105.33%						
B 249.677†	322731.5	5060.7 µg/L	6.93	5060.7 ppb	6.93	0.14%
QC value within limits for B 249.677 Recovery = 101.21%						
Ba 233.527†	3287316.5	13970 µg/L	14.6	13970 ppb	14.6	0.10%
QC value within limits for Ba 233.527 Recovery = 93.13%						
Be 313.107†	10194173.3	2933.0 µg/L	10.15	2933.0 ppb	10.15	0.35%
QC value within limits for Be 313.107 Recovery = 97.77%						
Ca 317.933Radial†	590.1	35.195 µg/L	2.0142	35.195 ppb	2.0142	5.72%
Cd 226.502†	1479022.3	9884.4 µg/L	7.39	9884.4 ppb	7.39	0.07%
QC value within limits for Cd 226.502 Recovery = 98.84%						
Co 228.616†	727761.4	9599.3 µg/L	8.34	9599.3 ppb	8.34	0.09%
QC value within limits for Co 228.616 Recovery = 95.99%						
Cr 267.716†	2938436.9	24380 µg/L	18.3	24380 ppb	18.3	0.08%
QC value within limits for Cr 267.716 Recovery = 97.52%						

Cu 324.752†	4943627.2	20391 µg/L	24.7	20391 ppb	24.7	0.12%
QC value within limits for Cu 324.752 Recovery = 101.96%						
Fe 238.204 Radial†	-805.6	-53.325 µg/L	2.2981	-53.325 ppb	2.2981	4.31%
K 766.490 Radial†	754051.2	300550 µg/L	1460.4	300550 ppb	1460.4	0.49%
QC value within limits for K 766.490 Radial Recovery = 100.18%						
Mg 279.077 IEC†	-632.9	-9.9606 µg/L	24.27117	-9.9606 ppb	24.27117	243.67%
Mn 257.610†	7279582.5	9559.9 µg/L	9.03	9559.9 ppb	9.03	0.09%
QC value within limits for Mn 257.610 Recovery = 95.60%						
Mo 202.031†	316012.3	9904.1 µg/L	72.88	9904.1 ppb	72.88	0.74%
QC value within limits for Mo 202.031 Recovery = 99.04%						
Na 589.592 Radial†	2794.4	145.74 µg/L	45.405	145.74 ppb	45.405	31.15%
Ni 231.604†	809349.5	9942.6 µg/L	9.10	9942.6 ppb	9.10	0.09%
QC value within limits for Ni 231.604 Recovery = 99.43%						
P 214.914†	67832.5	15404 µg/L	161.9	15404 ppb	161.9	1.05%
QC value within limits for P 214.914 Recovery = 102.70%						
Pb 220.353†	406518.1	24270 µg/L	18.8	24270 ppb	18.8	0.08%
QC value within limits for Pb 220.353 Recovery = 97.08%						
S 181.975 Axial†	66356.9	53203 µg/L	609.7	53203 ppb	609.7	1.15%
QC value within limits for S 181.975 Axial Recovery = 106.41%						
Sb 206.836†	80054.7	10004 µg/L	88.2	10004 ppb	88.2	0.88%
QC value within limits for Sb 206.836 Recovery = 100.04%						
Se 196.026†	25741.6	10000 µg/L	76.1	10000 ppb	76.1	0.76%
QC value within limits for Se 196.026 Recovery = 100.30%						
SiO2†	986054.0	102350 µg/L	133.4	102350 ppb	133.4	0.13%
QC value within limits for SiO2 Recovery = 95.66%						
Si 251.611†	3047139.6	47691 µg/L	76.0	47691 ppb	76.0	0.16%
QC value within limits for Si 251.611 Recovery = 95.38%						
Sn 189.927†	151077.3	10126 µg/L	83.7	10126 ppb	83.7	0.83%
QC value within limits for Sn 189.927 Recovery = 101.26%						
Sr 421.552†	4344470.2	9575.8 µg/L	133.53	9575.8 ppb	133.53	1.39%
QC value within limits for Sr 421.552 Recovery = 95.76%						
Ti 334.940†	10290350.2	10146 µg/L	30.4	10146 ppb	30.4	0.30%
QC value within limits for Ti 334.940 Recovery = 101.46%						
Tl 190.801†	73885.0	9824.2 µg/L	66.85	9824.2 ppb	66.85	0.68%
QC value within limits for Tl 190.801 Recovery = 98.24%						
U 409.014†	-11987.4	-125.40 µg/L	8.539	-125.40 ppb	8.539	6.81%
V 292.402†	1965400.7	10376 µg/L	14.6	10376 ppb	14.6	0.14%
QC value within limits for V 292.402 Recovery = 103.76%						
Zn 213.857†	2441853.4	14620 µg/L	6.4	14620 ppb	6.4	0.04%
QC value within limits for Zn 213.857 Recovery = 97.47%						

All analyte(s) passed QC.

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Analysis Begun

Start Time: 3/31/2010 9:17:37

Plasma On Time: 3/29/2010 18:07:58

Logged In Analyst: optima4

Technique: ICP Continuous

Spectrometer Model: Optima 7300 DV, S/N 077C0022701 Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima4\Sample Information\033110.sif

Batch ID:

Results Data Set: 033110A

Results Library: C:\pe\optima4\Results\Results.mdb
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Method Loaded

Method Name: Gen Eng fast_new Si

Method Last Saved: 3/31/2010 8:46:38

IEC File: 031810.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	No
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	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
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
SiO2	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

Sequence No.: 1

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/31/2010 9:17:40

Analyst:

Data Type: Original

Initial Sample Wt:

Initial Sample Vol:

Dilution:

Sample Prep Vol:

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Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	152612.8	152612.8	102 %		09:18:12
1	Al 396.153Radial†	26428.6	26054.7	5087.3 µg/L	5087.3 ppb	09:18:12
1	Ca 317.933Radial†	87726.6	85607.3	5105.7 µg/L	5105.7 ppb	09:18:12
1	Fe 238.204 Radial†	78218.4	76755.6	5080.6 µg/L	5080.6 ppb	09:18:12

1	K 766.490 Radial†	14531.4	12710.0	5061.8 µg/L	5061.8 ppb	09:18:12
1	Mg 279.077 IEC†	13542.1	13140.4	5244.0 µg/L	5244.0 ppb	09:18:12
1	Na 589.592 Radial†	70298.0	67989.0	10045 µg/L	10045 ppb	09:18:12
1	Sr 421.552†	225859.9	222288.7	489.91 µg/L	489.91 ppb	09:18:10
1	Sc 361.383	1784654.3	1784654.3	99.576 %		09:18:25
1	Y 371.029	1062001.5	1062001.5	98.464 %		09:18:25
1	Ag 328.068†	130533.6	127161.5	504.52 µg/L	504.52 ppb	09:18:25
1	As 188.979†	1567.6	1588.1	510.42 µg/L	510.42 ppb	09:18:45
1	B 249.677†	35116.1	31862.4	501.15 µg/L	501.15 ppb	09:18:25
1	Ba 233.527†	118064.8	118706.0	504.53 µg/L	504.53 ppb	09:18:25
1	Be 313.107†	1746268.8	1754724.4	505.03 µg/L	505.03 ppb	09:18:25
1	Cd 226.502†	75245.5	75675.8	505.21 µg/L	505.21 ppb	09:18:25
1	Co 228.616†	38288.1	38622.8	508.80 µg/L	508.80 ppb	09:18:25
1	Cr 267.716†	60384.9	60461.4	501.44 µg/L	501.44 ppb	09:18:25
1	Cu 324.752†	123890.7	121441.1	502.35 µg/L	502.35 ppb	09:18:25
1	Mn 257.610†	384835.1	386281.4	507.06 µg/L	507.06 ppb	09:18:25
1	Mo 202.031†	15931.4	16035.7	502.86 µg/L	502.86 ppb	09:18:45
1	Ni 231.604†	40986.0	41258.2	506.84 µg/L	506.84 ppb	09:18:25
1	P 214.914†	10845.0	10914.5	2508.3 µg/L	2508.3 ppb	09:18:45
1	Pb 220.353†	8568.1	8542.7	510.99 µg/L	510.99 ppb	09:18:45
1	S 181.975 Axial†	1352.5	1266.0	1017.7 µg/L	1017.7 ppb	09:18:45
1	Sb 206.836†	3989.5	3925.5	501.10 µg/L	501.10 ppb	09:18:45
1	Se 196.026†	1296.4	1281.0	501 µg/L	501 ppb	09:18:45
1	SiO2†	54106.0	52554.7	5456.5 µg/L	5456.5 ppb	09:18:25
1	Si 251.611†	162997.0	162763.3	2548.0 µg/L	2548.0 ppb	09:18:25
1	Sn 189.927†	7508.3	7542.8	505.56 µg/L	505.56 ppb	09:18:45
1	Ti 334.940†	509455.0	510655.0	503.25 µg/L	503.25 ppb	09:18:25
1	Tl 190.801†	3744.6	3877.3	514.98 µg/L	514.98 ppb	09:18:45
1	U 409.014†	6921.4	7269.3	482.00 µg/L	482.00 ppb	09:18:25
1	V 292.402†	96160.0	96264.0	505.21 µg/L	505.21 ppb	09:18:25
1	Zn 213.857†	84460.7	84229.1	502.96 µg/L	502.96 ppb	09:18:25
2	Sc RADIAL	148285.2	148285.2	98.8 %		09:18:16
2	Al 396.153Radial†	25839.5	26217.0	5118.6 µg/L	5118.6 ppb	09:18:16
2	Ca 317.933Radial†	85138.0	85505.1	5099.6 µg/L	5099.6 ppb	09:18:16
2	Fe 238.204 Radial†	75889.8	76643.8	5073.2 µg/L	5073.2 ppb	09:18:16
2	K 766.490 Radial†	14306.6	12899.5	5137.4 µg/L	5137.4 ppb	09:18:16
2	Mg 279.077 IEC†	13032.4	13013.2	5193.5 µg/L	5193.5 ppb	09:18:16
2	Na 589.592 Radial†	68571.9	68259.5	10085 µg/L	10085 ppb	09:18:16
2	Sr 421.552†	226682.5	229600.9	506.03 µg/L	506.03 ppb	09:18:14
2	Sc 361.383	1758415.0	1758415.0	98.112 %		09:18:48
2	Y 371.029	1046623.9	1046623.9	97.038 %		09:18:48
2	Ag 328.068†	128560.4	127106.6	504.33 µg/L	504.33 ppb	09:18:48
2	As 188.979†	1566.5	1610.4	517.53 µg/L	517.53 ppb	09:19:08
2	B 249.677†	34410.8	31669.7	498.12 µg/L	498.12 ppb	09:18:48
2	Ba 233.527†	115794.6	118161.4	502.22 µg/L	502.22 ppb	09:18:48
2	Be 313.107†	1716587.6	1750641.0	503.86 µg/L	503.86 ppb	09:18:48
2	Cd 226.502†	73943.0	75475.9	503.88 µg/L	503.88 ppb	09:18:48
2	Co 228.616†	37567.0	38461.6	506.68 µg/L	506.68 ppb	09:18:48
2	Cr 267.716†	59560.7	60526.3	501.97 µg/L	501.97 ppb	09:18:48
2	Cu 324.752†	121827.1	121194.3	501.34 µg/L	501.34 ppb	09:18:48
2	Mn 257.610†	378416.5	385506.4	506.05 µg/L	506.05 ppb	09:18:48
2	Mo 202.031†	16012.3	16356.9	512.93 µg/L	512.93 ppb	09:19:08
2	Ni 231.604†	40244.9	41117.1	505.11 µg/L	505.11 ppb	09:18:48
2	P 214.914†	10907.3	11140.5	2560.4 µg/L	2560.4 ppb	09:19:08
2	Pb 220.353†	8582.3	8685.6	519.53 µg/L	519.53 ppb	09:19:08
2	S 181.975 Axial†	1358.5	1292.4	1038.9 µg/L	1038.9 ppb	09:19:08
2	Sb 206.836†	4014.9	4011.2	512.17 µg/L	512.17 ppb	09:19:08
2	Se 196.026†	1313.0	1317.3	516 µg/L	516 ppb	09:19:08
2	SiO2†	53164.8	52406.2	5440.6 µg/L	5440.6 ppb	09:18:48
2	Si 251.611†	160349.0	162506.9	2543.8 µg/L	2543.8 ppb	09:18:48
2	Sn 189.927†	7556.3	7704.2	516.34 µg/L	516.34 ppb	09:19:08
2	Ti 334.940†	501282.1	509959.3	502.56 µg/L	502.56 ppb	09:18:48
2	Tl 190.801†	3740.5	3929.3	521.79 µg/L	521.79 ppb	09:19:08
2	U 409.014†	7069.8	7524.4	497.87 µg/L	497.87 ppb	09:18:48
2	V 292.402†	94863.3	96383.3	505.95 µg/L	505.95 ppb	09:18:48
2	Zn 213.857†	82727.8	83728.6	499.96 µg/L	499.96 ppb	09:18:48
3	Sc RADIAL	150715.7	150715.7	100 %		09:18:20
3	Al 396.153Radial†	26004.7	25959.8	5068.6 µg/L	5068.6 ppb	09:18:20
3	Ca 317.933Radial†	86359.3	85331.7	5089.3 µg/L	5089.3 ppb	09:18:20
3	Fe 238.204 Radial†	76873.6	76384.9	5056.1 µg/L	5056.1 ppb	09:18:20
3	K 766.490 Radial†	14198.2	12558.1	5001.3 µg/L	5001.3 ppb	09:18:20

3	Mg 279.077 IEC†	13243.9	13011.2	5192.5 µg/L	5192.5 ppb	09:18:20
3	Na 589.592 Radial†	69453.7	68018.5	10049 µg/L	10049 ppb	09:18:20
3	Sr 421.552†	229272.7	228480.7	503.56 µg/L	503.56 ppb	09:18:18
3	Sc 361.383	1782483.3	1782483.3	99.455 %		09:19:11
3	Y 371.029	1060279.1	1060279.1	98.304 %		09:19:11
3	Ag 328.068†	130219.4	127005.3	503.94 µg/L	503.94 ppb	09:19:11
3	As 188.979†	1571.1	1593.5	512.14 µg/L	512.14 ppb	09:19:31
3	B 249.677†	35113.6	31902.8	501.80 µg/L	501.80 ppb	09:19:11
3	Ba 233.527†	117518.7	118301.4	502.82 µg/L	502.82 ppb	09:19:11
3	Be 313.107†	1741916.0	1752483.7	504.39 µg/L	504.39 ppb	09:19:11
3	Cd 226.502†	75333.0	75855.8	506.42 µg/L	506.42 ppb	09:19:11
3	Co 228.616†	38083.8	38464.2	506.71 µg/L	506.71 ppb	09:19:11
3	Cr 267.716†	60289.2	60439.1	501.24 µg/L	501.24 ppb	09:19:11
3	Cu 324.752†	123541.2	121241.1	501.53 µg/L	501.53 ppb	09:19:11
3	Mn 257.610†	383753.1	385664.2	506.25 µg/L	506.25 ppb	09:19:11
3	Mo 202.031†	15972.3	16096.3	504.76 µg/L	504.76 ppb	09:19:31
3	Ni 231.604†	40936.0	41258.0	506.84 µg/L	506.84 ppb	09:19:11
3	P 214.914†	10905.5	10988.6	2525.4 µg/L	2525.4 ppb	09:19:31
3	Pb 220.353†	8567.6	8552.6	511.57 µg/L	511.57 ppb	09:19:31
3	S 181.975 Axial†	1350.1	1265.3	1017.1 µg/L	1017.1 ppb	09:19:31
3	Sb 206.836†	4010.7	3951.7	504.47 µg/L	504.47 ppb	09:19:31
3	Se 196.026†	1322.2	1308.5	512 µg/L	512 ppb	09:19:31
3	SiO2†	53958.1	52472.1	5447.8 µg/L	5447.8 ppb	09:19:11
3	Si 251.611†	162749.6	162713.9	2547.2 µg/L	2547.2 ppb	09:19:11
3	Sn 189.927†	7538.8	7582.6	508.22 µg/L	508.22 ppb	09:19:31
3	Ti 334.940†	507695.1	509508.6	502.12 µg/L	502.12 ppb	09:19:11
3	Tl 190.801†	3712.0	3849.1	511.30 µg/L	511.30 ppb	09:19:31
3	U 409.014†	7218.8	7576.8	501.14 µg/L	501.14 ppb	09:19:11
3	V 292.402†	96164.6	96386.3	505.88 µg/L	505.88 ppb	09:19:11
3	Zn 213.857†	84034.7	83904.2	501.00 µg/L	501.00 ppb	09:19:11

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1775184.2	99.047 %	0.8126			0.82%
Sc RADIAL	150537.9	100 %	1.4			1.44%
Y 371.029	1056301.5	97.935 %	0.7811			0.80%
Ag 328.068†	127091.1	504.26 µg/L	0.296	504.26 ppb	0.296	0.06%
QC value within limits for Ag 328.068 Recovery = 100.85%						
Al 396.153Radial†	26077.2	5091.5 µg/L	25.30	5091.5 ppb	25.30	0.50%
QC value within limits for Al 396.153Radial Recovery = 101.83%						
As 188.979†	1597.4	513.36 µg/L	3.708	513.36 ppb	3.708	0.72%
QC value within limits for As 188.979 Recovery = 102.67%						
B 249.677†	31811.6	500.35 µg/L	1.964	500.35 ppb	1.964	0.39%
QC value within limits for B 249.677 Recovery = 100.07%						
Ba 233.527†	118389.6	503.19 µg/L	1.199	503.19 ppb	1.199	0.24%
QC value within limits for Ba 233.527 Recovery = 100.64%						
Be 313.107†	1752616.4	504.43 µg/L	0.586	504.43 ppb	0.586	0.12%
QC value within limits for Be 313.107 Recovery = 100.89%						
Ca 317.933Radial†	85481.4	5098.2 µg/L	8.31	5098.2 ppb	8.31	0.16%
QC value within limits for Ca 317.933Radial Recovery = 101.96%						
Cd 226.502†	75669.2	505.17 µg/L	1.271	505.17 ppb	1.271	0.25%
QC value within limits for Cd 226.502 Recovery = 101.03%						
Co 228.616†	38516.2	507.40 µg/L	1.216	507.40 ppb	1.216	0.24%
QC value within limits for Co 228.616 Recovery = 101.48%						
Cr 267.716†	60475.6	501.55 µg/L	0.375	501.55 ppb	0.375	0.07%
QC value within limits for Cr 267.716 Recovery = 100.31%						
Cu 324.752†	121292.2	501.74 µg/L	0.535	501.74 ppb	0.535	0.11%
QC value within limits for Cu 324.752 Recovery = 100.35%						
Fe 238.204 Radial†	76594.8	5070.0 µg/L	12.59	5070.0 ppb	12.59	0.25%
QC value within limits for Fe 238.204 Radial Recovery = 101.40%						
K 766.490 Radial†	12722.5	5066.8 µg/L	68.16	5066.8 ppb	68.16	1.35%
QC value within limits for K 766.490 Radial Recovery = 101.34%						
Mg 279.077 IEC†	13054.9	5210.0 µg/L	29.40	5210.0 ppb	29.40	0.56%
QC value within limits for Mg 279.077 IEC Recovery = 104.20%						
Mn 257.610†	385817.3	506.45 µg/L	0.537	506.45 ppb	0.537	0.11%
QC value within limits for Mn 257.610 Recovery = 101.29%						
Mo 202.031†	16163.0	506.85 µg/L	5.347	506.85 ppb	5.347	1.06%
QC value within limits for Mo 202.031 Recovery = 101.37%						
Na 589.592 Radial†	68089.0	10060 µg/L	21.9	10060 ppb	21.9	0.22%

QC value within limits for Na 589.592 Radial Recovery = 100.60%

Ni 231.604†	41211.1	506.27 µg/L	1.000	506.27 ppb	1.000	0.20%
QC value within limits for Ni 231.604 Recovery = 101.25%						
P 214.914†	11014.6	2531.4 µg/L	26.57	2531.4 ppb	26.57	1.05%
QC value within limits for P 214.914 Recovery = 101.26%						
Pb 220.353†	8593.7	514.03 µg/L	4.770	514.03 ppb	4.770	0.93%
QC value within limits for Pb 220.353 Recovery = 102.81%						
S 181.975 Axial†	1274.6	1024.6 µg/L	12.42	1024.6 ppb	12.42	1.21%
QC value within limits for S 181.975 Axial Recovery = 102.46%						
Sb 206.836†	3962.8	505.92 µg/L	5.673	505.92 ppb	5.673	1.12%
QC value within limits for Sb 206.836 Recovery = 101.18%						
Se 196.026†	1302.3	510 µg/L	7.4	510 ppb	7.4	1.45%
QC value within limits for Se 196.026 Recovery = 101.94%						
SiO2†	52477.7	5448.3 µg/L	7.97	5448.3 ppb	7.97	0.15%
QC value within limits for SiO2 Recovery = 101.88%						
Si 251.611†	162661.4	2546.3 µg/L	2.25	2546.3 ppb	2.25	0.09%
QC value within limits for Si 251.611 Recovery = 101.85%						
Sn 189.927†	7609.9	510.04 µg/L	5.616	510.04 ppb	5.616	1.10%
QC value within limits for Sn 189.927 Recovery = 102.01%						
Sr 421.552†	226790.1	499.84 µg/L	8.681	499.84 ppb	8.681	1.74%
QC value within limits for Sr 421.552 Recovery = 99.97%						
Ti 334.940†	510041.0	502.64 µg/L	0.572	502.64 ppb	0.572	0.11%
QC value within limits for Ti 334.940 Recovery = 100.53%						
Tl 190.801†	3885.2	516.02 µg/L	5.325	516.02 ppb	5.325	1.03%
QC value within limits for Tl 190.801 Recovery = 103.20%						
U 409.014†	7456.8	493.67 µg/L	10.237	493.67 ppb	10.237	2.07%
QC value within limits for U 409.014 Recovery = 98.73%						
V 292.402†	96344.5	505.68 µg/L	0.407	505.68 ppb	0.407	0.08%
QC value within limits for V 292.402 Recovery = 101.14%						
Zn 213.857†	83954.0	501.31 µg/L	1.522	501.31 ppb	1.522	0.30%
QC value within limits for Zn 213.857 Recovery = 100.26%						

All analyte(s) passed QC.

Sequence No.: 2

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/31/2010 9:19:39

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	150828.8	150828.8	101 %		09:20:08
1	Al 396.153Radial†	-51.5	22.7	4.4140 µg/L	4.4140 ppb	09:20:28
1	Ca 317.933Radial†	674.8	38.2	2.2785 µg/L	2.2785 ppb	09:20:28
1	Fe 238.204 Radial†	175.5	37.0	2.4517 µg/L	2.4517 ppb	09:20:28
1	K 766.490 Radial†	1618.0	34.2	13.625 µg/L	13.625 ppb	09:20:08
1	Mg 279.077 IEC†	174.9	1.7	0.6972 µg/L	0.6972 ppb	09:20:28
1	Na 589.592 Radial†	1442.7	317.1	46.865 µg/L	46.865 ppb	09:20:08
1	Sr 421.552†	-173.2	83.3	0.1836 µg/L	0.1836 ppb	09:20:08
1	Sc 361.383	1801507.9	1801507.9	100.52 %		09:21:30
1	Y 371.029	1083746.0	1083746.0	100.48 %		09:21:30
1	Ag 328.068†	3714.3	-232.8	-0.9068 µg/L	-0.9068 ppb	09:21:32
1	As 188.979†	-13.6	0.3	0.0818 µg/L	0.0818 ppb	09:21:52
1	B 249.677†	3327.8	-92.7	-1.4628 µg/L	-1.4628 ppb	09:21:32
1	Ba 233.527†	-120.6	18.3	0.0782 µg/L	0.0782 ppb	09:21:52
1	Be 313.107†	-815.5	205.3	0.0593 µg/L	0.0593 ppb	09:21:32
1	Cd 226.502†	-120.5	-10.1	-0.0677 µg/L	-0.0677 ppb	09:21:52
1	Co 228.616†	-174.1	-1.6	-0.0209 µg/L	-0.0209 ppb	09:21:52
1	Cr 267.716†	166.8	-14.8	-0.1231 µg/L	-0.1231 ppb	09:21:52
1	Cu 324.752†	2965.9	-26.8	-0.1095 µg/L	-0.1095 ppb	09:21:32
1	Mn 257.610†	286.3	91.8	0.1205 µg/L	0.1205 ppb	09:21:52
1	Mo 202.031†	-12.5	24.0	0.7525 µg/L	0.7525 ppb	09:21:52
1	Ni 231.604†	-84.1	13.9	0.1709 µg/L	0.1709 ppb	09:21:52
1	P 214.914†	-14.1	9.3	2.1483 µg/L	2.1483 ppb	09:21:52
1	Pb 220.353†	103.0	40.6	2.4224 µg/L	2.4224 ppb	09:21:52
1	S 181.975 Axial†	97.0	4.2	3.4015 µg/L	3.4015 ppb	09:21:52
1	Sb 206.836†	90.6	9.2	1.1792 µg/L	1.1792 ppb	09:21:52
1	Se 196.026†	15.9	-5.1	-2.00 µg/L	-2.00 ppb	09:21:52
1	SiO2†	1787.5	-3.5	-0.3938 µg/L	-0.3938 ppb	09:21:52
1	Si 251.611†	977.3	44.2	0.6822 µg/L	0.6822 ppb	09:21:32
1	Sn 189.927†	4.2	6.6	0.4438 µg/L	0.4438 ppb	09:21:52
1	Ti 334.940†	949.1	-26.0	-0.0260 µg/L	-0.0260 ppb	09:21:32
1	Tl 190.801†	-120.6	-3.2	-0.4140 µg/L	-0.4140 ppb	09:21:52
1	U 409.014†	-307.7	12.4	0.7925 µg/L	0.7925 ppb	09:21:32
1	V 292.402†	384.2	76.6	0.4040 µg/L	0.4040 ppb	09:21:32
1	Zn 213.857†	667.3	72.6	0.4357 µg/L	0.4357 ppb	09:21:52
2	Sc RADIAL	150792.5	150792.5	101 %		09:20:30
2	Al 396.153Radial†	-57.3	16.9	3.2975 µg/L	3.2975 ppb	09:20:50
2	Ca 317.933Radial†	676.5	40.1	2.3898 µg/L	2.3898 ppb	09:20:50
2	Fe 238.204 Radial†	188.1	49.6	3.2853 µg/L	3.2853 ppb	09:20:50
2	K 766.490 Radial†	1815.7	231.3	92.194 µg/L	92.194 ppb	09:20:30
2	Mg 279.077 IEC†	182.1	8.9	3.5765 µg/L	3.5765 ppb	09:20:50
2	Na 589.592 Radial†	1517.6	392.0	57.858 µg/L	57.858 ppb	09:20:30
2	Sr 421.552†	-192.6	64.0	0.1410 µg/L	0.1410 ppb	09:20:30
2	Sc 361.383	1777404.6	1777404.6	99.171 %		09:21:55
2	Y 371.029	1071043.0	1071043.0	99.302 %		09:21:55
2	Ag 328.068†	3371.5	-528.4	-2.0721 µg/L	-2.0721 ppb	09:21:57
2	As 188.979†	-17.3	-3.6	-1.1413 µg/L	-1.1413 ppb	09:22:17
2	B 249.677†	3566.7	193.2	3.0486 µg/L	3.0486 ppb	09:21:57
2	Ba 233.527†	-102.3	35.1	0.1491 µg/L	0.1491 ppb	09:22:17
2	Be 313.107†	-1187.2	-180.5	-0.0508 µg/L	-0.0508 ppb	09:21:57
2	Cd 226.502†	-64.5	44.7	0.2983 µg/L	0.2983 ppb	09:22:17
2	Co 228.616†	-163.7	6.6	0.0864 µg/L	0.0864 ppb	09:22:17
2	Cr 267.716†	166.8	-12.6	-0.1074 µg/L	-0.1074 ppb	09:22:17
2	Cu 324.752†	2976.3	23.7	0.1015 µg/L	0.1015 ppb	09:21:57
2	Mn 257.610†	289.0	98.4	0.1291 µg/L	0.1291 ppb	09:22:17
2	Mo 202.031†	-18.3	18.0	0.5631 µg/L	0.5631 ppb	09:22:17
2	Ni 231.604†	-76.3	20.7	0.2540 µg/L	0.2540 ppb	09:22:17
2	P 214.914†	-27.0	-3.9	-0.8982 µg/L	-0.8982 ppb	09:22:17
2	Pb 220.353†	84.0	22.8	1.3575 µg/L	1.3575 ppb	09:22:17

2	S 181.975 Axial†	102.1	10.7	8.5796 µg/L	8.5796 ppb	09:22:17
2	Sb 206.836†	78.2	-2.1	-0.2533 µg/L	-0.2533 ppb	09:22:17
2	Se 196.026†	26.9	6.2	2.42 µg/L	2.42 ppb	09:22:17
2	SiO2†	1794.7	27.8	2.8695 µg/L	2.8695 ppb	09:22:17
2	Si 251.611†	891.5	-29.2	-0.4735 µg/L	-0.4735 ppb	09:21:57
2	Sn 189.927†	14.1	16.7	1.1170 µg/L	1.1170 ppb	09:22:17
2	Ti 334.940†	1239.3	279.4	0.2740 µg/L	0.2740 ppb	09:21:57
2	Tl 190.801†	-129.0	-13.3	-1.7391 µg/L	-1.7391 ppb	09:22:17
2	U 409.014†	-255.2	61.1	3.7655 µg/L	3.7655 ppb	09:21:57
2	V 292.402†	205.1	-98.9	-0.5048 µg/L	-0.5048 ppb	09:21:57
2	Zn 213.857†	661.2	75.4	0.4522 µg/L	0.4522 ppb	09:22:17
3	Sc RADIAL	152536.7	152536.7	102 %		09:20:52
3	Al 396.153Radial†	-49.3	25.4	4.9559 µg/L	4.9559 ppb	09:21:12
3	Ca 317.933Radial†	634.3	-9.1	-0.5443 µg/L	-0.5443 ppb	09:21:12
3	Fe 238.204 Radial†	168.4	28.1	1.8613 µg/L	1.8613 ppb	09:21:12
3	K 766.490 Radial†	1792.8	188.1	74.979 µg/L	74.979 ppb	09:20:52
3	Mg 279.077 IEC†	188.4	13.1	5.2458 µg/L	5.2458 ppb	09:21:12
3	Na 589.592 Radial†	1579.0	435.1	64.253 µg/L	64.253 ppb	09:20:52
3	Sr 421.552†	-242.1	17.4	0.0384 µg/L	0.0384 ppb	09:20:52
3	Sc 361.383	1783224.4	1783224.4	99.496 %		09:22:19
3	Y 371.029	1072877.3	1072877.3	99.472 %		09:22:19
3	Ag 328.068†	4130.8	223.6	0.8725 µg/L	0.8725 ppb	09:22:21
3	As 188.979†	-14.8	-1.1	-0.3495 µg/L	-0.3495 ppb	09:22:41
3	B 249.677†	3597.4	212.2	3.3493 µg/L	3.3493 ppb	09:22:21
3	Ba 233.527†	-111.5	26.2	0.1114 µg/L	0.1114 ppb	09:22:41
3	Be 313.107†	-902.7	109.3	0.0310 µg/L	0.0310 ppb	09:22:21
3	Cd 226.502†	-118.4	-9.2	-0.0620 µg/L	-0.0620 ppb	09:22:41
3	Co 228.616†	-158.0	12.8	0.1687 µg/L	0.1687 ppb	09:22:41
3	Cr 267.716†	204.2	24.5	0.2041 µg/L	0.2041 ppb	09:22:41
3	Cu 324.752†	2848.1	-114.9	-0.4745 µg/L	-0.4745 ppb	09:22:21
3	Mn 257.610†	330.3	139.0	0.1823 µg/L	0.1823 ppb	09:22:41
3	Mo 202.031†	-17.6	18.7	0.5868 µg/L	0.5868 ppb	09:22:41
3	Ni 231.604†	-96.7	0.4	0.0047 µg/L	0.0047 ppb	09:22:41
3	P 214.914†	-43.1	-20.0	-4.6108 µg/L	-4.6108 ppb	09:22:41
3	Pb 220.353†	64.8	3.2	0.1944 µg/L	0.1944 ppb	09:22:41
3	S 181.975 Axial†	91.5	-0.2	-0.1716 µg/L	-0.1716 ppb	09:22:41
3	Sb 206.836†	90.3	9.8	1.2552 µg/L	1.2552 ppb	09:22:41
3	Se 196.026†	23.8	3.0	1.16 µg/L	1.16 ppb	09:22:41
3	SiO2†	1806.0	33.3	3.4379 µg/L	3.4379 ppb	09:22:41
3	Si 251.611†	889.8	-33.8	-0.5479 µg/L	-0.5479 ppb	09:22:21
3	Sn 189.927†	19.0	21.6	1.4435 µg/L	1.4435 ppb	09:22:41
3	Ti 334.940†	930.4	-35.2	-0.0346 µg/L	-0.0346 ppb	09:22:21
3	Tl 190.801†	-120.0	-3.9	-0.5082 µg/L	-0.5082 ppb	09:22:41
3	U 409.014†	-339.4	-22.7	-1.4164 µg/L	-1.4164 ppb	09:22:21
3	V 292.402†	273.8	-30.5	-0.1520 µg/L	-0.1520 ppb	09:22:21
3	Zn 213.857†	645.1	57.1	0.3438 µg/L	0.3438 ppb	09:22:41

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1787379.0	99.728 %	0.7018			0.70%
Sc RADIAL	151386.0	101 %	0.7			0.66%
Y 371.029	1075888.8	99.751 %	0.6366			0.64%
Ag 328.068†	-179.2	-0.7021 µg/L	1.48290	-0.7021 ppb	1.48290	211.20%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	21.7	4.2225 µg/L	0.84559	4.2225 ppb	0.84559	20.03%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-1.5	-0.4697 µg/L	0.62037	-0.4697 ppb	0.62037	132.09%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	104.2	1.6450 µg/L	2.69568	1.6450 ppb	2.69568	163.87%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	26.6	0.1129 µg/L	0.03546	0.1129 ppb	0.03546	31.41%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	44.7	0.0132 µg/L	0.05718	0.0132 ppb	0.05718	434.08%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	23.0	1.3746 µg/L	1.66280	1.3746 ppb	1.66280	120.96%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	8.4	0.0562 µg/L	0.20965	0.0562 ppb	0.20965	372.94%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	5.9	0.0781 µg/L	0.09507	0.0781 ppb	0.09507	121.79%

Cr	267.716†	-1.0	-0.0088 µg/L	0.18453	-0.0088 ppb	0.18453	>999.9%
QC value within limits for Co 228.616 Recovery = Not calculated							
Cu	324.752†	-39.3	-0.1608 µg/L	0.29142	-0.1608 ppb	0.29142	181.22%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Fe	238.204 Radial†	38.3	2.5328 µg/L	0.71547	2.5328 ppb	0.71547	28.25%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated							
K	766.490 Radial†	151.2	60.266 µg/L	41.2993	60.266 ppb	41.2993	68.53%
QC value within limits for K 766.490 Radial Recovery = Not calculated							
Mg	279.077 IEC†	7.9	3.1732 µg/L	2.30098	3.1732 ppb	2.30098	72.51%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated							
Mn	257.610†	109.7	0.1440 µg/L	0.03347	0.1440 ppb	0.03347	23.25%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mo	202.031†	20.2	0.6341 µg/L	0.10316	0.6341 ppb	0.10316	16.27%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na	589.592 Radial†	381.4	56.325 µg/L	8.7943	56.325 ppb	8.7943	15.61%
QC value within limits for Na 589.592 Radial Recovery = Not calculated							
Ni	231.604†	11.7	0.1432 µg/L	0.12690	0.1432 ppb	0.12690	88.61%
QC value within limits for Ni 231.604 Recovery = Not calculated							
P	214.914†	-4.9	-1.1203 µg/L	3.38502	-1.1203 ppb	3.38502	302.16%
QC value within limits for P 214.914 Recovery = Not calculated							
Pb	220.353†	22.2	1.3248 µg/L	1.11437	1.3248 ppb	1.11437	84.12%
QC value within limits for Pb 220.353 Recovery = Not calculated							
S	181.975 Axial†	4.9	3.9365 µg/L	4.40003	3.9365 ppb	4.40003	111.77%
QC value within limits for S 181.975 Axial Recovery = Not calculated							
Sb	206.836†	5.6	0.7271 µg/L	0.84985	0.7271 ppb	0.84985	116.89%
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se	196.026†	1.3	0.527 µg/L	2.2764	0.527 ppb	2.2764	431.57%
QC value within limits for Se 196.026 Recovery = Not calculated							
SiO2†		19.2	1.9712 µg/L	2.06776	1.9712 ppb	2.06776	104.90%
QC value within limits for SiO2 Recovery = Not calculated							
Si	251.611†	-6.2	-0.1131 µg/L	0.68976	-0.1131 ppb	0.68976	610.02%
QC value within limits for Si 251.611 Recovery = Not calculated							
Sn	189.927†	15.0	1.0014 µg/L	0.50977	1.0014 ppb	0.50977	50.90%
QC value within limits for Sn 189.927 Recovery = Not calculated							
Sr	421.552†	54.9	0.1210 µg/L	0.07461	0.1210 ppb	0.07461	61.65%
QC value within limits for Sr 421.552 Recovery = Not calculated							
Ti	334.940†	72.7	0.0711 µg/L	0.17575	0.0711 ppb	0.17575	247.08%
QC value within limits for Ti 334.940 Recovery = Not calculated							
Tl	190.801†	-6.8	-0.8871 µg/L	0.73937	-0.8871 ppb	0.73937	83.35%
QC value within limits for Tl 190.801 Recovery = Not calculated							
U	409.014†	16.9	1.0472 µg/L	2.60037	1.0472 ppb	2.60037	248.32%
QC value within limits for U 409.014 Recovery = Not calculated							
V	292.402†	-17.6	-0.0843 µg/L	0.45820	-0.0843 ppb	0.45820	543.75%
QC value within limits for V 292.402 Recovery = Not calculated							
Zn	213.857†	68.4	0.4106 µg/L	0.05843	0.4106 ppb	0.05843	14.23%
QC value within limits for Zn 213.857 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 3

Sample ID: 1202056957|959141|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 301

Date Collected: 3/31/2010 9:22:50

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056957|959141|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	152935.4	152935.4	102 %		09:23:21
1	Al 396.153Radial†	-230.2	-151.8	-29.810 µg/L	-29.810 ppb	09:23:21
1	Ca 317.933Radial†	855.6	206.3	12.305 µg/L	12.305 ppb	09:23:41
1	Fe 238.204 Radial†	223.5	81.8	5.4134 µg/L	5.4134 ppb	09:23:41
1	K 766.490 Radial†	1666.3	59.4	23.676 µg/L	23.676 ppb	09:23:21
1	Mg 279.077 IEC†	186.7	10.9	4.3666 µg/L	4.3666 ppb	09:23:41
1	Na 589.592 Radial†	1458.5	312.8	46.217 µg/L	46.217 ppb	09:23:21
1	Sr 421.552†	-132.4	125.7	0.2770 µg/L	0.2770 ppb	09:23:21
1	Sc 361.383	1791157.7	1791157.7	99.939 %		09:24:29
1	Y 371.029	1074855.2	1074855.2	99.655 %		09:24:29
1	Ag 328.068†	3898.3	-27.4	-0.1087 µg/L	-0.1087 ppb	09:24:31
1	As 188.979†	-6.0	7.8	2.4691 µg/L	2.4691 ppb	09:24:51
1	B 249.677†	3435.2	33.9	0.5351 µg/L	0.5351 ppb	09:24:51
1	Ba 233.527†	-141.3	-3.1	-0.0131 µg/L	-0.0131 ppb	09:24:51
1	Be 313.107†	-984.9	31.1	0.0093 µg/L	0.0093 ppb	09:24:31
1	Cd 226.502†	-121.5	-11.8	-0.0795 µg/L	-0.0795 ppb	09:24:51
1	Co 228.616†	-165.6	5.9	0.0772 µg/L	0.0772 ppb	09:24:51
1	Cr 267.716†	194.7	14.1	0.1161 µg/L	0.1161 ppb	09:24:51
1	Cu 324.752†	3153.3	177.8	0.7350 µg/L	0.7350 ppb	09:24:31
1	Mn 257.610†	624.9	432.2	0.5674 µg/L	0.5674 ppb	09:24:51
1	Mo 202.031†	-17.7	18.7	0.5854 µg/L	0.5854 ppb	09:24:51
1	Ni 231.604†	-108.4	-10.9	-0.1338 µg/L	-0.1338 ppb	09:24:51
1	P 214.914†	-7.1	16.2	3.7238 µg/L	3.7238 ppb	09:24:51
1	Pb 220.353†	53.9	-7.9	-0.4735 µg/L	-0.4735 ppb	09:24:51
1	S 181.975 Axial†	94.7	2.6	2.0473 µg/L	2.0473 ppb	09:24:51
1	Sb 206.836†	77.5	-3.4	-0.4315 µg/L	-0.4315 ppb	09:24:51
1	Se 196.026†	31.1	10.1	3.95 µg/L	3.95 ppb	09:24:51
1	SiO2†	2032.0	251.4	26.184 µg/L	26.184 ppb	09:24:51
1	Si 251.611†	1660.6	733.6	11.517 µg/L	11.517 ppb	09:24:31
1	Sn 189.927†	6.8	9.3	0.6228 µg/L	0.6228 ppb	09:24:51
1	Ti 334.940†	915.2	-54.5	-0.0543 µg/L	-0.0543 ppb	09:24:31
1	Tl 190.801†	-104.9	11.9	1.5503 µg/L	1.5503 ppb	09:24:51
1	U 409.014†	-300.4	17.9	1.1057 µg/L	1.1057 ppb	09:24:31
1	V 292.402†	270.1	-35.4	-0.1764 µg/L	-0.1764 ppb	09:24:31
1	Zn 213.857†	747.6	156.7	0.9425 µg/L	0.9425 ppb	09:24:51
2	Sc RADIAL	152540.9	152540.9	102 %		09:23:43
2	Al 396.153Radial†	-265.2	-186.8	-36.672 µg/L	-36.672 ppb	09:23:43
2	Ca 317.933Radial†	839.2	192.4	11.473 µg/L	11.473 ppb	09:24:03
2	Fe 238.204 Radial†	205.9	65.0	4.2999 µg/L	4.2999 ppb	09:24:03
2	K 766.490 Radial†	1580.0	-21.3	-8.4746 µg/L	-8.4746 ppb	09:23:43
2	Mg 279.077 IEC†	182.7	7.4	2.9717 µg/L	2.9717 ppb	09:24:03
2	Na 589.592 Radial†	1390.0	249.2	36.843 µg/L	36.843 ppb	09:23:43
2	Sr 421.552†	-198.1	60.7	0.1338 µg/L	0.1338 ppb	09:23:43
2	Sc 361.383	1816387.4	1816387.4	101.35 %		09:24:53
2	Y 371.029	1089119.3	1089119.3	100.98 %		09:24:53
2	Ag 328.068†	4001.4	20.1	0.0742 µg/L	0.0742 ppb	09:24:56
2	As 188.979†	-10.0	4.0	1.2516 µg/L	1.2516 ppb	09:25:16
2	B 249.677†	3453.5	4.3	0.0669 µg/L	0.0669 ppb	09:25:16
2	Ba 233.527†	-111.1	28.6	0.1215 µg/L	0.1215 ppb	09:25:16
2	Be 313.107†	-900.2	128.3	0.0368 µg/L	0.0368 ppb	09:24:56
2	Cd 226.502†	-100.3	10.8	0.0719 µg/L	0.0719 ppb	09:25:16
2	Co 228.616†	-163.6	10.2	0.1340 µg/L	0.1340 ppb	09:25:16
2	Cr 267.716†	146.1	-36.6	-0.3033 µg/L	-0.3033 ppb	09:25:16
2	Cu 324.752†	2998.6	-18.6	-0.0764 µg/L	-0.0764 ppb	09:24:56
2	Mn 257.610†	595.7	394.7	0.5182 µg/L	0.5182 ppb	09:25:16
2	Mo 202.031†	-21.3	15.4	0.4814 µg/L	0.4814 ppb	09:25:16
2	Ni 231.604†	-79.0	19.6	0.2411 µg/L	0.2411 ppb	09:25:16
2	P 214.914†	1.3	24.6	5.6515 µg/L	5.6515 ppb	09:25:16
2	Pb 220.353†	99.0	35.8	2.1341 µg/L	2.1341 ppb	09:25:16

2	S 181.975 Axial†	88.6	-4.8	-3.8438 µg/L	-3.8438 ppb	09:25:16
2	Sb 206.836†	90.0	7.8	1.0071 µg/L	1.0071 ppb	09:25:16
2	Se 196.026†	25.2	3.9	1.52 µg/L	1.52 ppb	09:25:16
2	SiO2†	2012.6	204.1	21.258 µg/L	21.258 ppb	09:25:16
2	Si 251.611†	1607.9	658.4	10.343 µg/L	10.343 ppb	09:24:56
2	Sn 189.927†	-4.6	-2.1	-0.1384 µg/L	-0.1384 ppb	09:25:16
2	Ti 334.940†	822.8	-158.4	-0.1560 µg/L	-0.1560 ppb	09:24:56
2	Tl 190.801†	-114.1	4.2	0.5405 µg/L	0.5405 ppb	09:25:16
2	U 409.014†	-328.5	-5.6	-0.3639 µg/L	-0.3639 ppb	09:24:56
2	V 292.402†	249.1	-59.9	-0.3069 µg/L	-0.3069 ppb	09:24:56
2	Zn 213.857†	741.8	140.7	0.8438 µg/L	0.8438 ppb	09:25:16
3	Sc RADIAL	153115.3	153115.3	102 %		09:24:05
3	Al 396.153Radial†	-223.6	-145.2	-28.506 µg/L	-28.506 ppb	09:24:05
3	Ca 317.933Radial†	832.3	182.5	10.884 µg/L	10.884 ppb	09:24:26
3	Fe 238.204 Radial†	199.4	57.9	3.8332 µg/L	3.8332 ppb	09:24:26
3	K 766.490 Radial†	1674.8	65.9	26.256 µg/L	26.256 ppb	09:24:05
3	Mg 279.077 IEC†	210.8	34.3	13.681 µg/L	13.681 ppb	09:24:26
3	Na 589.592 Radial†	1543.5	394.4	58.275 µg/L	58.275 ppb	09:24:05
3	Sr 421.552†	-161.3	97.6	0.2149 µg/L	0.2149 ppb	09:24:05
3	Sc 361.383	1803366.4	1803366.4	100.62 %		09:25:18
3	Y 371.029	1081674.8	1081674.8	100.29 %		09:25:18
3	Ag 328.068†	3917.4	-34.9	-0.1330 µg/L	-0.1330 ppb	09:25:20
3	As 188.979†	-8.5	5.3	1.6932 µg/L	1.6932 ppb	09:25:40
3	B 249.677†	3452.1	27.5	0.4340 µg/L	0.4340 ppb	09:25:40
3	Ba 233.527†	-111.4	27.5	0.1172 µg/L	0.1172 ppb	09:25:40
3	Be 313.107†	-871.9	150.0	0.0437 µg/L	0.0437 ppb	09:25:20
3	Cd 226.502†	-117.7	-7.2	-0.0487 µg/L	-0.0487 ppb	09:25:40
3	Co 228.616†	-174.2	-1.6	-0.0208 µg/L	-0.0208 ppb	09:25:40
3	Cr 267.716†	183.0	1.1	0.0080 µg/L	0.0080 ppb	09:25:40
3	Cu 324.752†	2889.5	-105.7	-0.4336 µg/L	-0.4336 ppb	09:25:20
3	Mn 257.610†	626.9	430.0	0.5641 µg/L	0.5641 ppb	09:25:40
3	Mo 202.031†	-13.9	22.6	0.7076 µg/L	0.7076 ppb	09:25:40
3	Ni 231.604†	-94.1	4.1	0.0507 µg/L	0.0507 ppb	09:25:40
3	P 214.914†	5.3	28.6	6.5826 µg/L	6.5826 ppb	09:25:40
3	Pb 220.353†	89.8	27.4	1.6298 µg/L	1.6298 ppb	09:25:40
3	S 181.975 Axial†	94.1	1.3	1.0516 µg/L	1.0516 ppb	09:25:40
3	Sb 206.836†	88.7	7.2	0.9248 µg/L	0.9248 ppb	09:25:40
3	Se 196.026†	16.4	-4.6	-1.79 µg/L	-1.79 ppb	09:25:40
3	SiO2†	1944.4	150.6	15.665 µg/L	15.665 ppb	09:25:40
3	Si 251.611†	1504.1	566.7	8.8919 µg/L	8.8919 ppb	09:25:20
3	Sn 189.927†	10.8	13.2	0.8841 µg/L	0.8841 ppb	09:25:40
3	Ti 334.940†	931.2	-44.8	-0.0457 µg/L	-0.0457 ppb	09:25:20
3	Tl 190.801†	-109.1	8.4	1.0976 µg/L	1.0976 ppb	09:25:40
3	U 409.014†	-292.8	27.5	1.7191 µg/L	1.7191 ppb	09:25:20
3	V 292.402†	340.9	33.2	0.1798 µg/L	0.1798 ppb	09:25:20
3	Zn 213.857†	736.7	140.9	0.8469 µg/L	0.8469 ppb	09:25:40

Mean Data: 1202056957|959141|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1803637.2	100.63 %		0.704			0.70%
Sc RADIAL	152863.9	102 %		0.2			0.19%
Y 371.029	1081883.1	100.31 %		0.661			0.66%
Ag 328.068†	-14.1	-0.0558 µg/L		0.11325	-0.0558 ppb	0.11325	202.89%
Al 396.153Radial†	-161.3	-31.663 µg/L		4.3869	-31.663 ppb	4.3869	13.86%
As 188.979†	5.7	1.8047 µg/L		0.61634	1.8047 ppb	0.61634	34.15%
B 249.677†	21.9	0.3454 µg/L		0.24637	0.3454 ppb	0.24637	71.34%
Ba 233.527†	17.7	0.0752 µg/L		0.07652	0.0752 ppb	0.07652	101.77%
Be 313.107†	103.1	0.0299 µg/L		0.01821	0.0299 ppb	0.01821	60.87%
Ca 317.933Radial†	193.7	11.554 µg/L		0.7140	11.554 ppb	0.7140	6.18%
Cd 226.502†	-2.7	-0.0188 µg/L		0.08003	-0.0188 ppb	0.08003	426.34%
Co 228.616†	4.8	0.0635 µg/L		0.07834	0.0635 ppb	0.07834	123.42%
Cr 267.716†	-7.1	-0.0597 µg/L		0.21777	-0.0597 ppb	0.21777	364.69%
Cu 324.752†	17.8	0.0750 µg/L		0.59879	0.0750 ppb	0.59879	798.36%
Fe 238.204 Radial†	68.2	4.5155 µg/L		0.81186	4.5155 ppb	0.81186	17.98%
K 766.490 Radial†	34.7	13.819 µg/L		19.3502	13.819 ppb	19.3502	140.02%
Mg 279.077 IEC†	17.6	7.0065 µg/L		5.82237	7.0065 ppb	5.82237	83.10%
Mn 257.610†	419.0	0.5499 µg/L		0.02749	0.5499 ppb	0.02749	5.00%
Mo 202.031†	18.9	0.5914 µg/L		0.11322	0.5914 ppb	0.11322	19.14%
Na 589.592 Radial†	318.8	47.111 µg/L		10.7437	47.111 ppb	10.7437	22.80%

Ni 231.604†	4.3	0.0527 µg/L	0.18747	0.0527 ppb	0.18747	355.83%
P 214.914†	23.1	5.3193 µg/L	1.45806	5.3193 ppb	1.45806	27.41%
Pb 220.353†	18.4	1.0968 µg/L	1.38313	1.0968 ppb	1.38313	126.11%
S 181.975 Axial†	-0.3	-0.2483 µg/L	3.15338	-0.2483 ppb	3.15338	>999.9%
Sb 206.836†	3.8	0.5002 µg/L	0.80787	0.5002 ppb	0.80787	161.52%
Se 196.026†	3.1	1.23 µg/L	2.884	1.23 ppb	2.884	235.17%
SiO2†	202.0	21.036 µg/L	5.2631	21.036 ppb	5.2631	25.02%
Si 251.611†	652.9	10.251 µg/L	1.3150	10.251 ppb	1.3150	12.83%
Sn 189.927†	6.8	0.4562 µg/L	0.53125	0.4562 ppb	0.53125	116.46%
Sr 421.552†	94.7	0.2086 µg/L	0.07179	0.2086 ppb	0.07179	34.42%
Ti 334.940†	-85.9	-0.0853 µg/L	0.06135	-0.0853 ppb	0.06135	71.91%
Tl 190.801†	8.1	1.0628 µg/L	0.50584	1.0628 ppb	0.50584	47.59%
U 409.014†	13.3	0.8203 µg/L	1.07041	0.8203 ppb	1.07041	130.49%
V 292.402†	-20.7	-0.1011 µg/L	0.25193	-0.1011 ppb	0.25193	249.07%
Zn 213.857†	146.1	0.8777 µg/L	0.05611	0.8777 ppb	0.05611	6.39%

Sequence No.: 4

Sample ID: 1202056958|959141|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 302

Date Collected: 3/31/2010 9:25:47

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056958|959141|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	153166.0	153166.0	102 %		09:26:19
1	Al 396.153Radial†	25416.5	24969.6	4874.5 µg/L	4874.5 ppb	09:26:19
1	Ca 317.933Radial†	84188.3	81830.0	4880.4 µg/L	4880.4 ppb	09:26:19
1	Fe 238.204 Radial†	74134.5	72477.7	4797.4 µg/L	4797.4 ppb	09:26:19
1	K 766.490 Radial†	14053.8	12190.6	4855.8 µg/L	4855.8 ppb	09:26:19
1	Mg 279.077 IEC†	12961.5	12523.6	4998.4 µg/L	4998.4 ppb	09:26:19
1	Na 589.592 Radial†	34732.9	32903.2	4859.1 µg/L	4859.1 ppb	09:26:19
1	Sr 421.552†	221036.1	216761.8	477.73 µg/L	477.73 ppb	09:26:17
1	Sc 361.383	1799755.4	1799755.4	100.42 %		09:26:32
1	Y 371.029	1070516.8	1070516.8	99.253 %		09:26:32
1	Ag 328.068†	122384.0	117946.0	468.56 µg/L	468.56 ppb	09:26:32
1	As 188.979†	1504.4	1511.9	486.28 µg/L	486.28 ppb	09:26:52
1	B 249.677†	33756.2	30212.3	475.21 µg/L	475.21 ppb	09:26:32
1	Ba 233.527†	115673.3	115329.7	490.20 µg/L	490.20 ppb	09:26:32
1	Be 313.107†	1687303.7	1681290.2	483.91 µg/L	483.91 ppb	09:26:32
1	Cd 226.502†	72015.6	71825.3	479.52 µg/L	479.52 ppb	09:26:32
1	Co 228.616†	36286.8	36307.2	478.32 µg/L	478.32 ppb	09:26:32
1	Cr 267.716†	61692.8	61255.0	507.99 µg/L	507.99 ppb	09:26:32
1	Cu 324.752†	127507.3	123998.6	512.85 µg/L	512.85 ppb	09:26:32
1	Mn 257.610†	392064.5	390237.9	512.27 µg/L	512.27 ppb	09:26:32
1	Mo 202.031†	16054.9	16024.4	502.50 µg/L	502.50 ppb	09:26:52
1	Ni 231.604†	41967.7	41890.4	514.61 µg/L	514.61 ppb	09:26:32
1	P 214.914†	2111.4	2125.9	481.64 µg/L	481.64 ppb	09:26:52
1	Pb 220.353†	8247.9	8151.6	487.65 µg/L	487.65 ppb	09:26:52
1	S 181.975 Axial†	6494.3	6375.1	5107.6 µg/L	5107.6 ppb	09:26:52
1	Sb 206.836†	4042.9	3945.1	503.52 µg/L	503.52 ppb	09:26:52
1	Se 196.026†	1295.7	1269.3	497 µg/L	497 ppb	09:26:52
1	SiO2†	104541.7	102324.3	10644 µg/L	10644 ppb	09:26:32
1	Si 251.611†	319369.5	317110.8	4973.8 µg/L	4973.8 ppb	09:26:32
1	Sn 189.927†	7624.7	7595.4	509.09 µg/L	509.09 ppb	09:26:52
1	Ti 334.940†	516339.9	513218.3	505.78 µg/L	505.78 ppb	09:26:32
1	Tl 190.801†	3777.8	3878.9	515.44 µg/L	515.44 ppb	09:26:52
1	U 409.014†	7509.8	7797.0	515.33 µg/L	515.33 ppb	09:26:32
1	V 292.402†	98558.9	97842.6	513.46 µg/L	513.46 ppb	09:26:32
1	Zn 213.857†	84370.4	83427.6	498.11 µg/L	498.11 ppb	09:26:32
2	Sc RADIAL	152959.4	152959.4	102 %		09:26:23
2	Al 396.153Radial†	25435.7	25022.1	4884.9 µg/L	4884.9 ppb	09:26:23
2	Ca 317.933Radial†	84496.7	82243.8	4905.1 µg/L	4905.1 ppb	09:26:23
2	Fe 238.204 Radial†	74452.0	72887.2	4824.6 µg/L	4824.6 ppb	09:26:23
2	K 766.490 Radial†	14088.6	12243.3	4876.7 µg/L	4876.7 ppb	09:26:23
2	Mg 279.077 IEC†	12927.1	12507.1	4991.8 µg/L	4991.8 ppb	09:26:23
2	Na 589.592 Radial†	34776.8	32992.2	4872.2 µg/L	4872.2 ppb	09:26:23
2	Sr 421.552†	221336.9	217349.3	479.03 µg/L	479.03 ppb	09:26:21
2	Sc 361.383	1797519.0	1797519.0	100.29 %		09:26:55
2	Y 371.029	1069474.0	1069474.0	99.156 %		09:26:55
2	Ag 328.068†	121796.0	117511.4	466.82 µg/L	466.82 ppb	09:26:55
2	As 188.979†	1514.7	1524.0	490.08 µg/L	490.08 ppb	09:27:15
2	B 249.677†	33433.9	29932.6	470.81 µg/L	470.81 ppb	09:26:55
2	Ba 233.527†	114702.7	114505.2	486.70 µg/L	486.70 ppb	09:26:55
2	Be 313.107†	1672096.9	1668218.5	480.15 µg/L	480.15 ppb	09:26:55
2	Cd 226.502†	71426.0	71326.6	476.19 µg/L	476.19 ppb	09:26:55
2	Co 228.616†	35980.5	36046.8	474.88 µg/L	474.88 ppb	09:26:55
2	Cr 267.716†	61210.7	60850.8	504.65 µg/L	504.65 ppb	09:26:55
2	Cu 324.752†	126569.0	123221.0	509.64 µg/L	509.64 ppb	09:26:55
2	Mn 257.610†	389128.9	387796.7	509.06 µg/L	509.06 ppb	09:26:55
2	Mo 202.031†	15957.3	15947.0	500.07 µg/L	500.07 ppb	09:27:15
2	Ni 231.604†	41605.2	41581.0	510.81 µg/L	510.81 ppb	09:26:55
2	P 214.914†	2095.5	2112.7	478.63 µg/L	478.63 ppb	09:27:15
2	Pb 220.353†	8175.8	8090.0	483.97 µg/L	483.97 ppb	09:27:15

2	S 181.975 Axial†	6452.8	6341.6	5080.8 µg/L	5080.8 ppb	09:27:15
2	Sb 206.836†	4039.0	3946.2	503.67 µg/L	503.67 ppb	09:27:15
2	Se 196.026†	1280.2	1255.5	491 µg/L	491 ppb	09:27:15
2	SiO2†	103729.4	101643.9	10573 µg/L	10573 ppb	09:26:55
2	Si 251.611†	316546.0	314691.3	4935.8 µg/L	4935.8 ppb	09:26:55
2	Sn 189.927†	7610.2	7590.4	508.74 µg/L	508.74 ppb	09:27:15
2	Ti 334.940†	512972.4	510500.4	503.10 µg/L	503.10 ppb	09:26:55
2	Tl 190.801†	3782.8	3888.5	516.67 µg/L	516.67 ppb	09:27:15
2	U 409.014†	7358.8	7655.7	506.40 µg/L	506.40 ppb	09:26:55
2	V 292.402†	98010.8	97418.2	511.22 µg/L	511.22 ppb	09:26:55
2	Zn 213.857†	83646.0	82809.8	494.41 µg/L	494.41 ppb	09:26:55
3	Sc RADIAL	151659.1	151659.1	101 %		09:26:27
3	Al 396.153Radial†	25394.7	25195.4	4918.8 µg/L	4918.8 ppb	09:26:27
3	Ca 317.933Radial†	83837.0	82301.9	4908.6 µg/L	4908.6 ppb	09:26:27
3	Fe 238.204 Radial†	73702.1	72771.5	4816.9 µg/L	4816.9 ppb	09:26:27
3	K 766.490 Radial†	13962.4	12237.0	4874.2 µg/L	4874.2 ppb	09:26:27
3	Mg 279.077 IEC†	12883.4	12572.5	5017.9 µg/L	5017.9 ppb	09:26:27
3	Na 589.592 Radial†	34672.1	33181.1	4900.2 µg/L	4900.2 ppb	09:26:27
3	Sr 421.552†	219265.1	217161.2	478.61 µg/L	478.61 ppb	09:26:25
3	Sc 361.383	1814047.2	1814047.2	101.22 %		09:27:18
3	Y 371.029	1079147.0	1079147.0	100.05 %		09:27:18
3	Ag 328.068†	122315.5	116918.2	464.48 µg/L	464.48 ppb	09:27:18
3	As 188.979†	1510.3	1506.0	484.36 µg/L	484.36 ppb	09:27:38
3	B 249.677†	33735.4	29926.8	470.72 µg/L	470.72 ppb	09:27:18
3	Ba 233.527†	115643.4	114392.6	486.22 µg/L	486.22 ppb	09:27:18
3	Be 313.107†	1682330.7	1663139.1	478.69 µg/L	478.69 ppb	09:27:18
3	Cd 226.502†	71885.5	71131.7	474.89 µg/L	474.89 ppb	09:27:18
3	Co 228.616†	36319.1	36054.5	474.98 µg/L	474.98 ppb	09:27:18
3	Cr 267.716†	61602.8	60682.1	503.25 µg/L	503.25 ppb	09:27:18
3	Cu 324.752†	127621.6	123111.2	509.19 µg/L	509.19 ppb	09:27:18
3	Mn 257.610†	391653.7	386756.1	507.69 µg/L	507.69 ppb	09:27:18
3	Mo 202.031†	16132.5	15975.2	500.95 µg/L	500.95 ppb	09:27:38
3	Ni 231.604†	41886.7	41481.2	509.58 µg/L	509.58 ppb	09:27:18
3	P 214.914†	2131.9	2129.6	482.57 µg/L	482.57 ppb	09:27:38
3	Pb 220.353†	8271.9	8110.6	485.20 µg/L	485.20 ppb	09:27:38
3	S 181.975 Axial†	6524.4	6353.8	5090.6 µg/L	5090.6 ppb	09:27:38
3	Sb 206.836†	4075.8	3945.9	503.67 µg/L	503.67 ppb	09:27:38
3	Se 196.026†	1288.0	1251.6	490 µg/L	490 ppb	09:27:38
3	SiO2†	104474.7	101437.9	10552 µg/L	10552 ppb	09:27:18
3	Si 251.611†	319171.7	314409.7	4931.4 µg/L	4931.4 ppb	09:27:18
3	Sn 189.927†	7709.1	7619.0	510.65 µg/L	510.65 ppb	09:27:38
3	Ti 334.940†	516515.6	509340.9	501.96 µg/L	501.96 ppb	09:27:18
3	Tl 190.801†	3799.6	3870.8	514.32 µg/L	514.32 ppb	09:27:38
3	U 409.014†	7418.5	7647.9	505.84 µg/L	505.84 ppb	09:27:18
3	V 292.402†	98673.9	97183.0	510.00 µg/L	510.00 ppb	09:27:18
3	Zn 213.857†	84051.9	82451.0	492.26 µg/L	492.26 ppb	09:27:18

Mean Data: 1202056958|959141|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1803773.9	100.64 %	0.500			0.50%
Sc RADIAL	152594.8	102 %	0.5			0.54%
Y 371.029	1073046.0	99.488 %	0.4923			0.49%
Ag 328.068†	117458.5	466.62 µg/L	2.047	466.62 ppb	2.047	0.44%
Al 396.153Radial†	25062.3	4892.7 µg/L	23.20	4892.7 ppb	23.20	0.47%
As 188.979†	1514.0	486.91 µg/L	2.914	486.91 ppb	2.914	0.60%
B 249.677†	30023.9	472.25 µg/L	2.568	472.25 ppb	2.568	0.54%
Ba 233.527†	114742.5	487.71 µg/L	2.174	487.71 ppb	2.174	0.45%
Be 313.107†	1670882.6	480.92 µg/L	2.696	480.92 ppb	2.696	0.56%
Ca 317.933Radial†	82125.2	4898.0 µg/L	15.35	4898.0 ppb	15.35	0.31%
Cd 226.502†	71427.9	476.87 µg/L	2.392	476.87 ppb	2.392	0.50%
Co 228.616†	36136.1	476.06 µg/L	1.954	476.06 ppb	1.954	0.41%
Cr 267.716†	60929.3	505.29 µg/L	2.438	505.29 ppb	2.438	0.48%
Cu 324.752†	123443.6	510.56 µg/L	1.998	510.56 ppb	1.998	0.39%
Fe 238.204 Radial†	72712.1	4813.0 µg/L	13.97	4813.0 ppb	13.97	0.29%
K 766.490 Radial†	12223.6	4868.9 µg/L	11.45	4868.9 ppb	11.45	0.24%
Mg 279.077 IEC†	12534.4	5002.7 µg/L	13.56	5002.7 ppb	13.56	0.27%
Mn 257.610†	388263.6	509.67 µg/L	2.347	509.67 ppb	2.347	0.46%
Mo 202.031†	15982.2	501.17 µg/L	1.227	501.17 ppb	1.227	0.24%
Na 589.592 Radial†	33025.5	4877.2 µg/L	20.97	4877.2 ppb	20.97	0.43%

Ni 231.604†	41650.9	511.67 µg/L	2.621	511.67 ppb	2.621	0.51%
P 214.914†	2122.7	480.95 µg/L	2.057	480.95 ppb	2.057	0.43%
Pb 220.353†	8117.4	485.61 µg/L	1.872	485.61 ppb	1.872	0.39%
S 181.975 Axial†	6356.8	5093.0 µg/L	13.55	5093.0 ppb	13.55	0.27%
Sb 206.836†	3945.8	503.62 µg/L	0.086	503.62 ppb	0.086	0.02%
Se 196.026†	1258.8	493 µg/L	3.6	493 ppb	3.6	0.74%
SiO2†	101802.0	10590 µg/L	48.3	10590 ppb	48.3	0.46%
Si 251.611†	315403.9	4947.0 µg/L	23.33	4947.0 ppb	23.33	0.47%
Sn 189.927†	7601.6	509.49 µg/L	1.016	509.49 ppb	1.016	0.20%
Sr 421.552†	217090.8	478.46 µg/L	0.661	478.46 ppb	0.661	0.14%
Ti 334.940†	511019.9	503.61 µg/L	1.961	503.61 ppb	1.961	0.39%
Tl 190.801†	3879.4	515.48 µg/L	1.176	515.48 ppb	1.176	0.23%
U 409.014†	7700.2	509.19 µg/L	5.323	509.19 ppb	5.323	1.05%
V 292.402†	97481.3	511.56 µg/L	1.754	511.56 ppb	1.754	0.34%
Zn 213.857†	82896.1	494.93 µg/L	2.957	494.93 ppb	2.957	0.60%

Sequence No.: 6

Sample ID: 1202056959|959141|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 304

Date Collected: 3/31/2010 9:30:43

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056959|959141|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc. Units	Calib. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	151459.8	151459.8	101 %			09:31:13
1	Al 396.153Radial†	-32.3	42.0	8.2390 µg/L		8.2390 ppb	09:31:33
1	Ca 317.933Radial†	815.6	174.9	10.429 µg/L		10.429 ppb	09:31:33
1	Fe 238.204 Radial†	227.8	88.1	5.8318 µg/L		5.8318 ppb	09:31:33
1	K 766.490 Radial†	1601.7	11.4	4.5310 µg/L		4.5310 ppb	09:31:13
1	Mg 279.077 IEC†	181.7	7.7	3.0803 µg/L		3.0803 ppb	09:31:33
1	Na 589.592 Radial†	1346.0	215.4	31.828 µg/L		31.828 ppb	09:31:13
1	Sr 421.552†	-243.2	14.6	0.0322 µg/L		0.0322 ppb	09:31:13
1	Sc 361.383	1793576.8	1793576.8	100.07 %			09:32:21
1	Y 371.029	1077452.8	1077452.8	99.896 %			09:32:21
1	Ag 328.068†	3771.8	-159.1	-0.6013 µg/L		-0.6013 ppb	09:32:23
1	As 188.979†	-13.1	0.7	0.2268 µg/L		0.2268 ppb	09:32:43
1	B 249.677†	3424.8	18.9	0.2988 µg/L		0.2988 ppb	09:32:23
1	Ba 233.527†	-145.5	-7.1	-0.0301 µg/L		-0.0301 ppb	09:32:43
1	Be 313.107†	-794.7	222.5	0.0683 µg/L		0.0683 ppb	09:32:23
1	Cd 226.502†	-100.4	9.4	0.0627 µg/L		0.0627 ppb	09:32:43
1	Co 228.616†	-166.8	4.9	0.0640 µg/L		0.0640 ppb	09:32:43
1	Cr 267.716†	167.9	-13.0	-0.1183 µg/L		-0.1183 ppb	09:32:43
1	Cu 324.752†	2933.4	-46.2	-0.1780 µg/L		-0.1780 ppb	09:32:23
1	Mn 257.610†	364.0	170.7	0.2241 µg/L		0.2241 ppb	09:32:43
1	Mo 202.031†	-39.6	-3.1	-0.0968 µg/L		-0.0968 ppb	09:32:43
1	Ni 231.604†	-60.9	36.7	0.4514 µg/L		0.4514 ppb	09:32:43
1	P 214.914†	-13.4	9.9	2.2947 µg/L		2.2947 ppb	09:32:43
1	Pb 220.353†	110.2	48.2	2.8624 µg/L		2.8624 ppb	09:32:43
1	S 181.975 Axial†	103.7	11.4	9.0893 µg/L		9.0893 ppb	09:32:43
1	Sb 206.836†	70.7	-10.3	-1.3146 µg/L		-1.3146 ppb	09:32:43
1	Se 196.026†	-1.0	-21.9	-8.53 µg/L		-8.53 ppb	09:32:43
1	SiO2†	1948.9	165.6	17.254 µg/L		17.254 ppb	09:32:43
1	Si 251.611†	1319.5	390.4	6.1316 µg/L		6.1316 ppb	09:32:23
1	Sn 189.927†	9.8	12.2	0.8172 µg/L		0.8172 ppb	09:32:43
1	Ti 334.940†	965.5	-5.5	-0.0111 µg/L		-0.0111 ppb	09:32:23
1	Tl 190.801†	-116.6	0.3	0.0426 µg/L		0.0426 ppb	09:32:43
1	U 409.014†	-91.4	227.2	14.136 µg/L		14.136 ppb	09:32:23
1	V 292.402†	388.1	82.2	0.4331 µg/L		0.4331 ppb	09:32:23
1	Zn 213.857†	801.3	209.4	1.2572 µg/L		1.2572 ppb	09:32:43
2	Sc RADIAL	151866.5	151866.5	101 %			09:31:35
2	Al 396.153Radial†	-51.2	23.4	4.5758 µg/L		4.5758 ppb	09:31:55
2	Ca 317.933Radial†	797.0	154.3	9.2052 µg/L		9.2052 ppb	09:31:55
2	Fe 238.204 Radial†	229.4	89.1	5.8984 µg/L		5.8984 ppb	09:31:55
2	K 766.490 Radial†	1708.2	112.4	44.774 µg/L		44.774 ppb	09:31:35
2	Mg 279.077 IEC†	152.4	-21.7	-8.6286 µg/L		-8.6286 ppb	09:31:55
2	Na 589.592 Radial†	1408.0	273.0	40.311 µg/L		40.311 ppb	09:31:35
2	Sr 421.552†	-167.6	90.0	0.1982 µg/L		0.1982 ppb	09:31:35
2	Sc 361.383	1812217.4	1812217.4	101.11 %			09:32:46
2	Y 371.029	1087938.9	1087938.9	100.87 %			09:32:46
2	Ag 328.068†	3854.0	-116.6	-0.4442 µg/L		-0.4442 ppb	09:32:48
2	As 188.979†	-13.7	0.3	0.0965 µg/L		0.0965 ppb	09:33:08
2	B 249.677†	3590.7	147.8	2.3336 µg/L		2.3336 ppb	09:32:48
2	Ba 233.527†	-135.9	3.9	0.0171 µg/L		0.0171 ppb	09:33:08
2	Be 313.107†	-979.7	47.6	0.0148 µg/L		0.0148 ppb	09:32:48
2	Cd 226.502†	-118.6	-7.5	-0.0509 µg/L		-0.0509 ppb	09:33:08
2	Co 228.616†	-183.9	-10.3	-0.1357 µg/L		-0.1357 ppb	09:33:08
2	Cr 267.716†	201.3	18.4	0.1504 µg/L		0.1504 ppb	09:33:08
2	Cu 324.752†	2904.6	-104.8	-0.4287 µg/L		-0.4287 ppb	09:32:48
2	Mn 257.610†	381.1	183.9	0.2418 µg/L		0.2418 ppb	09:33:08
2	Mo 202.031†	-26.6	10.1	0.3170 µg/L		0.3170 ppb	09:33:08
2	Ni 231.604†	-85.9	12.7	0.1558 µg/L		0.1558 ppb	09:33:08
2	P 214.914†	-18.6	4.9	1.1356 µg/L		1.1356 ppb	09:33:08
2	Pb 220.353†	60.7	-1.8	-0.1105 µg/L		-0.1105 ppb	09:33:08

2	S 181.975 Axial†	91.8	-1.5	-1.1876 µg/L	-1.1876 ppb	09:33:08
2	Sb 206.836†	81.3	-0.6	-0.0697 µg/L	-0.0697 ppb	09:33:08
2	Se 196.026†	13.3	-7.8	-3.04 µg/L	-3.04 ppb	09:33:08
2	SiO2†	1936.1	132.9	13.831 µg/L	13.831 ppb	09:33:08
2	Si 251.611†	1383.9	440.6	6.9146 µg/L	6.9146 ppb	09:32:48
2	Sn 189.927†	11.1	13.4	0.8960 µg/L	0.8960 ppb	09:33:08
2	Ti 334.940†	1001.8	20.5	0.0197 µg/L	0.0197 ppb	09:32:48
2	Tl 190.801†	-114.4	3.6	0.4774 µg/L	0.4774 ppb	09:33:08
2	U 409.014†	-264.3	57.1	3.5879 µg/L	3.5879 ppb	09:32:48
2	V 292.402†	450.9	140.3	0.7320 µg/L	0.7320 ppb	09:32:48
2	Zn 213.857†	795.6	195.5	1.1757 µg/L	1.1757 ppb	09:33:08
3	Sc RADIAL	154074.8	154074.8	103 %		09:31:58
3	Al 396.153Radial†	-34.9	40.0	7.8398 µg/L	7.8398 ppb	09:32:18
3	Ca 317.933Radial†	798.7	144.8	8.6337 µg/L	8.6337 ppb	09:32:18
3	Fe 238.204 Radial†	232.7	89.1	5.8969 µg/L	5.8969 ppb	09:32:18
3	K 766.490 Radial†	1683.1	63.7	25.382 µg/L	25.382 ppb	09:31:58
3	Mg 279.077 IEC†	177.0	0.1	0.0426 µg/L	0.0426 ppb	09:32:18
3	Na 589.592 Radial†	1304.6	152.4	22.511 µg/L	22.511 ppb	09:31:58
3	Sr 421.552†	-322.2	-58.2	-0.1284 µg/L	-0.1284 ppb	09:31:58
3	Sc 361.383	1815272.8	1815272.8	101.28 %		09:33:10
3	Y 371.029	1088316.2	1088316.2	100.90 %		09:33:10
3	Ag 328.068†	4042.6	63.2	0.2333 µg/L	0.2333 ppb	09:33:12
3	As 188.979†	-21.1	-7.0	-2.2199 µg/L	-2.2199 ppb	09:33:32
3	B 249.677†	3370.1	-76.0	-1.1985 µg/L	-1.1985 ppb	09:33:12
3	Ba 233.527†	-136.8	3.2	0.0140 µg/L	0.0140 ppb	09:33:32
3	Be 313.107†	-753.4	272.8	0.0731 µg/L	0.0731 ppb	09:33:12
3	Cd 226.502†	-108.6	2.5	0.0164 µg/L	0.0164 ppb	09:33:32
3	Co 228.616†	-182.4	-8.5	-0.1116 µg/L	-0.1116 ppb	09:33:32
3	Cr 267.716†	208.5	25.1	0.2227 µg/L	0.2227 ppb	09:33:32
3	Cu 324.752†	3017.6	1.9	-0.0061 µg/L	-0.0061 ppb	09:33:12
3	Mn 257.610†	392.2	194.1	0.2549 µg/L	0.2549 ppb	09:33:32
3	Mo 202.031†	-38.0	-1.1	-0.0327 µg/L	-0.0327 ppb	09:33:32
3	Ni 231.604†	-83.6	15.1	0.1856 µg/L	0.1856 ppb	09:33:32
3	P 214.914†	-26.6	-3.0	-0.6760 µg/L	-0.6760 ppb	09:33:32
3	Pb 220.353†	108.8	45.5	2.7286 µg/L	2.7286 ppb	09:33:32
3	S 181.975 Axial†	86.0	-7.3	-5.8767 µg/L	-5.8767 ppb	09:33:32
3	Sb 206.836†	83.7	1.7	0.2103 µg/L	0.2103 ppb	09:33:32
3	Se 196.026†	11.7	-9.4	-3.68 µg/L	-3.68 ppb	09:33:32
3	SiO2†	1952.0	145.4	15.145 µg/L	15.145 ppb	09:33:32
3	Si 251.611†	1378.2	432.6	6.7947 µg/L	6.7947 ppb	09:33:12
3	Sn 189.927†	9.7	12.1	0.8052 µg/L	0.8052 ppb	09:33:32
3	Ti 334.940†	1017.5	34.4	0.0414 µg/L	0.0414 ppb	09:33:12
3	Tl 190.801†	-115.7	2.6	0.3455 µg/L	0.3455 ppb	09:33:32
3	U 409.014†	-613.3	-287.0	-17.790 µg/L	-17.790 ppb	09:33:12
3	V 292.402†	436.6	125.4	0.6374 µg/L	0.6374 ppb	09:33:12
3	Zn 213.857†	801.7	200.2	1.2032 µg/L	1.2032 ppb	09:33:32

Mean Data: 1202056959|959141|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1807022.3	100.82 %	0.655			0.65%
Sc RADIAL	152467.0	102 %	0.9			0.92%
Y 371.029	1084569.3	100.56 %	0.572			0.57%
Ag 328.068†	-70.8	-0.2707 µg/L	0.44352	-0.2707 ppb	0.44352	163.82%
Al 396.153Radial†	35.1	6.8849 µg/L	2.00962	6.8849 ppb	2.00962	29.19%
As 188.979†	-2.0	-0.6322 µg/L	1.37653	-0.6322 ppb	1.37653	217.73%
B 249.677†	30.3	0.4780 µg/L	1.77285	0.4780 ppb	1.77285	370.91%
Ba 233.527†	-0.0	0.0003 µg/L	0.02640	0.0003 ppb	0.02640	>999.9%
Be 313.107†	181.0	0.0521 µg/L	0.03237	0.0521 ppb	0.03237	62.18%
Ca 317.933Radial†	158.0	9.4226 µg/L	0.91723	9.4226 ppb	0.91723	9.73%
Cd 226.502†	1.5	0.0094 µg/L	0.05712	0.0094 ppb	0.05712	606.37%
Co 228.616†	-4.6	-0.0611 µg/L	0.10904	-0.0611 ppb	0.10904	178.42%
Cr 267.716†	10.2	0.0849 µg/L	0.17969	0.0849 ppb	0.17969	211.55%
Cu 324.752†	-49.7	-0.2043 µg/L	0.21253	-0.2043 ppb	0.21253	104.04%
Fe 238.204 Radial†	88.8	5.8757 µg/L	0.03802	5.8757 ppb	0.03802	0.65%
K 766.490 Radial†	62.5	24.896 µg/L	20.1259	24.896 ppb	20.1259	80.84%
Mg 279.077 IEC†	-4.6	-1.8352 µg/L	6.07608	-1.8352 ppb	6.07608	331.08%
Mn 257.610†	182.9	0.2403 µg/L	0.01550	0.2403 ppb	0.01550	6.45%
Mo 202.031†	2.0	0.0625 µg/L	0.22272	0.0625 ppb	0.22272	356.53%
Na 589.592 Radial†	213.6	31.550 µg/L	8.9033	31.550 ppb	8.9033	28.22%

Ni 231.604†	21.5	0.2642 µg/L	0.16273	0.2642 ppb	0.16273	61.58%
P 214.914†	4.0	0.9181 µg/L	1.49726	0.9181 ppb	1.49726	163.08%
Pb 220.353†	30.6	1.8268 µg/L	1.67907	1.8268 ppb	1.67907	91.91%
S 181.975 Axial†	0.8	0.6750 µg/L	7.65489	0.6750 ppb	7.65489	>999.9%
Sb 206.836†	-3.1	-0.3913 µg/L	0.81174	-0.3913 ppb	0.81174	207.42%
Se 196.026†	-13.1	-5.08 µg/L	3.000	-5.08 ppb	3.000	59.01%
SiO2†	148.0	15.410 µg/L	1.7268	15.410 ppb	1.7268	11.21%
Si 251.611†	421.2	6.6136 µg/L	0.42171	6.6136 ppb	0.42171	6.38%
Sn 189.927†	12.6	0.8395 µg/L	0.04935	0.8395 ppb	0.04935	5.88%
Sr 421.552†	15.5	0.0340 µg/L	0.16330	0.0340 ppb	0.16330	480.08%
Ti 334.940†	16.5	0.0167 µg/L	0.02637	0.0167 ppb	0.02637	158.36%
Tl 190.801†	2.2	0.2885 µg/L	0.22293	0.2885 ppb	0.22293	77.28%
U 409.014†	-0.9	-0.0222 µg/L	16.26641	-0.0222 ppb	16.26641	>999.9%
V 292.402†	115.9	0.6008 µg/L	0.15280	0.6008 ppb	0.15280	25.43%
Zn 213.857†	201.7	1.2120 µg/L	0.04146	1.2120 ppb	0.04146	3.42%

Sequence No.: 7

Sample ID: 1202056960|959141|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 305

Date Collected: 3/31/2010 9:33:40

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056960|959141|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	154861.2	154861.2	103 %		09:34:12
1	Al 396.153Radial†	25498.4	24776.4	4836.2 µg/L	4836.2 ppb	09:34:12
1	Ca 317.933Radial†	84776.3	81497.0	4860.6 µg/L	4860.6 ppb	09:34:12
1	Fe 238.204 Radial†	74790.1	72318.0	4786.9 µg/L	4786.9 ppb	09:34:12
1	K 766.490 Radial†	13966.2	11955.0	4761.9 µg/L	4761.9 ppb	09:34:12
1	Mg 279.077 IEC†	12990.4	12412.7	4954.4 µg/L	4954.4 ppb	09:34:12
1	Na 589.592 Radial†	34877.1	32670.5	4824.8 µg/L	4824.8 ppb	09:34:12
1	Sr 421.552†	221754.0	215087.4	474.04 µg/L	474.04 ppb	09:34:10
1	Sc 361.383	1790720.9	1790720.9	99.914 %		09:34:25
1	Y 371.029	1064641.2	1064641.2	98.708 %		09:34:25
1	Ag 328.068†	120185.9	116360.9	462.40 µg/L	462.40 ppb	09:34:25
1	As 188.979†	1511.5	1526.6	490.97 µg/L	490.97 ppb	09:34:45
1	B 249.677†	33170.8	29795.9	468.66 µg/L	468.66 ppb	09:34:25
1	Ba 233.527†	113846.1	114082.1	484.91 µg/L	484.91 ppb	09:34:25
1	Be 313.107†	1656844.2	1659281.9	477.58 µg/L	477.58 ppb	09:34:25
1	Cd 226.502†	70532.1	70702.4	472.02 µg/L	472.02 ppb	09:34:25
1	Co 228.616†	35766.8	35969.1	473.86 µg/L	473.86 ppb	09:34:25
1	Cr 267.716†	61711.5	61583.7	510.71 µg/L	510.71 ppb	09:34:25
1	Cu 324.752†	127754.8	124886.9	516.52 µg/L	516.52 ppb	09:34:25
1	Mn 257.610†	391812.9	391955.9	514.53 µg/L	514.53 ppb	09:34:25
1	Mo 202.031†	16226.0	16276.3	510.39 µg/L	510.39 ppb	09:34:45
1	Ni 231.604†	41905.5	42039.0	516.44 µg/L	516.44 ppb	09:34:25
1	P 214.914†	2088.6	2113.7	478.78 µg/L	478.78 ppb	09:34:45
1	Pb 220.353†	8202.7	8147.8	487.43 µg/L	487.43 ppb	09:34:45
1	S 181.975 Axial†	6549.2	6462.6	5177.7 µg/L	5177.7 ppb	09:34:45
1	Sb 206.836†	4080.2	4002.7	510.95 µg/L	510.95 ppb	09:34:45
1	Se 196.026†	1318.1	1298.3	508 µg/L	508 ppb	09:34:45
1	SiO2†	104381.1	102688.7	10682 µg/L	10682 ppb	09:34:25
1	Si 251.611†	318367.4	317712.4	4983.1 µg/L	4983.1 ppb	09:34:25
1	Sn 189.927†	7716.1	7725.2	517.77 µg/L	517.77 ppb	09:34:45
1	Ti 334.940†	516625.9	516098.7	508.62 µg/L	508.62 ppb	09:34:25
1	Tl 190.801†	3821.0	3941.1	523.66 µg/L	523.66 ppb	09:34:45
1	U 409.014†	7635.9	7960.9	525.73 µg/L	525.73 ppb	09:34:25
1	V 292.402†	98774.2	98553.3	517.24 µg/L	517.24 ppb	09:34:25
1	Zn 213.857†	84004.0	83484.7	498.44 µg/L	498.44 ppb	09:34:25
2	Sc RADIAL	154469.7	154469.7	103 %		09:34:16
2	Al 396.153Radial†	25508.2	24848.5	4850.5 µg/L	4850.5 ppb	09:34:16
2	Ca 317.933Radial†	84256.3	81200.0	4842.9 µg/L	4842.9 ppb	09:34:16
2	Fe 238.204 Radial†	74615.3	72331.8	4787.8 µg/L	4787.8 ppb	09:34:16
2	K 766.490 Radial†	13891.6	11916.8	4746.7 µg/L	4746.7 ppb	09:34:16
2	Mg 279.077 IEC†	12901.4	12358.1	4932.6 µg/L	4932.6 ppb	09:34:16
2	Na 589.592 Radial†	34750.6	32633.2	4819.3 µg/L	4819.3 ppb	09:34:16
2	Sr 421.552†	219394.0	213339.6	470.19 µg/L	470.19 ppb	09:34:14
2	Sc 361.383	1813588.8	1813588.8	101.19 %		09:34:48
2	Y 371.029	1078643.7	1078643.7	100.01 %		09:34:48
2	Ag 328.068†	121864.0	116502.4	462.92 µg/L	462.92 ppb	09:34:48
2	As 188.979†	1510.4	1506.4	484.57 µg/L	484.57 ppb	09:35:08
2	B 249.677†	33556.8	29758.8	468.06 µg/L	468.06 ppb	09:34:48
2	Ba 233.527†	115008.0	113793.5	483.68 µg/L	483.68 ppb	09:34:48
2	Be 313.107†	1675989.2	1657292.3	477.00 µg/L	477.00 ppb	09:34:48
2	Cd 226.502†	71735.7	71001.7	474.02 µg/L	474.02 ppb	09:34:48
2	Co 228.616†	36389.5	36133.0	476.02 µg/L	476.02 ppb	09:34:48
2	Cr 267.716†	62491.0	61575.2	510.66 µg/L	510.66 ppb	09:34:48
2	Cu 324.752†	129555.3	125054.0	517.19 µg/L	517.19 ppb	09:34:48
2	Mn 257.610†	396455.8	391599.5	514.06 µg/L	514.06 ppb	09:34:48
2	Mo 202.031†	16303.8	16148.5	506.38 µg/L	506.38 ppb	09:35:08
2	Ni 231.604†	42378.2	41977.3	515.68 µg/L	515.68 ppb	09:34:48
2	P 214.914†	2100.1	2098.7	475.32 µg/L	475.32 ppb	09:35:08
2	Pb 220.353†	8205.6	8047.2	481.44 µg/L	481.44 ppb	09:35:08

2	S 181.975 Axial†	6585.0	6415.3	5139.8 µg/L	5139.8 ppb	09:35:08
2	Sb 206.836†	4101.2	3972.0	506.97 µg/L	506.97 ppb	09:35:08
2	Se 196.026†	1312.9	1276.5	500 µg/L	500 ppb	09:35:08
2	SiO2†	105572.1	102548.5	10667 µg/L	10667 ppb	09:34:48
2	Si 251.611†	322511.0	317789.4	4984.4 µg/L	4984.4 ppb	09:34:48
2	Sn 189.927†	7736.9	7648.4	512.64 µg/L	512.64 ppb	09:35:08
2	Ti 334.940†	523240.8	516116.0	508.65 µg/L	508.65 ppb	09:34:48
2	Tl 190.801†	3819.1	3891.0	517.10 µg/L	517.10 ppb	09:35:08
2	U 409.014†	7332.0	7564.2	501.07 µg/L	501.07 ppb	09:34:48
2	V 292.402†	99961.5	98480.1	516.80 µg/L	516.80 ppb	09:34:48
2	Zn 213.857†	85026.2	83434.8	498.14 µg/L	498.14 ppb	09:34:48
3	Sc RADIAL	153746.1	153746.1	102 %		09:34:20
3	Al 396.153Radial†	25460.3	24918.4	4864.1 µg/L	4864.1 ppb	09:34:20
3	Ca 317.933Radial†	84270.5	81599.0	4866.7 µg/L	4866.7 ppb	09:34:20
3	Fe 238.204 Radial†	74481.5	72542.3	4801.7 µg/L	4801.7 ppb	09:34:20
3	K 766.490 Radial†	13979.0	12065.7	4806.0 µg/L	4806.0 ppb	09:34:20
3	Mg 279.077 IEC†	12980.1	12493.9	4986.7 µg/L	4986.7 ppb	09:34:20
3	Na 589.592 Radial†	34658.4	32702.1	4829.4 µg/L	4829.4 ppb	09:34:20
3	Sr 421.552†	222554.7	217426.8	479.20 µg/L	479.20 ppb	09:34:18
3	Sc 361.383	1804415.9	1804415.9	100.68 %		09:35:11
3	Y 371.029	1073195.9	1073195.9	99.502 %		09:35:11
3	Ag 328.068†	121769.1	117020.4	465.02 µg/L	465.02 ppb	09:35:11
3	As 188.979†	1511.4	1515.0	487.32 µg/L	487.32 ppb	09:35:31
3	B 249.677†	33527.3	29898.0	470.26 µg/L	470.26 ppb	09:35:11
3	Ba 233.527†	115347.1	114708.1	487.57 µg/L	487.57 ppb	09:35:11
3	Be 313.107†	1679166.3	1668867.8	480.34 µg/L	480.34 ppb	09:35:11
3	Cd 226.502†	71495.0	71123.0	474.83 µg/L	474.83 ppb	09:35:11
3	Co 228.616†	36288.2	36215.3	477.10 µg/L	477.10 ppb	09:35:11
3	Cr 267.716†	62438.3	61836.8	512.81 µg/L	512.81 ppb	09:35:11
3	Cu 324.752†	129285.4	125436.8	518.79 µg/L	518.79 ppb	09:35:11
3	Mn 257.610†	396442.9	393578.4	516.65 µg/L	516.65 ppb	09:35:11
3	Mo 202.031†	16292.3	16218.9	508.59 µg/L	508.59 ppb	09:35:31
3	Ni 231.604†	42416.9	42228.7	518.77 µg/L	518.77 ppb	09:35:11
3	P 214.914†	2116.9	2125.9	481.56 µg/L	481.56 ppb	09:35:31
3	Pb 220.353†	8259.9	8142.4	487.11 µg/L	487.11 ppb	09:35:31
3	S 181.975 Axial†	6571.9	6435.4	5155.9 µg/L	5155.9 ppb	09:35:31
3	Sb 206.836†	4099.0	3990.4	509.32 µg/L	509.32 ppb	09:35:31
3	Se 196.026†	1301.8	1272.1	498 µg/L	498 ppb	09:35:31
3	SiO2†	105707.7	103213.5	10737 µg/L	10737 ppb	09:35:11
3	Si 251.611†	322328.7	319228.6	5007.0 µg/L	5007.0 ppb	09:35:11
3	Sn 189.927†	7735.1	7685.4	515.12 µg/L	515.12 ppb	09:35:31
3	Ti 334.940†	523603.0	519104.4	511.58 µg/L	511.58 ppb	09:35:11
3	Tl 190.801†	3837.9	3928.8	522.10 µg/L	522.10 ppb	09:35:31
3	U 409.014†	7691.1	7957.7	525.71 µg/L	525.71 ppb	09:35:11
3	V 292.402†	100097.7	99117.5	520.15 µg/L	520.15 ppb	09:35:11
3	Zn 213.857†	84995.2	83831.2	500.51 µg/L	500.51 ppb	09:35:11

Mean Data: 1202056960|959141|1

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1802908.6	100.59 %	0.642			0.64%
Sc RADIAL	154359.0	103 %	0.4			0.37%
Y 371.029	1072160.2	99.406 %	0.6544			0.66%
Ag 328.068†	116627.9	463.45 µg/L	1.386	463.45 ppb	1.386	0.30%
Al 396.153Radial†	24847.8	4850.3 µg/L	13.96	4850.3 ppb	13.96	0.29%
As 188.979†	1516.0	487.62 µg/L	3.211	487.62 ppb	3.211	0.66%
B 249.677†	29817.6	468.99 µg/L	1.135	468.99 ppb	1.135	0.24%
Ba 233.527†	114194.6	485.39 µg/L	1.987	485.39 ppb	1.987	0.41%
Be 313.107†	1661814.0	478.31 µg/L	1.784	478.31 ppb	1.784	0.37%
Ca 317.933Radial†	81432.0	4856.7 µg/L	12.36	4856.7 ppb	12.36	0.25%
Cd 226.502†	70942.4	473.63 µg/L	1.446	473.63 ppb	1.446	0.31%
Co 228.616†	36105.8	475.66 µg/L	1.651	475.66 ppb	1.651	0.35%
Cr 267.716†	61665.2	511.40 µg/L	1.228	511.40 ppb	1.228	0.24%
Cu 324.752†	125125.9	517.50 µg/L	1.168	517.50 ppb	1.168	0.23%
Fe 238.204 Radial†	72397.4	4792.1 µg/L	8.32	4792.1 ppb	8.32	0.17%
K 766.490 Radial†	11979.2	4771.5 µg/L	30.80	4771.5 ppb	30.80	0.65%
Mg 279.077 IEC†	12421.6	4957.9 µg/L	27.23	4957.9 ppb	27.23	0.55%
Mn 257.610†	392377.9	515.08 µg/L	1.384	515.08 ppb	1.384	0.27%
Mo 202.031†	16214.6	508.45 µg/L	2.006	508.45 ppb	2.006	0.39%
Na 589.592 Radial†	32668.6	4824.5 µg/L	5.07	4824.5 ppb	5.07	0.11%

Ni 231.604†	42081.7	516.96 µg/L	1.610	516.96 ppb	1.610	0.31%
P 214.914†	2112.8	478.56 µg/L	3.126	478.56 ppb	3.126	0.65%
Pb 220.353†	8112.4	485.33 µg/L	3.369	485.33 ppb	3.369	0.69%
S 181.975 Axial†	6437.7	5157.8 µg/L	19.03	5157.8 ppb	19.03	0.37%
Sb 206.836†	3988.4	509.08 µg/L	1.999	509.08 ppb	1.999	0.39%
Se 196.026†	1282.3	502 µg/L	5.5	502 ppb	5.5	1.09%
SiO2†	102816.9	10695 µg/L	36.5	10695 ppb	36.5	0.34%
Si 251.611†	318243.5	4991.5 µg/L	13.42	4991.5 ppb	13.42	0.27%
Sn 189.927†	7686.4	515.18 µg/L	2.565	515.18 ppb	2.565	0.50%
Sr 421.552†	215284.6	474.48 µg/L	4.520	474.48 ppb	4.520	0.95%
Ti 334.940†	517106.4	509.62 µg/L	1.702	509.62 ppb	1.702	0.33%
Tl 190.801†	3920.3	520.95 µg/L	3.431	520.95 ppb	3.431	0.66%
U 409.014†	7827.6	517.50 µg/L	14.236	517.50 ppb	14.236	2.75%
V 292.402†	98717.0	518.06 µg/L	1.819	518.06 ppb	1.819	0.35%
Zn 213.857†	83583.5	499.03 µg/L	1.288	499.03 ppb	1.288	0.26%

Sequence No.: 8

Sample ID: 1202056961|959141|5

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 306

Date Collected: 3/31/2010 9:35:39

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 1202056961|959141|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	154382.2	154382.2	103 %		09:36:09
1	Al 396.153Radial†	-59.8	15.8	3.0982 µg/L	3.0982 ppb	09:36:29
1	Ca 317.933Radial†	796.5	141.1	8.4132 µg/L	8.4132 ppb	09:36:29
1	Fe 238.204 Radial†	189.2	46.4	3.0698 µg/L	3.0698 ppb	09:36:29
1	K 766.490 Radial†	1569.1	-50.3	-20.063 µg/L	-20.063 ppb	09:36:09
1	Mg 279.077 IEC†	187.0	9.6	3.8084 µg/L	3.8084 ppb	09:36:29
1	Na 589.592 Radial†	1312.3	157.4	23.282 µg/L	23.282 ppb	09:36:09
1	Sr 421.552†	-163.5	96.7	0.2130 µg/L	0.2130 ppb	09:36:09
1	Sc 361.383	1804638.0	1804638.0	100.69 %		09:37:31
1	Y 371.029	1085581.0	1085581.0	100.65 %		09:37:31
1	Ag 328.068†	3805.8	-148.4	-0.5643 µg/L	-0.5643 ppb	09:37:33
1	As 188.979†	-15.1	-1.2	-0.3761 µg/L	-0.3761 ppb	09:37:53
1	B 249.677†	3375.4	-51.1	-0.8067 µg/L	-0.8067 ppb	09:37:53
1	Ba 233.527†	-64.2	74.5	0.3169 µg/L	0.3169 ppb	09:37:53
1	Be 313.107†	-958.5	64.7	0.0203 µg/L	0.0203 ppb	09:37:33
1	Cd 226.502†	-124.2	-13.6	-0.0908 µg/L	-0.0908 ppb	09:37:53
1	Co 228.616†	-187.2	-14.4	-0.1891 µg/L	-0.1891 ppb	09:37:53
1	Cr 267.716†	168.6	-13.2	-0.1136 µg/L	-0.1136 ppb	09:37:53
1	Cu 324.752†	2981.2	-16.7	-0.0640 µg/L	-0.0640 ppb	09:37:33
1	Mn 257.610†	275.4	80.5	0.1055 µg/L	0.1055 ppb	09:37:53
1	Mo 202.031†	-31.0	5.6	0.1773 µg/L	0.1773 ppb	09:37:53
1	Ni 231.604†	-97.5	0.8	0.0095 µg/L	0.0095 ppb	09:37:53
1	P 214.914†	-30.0	-6.5	-1.4874 µg/L	-1.4874 ppb	09:37:53
1	Pb 220.353†	79.5	17.0	1.0116 µg/L	1.0116 ppb	09:37:53
1	S 181.975 Axial†	98.7	5.8	4.6479 µg/L	4.6479 ppb	09:37:53
1	Sb 206.836†	73.0	-8.4	-1.0679 µg/L	-1.0679 ppb	09:37:53
1	Se 196.026†	19.0	-2.1	-0.798 µg/L	-0.798 ppb	09:37:53
1	SiO2†	1816.6	22.3	2.3032 µg/L	2.3032 ppb	09:37:53
1	Si 251.611†	990.1	55.2	0.8598 µg/L	0.8598 ppb	09:37:33
1	Sn 189.927†	10.9	13.3	0.8914 µg/L	0.8914 ppb	09:37:53
1	Ti 334.940†	1161.4	183.2	0.1785 µg/L	0.1785 ppb	09:37:33
1	Tl 190.801†	-98.1	19.3	2.5396 µg/L	2.5396 ppb	09:37:53
1	U 409.014†	-232.0	88.0	5.5209 µg/L	5.5209 ppb	09:37:33
1	V 292.402†	483.5	174.5	0.9085 µg/L	0.9085 ppb	09:37:33
1	Zn 213.857†	675.5	79.5	0.4784 µg/L	0.4784 ppb	09:37:53
2	Sc RADIAL	155716.2	155716.2	104 %		09:36:31
2	Al 396.153Radial†	-61.7	14.5	2.8239 µg/L	2.8239 ppb	09:36:51
2	Ca 317.933Radial†	811.0	148.4	8.8514 µg/L	8.8514 ppb	09:36:51
2	Fe 238.204 Radial†	169.1	25.4	1.6831 µg/L	1.6831 ppb	09:36:51
2	K 766.490 Radial†	1453.1	-175.2	-69.839 µg/L	-69.839 ppb	09:36:31
2	Mg 279.077 IEC†	179.2	0.5	0.1957 µg/L	0.1957 ppb	09:36:51
2	Na 589.592 Radial†	1261.6	97.6	14.492 µg/L	14.492 ppb	09:36:31
2	Sr 421.552†	-128.1	132.1	0.2911 µg/L	0.2911 ppb	09:36:31
2	Sc 361.383	1824194.4	1824194.4	101.78 %		09:37:55
2	Y 371.029	1095962.2	1095962.2	101.61 %		09:37:55
2	Ag 328.068†	3901.5	-94.9	-0.3630 µg/L	-0.3630 ppb	09:37:57
2	As 188.979†	-12.2	1.8	0.5686 µg/L	0.5686 ppb	09:38:17
2	B 249.677†	3373.3	-89.1	-1.4061 µg/L	-1.4061 ppb	09:38:17
2	Ba 233.527†	-42.9	96.1	0.4085 µg/L	0.4085 ppb	09:38:17
2	Be 313.107†	-800.1	230.5	0.0675 µg/L	0.0675 ppb	09:37:57
2	Cd 226.502†	-113.6	-1.8	-0.0124 µg/L	-0.0124 ppb	09:38:17
2	Co 228.616†	-179.8	-5.1	-0.0666 µg/L	-0.0666 ppb	09:38:17
2	Cr 267.716†	175.4	-8.3	-0.0721 µg/L	-0.0721 ppb	09:38:17
2	Cu 324.752†	2937.9	-91.0	-0.3717 µg/L	-0.3717 ppb	09:37:57
2	Mn 257.610†	253.2	55.7	0.0731 µg/L	0.0731 ppb	09:38:17
2	Mo 202.031†	-22.0	14.8	0.4632 µg/L	0.4632 ppb	09:38:17
2	Ni 231.604†	-76.4	22.5	0.2764 µg/L	0.2764 ppb	09:38:17
2	P 214.914†	-20.6	3.0	0.7068 µg/L	0.7068 ppb	09:38:17
2	Pb 220.353†	86.8	23.4	1.3910 µg/L	1.3910 ppb	09:38:17

2	S 181.975 Axial†	97.9	4.0	3.1939 µg/L	3.1939 ppb	09:38:17
2	Sb 206.836†	87.7	5.2	0.6763 µg/L	0.6763 ppb	09:38:17
2	Se 196.026†	9.3	-11.8	-4.60 µg/L	-4.60 ppb	09:38:17
2	SiO2†	1808.9	-4.6	-0.5100 µg/L	-0.5100 ppb	09:38:17
2	Si 251.611†	1063.9	117.1	1.8286 µg/L	1.8286 ppb	09:37:57
2	Sn 189.927†	12.2	14.5	0.9666 µg/L	0.9666 ppb	09:38:17
2	Ti 334.940†	1112.4	122.6	0.1196 µg/L	0.1196 ppb	09:37:57
2	Tl 190.801†	-106.7	12.0	1.5747 µg/L	1.5747 ppb	09:38:17
2	U 409.014†	-260.1	62.9	3.9277 µg/L	3.9277 ppb	09:37:57
2	V 292.402†	383.1	70.8	0.3733 µg/L	0.3733 ppb	09:37:57
2	Zn 213.857†	650.7	48.0	0.2872 µg/L	0.2872 ppb	09:38:17
3	Sc RADIAL	152452.2	152452.2	102 %		09:36:53
3	Al 396.153Radial†	-37.9	36.6	7.1578 µg/L	7.1578 ppb	09:37:13
3	Ca 317.933Radial†	790.6	145.1	8.6514 µg/L	8.6514 ppb	09:37:13
3	Fe 238.204 Radial†	182.9	42.5	2.8114 µg/L	2.8114 ppb	09:37:13
3	K 766.490 Radial†	1550.6	-49.2	-19.630 µg/L	-19.630 ppb	09:36:53
3	Mg 279.077 IEC†	177.7	2.7	1.0672 µg/L	1.0672 ppb	09:37:13
3	Na 589.592 Radial†	1391.0	250.9	37.106 µg/L	37.106 ppb	09:36:53
3	Sr 421.552†	-225.7	33.5	0.0738 µg/L	0.0738 ppb	09:36:53
3	Sc 361.383	1808444.3	1808444.3	100.90 %		09:38:19
3	Y 371.029	1086457.3	1086457.3	100.73 %		09:38:19
3	Ag 328.068†	4110.3	145.4	0.5775 µg/L	0.5775 ppb	09:38:21
3	As 188.979†	-20.4	-6.4	-2.0265 µg/L	-2.0265 ppb	09:38:42
3	B 249.677†	3393.5	-40.2	-0.6349 µg/L	-0.6349 ppb	09:38:42
3	Ba 233.527†	-57.3	81.5	0.3462 µg/L	0.3462 ppb	09:38:42
3	Be 313.107†	-1062.7	-36.6	-0.0091 µg/L	-0.0091 ppb	09:38:21
3	Cd 226.502†	-105.8	4.9	0.0327 µg/L	0.0327 ppb	09:38:42
3	Co 228.616†	-172.2	0.9	0.0125 µg/L	0.0125 ppb	09:38:42
3	Cr 267.716†	147.9	-34.1	-0.2865 µg/L	-0.2865 ppb	09:38:42
3	Cu 324.752†	3038.9	34.2	0.1455 µg/L	0.1455 ppb	09:38:21
3	Mn 257.610†	279.1	83.6	0.1097 µg/L	0.1097 ppb	09:38:42
3	Mo 202.031†	-22.3	14.4	0.4503 µg/L	0.4503 ppb	09:38:42
3	Ni 231.604†	-85.5	12.8	0.1575 µg/L	0.1575 ppb	09:38:42
3	P 214.914†	-13.2	10.3	2.3695 µg/L	2.3695 ppb	09:38:42
3	Pb 220.353†	64.9	2.4	0.1415 µg/L	0.1415 ppb	09:38:42
3	S 181.975 Axial†	98.1	4.9	3.9634 µg/L	3.9634 ppb	09:38:42
3	Sb 206.836†	59.5	-22.0	-2.7859 µg/L	-2.7859 ppb	09:38:42
3	Se 196.026†	13.2	-7.8	-3.04 µg/L	-3.04 ppb	09:38:42
3	SiO2†	1820.4	22.2	2.2880 µg/L	2.2880 ppb	09:38:42
3	Si 251.611†	1042.9	105.5	1.6440 µg/L	1.6440 ppb	09:38:21
3	Sn 189.927†	15.7	18.0	1.2022 µg/L	1.2022 ppb	09:38:42
3	Ti 334.940†	957.4	-21.5	-0.0229 µg/L	-0.0229 ppb	09:38:21
3	Tl 190.801†	-126.7	-8.8	-1.1532 µg/L	-1.1532 ppb	09:38:42
3	U 409.014†	-245.2	75.5	4.7006 µg/L	4.7006 ppb	09:38:21
3	V 292.402†	349.0	40.2	0.2147 µg/L	0.2147 ppb	09:38:21
3	Zn 213.857†	665.4	68.1	0.4086 µg/L	0.4086 ppb	09:38:42

Mean Data: 1202056961|959141|5

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1812425.5	101.13 %	%	0.579			0.57%
Sc RADIAL	154183.5	103 %	%	1.1			1.06%
Y 371.029	1089333.5	101.00 %	%	0.534			0.53%
Ag 328.068†	-32.7	-0.1166 µg/L	µg/L	0.60949	-0.1166 ppb	0.60949	522.84%
Al 396.153Radial†	22.3	4.3600 µg/L	µg/L	2.42688	4.3600 ppb	2.42688	55.66%
As 188.979†	-1.9	-0.6113 µg/L	µg/L	1.31349	-0.6113 ppb	1.31349	214.85%
B 249.677†	-60.2	-0.9492 µg/L	µg/L	0.40487	-0.9492 ppb	0.40487	42.65%
Ba 233.527†	84.0	0.3572 µg/L	µg/L	0.04678	0.3572 ppb	0.04678	13.10%
Be 313.107†	86.2	0.0262 µg/L	µg/L	0.03865	0.0262 ppb	0.03865	147.39%
Ca 317.933Radial†	144.8	8.6387 µg/L	µg/L	0.21937	8.6387 ppb	0.21937	2.54%
Cd 226.502†	-3.5	-0.0235 µg/L	µg/L	0.06249	-0.0235 ppb	0.06249	265.73%
Co 228.616†	-6.2	-0.0811 µg/L	µg/L	0.10157	-0.0811 ppb	0.10157	125.30%
Cr 267.716†	-18.6	-0.1574 µg/L	µg/L	0.11368	-0.1574 ppb	0.11368	72.23%
Cu 324.752†	-24.5	-0.0967 µg/L	µg/L	0.26012	-0.0967 ppb	0.26012	268.95%
Fe 238.204 Radial†	38.1	2.5214 µg/L	µg/L	0.73742	2.5214 ppb	0.73742	29.25%
K 766.490 Radial†	-91.6	-36.511 µg/L	µg/L	28.8641	-36.511 ppb	28.8641	79.06%
Mg 279.077 IEC†	4.2	1.6904 µg/L	µg/L	1.88528	1.6904 ppb	1.88528	111.53%
Mn 257.610†	73.2	0.0961 µg/L	µg/L	0.02003	0.0961 ppb	0.02003	20.84%
Mo 202.031†	11.6	0.3636 µg/L	µg/L	0.16147	0.3636 ppb	0.16147	44.41%
Na 589.592 Radial†	168.6	24.960 µg/L	µg/L	11.4004	24.960 ppb	11.4004	45.67%

Ni 231.604†	12.0	0.1478 µg/L	0.13367	0.1478 ppb	0.13367	90.43%
P 214.914†	2.3	0.5296 µg/L	1.93457	0.5296 ppb	1.93457	365.26%
Pb 220.353†	14.3	0.8480 µg/L	0.64063	0.8480 ppb	0.64063	75.54%
S 181.975 Axial†	4.9	3.9350 µg/L	0.72741	3.9350 ppb	0.72741	18.49%
Sb 206.836†	-8.4	-1.0592 µg/L	1.73107	-1.0592 ppb	1.73107	163.44%
Se 196.026†	-7.2	-2.81 µg/L	1.911	-2.81 ppb	1.911	67.91%
SiO2†	13.3	1.3604 µg/L	1.61986	1.3604 ppb	1.61986	119.07%
Si 251.611†	92.6	1.4441 µg/L	0.51441	1.4441 ppb	0.51441	35.62%
Sn 189.927†	15.3	1.0201 µg/L	0.16211	1.0201 ppb	0.16211	15.89%
Sr 421.552†	87.4	0.1927 µg/L	0.11010	0.1927 ppb	0.11010	57.15%
Ti 334.940†	94.8	0.0918 µg/L	0.10353	0.0918 ppb	0.10353	112.84%
Tl 190.801†	7.5	0.9870 µg/L	1.91522	0.9870 ppb	1.91522	194.04%
U 409.014†	75.5	4.7164 µg/L	0.79672	4.7164 ppb	0.79672	16.89%
V 292.402†	95.2	0.4988 µg/L	0.36350	0.4988 ppb	0.36350	72.87%
Zn 213.857†	65.2	0.3914 µg/L	0.09676	0.3914 ppb	0.09676	24.72%

Sequence No.: 9

Sample ID: 248242001|959141|1

Analyst: HSC

Initial Sample Wt:

Dilution:

Autosampler Location: 307

Date Collected: 3/31/2010 9:38:49

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: 248242001|959141|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	154561.5	154561.5	103 %		09:39:19
1	Al 396.153Radial†	-98.5	-21.6	-4.2425 µg/L	-4.2425 ppb	09:39:19
1	Ca 317.933Radial†	1279.6	609.0	36.324 µg/L	36.324 ppb	09:39:39
1	Fe 238.204 Radial†	348.0	200.3	13.260 µg/L	13.260 ppb	09:39:39
1	K 766.490 Radial†	1774.2	147.0	58.563 µg/L	58.563 ppb	09:39:19
1	Mg 279.077 IEC†	195.2	17.3	6.8754 µg/L	6.8754 ppb	09:39:39
1	Na 589.592 Radial†	2194.4	1012.1	149.55 µg/L	149.55 ppb	09:39:19
1	Sr 421.552†	-140.4	119.3	0.2626 µg/L	0.2626 ppb	09:39:19
1	Sc 361.383	1797201.9	1797201.9	100.28 %		09:40:27
1	Y 371.029	1077291.7	1077291.7	99.881 %		09:40:27
1	Ag 328.068†	3949.8	10.8	0.0537 µg/L	0.0537 ppb	09:40:29
1	As 188.979†	-16.0	-2.1	-0.6718 µg/L	-0.6718 ppb	09:40:49
1	B 249.677†	5258.3	1840.5	29.050 µg/L	29.050 ppb	09:40:29
1	Ba 233.527†	-26.1	112.3	0.4770 µg/L	0.4770 ppb	09:40:49
1	Be 313.107†	-1053.4	-33.9	-0.0082 µg/L	-0.0082 ppb	09:40:29
1	Cd 226.502†	-96.0	14.1	0.0927 µg/L	0.0927 ppb	09:40:49
1	Co 228.616†	-170.2	1.9	0.0247 µg/L	0.0247 ppb	09:40:49
1	Cr 267.716†	207.2	25.9	0.2116 µg/L	0.2116 ppb	09:40:49
1	Cu 324.752†	3025.1	39.4	0.1687 µg/L	0.1687 ppb	09:40:29
1	Mn 257.610†	582.4	387.8	0.5089 µg/L	0.5089 ppb	09:40:49
1	Mo 202.031†	-38.1	-1.6	-0.0480 µg/L	-0.0480 ppb	09:40:49
1	Ni 231.604†	-78.9	18.9	0.2326 µg/L	0.2326 ppb	09:40:49
1	P 214.914†	-18.3	5.0	1.1470 µg/L	1.1470 ppb	09:40:49
1	Pb 220.353†	81.6	19.4	1.1550 µg/L	1.1550 ppb	09:40:49
1	S 181.975 Axial†	136.1	43.5	34.829 µg/L	34.829 ppb	09:40:49
1	Sb 206.836†	82.6	1.4	0.1804 µg/L	0.1804 ppb	09:40:49
1	Se 196.026†	9.4	-11.6	-4.52 µg/L	-4.52 ppb	09:40:49
1	SiO2†	40291.4	38398.7	4002.5 µg/L	4002.5 ppb	09:40:29
1	Si 251.611†	119709.1	118451.6	1861.6 µg/L	1861.6 ppb	09:40:29
1	Sn 189.927†	-0.4	2.1	0.1427 µg/L	0.1427 ppb	09:40:49
1	Ti 334.940†	1411.8	437.7	0.4301 µg/L	0.4301 ppb	09:40:29
1	Tl 190.801†	-117.9	-0.8	-0.0960 µg/L	-0.0960 ppb	09:40:49
1	U 409.014†	-237.9	81.2	5.0773 µg/L	5.0773 ppb	09:40:29
1	V 292.402†	406.9	100.2	0.5207 µg/L	0.5207 ppb	09:40:29
1	Zn 213.857†	927.4	333.6	2.0046 µg/L	2.0046 ppb	09:40:49
2	Sc RADIAL	153345.0	153345.0	102 %		09:39:41
2	Al 396.153Radial†	-205.4	-127.1	-24.918 µg/L	-24.918 ppb	09:39:41
2	Ca 317.933Radial†	1259.6	599.3	35.744 µg/L	35.744 ppb	09:40:01
2	Fe 238.204 Radial†	331.1	186.4	12.341 µg/L	12.341 ppb	09:40:01
2	K 766.490 Radial†	1949.7	332.4	132.45 µg/L	132.45 ppb	09:39:41
2	Mg 279.077 IEC†	184.4	8.2	3.2412 µg/L	3.2412 ppb	09:40:01
2	Na 589.592 Radial†	2227.7	1061.6	156.80 µg/L	156.80 ppb	09:39:41
2	Sr 421.552†	-30.2	226.0	0.4978 µg/L	0.4978 ppb	09:39:41
2	Sc 361.383	1818792.0	1818792.0	101.48 %		09:40:51
2	Y 371.029	1090368.4	1090368.4	101.09 %		09:40:51
2	Ag 328.068†	3940.0	-45.6	-0.1819 µg/L	-0.1819 ppb	09:40:53
2	As 188.979†	-10.1	3.8	1.2193 µg/L	1.2193 ppb	09:41:13
2	B 249.677†	5128.9	1650.7	26.054 µg/L	26.054 ppb	09:40:53
2	Ba 233.527†	4.0	142.2	0.6040 µg/L	0.6040 ppb	09:41:13
2	Be 313.107†	-807.3	221.0	0.0613 µg/L	0.0613 ppb	09:40:53
2	Cd 226.502†	-104.3	7.0	0.0457 µg/L	0.0457 ppb	09:41:13
2	Co 228.616†	-142.3	31.4	0.4127 µg/L	0.4127 ppb	09:41:13
2	Cr 267.716†	198.6	15.0	0.1311 µg/L	0.1311 ppb	09:41:13
2	Cu 324.752†	3258.9	233.9	0.9604 µg/L	0.9604 ppb	09:40:53
2	Mn 257.610†	581.7	380.2	0.4991 µg/L	0.4991 ppb	09:41:13
2	Mo 202.031†	-39.9	-2.9	-0.0896 µg/L	-0.0896 ppb	09:41:13
2	Ni 231.604†	-83.9	14.9	0.1836 µg/L	0.1836 ppb	09:41:13
2	P 214.914†	0.4	23.7	5.4503 µg/L	5.4503 ppb	09:41:13
2	Pb 220.353†	97.5	34.2	2.0437 µg/L	2.0437 ppb	09:41:13

2	S 181.975 Axial†	124.6	30.5	24.453 µg/L	24.453 ppb	09:41:13
2	Sb 206.836†	88.7	6.4	0.8159 µg/L	0.8159 ppb	09:41:13
2	Se 196.026†	6.7	-14.3	-5.58 µg/L	-5.58 ppb	09:41:13
2	SiO2†	40358.9	37988.2	3959.7 µg/L	3959.7 ppb	09:40:53
2	Si 251.611†	120090.8	117410.6	1845.3 µg/L	1845.3 ppb	09:40:53
2	Sn 189.927†	5.6	8.0	0.5380 µg/L	0.5380 ppb	09:41:13
2	Ti 334.940†	1321.6	332.1	0.3315 µg/L	0.3315 ppb	09:40:53
2	Tl 190.801†	-115.9	2.6	0.3410 µg/L	0.3410 ppb	09:41:13
2	U 409.014†	-449.8	-124.7	-7.7103 µg/L	-7.7103 ppb	09:40:53
2	V 292.402†	430.6	118.6	0.6072 µg/L	0.6072 ppb	09:40:53
2	Zn 213.857†	942.1	337.0	2.0247 µg/L	2.0247 ppb	09:41:13
3	Sc RADIAL	154019.5	154019.5	103 %		09:40:03
3	Al 396.153Radial†	-57.5	18.0	3.4952 µg/L	3.4952 ppb	09:40:03
3	Ca 317.933Radial†	1272.7	606.7	36.183 µg/L	36.183 ppb	09:40:23
3	Fe 238.204 Radial†	324.8	178.9	11.843 µg/L	11.843 ppb	09:40:23
3	K 766.490 Radial†	1715.9	96.2	38.310 µg/L	38.310 ppb	09:40:03
3	Mg 279.077 IEC†	214.4	36.7	14.617 µg/L	14.617 ppb	09:40:23
3	Na 589.592 Radial†	2113.9	941.1	139.08 µg/L	139.08 ppb	09:40:03
3	Sr 421.552†	-205.3	55.6	0.1223 µg/L	0.1223 ppb	09:40:03
3	Sc 361.383	1786877.3	1786877.3	99.700 %		09:41:15
3	Y 371.029	1071298.0	1071298.0	99.326 %		09:41:15
3	Ag 328.068†	3670.2	-246.9	-0.9577 µg/L	-0.9577 ppb	09:41:17
3	As 188.979†	-10.4	3.4	1.0727 µg/L	1.0727 ppb	09:41:38
3	B 249.677†	5172.2	1784.4	28.165 µg/L	28.165 ppb	09:41:17
3	Ba 233.527†	-3.0	135.3	0.5749 µg/L	0.5749 ppb	09:41:38
3	Be 313.107†	-1076.5	-63.1	-0.0173 µg/L	-0.0173 ppb	09:41:17
3	Cd 226.502†	-116.7	-7.3	-0.0498 µg/L	-0.0498 ppb	09:41:38
3	Co 228.616†	-177.8	-6.8	-0.0894 µg/L	-0.0894 ppb	09:41:38
3	Cr 267.716†	224.0	44.0	0.3630 µg/L	0.3630 ppb	09:41:38
3	Cu 324.752†	2886.0	-82.7	-0.3366 µg/L	-0.3366 ppb	09:41:17
3	Mn 257.610†	590.8	399.5	0.5241 µg/L	0.5241 ppb	09:41:38
3	Mo 202.031†	-16.1	20.2	0.6348 µg/L	0.6348 ppb	09:41:38
3	Ni 231.604†	-66.1	31.3	0.3845 µg/L	0.3845 ppb	09:41:38
3	P 214.914†	-0.5	22.8	5.2633 µg/L	5.2633 ppb	09:41:38
3	Pb 220.353†	97.7	36.1	2.1510 µg/L	2.1510 ppb	09:41:38
3	S 181.975 Axial†	140.3	48.5	38.829 µg/L	38.829 ppb	09:41:38
3	Sb 206.836†	75.7	-5.1	-0.6378 µg/L	-0.6378 ppb	09:41:38
3	Se 196.026†	9.0	-11.9	-4.65 µg/L	-4.65 ppb	09:41:38
3	SiO2†	39812.1	38150.1	3976.6 µg/L	3976.6 ppb	09:41:17
3	Si 251.611†	118980.1	118410.2	1861.0 µg/L	1861.0 ppb	09:41:17
3	Sn 189.927†	11.2	13.7	0.9142 µg/L	0.9142 ppb	09:41:38
3	Ti 334.940†	1041.2	74.1	0.0716 µg/L	0.0716 ppb	09:41:17
3	Tl 190.801†	-125.9	-9.5	-1.2357 µg/L	-1.2357 ppb	09:41:38
3	U 409.014†	-273.0	44.6	2.8077 µg/L	2.8077 ppb	09:41:17
3	V 292.402†	421.4	117.1	0.6149 µg/L	0.6149 ppb	09:41:17
3	Zn 213.857†	954.7	366.2	2.2006 µg/L	2.2006 ppb	09:41:38

Mean Data: 248242001|959141|1

Analyte	Mean Corrected Intensity	Conc. Units	Calib.	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1800957.1	100.49 %		0.909			0.90%
Sc RADIAL	153975.3	103 %		0.4			0.40%
Y 371.029	1079652.7	100.10 %		0.904			0.90%
Ag 328.068†	-93.9	-0.3620 µg/L		0.52920	-0.3620 ppb	0.52920	146.20%
Al 396.153Radial†	-43.6	-8.5551 µg/L		14.68937	-8.5551 ppb	14.68937	171.70%
As 188.979†	1.7	0.5401 µg/L		1.05209	0.5401 ppb	1.05209	194.80%
B 249.677†	1758.5	27.756 µg/L		1.5392	27.756 ppb	1.5392	5.55%
Ba 233.527†	129.9	0.5520 µg/L		0.06652	0.5520 ppb	0.06652	12.05%
Be 313.107†	41.3	0.0119 µg/L		0.04299	0.0119 ppb	0.04299	361.13%
Ca 317.933Radial†	605.0	36.084 µg/L		0.3026	36.084 ppb	0.3026	0.84%
Cd 226.502†	4.6	0.0295 µg/L		0.07261	0.0295 ppb	0.07261	245.77%
Co 228.616†	8.8	0.1160 µg/L		0.26324	0.1160 ppb	0.26324	226.89%
Cr 267.716†	28.3	0.2352 µg/L		0.11776	0.2352 ppb	0.11776	50.06%
Cu 324.752†	63.5	0.2642 µg/L		0.65375	0.2642 ppb	0.65375	247.49%
Fe 238.204 Radial†	188.6	12.481 µg/L		0.7187	12.481 ppb	0.7187	5.76%
K 766.490 Radial†	191.9	76.441 µg/L		49.5502	76.441 ppb	49.5502	64.82%
Mg 279.077 IEC†	20.7	8.2447 µg/L		5.81035	8.2447 ppb	5.81035	70.47%
Mn 257.610†	389.2	0.5107 µg/L		0.01255	0.5107 ppb	0.01255	2.46%
Mo 202.031†	5.3	0.1657 µg/L		0.40678	0.1657 ppb	0.40678	245.44%
Na 589.592 Radial†	1005.0	148.48 µg/L		8.909	148.48 ppb	8.909	6.00%

Ni 231.604†	21.7	0.2669 µg/L	0.10476	0.2669 ppb	0.10476	39.24%
P 214.914†	17.2	3.9535 µg/L	2.43234	3.9535 ppb	2.43234	61.52%
Pb 220.353†	29.9	1.7832 µg/L	0.54668	1.7832 ppb	0.54668	30.66%
S 181.975 Axial†	40.9	32.704 µg/L	7.4198	32.704 ppb	7.4198	22.69%
Sb 206.836†	0.9	0.1195 µg/L	0.72872	0.1195 ppb	0.72872	609.85%
Se 196.026†	-12.6	-4.91 µg/L	0.579	-4.91 ppb	0.579	11.78%
SiO2†	38179.0	3979.6 µg/L	21.56	3979.6 ppb	21.56	0.54%
Si 251.611†	118090.8	1856.0 µg/L	9.26	1856.0 ppb	9.26	0.50%
Sn 189.927†	7.9	0.5316 µg/L	0.38582	0.5316 ppb	0.38582	72.57%
Sr 421.552†	133.6	0.2943 µg/L	0.18976	0.2943 ppb	0.18976	64.49%
Ti 334.940†	281.3	0.2778 µg/L	0.18519	0.2778 ppb	0.18519	66.67%
Tl 190.801†	-2.6	-0.3302 µg/L	0.81403	-0.3302 ppb	0.81403	246.53%
U 409.014†	0.4	0.0582 µg/L	6.82279	0.0582 ppb	6.82279	>999.9%
V 292.402†	112.0	0.5810 µg/L	0.05229	0.5810 ppb	0.05229	9.00%
Zn 213.857†	345.6	2.0766 µg/L	0.10780	2.0766 ppb	0.10780	5.19%

Sequence No.: 12

Sample ID: CCV

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 7

Date Collected: 3/31/2010 9:47:51

Data Type: Original

Initial Sample Vol:

Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc. Units	Sample Conc. Units	Analysis Time
1	Sc RADIAL	150864.4	150864.4	101 %		09:48:25
1	Al 396.153Radial†	25964.0	25893.9	5055.7 µg/L	5055.7 ppb	09:48:25
1	Ca 317.933Radial†	85831.5	84722.1	5052.9 µg/L	5052.9 ppb	09:48:25
1	Fe 238.204 Radial†	76467.3	75905.4	5024.3 µg/L	5024.3 ppb	09:48:25
1	K 766.490 Radial†	14091.0	12437.6	4953.3 µg/L	4953.3 ppb	09:48:25
1	Mg 279.077 IEC†	13152.8	12907.5	5151.2 µg/L	5151.2 ppb	09:48:25
1	Na 589.592 Radial†	69015.9	67515.0	9975.0 µg/L	9975.0 ppb	09:48:25
1	Sr 421.552†	227795.4	226786.7	499.83 µg/L	499.83 ppb	09:48:23
1	Sc 361.383	1765444.2	1765444.2	98.504 %		09:48:52
1	Y 371.029	1050975.7	1050975.7	97.441 %		09:48:52
1	Ag 328.068†	127988.7	126004.4	499.95 µg/L	499.95 ppb	09:48:52
1	As 188.979†	1539.1	1576.3	506.61 µg/L	506.61 ppb	09:49:12
1	B 249.677†	34135.2	31250.3	491.53 µg/L	491.53 ppb	09:48:52
1	Ba 233.527†	115212.6	117100.6	497.71 µg/L	497.71 ppb	09:48:52
1	Be 313.107†	1703319.1	1730204.7	497.98 µg/L	497.98 ppb	09:48:52
1	Cd 226.502†	73054.8	74274.0	495.85 µg/L	495.85 ppb	09:48:52
1	Co 228.616†	37074.6	37809.2	498.08 µg/L	498.08 ppb	09:48:52
1	Cr 267.716†	58992.6	59707.9	495.18 µg/L	495.18 ppb	09:48:52
1	Cu 324.752†	121150.3	120012.8	496.45 µg/L	496.45 ppb	09:48:52
1	Mn 257.610†	375568.6	381079.5	500.23 µg/L	500.23 ppb	09:48:52
1	Mo 202.031†	15777.6	16053.6	503.42 µg/L	503.42 ppb	09:49:12
1	Ni 231.604†	39870.0	40573.2	498.43 µg/L	498.43 ppb	09:48:52
1	P 214.914†	10717.2	10903.3	2505.8 µg/L	2505.8 ppb	09:49:12
1	Pb 220.353†	8412.1	8478.0	507.12 µg/L	507.12 ppb	09:49:12
1	S 181.975 Axial†	1324.3	1252.2	1006.6 µg/L	1006.6 ppb	09:49:12
1	Sb 206.836†	3965.5	3944.8	503.65 µg/L	503.65 ppb	09:49:12
1	Se 196.026†	1279.8	1278.3	500 µg/L	500 ppb	09:49:12
1	SiO2†	52782.1	51801.9	5378.0 µg/L	5378.0 ppb	09:48:52
1	Si 251.611†	158966.1	160452.3	2511.7 µg/L	2511.7 ppb	09:48:52
1	Sn 189.927†	7427.8	7543.1	505.57 µg/L	505.57 ppb	09:49:12
1	Ti 334.940†	498637.4	505240.2	497.91 µg/L	497.91 ppb	09:48:52
1	Tl 190.801†	3682.1	3854.8	511.98 µg/L	511.98 ppb	09:49:12
1	U 409.014†	7065.7	7491.5	495.51 µg/L	495.51 ppb	09:48:52
1	V 292.402†	94256.0	95381.9	500.64 µg/L	500.64 ppb	09:48:52
1	Zn 213.857†	81959.7	82613.2	493.29 µg/L	493.29 ppb	09:48:52
2	Sc RADIAL	149411.3	149411.3	99.6 %		09:48:29
2	Al 396.153Radial†	26354.9	26537.4	5181.7 µg/L	5181.7 ppb	09:48:29
2	Ca 317.933Radial†	86931.1	86656.3	5168.3 µg/L	5168.3 ppb	09:48:29
2	Fe 238.204 Radial†	77474.1	77655.9	5140.2 µg/L	5140.2 ppb	09:48:29
2	K 766.490 Radial†	14285.4	12769.1	5085.3 µg/L	5085.3 ppb	09:48:29
2	Mg 279.077 IEC†	13318.4	13201.1	5268.2 µg/L	5268.2 ppb	09:48:29
2	Na 589.592 Radial†	69760.9	68930.5	10184 µg/L	10184 ppb	09:48:29
2	Sr 421.552†	225711.6	226897.4	500.07 µg/L	500.07 ppb	09:48:27
2	Sc 361.383	1751017.1	1751017.1	97.699 %		09:49:15
2	Y 371.029	1042557.9	1042557.9	96.661 %		09:49:15
2	Ag 328.068†	128155.2	127245.4	504.88 µg/L	504.88 ppb	09:49:15
2	As 188.979†	1551.4	1601.7	514.75 µg/L	514.75 ppb	09:49:35
2	B 249.677†	34357.6	31763.4	499.60 µg/L	499.60 ppb	09:49:15
2	Ba 233.527†	115603.7	118464.7	503.51 µg/L	503.51 ppb	09:49:15
2	Be 313.107†	1710868.5	1752179.2	504.31 µg/L	504.31 ppb	09:49:15
2	Cd 226.502†	73300.3	75136.4	501.60 µg/L	501.60 ppb	09:49:15
2	Co 228.616†	37241.2	38289.9	504.41 µg/L	504.41 ppb	09:49:15
2	Cr 267.716†	59313.1	60529.3	501.99 µg/L	501.99 ppb	09:49:15
2	Cu 324.752†	121675.6	121563.8	502.87 µg/L	502.87 ppb	09:49:15
2	Mn 257.610†	377338.8	386032.8	506.73 µg/L	506.73 ppb	09:49:15
2	Mo 202.031†	15805.3	16213.9	508.45 µg/L	508.45 ppb	09:49:35
2	Ni 231.604†	39897.0	40934.2	502.86 µg/L	502.86 ppb	09:49:15
2	P 214.914†	10750.8	11027.3	2534.3 µg/L	2534.3 ppb	09:49:35
2	Pb 220.353†	8403.4	8539.4	510.80 µg/L	510.80 ppb	09:49:35

2	S 181.975 Axial†	1322.3	1261.2	1013.9 µg/L	1013.9 ppb	09:49:35
2	Sb 206.836†	3983.2	3996.1	510.17 µg/L	510.17 ppb	09:49:35
2	Se 196.026†	1287.1	1296.4	507 µg/L	507 ppb	09:49:35
2	SiO2†	52936.7	52401.6	5440.3 µg/L	5440.3 ppb	09:49:15
2	Si 251.611†	159526.3	162355.4	2541.5 µg/L	2541.5 ppb	09:49:15
2	Sn 189.927†	7441.9	7619.7	510.70 µg/L	510.70 ppb	09:49:35
2	Ti 334.940†	500758.9	511582.5	504.16 µg/L	504.16 ppb	09:49:15
2	Tl 190.801†	3669.7	3872.9	514.45 µg/L	514.45 ppb	09:49:35
2	U 409.014†	7059.5	7544.2	499.13 µg/L	499.13 ppb	09:49:15
2	V 292.402†	94586.9	96508.9	506.54 µg/L	506.54 ppb	09:49:15
2	Zn 213.857†	82211.9	83556.8	498.93 µg/L	498.93 ppb	09:49:15
3	Sc RADIAL	149097.5	149097.5	99.4 %		09:48:33
3	Al 396.153Radial†	25977.3	26213.2	5118.4 µg/L	5118.4 ppb	09:48:33
3	Ca 317.933Radial†	85623.9	85524.8	5100.8 µg/L	5100.8 ppb	09:48:33
3	Fe 238.204 Radial†	76032.9	76369.5	5055.1 µg/L	5055.1 ppb	09:48:33
3	K 766.490 Radial†	14170.4	12683.6	5051.3 µg/L	5051.3 ppb	09:48:33
3	Mg 279.077 IEC†	13151.1	13060.9	5212.3 µg/L	5212.3 ppb	09:48:33
3	Na 589.592 Radial†	68857.4	68168.8	10072 µg/L	10072 ppb	09:48:33
3	Sr 421.552†	228875.3	230557.9	508.14 µg/L	508.14 ppb	09:48:31
3	Sc 361.383	1780303.4	1780303.4	99.333 %		09:49:38
3	Y 371.029	1059619.9	1059619.9	98.243 %		09:49:38
3	Ag 328.068†	129386.1	126326.8	501.20 µg/L	501.20 ppb	09:49:38
3	As 188.979†	1560.9	1585.2	509.46 µg/L	509.46 ppb	09:49:59
3	B 249.677†	34601.7	31430.7	494.36 µg/L	494.36 ppb	09:49:38
3	Ba 233.527†	116382.4	117302.1	498.57 µg/L	498.57 ppb	09:49:38
3	Be 313.107†	1725055.2	1737654.3	500.12 µg/L	500.12 ppb	09:49:38
3	Cd 226.502†	74340.1	74949.0	500.36 µg/L	500.36 ppb	09:49:38
3	Co 228.616†	37640.3	38064.6	501.45 µg/L	501.45 ppb	09:49:38
3	Cr 267.716†	59794.9	60015.6	497.74 µg/L	497.74 ppb	09:49:38
3	Cu 324.752†	122503.4	120348.5	497.83 µg/L	497.83 ppb	09:49:38
3	Mn 257.610†	379999.6	382357.9	501.91 µg/L	501.91 ppb	09:49:38
3	Mo 202.031†	15880.9	16023.9	502.49 µg/L	502.49 ppb	09:49:59
3	Ni 231.604†	40437.0	40806.1	501.29 µg/L	501.29 ppb	09:49:38
3	P 214.914†	10790.2	10885.9	2501.8 µg/L	2501.8 ppb	09:49:59
3	Pb 220.353†	8476.5	8471.5	506.75 µg/L	506.75 ppb	09:49:59
3	S 181.975 Axial†	1322.5	1239.2	996.22 µg/L	996.22 ppb	09:49:59
3	Sb 206.836†	4005.3	3951.2	504.42 µg/L	504.42 ppb	09:49:59
3	Se 196.026†	1296.6	1284.4	503 µg/L	503 ppb	09:49:59
3	SiO2†	53447.8	52024.8	5401.3 µg/L	5401.3 ppb	09:49:38
3	Si 251.611†	161197.1	161351.4	2525.9 µg/L	2525.9 ppb	09:49:38
3	Sn 189.927†	7473.4	7526.1	504.43 µg/L	504.43 ppb	09:49:59
3	Ti 334.940†	503715.4	506127.2	498.79 µg/L	498.79 ppb	09:49:38
3	Tl 190.801†	3695.1	3836.7	509.61 µg/L	509.61 ppb	09:49:59
3	U 409.014†	6924.8	7289.7	482.99 µg/L	482.99 ppb	09:49:38
3	V 292.402†	95094.6	95427.5	500.86 µg/L	500.86 ppb	09:49:38
3	Zn 213.857†	83101.5	83068.1	496.01 µg/L	496.01 ppb	09:49:38

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1765588.2	98.512 %	0.8171			0.83%
Sc RADIAL	149791.1	99.8 %	0.63			0.63%
Y 371.029	1051051.2	97.448 %	0.7910			0.81%
Ag 328.068†	126525.5	502.01 µg/L	2.564	502.01 ppb	2.564	0.51%
QC value within limits for Ag 328.068 Recovery = 100.40%						
Al 396.153Radial†	26214.8	5118.6 µg/L	63.00	5118.6 ppb	63.00	1.23%
QC value within limits for Al 396.153Radial Recovery = 102.37%						
As 188.979†	1587.7	510.27 µg/L	4.135	510.27 ppb	4.135	0.81%
QC value within limits for As 188.979 Recovery = 102.05%						
B 249.677†	31481.5	495.16 µg/L	4.098	495.16 ppb	4.098	0.83%
QC value within limits for B 249.677 Recovery = 99.03%						
Ba 233.527†	117622.5	499.93 µg/L	3.129	499.93 ppb	3.129	0.63%
QC value within limits for Ba 233.527 Recovery = 99.99%						
Be 313.107†	1740012.7	500.80 µg/L	3.217	500.80 ppb	3.217	0.64%
QC value within limits for Be 313.107 Recovery = 100.16%						
Ca 317.933Radial†	85634.4	5107.3 µg/L	57.96	5107.3 ppb	57.96	1.13%
QC value within limits for Ca 317.933Radial Recovery = 102.15%						
Cd 226.502†	74786.5	499.27 µg/L	3.026	499.27 ppb	3.026	0.61%
QC value within limits for Cd 226.502 Recovery = 99.85%						
Co 228.616†	38054.6	501.31 µg/L	3.166	501.31 ppb	3.166	0.63%

QC value within limits for Co 228.616 Recovery = 100.26%							
Cr 267.716†	60084.3	498.30 µg/L	3.443	498.30 ppb	3.443	0.69%	
QC value within limits for Cr 267.716 Recovery = 99.66%							
Cu 324.752†	120641.7	499.05 µg/L	3.380	499.05 ppb	3.380	0.68%	
QC value within limits for Cu 324.752 Recovery = 99.81%							
Fe 238.204 Radial†	76643.6	5073.2 µg/L	60.03	5073.2 ppb	60.03	1.18%	
QC value within limits for Fe 238.204 Radial Recovery = 101.46%							
K 766.490 Radial†	12630.1	5030.0 µg/L	68.55	5030.0 ppb	68.55	1.36%	
QC value within limits for K 766.490 Radial Recovery = 100.60%							
Mg 279.077 IEC†	13056.5	5210.6 µg/L	58.51	5210.6 ppb	58.51	1.12%	
QC value within limits for Mg 279.077 IEC Recovery = 104.21%							
Mn 257.610†	383156.7	502.96 µg/L	3.375	502.96 ppb	3.375	0.67%	
QC value within limits for Mn 257.610 Recovery = 100.59%							
Mo 202.031†	16097.2	504.79 µg/L	3.206	504.79 ppb	3.206	0.64%	
QC value within limits for Mo 202.031 Recovery = 100.96%							
Na 589.592 Radial†	68204.7	10077 µg/L	104.7	10077 ppb	104.7	1.04%	
QC value within limits for Na 589.592 Radial Recovery = 100.77%							
Ni 231.604†	40771.2	500.86 µg/L	2.249	500.86 ppb	2.249	0.45%	
QC value within limits for Ni 231.604 Recovery = 100.17%							
P 214.914†	10938.9	2514.0 µg/L	17.72	2514.0 ppb	17.72	0.70%	
QC value within limits for P 214.914 Recovery = 100.56%							
Pb 220.353†	8496.3	508.22 µg/L	2.243	508.22 ppb	2.243	0.44%	
QC value within limits for Pb 220.353 Recovery = 101.64%							
S 181.975 Axial†	1250.8	1005.6 µg/L	8.88	1005.6 ppb	8.88	0.88%	
QC value within limits for S 181.975 Axial Recovery = 100.56%							
Sb 206.836†	3964.0	506.08 µg/L	3.562	506.08 ppb	3.562	0.70%	
QC value within limits for Sb 206.836 Recovery = 101.22%							
Se 196.026†	1286.4	503 µg/L	3.6	503 ppb	3.6	0.72%	
QC value within limits for Se 196.026 Recovery = 100.70%							
SiO2†	52076.1	5406.5 µg/L	31.47	5406.5 ppb	31.47	0.58%	
QC value within limits for SiO2 Recovery = 101.10%							
Si 251.611†	161386.4	2526.4 µg/L	14.91	2526.4 ppb	14.91	0.59%	
QC value within limits for Si 251.611 Recovery = 101.05%							
Sn 189.927†	7563.0	506.90 µg/L	3.341	506.90 ppb	3.341	0.66%	
QC value within limits for Sn 189.927 Recovery = 101.38%							
Sr 421.552†	228080.6	502.68 µg/L	4.730	502.68 ppb	4.730	0.94%	
QC value within limits for Sr 421.552 Recovery = 100.54%							
Ti 334.940†	507649.9	500.29 µg/L	3.383	500.29 ppb	3.383	0.68%	
QC value within limits for Ti 334.940 Recovery = 100.06%							
Tl 190.801†	3854.8	512.01 µg/L	2.421	512.01 ppb	2.421	0.47%	
QC value within limits for Tl 190.801 Recovery = 102.40%							
U 409.014†	7441.8	492.55 µg/L	8.468	492.55 ppb	8.468	1.72%	
QC value within limits for U 409.014 Recovery = 98.51%							
V 292.402†	95772.8	502.68 µg/L	3.345	502.68 ppb	3.345	0.67%	
QC value within limits for V 292.402 Recovery = 100.54%							
Zn 213.857†	83079.4	496.08 µg/L	2.819	496.08 ppb	2.819	0.57%	
QC value within limits for Zn 213.857 Recovery = 99.22%							
All analyte(s) passed QC.							

Sequence No.: 13

Sample ID: CCB

Analyst:

Initial Sample Wt:

Dilution:

Autosampler Location: 8

Date Collected: 3/31/2010 9:50:06

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	152841.5	152841.5	102 %		09:50:35
1	Al 396.153Radial†	-47.2	27.6	5.4064 µg/L	5.4064 ppb	09:50:55
1	Ca 317.933Radial†	629.8	-14.8	-0.8832 µg/L	-0.8832 ppb	09:50:55
1	Fe 238.204 Radial†	172.8	32.1	2.1269 µg/L	2.1269 ppb	09:50:55
1	K 766.490 Radial†	1693.6	87.3	34.776 µg/L	34.776 ppb	09:50:35
1	Mg 279.077 IEC†	170.4	-5.0	-1.9738 µg/L	-1.9738 ppb	09:50:55
1	Na 589.592 Radial†	1347.9	205.1	30.289 µg/L	30.289 ppb	09:50:35
1	Sr 421.552†	-119.7	138.1	0.3043 µg/L	0.3043 ppb	09:50:35
1	Sc 361.383	1778476.9	1778476.9	99.231 %		09:51:43
1	Y 371.029	1070202.1	1070202.1	99.224 %		09:51:43
1	Ag 328.068†	3955.0	57.6	0.2265 µg/L	0.2265 ppb	09:51:45
1	As 188.979†	-13.2	0.5	0.1525 µg/L	0.1525 ppb	09:52:05
1	B 249.677†	3411.3	34.4	0.5410 µg/L	0.5410 ppb	09:52:05
1	Ba 233.527†	-131.6	5.6	0.0235 µg/L	0.0235 ppb	09:52:05
1	Be 313.107†	-1123.5	-115.6	-0.0309 µg/L	-0.0309 ppb	09:51:45
1	Cd 226.502†	-109.2	-0.3	-0.0021 µg/L	-0.0021 ppb	09:52:05
1	Co 228.616†	-144.4	26.1	0.3436 µg/L	0.3436 ppb	09:52:05
1	Cr 267.716†	180.5	1.2	0.0032 µg/L	0.0032 ppb	09:52:05
1	Cu 324.752†	2913.8	-41.0	-0.1621 µg/L	-0.1621 ppb	09:51:45
1	Mn 257.610†	214.9	23.5	0.0310 µg/L	0.0310 ppb	09:52:05
1	Mo 202.031†	-30.8	5.4	0.1684 µg/L	0.1684 ppb	09:52:05
1	Ni 231.604†	-86.7	10.2	0.1255 µg/L	0.1255 ppb	09:52:05
1	P 214.914†	-18.0	5.2	1.1997 µg/L	1.1997 ppb	09:52:05
1	Pb 220.353†	64.4	3.0	0.1737 µg/L	0.1737 ppb	09:52:05
1	S 181.975 Axial†	91.7	0.2	0.1614 µg/L	0.1614 ppb	09:52:05
1	Sb 206.836†	86.8	6.6	0.8366 µg/L	0.8366 ppb	09:52:05
1	Se 196.026†	9.3	-11.6	-4.50 µg/L	-4.50 ppb	09:52:05
1	SiO2†	1771.0	2.9	0.2887 µg/L	0.2887 ppb	09:52:05
1	Si 251.611†	947.9	27.1	0.4201 µg/L	0.4201 ppb	09:51:45
1	Sn 189.927†	6.0	8.5	0.5672 µg/L	0.5672 ppb	09:52:05
1	Ti 334.940†	960.3	-2.6	-0.0057 µg/L	-0.0057 ppb	09:51:45
1	Tl 190.801†	-97.1	19.0	2.4746 µg/L	2.4746 ppb	09:52:05
1	U 409.014†	-188.8	128.2	7.9177 µg/L	7.9177 ppb	09:51:45
1	V 292.402†	162.6	-141.8	-0.7275 µg/L	-0.7275 ppb	09:51:45
1	Zn 213.857†	616.3	29.7	0.1780 µg/L	0.1780 ppb	09:52:05
2	Sc RADIAL	148741.3	148741.3	99.1 %		09:50:57
2	Al 396.153Radial†	-46.3	27.2	5.3285 µg/L	5.3285 ppb	09:51:17
2	Ca 317.933Radial†	643.0	15.6	0.9303 µg/L	0.9303 ppb	09:51:17
2	Fe 238.204 Radial†	171.4	35.4	2.3402 µg/L	2.3402 ppb	09:51:17
2	K 766.490 Radial†	1502.4	-59.8	-23.837 µg/L	-23.837 ppb	09:50:57
2	Mg 279.077 IEC†	187.5	16.9	6.7230 µg/L	6.7230 ppb	09:51:17
2	Na 589.592 Radial†	1290.8	184.0	27.218 µg/L	27.218 ppb	09:50:57
2	Sr 421.552†	-303.4	-50.5	-0.1113 µg/L	-0.1113 ppb	09:50:57
2	Sc 361.383	1760161.0	1760161.0	98.209 %		09:52:07
2	Y 371.029	1059746.1	1059746.1	98.255 %		09:52:07
2	Ag 328.068†	3791.1	-67.9	-0.2437 µg/L	-0.2437 ppb	09:52:09
2	As 188.979†	-17.7	-4.2	-1.3299 µg/L	-1.3299 ppb	09:52:29
2	B 249.677†	3367.4	25.5	0.4011 µg/L	0.4011 ppb	09:52:29
2	Ba 233.527†	-125.0	11.0	0.0473 µg/L	0.0473 ppb	09:52:29
2	Be 313.107†	-909.9	90.2	0.0285 µg/L	0.0285 ppb	09:52:09
2	Cd 226.502†	-118.5	-10.9	-0.0728 µg/L	-0.0728 ppb	09:52:29
2	Co 228.616†	-153.5	15.2	0.2007 µg/L	0.2007 ppb	09:52:29
2	Cr 267.716†	213.4	36.6	0.2971 µg/L	0.2971 ppb	09:52:29
2	Cu 324.752†	2987.9	65.0	0.2756 µg/L	0.2756 ppb	09:52:09
2	Mn 257.610†	238.4	49.7	0.0650 µg/L	0.0650 ppb	09:52:29
2	Mo 202.031†	-26.6	9.4	0.2945 µg/L	0.2945 ppb	09:52:29
2	Ni 231.604†	-95.7	0.2	0.0025 µg/L	0.0025 ppb	09:52:29
2	P 214.914†	-25.4	-2.5	-0.5824 µg/L	-0.5824 ppb	09:52:29
2	Pb 220.353†	57.8	-3.1	-0.1895 µg/L	-0.1895 ppb	09:52:29

2	S 181.975 Axial†	91.5	1.0	0.7942 µg/L	0.7942 ppb	09:52:29
2	Sb 206.836†	69.6	-10.1	-1.2808 µg/L	-1.2808 ppb	09:52:29
2	Se 196.026†	14.7	-6.0	-2.32 µg/L	-2.32 ppb	09:52:29
2	SiO2†	1752.2	2.3	0.2200 µg/L	0.2200 ppb	09:52:29
2	Si 251.611†	1099.8	191.8	3.0040 µg/L	3.0040 ppb	09:52:09
2	Sn 189.927†	11.1	13.8	0.9213 µg/L	0.9213 ppb	09:52:29
2	Ti 334.940†	776.3	-179.8	-0.1815 µg/L	-0.1815 ppb	09:52:09
2	Tl 190.801†	-106.7	8.2	1.0756 µg/L	1.0756 ppb	09:52:29
2	U 409.014†	-178.5	136.7	8.5480 µg/L	8.5480 ppb	09:52:09
2	V 292.402†	489.4	192.7	1.0080 µg/L	1.0080 ppb	09:52:09
2	Zn 213.857†	602.6	22.3	0.1338 µg/L	0.1338 ppb	09:52:29
3	Sc RADIAL	149011.0	149011.0	99.3 %		09:51:19
3	Al 396.153Radial†	-57.1	16.5	3.2235 µg/L	3.2235 ppb	09:51:39
3	Ca 317.933Radial†	662.3	33.8	2.0163 µg/L	2.0163 ppb	09:51:39
3	Fe 238.204 Radial†	160.6	24.1	1.5985 µg/L	1.5985 ppb	09:51:39
3	K 766.490 Radial†	1536.4	-28.3	-11.266 µg/L	-11.266 ppb	09:51:19
3	Mg 279.077 IEC†	170.0	-1.0	-0.4130 µg/L	-0.4130 ppb	09:51:39
3	Na 589.592 Radial†	1289.1	180.0	26.619 µg/L	26.619 ppb	09:51:19
3	Sr 421.552†	-193.8	60.4	0.1332 µg/L	0.1332 ppb	09:51:19
3	Sc 361.383	1787845.7	1787845.7	99.754 %		09:52:32
3	Y 371.029	1075984.5	1075984.5	99.760 %		09:52:32
3	Ag 328.068†	3936.1	17.7	0.0676 µg/L	0.0676 ppb	09:52:34
3	As 188.979†	-20.4	-6.6	-2.0902 µg/L	-2.0902 ppb	09:52:54
3	B 249.677†	3418.0	23.0	0.3635 µg/L	0.3635 ppb	09:52:54
3	Ba 233.527†	-133.6	4.3	0.0183 µg/L	0.0183 ppb	09:52:54
3	Be 313.107†	-1121.6	-107.8	-0.0311 µg/L	-0.0311 ppb	09:52:34
3	Cd 226.502†	-83.2	26.3	0.1757 µg/L	0.1757 ppb	09:52:54
3	Co 228.616†	-165.2	6.0	0.0784 µg/L	0.0784 ppb	09:52:54
3	Cr 267.716†	184.0	3.7	0.0310 µg/L	0.0310 ppb	09:52:54
3	Cu 324.752†	2891.1	-79.2	-0.3266 µg/L	-0.3266 ppb	09:52:34
3	Mn 257.610†	244.4	52.0	0.0683 µg/L	0.0683 ppb	09:52:54
3	Mo 202.031†	-28.6	7.8	0.2443 µg/L	0.2443 ppb	09:52:54
3	Ni 231.604†	-80.8	16.6	0.2044 µg/L	0.2044 ppb	09:52:54
3	P 214.914†	-38.5	-15.3	-3.5289 µg/L	-3.5289 ppb	09:52:54
3	Pb 220.353†	52.8	-8.9	-0.5318 µg/L	-0.5318 ppb	09:52:54
3	S 181.975 Axial†	102.3	10.3	8.2584 µg/L	8.2584 ppb	09:52:54
3	Sb 206.836†	80.9	0.1	0.0163 µg/L	0.0163 ppb	09:52:54
3	Se 196.026†	16.6	-4.3	-1.66 µg/L	-1.66 ppb	09:52:54
3	SiO2†	1779.5	2.1	0.2030 µg/L	0.2030 ppb	09:52:54
3	Si 251.611†	932.8	7.0	0.1044 µg/L	0.1044 ppb	09:52:34
3	Sn 189.927†	3.0	5.5	0.3691 µg/L	0.3691 ppb	09:52:54
3	Ti 334.940†	920.5	-47.5	-0.0466 µg/L	-0.0466 ppb	09:52:34
3	Tl 190.801†	-107.6	8.9	1.1700 µg/L	1.1700 ppb	09:52:54
3	U 409.014†	-323.8	-6.1	-0.3855 µg/L	-0.3855 ppb	09:52:34
3	V 292.402†	286.8	-18.2	-0.0919 µg/L	-0.0919 ppb	09:52:34
3	Zn 213.857†	605.5	15.7	0.0931 µg/L	0.0931 ppb	09:52:54

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc. Units	Calib. Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1775494.5	99.065 %	0.7857			0.79%
Sc RADIAL	150197.9	100 %	1.5			1.53%
Y 371.029	1068644.3	99.080 %	0.7631			0.77%
Ag 328.068†	2.4	0.0168 µg/L	0.23921	0.0168 ppb	0.23921	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated						
Al 396.153Radial†	23.8	4.6528 µg/L	1.23843	4.6528 ppb	1.23843	26.62%
QC value within limits for Al 396.153Radial Recovery = Not calculated						
As 188.979†	-3.4	-1.0892 µg/L	1.14059	-1.0892 ppb	1.14059	104.72%
QC value within limits for As 188.979 Recovery = Not calculated						
B 249.677†	27.6	0.4352 µg/L	0.09356	0.4352 ppb	0.09356	21.50%
QC value within limits for B 249.677 Recovery = Not calculated						
Ba 233.527†	7.0	0.0297 µg/L	0.01548	0.0297 ppb	0.01548	52.06%
QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.107†	-44.4	-0.0112 µg/L	0.03436	-0.0112 ppb	0.03436	307.75%
QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 317.933Radial†	11.5	0.6878 µg/L	1.46488	0.6878 ppb	1.46488	212.97%
QC value within limits for Ca 317.933Radial Recovery = Not calculated						
Cd 226.502†	5.1	0.0336 µg/L	0.12802	0.0336 ppb	0.12802	381.12%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Co 228.616†	15.8	0.2076 µg/L	0.13273	0.2076 ppb	0.13273	63.94%

QC value within limits for Co 228.616 Recovery = Not calculated						
Cr 267.716†	13.8	0.1104 µg/L	0.16222	0.1104 ppb	0.16222	146.87%
QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-18.4	-0.0710 µg/L	0.31124	-0.0710 ppb	0.31124	438.14%
QC value within limits for Cu 324.752 Recovery = Not calculated						
Fe 238.204 Radial†	30.5	2.0219 µg/L	0.38185	2.0219 ppb	0.38185	18.89%
QC value within limits for Fe 238.204 Radial Recovery = Not calculated						
K 766.490 Radial†	-0.3	-0.1094 µg/L	30.85818	-0.1094 ppb	30.85818	>999.9%
QC value within limits for K 766.490 Radial Recovery = Not calculated						
Mg 279.077 IEC†	3.6	1.4454 µg/L	4.63666	1.4454 ppb	4.63666	320.78%
QC value within limits for Mg 279.077 IEC Recovery = Not calculated						
Mn 257.610†	41.7	0.0547 µg/L	0.02065	0.0547 ppb	0.02065	37.73%
QC value within limits for Mn 257.610 Recovery = Not calculated						
Mo 202.031†	7.5	0.2357 µg/L	0.06349	0.2357 ppb	0.06349	26.93%
QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 589.592 Radial†	189.7	28.042 µg/L	1.9688	28.042 ppb	1.9688	7.02%
QC value within limits for Na 589.592 Radial Recovery = Not calculated						
Ni 231.604†	9.0	0.1108 µg/L	0.10177	0.1108 ppb	0.10177	91.84%
QC value within limits for Ni 231.604 Recovery = Not calculated						
P 214.914†	-4.2	-0.9705 µg/L	2.38806	-0.9705 ppb	2.38806	246.05%
QC value within limits for P 214.914 Recovery = Not calculated						
Pb 220.353†	-3.0	-0.1825 µg/L	0.35285	-0.1825 ppb	0.35285	193.31%
QC value within limits for Pb 220.353 Recovery = Not calculated						
S 181.975 Axial†	3.8	3.0714 µg/L	4.50323	3.0714 ppb	4.50323	146.62%
QC value within limits for S 181.975 Axial Recovery = Not calculated						
Sb 206.836†	-1.1	-0.1426 µg/L	1.06762	-0.1426 ppb	1.06762	748.46%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	-7.3	-2.83 µg/L	1.489	-2.83 ppb	1.489	52.69%
QC value within limits for Se 196.026 Recovery = Not calculated						
SiO2†	2.4	0.2372 µg/L	0.04538	0.2372 ppb	0.04538	19.13%
QC value within limits for SiO2 Recovery = Not calculated						
Si 251.611†	75.3	1.1762 µg/L	1.59079	1.1762 ppb	1.59079	135.25%
QC value within limits for Si 251.611 Recovery = Not calculated						
Sn 189.927†	9.3	0.6192 µg/L	0.27974	0.6192 ppb	0.27974	45.18%
QC value within limits for Sn 189.927 Recovery = Not calculated						
Sr 421.552†	49.3	0.1087 µg/L	0.20886	0.1087 ppb	0.20886	192.06%
QC value within limits for Sr 421.552 Recovery = Not calculated						
Ti 334.940†	-76.6	-0.0779 µg/L	0.09203	-0.0779 ppb	0.09203	118.09%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Tl 190.801†	12.0	1.5734 µg/L	0.78191	1.5734 ppb	0.78191	49.70%
QC value within limits for Tl 190.801 Recovery = Not calculated						
U 409.014†	86.2	5.3601 µg/L	4.98581	5.3601 ppb	4.98581	93.02%
QC value within limits for U 409.014 Recovery = Not calculated						
V 292.402†	10.9	0.0629 µg/L	0.87804	0.0629 ppb	0.87804	>999.9%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 213.857†	22.6	0.1350 µg/L	0.04249	0.1350 ppb	0.04249	31.49%
QC value within limits for Zn 213.857 Recovery = Not calculated						
All analyte(s) passed QC.						

Daily Performance Report

Sample ID: Sample

Sample Date/Time: Sunday, April 11, 2010 14:25:07

Sample Description:

Method File: C:\elandata\Method\Daily2.mth

Dataset File: c:\elandata\Dataset\100125\Sample.718

Tuning File: c:\elandata\Tuning\default2.tun

Optimization File: c:\elandata\Optimize\default.dac

Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35

Current Dead Time (ns): 35

Summary

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
Be	9.0	1476.9	1476.876	69.851	4.7
Mg	24.0	20563.4	20563.391	243.887	1.2
Co	58.9	60201.8	60201.792	593.479	1.0
Rh	102.9	118302.4	118302.431	575.695	0.5
In	114.9	144990.3	144990.303	1225.130	0.8
Pb	208.0	62594.6	62594.639	440.991	0.7
[> Ba	137.9	132866.7	132866.686	904.406	0.7
[Ba++	69.0	2162.0	0.016	0.001	4.8
[> Ce	139.9	160176.6	160176.628	1412.329	0.9
[CeO	155.9	3192.0	0.020	0.000	1.4
Bkgd	220.0	7.3	7.300	1.789	24.5

Current Optimization File Data

Current Value	Description
0.88	Nebulizer Gas Flow
4.25	Lens Voltage
1000.00	ICP RF Power
-1750.00	Analog Stage Voltage
1100.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	5.5	1447.7
Co	59	13	6.0	52914.8
In	115	13	6.8	126833.9

ICPMS #4 TUNING REPORT

File Name: 100411.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	602	2085	0.624
Be	9.0	9.0	2054	2075	0.628
Mg	24.0	24.0	5659	2110	0.557
Mg	25.0	25.0	5959	2125	0.584
Mg	26.0	26.0	6140	2110	0.602
Co	58.9	58.9	14170	2165	0.603
Rh	102.9	102.9	24875	2255	0.608
In	114.9	114.8	27768	2285	0.615
Ce	139.9	139.9	33849	2320	0.631
Pb	206.0	206.0	49939	2485	0.628
Pb	207.0	207.0	50101	2400	0.596
Pb	208.0	208.0	50448	2480	0.675
U	238.1	238.0	57686	2500	0.623

ICPMS#4 - Summary Report

Sample ID: Blank
 Sample Date/Time: Monday, April 12, 2010 06:01:21
 Sample Type:
 Sample Description:
 Number of Replicates: 3
 Batch ID:
 Method File: c:\elandata\Method\6020.mth
 Dataset File: c:\elandata\Dataset\100408\Blank.582

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7		ug/L		30	
Be	9		ug/L		7	
B	11		ug/L		117	
Na	23		ug/L		9670	
Mg	24		ug/L		2000	
Al	27		ug/L		3000	
P	31		ug/L		2628	
K	39		ug/L		379326	
Ca	43		ug/L		208	
> Sc	45		ug/L		617415	
Ti	47		ug/L		185	
V	51		ug/L		15645	
Cr	52		ug/L		-10364	
Cr	53		ug/L		119918	
Mn	55		ug/L		675	
Fe	57		ug/L		4960	
Co	59		ug/L		157	
Ni	60		ug/L		75	
Cu	63		ug/L		1922	
Cu	65		ug/L		887	
Zn	66		ug/L		745	
Zn	67		ug/L		7004	
Zn	68		ug/L		1079	
> Ge	74		ug/L		250958	
As	75		ug/L		-25	
Se	77		ug/L		5521	
Se	82		ug/L		26	
Kr	83		ug/L		56	
Sr	88		ug/L		194	
Y	89		ug/L		20	
Zr	90		ug/L		512	
Mo	98		ug/L		425	
Ag	107		ug/L		168	
Cd	111		ug/L		21	
Cd	114		ug/L		47	
> In	115		ug/L		156932	
Sn	120		ug/L		944	
Sb	121		ug/L		644	
Sb	123		ug/L		530	
Ba	135		ug/L		23	
Ba	137		ug/L		39	
Ho	165		ug/L		8	
> Lu	175		ug/L		192070	
Tl	205		ug/L		2822	
Pb	208		ug/L		3693	
Th	232		ug/L		1597	
U	238		ug/L		614	

Sample ID: Blank
 Report Date/Time: Monday, April 12, 2010 06:04:06
 Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9998
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9997
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: Blank

Report Date/Time: Monday, April 12, 2010 06:04:06

Page 2

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45					
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74					
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115					
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175					
Tl	205					
Pb	208					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Monday, April 12, 2010 06:07:29

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\Standard 1.583

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	10.000	ug/L	1.808	6038	0.010
Be	9	10.000	ug/L	4.731	1576	0.002
B	11	20.000	ug/L	3.515	2884	0.004
Na	23	1000.000	ug/L	2.230	1624802	2.559
Mg	24	1000.000	ug/L	7.423	1187945	1.879
Al	27	1000.000	ug/L	13.543	1801610	2.852
P	31	1000.000	ug/L	0.191	99113	0.153
K	39	1000.000	ug/L	10.663	3193909	4.450
Ca	43	1000.000	ug/L	2.390	6247	0.010
> Sc	45		ug/L		630931	630931.391
Ti	47	10.000	ug/L	3.743	3165	0.005
V	51	10.000	ug/L	4.555	55145	0.062
Cr	52	10.000	ug/L	0.783	19700	0.048
Cr	53		ug/L		121952	-0.001
Mn	55	10.000	ug/L	2.922	50740	0.079
Fe	57	1000.000	ug/L	1.629	107903	0.163
Co	59	10.000	ug/L	1.513	39425	0.062
Ni	60	10.000	ug/L	0.570	8386	0.013
Cu	63		ug/L		21223	0.031
Cu	65	10.000	ug/L	1.425	10063	0.015
Zn	66	10.000	ug/L	2.728	5986	0.020
Zn	67		ug/L		7692	0.002
Zn	68		ug/L		4826	0.015
> Ge	74		ug/L		255957	255957.017
As	75	10.000	ug/L	7.706	6522	0.026
Se	77		ug/L		5719	0.000
Se	82	10.000	ug/L	12.690	531	0.002
Kr	83		ug/L		56	-0.000
Sr	88	10.000	ug/L	1.770	87941	0.554
Y	89		ug/L		25	0.000
Zr	90	10.000	ug/L	2.003	47347	0.295
Mo	98	10.000	ug/L	4.041	21084	0.130
Ag	107	10.000	ug/L	1.907	33581	0.211
Cd	111	10.000	ug/L	2.532	7740	0.049
Cd	114		ug/L		18467	0.116
> In	115		ug/L		158521	158520.575
Sn	120	10.000	ug/L	2.621	36156	0.222
Sb	121	10.000	ug/L	15.044	19995	0.122
Sb	123		ug/L		15550	0.095
Ba	135		ug/L		8408	0.043
Ba	137	10.000	ug/L	1.690	14575	0.074
Ho	165		ug/L		10	0.000
> Lu	175		ug/L		195776	195775.690
Tl	205	10.000	ug/L	1.026	55078	0.267
Pb	208	10.000	ug/L	1.543	107373	0.529
Th	232	10.000	ug/L	2.389	100242	0.504
U	238	10.000	ug/L	1.692	104490	0.531

Sample ID: Standard 1

Report Date/Time: Monday, April 12, 2010 06:10:12

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45					
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
L Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74					
As	75					
Se	77					
Se	82					
L Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115					
Sn	120					
Sb	121					
L Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175					
Tl	205					
Pb	208					
Th	232					
L U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Monday, April 12, 2010 06:13:35

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\Standard 2.584

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	100.030	ug/L	1.271	60116	0.098
Be	9	100.013	ug/L	0.912	15439	0.025
B	11	200.032	ug/L	0.639	27381	0.045
Na	23	9998.160	ug/L	3.207	15388364	25.127
Mg	24	10004.265	ug/L	1.990	12022382	19.635
Al	27	9990.466	ug/L	4.809	15931744	26.017
P	31	10001.187	ug/L	0.476	949490	1.547
K	39	9999.193	ug/L	4.316	27391339	44.142
Ca	43	9999.899	ug/L	0.510	58687	0.096
> Sc	45		ug/L		612127	612127.164
Ti	47	100.009	ug/L	1.293	29312	0.048
V	51	100.038	ug/L	1.916	410554	0.645
Cr	52	100.001	ug/L	1.466	283999	0.481
Cr	53		ug/L		126726	0.013
Mn	55	99.999	ug/L	1.269	485890	0.793
Fe	57	9999.103	ug/L	2.187	993647	1.615
Co	59	99.987	ug/L	1.331	376108	0.614
Ni	60	99.990	ug/L	0.397	79864	0.130
Cu	63		ug/L		184894	0.299
Cu	65	99.993	ug/L	1.242	89092	0.144
Zn	66	100.028	ug/L	2.582	53123	0.210
Zn	67		ug/L		13805	0.027
Zn	68		ug/L		38905	0.152
> Ge	74		ug/L		249365	249365.172
As	75	99.965	ug/L	2.294	61595	0.247
Se	77		ug/L		7977	0.010
Se	82	100.131	ug/L	2.007	5678	0.023
Kr	83		ug/L		50	-0.000
Sr	88	100.002	ug/L	0.330	853588	5.549
Y	89		ug/L		105	0.001
Zr	90	100.030	ug/L	1.446	468908	3.046
Mo	98	100.037	ug/L	2.715	208537	1.353
Ag	107	99.991	ug/L	1.626	321331	2.089
Cd	111	100.024	ug/L	1.356	76736	0.499
Cd	114		ug/L		182756	1.188
> In	115		ug/L		153788	153787.743
Sn	120	100.008	ug/L	1.304	345258	2.239
Sb	121	100.201	ug/L	12.132	236266	1.532
Sb	123		ug/L		181940	1.179
Ba	135		ug/L		82247	0.436
Ba	137	100.009	ug/L	2.706	141412	0.749
Ho	165		ug/L		11	0.000
> Lu	175		ug/L		188785	188784.539
Tl	205	100.041	ug/L	0.439	527721	2.781
Pb	208	100.009	ug/L	1.848	1012049	5.342
Th	232	100.071	ug/L	1.196	1025979	5.427
U	238	100.015	ug/L	0.764	1018258	5.391

Sample ID: Standard 2

Report Date/Time: Monday, April 12, 2010 06:16:18

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9999
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
|	Li	7				
|	Be	9				
|	B	11				
|	Na	23				
|	Mg	24				
|	Al	27				
|	P	31				
|	K	39				
|	Ca	43				
>	Sc	45				
|	Ti	47				
|	V	51				
|	Cr	52				
|	Cr	53				
|	Mn	55				
|	Fe	57				
|	Co	59				
|	Ni	60				
|	Cu	63				
|	Cu	65				
|	Zn	66				
|	Zn	67				
|	Zn	68				
>	Ge	74				
|	As	75				
|	Se	77				
|	Se	82				
|	Kr	83				
|	Sr	88				
|	Y	89				
|	Zr	90				
|	Mo	98				
|	Ag	107				
|	Cd	111				
|	Cd	114				
>	In	115				
|	Sn	120				
|	Sb	121				
|	Sb	123				
|	Ba	135				
|	Ba	137				
|	Ho	165				
>	Lu	175				
|	Tl	205				
|	Pb	208				
|	Th	232				
|	U	238				

QC Out Of Limits

Measurement Type Analyte

MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: Standard 2

Report Date/Time: Monday, April 12, 2010 06:16:18

Page 3

ICPMS#4 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Monday, April 12, 2010 06:19:41

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\QC Std 1.585

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	51.200	ug/L	0.700	31244	0.050
Be	9	51.620	ug/L	1.178	8092	0.013
B	11	101.831	ug/L	1.880	14206	0.023
Na	23	5272.656	ug/L	7.507	8245692	13.251
Mg	24	4836.468	ug/L	2.836	5899082	9.493
Al	27	5174.406	ug/L	8.591	8374342	13.475
P	31	4894.769	ug/L	1.644	472998	0.757
K	39	5099.171	ug/L	4.775	14365313	22.511
Ca	43	4897.324	ug/L	0.760	29279	0.047
Sc	45		ug/L		621318	621317.973
Ti	47	51.312	ug/L	1.760	15356	0.024
V	51	50.920	ug/L	1.953	219852	0.329
Cr	52	51.681	ug/L	0.893	143929	0.248
Cr	53		ug/L		113493	-0.012
Mn	55	53.234	ug/L	1.099	262853	0.422
Fe	57	4968.139	ug/L	1.668	503647	0.803
Co	59	50.488	ug/L	1.856	192839	0.310
Ni	60	52.446	ug/L	2.925	42548	0.068
Cu	63		ug/L		98862	0.156
Cu	65	51.748	ug/L	1.196	47229	0.075
Zn	66	53.277	ug/L	1.788	28645	0.112
Zn	67		ug/L		10006	0.012
Zn	68		ug/L		21153	0.081
Ge	74		ug/L		249385	249384.584
As	75	52.793	ug/L	2.355	32519	0.131
Se	77		ug/L		6241	0.003
Se	82	54.633	ug/L	1.420	3110	0.012
Kr	83		ug/L		49	-0.000
Sr	88	51.785	ug/L	1.868	449418	2.874
Y	89		ug/L		40	0.000
Zr	90	48.844	ug/L	1.403	233060	1.487
Mo	98	49.434	ug/L	2.002	104987	0.669
Ag	107	52.136	ug/L	1.334	170442	1.089
Cd	111	51.766	ug/L	1.316	40388	0.258
Cd	114		ug/L		94709	0.605
In	115		ug/L		156356	156355.696
Sn	120	49.993	ug/L	2.087	175938	1.119
Sb	121	62.556	ug/L	1.574	150181	0.956
Sb	123		ug/L		116420	0.741
Ba	135		ug/L		41676	0.220
Ba	137	51.659	ug/L	3.683	73143	0.387
Ho	165		ug/L		10	0.000
Lu	175		ug/L		189022	189021.731
Tl	205	49.513	ug/L	1.635	262935	1.376
Pb	208	52.011	ug/L	1.746	528728	2.778
Th	232	52.156	ug/L	0.249	536156	2.828
U	238	53.508	ug/L	2.118	545706	2.884

Sample ID: QC Std 1

Report Date/Time: Monday, April 12, 2010 06:22:24

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9999
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std	% Recovery	Int Std	% Recovery	Spike	% Recovery	Dilution	% Diff	Dup. Rel.	% Diff
Li	7		102.400								
Be	9		103.240								
B	11		101.831								
Na	23		105.453								
Mg	24		96.729								
Al	27		102.463								
P	31		97.895								
K	39		101.983								
Ca	43		97.946								
> Sc	45						100.6				
Ti	47		102.624								
V	51		101.841								
Cr	52		103.362								
Cr	53										
Mn	55		106.468								
Fe	57		99.363								
Co	59		100.976								
Ni	60		104.891								
Cu	63										
Cu	65		103.495								
Zn	66		106.555								
Zn	67										
Zn	68										
> Ge	74						99.4				
As	75		105.586								
Se	77										
Se	82		109.266								
Kr	83										
Sr	88		103.571								
Y	89										
Zr	90		97.689								
Mo	98		98.868								
Ag	107		104.273								
Cd	111		103.532								
Cd	114										
> In	115						99.6				
Sn	120		99.986								
Sb	121		125.113								
Sb	123										
Ba	135										
Ba	137		103.317								
Ho	165										
> Lu	175						98.4				
Tl	205		99.026								
Pb	208		104.023								
Th	232		104.311								
U	238		107.017								

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 1	Sb	121ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

Sample ID: QC Std 1
 Report Date/Time: Monday, April 12, 2010 06:22:24
 Page 3

ICPMS#4 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Monday, April 12, 2010 06:25:50

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\QC Std 2.586

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.018	ug/L	44.699	42	0.000
Be	9	0.004	ug/L	433.715	8	0.000
B	11	1.661	ug/L	17.900	348	0.000
Na	23	2.086	ug/L	122.087	13006	0.005
Mg	24	0.260	ug/L	179.412	2334	0.001
Al	27	1.841	ug/L	58.669	6001	0.005
P	31	4.312	ug/L	65.916	3063	0.001
K	39	-0.568	ug/L	3595.395	380747	-0.003
Ca	43	1.198	ug/L	180.957	217	0.000
> Sc	45		ug/L		622100	622100.311
Ti	47	0.012	ug/L	285.875	190	0.000
V	51	0.099	ug/L	439.622	16156	0.001
Cr	52	0.068	ug/L	26.192	-10239	0.000
Cr	53		ug/L		117446	-0.005
Mn	55	0.011	ug/L	46.853	737	0.000
Fe	57	3.684	ug/L	28.673	5368	0.001
Co	59	0.009	ug/L	29.148	192	0.000
Ni	60	0.001	ug/L	2678.491	76	0.000
Cu	63		ug/L		1872	-0.000
Cu	65	-0.007	ug/L	374.551	887	-0.000
Zn	66	0.380	ug/L	72.403	942	0.001
Zn	67		ug/L		6916	-0.000
Zn	68		ug/L		1097	0.000
> Ge	74		ug/L		250096	250096.384
As	75	0.362	ug/L	16.623	199	0.001
Se	77		ug/L		5304	-0.001
Se	82	1.179	ug/L	6.675	93	0.000
Kr	83		ug/L		59	0.000
Sr	88	0.010	ug/L	39.486	276	0.001
Y	89		ug/L		17	-0.000
Zr	90	0.253	ug/L	19.630	1698	0.008
Mo	98	0.497	ug/L	6.686	1462	0.007
Ag	107	0.069	ug/L	7.533	390	0.001
Cd	111	0.015	ug/L	81.645	32	0.000
Cd	114		ug/L		76	0.000
> In	115		ug/L		154995	154995.109
Sn	120	0.143	ug/L	13.247	1429	0.003
Sb	121	2.440	ug/L	16.936	6417	0.037
Sb	123		ug/L		4926	0.028
Ba	135		ug/L		38	0.000
Ba	137	0.007	ug/L	57.596	48	0.000
Ho	165		ug/L		10	0.000
> Lu	175		ug/L		189053	189052.748
Tl	205	0.362	ug/L	35.232	4669	0.010
Pb	208	0.016	ug/L	67.713	3792	0.001
Th	232	0.411	ug/L	25.168	5768	0.022
U	238	0.032	ug/L	22.952	925	0.002

Sample ID: QC Std 2

Report Date/Time: Monday, April 12, 2010 06:28:35

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9999
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Li	7				
|	Be	9				
|	B	11				
|	Na	23				
|	Mg	24				
|	Al	27				
|	P	31				
|	K	39				
|	Ca	43				
>	Sc	45	100.8			
|	Ti	47				
|	V	51				
|	Cr	52				
|	Cr	53				
|	Mn	55				
|	Fe	57				
|	Co	59				
|	Ni	60				
|	Cu	63				
|	Cu	65				
|	Zn	66				
|	Zn	67				
|	Zn	68				
>	Ge	74	99.7			
|	As	75				
|	Se	77				
|	Se	82				
|	Kr	83				
|	Sr	88				
|	Y	89				
|	Zr	90				
|	Mo	98				
|	Ag	107				
|	Cd	111				
|	Cd	114				
>	In	115	98.8			
|	Sn	120				
|	Sb	121				
|	Sb	123				
|	Ba	135				
|	Ba	137				
|	Ho	165				
>	Lu	175	98.4			
|	Tl	205				
|	Pb	208				
|	Th	232				
|	U	238				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Monday, April 12, 2010 06:31:59

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\QC Std 3.587

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	12.345	ug/L	1.820	7255	0.012
Be	9	0.587	ug/L	13.032	95	0.000
B	11	17.409	ug/L	2.872	2425	0.004
Na	23	324.116	ug/L	6.406	495473	0.815
Mg	24	23.399	ug/L	25.069	29365	0.046
Al	27	38.804	ug/L	13.821	63141	0.101
P	31	53.862	ug/L	3.567	7510	0.008
K	39	352.853	ug/L	2.592	1295911	1.558
Ca	43	239.682	ug/L	2.945	1567	0.002
> Sc	45		ug/L		596610	596610.327
Ti	47	9.768	ug/L	1.170	2952	0.005
V	51	11.746	ug/L	8.732	60306	0.076
Cr	52	12.509	ug/L	1.960	25862	0.060
Cr	53		ug/L		99571	-0.027
Mn	55	6.325	ug/L	0.514	30563	0.050
Fe	57	125.452	ug/L	3.235	16882	0.020
Co	59	1.178	ug/L	2.983	4467	0.007
Ni	60	2.440	ug/L	3.751	1970	0.003
Cu	63		ug/L		3866	0.003
Cu	65	1.231	ug/L	2.377	1915	0.002
Zn	66	14.087	ug/L	2.255	8009	0.030
Zn	67		ug/L		6590	-0.001
Zn	68		ug/L		6167	0.021
> Ge	74		ug/L		246013	246013.077
As	75	6.168	ug/L	8.389	3726	0.015
Se	77		ug/L		4138	-0.005
Se	82	5.149	ug/L	13.903	312	0.001
Kr	83		ug/L		47	-0.000
Sr	88	12.116	ug/L	1.808	103173	0.672
Y	89		ug/L		22	0.000
Zr	90	2.122	ug/L	0.604	10399	0.065
Mo	98	0.659	ug/L	3.825	1780	0.009
Ag	107	1.081	ug/L	0.922	3625	0.023
Cd	111	1.202	ug/L	4.018	938	0.006
Cd	114		ug/L		2228	0.014
> In	115		ug/L		153205	153204.539
Sn	120	5.572	ug/L	1.578	20038	0.125
Sb	121	2.708	ug/L	9.556	6976	0.041
Sb	123		ug/L		5411	0.032
Ba	135		ug/L		1933	0.010
Ba	137	2.384	ug/L	2.941	3337	0.018
Ho	165		ug/L		11	0.000
> Lu	175		ug/L		184805	184805.231
Tl	205	1.043	ug/L	2.483	8074	0.029
Pb	208	2.302	ug/L	2.204	26274	0.123
Th	232	1.147	ug/L	4.304	13027	0.062
U	238	0.289	ug/L	5.367	3467	0.016

Sample ID: QC Std 3

Report Date/Time: Monday, April 12, 2010 06:34:43

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9999
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Li	7	123.445				
|	Be	9	117.443				
|	B	11	116.063				
|	Na	23	129.646				
|	Mg	24	155.993				
|	Al	27	129.347				
|	P	31	107.724				
|	K	39	117.618				
|	Ca	43	119.841				
>	Sc	45		96.6			
|	Ti	47	97.676				
|	V	51	117.457				
|	Cr	52	125.086				
|	Cr	53					
|	Mn	55	126.493				
|	Fe	57	125.452				
|	Co	59	117.764				
|	Ni	60	122.015				
|	Cu	63					
|	Cu	65	123.123				
|	Zn	66	140.874				
|	Zn	67					
|	Zn	68					
>	Ge	74		98.0			
|	As	75	123.359				
|	Se	77					
|	Se	82	102.984				
|	Kr	83					
|	Sr	88	121.158				
|	Y	89					
|	Zr	90	106.085				
|	Mo	98	131.703				
|	Ag	107	108.141				
|	Cd	111	120.165				
|	Cd	114					
>	In	115		97.6			
|	Sn	120	111.440				
|	Sb	121	90.257				
|	Sb	123					
|	Ba	135					
|	Ba	137	119.224				
|	Ho	165					
>	Lu	175		96.2			
|	Tl	205	104.345				
|	Pb	208	115.084				
|	Th	232	114.687				
|	U	238	144.404				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Mg	24	CRDL is out of limits
QC Std 3	Zn	66	CRDL is out of limits
QC Std 3	Mo	98	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

Sample ID: QC Std 3

Report Date/Time: Monday, April 12, 2010 06:34:43

Page 3

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Monday, April 12, 2010 06:38:07

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\QC Std 4.588

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.080	ug/L	14.278	79	0.000
Be	9	0.088	ug/L	33.316	21	0.000
B	11	1.021	ug/L	12.513	257	0.000
Na	23	104069.246	ug/L	4.010	161423395	261.543
Mg	24	84674.980	ug/L	4.403	102499885	166.191
Al	27	90861.115	ug/L	4.682	145921913	236.615
P	31	87903.756	ug/L	1.492	8389649	13.596
K	39	95159.225	ug/L	3.647	259565548	420.090
Ca	43	95096.283	ug/L	1.415	560666	0.909
Sc	45		ug/L		616936	616935.698
Ti	47	1640.600	ug/L	2.120	481822	0.781
V	51	-0.734	ug/L	94.347	12687	-0.005
Cr	52	2.261	ug/L	4.059	-3648	0.011
Cr	53		ug/L		110044	-0.016
Mn	55	5.989	ug/L	2.624	29958	0.047
Fe	57	95795.703	ug/L	1.718	9551409	15.476
Co	59	0.226	ug/L	2.908	1012	0.001
Ni	60	3.291	ug/L	2.064	2722	0.004
Cu	63		ug/L		7283	0.009
Cu	65	3.444	ug/L	2.642	3948	0.005
Zn	66	5.685	ug/L	5.861	3699	0.012
Zn	67		ug/L		7791	0.003
Zn	68		ug/L		2038	0.004
Ge	74		ug/L		248132	248131.877
As	75	0.949	ug/L	139.161	559	0.002
Se	77		ug/L		6254	0.003
Se	82	0.664	ug/L	59.536	63	0.000
Kr	83		ug/L		141	0.000
Sr	88	2.942	ug/L	2.269	25070	0.163
Y	89		ug/L		242	0.001
Zr	90	0.901	ug/L	40.037	4678	0.027
Mo	98	1989.852	ug/L	1.307	4103725	26.922
Ag	107	0.103	ug/L	3.683	492	0.002
Cd	111	0.189	ug/L	52.986	163	0.001
Cd	114		ug/L		4537	0.029
In	115		ug/L		152420	152419.817
Sn	120	1.048	ug/L	4.768	4493	0.023
Sb	121	1.615	ug/L	26.003	4387	0.025
Sb	123		ug/L		3330	0.018
Ba	135		ug/L		634	0.003
Ba	137	0.705	ug/L	2.953	1052	0.005
Ho	165		ug/L		3880	0.020
Lu	175		ug/L		191964	191964.203
Tl	205	-0.142	ug/L	6.214	2061	-0.004
Pb	208	0.209	ug/L	7.357	5833	0.011
Th	232	0.415	ug/L	39.786	5906	0.023
U	238	-0.041	ug/L	11.180	190	-0.002

Sample ID: QC Std 4

Report Date/Time: Monday, April 12, 2010 06:40:51

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9999
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Li	7				
|	Be	9				
|	B	11				
|	Na	23	104.069			
|	Mg	24	84.675			
|	Al	27	90.861			
|	P	31	87.904			
|	K	39	95.159			
|	Ca	43	95.096			
>	Sc	45		99.9		
|	Ti	47	82.030			
|	V	51				
|	Cr	52	68.508			
|	Cr	53				
|	Mn	55	103.253			
|	Fe	57	95.796			
|	Co	59	96.020			
|	Ni	60	99.428			
|	Cu	63				
|	Cu	65	103.104			
|	Zn	66	151.189			
|	Zn	67				
|	Zn	68				
>	Ge	74		98.9		
|	As	75				
|	Se	77				
|	Se	82				
|	Kr	83				
|	Sr	88	99.377			
|	Y	89				
|	Zr	90				
|	Mo	98	99.493			
|	Ag	107				
|	Cd	111	42.519			
|	Cd	114				
>	In	115		97.1		
|	Sn	120				
|	Sb	121				
|	Sb	123				
|	Ba	135				
|	Ba	137	88.344			
|	Ho	165				
>	Lu	175		99.9		
|	Tl	205				
|	Pb	208	110.521			
|	Th	232				
|	U	238				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 4

Report Date/Time: Monday, April 12, 2010 06:40:51

Page 3

ICPMS#4 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Monday, April 12, 2010 06:44:15

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\QC Std 5.589

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	18.223	ug/L	1.950	10978	0.018
Be	9	18.438	ug/L	2.073	2853	0.005
B	11	17.699	ug/L	1.617	2529	0.004
Na	23	102160.020	ug/L	4.252	157187795	256.745
Mg	24	87552.328	ug/L	0.976	105233215	171.839
Al	27	97251.930	ug/L	5.206	155030646	253.257
P	31	90448.582	ug/L	0.896	8569311	13.990
K	39	100859.998	ug/L	5.766	272981714	445.256
Ca	43	97402.717	ug/L	0.238	570041	0.931
Sc	45		ug/L		612346	612346.019
Ti	47	1659.273	ug/L	0.965	483708	0.790
V	51	20.166	ug/L	4.754	95210	0.130
Cr	52	22.088	ug/L	2.084	54743	0.106
Cr	53		ug/L		117289	-0.003
Mn	55	25.846	ug/L	1.852	126135	0.205
Fe	57	97524.949	ug/L	2.223	9654153	15.756
Co	59	19.551	ug/L	0.883	73702	0.120
Ni	60	22.374	ug/L	1.431	17936	0.029
Cu	63		ug/L		42360	0.066
Cu	65	22.342	ug/L	0.792	20596	0.032
Zn	66	22.971	ug/L	1.732	12851	0.048
Zn	67		ug/L		9426	0.010
Zn	68		ug/L		8831	0.031
Ge	74		ug/L		250905	250905.353
As	75	20.737	ug/L	2.212	12836	0.051
Se	77		ug/L		7580	0.008
Se	82	20.736	ug/L	2.299	1204	0.005
Kr	83		ug/L		144	0.000
Sr	88	23.402	ug/L	2.057	202801	1.299
Y	89		ug/L		263	0.002
Zr	90	20.398	ug/L	1.562	97423	0.621
Mo	98	1977.794	ug/L	1.423	4175563	26.759
Ag	107	19.413	ug/L	0.946	63438	0.406
Cd	111	19.002	ug/L	0.865	14809	0.095
Cd	114		ug/L		39582	0.253
In	115		ug/L		156025	156024.521
Sn	120	19.947	ug/L	1.348	70622	0.447
Sb	121	22.022	ug/L	4.180	53175	0.337
Sb	123		ug/L		40666	0.257
Ba	135		ug/L		16942	0.088
Ba	137	20.225	ug/L	0.414	29143	0.151
Ho	165		ug/L		3910	0.020
Lu	175		ug/L		192147	192146.614
Tl	205	17.494	ug/L	3.081	96233	0.486
Pb	208	18.844	ug/L	1.244	197100	1.007
Th	232	19.667	ug/L	1.158	206505	1.066
U	238	19.902	ug/L	1.513	206711	1.073

Sample ID: QC Std 5

Report Date/Time: Monday, April 12, 2010 06:46:59

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9999
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
|	Li	7	91.114				
|	Be	9	92.192				
|	B	11	88.496				
|	Na	23	102.160				
|	Mg	24	87.552				
|	Al	27	97.252				
|	P	31	90.449				
|	K	39	100.860				
|	Ca	43	97.403				
>	Sc	45		99.2			
|	Ti	47	82.964				
|	V	51	100.831				
|	Cr	52	94.799				
|	Cr	53					
|	Mn	55	100.178				
|	Fe	57	97.525				
|	Co	59	96.619				
|	Ni	60	95.985				
|	Cu	63					
|	Cu	65	95.722				
|	Zn	66	96.677				
|	Zn	67					
|	Zn	68					
>	Ge	74		100.0			
|	As	75	103.683				
|	Se	77					
|	Se	82	103.679				
|	Kr	83					
|	Sr	88	101.927				
|	Y	89					
|	Zr	90	101.988				
|	Mo	98	98.890				
|	Ag	107	97.067				
|	Cd	111	92.949				
|	Cd	114					
>	In	115		99.4			
|	Sn	120	99.733				
|	Sb	121	110.110				
|	Sb	123					
|	Ba	135					
|	Ba	137	97.243				
|	Ho	165					
>	Lu	175		100.0			
|	Tl	205	87.470				
|	Pb	208	93.337				
|	Th	232	98.335				
|	U	238	99.509				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 5

Report Date/Time: Monday, April 12, 2010 06:46:59

Page 3

ICPMS#4 - Summary Report

Sample ID: QC Std 6
 Sample Date/Time: Monday, April 12, 2010 06:50:24
 Sample Type:
 Sample Description:
 Number of Replicates: 3
 Batch ID:
 Method File: c:\elandata\Method\6020.mth
 Dataset File: c:\elandata\Dataset\100408\QC Std 6.590

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	48.646	ug/L	1.230	30425	0.048
Be	9	49.650	ug/L	2.044	7976	0.013
B	11	94.735	ug/L	0.947	13552	0.021
Na	23	5529.004	ug/L	4.429	8858481	13.895
Mg	24	4788.104	ug/L	3.530	5987168	9.398
Al	27	5034.972	ug/L	5.389	8351570	13.112
P	31	4893.337	ug/L	1.610	484643	0.757
K	39	4800.594	ug/L	3.388	13882005	21.193
Ca	43	4908.737	ug/L	1.055	30078	0.047
> Sc	45		ug/L		636770	636770.126
Ti	47	53.193	ug/L	1.872	16307	0.025
V	51	50.516	ug/L	4.053	223591	0.326
Cr	52	51.866	ug/L	3.694	148032	0.249
Cr	53		ug/L		116425	-0.011
Mn	55	53.234	ug/L	1.254	269378	0.422
Fe	57	5014.865	ug/L	1.615	520945	0.810
Co	59	50.687	ug/L	1.186	198412	0.311
Ni	60	53.462	ug/L	0.990	44453	0.070
Cu	63		ug/L		105713	0.163
Cu	65	53.923	ug/L	1.181	50397	0.078
Zn	66	54.559	ug/L	1.165	30526	0.115
Zn	67		ug/L		10454	0.012
Zn	68		ug/L		22295	0.082
> Ge	74		ug/L		259668	259668.125
As	75	52.178	ug/L	1.453	33463	0.129
Se	77		ug/L		6631	0.004
Se	82	51.177	ug/L	4.968	3035	0.012
Kr	83		ug/L		53	-0.000
Sr	88	52.279	ug/L	0.592	466227	2.901
Y	89		ug/L		44	0.000
Zr	90	49.018	ug/L	2.238	240306	1.493
Mo	98	51.377	ug/L	2.511	112096	0.695
Ag	107	52.650	ug/L	1.804	176841	1.100
Cd	111	52.170	ug/L	0.590	41824	0.260
Cd	114		ug/L		96981	0.603
> In	115		ug/L		160649	160649.384
Sn	120	50.228	ug/L	1.395	181632	1.125
Sb	121	57.768	ug/L	4.003	142533	0.883
Sb	123		ug/L		110303	0.683
Ba	135		ug/L		43487	0.225
Ba	137	52.170	ug/L	0.780	75588	0.391
Ho	165		ug/L		14	0.000
> Lu	175		ug/L		193356	193356.372
Tl	205	49.905	ug/L	0.787	271043	1.387
Pb	208	51.188	ug/L	0.582	532438	2.734
Th	232	51.334	ug/L	0.813	539850	2.784
U	238	53.116	ug/L	2.432	554141	2.863

Sample ID: QC Std 6
 Report Date/Time: Monday, April 12, 2010 06:53:08
 Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9999
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	97.292				
Be	9	99.300				
B	11	94.735				
Na	23	110.580				
Mg	24	95.762				
Al	27	99.702				
P	31	97.867				
K	39	96.012				
Ca	43	98.175				
> Sc	45		103.1			
Ti	47	106.385				
V	51	101.032				
Cr	52	103.732				
Cr	53					
Mn	55	106.468				
Fe	57	100.297				
Co	59	101.373				
Ni	60	106.923				
Cu	63					
Cu	65	107.847				
Zn	66	109.119				
Zn	67					
Zn	68					
> Ge	74		103.5			
As	75	104.356				
Se	77					
Se	82	102.355				
Kr	83					
Sr	88	104.559				
Y	89					
Zr	90	98.036				
Mo	98	102.754				
Ag	107	105.299				
Cd	111	104.340				
Cd	114					
> In	115		102.4			
Sn	120	100.456				
Sb	121	115.535				
Sb	123					
Ba	135					
Ba	137	104.339				
Ho	165					
> Lu	175		100.7			
Tl	205	99.809				
Pb	208	102.375				
Th	232	102.668				
U	238	106.232				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Na	23	23CCV is out of limits (+/- 10%)
QC Std 6	Sb	121	121CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

Sample ID: QC Std 6
 Report Date/Time: Monday, April 12, 2010 06:53:08
 Page 3

ICPMS#4 - Summary Report

Sample ID: QC Std 7
 Sample Date/Time: Monday, April 12, 2010 06:56:34
 Sample Type:
 Sample Description:
 Number of Replicates: 3
 Batch ID:
 Method File: c:\elandata\Method\6020.mth
 Dataset File: c:\elandata\Dataset\100408\QC Std 7.591

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.046	ug/L	48.446	59	0.000
Be	9	0.001	ug/L	1806.137	8	0.000
B	11	0.960	ug/L	24.592	254	0.000
Na	23	10.858	ug/L	52.487	27027	0.027
Mg	24	4.023	ug/L	61.720	7002	0.008
Al	27	4.025	ug/L	9.815	9670	0.010
P	31	8.531	ug/L	25.718	3516	0.001
K	39	-6.974	ug/L	150.928	368035	-0.031
Ca	43	14.635	ug/L	17.755	301	0.000
> Sc	45		ug/L		630531	630531.158
Ti	47	0.646	ug/L	3.066	382	0.000
V	51	-0.353	ug/L	301.293	14537	-0.002
Cr	52	0.200	ug/L	36.203	-9978	0.001
Cr	53		ug/L		118129	-0.007
Mn	55	0.024	ug/L	21.723	807	0.000
Fe	57	11.945	ug/L	13.579	6283	0.002
Co	59	0.007	ug/L	62.802	188	0.000
Ni	60	0.017	ug/L	44.306	91	0.000
Cu	63		ug/L		1995	0.000
Cu	65	0.114	ug/L	6.011	1009	0.000
Zn	66	-0.007	ug/L	525.806	764	-0.000
Zn	67		ug/L		6862	-0.001
Zn	68		ug/L		1025	-0.000
> Ge	74		ug/L		258343	258342.567
As	75	0.753	ug/L	108.159	455	0.002
Se	77		ug/L		5817	0.001
Se	82	0.962	ug/L	15.878	83	0.000
Kr	83		ug/L		54	-0.000
Sr	88	0.008	ug/L	11.798	271	0.000
Y	89		ug/L		17	-0.000
Zr	90	0.146	ug/L	27.333	1237	0.004
Mo	98	0.659	ug/L	13.072	1866	0.009
Ag	107	0.052	ug/L	14.171	346	0.001
Cd	111	0.014	ug/L	76.387	32	0.000
Cd	114		ug/L		66	0.000
> In	115		ug/L		160633	160632.617
Sn	120	0.106	ug/L	22.180	1346	0.002
Sb	121	1.322	ug/L	20.483	3899	0.020
Sb	123		ug/L		2938	0.015
Ba	135		ug/L		31	0.000
Ba	137	0.006	ug/L	63.226	47	0.000
Ho	165		ug/L		6	-0.000
> Lu	175		ug/L		192082	192082.087
Tl	205	0.141	ug/L	46.136	3570	0.004
Pb	208	0.049	ug/L	15.067	4195	0.003
Th	232	0.208	ug/L	32.234	3760	0.011
U	238	0.022	ug/L	37.138	839	0.001

Sample ID: QC Std 7
 Report Date/Time: Monday, April 12, 2010 06:59:19
 Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9999
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: QC Std 7

Report Date/Time: Monday, April 12, 2010 06:59:19

Page 2

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		102.1			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		102.9			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		102.4			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		100.0			
Tl	205					
Pb	208					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 7	Mo	98CCB is out of limits (+/- PQL)

QC Action

QC Action Line: Continue

Sample ID: QC Std 7
 Report Date/Time: Monday, April 12, 2010 06:59:19
 Page 3

ICPMS#4 - Summary Report

Sample ID: QC Std 10

Sample Date/Time: Monday, April 12, 2010 07:02:43

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\QC Std 10.592

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	930.940	ug/L	0.733	556685	0.913
Be	9	942.409	ug/L	1.266	144776	0.238
B	11	0.370	ug/L	10.067	165	0.000
Na	23	54578.136	ug/L	4.579	83613867	137.164
Mg	24	46698.700	ug/L	3.792	55862437	91.655
Al	27	49472.661	ug/L	7.127	78517284	128.834
P	31	22784.464	ug/L	1.414	2150335	3.524
K	39	47502.766	ug/L	5.999	128198921	209.706
Ca	43	48072.850	ug/L	2.026	280116	0.459
Sc	45		ug/L		609402	609402.212
Ti	47	37.178	ug/L	1.087	10964	0.018
V	51	921.087	ug/L	0.975	3636902	5.943
Cr	52	938.804	ug/L	1.191	2740140	4.513
Cr	53		ug/L		445334	0.537
Mn	55	933.582	ug/L	1.486	4510803	7.401
Fe	57	47525.866	ug/L	0.196	4683871	7.678
Co	59	914.520	ug/L	0.421	3423627	5.618
Ni	60	927.461	ug/L	1.145	736901	1.209
Cu	63		ug/L		1660410	2.722
Cu	65	931.901	ug/L	1.862	819411	1.343
Zn	66	2216.025	ug/L	0.989	1140648	4.654
Zn	67		ug/L		187198	0.736
Zn	68		ug/L		823123	3.357
Ge	74		ug/L		244908	244907.585
As	75	942.326	ug/L	1.156	570478	2.329
Se	77		ug/L		25889	0.084
Se	82	507.730	ug/L	1.302	28172	0.115
Kr	83		ug/L		83	0.000
Sr	88	952.442	ug/L	1.415	8009362	52.850
Y	89		ug/L		247	0.002
Zr	90	479.887	ug/L	1.889	2214979	14.613
Mo	98	938.695	ug/L	2.543	1924983	12.700
Ag	107	244.259	ug/L	1.389	773190	5.102
Cd	111	947.243	ug/L	0.808	715933	4.725
Cd	114		ug/L		1672286	11.036
In	115		ug/L		151525	151525.231
Sn	120	949.230	ug/L	1.860	3221287	21.254
Sb	121	316.675	ug/L	1.802	734262	4.842
Sb	123		ug/L		568970	3.752
Ba	135		ug/L		796320	4.077
Ba	137	936.750	ug/L	1.725	1370324	7.016
Ho	165		ug/L		93	0.000
Lu	175		ug/L		195318	195318.490
Tl	205	447.475	ug/L	1.042	2432196	12.438
Pb	208	4568.522	ug/L	1.732	47668111	244.049
Th	232	2356.147	ug/L	3.130	24957497	127.766
U	238	4827.921	ug/L	0.976	50825439	260.228

Sample ID: QC Std 10

Report Date/Time: Monday, April 12, 2010 07:05:25

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9999
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: QC Std 10

Report Date/Time: Monday, April 12, 2010 07:05:25

Page 2

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	93.094				
Be	9	94.241				
B	11					
Na	23	109.156				
Mg	24	93.397				
Al	27	98.945				
P	31	91.138				
K	39	95.006				
Ca	43	96.146				
> Sc	45		98.7			
Ti	47					
V	51	92.109				
Cr	52	93.880				
Cr	53					
Mn	55	93.358				
Fe	57	95.052				
Co	59	91.452				
Ni	60	92.746				
Cu	63					
Cu	65	93.190				
Zn	66	88.641				
Zn	67					
Zn	68					
> Ge	74		97.6			
As	75	94.233				
Se	77					
Se	82	101.546				
Kr	83					
Sr	88	95.244				
Y	89					
Zr	90	95.977				
Mo	98	93.869				
Ag	107	97.704				
Cd	111	94.724				
Cd	114					
> In	115		96.6			
Sn	120	94.923				
Sb	121	126.670				
Sb	123					
Ba	135					
Ba	137	93.675				
Ho	165					
> Lu	175		101.7			
Tl	205	89.495				
Pb	208	91.370				
Th	232	94.246				
U	238	96.558				

QC Out Of Limits

Measurement Type	Analyte	Mass Out of Limits Message
QC Std 10	Zn	66LRS is out of limits (+/- 10%)
QC Std 10	Sb	121LRS is out of limits (+/- 10%)
QC Std 10	Tl	205LRS is out of limits (+/- 10%)

QC Action

Sample ID: QC Std 10
 Report Date/Time: Monday, April 12, 2010 07:05:25
 Page 3

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 11

Sample Date/Time: Monday, April 12, 2010 07:08:49

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\QC Std 11.593

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	49.596	ug/L	1.430	31251	0.049
Be	9	50.064	ug/L	0.721	8103	0.013
B	11	95.902	ug/L	2.789	13820	0.021
Na	23	5717.990	ug/L	5.366	9228606	14.370
Mg	24	4993.112	ug/L	4.272	6288795	9.800
Al	27	5142.212	ug/L	3.750	8593521	13.391
P	31	4893.049	ug/L	1.333	488233	0.757
K	39	4982.701	ug/L	0.914	14505065	21.997
Ca	43	4964.199	ug/L	1.056	30641	0.047
> Sc	45		ug/L		641506	641505.504
Ti	47	51.725	ug/L	1.898	15982	0.025
V	51	52.401	ug/L	1.761	233132	0.338
Cr	52	53.146	ug/L	1.902	153130	0.255
Cr	53		ug/L		115723	-0.014
Mn	55	53.869	ug/L	0.602	274638	0.427
Fe	57	5065.151	ug/L	1.152	530097	0.818
Co	59	52.108	ug/L	1.111	205508	0.320
Ni	60	53.718	ug/L	0.297	45002	0.070
Cu	63		ug/L		105918	0.162
Cu	65	54.237	ug/L	2.537	51067	0.078
Zn	66	54.411	ug/L	1.126	31102	0.114
Zn	67		ug/L		10701	0.012
Zn	68		ug/L		22830	0.082
> Ge	74		ug/L		265252	265251.540
As	75	53.432	ug/L	1.040	35009	0.132
Se	77		ug/L		6660	0.003
Se	82	56.856	ug/L	0.509	3441	0.013
Kr	83		ug/L		57	-0.000
Sr	88	51.671	ug/L	1.594	475084	2.867
Y	89		ug/L		46	0.000
Zr	90	51.366	ug/L	2.452	259587	1.564
Mo	98	50.862	ug/L	2.170	114417	0.688
Ag	107	51.705	ug/L	1.718	179056	1.080
Cd	111	51.722	ug/L	0.213	42753	0.258
Cd	114		ug/L		100209	0.605
> In	115		ug/L		165638	165638.340
Sn	120	50.289	ug/L	1.586	187501	1.126
Sb	121	57.966	ug/L	1.828	147490	0.886
Sb	123		ug/L		113250	0.680
Ba	135		ug/L		44378	0.224
Ba	137	51.692	ug/L	2.399	76605	0.387
Ho	165		ug/L		12	0.000
> Lu	175		ug/L		197814	197813.627
Tl	205	50.846	ug/L	2.800	282359	1.413
Pb	208	52.453	ug/L	1.133	557980	2.802
Th	232	54.278	ug/L	1.270	583796	2.943
U	238	53.973	ug/L	1.240	575997	2.909

Sample ID: QC Std 11

Report Date/Time: Monday, April 12, 2010 07:11:32

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9999
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7	99.192				
Be	9	100.128				
B	11	95.902				
Na	23	114.360				
Mg	24	99.862				
Al	27	101.826				
P	31	97.861				
K	39	99.654				
Ca	43	99.284				
> Sc	45		103.9			
Ti	47	103.451				
V	51	104.802				
Cr	52	106.293				
Cr	53					
Mn	55	107.738				
Fe	57	101.303				
Co	59	104.217				
Ni	60	107.436				
Cu	63					
Cu	65	108.473				
Zn	66	108.822				
Zn	67					
Zn	68					
> Ge	74		105.7			
As	75	106.864				
Se	77					
Se	82	113.712				
Kr	83					
Sr	88	103.341				
Y	89					
Zr	90	102.732				
Mo	98	101.725				
Ag	107	103.410				
Cd	111	103.443				
Cd	114					
> In	115		105.5			
Sn	120	100.578				
Sb	121	115.931				
Sb	123					
Ba	135					
Ba	137	103.384				
Ho	165					
> Lu	175		103.0			
Tl	205	101.692				
Pb	208	104.906				
Th	232	108.556				
U	238	107.946				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Na	23	CCV is out of limits (+/- 10%)
QC Std 11	Se	82	CCV is out of limits (+/- 10%)
QC Std 11	Sb	121	CCV is out of limits (+/- 10%)

QC Action

Sample ID: QC Std 11
 Report Date/Time: Monday, April 12, 2010 07:11:32
 Page 3

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 12

Sample Date/Time: Monday, April 12, 2010 07:14:58

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\QC Std 12.594

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.114	ug/L	22.217	104	0.000
Be	9	0.029	ug/L	23.543	12	0.000
B	11	0.973	ug/L	21.963	262	0.000
Na	23	3.830	ug/L	79.350	16343	0.010
Mg	24	4.398	ug/L	19.476	7669	0.009
Al	27	4.492	ug/L	54.318	10671	0.012
P	31	1.852	ug/L	49.549	2932	0.000
K	39	-11.741	ug/L	60.560	363239	-0.052
Ca	43	11.433	ug/L	18.353	288	0.000
> Sc	45		ug/L		645508	645508.266
Ti	47	0.129	ug/L	68.147	233	0.000
V	51	-0.533	ug/L	178.342	14116	-0.003
Cr	52	0.404	ug/L	27.471	-9580	0.002
Cr	53		ug/L		117407	-0.012
Mn	55	0.038	ug/L	12.804	902	0.000
Fe	57	4.777	ug/L	35.688	5682	0.001
Co	59	0.034	ug/L	20.298	298	0.000
Ni	60	0.037	ug/L	15.983	109	0.000
Cu	63		ug/L		2090	0.000
Cu	65	0.069	ug/L	22.515	992	0.000
Zn	66	0.193	ug/L	40.741	898	0.000
Zn	67		ug/L		6975	-0.002
Zn	68		ug/L		1163	0.000
> Ge	74		ug/L		266047	266047.138
As	75	1.505	ug/L	44.940	963	0.004
Se	77		ug/L		5750	-0.000
Se	82	1.735	ug/L	6.619	132	0.000
Kr	83		ug/L		50	-0.000
Sr	88	0.039	ug/L	11.243	548	0.002
Y	89		ug/L		20	-0.000
Zr	90	0.393	ug/L	15.600	2473	0.012
Mo	98	0.743	ug/L	5.801	2075	0.010
Ag	107	0.097	ug/L	30.165	503	0.002
Cd	111	0.066	ug/L	17.908	75	0.000
Cd	114		ug/L		167	0.001
> In	115		ug/L		162586	162585.856
Sn	120	0.372	ug/L	13.620	2331	0.008
Sb	121	1.141	ug/L	17.785	3498	0.017
Sb	123		ug/L		2666	0.013
Ba	135		ug/L		54	0.000
Ba	137	0.042	ug/L	40.245	100	0.000
Ho	165		ug/L		8	0.000
> Lu	175		ug/L		194916	194915.672
Tl	205	0.523	ug/L	15.288	5697	0.015
Pb	208	0.333	ug/L	6.159	7212	0.018
Th	232	0.791	ug/L	12.443	9984	0.043
U	238	0.251	ug/L	11.942	3258	0.014

Sample ID: QC Std 12

Report Date/Time: Monday, April 12, 2010 07:17:43

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9999
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
v Sc	45		104.6			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
L Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		106.0			
As	75					
Se	77					
Se	82					
L Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		103.6			
Sn	120					
Sb	121					
L Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		101.5			
Tl	205					
Pb	208					
Th	232					
L U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 12	Mo	98CCB is out of limits (+/- PQL)
QC Std 12	U	238CCB is out of limits (+/- PQL)

QC Action

QC Action Line: Continue

Sample ID: QC Std 12
 Report Date/Time: Monday, April 12, 2010 07:17:43
 Page 3

ICPMS#4 - Summary Report

Sample ID: 1202056962

Sample Date/Time: Monday, April 12, 2010 07:21:11

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 959143|1|bcd1

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\1202056962.595

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.143	ug/L	13.122	127	0.000
Be	9	-0.004	ug/L	921.329	7	-0.000
B	11	0.877	ug/L	21.869	258	0.000
Na	23	12.772	ug/L	60.337	32040	0.032
Mg	24	2.405	ug/L	73.446	5334	0.005
Al	27	5.007	ug/L	22.612	12005	0.013
P	31	1.785	ug/L	95.255	3039	0.000
K	39	-3.284	ug/L	173.206	402258	-0.014
Ca	43	47.477	ug/L	9.722	530	0.000
> Sc	45		ug/L		670540	670539.909
Ti	47	0.539	ug/L	23.852	373	0.000
V	51	2.135	ug/L	125.702	26223	0.014
Cr	52	-5.017	ug/L	10.043	-27425	-0.024
Cr	53		ug/L		330093	0.298
Mn	55	0.291	ug/L	5.059	2278	0.002
Fe	57	16.759	ug/L	3.147	7202	0.003
Co	59	0.007	ug/L	76.158	201	0.000
Ni	60	0.012	ug/L	91.851	92	0.000
Cu	63		ug/L		2713	0.001
Cu	65	0.390	ug/L	4.437	1340	0.001
Zn	66	3.894	ug/L	21.925	3080	0.008
Zn	67		ug/L		28811	0.076
Zn	68		ug/L		3589	0.009
> Ge	74		ug/L		276604	276603.810
As	75	1.080	ug/L	73.792	706	0.003
Se	77		ug/L		19827	0.050
Se	82	1.778	ug/L	8.411	140	0.000
Kr	83		ug/L		63	0.000
Sr	88	0.098	ug/L	8.979	1139	0.005
Y	89		ug/L		35	0.000
Zr	90	0.412	ug/L	14.925	2688	0.013
Mo	98	0.578	ug/L	6.957	1789	0.008
Ag	107	0.047	ug/L	11.814	351	0.001
Cd	111	0.028	ug/L	25.867	46	0.000
Cd	114		ug/L		96	0.000
> In	115		ug/L		169936	169936.103
Sn	120	1.588	ug/L	6.680	7064	0.036
Sb	121	0.783	ug/L	21.460	2731	0.012
Sb	123		ug/L		2144	0.009
Ba	135		ug/L		62	0.000
Ba	137	0.062	ug/L	15.856	130	0.000
Ho	165		ug/L		9	0.000
> Lu	175		ug/L		195300	195300.114
Tl	205	0.286	ug/L	14.594	4421	0.008
Pb	208	0.896	ug/L	4.362	13097	0.048
Th	232	0.546	ug/L	13.049	7400	0.030
U	238	0.099	ug/L	34.577	1658	0.005

Sample ID: 1202056962

Report Date/Time: Monday, April 12, 2010 07:23:58

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9999
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		108.6			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		110.2			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		108.3			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		101.7			
Tl	205					
Pb	208					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202056962

Report Date/Time: Monday, April 12, 2010 07:23:58

Page 3

ICPMS#4 - Summary Report

Sample ID: 1202056963

Sample Date/Time: Monday, April 12, 2010 07:27:26

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 959143|1|bcd1

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\1202056963.596

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	46.439	ug/L	0.993	30973	0.046
Be	9	49.424	ug/L	1.921	8467	0.012
B	11	101.849	ug/L	3.910	15527	0.023
Na	23	2161.081	ug/L	9.523	3698796	5.431
Mg	24	1758.857	ug/L	5.210	2346286	3.452
Al	27	2018.486	ug/L	0.513	3572331	5.256
P	31	1897.353	ug/L	2.502	202145	0.293
K	39	2098.839	ug/L	4.372	6708083	9.266
Ca	43	2096.628	ug/L	1.798	13829	0.020
> Sc	45		ug/L		678981	678980.647
Ti	47	48.416	ug/L	1.174	15846	0.023
V	51	52.680	ug/L	9.512	247950	0.340
Cr	52	47.327	ug/L	2.277	143077	0.228
Cr	53		ug/L		357479	0.332
Mn	55	54.862	ug/L	1.912	296036	0.435
Fe	57	2151.823	ug/L	1.804	241497	0.348
Co	59	53.125	ug/L	1.261	221750	0.326
Ni	60	54.248	ug/L	1.739	48099	0.071
Cu	63		ug/L		114060	0.165
Cu	65	56.104	ug/L	1.386	55878	0.081
Zn	66	54.367	ug/L	1.577	32858	0.114
Zn	67		ug/L		34686	0.096
Zn	68		ug/L		24904	0.085
> Ge	74		ug/L		280457	280456.778
As	75	53.154	ug/L	1.969	36827	0.131
Se	77		ug/L		21667	0.055
Se	82	53.596	ug/L	3.993	3431	0.012
Kr	83		ug/L		66	0.000
Sr	88	52.722	ug/L	1.986	498362	2.926
Y	89		ug/L		46	0.000
Zr	90	50.354	ug/L	2.213	261657	1.533
Mo	98	51.093	ug/L	1.014	118176	0.691
Ag	107	54.091	ug/L	0.255	192592	1.130
Cd	111	51.657	ug/L	1.741	43895	0.258
Cd	114		ug/L		102489	0.602
> In	115		ug/L		170293	170292.514
Sn	120	51.337	ug/L	2.218	196754	1.149
Sb	121	64.001	ug/L	1.373	167324	0.979
Sb	123		ug/L		129336	0.756
Ba	135		ug/L		44777	0.223
Ba	137	52.395	ug/L	1.221	78690	0.392
Ho	165		ug/L		15	0.000
> Lu	175		ug/L		200426	200426.184
Tl	205	46.424	ug/L	3.363	261596	1.290
Pb	208	52.717	ug/L	0.606	568271	2.816
Th	232	51.829	ug/L	0.553	564980	2.811
U	238	54.132	ug/L	0.573	585442	2.918

Sample ID: 1202056963

Report Date/Time: Monday, April 12, 2010 07:30:13

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9999
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		110.0			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
L Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		111.8			
As	75					
Se	77					
Se	82					
L Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		108.5			
Sn	120					
Sb	121					
L Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		104.4			
Tl	205					
Pb	208					
Th	232					
L U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202056963

Report Date/Time: Monday, April 12, 2010 07:30:13

Page 3

ICPMS#4 - Summary Report

Sample ID: 248242001

Sample Date/Time: Monday, April 12, 2010 07:33:41

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959143|1|bcd1

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\248242001.597

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.224	ug/L	6.017	181	0.000
Be	9	-0.012	ug/L	92.575	6	-0.000
B	11	29.356	ug/L	2.329	4541	0.007
Na	23	129.307	ug/L	6.344	229836	0.325
Mg	24	5.128	ug/L	51.724	9003	0.010
Al	27	10.280	ug/L	22.794	21350	0.027
P	31	0.314	ug/L	596.927	2911	0.000
K	39	68.282	ug/L	13.620	618092	0.301
Ca	43	71.806	ug/L	4.886	691	0.001
> Sc	45		ug/L		675406	675405.717
Ti	47	0.742	ug/L	14.053	441	0.000
V	51	1.454	ug/L	192.549	23634	0.009
Cr	52	-3.816	ug/L	10.519	-23709	-0.018
Cr	53		ug/L		350383	0.325
Mn	55	0.522	ug/L	0.885	3532	0.004
Fe	57	12.469	ug/L	10.107	6784	0.002
Co	59	0.006	ug/L	64.139	195	0.000
Ni	60	0.084	ug/L	10.728	156	0.000
Cu	63		ug/L		3251	0.002
Cu	65	0.621	ug/L	12.602	1573	0.001
Zn	66	2.341	ug/L	4.840	2189	0.005
Zn	67		ug/L		30550	0.082
Zn	68		ug/L		3031	0.007
> Ge	74		ug/L		277533	277532.812
As	75	2.231	ug/L	101.878	1512	0.006
Se	77		ug/L		21706	0.056
Se	82	1.151	ug/L	33.209	101	0.000
Kr	83		ug/L		61	-0.000
Sr	88	0.159	ug/L	8.503	1707	0.009
Y	89		ug/L		115	0.001
Zr	90	0.325	ug/L	22.973	2227	0.010
Mo	98	0.282	ug/L	5.295	1109	0.004
Ag	107	0.055	ug/L	29.972	375	0.001
Cd	111	0.015	ug/L	104.694	35	0.000
Cd	114		ug/L		78	0.000
> In	115		ug/L		169831	169830.523
Sn	120	0.830	ug/L	4.304	4174	0.019
Sb	121	0.154	ug/L	20.727	1095	0.002
Sb	123		ug/L		886	0.002
Ba	135		ug/L		196	0.001
Ba	137	0.182	ug/L	5.981	306	0.001
Ho	165		ug/L		9	0.000
> Lu	175		ug/L		195359	195358.563
Tl	205	0.671	ug/L	23.769	6505	0.019
Pb	208	0.659	ug/L	8.292	10630	0.035
Th	232	0.515	ug/L	29.685	7066	0.028
U	238	-0.003	ug/L	279.275	590	-0.000

Sample ID: 248242001

Report Date/Time: Monday, April 12, 2010 07:36:29

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9999
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

Sample ID: 248242001

Report Date/Time: Monday, April 12, 2010 07:36:29

Page 2

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45			109.4		
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74			110.6		
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115			108.2		
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175			101.7		
Tl	205					
Pb	208					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: 248242001

Report Date/Time: Monday, April 12, 2010 07:36:29

Page 3

ICPMS#4 - Summary Report

Sample ID: 1202056964

Sample Date/Time: Monday, April 12, 2010 07:52:07

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 959143|1|bcd1

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\1202056964.600

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.059	ug/L	22.721	70	0.000
Be	9	-0.015	ug/L	48.144	5	-0.000
B	11	0.557	ug/L	16.385	205	0.000
Na	23	7.539	ug/L	30.348	22685	0.019
Mg	24	-0.879	ug/L	87.595	1000	-0.002
Al	27	1.851	ug/L	65.777	6335	0.005
P	31	-1.521	ug/L	42.770	2632	-0.000
K	39	13.091	ug/L	91.064	439682	0.058
Ca	43	61.910	ug/L	15.505	608	0.001
> Sc	45		ug/L		654555	654554.738
Ti	47	0.441	ug/L	8.009	333	0.000
V	51	2.700	ug/L	96.875	27920	0.017
Cr	52	-5.844	ug/L	5.778	-29384	-0.028
Cr	53		ug/L		366414	0.366
Mn	55	0.330	ug/L	1.865	2427	0.003
Fe	57	16.858	ug/L	13.863	7038	0.003
Co	59	-0.011	ug/L	61.470	124	-0.000
Ni	60	0.008	ug/L	105.788	87	0.000
Cu	63		ug/L		2679	0.001
Cu	65	0.382	ug/L	12.084	1300	0.001
Zn	66	1.911	ug/L	5.743	1886	0.004
Zn	67		ug/L		31156	0.087
Zn	68		ug/L		2897	0.006
> Ge	74		ug/L		270114	270113.917
As	75	0.901	ug/L	204.703	574	0.002
Se	77		ug/L		22600	0.062
Se	82	-0.027	ug/L	729.102	26	-0.000
Kr	83		ug/L		69	0.000
Sr	88	0.083	ug/L	5.989	964	0.005
Y	89		ug/L		34	0.000
Zr	90	0.040	ug/L	14.827	743	0.001
Mo	98	0.076	ug/L	12.243	620	0.001
Ag	107	-0.004	ug/L	123.700	164	-0.000
Cd	111	-0.006	ug/L	100.717	17	-0.000
Cd	114		ug/L		30	-0.000
> In	115		ug/L		165629	165628.876
Sn	120	0.606	ug/L	1.074	3243	0.014
Sb	121	0.032	ug/L	42.429	761	0.000
Sb	123		ug/L		634	0.000
Ba	135		ug/L		87	0.000
Ba	137	0.070	ug/L	22.452	140	0.001
Ho	165		ug/L		9	0.000
> Lu	175		ug/L		192962	192961.865
Tl	205	-0.100	ug/L	9.525	2298	-0.003
Pb	208	0.474	ug/L	8.045	8590	0.025
Th	232	0.018	ug/L	22.531	1798	0.001
U	238	-0.026	ug/L	14.971	345	-0.001

Sample ID: 1202056964

Report Date/Time: Monday, April 12, 2010 07:54:51

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9999
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		106.0			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		107.6			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		105.5			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		100.5			
Tl	205					
Pb	208					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202056964

Report Date/Time: Monday, April 12, 2010 07:54:51

Page 3

ICPMS#4 - Summary Report

Sample ID: 1202056965

Sample Date/Time: Monday, April 12, 2010 07:58:16

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 959143|1|bcd1

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\1202056965.601

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	47.585	ug/L	2.600	31282	0.047
Be	9	51.594	ug/L	2.687	8711	0.013
B	11	106.232	ug/L	3.003	15956	0.024
Na	23	2010.546	ug/L	8.062	3389950	5.053
Mg	24	1923.800	ug/L	10.410	2527797	3.776
Al	27	1925.085	ug/L	3.234	3358846	5.013
P	31	1924.268	ug/L	3.600	201998	0.298
K	39	1953.313	ug/L	7.572	6178191	8.623
Ca	43	2188.220	ug/L	1.815	14218	0.021
> Sc	45		ug/L		669439	669438.720
Ti	47	50.313	ug/L	1.801	16224	0.024
V	51	53.599	ug/L	6.306	248276	0.346
Cr	52	47.534	ug/L	3.413	141666	0.229
Cr	53		ug/L		372912	0.363
Mn	55	55.476	ug/L	2.572	295034	0.440
Fe	57	2198.137	ug/L	2.392	243035	0.355
Co	59	54.417	ug/L	2.109	223889	0.334
Ni	60	55.027	ug/L	3.909	48085	0.072
Cu	63		ug/L		115552	0.169
Cu	65	56.795	ug/L	2.274	55746	0.082
Zn	66	52.499	ug/L	1.328	31474	0.110
Zn	67		ug/L		36153	0.102
Zn	68		ug/L		24601	0.084
> Ge	74		ug/L		277943	277942.603
As	75	82.744	ug/L	1.494	56831	0.205
Se	77		ug/L		21466	0.055
Se	82	21.276	ug/L	4.852	1367	0.005
Kr	83		ug/L		69	0.000
Sr	88	54.432	ug/L	1.331	507046	3.020
Y	89		ug/L		83	0.000
Zr	90	52.827	ug/L	2.857	270453	1.609
Mo	98	52.779	ug/L	1.801	120282	0.714
Ag	107	55.961	ug/L	1.350	196331	1.169
Cd	111	10.842	ug/L	2.107	9096	0.054
Cd	114		ug/L		20928	0.124
> In	115		ug/L		167825	167825.438
Sn	120	52.325	ug/L	2.539	197584	1.172
Sb	121	261.020	ug/L	2.498	670291	3.991
Sb	123		ug/L		524032	3.120
Ba	135		ug/L		45879	0.234
Ba	137	54.212	ug/L	3.182	79754	0.406
Ho	165		ug/L		107	0.001
> Lu	175		ug/L		196391	196390.884
Tl	205	97.685	ug/L	3.335	536059	2.715
Pb	208	44.199	ug/L	2.253	467373	2.361
Th	232	55.996	ug/L	3.926	597829	3.036
U	238	57.161	ug/L	1.615	605660	3.081

Sample ID: 1202056965

Report Date/Time: Monday, April 12, 2010 08:01:00

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9999
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		108.4			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		110.8			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		106.9			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		102.2			
Tl	205					
Pb	208					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
	Sb	121Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 1202056966

Sample Date/Time: Monday, April 12, 2010 08:04:25

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 959143|5|bcd1

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\1202056966.602

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.038	ug/L	55.593	55	0.000
Be	9	0.020	ug/L	44.091	11	0.000
B	11	1.042	ug/L	24.557	267	0.000
Na	23	5.062	ug/L	9.338	18011	0.013
Mg	24	-0.589	ug/L	206.354	1333	-0.001
Al	27	1.561	ug/L	79.027	5668	0.004
P	31	2.245	ug/L	86.843	2920	0.000
K	39	-12.490	ug/L	95.159	354708	-0.055
Ca	43	21.789	ug/L	32.809	345	0.000
> Sc	45		ug/L		634355	634355.247
Ti	47	0.171	ug/L	53.664	242	0.000
V	51	-0.034	ug/L	686.201	15926	-0.000
Cr	52	-0.602	ug/L	8.186	-12484	-0.003
Cr	53		ug/L		160013	0.058
Mn	55	0.080	ug/L	25.617	1097	0.001
Fe	57	-0.604	ug/L	188.420	5033	-0.000
Co	59	0.019	ug/L	45.055	237	0.000
Ni	60	0.018	ug/L	103.137	92	0.000
Cu	63		ug/L		1915	-0.000
Cu	65	-0.022	ug/L	409.385	890	-0.000
Zn	66	0.298	ug/L	28.389	931	0.001
Zn	67		ug/L		9958	0.011
Zn	68		ug/L		1345	0.001
> Ge	74		ug/L		259204	259203.758
As	75	1.222	ug/L	123.342	746	0.003
Se	77		ug/L		8610	0.011
Se	82	0.163	ug/L	113.663	37	0.000
Kr	83		ug/L		55	-0.000
Sr	88	0.040	ug/L	16.850	554	0.002
Y	89		ug/L		25	0.000
Zr	90	0.023	ug/L	26.336	638	0.001
Mo	98	0.092	ug/L	21.429	637	0.001
Ag	107	0.040	ug/L	20.189	308	0.001
Cd	111	-0.010	ug/L	64.498	13	-0.000
Cd	114		ug/L		38	-0.000
> In	115		ug/L		161015	161014.909
Sn	120	0.115	ug/L	21.640	1384	0.003
Sb	121	0.044	ug/L	18.024	770	0.001
Sb	123		ug/L		602	0.000
Ba	135		ug/L		59	0.000
Ba	137	0.035	ug/L	17.628	90	0.000
Ho	165		ug/L		8	0.000
> Lu	175		ug/L		195461	195460.902
Tl	205	1.267	ug/L	19.038	9736	0.035
Pb	208	0.075	ug/L	10.680	4535	0.004
Th	232	0.212	ug/L	23.916	3867	0.012
U	238	0.026	ug/L	107.813	897	0.001

Sample ID: 1202056966

Report Date/Time: Monday, April 12, 2010 08:07:09

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9999
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		102.7			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
L Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		103.3			
As	75					
Se	77					
Se	82					
L Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		102.6			
Sn	120					
Sb	121					
L Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		101.8			
Tl	205					
Pb	208					
Th	232					
L U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202056966

Report Date/Time: Monday, April 12, 2010 08:07:09

Page 3

ICPMS#4 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Monday, April 12, 2010 08:16:43

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\QC Std 6.604

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	49.111	ug/L	1.397	30660	0.048
Be	9	49.648	ug/L	0.449	7962	0.013
B	11	95.933	ug/L	0.707	13698	0.021
Na	23	5438.316	ug/L	3.659	8696705	13.667
Mg	24	4807.809	ug/L	6.844	5997845	9.436
Al	27	4771.705	ug/L	1.128	7901826	12.426
P	31	4775.493	ug/L	0.994	472177	0.739
K	39	4815.523	ug/L	2.270	13902386	21.259
Ca	43	4868.482	ug/L	1.078	29778	0.047
> Sc	45		ug/L		635621	635621.204
Ti	47	51.346	ug/L	1.493	15719	0.024
V	51	51.023	ug/L	2.798	225314	0.329
Cr	52	50.535	ug/L	1.356	143735	0.243
Cr	53		ug/L		128393	0.008
Mn	55	53.143	ug/L	2.289	268434	0.421
Fe	57	5017.475	ug/L	1.514	520298	0.811
Co	59	50.429	ug/L	1.701	197050	0.310
Ni	60	52.765	ug/L	0.947	43797	0.069
Cu	63		ug/L		104441	0.161
Cu	65	53.980	ug/L	2.009	50360	0.078
Zn	66	54.915	ug/L	0.913	30482	0.115
Zn	67		ug/L		11538	0.017
Zn	68		ug/L		21808	0.080
> Ge	74		ug/L		257639	257639.114
As	75	52.305	ug/L	0.628	33285	0.129
Se	77		ug/L		6979	0.005
Se	82	49.562	ug/L	6.474	2916	0.011
Kr	83		ug/L		57	-0.000
Sr	88	51.094	ug/L	0.701	457036	2.835
Y	89		ug/L		43	0.000
Zr	90	48.204	ug/L	1.558	237037	1.468
Mo	98	48.469	ug/L	2.476	106091	0.656
Ag	107	51.679	ug/L	1.868	174105	1.079
Cd	111	50.877	ug/L	1.011	40912	0.254
Cd	114		ug/L		96720	0.600
> In	115		ug/L		161133	161132.860
Sn	120	49.512	ug/L	2.096	179587	1.109
Sb	121	55.975	ug/L	3.620	138541	0.856
Sb	123		ug/L		107024	0.661
Ba	135		ug/L		43136	0.220
Ba	137	51.403	ug/L	1.717	75503	0.385
Ho	165		ug/L		12	0.000
> Lu	175		ug/L		196019	196019.082
Tl	205	49.635	ug/L	2.226	273262	1.380
Pb	208	50.633	ug/L	1.186	533931	2.705
Th	232	50.715	ug/L	1.434	540640	2.750
U	238	53.083	ug/L	1.356	561413	2.861

Sample ID: QC Std 6

Report Date/Time: Monday, April 12, 2010 08:19:27

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9999
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
|	Li	7	98.222				
|	Be	9	99.297				
|	B	11	95.933				
|	Na	23	108.766				
|	Mg	24	96.156				
|	Al	27	94.489				
|	P	31	95.510				
|	K	39	96.310				
|	Ca	43	97.370				
>	Sc	45		102.9			
|	Ti	47	102.692				
|	V	51	102.047				
|	Cr	52	101.069				
|	Cr	53					
|	Mn	55	106.287				
|	Fe	57	100.350				
|	Co	59	100.859				
|	Ni	60	105.529				
|	Cu	63					
|	Cu	65	107.960				
|	Zn	66	109.829				
|	Zn	67					
|	Zn	68					
>	Ge	74		102.7			
|	As	75	104.610				
|	Se	77					
|	Se	82	99.124				
|	Kr	83					
|	Sr	88	102.188				
|	Y	89					
|	Zr	90	96.409				
|	Mo	98	96.938				
|	Ag	107	103.357				
|	Cd	111	101.754				
|	Cd	114					
>	In	115		102.7			
|	Sn	120	99.024				
|	Sb	121	111.951				
|	Sb	123					
|	Ba	135					
|	Ba	137	102.805				
|	Ho	165					
>	Lu	175		102.1			
|	Tl	205	99.269				
|	Pb	208	101.265				
|	Th	232	101.430				
|	U	238	106.166				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Sb	121	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Monday, April 12, 2010 08:22:53

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\6020.mth

Dataset File: c:\elandata\Dataset\100408\QC Std 7.605

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Li	7	0.037	ug/L	27.696	54	0.000
Be	9	-0.009	ug/L	174.425	6	-0.000
B	11	0.977	ug/L	29.710	256	0.000
Na	23	0.510	ug/L	376.439	10671	0.001
Mg	24	1.058	ug/L	179.612	3334	0.002
Al	27	1.383	ug/L	90.790	5334	0.004
P	31	3.156	ug/L	46.445	2986	0.000
K	39	-9.067	ug/L	15.290	361517	-0.040
Ca	43	7.433	ug/L	37.079	257	0.000
> Sc	45		ug/L		629469	629468.708
Ti	47	0.011	ug/L	96.799	192	0.000
V	51	0.034	ug/L	831.736	16087	0.000
Cr	52	0.022	ug/L	231.666	-10502	0.000
Cr	53		ug/L		123068	0.001
Mn	55	0.022	ug/L	21.335	796	0.000
Fe	57	2.120	ug/L	92.671	5271	0.000
Co	59	0.006	ug/L	43.699	183	0.000
Ni	60	0.014	ug/L	28.770	88	0.000
Cu	63		ug/L		1882	-0.000
Cu	65	-0.010	ug/L	384.567	895	-0.000
Zn	66	0.025	ug/L	339.847	768	0.000
Zn	67		ug/L		7444	0.001
Zn	68		ug/L		1086	-0.000
> Ge	74		ug/L		254040	254039.890
As	75	0.738	ug/L	72.561	439	0.002
Se	77		ug/L		5811	0.001
Se	82	1.206	ug/L	17.310	96	0.000
Kr	83		ug/L		48	-0.000
Sr	88	0.011	ug/L	22.286	295	0.001
Y	89		ug/L		20	-0.000
Zr	90	0.235	ug/L	17.317	1647	0.007
Mo	98	0.374	ug/L	16.864	1231	0.005
Ag	107	0.039	ug/L	19.583	297	0.001
Cd	111	0.020	ug/L	111.422	36	0.000
Cd	114		ug/L		73	0.000
> In	115		ug/L		158405	158404.898
Sn	120	0.092	ug/L	14.939	1277	0.002
Sb	121	1.066	ug/L	26.815	3226	0.016
Sb	123		ug/L		2503	0.012
Ba	135		ug/L		31	0.000
Ba	137	0.012	ug/L	42.777	56	0.000
Ho	165		ug/L		8	-0.000
> Lu	175		ug/L		194356	194355.651
Tl	205	0.219	ug/L	28.077	4034	0.006
Pb	208	0.049	ug/L	50.673	4239	0.003
Th	232	0.343	ug/L	22.528	5221	0.019
U	238	0.046	ug/L	39.839	1109	0.002

Sample ID: QC Std 7

Report Date/Time: Monday, April 12, 2010 08:25:39

Page 1

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	0.9999
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9998
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		102.0			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		101.2			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		100.9			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		101.2			
Tl	205					
Pb	208					
Th	232					
U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Monday, April 12, 2010 08:25:39

Page 3

ICPMS #5 Daily Performance Report

Sample ID: Sample

Sample Date/Time: Tuesday, April 13, 2010 11:33:12

Sample Description:

Method File: c:\elandata\Method\Daily2.mth

Dataset File: c:\elandata\Dataset\default\Sample.1054

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	1541.9	1541.883	43.705	2.8
Mg	24.0	38738.9	38738.859	434.290	1.1
Co	58.9	63185.8	63185.831	373.250	0.6
Rh	102.9	123622.6	123622.601	766.014	0.6
In	114.9	178721.4	178721.441	1254.626	0.7
Pb	208.0	214246.1	214246.105	2038.893	1.0
[> Ba	137.9	169586.4	169586.427	957.403	0.6
[Ba++	69.0	1987.6	0.012	0.000	2.3
[> Ce	139.9	205613.0	205612.974	1509.978	0.7
[CeO	155.9	4192.2	0.020	0.000	2.1
Bkgd	220.0	19.8	19.800	2.564	13.0

Current Optimization File Data

Current Value	Description
0.86	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	21	7.0	3372.1
Co	59	21	7.8	60333.1
In	115	21	9.5	172853.8

ICPMS #5 Instrument Tuning Report

File Name: 100413.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	606	2072	0.540
Be	9.0	9.0	2061	2088	0.543
Mg	24.0	24.0	5699	2085	0.562
Mg	25.0	25.0	5939	2085	0.540
Mg	26.0	26.0	6187	2100	0.545
Co	58.9	59.0	14193	2125	0.528
Rh	102.9	102.9	24880	2180	0.530
In	114.9	114.9	27796	2200	0.535
Ce	139.9	139.9	33878	2220	0.547
Pb	206.0	206.0	49948	2305	0.522
Pb	207.0	207.0	50171	2240	0.593
Pb	208.0	208.0	50451	2280	0.636
U	238.1	238.0	57731	2295	0.641

ICPMS#5 - Summary Report

Sample ID: Blank

Sample Date/Time: Tuesday, April 13, 2010 11:45:01

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\Blank.001

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115	ug/L		185761	
|	Sn	120	ug/L		601	
|	Sb	121	ug/L		81	
|	Sb	123	ug/L		67	
[>	Lu	175	ug/L		392643	
|	U	238	ug/L		76	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Simple Linear	
Sn	120	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Lu	175	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	In	115				
|	Sn	120				
|	Sb	121				
|	Sb	123				
[>	Lu	175				
|	U	238				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: Blank

Report Date/Time: Tuesday, April 13, 2010 11:45:32

Page 1

ICPMS#5 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Tuesday, April 13, 2010 11:47:29

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\Standard 1.002

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> In	115		ug/L		182036	182035.964
| Sn	120	10.000	ug/L	2.014	53910	0.293
| Sb	121	10.000	ug/L	2.863	41462	0.227
| Sb	123		ug/L		32322	0.177
[> Lu	175		ug/L		382362	382362.256
| U	238	10.000	ug/L	3.365	459323	1.201

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[> In	115					
| Sn	120					
| Sb	121					
| Sb	123					
[> Lu	175					
| U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: Standard 1

Report Date/Time: Tuesday, April 13, 2010 11:47:57

Page 1

ICPMS#5 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Tuesday, April 13, 2010 11:49:55

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\Standard 2.003

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		184236	184236.210
|	Sn	120	99.964	ug/L	2.074	521119	2.826
|	Sb	121	100.049	ug/L	1.558	440889	2.393
|	Sb	123		ug/L		342818	1.861
[>	Lu	175		ug/L		399772	399771.738
|	U	238	99.900	ug/L	1.081	4361704	10.910

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	In	115						
|	Sn	120						
|	Sb	121						
|	Sb	123						
[>	Lu	175						
|	U	238						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: Standard 2

Report Date/Time: Tuesday, April 13, 2010 11:50:23

Page 1

ICPMS#5 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Tuesday, April 13, 2010 11:52:21

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 1.004

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		184783	184782.938
|	Sn	120	50.255	ug/L	2.353	263015	1.421
|	Sb	121	53.137	ug/L	3.381	234778	1.271
|	Sb	123		ug/L		182858	0.989
[>	Lu	175		ug/L		396367	396366.712
|	U	238	51.729	ug/L	1.463	2238990	5.649

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	In	115		99.5				
|	Sn	120	100.511					
|	Sb	121	106.273					
|	Sb	123						
[>	Lu	175		100.9				
|	U	238	103.458					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 1

Report Date/Time: Tuesday, April 13, 2010 11:52:49

Page 1

ICPMS#5 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Tuesday, April 13, 2010 11:54:49

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 2.005

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		186749	186749.324
|	Sn	120	-0.014	ug/L	83.102	532	-0.000
|	Sb	121	0.344	ug/L	3.857	1616	0.008
|	Sb	123		ug/L		1273	0.006
[>	Lu	175		ug/L		394533	394532.622
|	U	238	0.005	ug/L	10.622	275	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	In	115		100.5				
|	Sn	120						
|	Sb	121						
|	Sb	123						
[>	Lu	175		100.5				
|	U	238						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 2

Report Date/Time: Tuesday, April 13, 2010 11:55:20

Page 1

ICPMS#5 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Tuesday, April 13, 2010 11:57:18

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 3.006

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		187234	187233.558
|	Sn	120	5.598	ug/L	2.621	30227	0.158
|	Sb	121	2.944	ug/L	1.367	13265	0.070
|	Sb	123		ug/L		10433	0.055
[>	Lu	175		ug/L		396608	396607.555
|	U	238	0.301	ug/L	2.546	13096	0.033

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	In	115			100.8			
|	Sn	120	111.957					
|	Sb	121	98.142					
|	Sb	123						
[>	Lu	175			101.0			
|	U	238	150.304					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

Sample ID: QC Std 3

Report Date/Time: Tuesday, April 13, 2010 11:57:47

Page 1

ICPMS#5 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Tuesday, April 13, 2010 11:59:45

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 4.007

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		163099	163099.298
|	Sn	120	0.204	ug/L	2.717	1469	0.006
|	Sb	121	0.265	ug/L	3.152	1103	0.006
[	Sb	123		ug/L		895	0.005
[>	Lu	175		ug/L		355401	355400.625
[	U	238	0.002	ug/L	19.302	147	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	In	115			87.8			
|	Sn	120						
|	Sb	121						
[	Sb	123						
[>	Lu	175			90.5			
[	U	238						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 4

Report Date/Time: Tuesday, April 13, 2010 12:00:14

Page 1

ICPMS#5 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Tuesday, April 13, 2010 12:02:12

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 5.008

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		164246	164245.716
|	Sn	120	20.117	ug/L	2.678	93906	0.569
|	Sb	121	20.261	ug/L	2.170	79645	0.485
|	Sb	123		ug/L		62352	0.379
[>	Lu	175		ug/L		356670	356669.933
|	U	238	21.126	ug/L	0.769	822958	2.307

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	In	115		88.4				
|	Sn	120	100.587					
|	Sb	121	101.307					
|	Sb	123						
[>	Lu	175		90.8				
|	U	238	105.631					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 5

Report Date/Time: Tuesday, April 13, 2010 12:02:42

Page 1

ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Tuesday, April 13, 2010 12:04:40

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 6.009

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		180800	180799.988
|	Sn	120	49.813	ug/L	3.483	255017	1.408
|	Sb	121	52.557	ug/L	3.494	227209	1.257
|	Sb	123		ug/L		178584	0.988
[>	Lu	175		ug/L		384201	384200.999
|	U	238	52.168	ug/L	0.479	2188900	5.697

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	In	115		97.3			
|	Sn	120	99.627				
|	Sb	121	105.114				
|	Sb	123					
[>	Lu	175		97.8			
|	U	238	104.336				

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: Tuesday, April 13, 2010 12:05:10

Page 1

ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Tuesday, April 13, 2010 12:07:10

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 7.010

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> In	115		ug/L		178005	178004.541
| Sn	120	-0.027	ug/L	23.813	442	-0.001
| Sb	121	0.191	ug/L	2.212	892	0.005
| Sb	123		ug/L		687	0.004
[> Lu	175		ug/L		382061	382060.614
| U	238	0.003	ug/L	10.893	210	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[> In	115			95.8		
| Sn	120					
| Sb	121					
| Sb	123					
[> Lu	175			97.3		
| U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Tuesday, April 13, 2010 12:07:40

Page 1

ICPMS#5 - Summary Report

Sample ID: 1202056962

Sample Date/Time: Tuesday, April 13, 2010 12:09:38

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 959143|1|prb

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\1202056962.011

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		184850	184849.895
|	Sn	120	0.427	ug/L	4.073	2830	0.012
|	Sb	121	0.188	ug/L	4.974	910	0.004
|	Sb	123		ug/L		700	0.003
[>	Lu	175		ug/L		387599	387599.457
|	U	238	0.022	ug/L	1.470	1024	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	In	115		99.5				
|	Sn	120						
|	Sb	121						
|	Sb	123						
[>	Lu	175		98.7				
|	U	238						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202056962

Report Date/Time: Tuesday, April 13, 2010 12:10:07

Page 1

ICPMS#5 - Summary Report

Sample ID: 1202056963

Sample Date/Time: Tuesday, April 13, 2010 12:12:05

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 959143|1|prb

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\1202056963.012

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In 115		ug/L		184838	184838.106
|	Sn 120	53.947	ug/L	2.621	282425	1.525
|	Sb 121	57.478	ug/L	1.706	254160	1.375
|	Sb 123		ug/L		199568	1.079
[>	Lu 175		ug/L		389504	389504.224
|	U 238	52.118	ug/L	1.758	2217132	5.692

Calibration

Analyte	MassCurve Type	Correlation Coefficient
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	0.9999

QC Calculated Values

Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[> In 115		99.5			
| Sn 120					
| Sb 121					
| Sb 123					
[> Lu 175		99.2			
| U 238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202056963

Report Date/Time: Tuesday, April 13, 2010 12:12:34

Page 1

ICPMS#5 - Summary Report

Sample ID: 248242001

Sample Date/Time: Tuesday, April 13, 2010 12:14:32

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959143|1|prb

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\248242001.013

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		184642	184641.818
|	Sn	120	0.262	ug/L	5.002	1967	0.007
|	Sb	121	0.084	ug/L	4.869	452	0.002
|	Sb	123		ug/L		350	0.002
[>	Lu	175		ug/L		385249	385249.460
|	U	238	0.022	ug/L	3.174	1013	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	In	115		99.4				
|	Sn	120						
|	Sb	121						
|	Sb	123						
[>	Lu	175		98.1				
|	U	238						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: 248242001

Report Date/Time: Tuesday, April 13, 2010 12:15:00

Page 1

ICPMS#5 - Summary Report

Sample ID: 1202056964

Sample Date/Time: Tuesday, April 13, 2010 12:21:53

Sample Type:

Sample Description: LANL 6020 DUP

Number of Replicates: 3

Batch ID: 959143|1|prb

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\1202056964.016

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> In	115		ug/L		185168	185167.844
| Sn	120	0.198	ug/L	3.913	1635	0.006
| Sb	121	0.026	ug/L	1.163	197	0.001
| Sb	123		ug/L		161	0.001
[> Lu	175		ug/L		391355	391354.879
| U	238	0.001	ug/L	15.281	139	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dilution	Duplicate Rel. % Difference
[> In	115			99.7		
| Sn	120					
| Sb	121					
| Sb	123					
[> Lu	175			99.7		
| U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202056964

Report Date/Time: Tuesday, April 13, 2010 12:22:22

Page 1

ICPMS#5 - Summary Report

Sample ID: 1202056965

Sample Date/Time: Tuesday, April 13, 2010 12:24:21

Sample Type:

Sample Description: LANL 6020 MS

Number of Replicates: 3

Batch ID: 959143|1|prb

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\1202056965.017

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		184452	184451.759
|	Sn	120	55.310	ug/L	2.457	288917	1.563
|	Sb	121	228.435	ug/L	1.641	1007689	5.464
|	Sb	123		ug/L		794158	4.305
[>	Lu	175		ug/L		387371	387371.431
|	U	238	53.644	ug/L	1.922	2269243	5.858

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[>	In	115		99.3				
|	Sn	120						
|	Sb	121						
|	Sb	123						
[>	Lu	175		98.7				
|	U	238						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202056965

Report Date/Time: Tuesday, April 13, 2010 12:24:50

Page 1

ICPMS#5 - Summary Report

Sample ID: 1202056966

Sample Date/Time: Tuesday, April 13, 2010 12:26:49

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 959143|5|prb

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\1202056966.018

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	In	115		ug/L		179478	179478.170
|	Sn	120	0.001	ug/L	649.496	586	0.000
|	Sb	121	0.096	ug/L	7.686	492	0.002
|	Sb	123		ug/L		409	0.002
[>	Lu	175		ug/L		382275	382274.724
|	U	238	0.021	ug/L	4.665	968	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	In	115			96.6			
|	Sn	120						
|	Sb	121						
|	Sb	123						
[>	Lu	175			97.4			
|	U	238						

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202056966

Report Date/Time: Tuesday, April 13, 2010 12:27:18

Page 1

ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Tuesday, April 13, 2010 12:31:44

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 8.020

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	In	115		ug/L		179880	179879.590
|	Sn	120	50.183	ug/L	0.622	255755	1.419
|	Sb	121	52.882	ug/L	0.671	227587	1.265
|	Sb	123		ug/L		177328	0.985
>	Lu	175		ug/L		385933	385933.317
|	U	238	51.782	ug/L	2.522	2181888	5.655

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
>	In	115			96.8			
|	Sn	120	100.367					
|	Sb	121	105.764					
|	Sb	123						
>	Lu	175			98.3			
|	U	238	103.564					

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 8

Report Date/Time: Tuesday, April 13, 2010 12:32:13

Page 1

ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Tuesday, April 13, 2010 12:34:13

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\sb and u.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 9.021

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> In	115		ug/L		180084	180084.005
| Sn	120	-0.039	ug/L	7.068	383	-0.001
| Sb	121	0.142	ug/L	4.782	688	0.003
| Sb	123		ug/L		548	0.003
[> Lu	175		ug/L		382471	382471.262
| U	238	0.004	ug/L	7.628	243	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[> In	115		96.9				
| Sn	120						
| Sb	121						
| Sb	123						
[> Lu	175		97.4				
| U	238						

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 9

Report Date/Time: Tuesday, April 13, 2010 12:34:43

Page 1

ICPMS#5 - Summary Report

Sample ID: Blank

Sample Date/Time: Tuesday, April 13, 2010 15:12:52

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100413\Blank.090

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		350450	
[	U	238		ug/L		325	

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175						
[U	238						

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Tuesday, April 13, 2010 15:14:32

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100413\Standard 1.091

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		357385	357385.496
[	U	238	10.000	ug/L	1.263	423309	1.183

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175						
[U	238						

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

Sample ID: Standard 1

Report Date/Time: Tuesday, April 13, 2010 15:14:41

Page 1

ICPMS#5 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Tuesday, April 13, 2010 15:16:09

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100413\Standard 2.092

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		346400	346400.487
[U	238	99.956	ug/L	0.528	3924964	11.330

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[> Lu	175					
[U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: Standard 2

Report Date/Time: Tuesday, April 13, 2010 15:16:18

Page 1

ICPMS#5 - Summary Report

Sample ID: QC Std 1

Sample Date/Time: Tuesday, April 13, 2010 15:17:46

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 1.093

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		349311	349311.125
[	U	238	49.627	ug/L	0.746	1965252	5.625

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Lu	175			99.7		
[	U	238	99.254				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 1

Report Date/Time: Tuesday, April 13, 2010 15:17:56

Page 1

ICPMS#5 - Summary Report

Sample ID: QC Std 2

Sample Date/Time: Tuesday, April 13, 2010 15:19:26

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 2.094

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		350872	350872.277
[	U	238	0.012	ug/L	5.508	815	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175			100.1			
[U	238						

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 2

Report Date/Time: Tuesday, April 13, 2010 15:19:38

Page 1

ICPMS#5 - Summary Report

Sample ID: QC Std 3

Sample Date/Time: Tuesday, April 13, 2010 15:21:07

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 3.095

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		341237	341237.117
[	U	238	0.216	ug/L	1.954	8686	0.025

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175			97.4			
[U	238	108.183					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4

Sample Date/Time: Tuesday, April 13, 2010 15:22:46

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 4.096

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		321479	321479.366
[U	238	-0.002	ug/L	2.476	214	-0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[> Lu	175		91.7			
[U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5

Sample Date/Time: Tuesday, April 13, 2010 15:24:25

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 5.097

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		323412	323411.634
[	U	238	20.986	ug/L	1.639	769564	2.379

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175			92.3		
[U	238	104.932				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 5

Report Date/Time: Tuesday, April 13, 2010 15:24:35

Page 1

ICPMS#5 - Summary Report

Sample ID: QC Std 6

Sample Date/Time: Tuesday, April 13, 2010 15:26:04

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 6.098

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175	ug/L		344845	344845.355
[	U	238	49.309 ug/L	1.762	1927882	5.589

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel.	% Difference
[>	Lu	175		98.4			
[U	238	98.617				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Tuesday, April 13, 2010 15:26:15

Page 1

ICPMS#5 - Summary Report

Sample ID: QC Std 7

Sample Date/Time: Tuesday, April 13, 2010 15:27:45

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 7.099

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		345974	345974.197
[	U	238	0.010	ug/L	12.917	706	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175			98.7		
[U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Tuesday, April 13, 2010 15:27:57

Page 1

ICPMS#5 - Summary Report

Sample ID: 1202056962

Sample Date/Time: Tuesday, April 13, 2010 15:29:25

Sample Type:

Sample Description: LANL 6020 MB

Number of Replicates: 3

Batch ID: 959143|1|prb

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100413\1202056962.100

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175	ug/L		352094	352094.182
[	U	238	ug/L	7.714	1047	0.002

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175		100.5		
[	U	238				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202056963

Sample Date/Time: Tuesday, April 13, 2010 15:31:03

Sample Type:

Sample Description: LANL 6020 LCS

Number of Replicates: 3

Batch ID: 959143|1|prb

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100413\1202056963.101

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		355950	355949.614
[U	238	48.931	ug/L	0.880	1974557	5.546

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[> Lu	175			101.6		
[U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202056963

Report Date/Time: Tuesday, April 13, 2010 15:31:13

Page 1

ICPMS#5 - Summary Report

Sample ID: 248242001

Sample Date/Time: Tuesday, April 13, 2010 15:32:41

Sample Type:

Sample Description: LANL 6020

Number of Replicates: 3

Batch ID: 959143|1|prb

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100413\248242001.102

Concentration Results

	Analyte Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175	ug/L		354668	354668.377
[	U	238	0.033 ug/L	2.989	1665	0.004

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Lu	175		101.2		
[U	238				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

Sample ID: 248242001

Report Date/Time: Tuesday, April 13, 2010 15:32:51

Page 1

ICPMS#5 - Summary Report

Sample ID: 1202056964
Sample Date/Time: Tuesday, April 13, 2010 15:37:37
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 959143|1|prb
Method File: c:\elandata\Method\only.mth
Dataset File: C:\elandata\Dataset\100413\1202056964.105

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[> Lu	175		ug/L		362872	362871.988
[U	238	-0.004	ug/L	6.948	157	-0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[> Lu	175		103.5			
[U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202056965
Sample Date/Time: Tuesday, April 13, 2010 15:39:16
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 959143|1|prb
Method File: c:\elandata\Method\w only.mth
Dataset File: C:\elandata\Dataset\100413\1202056965.106

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		358477	358476.641
[	U	238	50.986	ug/L	3.392	2072120	5.779

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175			102.3		
[U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202056966

Sample Date/Time: Tuesday, April 13, 2010 15:40:55

Sample Type:

Sample Description: LANL 6020 SDILT

Number of Replicates: 3

Batch ID: 959143|5|prb

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100413\1202056966.107

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		357183	357182.936
[	U	238	0.030	ug/L	4.311	1557	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
[>	Lu	175			101.9		
[U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

Sample ID: 1202056966

Report Date/Time: Tuesday, April 13, 2010 15:41:06

Page 1

ICPMS#5 - Summary Report

Sample ID: QC Std 8

Sample Date/Time: Tuesday, April 13, 2010 15:44:13

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\lu only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 8.109

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		341777	341777.190
[	U	238	50.362	ug/L	1.286	1951226	5.709

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel.	% Difference
[>	Lu	175			97.5			
[U	238	100.723					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 8

Report Date/Time: Tuesday, April 13, 2010 15:44:24

Page 1

ICPMS#5 - Summary Report

Sample ID: QC Std 9

Sample Date/Time: Tuesday, April 13, 2010 15:45:54

Sample Type:

Sample Description:

Number of Replicates: 3

Batch ID:

Method File: c:\elandata\Method\only.mth

Dataset File: C:\elandata\Dataset\100413\QC Std 9.110

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		349790	349789.814
[	U	238	0.009	ug/L	2.899	693	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175			99.8		
[U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
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QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 9

Report Date/Time: Tuesday, April 13, 2010 15:46:06

Page 1

=====
Analysis BegunLogged In Analyst: Administrator
Spectrometer Model: FIMS-100, S/N B050-9550Technique: AA FIMS-MHS
Autosampler Model: S10Sample Information File: C:\data-AA\Administrator\Sample Information\030210W1.SIF
Batch ID:
Results Data Set: 030210W3
Results Library: C:\data-AA\Administrator\Results\Results.mdb=====
Sequence No.: 1
Sample ID: Calib Blank
Analyst:
Autosampler Location: 1
Date Collected: 3/2/2010 08:26:33
Data Type: Original-----
Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0006	0.0027	0.0006	08:27:33	Yes
2		[0.00]	0.0006	0.0025	0.0006	08:28:08	Yes
Mean:		[0.00]	0.0006				
SD:		0.00	0.0000				
%RSD:		0.00	8.04				

Auto-zero performed.=====
Sequence No.: 2
Sample ID: S0.2
Analyst:
Autosampler Location: 2
Date Collected: 3/2/2010 08:28:26
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]	0.0021	0.0131	0.0027	08:29:27	Yes
2		[0.2]	0.0021	0.0122	0.0028	08:30:02	Yes
Mean:		[0.2]	0.0021				
SD:		0.0	0.0000				
%RSD:		0.0	0.35				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01068 Intercept: 0.00000=====
Sequence No.: 3
Sample ID: S0.5
Analyst:
Autosampler Location: 3
Date Collected: 3/2/2010 08:30:21
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]	0.0054	0.0299	0.0060	08:31:22	Yes
2		[0.5]	0.0055	0.0282	0.0061	08:31:57	Yes
Mean:		[0.5]	0.0055				
SD:		0.0	0.0001				
%RSD:		0.0	1.42				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999936 Slope: 0.01097 Intercept: -0.00002=====
Sequence No.: 4
Sample ID: S2.0
Analyst:
Autosampler Location: 4
Date Collected: 3/2/2010 08:32:17
Data Type: Original-----
Replicate Data: S2.0

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
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Sequence No.: 7
Sample ID: ICV
Analyst:

Autosampler Location: 9
Date Collected: 3/2/2010 08:38:04
Data Type: Original

Replicate Data: ICV

Repl #	SampleConc ug/L	StdConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.221	5.221	0.0551	0.2819	0.0557	08:39:05	Yes
2	5.176	5.176	0.0547	0.2755	0.0553	08:39:40	Yes
Mean:	5.199	5.199	0.0549				
SD:	0.032	0.032	0.0003				
%RSD:	0.612	0.612	0.61				

QC value within limits for Hg 253.7 Recovery = 103.98%
All analyte(s) passed QC.

Sequence No.: 8
Sample ID: ICB
Analyst:

Autosampler Location: 10
Date Collected: 3/2/2010 08:40:00
Data Type: Original

Replicate Data: ICB

Repl #	SampleConc ug/L	StdConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.031	0.031	0.0000	0.0024	0.0006	08:41:01	Yes
2	0.039	0.039	0.0001	0.0036	0.0007	08:41:36	Yes
Mean:	0.035	0.035	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	15.89	15.89	82.13				

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: 3/2/2010 08:41:56
Data Type: Original

Replicate Data: CRDL

Repl #	SampleConc ug/L	StdConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.234	0.234	0.0022	0.0142	0.0028	08:42:57	Yes
2	0.245	0.245	0.0023	0.0156	0.0029	08:43:32	Yes
Mean:	0.240	0.240	0.0022				
SD:	0.008	0.008	0.0001				
%RSD:	3.187	3.187	3.61				

QC value within limits for Hg 253.7 Recovery = 119.76%
All analyte(s) passed QC.

Sequence No.: 10
Sample ID: CCV
Analyst:

Autosampler Location: 7
Date Collected: 3/2/2010 08:43:52
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StdConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.182	5.182	0.0547	0.2774	0.0553	08:44:52	Yes
2	5.128	5.128	0.0542	0.2734	0.0548	08:45:27	Yes
Mean:	5.155	5.155	0.0544				
SD:	0.038	0.038	0.0004				
%RSD:	0.738	0.738	0.74				

QC value within limits for Hg 253.7 Recovery = 103.11%
All analyte(s) passed QC.

Sequence No.: 11
Sample ID: CCB
Analyst:

Autosampler Location: 8
Date Collected: 3/2/2010 08:45:46
Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.012	0.012	-0.0002	-0.0000	0.0004	08:46:47	Yes
2	0.012	0.012	-0.0002	-0.0001	0.0004	08:47:22	Yes
Mean:	0.012	0.012	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.848	0.848	0.63				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12

Sample ID: 1202055823|958575|1

Analyst: JXL

Autosampler Location: 12

Date Collected: 3/2/2010 08:47:41

Data Type: Original

Replicate Data: 1202055823|958575|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.012	0.012	-0.0002	-0.0000	0.0004	08:48:43	Yes
2	0.016	0.016	-0.0001	0.0004	0.0005	08:49:17	Yes
Mean:	0.014	0.014	-0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	18.17	18.17	19.03				

Sequence No.: 13

Sample ID: 1202055824|958575|1

Analyst: JXL

Autosampler Location: 13

Date Collected: 3/2/2010 08:49:38

Data Type: Original

Replicate Data: 1202055824|958575|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.127	2.127	0.0223	0.1129	0.0229	08:50:40	Yes
2	2.104	2.104	0.0220	0.1110	0.0227	08:51:14	Yes
Mean:	2.116	2.116	0.0222				
SD:	0.016	0.016	0.0002				
%RSD:	0.778	0.778	0.79				

Sequence No.: 14

Sample ID: 247037001|958575|1

Analyst: JXL

Autosampler Location: 14

Date Collected: 3/2/2010 08:51:35

Data Type: Original

Replicate Data: 247037001|958575|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.028	0.028	-0.0000	0.0025	0.0006	08:52:35	Yes
2	0.045	0.045	0.0002	0.0048	0.0008	08:53:11	Yes
Mean:	0.037	0.037	0.0001				
SD:	0.012	0.012	0.0001				
%RSD:	34.19	34.19	145.41				

Sequence No.: 15

Sample ID: 1202055825|958575|1

Analyst: JXL

Autosampler Location: 15

Date Collected: 3/2/2010 08:53:30

Data Type: Original

Replicate Data: 1202055825|958575|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.019	0.019	-0.0001	0.0021	0.0005	08:54:30	Yes
2	0.028	0.028	-0.0000	0.0030	0.0006	08:55:05	Yes
Mean:	0.024	0.024	-0.0000				
SD:	0.006	0.006	0.0001				

1	0.032	0.032	0.0000	0.0035	0.0007	09:04:04	Yes
2	0.032	0.032	0.0000	0.0030	0.0007	09:04:39	Yes
Mean:	0.032	0.032	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	0.786	0.786	6.22				

Sequence No.: 21

Autosampler Location: 21

Sample ID: 247042004|958575|1

Date Collected: 3/2/2010 09:04:58

Analyst: JXL

Data Type: Original

Replicate Data: 247042004|958575|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.028	0.028	0.0000	0.0031	0.0006	09:05:59	Yes
2	0.030	0.030	0.0000	0.0036	0.0006	09:06:34	Yes
Mean:	0.029	0.029	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	4.826	4.826	93.90				

Sequence No.: 22

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/2/2010 09:06:54

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.128	5.128	0.0541	0.2768	0.0548	09:07:54	Yes
2	5.127	5.127	0.0541	0.2755	0.0547	09:08:29	Yes
Mean:	5.128	5.128	0.0541				
SD:	0.001	0.001	0.0000				
%RSD:	0.015	0.015	0.02				

QC value within limits for Hg 253.7 Recovery = 102.55%
All analyte(s) passed QC.

Sequence No.: 23

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/2/2010 09:08:48

Analyst:

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.032	0.032	0.0000	0.0035	0.0007	09:09:49	Yes
2	0.037	0.037	0.0001	0.0040	0.0007	09:10:24	Yes
Mean:	0.035	0.035	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	10.44	10.44	53.94				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24

Autosampler Location: 22

Sample ID: 247042005|958575|1

Date Collected: 3/2/2010 09:10:43

Analyst: JXL

Data Type: Original

Replicate Data: 247042005|958575|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.029	0.029	0.0000	0.0033	0.0006	09:11:44	Yes
2	0.033	0.033	0.0001	0.0036	0.0007	09:12:19	Yes
Mean:	0.031	0.031	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	8.235	8.235	83.29				

SD: 0.003 0.003 0.0000
%RSD: 9.252 9.252 154.88

Sequence No.: 30

Autosampler Location: 28

Sample ID: 1202055830|958578|1

Date Collected: 3/2/2010 09:22:19

Analyst: JXL

Data Type: Original

Replicate Data: 1202055830|958578|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.029	0.029	0.0000	0.0034	0.0006	09:23:19	Yes
2	0.026	0.026	-0.0000	0.0025	0.0006	09:23:54	Yes
Mean:	0.027	0.027	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	7.825	7.825	359.08				

Sequence No.: 31

Autosampler Location: 29

Sample ID: 1202055831|958578|1

Date Collected: 3/2/2010 09:24:13

Analyst: JXL

Data Type: Original

Replicate Data: 1202055831|958578|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.105	2.105	0.0221	0.1147	0.0227	09:25:14	Yes
2	2.105	2.105	0.0221	0.1146	0.0227	09:25:49	Yes
Mean:	2.105	2.105	0.0221				
SD:	0.000	0.000	0.0000				
%RSD:	0.010	0.010	0.01				

Sequence No.: 32

Autosampler Location: 30

Sample ID: 1202055832|958278|5

Date Collected: 3/2/2010 09:26:08

Analyst: JXL

Data Type: Original

Replicate Data: 1202055832|958278|5

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.026	0.026	-0.0000	0.0028	0.0006	09:27:08	Yes
2	0.025	0.025	-0.0000	0.0026	0.0006	09:27:43	Yes
Mean:	0.025	0.025	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	3.125	3.125	27.93				

Sequence No.: 33

Autosampler Location: 31

Sample ID: 247036002|958578|1

Date Collected: 3/2/2010 09:28:02

Analyst: JXL

Data Type: Original

Replicate Data: 247036002|958578|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.023	0.023	-0.0001	0.0026	0.0006	09:29:03	Yes
2	0.029	0.029	0.0000	0.0031	0.0006	09:29:38	Yes
Mean:	0.026	0.026	-0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	16.58	16.58	246.20				

Sequence No.: 34

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/2/2010 09:29:57

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
------	------------	---------	---------	------	------	------	------

#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.092	5.092	0.0538	0.2718	0.0544	09:30:58	Yes
2	5.019	5.019	0.0530	0.2655	0.0536	09:31:32	Yes
Mean:	5.056	5.056	0.0534				
SD:	0.051	0.051	0.0005				
%RSD:	1.013	1.013	1.02				

QC value within limits for Hg 253.7 Recovery = 101.11%
All analyte(s) passed QC.

Sequence No.: 35

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 3/2/2010 09:31:51

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.048	0.048	0.0002	0.0039	0.0008	09:32:52	Yes
2	0.033	0.033	0.0001	0.0029	0.0007	09:33:27	Yes
Mean:	0.040	0.040	0.0001				
SD:	0.010	0.010	0.0001				
%RSD:	25.10	25.10	81.63				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36

Sample ID: 247036003|958578|1

Analyst: JXL

Autosampler Location: 32

Date Collected: 3/2/2010 09:33:47

Data Type: Original

Replicate Data: 247036003|958578|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.026	0.026	-0.0000	0.0027	0.0006	09:34:48	Yes
2	0.029	0.029	0.0000	0.0030	0.0006	09:35:23	Yes
Mean:	0.028	0.028	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	8.511	8.511	602.34				

Sequence No.: 37

Sample ID: 247036004|958578|1

Analyst: JXL

Autosampler Location: 33

Date Collected: 3/2/2010 09:35:42

Data Type: Original

Replicate Data: 247036004|958578|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.023	0.023	-0.0000	0.0024	0.0006	09:36:43	Yes
2	0.037	0.037	0.0001	0.0036	0.0007	09:37:18	Yes
Mean:	0.030	0.030	0.0000				
SD:	0.009	0.009	0.0001				
%RSD:	31.23	31.23	437.06				

Sequence No.: 38

Sample ID: 247036005|958578|1

Analyst: JXL

Autosampler Location: 34

Date Collected: 3/2/2010 09:37:38

Data Type: Original

Replicate Data: 247036005|958578|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.027	0.027	-0.0000	0.0029	0.0006	09:38:39	Yes
2	0.025	0.025	-0.0000	0.0028	0.0006	09:39:14	Yes
Mean:	0.026	0.026	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	4.570	4.570	52.14				

Mean: 0.029 0.029 0.0000
SD: 0.004 0.004 0.0000
%RSD: 15.71 15.71 746.11

Sequence No.: 44

Sample ID: 1202055833|958581|1

Analyst: JXL

Autosampler Location: 40

Date Collected: 3/2/2010 09:49:16

Data Type: Original

Replicate Data: 1202055833|958581|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.021	0.021	-0.0001	0.0024	0.0005	09:50:17	Yes
2	0.029	0.029	0.0000	0.0030	0.0006	09:50:51	Yes
Mean:	0.025	0.025	-0.0000				
SD:	0.005	0.005	0.0001				
%RSD:	21.51	21.51	171.71				

Sequence No.: 45

Sample ID: 1202055834|958581|1

Analyst: JXL

Autosampler Location: 41

Date Collected: 3/2/2010 09:51:11

Data Type: Original

Replicate Data: 1202055834|958581|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.186	2.186	0.0229	0.1196	0.0235	09:52:12	Yes
2	2.183	2.183	0.0229	0.1194	0.0235	09:52:47	Yes
Mean:	2.184	2.184	0.0229				
SD:	0.003	0.003	0.0000				
%RSD:	0.123	0.123	0.12				

Sequence No.: 46

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 3/2/2010 09:53:06

Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.016	5.016	0.0530	0.2735	0.0536	09:54:06	Yes
2	5.018	5.018	0.0530	0.2717	0.0536	09:54:41	Yes
Mean:	5.017	5.017	0.0530				
SD:	0.001	0.001	0.0000				
%RSD:	0.023	0.023	0.02				

QC value within limits for Hg 253.7 Recovery = 100.34%
All analyte(s) passed QC.

Sequence No.: 47

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 3/2/2010 09:55:00

Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.035	0.035	0.0001	0.0033	0.0007	09:56:01	Yes
2	0.032	0.032	0.0000	0.0031	0.0007	09:56:36	Yes
Mean:	0.034	0.034	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	5.467	5.467	32.35				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 48

Sample ID: 247817001|958581|1

Autosampler Location: 42

Date Collected: 3/2/2010 09:56:55

2	0.038	0.038	0.0001	0.0037	0.0007	10:15:55	Yes
Mean:	0.037	0.037	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	4.045	4.045	16.44				

Sequence No.: 58

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 3/2/2010 10:16:14

Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.001	5.001	0.0528	0.2739	0.0534	10:17:15	Yes
2	4.992	4.992	0.0527	0.2715	0.0533	10:17:50	Yes
Mean:	4.997	4.997	0.0528				
SD:	0.006	0.006	0.0001				
%RSD:	0.126	0.126	0.13				

QC value within limits for Hg 253.7 Recovery = 99.93%
All analyte(s) passed QC.

Sequence No.: 59

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 3/2/2010 10:18:09

Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.031	0.031	0.0000	0.0030	0.0006	10:19:09	Yes
2	0.033	0.033	0.0001	0.0032	0.0007	10:19:45	Yes
Mean:	0.032	0.032	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	5.084	5.084	37.73				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 60

Sample ID: 1202055843|958587|1

Analyst: JXL

Autosampler Location: 52

Date Collected: 3/2/2010 10:20:04

Data Type: Original

Replicate Data: 1202055843|958587|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.028	0.028	-0.0000	0.0029	0.0006	10:21:05	Yes
2	0.032	0.032	0.0000	0.0035	0.0007	10:21:41	Yes
Mean:	0.030	0.030	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	11.19	11.19	167.05				

Sequence No.: 61

Sample ID: 1202055844|958587|1

Analyst: JXL

Autosampler Location: 53

Date Collected: 3/2/2010 10:22:00

Data Type: Original

Replicate Data: 1202055844|958587|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.176	2.176	0.0228	0.1196	0.0234	10:23:01	Yes
2	2.169	2.169	0.0227	0.1186	0.0233	10:23:36	Yes
Mean:	2.173	2.173	0.0228				
SD:	0.005	0.005	0.0001				
%RSD:	0.228	0.228	0.23				

Sequence No.: 62

Autosampler Location: 54

%RSD: 3.709 3.709 11.51

Sequence No.: 67

Sample ID: 248044003|958587|1

Analyst: JXL

Autosampler Location: 59

Date Collected: 3/2/2010 10:33:34

Data Type: Original

Replicate Data: 248044003|958587|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.037	0.037	0.0001	0.0035	0.0007	10:34:36	Yes
2	0.042	0.042	0.0001	0.0036	0.0008	10:35:11	Yes
Mean:	0.039	0.039	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	8.563	8.563	29.80				

Sequence No.: 68

Sample ID: 248044004|958587|1

Analyst: JXL

Autosampler Location: 60

Date Collected: 3/2/2010 10:35:31

Data Type: Original

Replicate Data: 248044004|958587|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.037	0.037	0.0001	0.0035	0.0007	10:36:32	Yes
2	0.037	0.037	0.0001	0.0031	0.0007	10:37:07	Yes
Mean:	0.037	0.037	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.860	0.860	3.53				

Sequence No.: 69

Sample ID: 248044005|958587|1

Analyst: JXL

Autosampler Location: 61

Date Collected: 3/2/2010 10:37:27

Data Type: Original

Replicate Data: 248044005|958587|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.026	0.026	-0.0000	0.0028	0.0006	10:38:29	Yes
2	0.029	0.029	0.0000	0.0030	0.0006	10:39:04	Yes
Mean:	0.027	0.027	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	7.669	7.669	260.52				

Sequence No.: 70

Sample ID: CCV

Analyst:

Autosampler Location: 7

Date Collected: 3/2/2010 10:39:24

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.079	5.079	0.0536	0.2761	0.0542	10:40:25	Yes
2	5.044	5.044	0.0533	0.2727	0.0539	10:41:00	Yes
Mean:	5.061	5.061	0.0534				
SD:	0.025	0.025	0.0003				
%RSD:	0.487	0.487	0.49				

QC value within limits for Hg 253.7 Recovery = 101.22%
All analyte(s) passed QC.

Sequence No.: 71

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 3/2/2010 10:41:19

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.032	0.032	0.0000	0.0028	0.0006	10:42:20	Yes
2	0.037	0.037	0.0001	0.0037	0.0007	10:42:55	Yes
Mean:	0.034	0.034	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	10.27	10.27	56.74				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 72

Sample ID: 248044006|958587|1

Analyst: JXL

Autosampler Location: 62

Date Collected: 3/2/2010 10:43:14

Data Type: Original

Replicate Data: 248044006|958587|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.035	0.035	0.0001	0.0032	0.0007	10:44:16	Yes
2	0.041	0.041	0.0001	0.0037	0.0007	10:44:51	Yes
Mean:	0.038	0.038	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	10.62	10.62	40.88				

Sequence No.: 73

Sample ID: 248127002|958587|1

Analyst: JXL

Autosampler Location: 63

Date Collected: 3/2/2010 10:45:11

Data Type: Original

Replicate Data: 248127002|958587|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.049	0.049	0.0002	0.0042	0.0008	10:46:12	Yes
2	0.049	0.049	0.0002	0.0038	0.0008	10:46:47	Yes
Mean:	0.049	0.049	0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.072	0.072	0.17				

Sequence No.: 74

Sample ID: 248168006|958587|1

Analyst: JXL

Autosampler Location: 64

Date Collected: 3/2/2010 10:47:07

Data Type: Original

Replicate Data: 248168006|958587|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.032	0.032	0.0000	0.0032	0.0006	10:48:08	Yes
2	0.039	0.039	0.0001	0.0038	0.0007	10:48:43	Yes
Mean:	0.035	0.035	0.0001				
SD:	0.005	0.005	0.0001				
%RSD:	15.15	15.15	72.49				

Sequence No.: 75

Sample ID: 248169004|958587|1

Analyst: JXL

Autosampler Location: 65

Date Collected: 3/2/2010 10:49:03

Data Type: Original

Replicate Data: 248169004|958587|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.039	0.039	0.0001	0.0037	0.0007	10:50:04	Yes
2	0.041	0.041	0.0001	0.0036	0.0008	10:50:39	Yes
Mean:	0.040	0.040	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	3.561	3.561	11.62				

Replicate Data: 1202055863|958593|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	26.95	26.95	0.2859	1.4918	0.2865	10:59:45	Yes
Sample concentration is greater than that of the highest standard.							
2	26.74	26.74	0.2836	1.4832	0.2842	11:00:20	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	26.85	26.85	0.2847				
SD:	0.150	0.150	0.0016				
%RSD:	0.559	0.559	0.56				

Sample concentration is greater than that of the highest standard.

Sequence No.: 81

Autosampler Location: 71

Sample ID: 1202055864|958593|5

Date Collected: 3/2/2010 11:00:40

Analyst: JXL

Data Type: Original

Replicate Data: 1202055864|958593|5

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.495	5.495	0.0580	0.2982	0.0586	11:01:41	Yes
2	5.466	5.466	0.0577	0.2966	0.0583	11:02:16	Yes
Mean:	5.480	5.480	0.0579				
SD:	0.020	0.020	0.0002				
%RSD:	0.371	0.371	0.37				

Sequence No.: 82

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/2/2010 11:02:36

Analyst:

Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.006	5.006	0.0528	0.2714	0.0535	11:03:37	Yes
2	5.022	5.022	0.0530	0.2712	0.0536	11:04:12	Yes
Mean:	5.014	5.014	0.0529				
SD:	0.011	0.011	0.0001				
%RSD:	0.227	0.227	0.23				

QC value within limits for Hg 253.7 Recovery = 100.27%
All analyte(s) passed QC.

Sequence No.: 83

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/2/2010 11:04:31

Analyst:

Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.033	0.033	0.0001	0.0031	0.0007	11:05:31	Yes
2	0.048	0.048	0.0002	0.0040	0.0008	11:06:06	Yes
Mean:	0.040	0.040	0.0001				
SD:	0.010	0.010	0.0001				
%RSD:	26.02	26.02	85.60				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 84

Autosampler Location: 72

Sample ID: 247958002|958593|1

Date Collected: 3/2/2010 11:06:25

Analyst: JXL

Data Type: Original

Replicate Data: 247958002|958593|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.063	0.063	0.0004	0.0052	0.0010	11:07:27	Yes

Sequence No.: 94
Sample ID: CCV
Analyst:

Autosampler Location: 7
Date Collected: 3/2/2010 11:25:50
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.218	5.218	0.0551	0.2817	0.0557	11:26:50	Yes
2	5.211	5.211	0.0550	0.2791	0.0556	11:27:25	Yes
Mean:	5.214	5.214	0.0551				
SD:	0.005	0.005	0.0001				
%RSD:	0.095	0.095	0.10				

QC value within limits for Hg 253.7 Recovery = 104.29%
All analyte(s) passed QC.

Sequence No.: 95
Sample ID: CCB
Analyst:

Autosampler Location: 8
Date Collected: 3/2/2010 11:27:44
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.029	0.029	0.0000	0.0027	0.0006	11:28:45	Yes
2	0.038	0.038	0.0001	0.0032	0.0007	11:29:20	Yes
Mean:	0.033	0.033	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	19.42	19.42	124.89				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 96
Sample ID: 248026001|958951|1
Analyst: JXL

Autosampler Location: 82
Date Collected: 3/2/2010 11:29:40
Data Type: Original

Replicate Data: 248026001|958951|1

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.036	0.036	0.0001	0.0035	0.0007	11:30:41	Yes
2	0.037	0.037	0.0001	0.0031	0.0007	11:31:16	Yes
Mean:	0.036	0.036	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	1.939	1.939	8.63				

Sequence No.: 97
Sample ID: 248032001|958951|1
Analyst: JXL

Autosampler Location: 83
Date Collected: 3/2/2010 11:31:36
Data Type: Original

Replicate Data: 248032001|958951|1

Repl #	SampleConc ug/L	StndConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.028	0.028	-0.0000	0.0029	0.0006	11:32:37	Yes
2	0.031	0.031	0.0000	0.0032	0.0006	11:33:12	Yes
Mean:	0.030	0.030	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	8.573	8.573	152.05				

Sequence No.: 98
Sample ID: 248034001|958951|1
Analyst: JXL

Autosampler Location: 84
Date Collected: 3/2/2010 11:33:32
Data Type: Original

Sample ID: 248046002|958951|1
Analyst: JXL

Date Collected: 3/2/2010 11:43:16
Data Type: Original

Replicate Data: 248046002|958951|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.025	0.025	-0.0000	0.0028	0.0006	11:44:17	Yes
2	0.031	0.031	0.0000	0.0032	0.0006	11:44:52	Yes
Mean:	0.028	0.028	-0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	15.25	15.25	>999.9%				

Sequence No.: 104

Autosampler Location: 90

Sample ID: 248053001|958951|1

Date Collected: 3/2/2010 11:45:12

Analyst: JXL

Data Type: Original

Replicate Data: 248053001|958951|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.028	0.028	0.0000	0.0030	0.0006	11:46:14	Yes
2	0.031	0.031	0.0000	0.0030	0.0006	11:46:49	Yes
Mean:	0.029	0.029	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	5.471	5.471	107.18				

Sequence No.: 105

Autosampler Location: 91

Sample ID: 248053002|958951|1

Date Collected: 3/2/2010 11:47:10

Analyst: JXL

Data Type: Original

Replicate Data: 248053002|958951|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.026	0.026	-0.0000	0.0027	0.0006	11:48:11	Yes
2	0.028	0.028	0.0000	0.0029	0.0006	11:48:46	Yes
Mean:	0.027	0.027	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	5.952	5.952	162.46				

Sequence No.: 106

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/2/2010 11:49:06

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	4.948	4.948	0.0522	0.2686	0.0529	11:50:06	Yes
2	4.918	4.918	0.0519	0.2653	0.0525	11:50:41	Yes
Mean:	4.933	4.933	0.0521				
SD:	0.021	0.021	0.0002				
%RSD:	0.435	0.435	0.44				

QC value within limits for Hg 253.7 Recovery = 98.67%
All analyte(s) passed QC.

Sequence No.: 107

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/2/2010 11:51:00

Analyst:

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.024	0.024	-0.0000	0.0025	0.0006	11:52:01	Yes
2	0.032	0.032	0.0000	0.0029	0.0007	11:52:36	Yes

Mean: 0.028 0.028 -0.0000
SD: 0.006 0.006 0.0001
%RSD: 20.56 20.56 >999.9%

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 108

Sample ID: 248053003|958951|1

Analyst: JXL

Autosampler Location: 92

Date Collected: 3/2/2010 11:52:55

Data Type: Original

Replicate Data: 248053003|958951|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.030	0.030	0.0000	0.0032	0.0006	11:53:57	Yes
2	0.035	0.035	0.0001	0.0036	0.0007	11:54:31	Yes
Mean:	0.032	0.032	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	11.99	11.99	88.45				

Sequence No.: 109

Sample ID: 248108001|958951|1

Analyst: JXL

Autosampler Location: 93

Date Collected: 3/2/2010 11:54:52

Data Type: Original

Replicate Data: 248108001|958951|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.026	0.026	-0.0000	0.0030	0.0006	11:55:53	Yes
2	0.030	0.030	0.0000	0.0033	0.0006	11:56:28	Yes
Mean:	0.028	0.028	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	9.111	9.111	>999.9%				

Sequence No.: 110

Sample ID: 248117001|958951|1

Analyst: JXL

Autosampler Location: 94

Date Collected: 3/2/2010 11:56:48

Data Type: Original

Replicate Data: 248117001|958951|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.023	0.023	-0.0000	0.0025	0.0006	11:57:50	Yes
2	0.031	0.031	0.0000	0.0032	0.0006	11:58:25	Yes
Mean:	0.027	0.027	-0.0000				
SD:	0.005	0.005	0.0001				
%RSD:	19.43	19.43	681.10				

Sequence No.: 111

Sample ID: 248145001|958951|1

Analyst: JXL

Autosampler Location: 95

Date Collected: 3/2/2010 11:58:45

Data Type: Original

Replicate Data: 248145001|958951|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.029	0.029	0.0000	0.0032	0.0006	11:59:46	Yes
2	0.027	0.027	-0.0000	0.0029	0.0006	12:00:21	Yes
Mean:	0.028	0.028	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	4.334	4.334	287.89				

Sequence No.: 112

Sample ID: 1202056575|958951|1

Analyst: JXL

Autosampler Location: 96

Date Collected: 3/2/2010 12:00:41

Data Type: Original

Replicate Data: 1202056575|958951|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.024	0.024	-0.0000	0.0028	0.0006	12:01:43	Yes
2	0.032	0.032	0.0000	0.0030	0.0007	12:02:19	Yes
Mean:	0.028	0.028	-0.0000				
SD:	0.006	0.006	0.0001				
%RSD:	20.52	20.52	>999.9%				

Sequence No.: 113

Sample ID: 1202056576|958951|1

Analyst: JXL

Autosampler Location: 97

Date Collected: 3/2/2010 12:02:39

Data Type: Original

Replicate Data: 1202056576|958951|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.290	2.290	0.0240	0.1266	0.0246	12:03:41	Yes
2	2.255	2.255	0.0236	0.1250	0.0243	12:04:16	Yes
Mean:	2.273	2.273	0.0238				
SD:	0.024	0.024	0.0003				
%RSD:	1.063	1.063	1.08				

Sequence No.: 114

Sample ID: 1202056577|958951|5

Analyst: JXL

Autosampler Location: 98

Date Collected: 3/2/2010 12:04:36

Data Type: Original

Replicate Data: 1202056577|958951|5

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.030	0.030	0.0000	0.0032	0.0006	12:05:38	Yes
2	0.032	0.032	0.0000	0.0031	0.0006	12:06:13	Yes
Mean:	0.031	0.031	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	4.606	4.606	53.00				

Sequence No.: 115

Sample ID: 1202056608|958969|1

Analyst: JXL

Autosampler Location: 99

Date Collected: 3/2/2010 12:06:33

Data Type: Original

Replicate Data: 1202056608|958969|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.025	0.025	-0.0000	0.0030	0.0006	12:07:35	Yes
2	0.023	0.023	-0.0000	0.0027	0.0006	12:08:10	Yes
Mean:	0.024	0.024	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	4.800	4.800	32.24				

Sequence No.: 116

Sample ID: 1202056609|958969|1

Analyst: JXL

Autosampler Location: 100

Date Collected: 3/2/2010 12:08:30

Data Type: Original

Replicate Data: 1202056609|958969|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.265	2.265	0.0237	0.1245	0.0244	12:09:32	Yes
2	2.262	2.262	0.0237	0.1229	0.0243	12:10:08	Yes
Mean:	2.263	2.263	0.0237				
SD:	0.002	0.002	0.0000				
%RSD:	0.077	0.077	0.08				

Sequence No.: 117
Sample ID: 248162001|958969|1
Analyst: JXL

Autosampler Location: 101
Date Collected: 3/2/2010 12:10:28
Data Type: Original

Replicate Data: 248162001|958969|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.027	0.027	-0.0000	0.0030	0.0006	12:11:30	Yes
2	0.030	0.030	0.0000	0.0030	0.0006	12:12:05	Yes
Mean:	0.028	0.028	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	5.485	5.485	294.70				

Sequence No.: 118
Sample ID: CCV
Analyst:

Autosampler Location: 7
Date Collected: 3/2/2010 12:12:25
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.004	5.004	0.0528	0.2717	0.0534	12:13:26	Yes
2	5.010	5.010	0.0529	0.2692	0.0535	12:14:01	Yes
Mean:	5.007	5.007	0.0529				
SD:	0.004	0.004	0.0000				
%RSD:	0.080	0.080	0.08				

QC value within limits for Hg 253.7 Recovery = 100.14%
All analyte(s) passed QC.

Sequence No.: 119
Sample ID: CCB
Analyst:

Autosampler Location: 8
Date Collected: 3/2/2010 12:14:20
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.030	0.030	0.0000	0.0031	0.0006	12:15:21	Yes
2	0.038	0.038	0.0001	0.0035	0.0007	12:15:56	Yes
Mean:	0.034	0.034	0.0001				
SD:	0.005	0.005	0.0001				
%RSD:	15.64	15.64	89.85				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 120
Sample ID: 248162002|958969|1
Analyst: JXL

Autosampler Location: 102
Date Collected: 3/2/2010 12:16:15
Data Type: Original

Replicate Data: 248162002|958969|1

Repl #	SampleConc ug/L	StdConc ug/L	BlkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.024	0.024	-0.0000	0.0026	0.0006	12:17:17	Yes
2	0.032	0.032	0.0000	0.0031	0.0006	12:17:52	Yes
Mean:	0.028	0.028	-0.0000				
SD:	0.005	0.005	0.0001				
%RSD:	18.16	18.16	>999.9%				

Sequence No.: 121
Sample ID: 248162003|958969|1
Analyst: JXL

Autosampler Location: 103
Date Collected: 3/2/2010 12:18:12
Data Type: Original

Replicate Data: 248162003|958969|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
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Replicate Data: 248199001|958969|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.032	0.032	0.0000	0.0031	0.0006	12:29:01	Yes
2	0.035	0.035	0.0001	0.0033	0.0007	12:29:36	Yes
Mean:	0.033	0.033	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	7.598	7.598	46.83				

Sequence No.: 127

Autosampler Location: 109

Sample ID: 248238001|958969|1

Date Collected: 3/2/2010 12:29:57

Analyst: JXL

Data Type: Original

Replicate Data: 248238001|958969|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.027	0.027	-0.0000	0.0030	0.0006	12:30:59	Yes
2	0.028	0.028	0.0000	0.0029	0.0006	12:31:33	Yes
Mean:	0.028	0.028	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	4.222	4.222	268.59				

Sequence No.: 128

Autosampler Location: 110

Sample ID: 248238002|958969|1

Date Collected: 3/2/2010 12:31:54

Analyst: JXL

Data Type: Original

Replicate Data: 248238002|958969|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.023	0.023	-0.0001	0.0025	0.0006	12:32:56	Yes
2	0.029	0.029	0.0000	0.0031	0.0006	12:33:31	Yes
Mean:	0.026	0.026	-0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	16.09	16.09	214.23				

Sequence No.: 129

Autosampler Location: 111

Sample ID: 248242001|958969|1

Date Collected: 3/2/2010 12:33:51

Analyst: JXL

Data Type: Original

Replicate Data: 248242001|958969|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.024	0.024	-0.0000	0.0025	0.0006	12:34:53	Yes
2	0.026	0.026	-0.0000	0.0027	0.0006	12:35:28	Yes
Mean:	0.025	0.025	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	3.471	3.471	29.15				

Sequence No.: 130

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/2/2010 12:35:49

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	4.971	4.971	0.0525	0.2714	0.0531	12:36:49	Yes
2	4.945	4.945	0.0522	0.2672	0.0528	12:37:24	Yes
Mean:	4.958	4.958	0.0523				
SD:	0.018	0.018	0.0002				
%RSD:	0.369	0.369	0.37				

QC value within limits for Hg 253.7 Recovery = 99.16%

All analyte(s) passed QC.

Sequence No.: 131

Sample ID: CCB

Analyst:

Autosampler Location: 8

Date Collected: 3/2/2010 12:37:43

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.033	0.033	0.0001	0.0031	0.0007	12:38:44	Yes
2	0.038	0.038	0.0001	0.0033	0.0007	12:39:19	Yes
Mean:	0.035	0.035	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	10.25	10.25	48.76				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 132

Sample ID: 248245001|958969|1

Analyst: JXL

Autosampler Location: 112

Date Collected: 3/2/2010 12:39:39

Data Type: Original

Replicate Data: 248245001|958969|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.026	0.026	-0.0000	0.0027	0.0006	12:40:41	Yes
2	0.027	0.027	-0.0000	0.0028	0.0006	12:41:16	Yes
Mean:	0.026	0.026	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	3.345	3.345	60.45				

Sequence No.: 133

Sample ID: 248257001|958969|1

Analyst: JXL

Autosampler Location: 113

Date Collected: 3/2/2010 12:41:37

Data Type: Original

Replicate Data: 248257001|958969|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.023	0.023	-0.0001	0.0026	0.0006	12:42:39	Yes
2	0.023	0.023	-0.0001	0.0024	0.0006	12:43:14	Yes
Mean:	0.023	0.023	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	1.017	1.017	4.51				

Sequence No.: 134

Sample ID: 1202056610|958969|1

Analyst: JXL

Autosampler Location: 114

Date Collected: 3/2/2010 12:43:34

Data Type: Original

Replicate Data: 1202056610|958969|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.023	0.023	-0.0000	0.0026	0.0006	12:44:36	Yes
2	0.028	0.028	0.0000	0.0028	0.0006	12:45:12	Yes
Mean:	0.026	0.026	-0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	13.38	13.38	174.62				

Sequence No.: 135

Sample ID: 1202056611|958969|1

Analyst: JXL

Autosampler Location: 115

Date Collected: 3/2/2010 12:45:32

Data Type: Original

Replicate Data: 1202056611|958969|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.310	2.310	0.0242	0.1274	0.0248	12:46:35	Yes
2	2.305	2.305	0.0242	0.1264	0.0248	12:47:09	Yes
Mean:	2.307	2.307	0.0242				
SD:	0.004	0.004	0.0000				
%RSD:	0.171	0.171	0.17				

Sequence No.: 136

Autosampler Location: 116

Sample ID: 1202056612|958969|5

Date Collected: 3/2/2010 12:47:30

Analyst: JXL

Data Type: Original

Replicate Data: 1202056612|958969|5

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.028	0.028	0.0000	0.0030	0.0006	12:48:32	Yes
2	0.031	0.031	0.0000	0.0031	0.0006	12:49:07	Yes
Mean:	0.030	0.030	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	5.951	5.951	104.22				

Sequence No.: 137

Autosampler Location: 117

Sample ID: 248257002|958969|1

Date Collected: 3/2/2010 12:49:28

Analyst: JXL

Data Type: Original

Replicate Data: 248257002|958969|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.028	0.028	0.0000	0.0030	0.0006	12:50:30	Yes
2	0.027	0.027	-0.0000	0.0027	0.0006	12:51:05	Yes
Mean:	0.027	0.027	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	3.072	3.072	153.82				

Sequence No.: 138

Autosampler Location: 118

Sample ID: 1202056518|958922|1

Date Collected: 3/2/2010 12:51:25

Analyst: JXL

Data Type: Original

Replicate Data: 1202056518|958922|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.024	0.024	-0.0000	0.0026	0.0006	12:52:27	Yes
2	0.028	0.028	-0.0000	0.0028	0.0006	12:53:02	Yes
Mean:	0.026	0.026	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	8.924	8.924	119.08				

Sequence No.: 139

Autosampler Location: 119

Sample ID: 1202056519|958922|1

Date Collected: 3/2/2010 12:53:23

Analyst: JXL

Data Type: Original

Replicate Data: 1202056519|958922|1

Repl	SampleConc	StndConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.370	2.370	0.0249	0.1300	0.0255	12:54:25	Yes
2	2.364	2.364	0.0248	0.1296	0.0254	12:55:00	Yes
Mean:	2.367	2.367	0.0248				
SD:	0.004	0.004	0.0000				
%RSD:	0.171	0.171	0.17				

Sequence No.: 140

Autosampler Location: 120

Sample ID: 246839001|958922|1

Date Collected: 3/2/2010 12:55:21

Analyst: JXL

Data Type: Original

Replicate Data: 246839001|958922|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.097	0.097	0.0007	0.0079	0.0013	12:56:23	Yes
2	0.077	0.077	0.0005	0.0059	0.0011	12:56:58	Yes
Mean:	0.087	0.087	0.0006				
SD:	0.014	0.014	0.0001				
%RSD:	16.18	16.18	23.82				

Sequence No.: 141

Autosampler Location: 121

Sample ID: 1202056520|958922|1

Date Collected: 3/2/2010 12:57:18

Analyst: JXL

Data Type: Original

Replicate Data: 1202056520|958922|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.075	0.075	0.0005	0.0061	0.0011	12:58:20	Yes
2	0.073	0.073	0.0005	0.0057	0.0011	12:58:56	Yes
Mean:	0.074	0.074	0.0005				
SD:	0.001	0.001	0.0000				
%RSD:	1.776	1.776	2.85				

Sequence No.: 142

Autosampler Location: 7

Sample ID: CCV

Date Collected: 3/2/2010 12:59:16

Analyst:

Data Type: Original

Replicate Data: CCV

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.084	5.084	0.0537	0.2781	0.0543	13:00:17	Yes
2	5.041	5.041	0.0532	0.2763	0.0538	13:00:51	Yes
Mean:	5.063	5.063	0.0535				
SD:	0.030	0.030	0.0003				
%RSD:	0.595	0.595	0.60				

QC value within limits for Hg 253.7 Recovery = 101.25%
All analyte(s) passed QC.

Sequence No.: 143

Autosampler Location: 8

Sample ID: CCB

Date Collected: 3/2/2010 13:01:10

Analyst:

Data Type: Original

Replicate Data: CCB

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.030	0.030	0.0000	0.0029	0.0006	13:02:11	Yes
2	0.046	0.046	0.0002	0.0041	0.0008	13:02:46	Yes
Mean:	0.038	0.038	0.0001				
SD:	0.011	0.011	0.0001				
%RSD:	29.63	29.63	111.17				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 144

Autosampler Location: 122

Sample ID: 1202056521|958922|1

Date Collected: 3/2/2010 13:03:05

Analyst: JXL

Data Type: Original

Replicate Data: 1202056521|958922|1

Repl	SampleConc	StdConc	BlkCorr	Peak	Peak	Time	Peak
#	ug/L	ug/L	Signal	Area	Height		Stored
1	1.930	1.930	0.0202	0.1151	0.0208	13:04:08	Yes

Miscellaneous

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: 958967.0
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 1202056609 Mercury working intermediate standard for LCS/MS WHG100301-13 .2 mL
 MS 1202056611 Mercury working intermediate standard for LCS/MS WHG100301-13 .2 mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202056608 MB	01-MAR-2010 12:20:00	Water	20	20	1	<2
1202056609 LCS	01-MAR-2010 12:20:00	Water	20	20	1	<2
248162001	01-MAR-2010 12:20:00	Water	20	20	1	<2
248162002	01-MAR-2010 12:20:00	Water	20	20	1	<2
248162003	01-MAR-2010 12:20:00	Water	20	20	1	<2
248162004	01-MAR-2010 12:20:00	Water	20	20	1	<2
248172001	01-MAR-2010 12:20:00	Water	20	20	1	<2
248173001	01-MAR-2010 12:20:00	Water	20	20	1	<2
248188001	01-MAR-2010 12:20:00	Water	20	20	1	<2
248199001	01-MAR-2010 12:20:00	Water	20	20	1	<2
248238001	01-MAR-2010 12:20:00	Water	20	20	1	<2
248238002	01-MAR-2010 12:20:00	Water	20	20	1	<2
248242001	01-MAR-2010 12:20:00	Water	20	20	1	<2
248245001	01-MAR-2010 12:20:00	Water	20	20	1	<2
248257001	01-MAR-2010 12:20:00	Water	20	20	1	<2
1202056610 DUP (248257001)	01-MAR-2010 12:20:00	Water	20	20	1	<2
1202056611 MS (248257001)	01-MAR-2010 12:20:00	Water	20	20	1	<2
1202056612 SDILT (248257001)	01-MAR-2010 12:20:00	Water	20	20	1	<2
248257002	01-MAR-2010 12:20:00	Water	20	20	1	<2

Comments:

Digestion Start Date: 01-MAR-10 12:20
 Digestion End Date: 01-MAR-10 14:20

Reagent/Solvent Lot ID	Description	Amount
1176183	Sulfuric Acid, Concentrated	1 mL
1255532-C	Hg reducing agent	1 mL
1274391-1	NITRIC ACID	.5 mL
1274397-C	5% KMnO4 solution	3 mL
1276435-C	5% Potassium Persulfate	1.5 mL
WHG100301-01a	Mercury Working 1st Source CAL 0.2/CRA	20 uL

Analytical Logbook version 1 11-04-2002

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: 959140.0
Analyst: Louis Hall
Method: SW846 3005A
Lab SOP: GL-MA-E-006 REV# 9
Instrument: Metals Manual Instrument

Verified by: _____
Type: LCS
Sample Id: 1202056958
Description: Metals Spike Mix I
Serial Number: U11268741-01
Spike Amount Spike Units: .25 mL

Type: LCS
Sample Id: 1202056958
Description: Metals Spike Mix II
Serial Number: U11268744-06
Spike Amount Spike Units: .25 mL

Type: MS
Sample Id: 1202056960
Description: Metals Spike Mix I
Serial Number: U11268741-01
Spike Amount Spike Units: .25 mL

Type: MS
Sample Id: 1202056960
Description: Metals Spike Mix II
Serial Number: U11268744-06
Spike Amount Spike Units: .25 mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202056957 MB	11-MAR-2010 10:00:00	Water	50	50	1	<2
1202056958 LCS	11-MAR-2010 10:00:00	Water	50	50	1	<2
248242001	11-MAR-2010 10:00:00	Water	50	50	1	<2
248245001	11-MAR-2010 10:00:00	Water	50	50	1	<2
248257001	11-MAR-2010 10:00:00	Water	50	50	1	<2
1202056959 DUP (248257001)	11-MAR-2010 10:00:00	Water	50	50	1	<2
1202056960 MS (248257001)	11-MAR-2010 10:00:00	Water	50	50	1	<2
1202056961 SDILT (248257001)	11-MAR-2010 10:00:00	Water	50	50	1	<2
248257002	11-MAR-2010 10:00:00	Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount	Comments:
1277916	HYDROCHLORIC ACID	2.5 mL	
1277919	Nitric Acid CONC.	1 mL	

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: 959142.0
Analyst: Louis Hall
Method: SW846 3005A
Lab SOP: GL-MA-E-006 REV# 9
Instrument: Metals Manual Instrument

Verified by: _____
Type: LCS
Sample ID: 1202056963
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A)
Serial Number: U11268746-A
Spike Amount: .5 mL

Type: LCS
Sample ID: 1202056963
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B)
Serial Number: U11268749-B
Spike Amount: .5 mL

Type: MS
Sample ID: 1202056965
Description: ICP-MS DOE Liquid Spike Solution A
Serial Number: U1090930-A
Spike Amount: .5 mL

Type: MS
Sample ID: 1202056965
Description: ICP-MS DOE Liquid Spike Solution B
Serial Number: U1090930-B
Spike Amount: .5 mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202056962 MB	11-MAR-2010 10:00:00	Water	50	50	1	<2
1202056963 LCS	11-MAR-2010 10:00:00	Water	50	50	1	<2
248242001	11-MAR-2010 10:00:00	Water	50	50	1	<2
248245001	11-MAR-2010 10:00:00	Water	50	50	1	<2
248257001	11-MAR-2010 10:00:00	Water	50	50	1	<2
1202056964 DUP (248257001)	11-MAR-2010 10:00:00	Water	50	50	1	<2
1202056965 MS (248257001)	11-MAR-2010 10:00:00	Water	50	50	1	<2
1202056966 SDILF (248257001)	11-MAR-2010 10:00:00	Water	50	50	1	<2
248257002	11-MAR-2010 10:00:00	Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount	Comments:
1277916	HYDROCHLORIC ACID	2.5 mL	
1277919	Nitric Acid CONC.	1 mL	

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI090421-40 **Opened:** 09-OCT-09 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 21-APR-09 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 09-OCT-10 **Lot Number :** 0830227
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L +/- 0.5% IN 5% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Standard Logbook

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: O2SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: O2SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Standard Logbook

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR,HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI090930-A **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE liquid Spike Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI090930-B **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H₂O(NH₄)₂SiF₆
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H₂O(NH₄)₂SiF₆
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO₃
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H2O/tr HF
Supplier: ENVIRONMENTAL EXPRESS
Description: SILICON 1000mg/L H2O/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100310-48 **Opened:** 19-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **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: UI100310-49.13 **Opened:** 31-MAR-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 12-MAR-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 01-APR-10 **Lot Number :** 1019142
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: 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

Standard Logbook

Analyte	Concentration	Analyte	Concentration
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:** 15-APR-10 **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: UI100325-40 **Opened:** 25-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 25-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 25-MAR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
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Standard Logbook

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: UI100325-41 **Opened:** 25-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 25-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 25-MAR-11 **Lot Number :** 1019348
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: UI100405-12 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 05-APR-10 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019466
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

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Zinc	2 mg/L		

Serial ID: UI100405-13 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 05-APR-10 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019467
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: O2SI
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: UI100405-60 **Opened:** 05-APR-10 **Amount :** .5 mL
Name: ICPMS High Range Standard **Received:** 05-APR-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019464
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI100405-61 **Opened:** 05-APR-10 **Amount :** .5 mL
Name: ICPMS High Range Standard **Received:** 05-APR-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019464
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B

Standard Logbook

Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI1268741-01 **Opened:** 11-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI1268744-06 **Opened:** 11-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Standard Logbook

Serial ID: UI1268746-A **Opened:** 11-FEB-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 11-FEB-10 **Lot Number :** 1018516
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI1268749-B **Opened:** 11-FEB-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 11-FEB-10 **Lot Number :** 1018516
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UMS100226-01 **Opened:** 26-FEB-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **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

Standard Logbook

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: IHG100301-01 **Opened:** 01-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 01-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 02-MAR-10 **Solvent :** 1mL HNO3 + Type1 H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L

Standard Logbook

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: IHG100301-02 Opened: 01-MAR-10 Pipet Id : Minou1
 Name: MHGINTER2 Received: 01-MAR-10 Solvent : 2% HNO3-1274391
 Type: Intermediate Expires: 02-MAR-10
 Employee: Tara Griffin
 Supplier: GEL
 Description: Mercury Intermediate 2nd Source 200 ug/L
 Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100301-01a Opened: 01-MAR-10 Pipet Id : Hg1289245
 Name: MHGWORKCAL0.2CRA Received: 01-MAR-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 08-MAR-10
 Employee: Tara Griffin
 Supplier: GEL
 Description: Mercury Working 1st Source CAL 0.2/CRA
 Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Serial ID: WHG100301-02 Opened: 01-MAR-10 Pipet Id : Hg1289245
 Name: MHGWORKCAL0.5 Received: 01-MAR-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 08-MAR-10
 Employee: Tara Griffin
 Supplier: GEL
 Description: Mercury Working 1st Source CAL 0.5
 Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG100301-03 Opened: 01-MAR-10 Pipet Id : Hg1289245
 Name: MHGWORKCAL2.0 Received: 01-MAR-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 08-MAR-10
 Employee: Tara Griffin Verified: 20-JUL-07
 Supplier: GEL
 Description: Mercury Working 1st Source CAL 2.0
 Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG100301-04 Opened: 01-MAR-10 Pipet Id : Hg1289245
 Name: MHGWORKCAL5.0CCV Received: 01-MAR-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 08-MAR-10
 Employee: Tara Griffin Verified: 20-JUL-07
 Supplier: GEL
 Description: Mercury Working 1st Source CAL 5.0/CCV
 Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100301-05 Opened: 01-MAR-10 Pipet Id : Hg1289245
 Name: MHGWORKCAL10.0 Received: 01-MAR-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 08-MAR-10
 Employee: Tara Griffin Verified: 20-JUL-07
 Supplier: GEL
 Description: Mercury Working 1st Source CAL 10.0
 Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Serial ID: WHG100301-06 Opened: 01-MAR-10 Pipet Id : Hg1289245
 Name: MHGWORK5.0ICV Received: 01-MAR-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 08-MAR-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.
IHG100301-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100301-13 Opened: 01-MAR-10 Pipet Id : Hg1289245
 Name: MHGLIQLCSMSSPIKE Received: 01-MAR-10 Solvent : 2% HNO3-1274391
 Type: Working Expires: 08-MAR-10
 Employee: Tara Griffin Verified: 20-JUL-07
 Supplier: GEL
 Description: Mercury working 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: WI100331-42 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
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.
WI100331-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100331-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100331-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100331-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100331-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100331-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100331-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Serial ID: WI100331-43 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
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: WI100331-44 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1 %HNO3-1293083
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: WI100331-45 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
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: WI100331-46 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL AND 1%HNO3-1293083
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: WI100331-47 **Opened:** 31-MAR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 01-APR-10 **Solvent :** 3%HCL &1%HNO3-1293083
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: WMS100411-04 **Opened:** 11-APR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 11-APR-10 **Balance Id :** 4025216
Type: Working **Expires:** 12-APR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1296562
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: WMS100411-04A Opened: 11-APR-10 Balance Id : 4025216
 Name: ICPMS Cal Standard 10 Received: 11-APR-10 Pipet Id : 3541598
 Type: Working Expires: 12-APR-10 Solvent : 2%HNO3/1%HCl - 1296562
 Employee: Paul Boyd
 Supplier: GEL
 Description: ICPMS Calibration Standard (10 ppb)
 Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100411-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100411-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100411-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100411-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100411-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100411-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100411-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100411-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100411-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100411-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100411-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100411-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: <u>WMS100411-05</u>	Opened: <u>11-APR-10</u>	Balance Id : <u>40245216</u>
Name: <u>ICPMS ICV</u>	Received: <u>11-APR-10</u>	Pipet Id : <u>3541598</u>
Type: <u>Working</u>	Expires: <u>12-APR-10</u>	Solvent : <u>2%HNO3/1%HCl - 1296562</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: WMS100411-06 **Opened:** 11-APR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 11-APR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 12-APR-10 **Solvent :** 2%HNO3/1%HCl - 1296562
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: WMS100411-07 **Opened:** 11-APR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 11-APR-10 **Lot Number :** 1010773
Type: Working **Expires:** 12-APR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1296562
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: WMS100411-08 **Opened:** 11-APR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 11-APR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 12-APR-10 **Solvent :** 2%HNO3/1%HCl - 1296562
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
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
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS100411-70 **Opened:** 11-APR-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 11-APR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 12-APR-10 **Solvent :** 2%HNO3/1%HCl - 1296562
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100405-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100405-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100405-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100405-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100405-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100405-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI100405-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100413-04 **Opened:** 13-APR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 13-APR-10 **Balance Id :** 4025216
Type: Working **Expres:** 14-APR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1300209
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
UMS100226-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100413-04A **Opened:** 13-APR-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 13-APR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 14-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Allquot	Final Vol.	Final Conc.
WMS100413-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100413-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100413-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100413-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100413-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100413-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100413-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100413-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100413-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100413-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100413-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100413-05 **Opened:** 13-APR-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 13-APR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 14-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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: WMS100413-06 **Opened:** 13-APR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 13-APR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 14-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100413-07 **Opened:** 13-APR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 13-APR-10 **Lot Number :** 1010773
Type: Working **Expires:** 14-APR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1300209
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: WMS100413-08 **Opened:** 13-APR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 13-APR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 14-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
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

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
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
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

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

Standard Logbook

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

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: 1274391-1 **Opened:** 24-FEB-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 24-FEB-10 **Lot Number :** H44025
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1274397-C **Opened:** 24-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 24-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1276435-C Opened: 28-FEB-10 Balance Id : BAL-002
 Name: B-K2S2O8-MER Received: 28-FEB-10
 Type: Reagent/Solvent Expires: 28-AUG-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: 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: 1277919 Opened: 02-MAR-10 Lot Number : J 04043 L
 Name: I-HNO3 Received: 02-MAR-10
 Type: Reagent/Solvent Expires: 02-MAR-11
 Employee: Francena Armstrong
 Supplier: BAKER
 Description: Nitric Acid CONC.
 Comments: None

Serial ID: 1291278 Opened: 25-MAR-10 Lot Number : J 08035 L
 Name: I-HNO3 Received: 25-MAR-10
 Type: Reagent/Solvent Expires: 25-MAR-11
 Employee: Anthony Green
 Supplier: BAKER
 Description: Nitric Acid CONC.
 Comments: None

Serial ID: 1293083 Opened: 29-MAR-10 Amount : 20 L
 Name: B-ICP-RINSE SOLN Received: 29-MAR-10 Lot Number : H04040+G34050
 Type: Reagent/Solvent Expires: 04-APR-10 Solvent : 3%HCL+1%HNO3
 Employee: Helen Camello
 Supplier: GEL

Standard Logbook

Description: 3%HCL+1%HNO3 RINSE SOLN.

Comments: None

Serial ID: 1296562 Opened: 05-APR-10 Solvent : Type I Water

Name: B-2%HNO3/1%HCL-ICPMS Received: 05-APR-10

Type: Reagent/Solvent Expires: 12-APR-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.
1277916	I-HCL	36.5-38.0	90 mL	9 l	N/A
1291278	I-HNO3	69.0-70.0	180 mL	9 l	N/A

Serial ID: 1300209 Opened: 12-APR-10 Solvent : Type I Water

Name: B-2%HNO3/1%HCL-ICPMS Received: 12-APR-10

Type: Reagent/Solvent Expires: 19-APR-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.
1277916	I-HCL	36.5-38.0	90 mL	9 l	N/A
1291278	I-HNO3	69.0-70.0	180 mL	9 l	N/A

General Chemistry Analysis

Case Narrative

**General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2135**

Method/Analysis Information

Product: pH
Analytical Batch: 960262 **Method:** SW9045C pH

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9045C/9045D:

Sample ID	Client ID
248241001	RE36-10-7458
248241002	RE36-10-7453
248241003	RE36-10-7454
248241004	RE36-10-7460
248241005	RE36-10-7456
248241006	RE36-10-7455
248241007	RE36-10-7459
248241008	RE36-10-7457
248241009	RE36-10-7520
248241010	RE36-10-7519
1202059707	248202001(RE36-10-8282) Sample Duplicate (DUP)
1202059708	248241001(RE36-10-7458) Sample Duplicate (DUP)
1202059709	Laboratory Control Sample (LCS)

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

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-008 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Electrode analysis was performed on a PerpHect pH Meter Orion 370.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within

acceptance limits.

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 248202001 (RE36-10-8282) and 248241001 (RE36-10-7458).

Duplicate Relative Percent Difference (RPD) Statement

The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times

The following samples from this sample group were received by the lab outside of the method specified holding time: 1202059707 (RE36-10-8282), 1202059708 (RE36-10-7458), 248241001 (RE36-10-7458), 248241002 (RE36-10-7453), 248241003 (RE36-10-7454), 248241004 (RE36-10-7460), 248241005 (RE36-10-7456), 248241006 (RE36-10-7455), 248241007 (RE36-10-7459), 248241008 (RE36-10-7457), 248241009 (RE36-10-7520) and 248241010 (RE36-10-7519).

Sample Re-analysis

The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation

A DER was not required for this SDG.

Additional Comments

Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: Cyanide, Total

Analytical Batch: 959212 and 959214 **Method:** SW9012A Cyanide and Total

Prep Batch : 959211 and 959213 **Method:** SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
248241001	RE36-10-7458
248241002	RE36-10-7453
248241003	RE36-10-7454
248241004	RE36-10-7460
248241005	RE36-10-7456
248241006	RE36-10-7455
248241007	RE36-10-7459
248241008	RE36-10-7457
248241009	RE36-10-7520
248241010	RE36-10-7519
1202057145	Method Blank (MB)
1202057146	248159003(RE46-10-13511) Sample Duplicate (DUP)
1202057147	248159004(RE46-10-13513) Sample Duplicate (DUP)
1202057148	248159003(RE46-10-13511) Matrix Spike (MS)
1202057149	248159004(RE46-10-13513) Matrix Spike (MS)
1202057150	248159003(RE46-10-13511) Matrix Spike Duplicate (MSD)
1202057151	248159004(RE46-10-13513) Matrix Spike Duplicate (MSD)
1202057152	Laboratory Control Sample (LCS)
1202057153	Method Blank (MB)
1202057154	248241003(RE36-10-7454) Sample Duplicate (DUP)
1202057155	248241004(RE36-10-7460) Sample Duplicate (DUP)
1202057156	248241003(RE36-10-7454) Matrix Spike (MS)
1202057157	248241004(RE36-10-7460) Matrix Spike (MS)
1202057158	248241003(RE36-10-7454) Matrix Spike Duplicate (MSD)
1202057159	248241004(RE36-10-7460) Matrix Spike Duplicate (MSD)
1202057160	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: 248159003 (RE46-10-13511), 248159004 (RE46-10-13513)- Batch 959212, 248241003 (RE36-10-7454) and 248241004 (RE36-10-7460)- Batch 959214.

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement

The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement

The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement

The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202057146 (RE46-10-13511)- Batch 959212, 1202057155 (RE36-10-7460) and 248241004 (RE36-10-7460)- Batch 959214.

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: 1202057152 (LCS)- Batch 959212 and 1202057160 (LCS)- Batch 959214.

Sample Re-analysis

The samples in this SDG did not require re-analysis.

Miscellaneous Information**Data Exception (DER) Documentation**

A DER was not required for this SDG.

Additional Comments

Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: Ion Chromatography
Analytical Batch: 966999 **Method:** EPA 300.0 Nitrate in Soil
Prep Batch : 966995 **Method:** EPA 300.0 PREP

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
248241001	RE36-10-7458
248241002	RE36-10-7453
248241003	RE36-10-7454
248241004	RE36-10-7460
248241005	RE36-10-7456
248241006	RE36-10-7455
248241007	RE36-10-7459
248241008	RE36-10-7457
248241009	RE36-10-7520
248241010	RE36-10-7519
1202075357	Method Blank (MB)
1202075358	248241001(RE36-10-7458) Sample Duplicate (DUP)
1202075359	248241001(RE36-10-7458) Matrix Spike (MS)
1202075360	248241001(RE36-10-7458) Matrix Spike Duplicate (MSD)
1202075361	Laboratory Control Sample (LCS)

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

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-086 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Ion Chromatography analysis was performed on a Dionex ICS-3000 Ion Chromatograph.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

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

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following sample was selected for QC analysis: 248241001 (RE36-10-7458).

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 RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times

All samples in this SDG met the specified holding time.

Sample Dilutions

The samples in this SDG did not require dilutions.

Sample Re-analysis

The samples in this SDG did not require re-analysis.

Miscellaneous Information**Data Exception (DER) Documentation**

A DER was not required for this SDG.

Manual Integrations

The following samples from this sample group had to be manually integrated due to errors in the instrument software peak integration: 248241003 (RE36-10-7454) and 248241005 (RE36-10-7456).

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: 03/26/10

Sample Data Summary

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Certificate of Analysis Report for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2135 GEL Work Order: 248241

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



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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 26, 2010

Client SDG: 10-2135

Client Sample ID: RE36-10-7458
Sample ID: 248241001
Matrix: R
Collect Date: 24-FEB-10 12:00
Receive Date: 27-FEB-10
Collector: Client
Moisture: 14.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 21.0C	H	5.24	0.010	0.100	SU	1	TXT1	03/03/10	1334	960262	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		363	70.7	260	ug/kg	1	AXC2	03/10/10	1146	959212	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N	U	ND	0.350	1.17	mg/kg	1	MAR1	03/23/10	0140	966999	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	03/22/10	1400	966995
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/09/10	1524	959211

The following Analytical Methods were performed

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

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

Report Date: March 26, 2010

Client SDG: 10-2135

Client Sample ID: RE36-10-7453
Sample ID: 248241002
Matrix: R
Collect Date: 24-FEB-10 12:00
Receive Date: 27-FEB-10
Collector: Client
Moisture: 44.7%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.8C	H	6.73	0.010	0.100	SU	1	TXT1	03/03/10	1339	960262	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	J	362	116	427	ug/kg	1	AXC2	03/10/10	1147	959212	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		3.42	0.543	1.81	mg/kg	1	MAR1	03/23/10	0328	966999	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	03/22/10	1400	966995
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/09/10	1524	959211

The following Analytical Methods were performed

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

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

Report Date: March 26, 2010

Client SDG: 10-2135

Client Sample ID: RE36-10-7454
Sample ID: 248241003
Matrix: R
Collect Date: 24-FEB-10 12:00
Receive Date: 27-FEB-10
Collector: Client
Moisture: 8.15%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.8C	H	7.77	0.010	0.100	SU	1	TXT1	03/03/10	1342	960262	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	U	ND	68.6	252	ug/kg	1	AXC2	03/10/10	1451	959214	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		1.47	0.327	1.09	mg/kg	1	MAR1	03/23/10	0355	966999	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	03/22/10	1400	966995
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/10/10	1107	959213

The following Analytical Methods were performed

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

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

Report Date: March 26, 2010

Client SDG: 10-2135

Client Sample ID: RE36-10-7460
Sample ID: 248241004
Matrix: R
Collect Date: 24-FEB-10 12:00
Receive Date: 27-FEB-10
Collector: Client
Moisture: 9.49%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.7C	H	6.55	0.010	0.100	SU	1	TXT1	03/03/10	1343	960262	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	J	112	75.1	276	ug/kg	1	AXC2	03/10/10	1455	959214	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		1.68	0.331	1.10	mg/kg	1	MAR1	03/23/10	0422	966999	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	03/22/10	1400	966995
SW846 9010B Prep	SW846 9010B Prcp	AXS5	03/10/10	1107	959213

The following Analytical Methods were performed

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

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

Report Date: March 26, 2010

Client SDG: 10-2135

Client Sample ID: RE36-10-7456
Sample ID: 248241005
Matrix: R
Collect Date: 24-FEB-10 12:00
Receive Date: 27-FEB-10
Collector: Client
Moisture: 7.48%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.3C	H	6.16	0.010	0.100	SU	1	TXT1	03/03/10	1346	960262	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total	J	117	72.1	265	ug/kg	1	AXC2	03/10/10	1502	959214	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		1.39	0.324	1.08	mg/kg	1	MAR1	03/23/10	0448	966999	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	03/22/10	1400	966995
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/10/10	1107	959213

The following Analytical Methods were performed

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

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

Report Date: March 26, 2010

Client SDG: 10-2135

Client Sample ID: RE36-10-7455
Sample ID: 248241006
Matrix: R
Collect Date: 24-FEB-10 12:00
Receive Date: 27-FEB-10
Collector: Client
Moisture: 24.4%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.3C	H	6.39	0.010	0.100	SU	1	TXT1	03/03/10	1349	960262	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		596	88.2	324	ug/kg	1	AXC2	03/10/10	1503	959214	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		2.39	0.397	1.32	mg/kg	1	MAR1	03/23/10	0609	966999	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	03/22/10	1400	966995
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/10/10	1107	959213

The following Analytical Methods were performed

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

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Project: LANL ER Project

Report Date: March 26, 2010

Client SDG: 10-2135

Client Sample ID: RE36-10-7459
Sample ID: 248241007
Matrix: R
Collect Date: 24-FEB-10 12:00
Receive Date: 27-FEB-10
Collector: Client
Moisture: 18.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.0C	H	6.87	0.010	0.100	SU	1	TXT1	03/03/10	1357	960262	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		1310	76.1	280	ug/kg	1	AXC2	03/10/10	1503	959214	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		1.99	0.369	1.23	mg/kg	1	MAR1	03/23/10	0636	966999	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	03/22/10	1400	966995
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/10/10	1107	959213

The following Analytical Methods were performed

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

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 26, 2010

Client SDG: 10-2135

Client Sample ID: RE36-10-7457
Sample ID: 248241008
Matrix: R
Collect Date: 24-FEB-10 12:00
Receive Date: 27-FEB-10
Collector: Client
Moisture: 18.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.9C	H	5.63	0.010	0.100	SU	1	TXT1	03/03/10	1357	960262	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		1100	79.0	291	ug/kg	1	AXC2	03/10/10	1504	959214	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		2.52	0.370	1.23	mg/kg	1	MAR1	03/23/10	0703	966999	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	03/22/10	1400	966995
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/10/10	1107	959213

The following Analytical Methods were performed

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

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Certificate of Analysis

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

Report Date: March 26, 2010

Client SDG: 10-2135

Client Sample ID: RE36-10-7520
Sample ID: 248241009
Matrix: R
Collect Date: 24-FEB-10 12:00
Receive Date: 27-FEB-10
Collector: Client
Moisture: 42.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 20.0C	H	6.90	0.010	0.100	SU	1	TXT1	03/03/10	1359	960262	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		452	111	408	ug/kg	1	AXC2	03/10/10	1505	959214	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		2.80	0.519	1.73	mg/kg	1	MAR1	03/23/10	0730	966999	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	03/22/10	1400	966995
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/10/10	1107	959213

The following Analytical Methods were performed

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

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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 26, 2010

Client SDG: 10-2135

Client Sample ID: RE36-10-7519
Sample ID: 248241010
Matrix: R
Collect Date: 24-FEB-10 12:00
Receive Date: 27-FEB-10
Collector: Client
Moisture: 21%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Electrode Analysis											
<i>SW9045C pH "As Received"</i>											
pH at Temp 19.8C	H	6.91	0.010	0.100	SU	1	TXT1	03/03/10	1400	960262	1
Flow Injection Analysis											
<i>SW9012A Cyanide, Total "Dry Weight Corrected"</i>											
Cyanide, Total		690	86.1	317	ug/kg	1	AXC2	03/10/10	1506	959214	2
Ion Chromatography											
<i>EPA 300.0 Nitrate in Soil "Dry Weight Corrected"</i>											
Nitrate-N		2.44	0.380	1.27	mg/kg	1	MAR1	03/23/10	0757	966999	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 300.0 PREP	EPA 300.0 Total Anions in Soil	MAR1	03/22/10	1400	966995
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/10/10	1107	959213

The following Analytical Methods were performed

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

Quality Control Summary

GEL LABORATORIES LLC

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QC Summary

Report Date: March 26, 2010

Page 1 of 3

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

Workorder: 248241

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Electrode Analysis											
Batch	960262										
QC1202059707	248202001	DUP									
pH		H	6.74	H	6.73	SU	0.148	(0%-10%)	TXT1	03/03/10	13:30
QC1202059708	248241001	DUP									
pH		H	5.24	H	5.21	SU	0.574	(0%-10%)		03/03/10	13:37
QC1202059709	LCS										
pH	7.00				6.98	SU	99.7	(95%-105%)		03/03/10	13:24
Flow Injection Analysis											
Batch	959212										
QC1202057146	248159003	DUP									
Cyanide, Total		U	ND	U	ND	ug/kg	N/A		AXC2	03/10/10	11:18
QC1202057147	248159004	DUP									
Cyanide, Total		J	76.8	U	ND	ug/kg	200 ^			03/10/10	11:22
QC1202057152	LCS										
Cyanide, Total	67900				62300	ug/kg	91.7	(32%-157%)		03/10/10	11:16
QC1202057145	MB										
Cyanide, Total				U	250	ug/kg				03/10/10	11:15
QC1202057148	248159003	MS									
Cyanide, Total	4930	U	ND		4620	ug/kg	93.7	(26%-158%)		03/10/10	11:19
QC1202057149	248159004	MS									
Cyanide, Total	4730	J	76.8		3640	ug/kg	75.5	(26%-158%)		03/10/10	11:23
QC1202057150	248159003	MSD									
Cyanide, Total	5520	U	ND		4870	ug/kg	5.40	88.3	(0%-30%)	03/10/10	11:20
QC1202057151	248159004	MSD									
Cyanide, Total	5090	J	76.8		4340	ug/kg	17.5	83.8	(0%-30%)	03/10/10	11:23
Batch	959214										
QC1202057154	248241003	DUP									
Cyanide, Total		U	ND	U	ND	ug/kg	N/A		AXC2	03/10/10	14:52
QC1202057155	248241004	DUP									
Cyanide, Total		J	112	J	159	ug/kg	34.9 ^	(+/-271)		03/10/10	14:55
QC1202057160	LCS										
Cyanide, Total	67900				59800	ug/kg	88	(32%-157%)		03/10/10	14:50
QC1202057153	MB										
Cyanide, Total				U	250	ug/kg				03/10/10	14:49
QC1202057156	248241003	MS									
Cyanide, Total	4860	U	ND		4530	ug/kg	93.2	(26%-158%)		03/10/10	14:53
QC1202057157	248241004	MS									
Cyanide, Total	5520	J	112		5050	ug/kg	89.5	(26%-158%)		03/10/10	14:56
QC1202057158	248241003	MSD									
Cyanide, Total	5340	U	ND		5180	ug/kg	13.4	97.1	(0%-30%)	03/10/10	14:54
QC1202057159	248241004	MSD									
Cyanide, Total	5210	J	112		4900	ug/kg	3.02	92	(0%-30%)	03/10/10	14:57
Ion Chromatography											
Batch	966999										

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QC Summary

Workorder: 248241

Page 2 of 3

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	966999										
QC1202075358	248241001	DUP									
Nitrate-N			U	ND	U	ND	mg/kg	N/A		MAR1	03/23/10 02:07
QC1202075361	LCS										
Nitrate-N	50.0					46.8	mg/kg	93.5 (90%-110%)			03/23/10 01:13
QC1202075357	MB										
Nitrate-N			U			1.00	mg/kg				03/23/10 00:46
QC1202075359	248241001	MS									
Nitrate-N	58.3	U		ND		53.0	mg/kg	90.9 (90%-110%)			03/23/10 02:34
QC1202075360	248241001	MSD									
Nitrate-N	58.3	U		ND		53.1	mg/kg	0.154 91.1 (0%-20%)			03/23/10 03:01

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.
- 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

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QC Summary

Workorder: 248241

Page 3 of 3

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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: 26-MAR-2010 09:00

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-2135

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	10-MAR-2010 10:58:04	OM_3-10-2010_10-49-24	146	150	97.3	(90%-110%)	Yes
CCV	10-MAR-2010 11:12:20	OM_3-10-2010_10-49-24	101	100	101	(90%-110%)	Yes
CCV	10-MAR-2010 11:24:45	OM_3-10-2010_10-49-24	101	100	101	(90%-110%)	Yes
CCV	10-MAR-2010 11:37:08	OM_3-10-2010_10-49-24	99.6	100	99.6	(90%-110%)	Yes
CCV	10-MAR-2010 11:49:39	OM_3-10-2010_10-49-24	101	100	101	(90%-110%)	Yes
CCV	10-MAR-2010 14:46:09	OM_3-10-2010_14-44-38	101	100	101	(90%-110%)	Yes
CCV	10-MAR-2010 14:58:37	OM_3-10-2010_14-44-38	99.4	100	99.4	(90%-110%)	Yes
CCV	10-MAR-2010 15:11:01	OM_3-10-2010_14-44-38	102	100	102	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	10-MAR-2010 10:59:54	OM_3-10-2010_10-49-24	-0.144	10	Yes
CCB	10-MAR-2010 11:14:10	OM_3-10-2010_10-49-24	-1.88	10	Yes
CCB	10-MAR-2010 11:26:35	OM_3-10-2010_10-49-24	-1.09	10	Yes
CCB	10-MAR-2010 11:38:58	OM_3-10-2010_10-49-24	-0.973	10	Yes
CCB	10-MAR-2010 11:51:29	OM_3-10-2010_10-49-24	-2.16	10	Yes
CCB	10-MAR-2010 14:47:59	OM_3-10-2010_14-44-38	-1.25	10	Yes
CCB	10-MAR-2010 15:00:26	OM_3-10-2010_14-44-38	-1.36	10	Yes
CCB	10-MAR-2010 15:12:52	OM_3-10-2010_14-44-38	-2.08	10	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 26-MAR-2010 09:00

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-2135

Ion Chromatography

Method: EPA 300.0

Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Nitrate-N

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	22-MAR-2010 12:37:00	100322	4.6718	5	93.4	(90%-110%)	Yes
CCV	22-MAR-2010 23:52:00	100322	4.6492	5	93	(90%-110%)	Yes
CCV	23-MAR-2010 05:15:00	100322	7.2916	7.5	97.2	(90%-110%)	Yes
CCV	23-MAR-2010 08:24:00	100322	4.68	5	93.6	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	22-MAR-2010 13:54:00	100322	0	0.1	Yes
CCB	23-MAR-2010 00:19:00	100322	0	0.1	Yes
CCB	23-MAR-2010 05:42:00	100322	0	0.1	Yes
CCB	23-MAR-2010 08:51:00	100322	0	0.1	Yes

Cyanide, Total

Cyanide Sample Distillation

Batch ID:	959211.0	Verified by:	Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
Analyst:	Alan Stanley		LCS	1202057152	Total Cyanide Solid LCS	URF1200957-01	.25	g
Method:	SW846 9010B Prep		MS	1202057148	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	1202057149	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
Instrument:	Sartorius Balance B-001		MSD	1202057150	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
			MSD	1202057151	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 I		
1202057145 MB	09-MAR-2010 15:24:00	Soil	0.5	25	50	>12		
1202057152 LCS	09-MAR-2010 15:24:00	Soil	0.25	25	100	>12		
248159003	09-MAR-2010 15:24:00	Soil	0.55	25	45.45455	>12		
1202057146 DUP (248159003)	09-MAR-2010 15:24:00	Soil	0.56	25	44.64286	>12		
1202057148 MS (248159003)	09-MAR-2010 15:24:00	Soil	0.56	25	44.64286	>12		
1202057150 MSD (248159003)	09-MAR-2010 15:24:00	Soil	0.5	25	50	>12		
248159004	09-MAR-2010 15:24:00	Soil	0.5	25	50	>12		
1202057147 DUP (248159004)	09-MAR-2010 15:24:00	Soil	0.51	25	49.01961	>12		
1202057149 MS (248159004)	09-MAR-2010 15:24:00	Soil	0.56	25	44.64286	>12		
1202057151 MSD (248159004)	09-MAR-2010 15:24:00	Soil	0.52	25	48.07692	>12		
248159005	09-MAR-2010 15:24:00	Soil	0.5	25	50	>12		
248159006	09-MAR-2010 15:24:00	Soil	0.52	25	48.07692	>12		
248163001	09-MAR-2010 15:24:00	Soil	0.58	25	43.10345	>12		
248163002	09-MAR-2010 15:24:00	Soil	0.54	25	46.2963	>12		
248163003	09-MAR-2010 15:24:00	Soil	0.56	25	44.64286	>12		
248163004	09-MAR-2010 15:24:00	Soil	0.52	25	48.07692	>12		
248163005	09-MAR-2010 15:24:00	Soil	0.57	25	43.85965	>12		
248163006	09-MAR-2010 15:24:00	Soil	0.54	25	46.2963	>12		
248163007	09-MAR-2010 15:24:00	Soil	0.55	25	45.45455	>12		
248163008	09-MAR-2010 15:24:00	Soil	0.54	25	46.2963	>12		
248163009	09-MAR-2010 15:24:00	Soil	0.55	25	45.45455	>12		

Prep Logbook

Batch ID: 959211.0
 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	1202057152	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202057148	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202057149	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202057150	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202057151	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
248163010	09-MAR-2010 15:24:00	Soil	0.56	25	44.64286	>12
248163011	09-MAR-2010 15:24:00	Soil	0.57	25	43.85965	>12
248163012	09-MAR-2010 15:24:00	Soil	0.53	25	47.16981	>12
248163013	09-MAR-2010 15:24:00	Soil	0.53	25	47.16981	>12
248163014	09-MAR-2010 15:24:00	Soil	0.52	25	48.07692	>12
248241001	09-MAR-2010 15:24:00	Soil	0.56	25	44.64286	>12
248241002	09-MAR-2010 15:24:00	Soil	0.53	25	47.16981	>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
WCN100309-07	150 ppb CN Distilled ICV Standard	.0375 mL

Prep Logbook

Cyanide Sample Distillation

Batch ID: 959213.0
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	1202057160	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202057156	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202057157	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202057158	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202057159	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
1202057153 MB	10-MAR-2010 11:07:00	Soil	0.5	25	50	>12
1202057160 LCS	10-MAR-2010 11:07:00	Soil	0.25	25	100	>12
248241003	10-MAR-2010 11:07:00	Soil	0.54	25	46.2963	>12
1202057154 DUP (248241003)	10-MAR-2010 11:07:00	Soil	0.53	25	47.16981	>12
1202057156 MS (248241003)	10-MAR-2010 11:07:00	Soil	0.56	25	44.64286	>12
1202057158 MSD (248241003)	10-MAR-2010 11:07:00	Soil	0.51	25	49.01961	>12
248241004	10-MAR-2010 11:07:00	Soil	0.5	25	50	>12
1202057155 DUP (248241004)	10-MAR-2010 11:07:00	Soil	0.51	25	49.01961	>12
1202057157 MS (248241004)	10-MAR-2010 11:07:00	Soil	0.5	25	50	>12
1202057159 MSD (248241004)	10-MAR-2010 11:07:00	Soil	0.53	25	47.16981	>12
248241005	10-MAR-2010 11:07:00	Soil	0.51	25	49.01961	>12
248241006	10-MAR-2010 11:07:00	Soil	0.51	25	49.01961	>12
248241007	10-MAR-2010 11:07:00	Soil	0.55	25	45.45455	>12
248241008	10-MAR-2010 11:07:00	Soil	0.53	25	47.16981	>12
248241009	10-MAR-2010 11:07:00	Soil	0.53	25	47.16981	>12
248241010	10-MAR-2010 11:07:00	Soil	0.5	25	50	>12
248247001	10-MAR-2010 11:07:00	Soil	0.5	25	50	>12
248247002	10-MAR-2010 11:08:00	Soil	0.51	25	49.01961	>12
248247003	10-MAR-2010 11:08:00	Soil	0.59	25	42.37288	>12
248247004	10-MAR-2010 11:08:00	Soil	0.59	25	42.37288	>12
248247005	10-MAR-2010 11:08:00	Soil	0.52	25	48.07692	>12

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC

Prep Logbook

Batch ID: 959213.0
Analyst: Alan Stanley
Method: SW846 9010B Prep
Lab SOP: GL-GC-E-067 REV# 13
Instrument: Sartorius Balance B-001

Type	Sample ID	Description	Serial Number	Spike Amount	Spike Units
LCS	1202057160	Total Cyanide Solid LCS	URF1200957-01	.25	g
MS	1202057156	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202057157	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202057158	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202057159	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

pH Check 1

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
248247006	10-MAR-2010 11:08:00	Soil	0.52	25	48.07692	>12
248247007	10-MAR-2010 11:08:00	Soil	0.55	25	45.45455	>12
248247008	10-MAR-2010 11:08:00	Soil	0.52	25	48.07692	>12
248250001	10-MAR-2010 11:08:00	Soil	0.55	25	45.45455	>12
248250002	10-MAR-2010 11:08:00	Soil	0.54	25	46.2963	>12
248250003	10-MAR-2010 11:08:00	Soil	0.56	25	44.64286	>12
248250004	10-MAR-2010 11:08:00	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
WCN100310-07	150 ppb CN Distilled ICV Standard	.0375 mL

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/10/2010 10:50:55	OM_3-10-2010_10-49-24
150 ppb		1	axc2	3/10/2010 10:51:47	OM_3-10-2010_10-49-24
100 ppb		1	axc2	3/10/2010 10:52:40	OM_3-10-2010_10-49-24
50 ppb		1	axc2	3/10/2010 10:53:32	OM_3-10-2010_10-49-24
10 ppb		1	axc2	3/10/2010 10:54:26	OM_3-10-2010_10-49-24
CRDL 5.0 ppb		1	axc2	3/10/2010 10:55:20	OM_3-10-2010_10-49-24
ICAL-00		1	axc2	3/10/2010 10:56:14	OM_3-10-2010_10-49-24
ICV		1	axc2	3/10/2010 10:58:04	OM_3-10-2010_10-49-24
ICB		1	axc2	3/10/2010 10:59:54	OM_3-10-2010_10-49-24
CRDL		1	axc2	3/10/2010 11:01:43	OM_3-10-2010_10-49-24
1202066540	963300	1	axc2	3/10/2010 11:03:32	OM_3-10-2010_10-49-24
1202066541	963300	1	axc2	3/10/2010 11:04:26	OM_3-10-2010_10-49-24
248455001	963300	1	axc2	3/10/2010 11:05:19	OM_3-10-2010_10-49-24
248455002	963300	1	axc2	3/10/2010 11:06:12	OM_3-10-2010_10-49-24
248455003	963300	1	axc2	3/10/2010 11:07:05	OM_3-10-2010_10-49-24
248523001	963300	1	axc2	3/10/2010 11:07:58	OM_3-10-2010_10-49-24
248792001	963300	1	axc2	3/10/2010 11:08:51	OM_3-10-2010_10-49-24
1202066542	963300	1	axc2	3/10/2010 11:09:43	OM_3-10-2010_10-49-24
1202066543	963300	1	axc2	3/10/2010 11:10:36	OM_3-10-2010_10-49-24
1202066544	963300	1	axc2	3/10/2010 11:11:28	OM_3-10-2010_10-49-24
CCV		1	axc2	3/10/2010 11:12:20	OM_3-10-2010_10-49-24
CCB		1	axc2	3/10/2010 11:14:10	OM_3-10-2010_10-49-24
1202057145	959212	1	axc2	3/10/2010 11:15:58	OM_3-10-2010_10-49-24
1202057152	959212	25	axc2	3/10/2010 11:16:50	OM_3-10-2010_10-49-24
248159003	959212	1	axc2	3/10/2010 11:17:42	OM_3-10-2010_10-49-24
1202057146	959212	1	axc2	3/10/2010 11:18:34	OM_3-10-2010_10-49-24
1202057148	959212	1	axc2	3/10/2010 11:19:25	OM_3-10-2010_10-49-24
1202057150	959212	1	axc2	3/10/2010 11:20:19	OM_3-10-2010_10-49-24
248159004	959212	1	axc2	3/10/2010 11:21:13	OM_3-10-2010_10-49-24
1202057147	959212	1	axc2	3/10/2010 11:22:06	OM_3-10-2010_10-49-24
1202057149	959212	1	axc2	3/10/2010 11:23:00	OM_3-10-2010_10-49-24
1202057151	959212	1	axc2	3/10/2010 11:23:53	OM_3-10-2010_10-49-24
CCV		1	axc2	3/10/2010 11:24:45	OM_3-10-2010_10-49-24
CCB		1	axc2	3/10/2010 11:26:35	OM_3-10-2010_10-49-24
248159005	959212	1	axc2	3/10/2010 11:28:24	OM_3-10-2010_10-49-24
248159006	959212	1	axc2	3/10/2010 11:29:17	OM_3-10-2010_10-49-24
248163001	959212	1	axc2	3/10/2010 11:30:10	OM_3-10-2010_10-49-24
248163002	959212	1	axc2	3/10/2010 11:31:02	OM_3-10-2010_10-49-24
248163003	959212	1	axc2	3/10/2010 11:31:55	OM_3-10-2010_10-49-24
248163004	959212	1	axc2	3/10/2010 11:32:48	OM_3-10-2010_10-49-24
248163005	959212	1	axc2	3/10/2010 11:33:40	OM_3-10-2010_10-49-24
248163006	959212	1	axc2	3/10/2010 11:34:32	OM_3-10-2010_10-49-24
248163007	959212	1	axc2	3/10/2010 11:35:24	OM_3-10-2010_10-49-24
248163008	959212	1	axc2	3/10/2010 11:36:15	OM_3-10-2010_10-49-24
CCV		1	axc2	3/10/2010 11:37:08	OM_3-10-2010_10-49-24
CCB		1	axc2	3/10/2010 11:38:58	OM_3-10-2010_10-49-24
248163009	959212	1	axc2	3/10/2010 11:40:49	OM_3-10-2010_10-49-24
248163010	959212	1	axc2	3/10/2010 11:41:42	OM_3-10-2010_10-49-24
248163011	959212	1	axc2	3/10/2010 11:42:36	OM_3-10-2010_10-49-24
248163012	959212	1	axc2	3/10/2010 11:43:29	OM_3-10-2010_10-49-24
248163013	959212	1	axc2	3/10/2010 11:44:22	OM_3-10-2010_10-49-24
248163014	959212	1	axc2	3/10/2010 11:45:16	OM_3-10-2010_10-49-24
248241001	959212	1	axc2	3/10/2010 11:46:08	OM_3-10-2010_10-49-24
248241002	959212	1	axc2	3/10/2010 11:47:02	OM_3-10-2010_10-49-24
1202061941	961284	1	axc2	3/10/2010 11:47:54	OM_3-10-2010_10-49-24
1202061948	961284	25	axc2	3/10/2010 11:48:47	OM_3-10-2010_10-49-24
CCV		1	axc2	3/10/2010 11:49:39	OM_3-10-2010_10-49-24
CCB		1	axc2	3/10/2010 11:51:29	OM_3-10-2010_10-49-24

247914001	961284	1	axc2	3/10/2010	11:53:18	OM_3-10-2010_10-49-24
247923001	961284	1	axc2	3/10/2010	11:54:10	OM_3-10-2010_10-49-24
247927001	961284	1	axc2	3/10/2010	11:55:02	OM_3-10-2010_10-49-24
247930001	961284	1	axc2	3/10/2010	11:55:55	OM_3-10-2010_10-49-24
247933001	961284	1	axc2	3/10/2010	11:56:46	OM_3-10-2010_10-49-24
247939001	961284	1	axc2	3/10/2010	11:57:41	OM_3-10-2010_10-49-24
247941001	961284	1	axc2	3/10/2010	11:58:34	OM_3-10-2010_10-49-24
247943001	961284	1	axc2	3/10/2010	11:59:28	OM_3-10-2010_10-49-24
247945001	961284	1	axc2	3/10/2010	12:00:22	OM_3-10-2010_10-49-24
248515001	961284	1	axc2	3/10/2010	12:01:15	OM_3-10-2010_10-49-24
CCV		1	axc2	3/10/2010	12:02:08	OM_3-10-2010_10-49-24
CCB		1	axc2	3/10/2010	12:03:58	OM_3-10-2010_10-49-24
1202061942	961284	1	axc2	3/10/2010	12:05:48	OM_3-10-2010_10-49-24
1202061944	961284	1	axc2	3/10/2010	12:06:40	OM_3-10-2010_10-49-24
1202061946	961284	1	axc2	3/10/2010	12:07:33	OM_3-10-2010_10-49-24
248515002	961284	1	axc2	3/10/2010	12:08:26	OM_3-10-2010_10-49-24
1202061943	961284	1	axc2	3/10/2010	12:09:19	OM_3-10-2010_10-49-24
1202061945	961284	1	axc2	3/10/2010	12:10:11	OM_3-10-2010_10-49-24
1202061947	961284	1	axc2	3/10/2010	12:11:04	OM_3-10-2010_10-49-24
248515003	961284	1	axc2	3/10/2010	12:11:56	OM_3-10-2010_10-49-24
248526001	961284	1	axc2	3/10/2010	12:12:49	OM_3-10-2010_10-49-24
248560001	961284	1	axc2	3/10/2010	12:13:41	OM_3-10-2010_10-49-24
CCV		1	axc2	3/10/2010	12:14:33	OM_3-10-2010_10-49-24
CCB		1	axc2	3/10/2010	12:16:23	OM_3-10-2010_10-49-24
248560002	961284	1	axc2	3/10/2010	12:18:13	OM_3-10-2010_10-49-24
248560003	961284	1	axc2	3/10/2010	12:19:08	OM_3-10-2010_10-49-24
248560004	961284	1	axc2	3/10/2010	12:20:02	OM_3-10-2010_10-49-24
248560005	961284	1	axc2	3/10/2010	12:20:55	OM_3-10-2010_10-49-24
248560006	961284	1	axc2	3/10/2010	12:21:49	OM_3-10-2010_10-49-24
248560007	961284	1	axc2	3/10/2010	12:22:42	OM_3-10-2010_10-49-24
1202061965	961291	1	axc2	3/10/2010	12:23:36	OM_3-10-2010_10-49-24
1202061967	961291	1	axc2	3/10/2010	12:24:29	OM_3-10-2010_10-49-24
247914001	961291	1	axc2	3/10/2010	12:25:23	OM_3-10-2010_10-49-24
247923001	961291	1	axc2	3/10/2010	12:26:15	OM_3-10-2010_10-49-24
CCV		1	axc2	3/10/2010	12:27:07	OM_3-10-2010_10-49-24
CCB		1	axc2	3/10/2010	12:28:57	OM_3-10-2010_10-49-24
247927001	961291	1	axc2	3/10/2010	12:30:46	OM_3-10-2010_10-49-24
247930001	961291	1	axc2	3/10/2010	12:31:39	OM_3-10-2010_10-49-24
247933001	961291	1	axc2	3/10/2010	12:32:31	OM_3-10-2010_10-49-24
247939001	961291	1	axc2	3/10/2010	12:33:24	OM_3-10-2010_10-49-24
1202061966	961291	1	axc2	3/10/2010	12:34:16	OM_3-10-2010_10-49-24
247941001	961291	1	axc2	3/10/2010	12:35:10	OM_3-10-2010_10-49-24
247943001	961291	1	axc2	3/10/2010	12:36:04	OM_3-10-2010_10-49-24
247945001	961291	1	axc2	3/10/2010	12:36:58	OM_3-10-2010_10-49-24
247927001*	961291	10	axc2	3/10/2010	12:39:51	OM_3-10-2010_10-49-24
	961291	1	axc2	3/10/2010	12:40:44	OM_3-10-2010_10-49-24
CCV		1	axc2	3/10/2010	12:41:37	OM_3-10-2010_10-49-24
CCB		1	axc2	3/10/2010	12:43:27	OM_3-10-2010_10-49-24
247927001	961291	2	axc2	3/10/2010	12:45:16	OM_3-10-2010_10-49-24
CCV		1	axc2	3/10/2010	12:46:09	OM_3-10-2010_10-49-24
CCB		1	axc2	3/10/2010	12:47:59	OM_3-10-2010_10-49-24

Original Run Filename: OM_3-10-2010_10-49-24.OMN created 3/10/2010 10:49:24
 Original Run Author's Signature: [axc2]
 Current Run Filename: OM_3-10-2010_10-49-24.OMN last modified 3/10/2010 12:49:04
 Current Run Author's Signature: [axc2]
 Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
 Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE		Detection Time	ADF	MDF	Description
			Conc. (ug/L)	Area (Vs)				
WCN100310-01	1	S1	200	11.1	3/10/2010@10:50:55			200 ppb
WCN100310-02	1	S2	150	8.08	3/10/2010@10:51:47			150 ppb
WCN100310-03	1	S3	100	5.35	3/10/2010@10:52:40			100 ppb
WCN100310-04	1	S4	50.0	2.95	3/10/2010@10:53:32			50 ppb
WCN100310-05	1	S5	10.0	0.687	3/10/2010@10:54:26			10 ppb
WCN100310-06	1	S6	5.00	0.407	3/10/2010@10:55:20			CRDL 5.0 ppb
WCN100310-08	1	S7	0.00	0.0471	3/10/2010@10:56:14			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
Result:			0.99958 > 0.99500					
Message			Pass					
Action			Continue					
WCN100310-07	1	S8	146	8.03	3/10/2010@10:58:04			ICV
Known Conc:			150					
DQM Test: > + Percent Relative Difference								
Result:			-2.4 < 10.0					
Message			ICV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-2.4 < 10.0					
Message			ICV Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
WCN100310-08	1	S7	-0.144	0.0944	3/10/2010@10:59:54			ICB/CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-0.144 < 5.01					
Message			ICB/CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.144 > -5.01					
Message			ICB/CCB Passed					
Action			Continue					
WCN100310-06	1	S6	6.05	0.429	3/10/2010@11:01:43			CRDL
Known Conc:			5.00					
DQM Test: > + Concentration Limit								
Result:			6.05 < 7.50					
Message			CRDL Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			6.05 > 2.50					
Message			Pass					
Action			None					
1202066540|963300|MB	1	1	-0.804	0.0587	3/10/2010@11:03:32			
1202066541|LCS	1	2	48.9	2.75	3/10/2010@11:04:26			
248455001	1	3	-0.811	0.0583	3/10/2010@11:05:19			
248455002	1	4	-0.508	0.0747	3/10/2010@11:06:12			
248455003	1	5	0.519	0.130	3/10/2010@11:07:05			
248523001	1	6	-1.98	-0.00475	3/10/2010@11:07:58			
248792001	1	7	-1.30	0.0317	3/10/2010@11:08:51			
1202066542|DUP	1	8	-1.63	0.0140	3/10/2010@11:09:43			
1202066543|MS	1	9	102	5.61	3/10/2010@11:10:36			
1202066544|MSD	1	10	103	5.67	3/10/2010@11:11:28			
WCN100310-03	1	S3	101	5.56	3/10/2010@11:12:20			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			0.8 < 10.0					

			Message	CCV Passed					
			Action	Continue					
			DQM Test: < - Percent Relative Difference						
			Result:	0.8 < 10.0					
			Message	CCV Passed					
			Action	Continue					
WCN100310-08	1	S7		-1.88	3.30e-4	3/10/2010@11:14:10			CCB
			Known Conc:	0.00					
			DQM Test: > + Concentration Limit						
			Result:	-1.88 < 5.00					
			Message	CCB Passed					
			Action	Continue					
			DQM Test: < - Concentration Limit						
			Result:	-1.88 > -5.00					
			Message	CCB Passed					
			Action	Continue					
1202057145|959212|MB	1	11		-1.54	0.0188	3/10/2010@11:15:58			
1202057152|LCS	1	12		24.9	1.45	3/10/2010@11:16:50		25.00	
248159003	1	13		-0.859	0.0557	3/10/2010@11:17:42			
1202057146|DUP	1	14		-0.0820	0.0977	3/10/2010@11:18:34			
1202057148|MS	1	15		93.7	5.17	3/10/2010@11:19:25			
1202057150|MSD	1	16		88.3	4.88	3/10/2010@11:20:19			
248159004	1	17		1.45	0.181	3/10/2010@11:21:13			
1202057147|DUP	1	18		1.28	0.171	3/10/2010@11:22:06			
1202057149|MS	1	19		77.1	4.28	3/10/2010@11:23:00			
1202057151|MSD	1	20		85.3	4.72	3/10/2010@11:23:53			
WCN100310-03	1	S3		101	5.56	3/10/2010@11:24:45			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					
WCN100310-08	1	S7		-1.09	0.0433	3/10/2010@11:26:35			CCB
			Known Conc:	0.00					
			DQM Test: > + Concentration Limit						
			Result:	-1.09 < 5.00					
			Message	CCB Passed					
			Action	Continue					
			DQM Test: < - Concentration Limit						
			Result:	-1.09 > -5.00					
			Message	CCB Passed					
			Action	Continue					
248159005	1	21		0.0956	0.107	3/10/2010@11:28:24			
248159006	1	22		-0.492	0.0755	3/10/2010@11:29:17			
248163001	1	23		-1.05	0.0453	3/10/2010@11:30:10			
248163002	1	24		-1.26	0.0340	3/10/2010@11:31:02			
248163003	1	25		-0.725	0.0630	3/10/2010@11:31:55			
248163004	1	26		-1.30	0.0320	3/10/2010@11:32:48			
248163005	1	27		-0.971	0.0496	3/10/2010@11:33:40			
248163006	1	28		-0.534	0.0733	3/10/2010@11:34:32			
248163007	1	29		-0.822	0.0577	3/10/2010@11:35:24			
248163008	1	30		-1.89	-3.60e-4	3/10/2010@11:36:15			
WCN100310-03	1	S3		99.6	5.49	3/10/2010@11:37:08			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					
WCN100310-08	1	S7		-0.973	0.0495	3/10/2010@11:38:58			CCB
			Known Conc:	0.00					

DQM Test: > + Concentration Limit						
Result:		-0.973 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-0.973 > -5.00				
Message		CCB Passed				
Action		Continue				
248163009	1	31	-1.13	0.0408	3/10/2010@11:40:49	
248163010	1	32	-1.06	0.0447	3/10/2010@11:41:42	
248163011	1	33	-0.202	0.0912	3/10/2010@11:42:36	
248163012	1	34	-0.820	0.0578	3/10/2010@11:43:29	
248163013	1	35	-0.101	0.0967	3/10/2010@11:44:22	
248163014	1	36	-1.03	0.0465	3/10/2010@11:45:16	
248241001	1	37	6.98	0.480	3/10/2010@11:46:08	
248241002	1	38	4.24	0.332	3/10/2010@11:47:02	
1202061941|961284|MB	1	39	-1.88	1.84e-4	3/10/2010@11:47:54	
1202061948|LCS	1	40	30.0	1.73	3/10/2010@11:48:47	25.00
WCN100310-03	1	S3	101	5.59	3/10/2010@11:49:39	CCV
Known Conc:		100				
DQM Test: > + Percent Relative Difference						
Result:		1.4 < 10.0				
Message		CCV Passed				
Action		Continue				
DQM Test: < - Percent Relative Difference						
Result:		1.4 < 10.0				
Message		CCV Passed				
Action		Continue				
WCN100310-08	1	S7	-2.16	-0.0149	3/10/2010@11:51:29	CCB
Known Conc:		0.00				
DQM Test: > + Concentration Limit						
Result:		-2.16 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-2.16 > -5.00				
Message		CCB Passed				
Action		Continue				
247914001	1	41	-0.276	0.0873	3/10/2010@11:53:18	
247923001	1	42	25.1	1.46	3/10/2010@11:54:10	
247927001	1	43	140	7.65	3/10/2010@11:55:02	
247930001	1	44	81.5	4.51	3/10/2010@11:55:55	
247933001	1	45	25.7	1.49	3/10/2010@11:56:46	
247939001	1	46	22.4	1.32	3/10/2010@11:57:41	
247941001	1	47	36.9	2.10	3/10/2010@11:58:34	
247943001	1	48	55.1	3.08	3/10/2010@11:59:28	
247945001	1	49	2.04	0.213	3/10/2010@12:00:22	
248515001	1	50	-0.256	0.0883	3/10/2010@12:01:15	
WCN100310-03	1	S3	101	5.55	3/10/2010@12:02:08	CCV
Known Conc:		100				
DQM Test: > + Percent Relative Difference						
Result:		0.7 < 10.0				
Message		CCV Passed				
Action		Continue				
DQM Test: < - Percent Relative Difference						
Result:		0.7 < 10.0				
Message		CCV Passed				
Action		Continue				
WCN100310-08	1	S7	-1.39	0.0269	3/10/2010@12:03:58	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				

1202061942	DUP	1	51	-0.751	0.0615	3/10/2010@12:05:48		
1202061944	MS	1	52	73.9	4.10	3/10/2010@12:06:40		
1202061946	MSD	1	53	86.2	4.76	3/10/2010@12:07:33		
248515002		1	54	10.0	0.646	3/10/2010@12:08:26		
1202061943	DUP	1	55	3.99	0.318	3/10/2010@12:09:19		
1202061945	MS	1	56	55.5	3.11	3/10/2010@12:10:11		
1202061947	MSD	1	57	70.4	3.91	3/10/2010@12:11:04		
248515003		1	58	1.39	0.177	3/10/2010@12:11:56		
248526001		1	59	0.704	0.140	3/10/2010@12:12:49		
248560001		1	60	-0.799	0.0590	3/10/2010@12:13:41		
WCN100310-03		1	S3	100	5.53	3/10/2010@12:14:33		CCV
Known Conc:				100				
DQM Test: > + Percent Relative Difference								
Result:				0.2 < 10.0				
Message				CCV Passed				
Action				Continue				
DQM Test: < - Percent Relative Difference								
Result:				0.2 < 10.0				
Message				CCV Passed				
Action				Continue				
WCN100310-08		1	S7	-1.48	0.0223	3/10/2010@12:16:23		CCB
Known Conc:				0.00				
DQM Test: > + Concentration Limit								
Result:				-1.48 < 5.00				
Message				CCB Passed				
Action				Continue				
DQM Test: < - Concentration Limit								
Result:				-1.48 > -5.00				
Message				CCB Passed				
Action				Continue				
248560002		1	61	-1.89	0.00	3/10/2010@12:18:13		
248560003		1	62	-0.0166	0.101	3/10/2010@12:19:08		
248560004		1	63	0.426	0.125	3/10/2010@12:20:02		
248560005		1	64	-0.706	0.0640	3/10/2010@12:20:55		
248560006		1	65	-0.316	0.0851	3/10/2010@12:21:49		
248560007		1	66	-1.15	0.0398	3/10/2010@12:22:42		
1202061965	961291|MB	1	67	-1.97	-0.00435	3/10/2010@12:23:36		
1202061967	LCS	1	68	-0.934	0.0516	3/10/2010@12:24:29		
247914001		1	69	5.31	0.389	3/10/2010@12:25:23		
247923001		1	70	30.3	1.74	3/10/2010@12:26:15		
WCN100310-03		1	S3	102	5.61	3/10/2010@12:27:07		CCV
Known Conc:				100				
DQM Test: > + Percent Relative Difference								
Result:				1.8 < 10.0				
Message				CCV Passed				
Action				Continue				
DQM Test: < - Percent Relative Difference								
Result:				1.8 < 10.0				
Message				CCV Passed				
Action				Continue				
WCN100310-08		1	S7	-1.89	-2.03e-4	3/10/2010@12:28:57		CCB
Known Conc:				0.00				
DQM Test: > + Concentration Limit								
Result:				-1.89 < 5.00				
Message				CCB Passed				
Action				Continue				
DQM Test: < - Concentration Limit								
Result:				-1.89 > -5.00				
Message				CCB Passed				
Action				Continue				
247927001		1	71	225	12.3	3/10/2010@12:30:46		
247930001		1	72	92.5	5.11	3/10/2010@12:31:39		
247933001		1	73	66.3	3.69	3/10/2010@12:32:31		
247939001		1	74	74.5	4.13	3/10/2010@12:33:24		
1202061966	DUP	1	75	60.7	3.39	3/10/2010@12:34:16		
247941001		1	76	42.1	2.38	3/10/2010@12:35:10		
247943001		1	77	80.7	4.47	3/10/2010@12:36:04		
247945001		1	78	0.195	0.113	3/10/2010@12:36:58		

247927001	1	71	381	20.7	3/10/2010@12:39:51	10.00	
Sample106	1	1	-1.79	0.00544	3/10/2010@12:40:44		
WCN100310-03	1	S3	100	5.51	3/10/2010@12:41:37		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				
WCN100310-08	1	S7	-2.00	-0.00603	3/10/2010@12:43:27		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-2.00 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-2.00 > -5.00				
Message			CCB Passed				
Action			Continue				
247927001	1	71	114	6.29	3/10/2010@12:45:16	2.00	
WCN100310-03	1	S3	101	5.58	3/10/2010@12:46:09		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			1.3 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			1.3 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100310-08	1	S7	-1.89	1.71e-4	3/10/2010@12:47:59		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-1.89 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-1.89 > -5.00				
Message			CCB Passed				
Action			Continue				

Analyte Properties Table for OM_3-10-2010_10-49-24.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

6.32

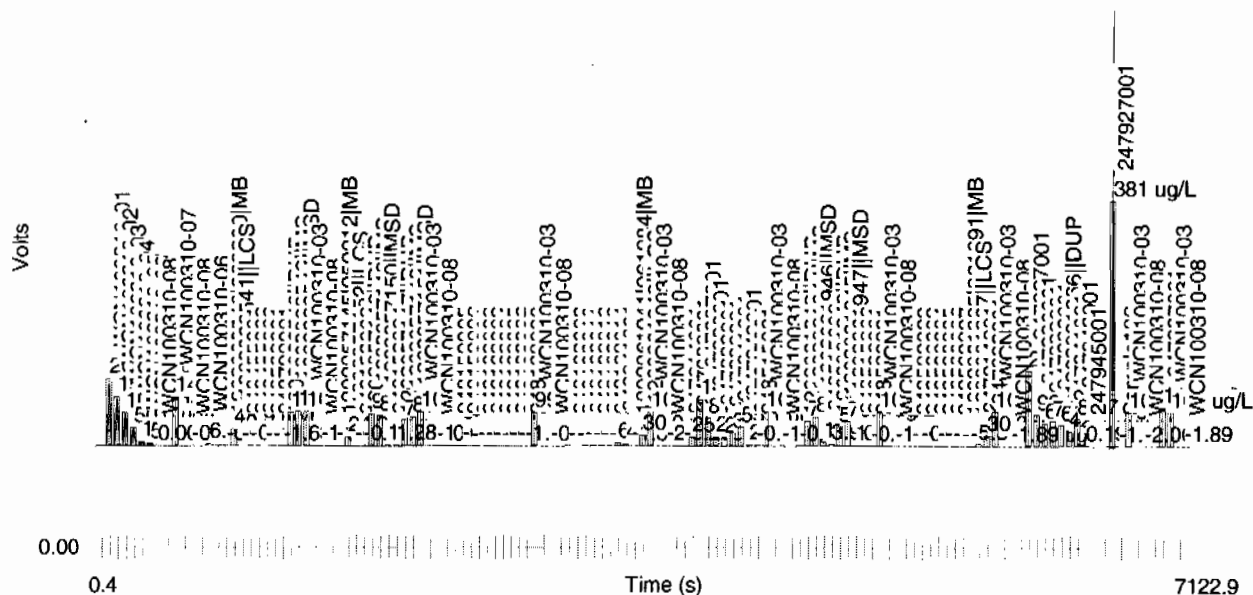
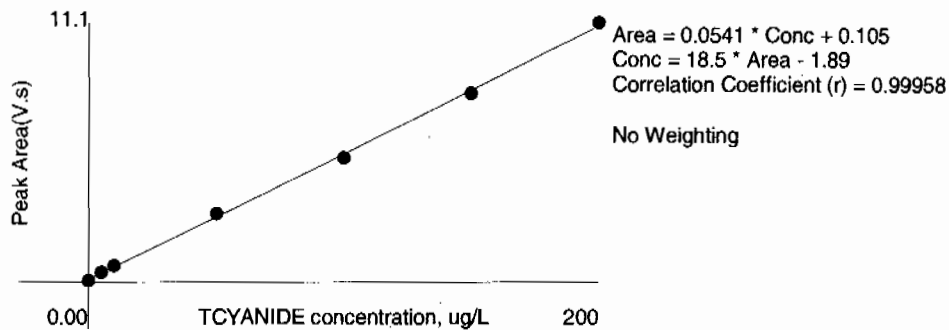


Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	11.1	0.707	-1.3	3/10/2010	10:51:58
2	150	1	8.08	0.519	1.6	3/10/2010	10:52:50
3	100	1	5.35	0.347	3.0	3/10/2010	10:53:42
4	50.0	1	2.95	0.188	-5.0	3/10/2010	10:54:35
5	10.0	1	0.687	0.0433	-6.4	3/10/2010	10:55:28
6	5.00	1	0.407	0.0241	-8.2	3/10/2010	10:56:22
7	0.00	1	0.0471	0.00103		3/10/2010	10:57:16

Figure 1: TCYANIDE



This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	3/10/2010 14:46:09	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010 14:47:59	OM_3-10-2010_14-44-38
1202057153	959214	1	axc2	3/10/2010 14:49:49	OM_3-10-2010_14-44-38
1202057160	959214	25	axc2	3/10/2010 14:50:42	OM_3-10-2010_14-44-38
248241003	959214	1	axc2	3/10/2010 14:51:36	OM_3-10-2010_14-44-38
1202057154	959214	1	axc2	3/10/2010 14:52:29	OM_3-10-2010_14-44-38
1202057156	959214	1	axc2	3/10/2010 14:53:21	OM_3-10-2010_14-44-38
1202057158	959214	1	axc2	3/10/2010 14:54:14	OM_3-10-2010_14-44-38
248241004	959214	1	axc2	3/10/2010 14:55:07	OM_3-10-2010_14-44-38
1202057155	959214	1	axc2	3/10/2010 14:55:59	OM_3-10-2010_14-44-38
1202057157	959214	1	axc2	3/10/2010 14:56:52	OM_3-10-2010_14-44-38
1202057159	959214	1	axc2	3/10/2010 14:57:44	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010 14:58:37	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010 15:00:26	OM_3-10-2010_14-44-38
248241005	959214	1	axc2	3/10/2010 15:02:15	OM_3-10-2010_14-44-38
248241006	959214	1	axc2	3/10/2010 15:03:07	OM_3-10-2010_14-44-38
248241007	959214	1	axc2	3/10/2010 15:03:58	OM_3-10-2010_14-44-38
248241008	959214	1	axc2	3/10/2010 15:04:50	OM_3-10-2010_14-44-38
248241009	959214	1	axc2	3/10/2010 15:05:41	OM_3-10-2010_14-44-38
248241010	959214	1	axc2	3/10/2010 15:06:35	OM_3-10-2010_14-44-38
248247001	959214	1	axc2	3/10/2010 15:07:29	OM_3-10-2010_14-44-38
248247002	959214	1	axc2	3/10/2010 15:08:23	OM_3-10-2010_14-44-38
248247003	959214	1	axc2	3/10/2010 15:09:16	OM_3-10-2010_14-44-38
248247004	959214	1	axc2	3/10/2010 15:10:09	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010 15:11:01	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010 15:12:52	OM_3-10-2010_14-44-38
248247005	959214	1	axc2	3/10/2010 15:14:40	OM_3-10-2010_14-44-38
248247006	959214	1	axc2	3/10/2010 15:15:34	OM_3-10-2010_14-44-38
248247007	959214	1	axc2	3/10/2010 15:16:26	OM_3-10-2010_14-44-38
248247008	959214	1	axc2	3/10/2010 15:17:19	OM_3-10-2010_14-44-38
248250001	959214	1	axc2	3/10/2010 15:18:11	OM_3-10-2010_14-44-38
248250002	959214	1	axc2	3/10/2010 15:19:04	OM_3-10-2010_14-44-38
248250003	959214	1	axc2	3/10/2010 15:19:56	OM_3-10-2010_14-44-38
248250004	959214	1	axc2	3/10/2010 15:20:48	OM_3-10-2010_14-44-38
1202059694	960266	1	axc2	3/10/2010 15:21:40	OM_3-10-2010_14-44-38
1202059701	960266	25	axc2	3/10/2010 15:22:31	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010 15:23:25	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010 15:25:14	OM_3-10-2010_14-44-38
248256001	960266	1	axc2	3/10/2010 15:27:04	OM_3-10-2010_14-44-38
248256002	960266	1	axc2	3/10/2010 15:27:58	OM_3-10-2010_14-44-38
248256003	960266	1	axc2	3/10/2010 15:28:51	OM_3-10-2010_14-44-38
248256004	960266	1	axc2	3/10/2010 15:29:45	OM_3-10-2010_14-44-38
248256005	960266	1	axc2	3/10/2010 15:30:38	OM_3-10-2010_14-44-38
248256006	960266	1	axc2	3/10/2010 15:31:31	OM_3-10-2010_14-44-38
248256007	960266	1	axc2	3/10/2010 15:32:25	OM_3-10-2010_14-44-38
248374008	960266	1	axc2	3/10/2010 15:33:18	OM_3-10-2010_14-44-38
1202059695	960266	1	axc2	3/10/2010 15:34:10	OM_3-10-2010_14-44-38
1202059697	960266	1	axc2	3/10/2010 15:35:02	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010 15:35:55	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010 15:37:45	OM_3-10-2010_14-44-38
1202059699	960266	1	axc2	3/10/2010 15:39:33	OM_3-10-2010_14-44-38
248374009	960266	1	axc2	3/10/2010 15:40:26	OM_3-10-2010_14-44-38
1202059696	960266	1	axc2	3/10/2010 15:41:18	OM_3-10-2010_14-44-38
1202059698	960266	1	axc2	3/10/2010 15:42:10	OM_3-10-2010_14-44-38
1202059700	960266	1	axc2	3/10/2010 15:43:02	OM_3-10-2010_14-44-38
248374010	960266	1	axc2	3/10/2010 15:43:56	OM_3-10-2010_14-44-38
248374011	960266	1	axc2	3/10/2010 15:44:50	OM_3-10-2010_14-44-38
248374012	960266	1	axc2	3/10/2010 15:45:44	OM_3-10-2010_14-44-38

248374013	960266	1	axc2	3/10/2010	15:46:37	OM_3-10-2010_14-44-38
248389002	960266	1	axc2	3/10/2010	15:47:31	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	15:48:24	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	15:50:14	OM_3-10-2010_14-44-38
248389003	960266	1	axc2	3/10/2010	15:52:03	OM_3-10-2010_14-44-38
248396001	960266	1	axc2	3/10/2010	15:52:56	OM_3-10-2010_14-44-38
248396002	960266	1	axc2	3/10/2010	15:53:49	OM_3-10-2010_14-44-38
248396003	960266	1	axc2	3/10/2010	15:54:43	OM_3-10-2010_14-44-38
248396004	960266	1	axc2	3/10/2010	15:55:35	OM_3-10-2010_14-44-38
248396005	960266	1	axc2	3/10/2010	15:56:28	OM_3-10-2010_14-44-38
1202059686	960263	1	axc2	3/10/2010	15:57:20	OM_3-10-2010_14-44-38
1202059693	960263	25	axc2	3/10/2010	15:58:12	OM_3-10-2010_14-44-38
248371008	960263	1	axc2	3/10/2010	15:59:05	OM_3-10-2010_14-44-38
1202059687	960263	1	axc2	3/10/2010	15:59:56	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	16:00:49	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	16:02:39	OM_3-10-2010_14-44-38
1202059689	960263	1	axc2	3/10/2010	16:04:30	OM_3-10-2010_14-44-38
1202059691	960263	1	axc2	3/10/2010	16:05:24	OM_3-10-2010_14-44-38
248371009	960263	1	axc2	3/10/2010	16:06:18	OM_3-10-2010_14-44-38
1202059688	960263	1	axc2	3/10/2010	16:07:12	OM_3-10-2010_14-44-38
1202059690	960263	1	axc2	3/10/2010	16:08:05	OM_3-10-2010_14-44-38
1202059692	960263	1	axc2	3/10/2010	16:08:59	OM_3-10-2010_14-44-38
248371010	960263	1	axc2	3/10/2010	16:09:53	OM_3-10-2010_14-44-38
248371011	960263	1	axc2	3/10/2010	16:10:45	OM_3-10-2010_14-44-38
248371012	960263	1	axc2	3/10/2010	16:11:38	OM_3-10-2010_14-44-38
248371013	960263	1	axc2	3/10/2010	16:12:32	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	16:13:24	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	16:15:15	OM_3-10-2010_14-44-38
248371014	960263	1	axc2	3/10/2010	16:17:03	OM_3-10-2010_14-44-38
248371015	960263	1	axc2	3/10/2010	16:17:55	OM_3-10-2010_14-44-38
248371016	960263	1	axc2	3/10/2010	16:18:48	OM_3-10-2010_14-44-38
248371017	960263	1	axc2	3/10/2010	16:19:40	OM_3-10-2010_14-44-38
248371018	960263	1	axc2	3/10/2010	16:20:32	OM_3-10-2010_14-44-38
248371019	960263	1	axc2	3/10/2010	16:21:27	OM_3-10-2010_14-44-38
248371020	960263	1	axc2	3/10/2010	16:22:22	OM_3-10-2010_14-44-38
248374001*	960263	1	axc2	3/10/2010	16:23:16	OM_3-10-2010_14-44-38
248374002	960263	1	axc2	3/10/2010	16:24:10	OM_3-10-2010_14-44-38
248374003	960263	1	axc2	3/10/2010	16:25:04	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	16:25:56	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	16:27:46	OM_3-10-2010_14-44-38
248374001	960263	1	axc2	3/10/2010	16:29:36	OM_3-10-2010_14-44-38
248374004	960263	1	axc2	3/10/2010	16:30:31	OM_3-10-2010_14-44-38
248374005	960263	1	axc2	3/10/2010	16:31:23	OM_3-10-2010_14-44-38
248374006	960263	1	axc2	3/10/2010	16:32:18	OM_3-10-2010_14-44-38
248374007	960263	1	axc2	3/10/2010	16:33:10	OM_3-10-2010_14-44-38
1202059677	960259	1	axc2	3/10/2010	16:34:03	OM_3-10-2010_14-44-38
1202059684	960259	25	axc2	3/10/2010	16:34:56	OM_3-10-2010_14-44-38
248371001	960259	1	axc2	3/10/2010	16:35:49	OM_3-10-2010_14-44-38
248371002	960259	1	axc2	3/10/2010	16:36:41	OM_3-10-2010_14-44-38
248371003	960259	1	axc2	3/10/2010	16:37:34	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	16:38:27	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	16:40:17	OM_3-10-2010_14-44-38
248371004	960259	1	axc2	3/10/2010	16:42:05	OM_3-10-2010_14-44-38
248371005	960259	1	axc2	3/10/2010	16:43:00	OM_3-10-2010_14-44-38
248371006	960259	1	axc2	3/10/2010	16:43:54	OM_3-10-2010_14-44-38
248371007	960259	1	axc2	3/10/2010	16:44:49	OM_3-10-2010_14-44-38
248408015	960259	1	axc2	3/10/2010	16:45:43	OM_3-10-2010_14-44-38
1202059678	960259	1	axc2	3/10/2010	16:46:37	OM_3-10-2010_14-44-38
1202059680	960259	1	axc2	3/10/2010	16:47:31	OM_3-10-2010_14-44-38
1202059682	960259	1	axc2	3/10/2010	16:48:25	OM_3-10-2010_14-44-38

248408016	960259	1	axc2	3/10/2010	16:49:18	OM_3-10-2010_14-44-38
1202059679	960259	1	axc2	3/10/2010	16:50:12	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	16:51:04	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	16:52:54	OM_3-10-2010_14-44-38
1202059681	960259	1	axc2	3/10/2010	16:54:44	OM_3-10-2010_14-44-38
1202059683	960259	1	axc2	3/10/2010	16:55:37	OM_3-10-2010_14-44-38
248408017	960259	1	axc2	3/10/2010	16:56:30	OM_3-10-2010_14-44-38
248408018	960259	1	axc2	3/10/2010	16:57:23	OM_3-10-2010_14-44-38
248418001	960259	1	axc2	3/10/2010	16:58:15	OM_3-10-2010_14-44-38
248418002	960259	1	axc2	3/10/2010	16:59:08	OM_3-10-2010_14-44-38
248418003	960259	1	axc2	3/10/2010	17:00:02	OM_3-10-2010_14-44-38
248418004	960259	1	axc2	3/10/2010	17:00:57	OM_3-10-2010_14-44-38
248418005	960259	1	axc2	3/10/2010	17:01:51	OM_3-10-2010_14-44-38
248418006	960259	1	axc2	3/10/2010	17:02:45	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	17:03:38	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	17:05:28	OM_3-10-2010_14-44-38
248418007	960259	1	axc2	3/10/2010	17:07:18	OM_3-10-2010_14-44-38
248418008	960259	1	axc2	3/10/2010	17:08:12	OM_3-10-2010_14-44-38
248418009	960259	1	axc2	3/10/2010	17:09:07	OM_3-10-2010_14-44-38
1202059669	960257	1	axc2	3/10/2010	17:10:01	OM_3-10-2010_14-44-38
1202059676	960257	25	axc2	3/10/2010	17:10:54	OM_3-10-2010_14-44-38
248383001	960257	1	axc2	3/10/2010	17:11:48	OM_3-10-2010_14-44-38
1202059670	960257	1	axc2	3/10/2010	17:12:41	OM_3-10-2010_14-44-38
1202059672	960257	1	axc2	3/10/2010	17:13:34	OM_3-10-2010_14-44-38
1202059674	960257	1	axc2	3/10/2010	17:14:27	OM_3-10-2010_14-44-38
248383002	960257	1	axc2	3/10/2010	17:15:20	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	17:16:12	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	17:18:03	OM_3-10-2010_14-44-38
1202059671	960257	1	axc2	3/10/2010	17:19:52	OM_3-10-2010_14-44-38
1202059673	960257	1	axc2	3/10/2010	17:20:46	OM_3-10-2010_14-44-38
1202059675	960257	1	axc2	3/10/2010	17:21:41	OM_3-10-2010_14-44-38
248383003	960257	1	axc2	3/10/2010	17:22:36	OM_3-10-2010_14-44-38
248383004	960257	1	axc2	3/10/2010	17:23:30	OM_3-10-2010_14-44-38
248383005	960257	1	axc2	3/10/2010	17:24:25	OM_3-10-2010_14-44-38
248383006	960257	1	axc2	3/10/2010	17:25:19	OM_3-10-2010_14-44-38
248408001	960257	1	axc2	3/10/2010	17:26:13	OM_3-10-2010_14-44-38
248408002	960257	1	axc2	3/10/2010	17:27:07	OM_3-10-2010_14-44-38
248408003	960257	1	axc2	3/10/2010	17:28:01	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	17:28:53	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	17:30:44	OM_3-10-2010_14-44-38
248408004	960257	1	axc2	3/10/2010	17:32:33	OM_3-10-2010_14-44-38
248408005	960257	1	axc2	3/10/2010	17:33:26	OM_3-10-2010_14-44-38
248408006	960257	1	axc2	3/10/2010	17:34:20	OM_3-10-2010_14-44-38
248408007	960257	1	axc2	3/10/2010	17:35:13	OM_3-10-2010_14-44-38
248408008	960257	1	axc2	3/10/2010	17:36:06	OM_3-10-2010_14-44-38
248408009	960257	1	axc2	3/10/2010	17:36:59	OM_3-10-2010_14-44-38
248408010	960257	1	axc2	3/10/2010	17:37:54	OM_3-10-2010_14-44-38
248408011	960257	1	axc2	3/10/2010	17:38:49	OM_3-10-2010_14-44-38
248408012	960257	1	axc2	3/10/2010	17:39:43	OM_3-10-2010_14-44-38
248408013	960257	1	axc2	3/10/2010	17:40:38	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	17:41:31	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	17:43:21	OM_3-10-2010_14-44-38
248408014	960257	1	axc2	3/10/2010	17:45:11	OM_3-10-2010_14-44-38
1202061972*	961296	1	axc2	3/10/2010	17:46:05	OM_3-10-2010_14-44-38
1202061982	961296	1	axc2	3/10/2010	17:46:59	OM_3-10-2010_14-44-38
248321002	961296	1	axc2	3/10/2010	17:47:53	OM_3-10-2010_14-44-38
1202061973	961296	1	axc2	3/10/2010	17:48:48	OM_3-10-2010_14-44-38
1202061976	961296	1	axc2	3/10/2010	17:49:42	OM_3-10-2010_14-44-38
1202061979	961296	1	axc2	3/10/2010	17:50:35	OM_3-10-2010_14-44-38
248547001	961296	1	axc2	3/10/2010	17:51:28	OM_3-10-2010_14-44-38

1202061975	961296	1	axc2	3/10/2010	17:52:22	OM_3-10-2010_14-44-38
1202061978	961296	1	axc2	3/10/2010	17:53:15	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	17:54:08	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	17:55:58	OM_3-10-2010_14-44-38
1202061981	961296	1	axc2	3/10/2010	17:57:47	OM_3-10-2010_14-44-38
248605001	961296	1	axc2	3/10/2010	17:58:42	OM_3-10-2010_14-44-38
248622001	961296	1	axc2	3/10/2010	17:59:37	OM_3-10-2010_14-44-38
248622002	961296	1	axc2	3/10/2010	18:00:32	OM_3-10-2010_14-44-38
248622003	961296	1	axc2	3/10/2010	18:01:26	OM_3-10-2010_14-44-38
248622004	961296	1	axc2	3/10/2010	18:02:21	OM_3-10-2010_14-44-38
248622005	961296	1	axc2	3/10/2010	18:03:15	OM_3-10-2010_14-44-38
248622006	961296	1	axc2	3/10/2010	18:04:10	OM_3-10-2010_14-44-38
248626002	961296	1	axc2	3/10/2010	18:05:04	OM_3-10-2010_14-44-38
248629002	961296	1	axc2	3/10/2010	18:05:58	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	18:06:50	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	18:08:41	OM_3-10-2010_14-44-38
248668001	961296	1	axc2	3/10/2010	18:10:31	OM_3-10-2010_14-44-38
1202064174	961296	1	axc2	3/10/2010	18:11:25	OM_3-10-2010_14-44-38
1202064175	961296	1	axc2	3/10/2010	18:12:18	OM_3-10-2010_14-44-38
1202064176	961296	1	axc2	3/10/2010	18:13:12	OM_3-10-2010_14-44-38
248668003	961296	1	axc2	3/10/2010	18:14:05	OM_3-10-2010_14-44-38
248668006	961296	1	axc2	3/10/2010	18:14:58	OM_3-10-2010_14-44-38
248690002	961296	1	axc2	3/10/2010	18:15:54	OM_3-10-2010_14-44-38
1202061974	961296	1	axc2	3/10/2010	18:16:49	OM_3-10-2010_14-44-38
1202061977	961296	1	axc2	3/10/2010	18:17:44	OM_3-10-2010_14-44-38
1202061980	961296	1	axc2	3/10/2010	18:18:39	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	18:19:31	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	18:21:22	OM_3-10-2010_14-44-38
1202061972*	961296	1	axc2	3/10/2010	18:23:12	OM_3-10-2010_14-44-38
1202064171	962270	1	axc2	3/10/2010	18:24:07	OM_3-10-2010_14-44-38
1202064173	962270	250	axc2	3/10/2010	18:25:01	OM_3-10-2010_14-44-38
248632001	962270	1	axc2	3/10/2010	18:25:56	OM_3-10-2010_14-44-38
1202064172	962270	1	axc2	3/10/2010	18:26:50	OM_3-10-2010_14-44-38
248726001	962270	1	axc2	3/10/2010	18:27:44	OM_3-10-2010_14-44-38
248727001	962270	1	axc2	3/10/2010	18:28:39	OM_3-10-2010_14-44-38
1202061114	960944	1	axc2	3/10/2010	18:29:33	OM_3-10-2010_14-44-38
1202061116	960944	250	axc2	3/10/2010	18:30:27	OM_3-10-2010_14-44-38
247941001	960944	1	axc2	3/10/2010	18:31:20	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	18:32:13	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	18:34:04	OM_3-10-2010_14-44-38
247943001	960944	1	axc2	3/10/2010	18:35:54	OM_3-10-2010_14-44-38
248227001	960944	1	axc2	3/10/2010	18:36:47	OM_3-10-2010_14-44-38
1202061115	960944	1	axc2	3/10/2010	18:37:43	OM_3-10-2010_14-44-38
248228001	960944	1	axc2	3/10/2010	18:38:38	OM_3-10-2010_14-44-38
1202061972	961296	1	axc2	3/10/2010	18:39:33	OM_3-10-2010_14-44-38
CCV		1	axc2	3/10/2010	18:40:26	OM_3-10-2010_14-44-38
CCB		1	axc2	3/10/2010	18:42:16	OM_3-10-2010_14-44-38

Original Run Filename: OM_3-10-2010_14-44-38.OMN created 3/10/2010 14:44:38
 Original Run Author's Signature: [axc2]
 Current Run Filename: OM_3-10-2010_14-44-38.OMN last modified 3/10/2010 18:43:21
 Current Run Author's Signature: [axc2]
 Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
 Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE		Detection Time	ADF	MDF	Description
			Conc. (ug/L)	Area (Vs)				
WCN100310-03	1	S3	101	5.59	3/10/2010@14:46:09			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	1.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	1.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100310-08	1	S7	-1.25	0.0344	3/10/2010@14:47:59			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					
1202057153|959214|MB	1	1	-1.89	-2.63e-4	3/10/2010@14:49:49			
1202057160|LCS	1	2	23.9	1.40	3/10/2010@14:50:42		25.00	
248241003	1	3	-0.868	0.0552	3/10/2010@14:51:36			
1202057154|DUP	1	4	-0.808	0.0585	3/10/2010@14:52:29			
1202057156|MS	1	5	93.2	5.15	3/10/2010@14:53:21			
1202057158|MSD	1	6	97.1	5.35	3/10/2010@14:54:14			
248241004	1	7	2.02	0.212	3/10/2010@14:55:07			
1202057155|DUP	1	8	2.93	0.261	3/10/2010@14:55:59			
1202057157|MS	1	9	91.5	5.06	3/10/2010@14:56:52			
1202057159|MSD	1	10	94.1	5.19	3/10/2010@14:57:44			
WCN100310-03	1	S3	99.4	5.48	3/10/2010@14:58:37			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-0.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100310-08	1	S7	-1.36	0.0284	3/10/2010@15:00:26			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.36 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.36 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248241005	1	11	2.21	0.222	3/10/2010@15:02:15			
248241006	1	12	9.19	0.600	3/10/2010@15:03:07			
248241007	1	13	23.5	1.38	3/10/2010@15:03:58			
248241008	1	14	18.9	1.12	3/10/2010@15:04:50			
248241009	1	15	5.54	0.402	3/10/2010@15:05:41			

248241010	1	16	10.9	0.691	3/10/2010@15:06:35		
248247001	1	17	-0.0248	0.101	3/10/2010@15:07:29		
248247002	1	18	-0.174	0.0928	3/10/2010@15:08:23		
248247003	1	19	0.0492	0.105	3/10/2010@15:09:16		
248247004	1	20	-0.0334	0.100	3/10/2010@15:10:09		
WCN100310-03	1	S3	102	5.60	3/10/2010@15:11:01		CCV
Known Conc: 100							
DQM Test: > + Percent Relative Difference							
Result: 1.7 < 10.0							
Message CCV Passed							
Action Continue							
DQM Test: < - Percent Relative Difference							
Result: 1.7 < 10.0							
Message CCV Passed							
Action Continue							
WCN100310-08	1	S7	-2.08	-0.0106	3/10/2010@15:12:52		CCB
Known Conc: 0.00							
DQM Test: > + Concentration Limit							
Result: -2.08 < 5.00							
Message CCB Passed							
Action Continue							
DQM Test: < - Concentration Limit							
Result: -2.08 > -5.00							
Message CCB Passed							
Action Continue							
248247005	1	21	-0.240	0.0892	3/10/2010@15:14:40		
248247006	1	22	0.203	0.113	3/10/2010@15:15:34		
248247007	1	23	-0.185	0.0922	3/10/2010@15:16:26		
248247008	1	24	0.122	0.109	3/10/2010@15:17:19		
248250001	1	25	24.9	1.45	3/10/2010@15:18:11		
248250002	1	26	27.8	1.60	3/10/2010@15:19:04		
248250003	1	27	45.7	2.58	3/10/2010@15:19:56		
248250004	1	28	15.9	0.964	3/10/2010@15:20:48		
1202059694|960266|MB	1	29	-1.07	0.0444	3/10/2010@15:21:40		
1202059701|LCS	1	30	33.9	1.94	3/10/2010@15:22:31	25.00	
WCN100310-03	1	S3	101	5.58	3/10/2010@15:23:25		CCV
Known Conc: 100							
DQM Test: > + Percent Relative Difference							
Result: 1.2 < 10.0							
Message CCV Passed							
Action Continue							
DQM Test: < - Percent Relative Difference							
Result: 1.2 < 10.0							
Message CCV Passed							
Action Continue							
WCN100310-08	1	S7	-1.31	0.0313	3/10/2010@15:25:14		CCB
Known Conc: 0.00							
DQM Test: > + Concentration Limit							
Result: -1.31 < 5.00							
Message CCB Passed							
Action Continue							
DQM Test: < - Concentration Limit							
Result: -1.31 > -5.00							
Message CCB Passed							
Action Continue							
248256001	1	31	-0.892	0.0539	3/10/2010@15:27:04		
248256002	1	32	-1.06	0.0447	3/10/2010@15:27:58		
248256003	1	33	-1.19	0.0378	3/10/2010@15:28:51		
248256004	1	34	-1.41	0.0256	3/10/2010@15:29:45		
248256005	1	35	0.792	0.145	3/10/2010@15:30:38		
248256006	1	36	-1.39	0.0271	3/10/2010@15:31:31		
248256007	1	37	-1.28	0.0330	3/10/2010@15:32:25		
248374008	1	38	5.88	0.420	3/10/2010@15:33:18		
1202059695|DUP	1	39	4.57	0.349	3/10/2010@15:34:10		
1202059697|MS	1	40	85.0	4.70	3/10/2010@15:35:02		
WCN100310-03	1	S3	101	5.58	3/10/2010@15:35:55		CCV
Known Conc: 100							
DQM Test: > + Percent Relative Difference							

Result: 1.2 < 10.0						
Message CCV Passed						
Action Continue						
DQM Test: < - Percent Relative Difference						
Result: 1.2 < 10.0						
Message CCV Passed						
Action Continue						
WCN100310-08	1	S7	-1.31	0.0311	3/10/2010@15:37:45	CCB
Known Conc: 0.00						
DQM Test: > + Concentration Limit						
Result: -1.31 < 5.00						
Message CCB Passed						
Action Continue						
DQM Test: < - Concentration Limit						
Result: -1.31 > -5.00						
Message CCB Passed						
Action Continue						
1202059699||MSD	1	41	84.8	4.69	3/10/2010@15:39:33	
248374009	1	42	3.15	0.272	3/10/2010@15:40:26	
1202059696||DUP	1	43	3.02	0.265	3/10/2010@15:41:18	
1202059698||MS	1	44	94.0	5.19	3/10/2010@15:42:10	
1202059700||MSD	1	45	93.9	5.18	3/10/2010@15:43:02	
248374010	1	46	1.68	0.193	3/10/2010@15:43:56	
248374011	1	47	0.479	0.128	3/10/2010@15:44:50	
248374012	1	48	0.249	0.116	3/10/2010@15:45:44	
248374013	1	49	9.65	0.624	3/10/2010@15:46:37	
248389002	1	50	-1.29	0.0321	3/10/2010@15:47:31	
WCN100310-03	1	S3	100	5.52	3/10/2010@15:48:24	CCV
Known Conc: 100						
DQM Test: > + Percent Relative Difference						
Result: 0.2 < 10.0						
Message CCV Passed						
Action Continue						
DQM Test: < - Percent Relative Difference						
Result: 0.2 < 10.0						
Message CCV Passed						
Action Continue						
WCN100310-08	1	S7	-2.34	-0.0244	3/10/2010@15:50:14	CCB
Known Conc: 0.00						
DQM Test: > + Concentration Limit						
Result: -2.34 < 5.00						
Message CCB Passed						
Action Continue						
DQM Test: < - Concentration Limit						
Result: -2.34 > -5.00						
Message CCB Passed						
Action Continue						
248389003	1	51	-1.16	0.0394	3/10/2010@15:52:03	
248396001	1	52	-1.18	0.0381	3/10/2010@15:52:56	
248396002	1	53	-1.36	0.0285	3/10/2010@15:53:49	
248396003	1	54	-1.30	0.0318	3/10/2010@15:54:43	
248396004	1	55	-1.19	0.0380	3/10/2010@15:55:35	
248396005	1	56	-1.31	0.0315	3/10/2010@15:56:28	
1202059686|960263|MB	1	57	-1.34	0.0298	3/10/2010@15:57:20	
1202059693||LCS	1	58	25.7	1.49	3/10/2010@15:58:12	25.00
248371008	1	59	-0.223	0.0901	3/10/2010@15:59:05	
1202059687||DUP	1	60	-0.110	0.0962	3/10/2010@15:59:56	
WCN100310-03	1	S3	101	5.57	3/10/2010@16:00:49	CCV
Known Conc: 100						
DQM Test: > + Percent Relative Difference						
Result: 1.1 < 10.0						
Message CCV Passed						
Action Continue						
DQM Test: < - Percent Relative Difference						
Result: 1.1 < 10.0						
Message CCV Passed						
Action Continue						
WCN100310-08	1	S7	-1.38	0.0278	3/10/2010@16:02:39	CCB

Known Conc:		0.00					
Result:		DQM Test: > + Concentration Limit					
Message		-1.38 < 5.00					
Action		CCB Passed					
Action		Continue					
Result:		DQM Test: < - Concentration Limit					
Message		-1.38 > -5.00					
Action		CCB Passed					
Action		Continue					
1202059689	MS	1	61	81.1	4.49	3/10/2010@16:04:30	
1202059691	MSD	1	62	82.2	4.55	3/10/2010@16:05:24	
248371009		1	63	0.778	0.144	3/10/2010@16:06:18	
1202059688	DUP	1	64	0.979	0.155	3/10/2010@16:07:12	
1202059690	MS	1	65	79.3	4.39	3/10/2010@16:08:05	
1202059692	MSD	1	66	83.8	4.64	3/10/2010@16:08:59	
248371010		1	67	6.81	0.471	3/10/2010@16:09:53	
248371011		1	68	-0.217	0.0904	3/10/2010@16:10:45	
248371012		1	69	-0.606	0.0694	3/10/2010@16:11:38	
248371013		1	70	-0.723	0.0631	3/10/2010@16:12:32	
WCN100310-03		1	S3	99.9	5.51	3/10/2010@16:13:24	CCV
Known Conc:		100					
Result:		DQM Test: > + Percent Relative Difference					
Message		-0.1 < 10.0					
Action		CCV Passed					
Action		Continue					
Result:		DQM Test: < - Percent Relative Difference					
Message		-0.1 < 10.0					
Action		CCV Passed					
Action		Continue					
WCN100310-08		1	S7	-1.22	0.0361	3/10/2010@16:15:15	CCB
Known Conc:		0.00					
Result:		DQM Test: > + Concentration Limit					
Message		-1.22 < 5.00					
Action		CCB Passed					
Action		Continue					
Result:		DQM Test: < - Concentration Limit					
Message		-1.22 > -5.00					
Action		CCB Passed					
Action		Continue					
248371014		1	71	0.304	0.119	3/10/2010@16:17:03	
248371015		1	72	0.547	0.132	3/10/2010@16:17:55	
248371016		1	73	-0.154	0.0938	3/10/2010@16:18:48	
248371017		1	74	1.73	0.196	3/10/2010@16:19:40	
248371018		1	75	2.61	0.243	3/10/2010@16:20:32	
248371019		1	76	0.297	0.118	3/10/2010@16:21:27	
248371020		1	77	2.04	0.213	3/10/2010@16:22:22	
248374001		1	78	5.50	0.400	3/10/2010@16:23:16	
248374002		1	79	9.51	0.616	3/10/2010@16:24:10	
248374003		1	80	5.30	0.389	3/10/2010@16:25:04	
WCN100310-03		1	S3	100	5.52	3/10/2010@16:25:56	CCV
Known Conc:		100					
Result:		DQM Test: > + Percent Relative Difference					
Message		0.1 < 10.0					
Action		CCV Passed					
Action		Continue					
Result:		DQM Test: < - Percent Relative Difference					
Message		0.1 < 10.0					
Action		CCV Passed					
Action		Continue					
WCN100310-08		1	S7	-1.22	0.0359	3/10/2010@16:27:46	CCB
Known Conc:		0.00					
Result:		DQM Test: > + Concentration Limit					
Message		-1.22 < 5.00					
Action		CCB Passed					
Action		Continue					
Result:		DQM Test: < - Concentration Limit					
Message		-1.22 > -5.00					
Action		CCB Passed					

		Action	Continue					
248374001	1	78	3.52	0.293	3/10/2010@16:29:36			
248374004	1	81	10.3	0.658	3/10/2010@16:30:31			
248374005	1	82	2.68	0.247	3/10/2010@16:31:23			
248374006	1	83	4.44	0.342	3/10/2010@16:32:18			
248374007	1	84	3.05	0.267	3/10/2010@16:33:10			
1202059677|960259|MB	1	85	-1.17	0.0391	3/10/2010@16:34:03			
1202059684||LCS	1	86	22.9	1.34	3/10/2010@16:34:56		25.00	
248371001	1	87	8.42	0.558	3/10/2010@16:35:49			
248371002	1	88	1.39	0.177	3/10/2010@16:36:41			
248371003	1	89	1.33	0.174	3/10/2010@16:37:34			
WCN100310-03	1	S3	104	5.73	3/10/2010@16:38:27			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			3.9 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			3.9 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100310-08	1	S7	-1.45	0.0234	3/10/2010@16:40:17			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.45 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.45 > -5.00					
Message			CCB Passed					
Action			Continue					
248371004	1	90	2.35	0.229	3/10/2010@16:42:05			
248371005	1	91	3.82	0.309	3/10/2010@16:43:00			
248371006	1	92	1.71	0.194	3/10/2010@16:43:54			
248371007	1	93	1.33	0.174	3/10/2010@16:44:49			
248408015	1	94	4.84	0.364	3/10/2010@16:45:43			
1202059678||DUP	1	95	27.2	1.58	3/10/2010@16:46:37			
1202059680||MS	1	96	82.3	4.56	3/10/2010@16:47:31			
1202059682||MSD	1	97	88.5	4.89	3/10/2010@16:48:25			
248408016	1	98	0.241	0.115	3/10/2010@16:49:18			
1202059679||DUP	1	99	0.124	0.109	3/10/2010@16:50:12			
WCN100310-03	1	S3	104	5.73	3/10/2010@16:51:04			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			4.1 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			4.1 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100310-08	1	S7	-2.02	-0.00711	3/10/2010@16:52:54			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-2.02 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-2.02 > -5.00					
Message			CCB Passed					
Action			Continue					
1202059681||MS	1	100	96.2	5.31	3/10/2010@16:54:44			
1202059683||MSD	1	101	95.6	5.27	3/10/2010@16:55:37			
248408017	1	102	10.2	0.656	3/10/2010@16:56:30			
248408018	1	103	0.330	0.120	3/10/2010@16:57:23			
248418001	1	104	-0.290	0.0865	3/10/2010@16:58:15			
248418002	1	105	-0.923	0.0522	3/10/2010@16:59:08			
248418003	1	106	0.887	0.150	3/10/2010@17:00:02			

248418004	1	107	-0.602	0.0696	3/10/2010@17:00:57		
248418005	1	108	-0.0596	0.0989	3/10/2010@17:01:51		
248418006	1	109	0.649	0.137	3/10/2010@17:02:45		
WCN100310-03	1	S3	106	5.85	3/10/2010@17:03:38		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			6.2 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			6.2 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100310-08	1	S7	-2.06	-0.00904	3/10/2010@17:05:28		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-2.06 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-2.06 > -5.00				
Message			CCB Passed				
Action			Continue				
248418007	1	110	2.86	0.257	3/10/2010@17:07:18		
248418008	1	111	-0.216	0.0905	3/10/2010@17:08:12		
248418009	1	112	10.2	0.655	3/10/2010@17:09:07		
1202059669|960257|MB	1	113	-1.02	0.0470	3/10/2010@17:10:01		
1202059676|LCS	1	114	24.4	1.42	3/10/2010@17:10:54	25.00	
248383001	1	115	-0.461	0.0772	3/10/2010@17:11:48		
1202059670|DUP	1	116	-0.401	0.0805	3/10/2010@17:12:41		
1202059672|MS	1	117	92.5	5.11	3/10/2010@17:13:34		
1202059674|MSD	1	118	98.3	5.42	3/10/2010@17:14:27		
248383002	1	119	2.54	0.240	3/10/2010@17:15:20		
WCN100310-03	1	S3	104	5.73	3/10/2010@17:16:12		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			4.0 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			4.0 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100310-08	1	S7	-1.33	0.0300	3/10/2010@17:18:03		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-1.33 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-1.33 > -5.00				
Message			CCB Passed				
Action			Continue				
1202059671|DUP	1	120	2.11	0.216	3/10/2010@17:19:52		
1202059673|MS	1	121	95.8	5.29	3/10/2010@17:20:46		
1202059675|MSD	1	122	96.6	5.33	3/10/2010@17:21:41		
248383003	1	123	1.20	0.167	3/10/2010@17:22:36		
248383004	1	124	-0.736	0.0624	3/10/2010@17:23:30		
248383005	1	125	-0.877	0.0547	3/10/2010@17:24:25		
248383006	1	126	-0.944	0.0511	3/10/2010@17:25:19		
248408001	1	127	1.28	0.171	3/10/2010@17:26:13		
248408002	1	128	6.21	0.438	3/10/2010@17:27:07		
248408003	1	129	75.3	4.18	3/10/2010@17:28:01		
WCN100310-03	1	S3	104	5.72	3/10/2010@17:28:53		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				
WCN100310-08	1	S7	-1.42	0.0253	3/10/2010@17:30:44		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-1.42 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-1.42 > -5.00				
Message			CCB Passed				
Action			Continue				
248408004	1	130	-0.845	0.0564	3/10/2010@17:32:33		
248408005	1	131	-0.117	0.0958	3/10/2010@17:33:26		
248408006	1	132	0.423	0.125	3/10/2010@17:34:20		
248408007	1	133	2.01	0.211	3/10/2010@17:35:13		
248408008	1	134	0.455	0.127	3/10/2010@17:36:06		
248408009	1	135	1.57	0.187	3/10/2010@17:36:59		
248408010	1	136	-1.32	0.0308	3/10/2010@17:37:54		
248408011	1	137	0.684	0.139	3/10/2010@17:38:49		
248408012	1	138	0.769	0.144	3/10/2010@17:39:43		
248408013	1	139	-0.833	0.0571	3/10/2010@17:40:38		
WCN100310-03	1	S3	104	5.72	3/10/2010@17:41:31		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				
WCN100310-08	1	S7	-0.935	0.0516	3/10/2010@17:43:21		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-0.935 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-0.935 > -5.00				
Message			CCB Passed				
Action			Continue				
248408014	1	140	-0.494	0.0754	3/10/2010@17:45:11		
1202061972|961296|MB	1	141	12.6	0.782	3/10/2010@17:46:05		
1202061982|LCS	1	142	51.3	2.88	3/10/2010@17:46:59		
248321002	1	143	-0.134	0.0949	3/10/2010@17:47:53		
1202061973|DUP	1	144	-0.820	0.0578	3/10/2010@17:48:48		
1202061976|MS	1	145	103	5.68	3/10/2010@17:49:42		
1202061979|MSD	1	146	86.4	4.78	3/10/2010@17:50:35		
248547001	1	147	-1.23	0.0354	3/10/2010@17:51:28		
1202061975|DUP	1	148	-1.51	0.0202	3/10/2010@17:52:22		
1202061978|MS	1	149	74.2	4.12	3/10/2010@17:53:15		
WCN100310-03	1	S3	104	5.75	3/10/2010@17:54:08		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				
WCN100310-08	1	S7	-1.38	0.0274	3/10/2010@17:55:58		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							

			Result:	-1.38 < 5.00					
			Message	CCB Passed					
			Action	Continue					
			DQM Test: < - Concentration Limit						
			Result:	-1.38 > -5.00					
			Message	CCB Passed					
			Action	Continue					
1202061981	MSD	1	150	84.0	4.65	3/10/2010@17:57:47			
248605001		1	151	39.4	2.23	3/10/2010@17:58:42			
248622001		1	152	-0.368	0.0823	3/10/2010@17:59:37			
248622002		1	153	-0.636	0.0678	3/10/2010@18:00:32			
248622003		1	154	-0.771	0.0604	3/10/2010@18:01:26			
248622004		1	155	-0.412	0.0799	3/10/2010@18:02:21			
248622005		1	156	-0.857	0.0558	3/10/2010@18:03:15			
248622006		1	157	0.861	0.149	3/10/2010@18:04:10			
248626002		1	158	0.246	0.115	3/10/2010@18:05:04			
248629002		1	159	20.9	1.23	3/10/2010@18:05:58			
WCN100310-03		1	S3	104	5.75	3/10/2010@18:06:50			CCV
			Known Conc:	100					
			DQM Test: > + Percent Relative Difference						
			Result:	4.4 < 10.0					
			Message	CCV Passed					
			Action	Continue					
			DQM Test: < - Percent Relative Difference						
			Result:	4.4 < 10.0					
			Message	CCV Passed					
			Action	Continue					
WCN100310-08		1	S7	-1.02	0.0470	3/10/2010@18:08:41			CCB
			Known Conc:	0.00					
			DQM Test: > + Concentration Limit						
			Result:	-1.02 < 5.00					
			Message	CCB Passed					
			Action	Continue					
			DQM Test: < - Concentration Limit						
			Result:	-1.02 > -5.00					
			Message	CCB Passed					
			Action	Continue					
248668001		1	160	-1.80	0.00460	3/10/2010@18:10:31			
1202064174	DUP	1	161	-1.28	0.0327	3/10/2010@18:11:25			
1202064175	MS	1	162	76.1	4.22	3/10/2010@18:12:18			
1202064176	MSD	1	163	79.7	4.41	3/10/2010@18:13:12			
248668003		1	164	-1.22	0.0361	3/10/2010@18:14:05			
248668006		1	165	-1.44	0.0240	3/10/2010@18:14:58			
248690002		1	166	-1.12	0.0415	3/10/2010@18:15:54			
1202061974	DUP	1	167	-0.892	0.0539	3/10/2010@18:16:49			
1202061977	MS	1	168	102	5.63	3/10/2010@18:17:44			
1202061980	MSD	1	169	98.3	5.42	3/10/2010@18:18:39			
WCN100310-03		1	S3	105	5.77	3/10/2010@18:19:31			CCV
			Known Conc:	100					
			DQM Test: > + Percent Relative Difference						
			Result:	4.8 < 10.0					
			Message	CCV Passed					
			Action	Continue					
			DQM Test: < - Percent Relative Difference						
			Result:	4.8 < 10.0					
			Message	CCV Passed					
			Action	Continue					
WCN100310-08		1	S7	-2.37	-0.0259	3/10/2010@18:21:22			CCB
			Known Conc:	0.00					
			DQM Test: > + Concentration Limit						
			Result:	-2.37 < 5.00					
			Message	CCB Passed					
			Action	Continue					
			DQM Test: < - Concentration Limit						
			Result:	-2.37 > -5.00					
			Message	CCB Passed					
			Action	Continue					
1202061972	961296	1	141	12.8	0.797	3/10/2010@18:23:12			

1202064171|962270|MB	1	170	-1.59	0.0162	3/10/2010@18:24:07		
1202064173|LCS	1	171	84.7	4.68	3/10/2010@18:25:01	250.00	
248632001	1	172	2.73	0.250	3/10/2010@18:25:56		
1202064172|DUP	1	173	-1.87	0.00117	3/10/2010@18:26:50		
248726001	1	174	-1.42	0.0252	3/10/2010@18:27:44		
248727001	1	175	-1.40	0.0261	3/10/2010@18:28:39		
1202061114|960944|MB	1	176	-1.77	0.00623	3/10/2010@18:29:33		
1202061116|LCS	1	177	77.2	4.28	3/10/2010@18:30:27	250.00	
247941001	1	178	-1.64	0.0137	3/10/2010@18:31:20		
WCN100310-03	1	S3	106	5.83	3/10/2010@18:32:13		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			5.9 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			5.9 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100310-08	1	S7	-0.983	0.0490	3/10/2010@18:34:04		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-0.983 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-0.983 > -5.00				
Message			CCB Passed				
Action			Continue				
247943001	1	179	-2.19	-0.0161	3/10/2010@18:35:54		
248227001	1	180	-1.83	0.00300	3/10/2010@18:36:47		
1202061115|DUP	1	181	-2.26	-0.0203	3/10/2010@18:37:43		
248228001	1	182	14.5	0.889	3/10/2010@18:38:38		
1202061972|961296|MB	1	141	-1.54	0.0186	3/10/2010@18:39:33		
WCN100310-03	1	S3	105	5.79	3/10/2010@18:40:26		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			5.0 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			5.0 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100310-08	1	S7	-1.35	0.0290	3/10/2010@18:42:16		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-1.35 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-1.35 > -5.00				
Message			CCB Passed				
Action			Continue				

Analyte Properties Table for OM_3-10-2010_14-44-38.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

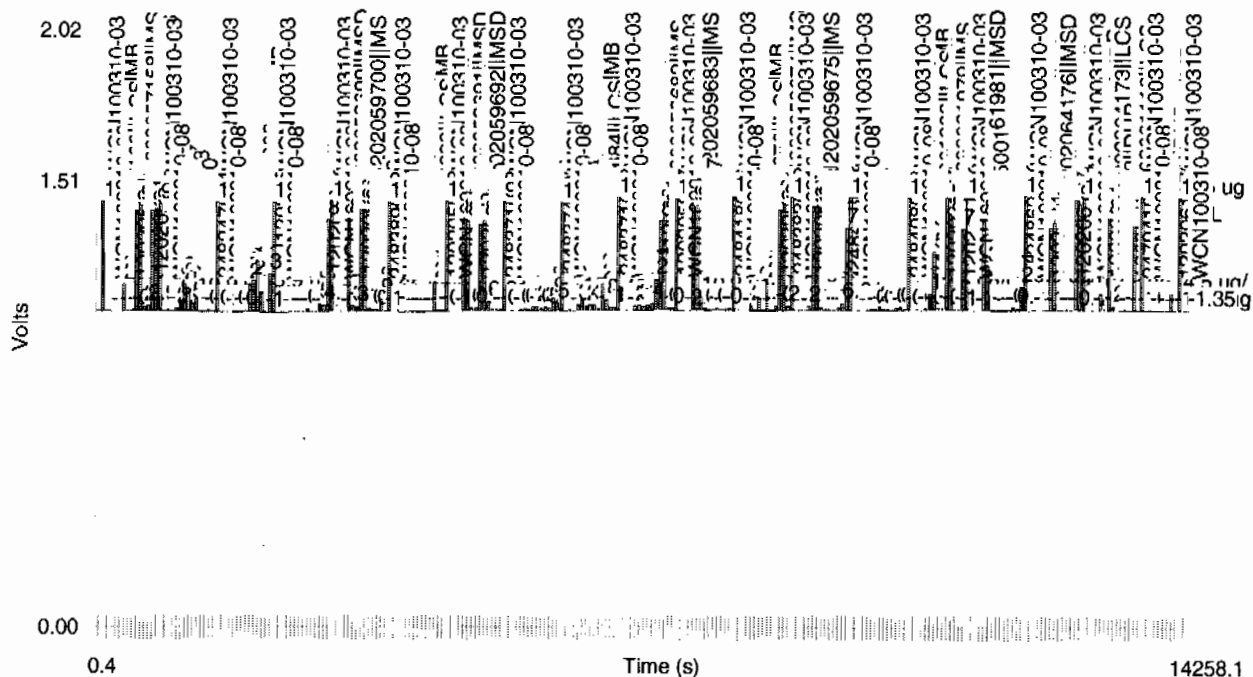
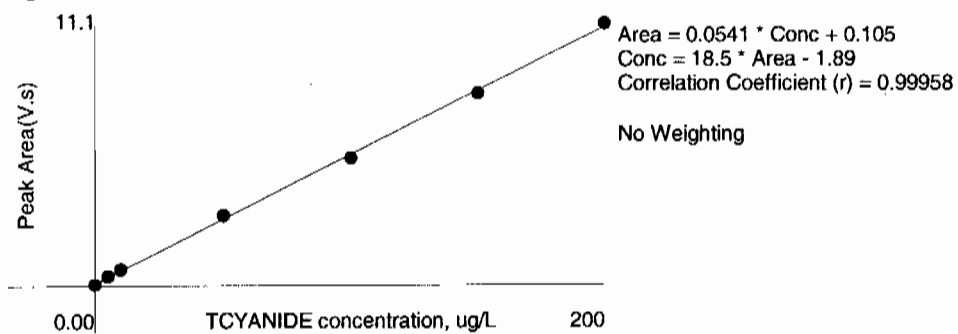


Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	11.1	0.707	-1.3	3/10/2010	10:51:58
2	150	1	8.08	0.519	1.6	3/10/2010	10:52:50
3	100	1	5.35	0.347	3.0	3/10/2010	10:53:42
4	50.0	1	2.95	0.188	-5.0	3/10/2010	10:54:35
5	10.0	1	0.687	0.0433	-6.4	3/10/2010	10:55:28
6	5.00	1	0.407	0.0241	-8.2	3/10/2010	10:56:22
7	0.00	1	0.0471	0.00103		3/10/2010	10:57:16

Figure 1: TCYANIDE



Ion Chromatography

Prep Logbook

Ion Chromatography (IC)

Batch ID: 966995.0
Analyst: Mary Sherwood
Method: EPA 300.0 PREP
Lab SOP: GL-GC-E-086 REV# 17
Instrument: Sartorius Balance B-001

Verified by:
Sample Id: 1202075361
Description: GEL-ANION-4C Spiking Solution
Serial Number: UIC100224SPK
Spike Amount: .8 mL
Spike Units: mL

Type: LCS
MS: 1202075359
MSD: 1202075360
Description: GEL-ANION-4C Spiking Solution
Serial Number: UIC100224SPK
Spike Amount: .8 mL
Spike Units: mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202075357 MB	22-MAR-2010 14:00:00	Soil	4	40	10	
1202075361 LCS	22-MAR-2010 14:00:00	Soil	4	40	10	
248241001	22-MAR-2010 14:00:00	Soil	4	40	10	
1202075358 DUP (248241001)	22-MAR-2010 14:00:00	Soil	4	40	10	
1202075359 MS (248241001)	22-MAR-2010 14:00:00	Soil	4	40	10	
1202075360 MSD (248241001)	22-MAR-2010 14:00:00	Soil	4	40	10	
248241002	22-MAR-2010 14:00:00	Soil	4	40	10	
248241003	22-MAR-2010 14:00:00	Soil	4	40	10	
248241004	22-MAR-2010 14:00:00	Soil	4	40	10	
248241005	22-MAR-2010 14:00:00	Soil	4	40	10	
248241006	22-MAR-2010 14:00:00	Soil	4	40	10	
248241007	22-MAR-2010 14:00:00	Soil	4	40	10	
248241008	22-MAR-2010 14:00:00	Soil	4	40	10	
248241009	22-MAR-2010 14:00:00	Soil	4	40	10	
248241010	22-MAR-2010 14:00:00	Soil	4	40	10	

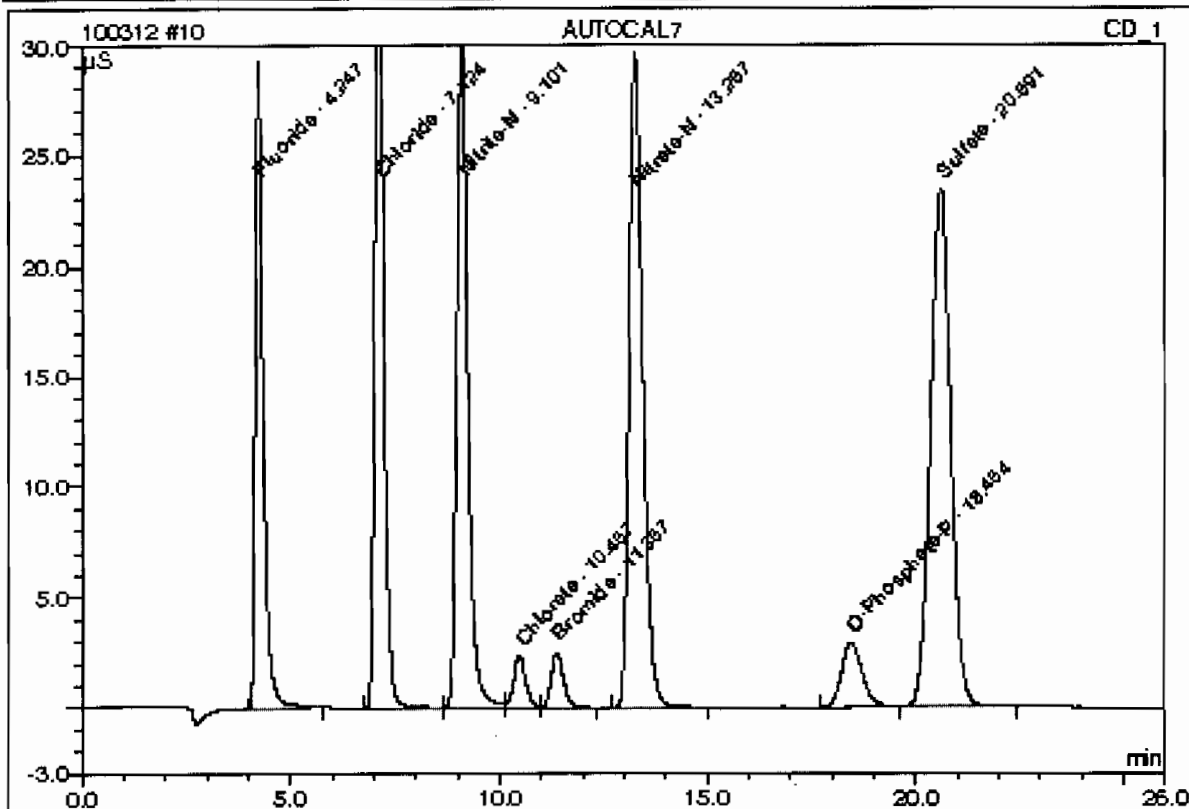
Reagent/Solvent Lot ID **Description** **Amount** **Comments:**

This is runlog for Sequence 100312.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/12/10 11:16		1	100312	MAR1
BLK	03/12/10 11:44		1	100312	MAR1
ICAL-07	03/12/10 12:13		1	100312	MAR1
ICAL-06	03/12/10 12:42		1	100312	MAR1
ICAL-05	03/12/10 13:11		1	100312	MAR1
ICAL-04	03/12/10 13:40		1	100312	MAR1
ICAL-03	03/12/10 14:08		1	100312	MAR1
ICAL-02	03/12/10 14:37		1	100312	MAR1
ICAL-01	03/12/10 15:06		1	100312	MAR1
ICV	03/12/10 15:35		1	100312	MAR1
ICB	03/12/10 16:04		1	100312	MAR1
1202063659	03/12/10 16:33	962090	1	100312	MAR1
1202063663	03/12/10 17:02	962090	1	100312	MAR1
248065001	03/12/10 17:31	962090	1	100312	MAR1
1202063660	03/12/10 18:00	962090	1	100312	MAR1
1202063661	03/12/10 18:29	962090	1	100312	MAR1
1202063662	03/12/10 18:58	962090	1	100312	MAR1
248065002	03/12/10 19:27	962090	1	100312	MAR1
248065003	03/12/10 19:55	962090	1	100312	MAR1
248065004	03/12/10 20:24	962090	1	100312	MAR1
248065005	03/12/10 20:53	962090	1	100312	MAR1
CVH	03/12/10 21:22		1	100312	MAR1
CCB	03/12/10 21:51		1	100312	MAR1
248065006	03/12/10 22:20	962090	1	100312	MAR1
248065007	03/12/10 22:49	962090	1	100312	MAR1
248065008	03/12/10 23:18	962090	1	100312	MAR1
248068001	03/12/10 23:47	962090	1	100312	MAR1

10 AUTOCAL7

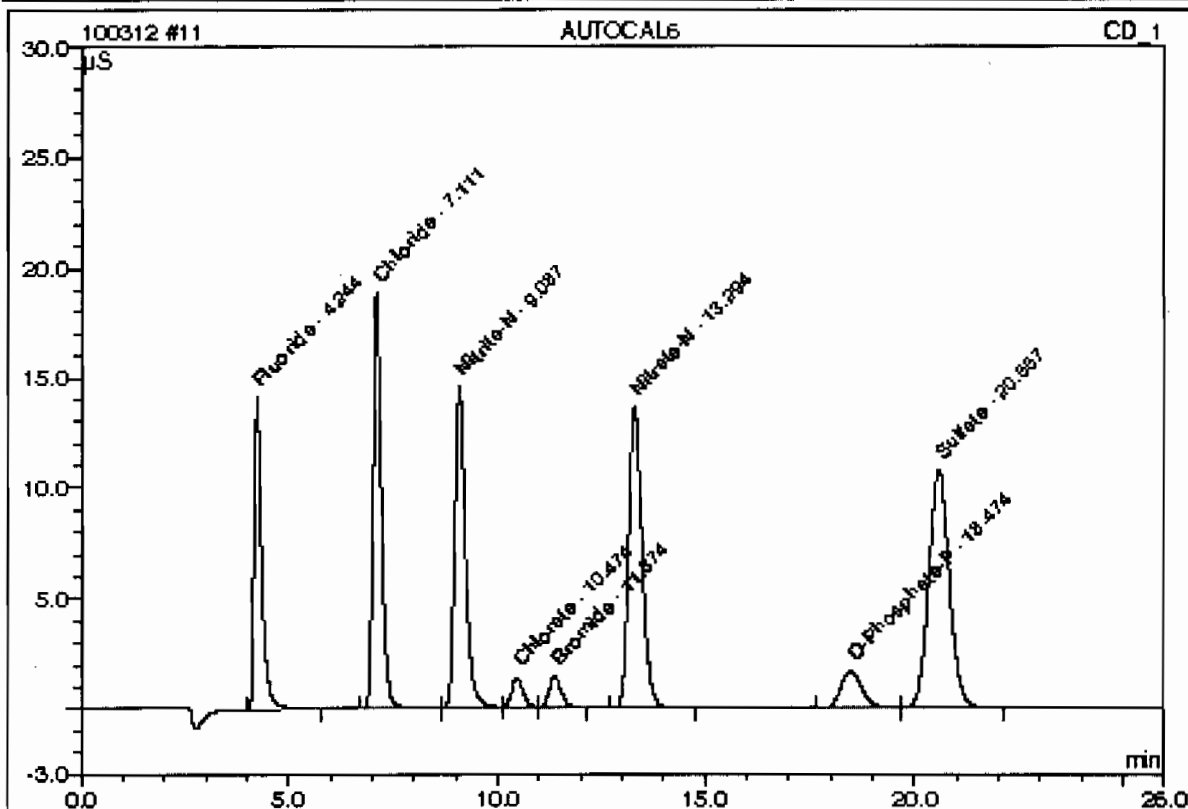
Sample Name:	AUTOCAL7	Injection Volume:	1.0
Vial Number:	3	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100312an	Sample Amount:	1.0000
Recording Time:	3/12/2010 12:13	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC E086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	10.0000	10.0082		6.22157	11.84
2	7.12	Chloride	20.0000	20.0326		9.47163	18.02
3	9.10	Nitrate-N	10.0000	10.0084		9.13994	17.39
4	10.47	Chlorate	5.0000	5.0492		0.79245	1.51
5	11.37	Bromide	5.0000	5.0195		0.84636	1.61
6	13.26	Nitrate-N	10.0000	10.0123		11.22910	21.36
7	18.45	O-Phosphate-P	5.0000	5.0489		1.66651	3.17
8	20.59	Sulfate	40.0000	40.0441		13.19754	25.11
Total:				105.2231	0.000	52.565	100.00

11 AUTOCAL6

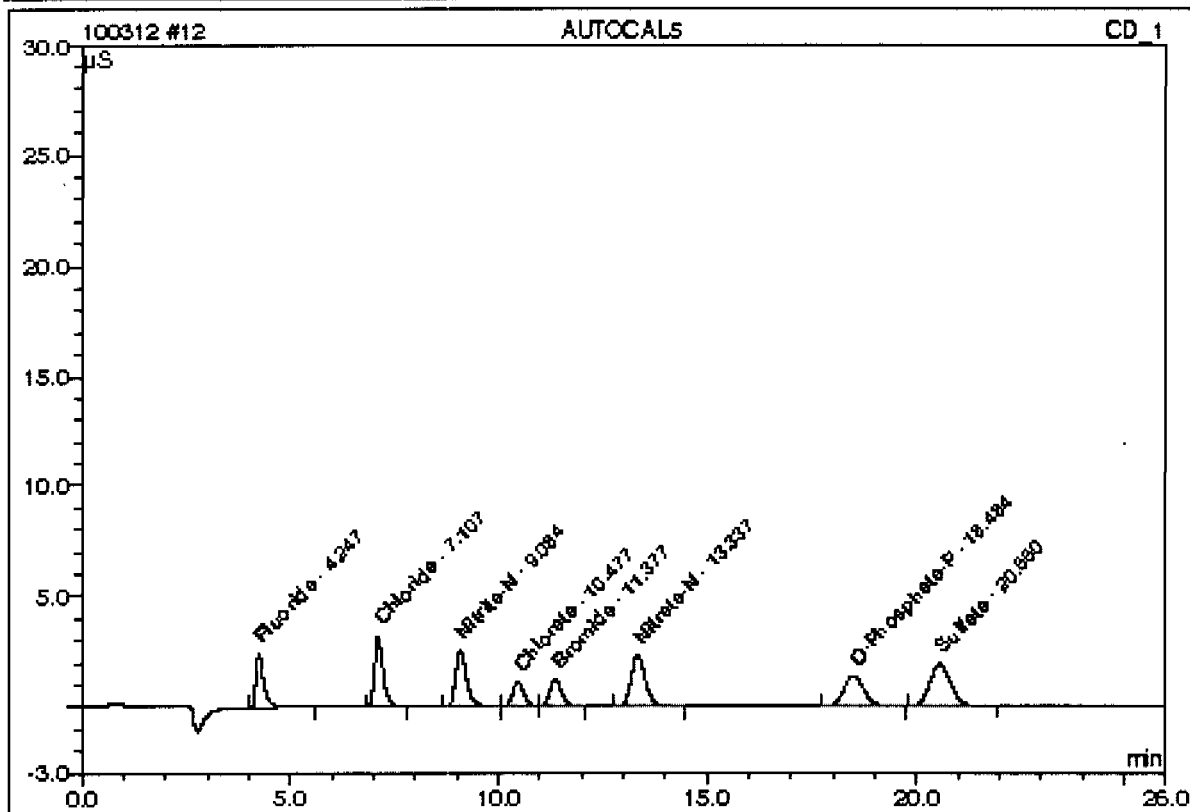
Sample Name:	AUTOCAL6	Injection Volume:	1.0
Vial Number:	4	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100312an	Sample Amount:	1.0000
Recording Time:	3/12/2010 12:42	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GLGCED86;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area μS*min	Rel.Area %
1	4.24	Fluoride	5.0000	4.8561		2.99032	12.03
2	7.11	Chloride	10.0000	9.3413		4.33873	17.46
3	9.09	Nitrate-N	5.0000	4.8263		4.34814	17.50
4	10.47	Chlorate	3.0000	2.9358		0.46050	1.85
5	11.37	Bromide	3.0000	2.9362		0.49122	1.98
6	13.29	Nitrate-N	5.0000	4.8985		5.14610	20.71
7	18.47	O-Phosphate-P	3.0000	2.9248		0.95491	3.84
8	20.57	Sulfate	20.0000	18.9050		6.12051	24.63
Total:				51.4240	0.000	24.850	100.00

12 AUTOCAL5

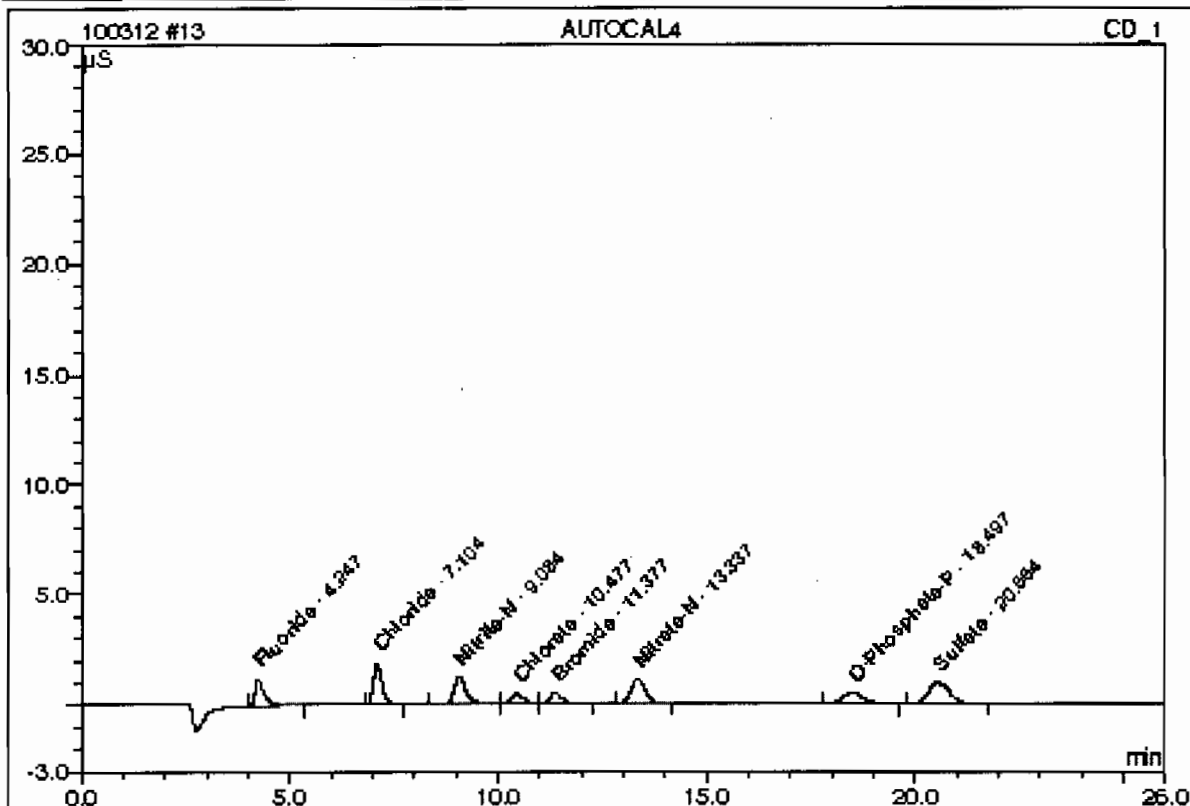
Sample Name:	AUTOCAL5	Injection Volume:	1.0
Vial Number:	5	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100312an	Sample Amount:	1.0000
Recording Time:	3/12/2010 13:11	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GLGCED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.25	Fluoride	1.0000	0.9247		0.54471	9.60
2	7.11	Chloride	2.0000	1.7462		0.75932	13.38
3	9.08	Nitrite-N	1.0000	0.9359		0.79384	13.99
4	10.48	Chlorate	2.5000	2.3846		0.36888	6.50
5	11.38	Bromide	2.5000	2.4488		0.40750	7.18
6	13.34	Nitrate-N	1.0000	0.9150		0.90731	15.99
7	18.48	O-Phosphate-P	2.5000	2.4403		0.78917	13.90
8	20.55	Sulfate	4.0000	3.6492		1.10495	19.47
Total:				15.4446	0.000	5.676	100.00

13 AUTOCAL4

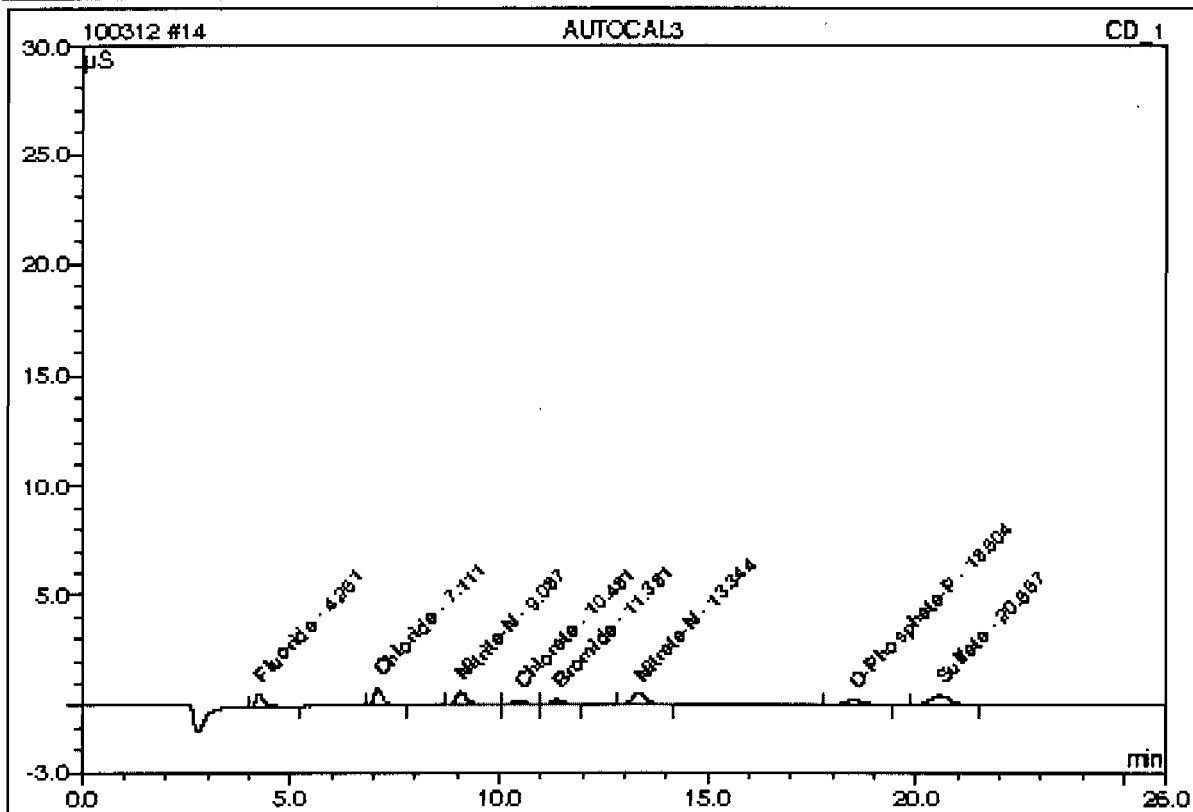
Sample Name:	AUTOCAL4	Injection Volume:	1.0
Vial Number:	6	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100312an	Sample Amount:	1.0000
Recording Time:	3/12/2010 13:40	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC ED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.25	Fluoride	0.5000	0.5181		0.29079	10.43
2	7.10	Chloride	1.0000	1.0724		0.44928	16.11
3	9.08	Nitrite-N	0.5000	0.5242		0.41773	14.98
4	10.48	Chlorate	1.0000	1.0431		0.15901	5.70
5	11.38	Bromide	1.0000	1.0408		0.17190	6.16
6	13.34	Nitrate-N	0.5000	0.5021		0.43247	15.51
7	18.50	O-Phosphate-P	1.0000	0.9735		0.29999	10.76
8	20.55	Sulfate	2.0000	2.0444		0.56783	20.36
Total:				7.7184	0.000	2.789	100.00

14 AUTOCAL3

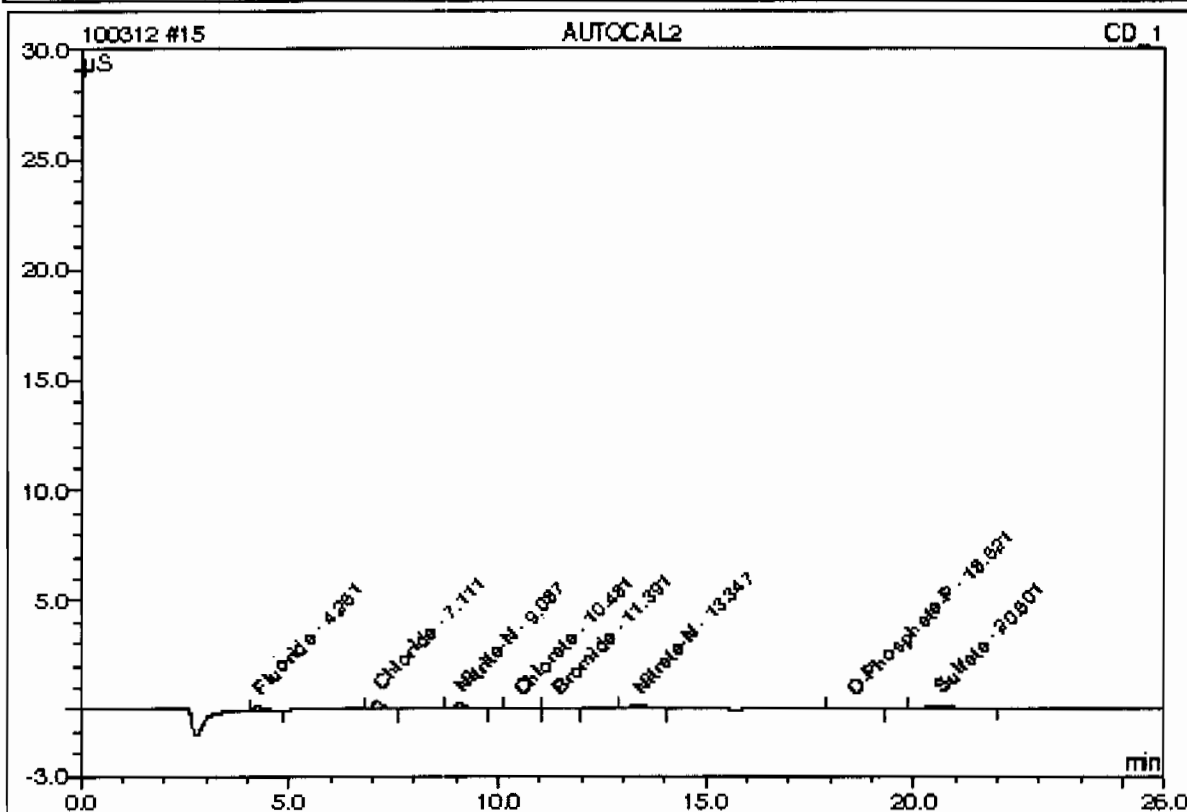
Sample Name:	AUTOCAL3	Injection Volume:	1.0
Vial Number:	7	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100312an	Sample Amount:	1.0000
Recording Time:	3/12/2010 14:08	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.25	Fluoride	0.2500	0.2767		0.13273	10.36
2	7.11	Chloride	0.5000	0.6177		0.19612	15.31
3	9.09	Nitrite-N	0.2500	0.2802		0.16850	14.72
4	10.48	Chlorate	0.5000	0.4873		0.07006	5.47
5	11.38	Bromide	0.5000	0.4930		0.07924	6.19
6	13.34	Nitrate-N	0.2500	0.3124		0.20857	16.29
7	18.50	O-Phosphate-P	0.5000	0.4938		0.13887	10.84
8	20.57	Sulfate	1.0000	1.2082		0.26661	20.82
Total:				4.1694	0.000	1.281	100.00

15 AUTOCAL2

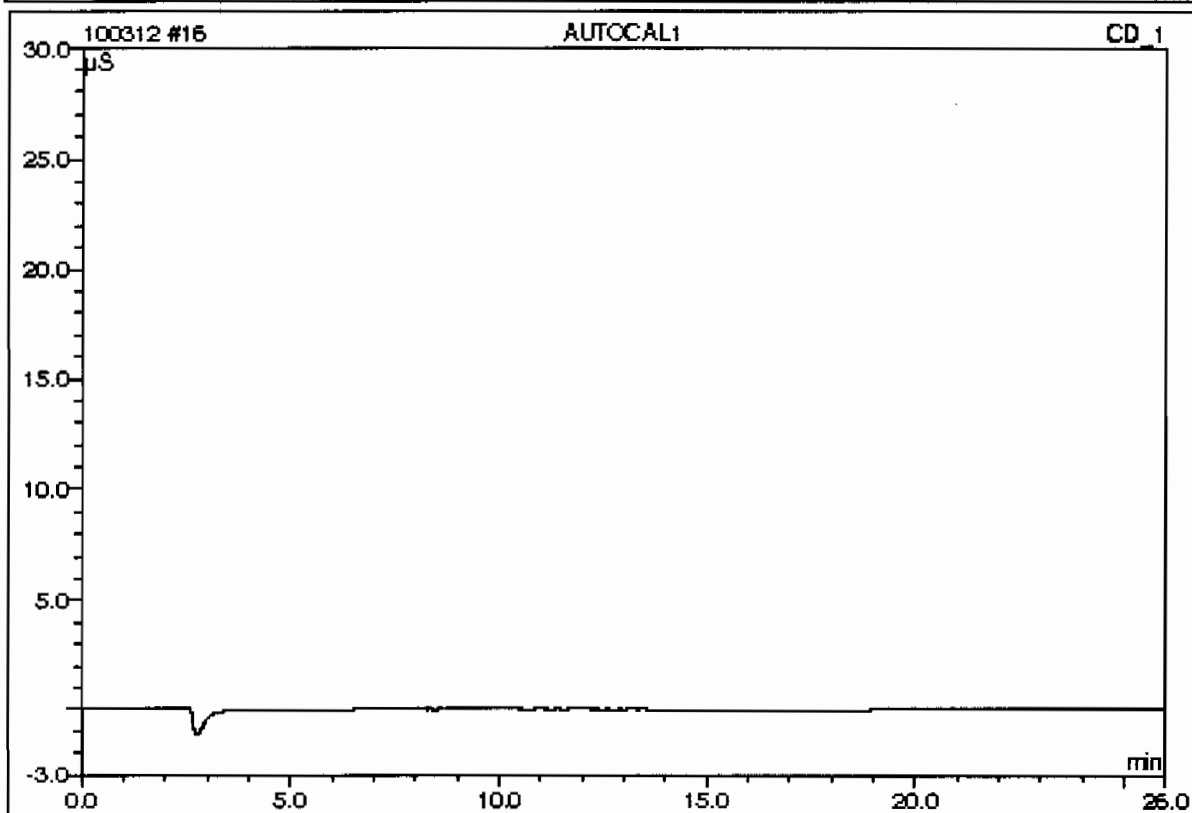
Sample Name:	AUTOCAL2	Injection Volume:	1.0
Vial Number:	8	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100312an	Sample Amount:	1.0000
Recording Time:	3/12/2010 14:37	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC ED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.25	Fluoride	0.1000	0.1393		0.05352	9.78
2	7.11	Chloride	0.2000	0.3635		0.09592	17.52
3	9.09	Nitrite-N	0.1000	0.1457		0.07635	13.95
4	10.48	Chlorate	0.2000	0.2155		0.02807	5.13
5	11.39	Bromide	0.2000	0.2128		0.03286	6.00
6	13.35	Nitrate-N	0.1000	0.1770		0.07876	14.39
7	18.52	O-Phosphate-P	0.2000	0.2166		0.04829	8.82
8	20.60	Sulfate	0.4000	0.7224		0.13373	24.43
Total:				2.1926	0.000	0.548	100.00

16 AUTOCAL1

Sample Name:	AUTOCAL1	Injection Volume:	1.0
Vial Number:	9	Channel:	CD_1
Sample Type:	standard	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100312an	Sample Amount:	1.0000
Recording Time:	3/12/2010 15:06	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GLGCED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

16 AUTOCAL1

Sample Name: AUTOCAL1

Vial Number: 9

Sample Type: standard

Control Program: AS23

Quantif. Method: 100312an

Recording Time: 3/12/2010 15:06

Run Time (min): 26.00

Injection Volume: 1.0

Channel: CD_1

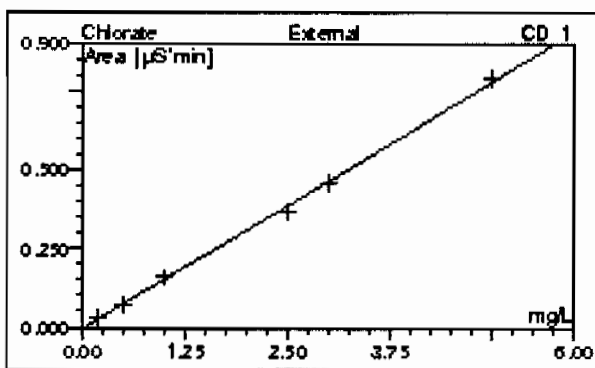
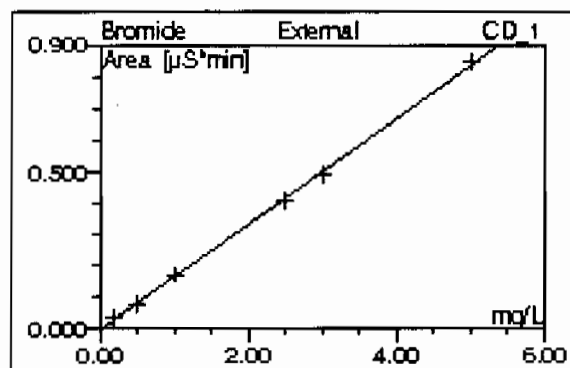
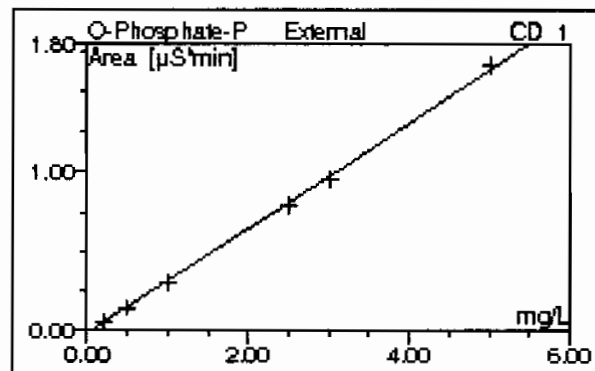
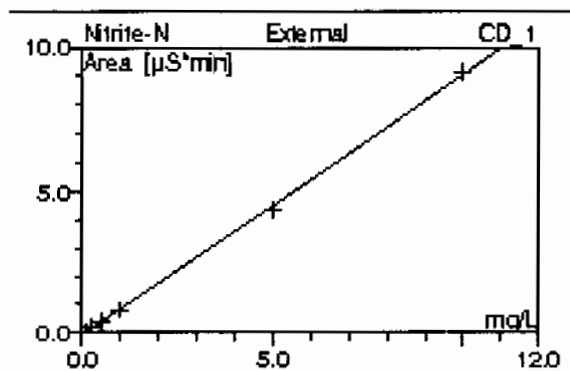
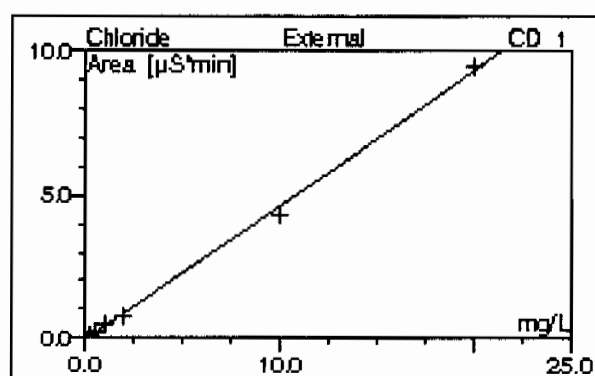
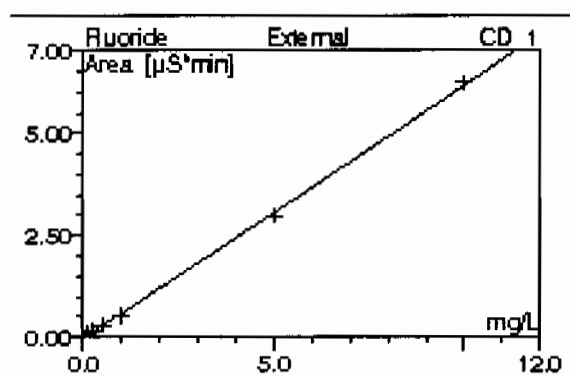
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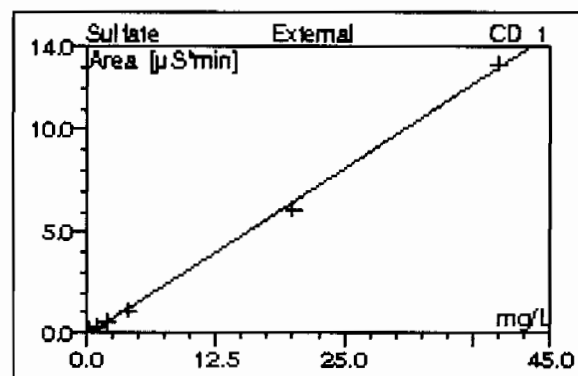
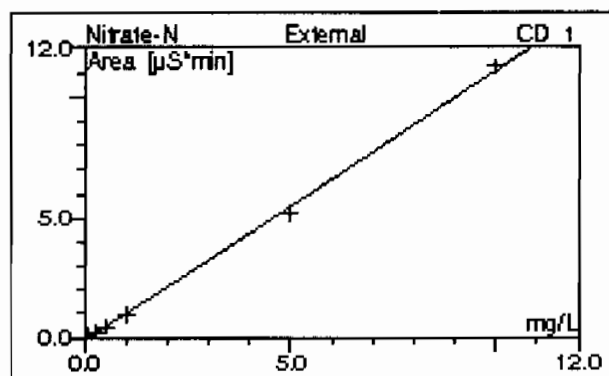
Sample Weight: 1.0000

Sample Amount: 1.0000

Analyst: MAR1

Column: AS23-002712; GL GCED86;300;9056

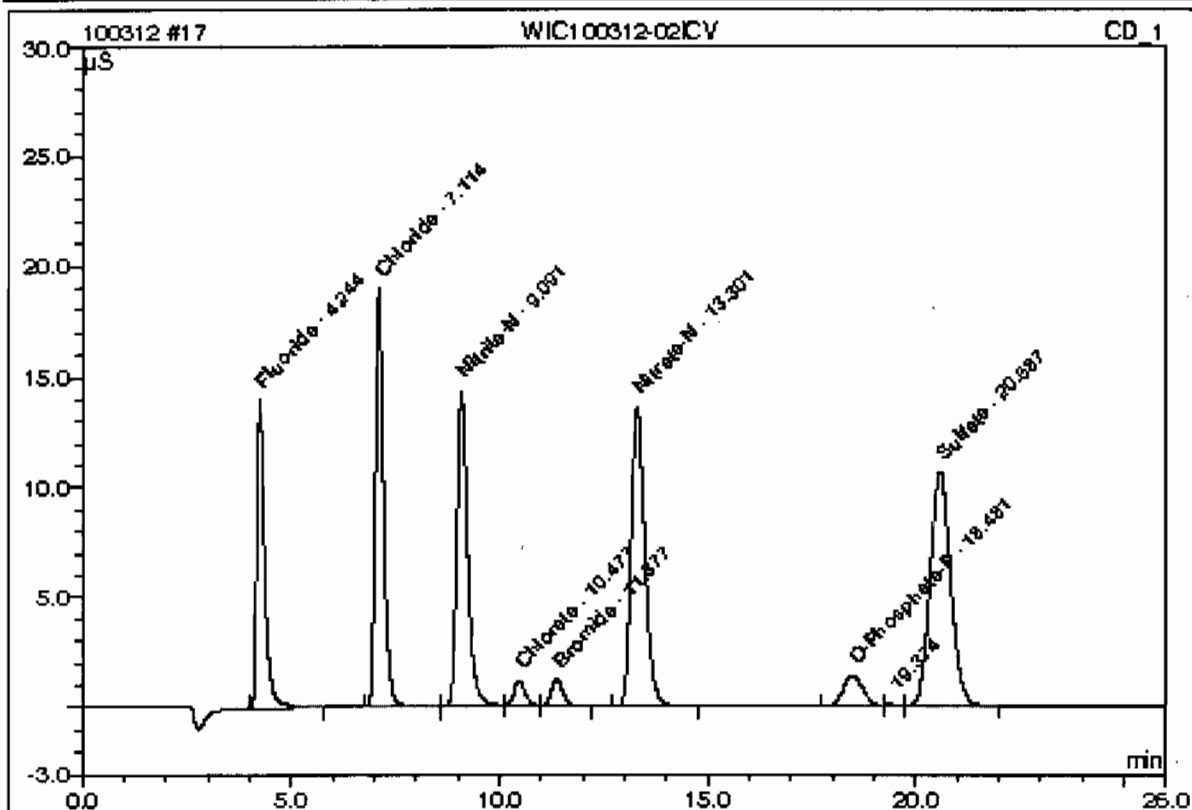




No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
n.a.	n.a.	Fluoride	OLO#	99.9627	-0.0330	0.6210	0.0000
n.a.	n.a.	Chloride	OLO#	99.8225	-0.0749	0.4699	0.0000
n.a.	n.a.	Nitrite-N	OLO#	99.9452	-0.0564	0.9115	0.0000
n.a.	n.a.	Chlorate	OLO#	99.8805	-0.0058	0.1574	0.0000
n.a.	n.a.	Bromide	OLO#	99.9304	-0.0029	0.1680	0.0000
n.a.	n.a.	Nitrate-N	OLO#	99.8475	-0.1191	1.1179	0.0000
n.a.	n.a.	O-Phosphate-P	OLO#	99.9176	-0.0239	0.3332	0.0000
n.a.	n.a.	Sulfate	OLO#	99.8762	-0.1033	0.3281	0.0000
Average:				99.8953	-0.0524	0.5134	0.0000

17 WIC100312-02ICV

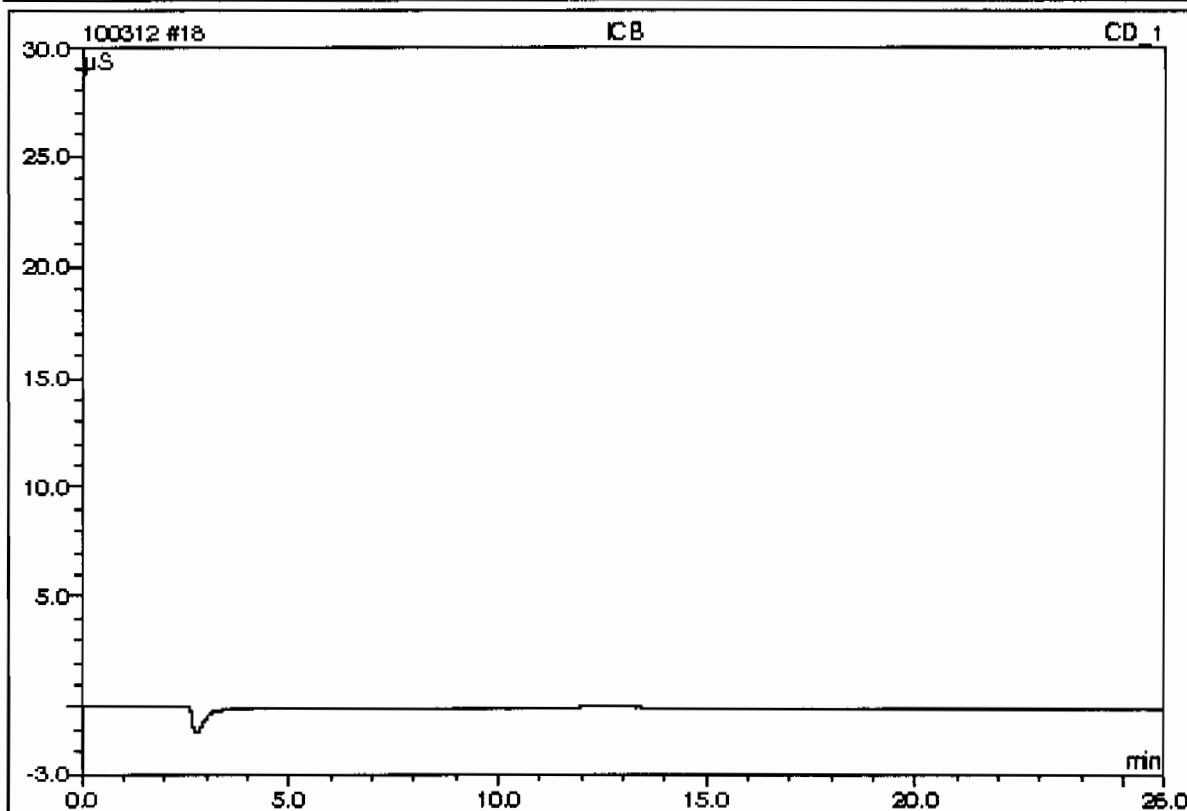
Sample Name:	WIC100312-02ICV	Injection Volume:	1.0
Vial Number:	10	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100312an	Sample Amount:	1.0000
Recording Time:	3/12/2010 15:35	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GCED86; 300; 9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.24	Fluoride	n.a.	4.8260		2.96419	12.10
2	7.11	Chloride	n.a.	9.4396		4.36065	17.80
3	9.09	Nitrate-N	n.a.	4.7879		4.30795	17.58
4	10.48	Chlorate	n.a.	2.5037		0.38815	1.58
5	11.38	Bromide	n.a.	2.5123		0.41911	1.71
6	13.30	Nitrate-N	n.a.	4.7318		5.17038	21.10
7	18.48	O-Phosphate-P	n.a.	2.4304		0.78590	3.21
9	20.59	Sulfate	n.a.	18.8328		6.07580	24.80
Total:				50.0645	0.000	24.472	99.88

18 ICB

Sample Name:	ICB	Injection Volume:	1.0
Vial Number:	11	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100312an	Sample Amount:	1.0000
Recording Time:	3/12/2010 16:04	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-001528; GL GC ED86;300;9056



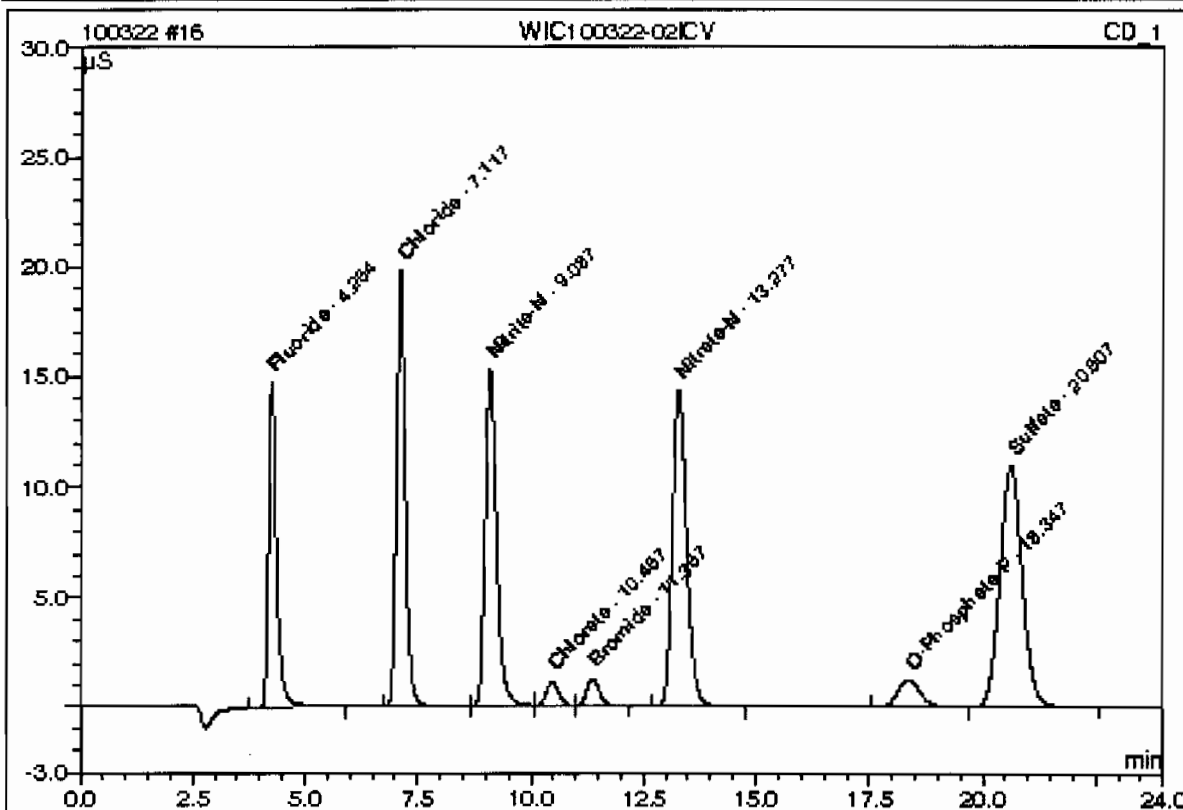
No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 100322.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/22/10 08:37		1	100322	MAR1
BLK	03/22/10 12:10		1	100322	MAR1
ICV	03/22/10 12:37		1	100322	MAR1
ICB	03/22/10 13:54		1	100322	MAR1
CCV	03/22/10 16:16		1	100322	MAR1
CCB	03/22/10 16:42		1	100322	MAR1
1202063614	03/22/10 17:09	962080	1	100322	MAR1
1202063618	03/22/10 17:36	962080	1	100322	MAR1
248159001	03/22/10 18:03	962080	1	100322	MAR1
1202063615	03/22/10 18:30	962080	1	100322	MAR1
1202063616	03/22/10 18:56	962080	1	100322	MAR1
1202063617	03/22/10 19:23	962080	1	100322	MAR1
248159002	03/22/10 19:50	962080	1	100322	MAR1
248159003	03/22/10 20:17	962080	1	100322	MAR1
248159004	03/22/10 20:44	962080	1	100322	MAR1
248159005	03/22/10 21:11	962080	1	100322	MAR1
CVH	03/22/10 21:38		1	100322	MAR1
CCB	03/22/10 22:05		1	100322	MAR1
248159006	03/22/10 22:32	962080	1	100322	MAR1
248202001	03/22/10 22:59	962080	1	100322	MAR1
248202002	03/22/10 23:25	962080	1	100322	MAR1
CCV	03/22/10 23:52		1	100322	MAR1

16 WIC100322-02ICV

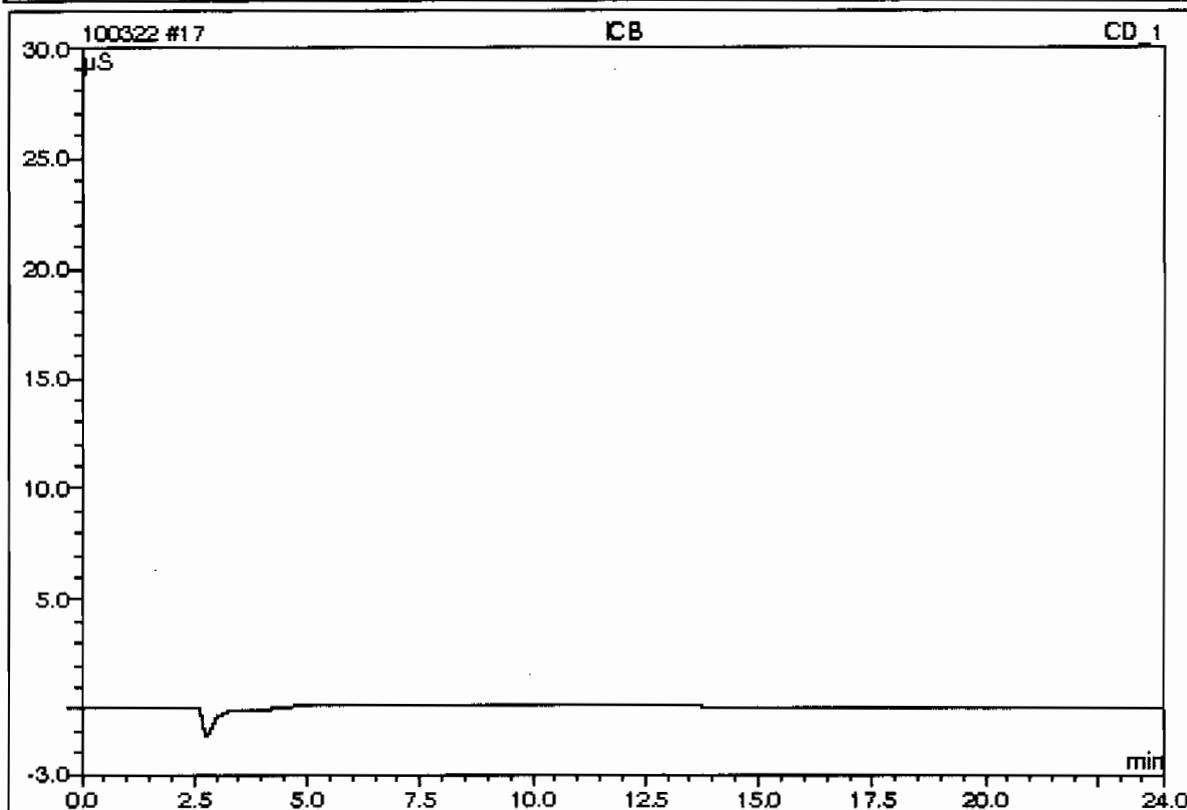
Sample Name:	WIC100322-02ICV	Injection Volume:	1.0
Vial Number:	3	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/22/2010 12:37	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCED86;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	4.7977		3.04546	12.15
2	7.12	Chloride	n.a.	9.2903		4.46193	17.80
3	9.09	Nitrite-N	n.a.	4.7978		4.45697	17.78
4	10.47	Chlorate	n.a.	2.4239		0.37856	1.51
5	11.37	Bromide	n.a.	2.5309		0.42478	1.69
6	13.28	Nitrate-N	n.a.	4.6718		5.29282	21.11
7	18.35	O-Phosphate-P	n.a.	2.2433		0.71674	2.86
8	20.61	Sulfate	n.a.	18.8207		6.29189	25.10
Total:				49.5762	0.000	25.069	100.00

17 ICB

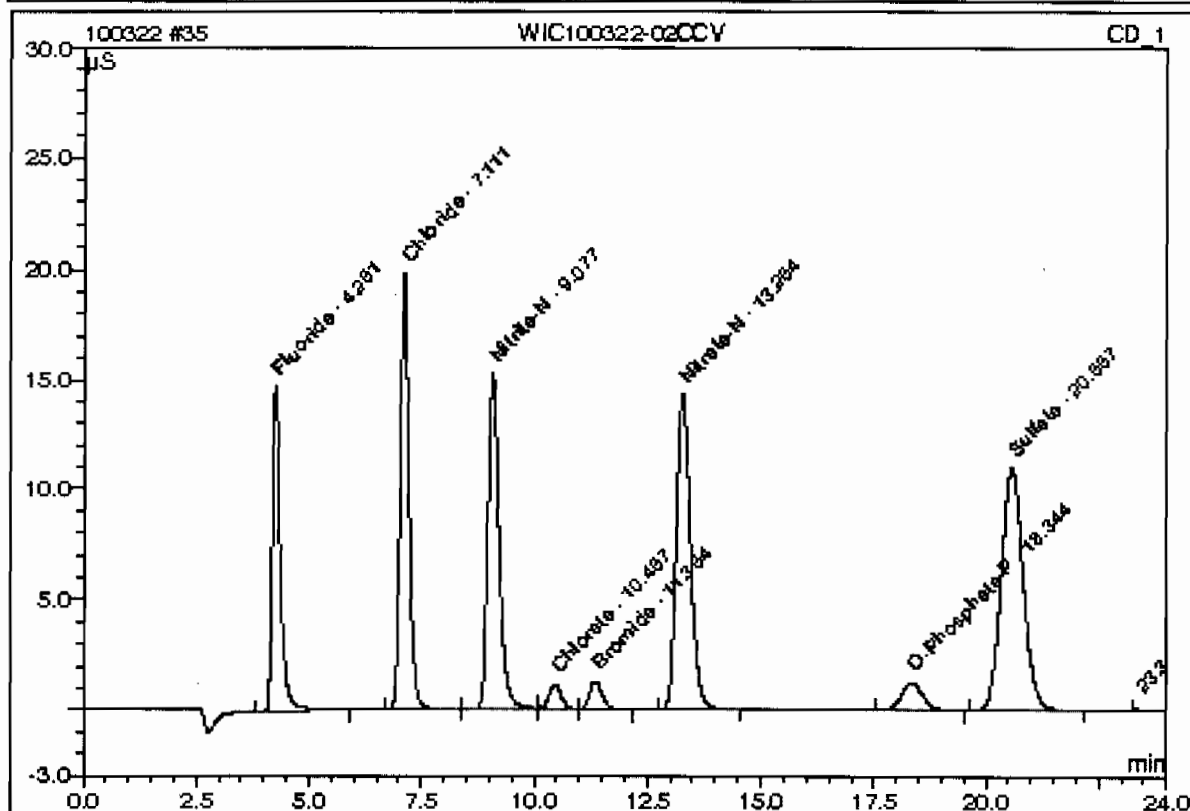
Sample Name:	ICB	Injection Volume:	1.0
Vial Number:	4	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/22/2010 13:54	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC ED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

35 WIC100322-02CCV

Sample Name:	WIC100322-02CCV	Injection Volume:	1.0
Vial Number:	20	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/22/2010 23:52	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;8056



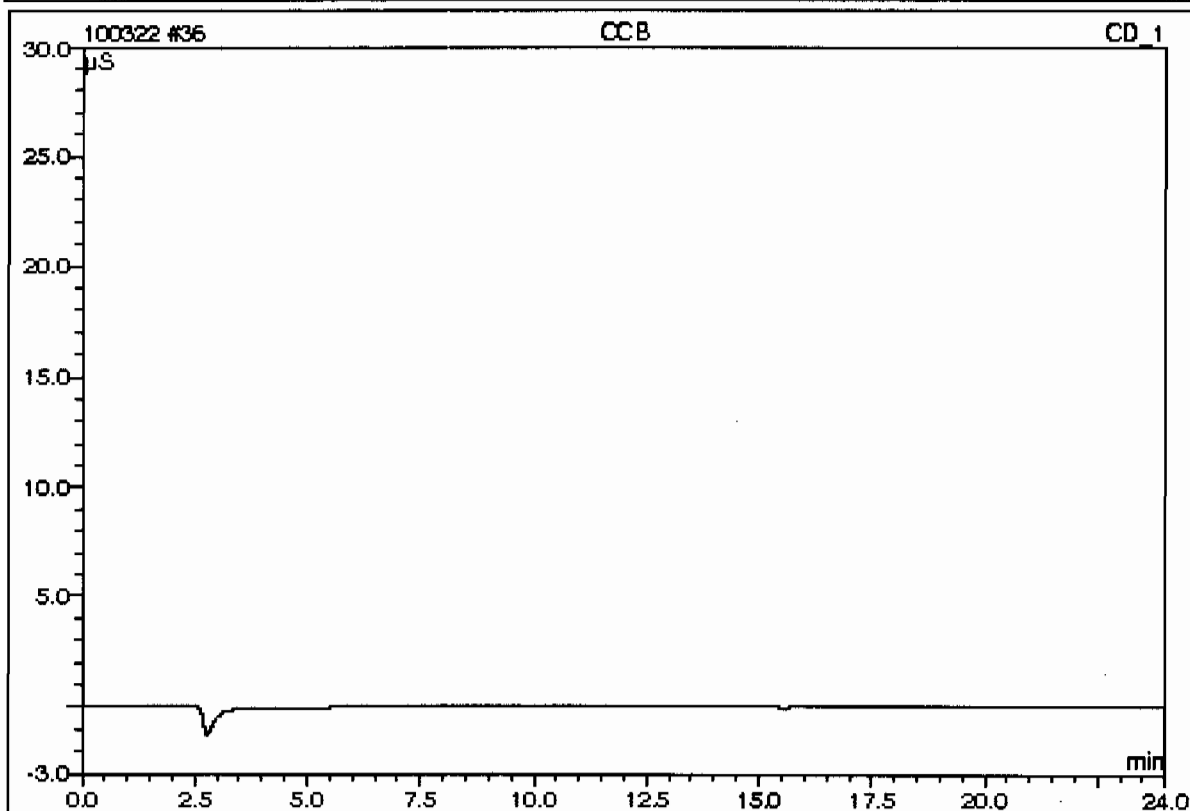
No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	4.7826		3.03575	12.14
2	7.11	Chloride	n.a.	9.2378		4.43631	17.74
3	9.08	Nitrate-N	n.a.	4.8078		4.48647	17.86
4	10.46	Chlorate	n.a.	2.4299		0.37950	1.52
5	11.35	Bromide	n.a.	2.5316		0.42490	1.70
6	13.26	Nitrate-N	n.a.	4.6492		5.26659	21.06
7	18.34	O-Phosphate-P	n.a.	2.2619		0.72289	2.89
8	20.57	Sulfate	n.a.	18.7010		6.25116	25.00
Total:				49.4019	0.000	24.984	99.92

This is runlog for Sequence 100322.seq for IC6

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
CCB	03/23/10 00:19		1	100322	MAR1
1202075357	03/23/10 00:46	966999	1	100322	MAR1
1202075361	03/23/10 01:13	966999	1	100322	MAR1
248241001	03/23/10 01:40	966999	1	100322	MAR1
1202075358	03/23/10 02:07	966999	1	100322	MAR1
1202075359	03/23/10 02:34	966999	1	100322	MAR1
1202075360	03/23/10 03:01	966999	1	100322	MAR1
248241002	03/23/10 03:28	966999	1	100322	MAR1
248241003	03/23/10 03:55	966999	1	100322	MAR1
248241004	03/23/10 04:22	966999	1	100322	MAR1
248241005	03/23/10 04:48	966999	1	100322	MAR1
CVH	03/23/10 05:15		1	100322	MAR1
CCB	03/23/10 05:42		1	100322	MAR1
248241006	03/23/10 06:09	966999	1	100322	MAR1
248241007	03/23/10 06:36	966999	1	100322	MAR1
248241008	03/23/10 07:03	966999	1	100322	MAR1
248241009	03/23/10 07:30	966999	1	100322	MAR1
248241010	03/23/10 07:57	966999	1	100322	MAR1
CCV	03/23/10 08:24		1	100322	MAR1
CCB	03/23/10 08:51		1	100322	MAR1

36 CCB

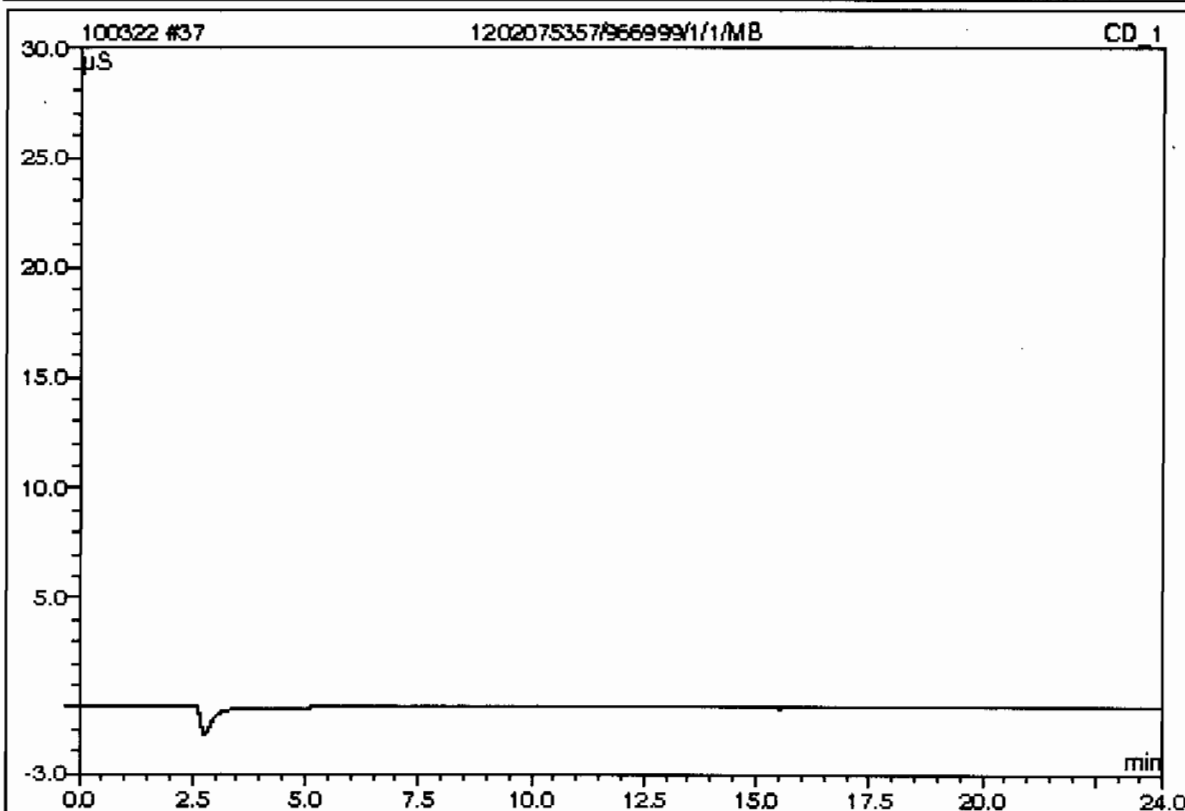
Sample Name:	CCB	Injection Volume:	1.0
Vial Number:	21	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/23/2010 0:10	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC E086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

37 1202075357/966999/1/1/MB

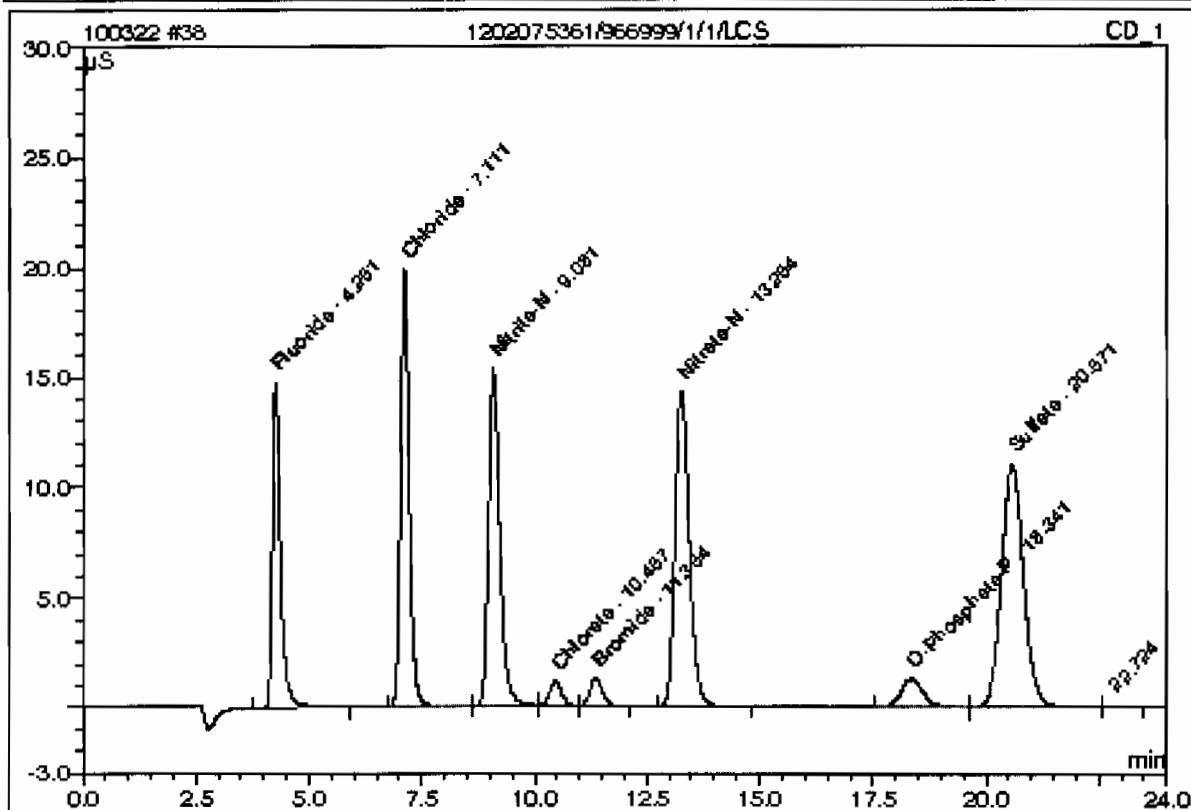
Sample Name:	1202075357/966999/1/1/MB	Injection Volume:	1.0
Vial Number:	22	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/23/2010 0:46	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC ED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

38 1202075361/966999/1/1/LCS

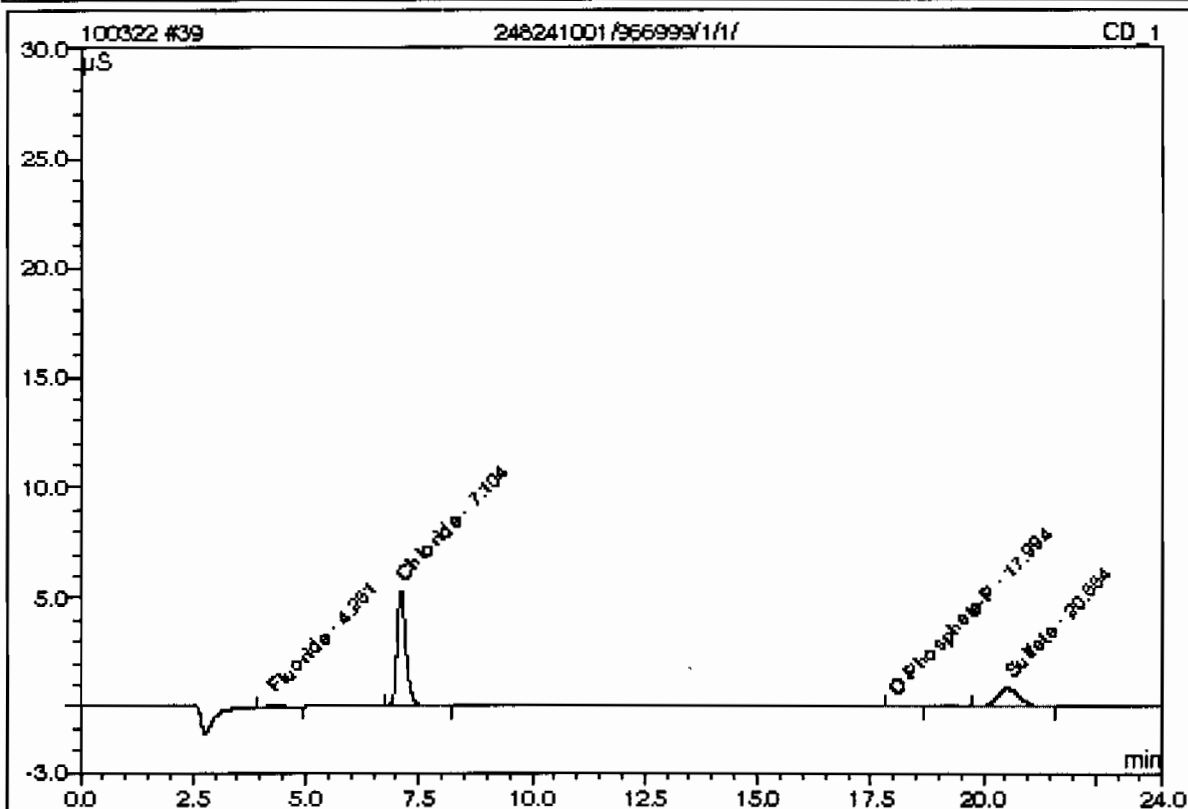
Sample Name:	1202075361/966999/1/1/LCS	Injection Volume:	1.0
Vial Number:	23	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/23/2010 1:13	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCED86;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area $\mu\text{S} \cdot \text{min}$	Rel.Area %
1	4.25	Fluoride	n.a.	4.8061		3.05085	12.15
2	7.11	Chloride	n.a.	9.2859		4.45002	17.72
3	9.08	Nitrite-N	n.a.	4.8069		4.46566	17.78
4	10.46	Chlorate	n.a.	2.4111		0.37653	1.50
5	11.35	Bromide	n.a.	2.5123		0.42164	1.68
6	13.26	Nitrate-N	n.a.	4.6758		5.29749	21.10
7	18.34	O-Phosphate-P	n.a.	2.2872		0.73122	2.91
8	20.57	Sulfate	n.a.	18.8458		6.30043	25.09
Total:				49.6111	0.000	25.094	99.94

39 248241001/966999/1/1/

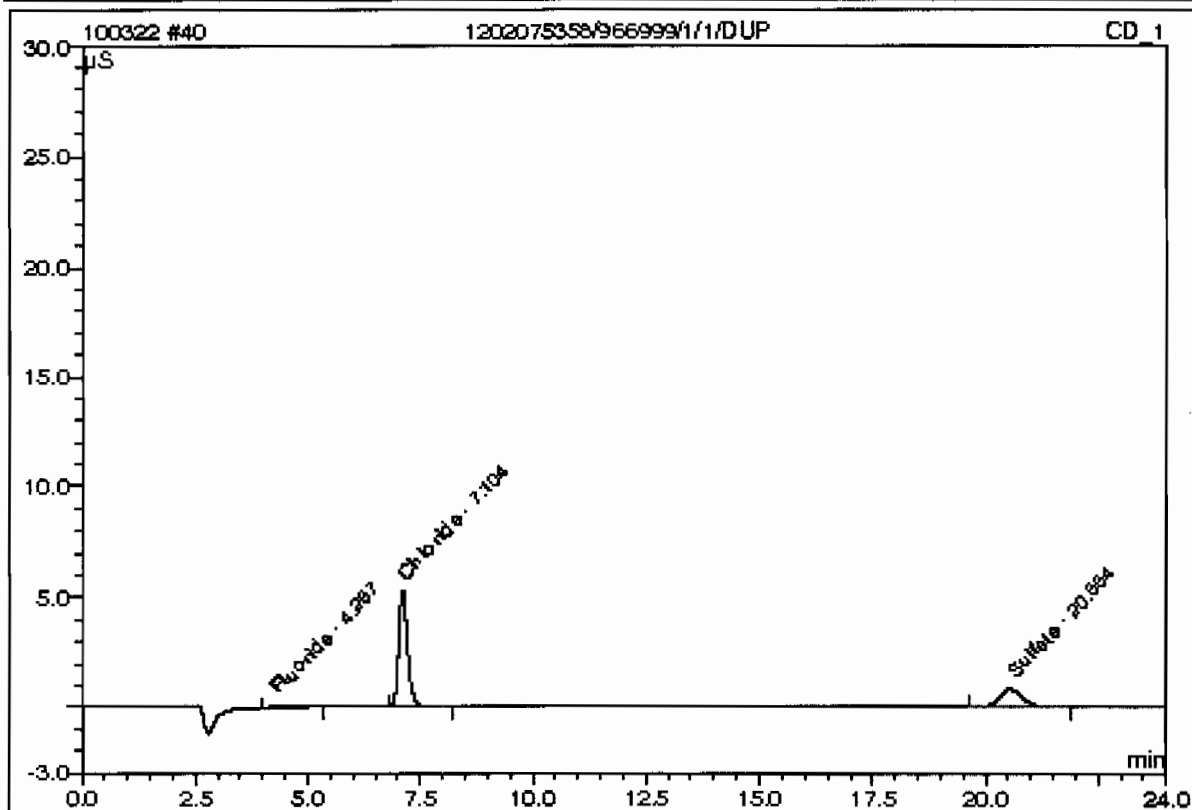
Sample Name:	248241001/966999/1/1/	Injection Volume:	1.0
Vial Number:	24	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/23/2010 1:40	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC ED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.26	Fluoride	n.a.	0.1094		0.03237	1.83
2	7.10	Chloride	n.a.	2.6756		1.22931	69.68
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
3	17.99	O-Phosphate-P	n.a.	0.1139		0.01539	0.87
4	20.55	Sulfate	n.a.	1.7640		0.48727	27.62
Total:				4.6629	0.000	1.764	100.00

40 1202075358/966999/1/1/DUP

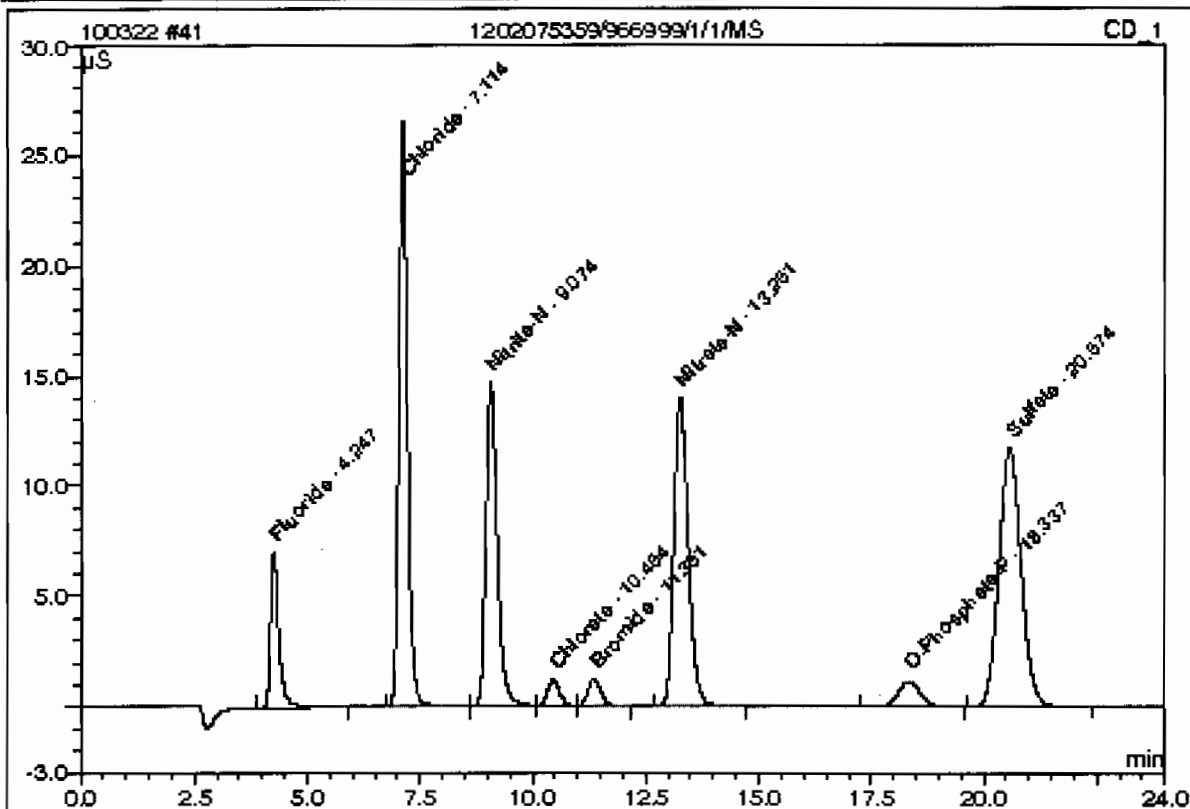
Sample Name:	1202075358/966999/1/1/DUP	Injection Volume:	1.0
Vial Number:	25	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/23/2010 2:07	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC ED86;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.1204		0.03945	2.24
2	7.10	Chloride	n.a.	2.6725		1.22778	69.64
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	20.55	Sulfate	n.a.	1.7893		0.49590	28.13
Total:				4.5822	0.000	1.763	100.00

41 1202075359/966999/1/1/MS

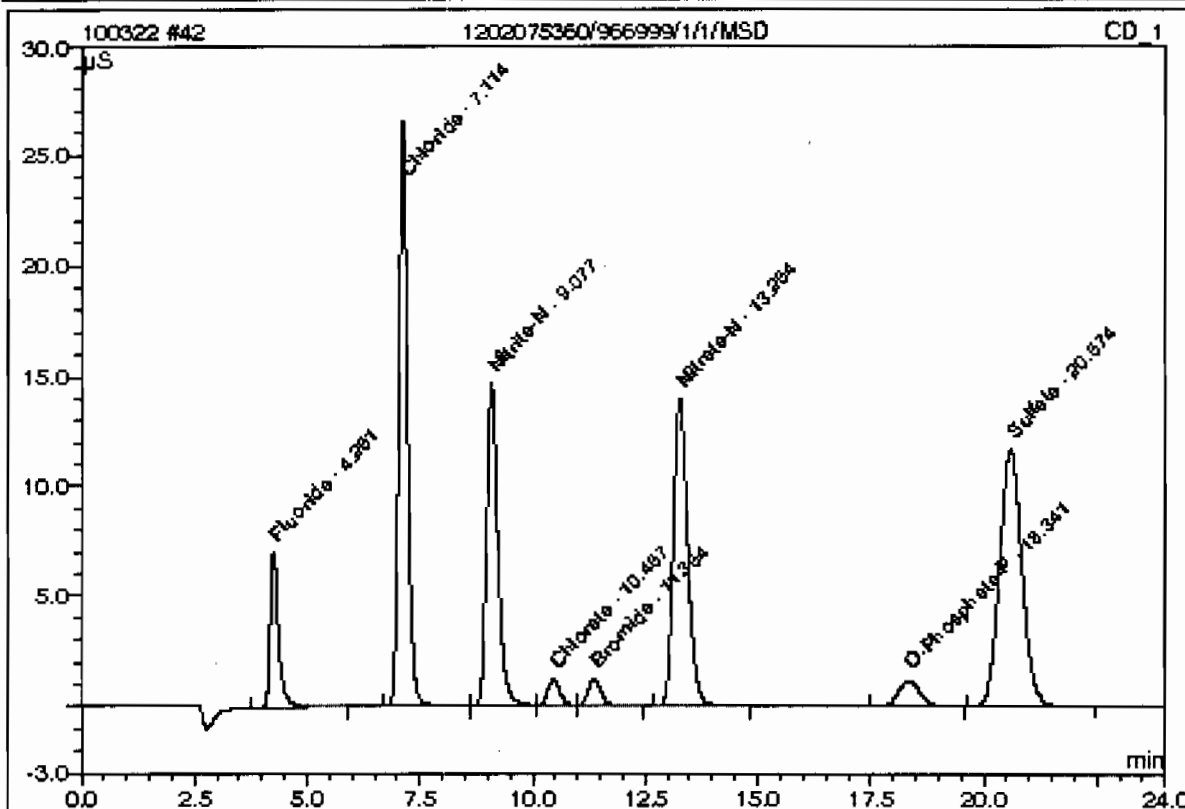
Sample Name:	1202075359/966999/1/1/MS	Injection Volume:	1.0
Vial Number:	26	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/23/2010 2:34	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCED86;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	2.3915		1.49907	6.02
2	7.11	Chloride	n.a.	12.1504		5.85970	23.53
3	9.07	Nitrite-N	n.a.	4.5961		4.26643	17.13
4	10.45	Chlorate	n.a.	2.4832		0.38792	1.56
5	11.35	Bromide	n.a.	2.4662		0.41384	1.66
6	13.26	Nitrate-N	n.a.	4.5466		5.14719	20.67
7	18.34	O-Phosphate-P	n.a.	2.0864		0.66508	2.67
8	20.57	Sulfate	n.a.	19.9108		6.66284	26.76
Total:				50.6311	0.000	24.902	100.00

42 1202075360/966999/1/1/MSD

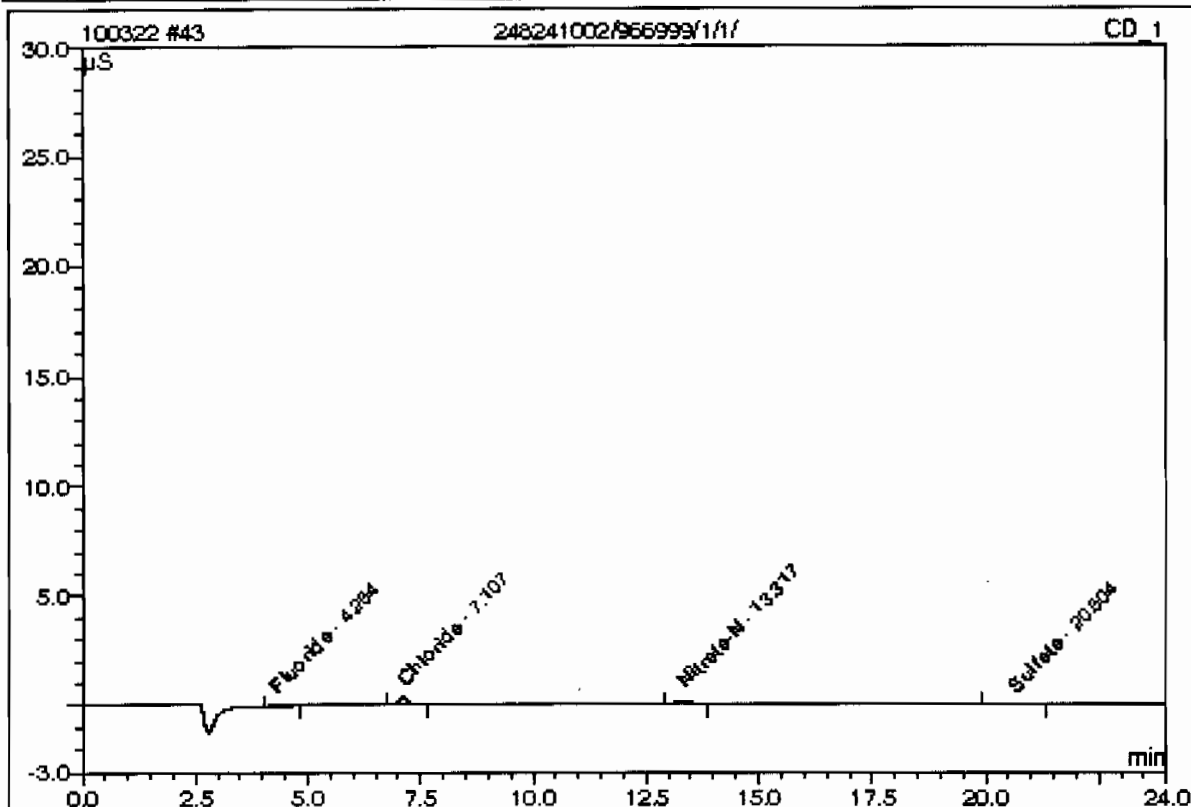
Sample Name:	1202075360/966999/1/1/MSD	Injection Volume:	1.0
Vial Number:	27	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/23/2010 3:01	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.25	Fluoride	n.a.	2.4012		1.50527	6.04
2	7.11	Chloride	n.a.	12.1631		5.86588	23.54
3	9.08	Nitrate-N	n.a.	4.8017		4.27176	17.14
4	10.46	Chlorate	n.a.	2.4912		0.38919	1.56
5	11.35	Bromide	n.a.	2.5169		0.42242	1.70
6	13.26	Nitrate-N	n.a.	4.5536		5.15535	20.69
7	18.34	O-Phosphate-P	n.a.	2.0356		0.64836	2.60
8	20.57	Sulfate	n.a.	19.9073		6.66165	26.73
Total:				50.6706	0.000	24.920	100.00

43 248241002/966999/1/1/

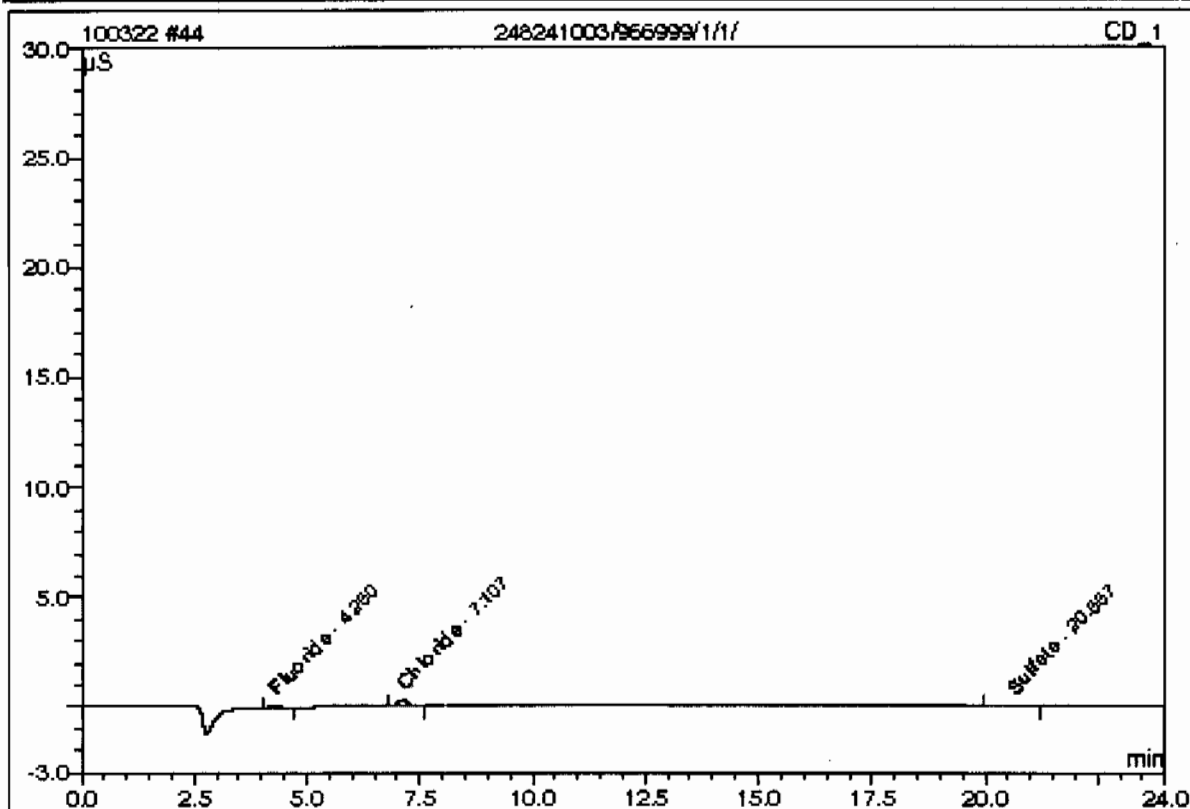
Sample Name:	248241002/966999/1/1/	Injection Volume:	1.0
Vial Number:	28	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/23/2010 3:28	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC E086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.26	Fluoride	n.a.	0.0915		0.02089	9.61
2	7.11	Chloride	n.a.	0.3364		0.08613	39.61
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.32	Nitrate-N	n.a.	0.1890		0.07771	35.73
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	20.60	Sulfate	n.a.	0.4283		0.03273	15.05
Total:				1.0453	0.000	0.217	100.00

44 248241003/966999/1/1/

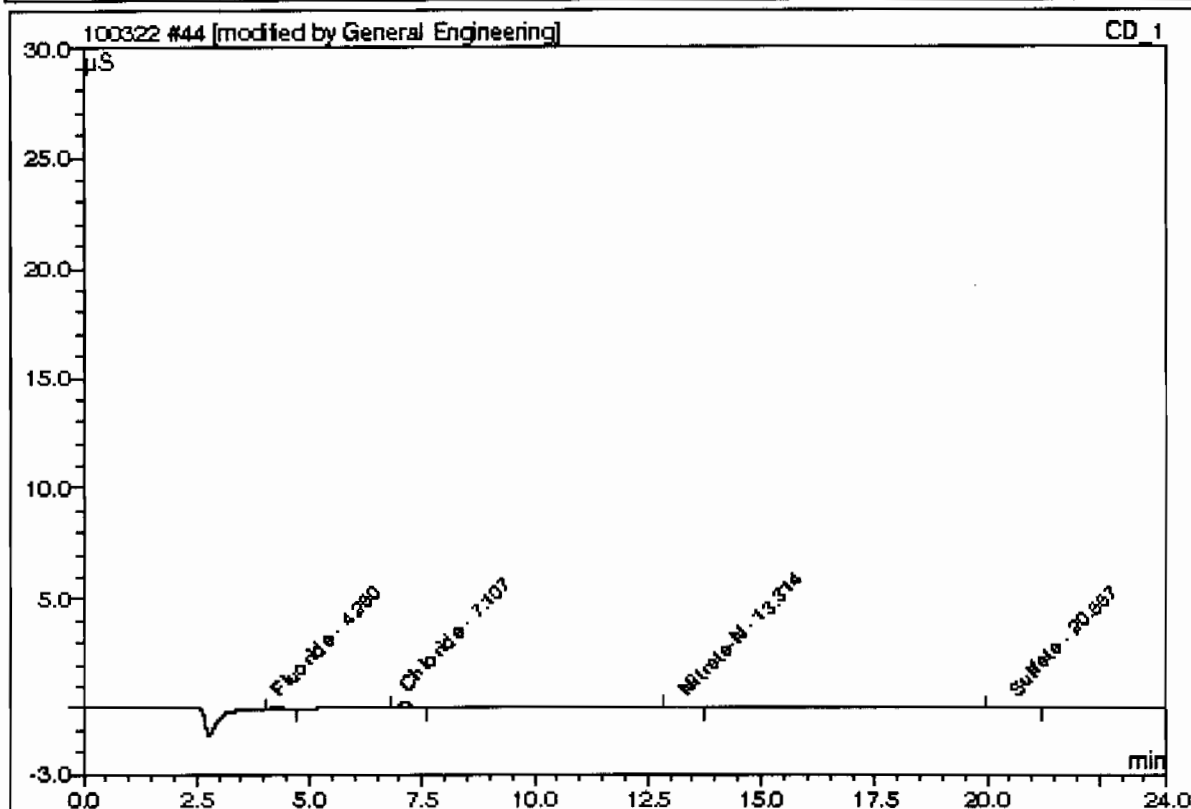
Sample Name:	248241003/966999/1/1/	Injection Volume:	1.0
Vial Number:	29	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/23/2010 3:55	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC ED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.26	Fluoride	n.a.	0.0874		0.01825	16.54
2	7.11	Chloride	n.a.	0.3062		0.07137	64.69
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	20.57	Sulfate	n.a.	0.3930		0.02070	18.76
Total:				0.7867	0.000	0.110	100.00

44 248241003/966999/1/1/

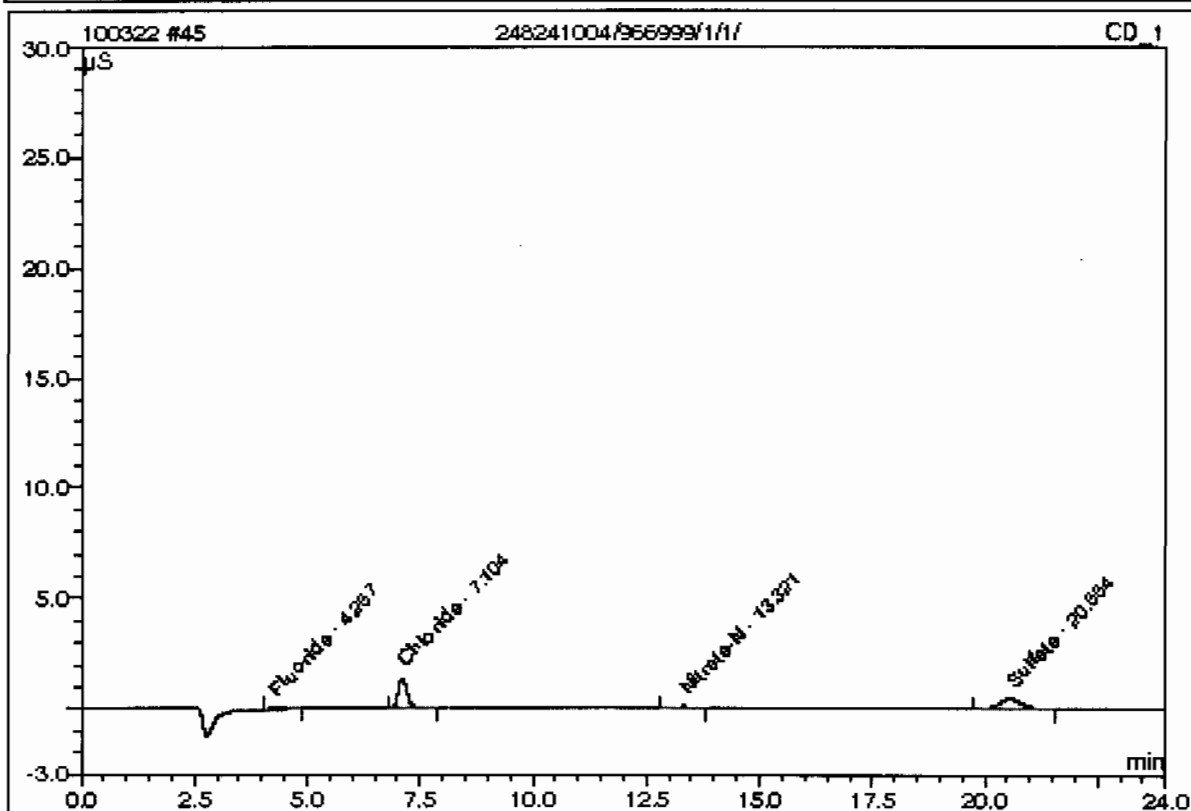
Sample Name:	248241003/966999/1/1/	Injection Volume:	1.0
Vial Number:	29	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/23/2010 3:55	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.26	Fluoride	n.a.	0.0874		0.01825	14.63
2	7.11	Chloride	n.a.	0.3062		0.07137	57.20
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.31	Nitrate-N	n.a.	0.1346		0.01445	11.58
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	20.57	Sulfate	n.a.	0.3930		0.02070	16.59
Total:				0.9213	0.000	0.125	100.00

45 248241004/966999/1/1/

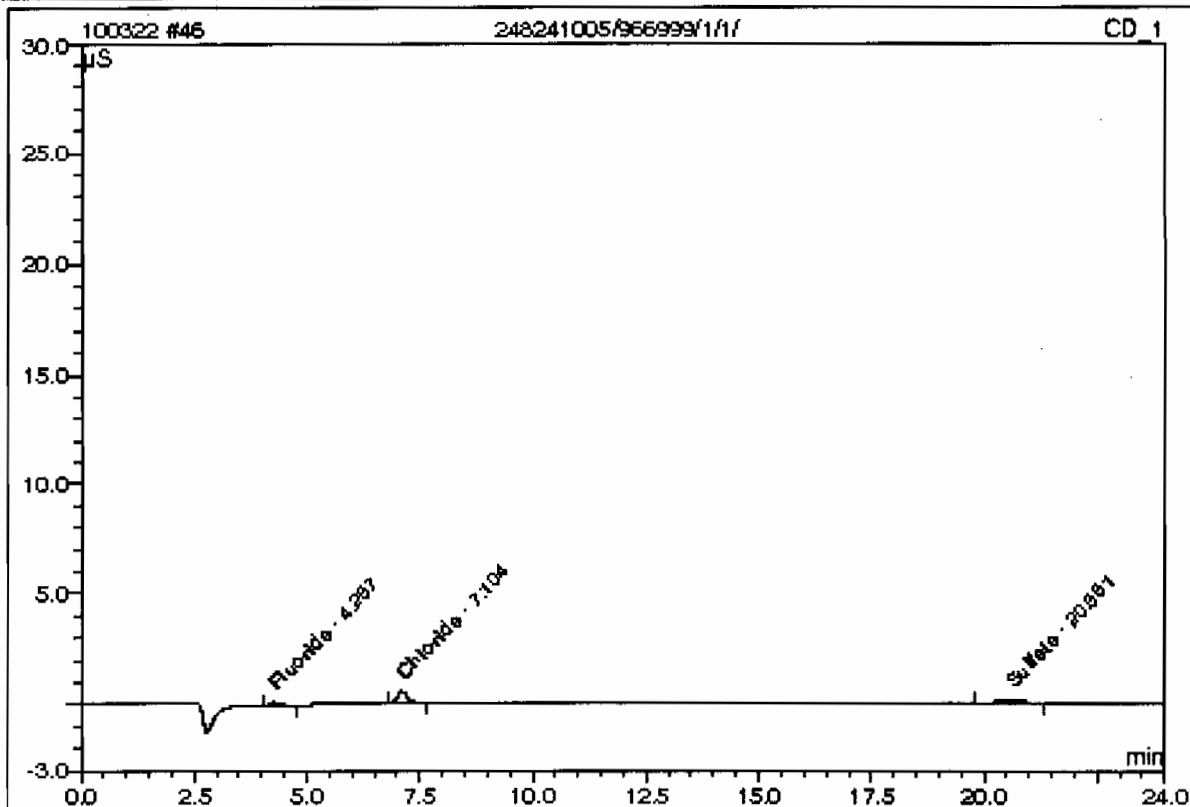
Sample Name:	248241004/966999/1/1/	Injection Volume:	1.0
Vial Number:	30	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/23/2010 4:22	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCED86;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.28	Fluoride	n.a.	0.0919		0.02113	3.13
2	7.10	Chloride	n.a.	0.8344		0.32949	48.78
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.32	Nitrate-N	n.a.	0.1516		0.03419	5.06
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	20.55	Sulfate	n.a.	1.1863		0.29069	43.03
Total:				2.2643	0.000	0.675	100.00

46 248241005/966999/1/1/

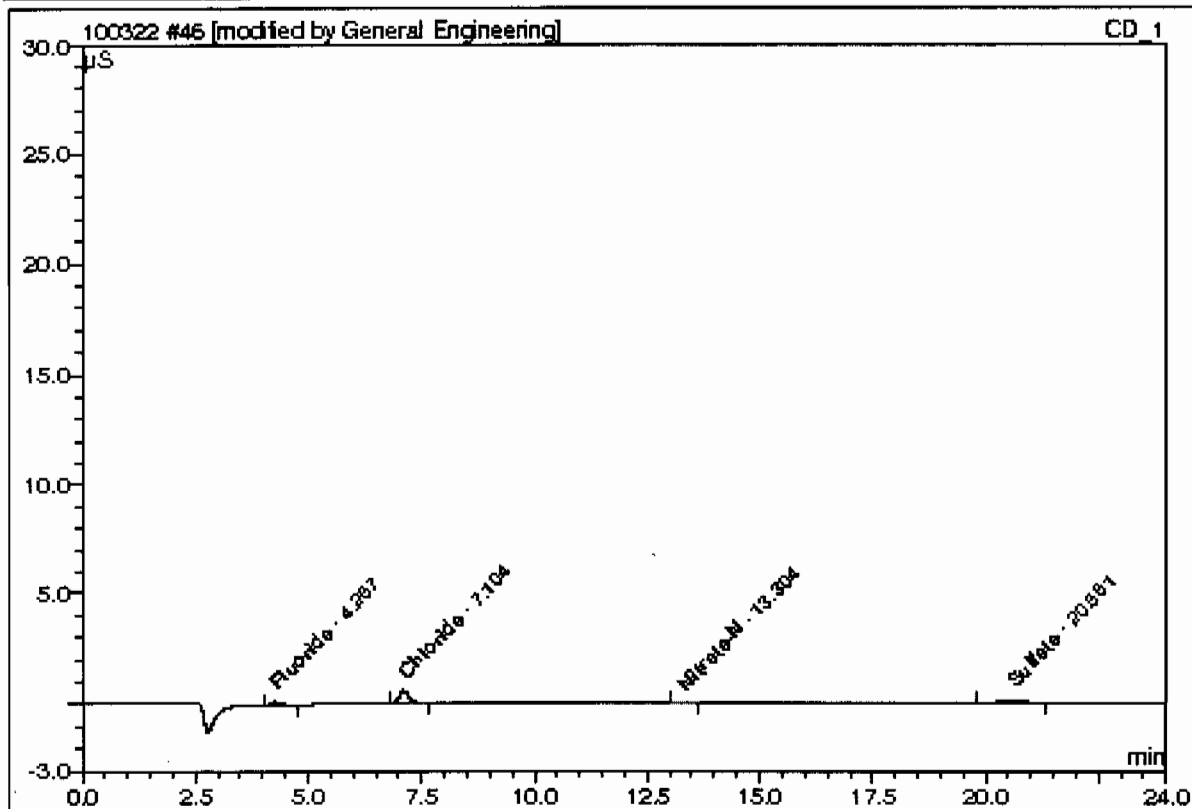
Sample Name:	248241005/966999/1/1/	Injection Volume:	1.0
Vial Number:	31	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/23/2010 4:48	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC ED86;300;9058



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.28	Fluoride	n.a.	0.1080		0.03144	11.21
2	7.10	Chloride	n.a.	0.4243		0.12905	46.03
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	20.99	Sulfate	n.a.	0.6844		0.11986	42.75
Total:				1.2166	0.000	0.280	100.00

46 248241005/966999/1/1/

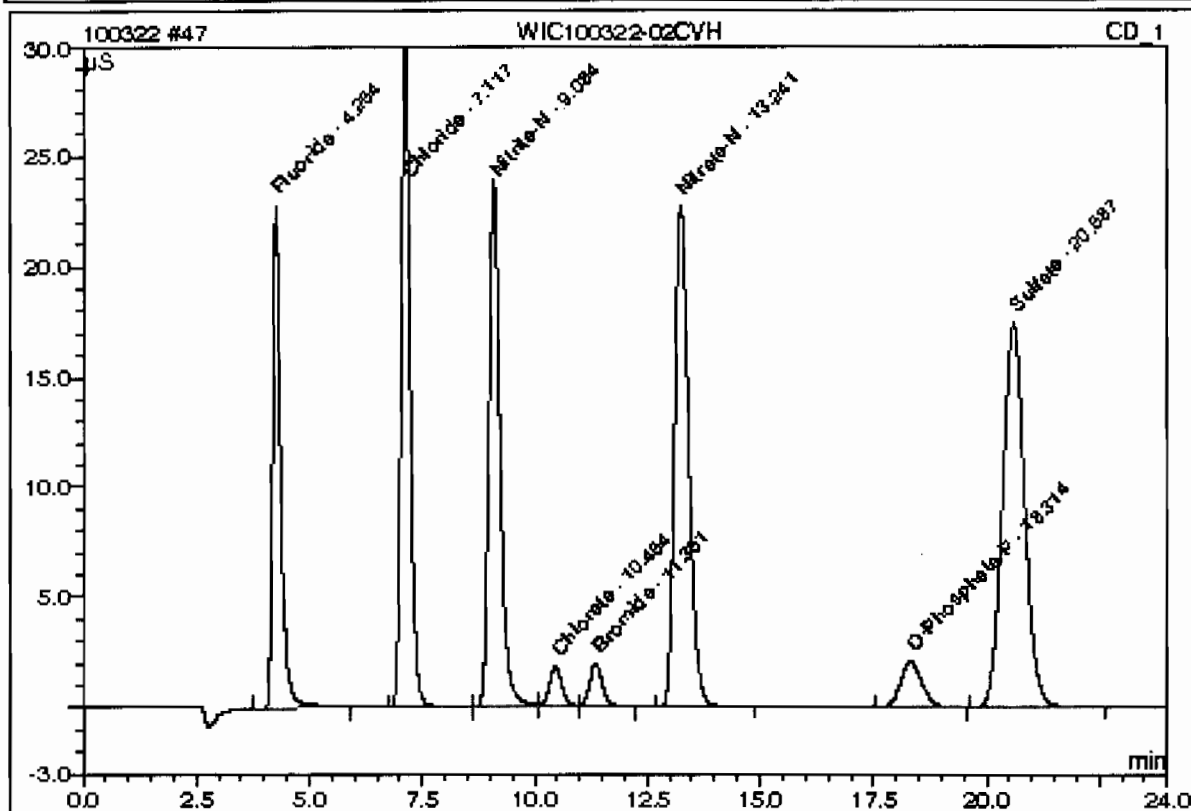
Sample Name:	248241005/966999/1/1/	Injection Volume:	1.0
Vial Number:	31	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/23/2010 4:48	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCED86;300;9058



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.1080		0.03144	10.92
2	7.10	Chloride	n.a.	0.4243		0.12905	44.81
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.30	Nitrate-N	n.a.	0.1288		0.00761	2.64
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	20.56	Sulfate	n.a.	0.6844		0.11986	41.62
Total:				1.3454	0.000	0.288	100.00

47 WIC100322-02CVH

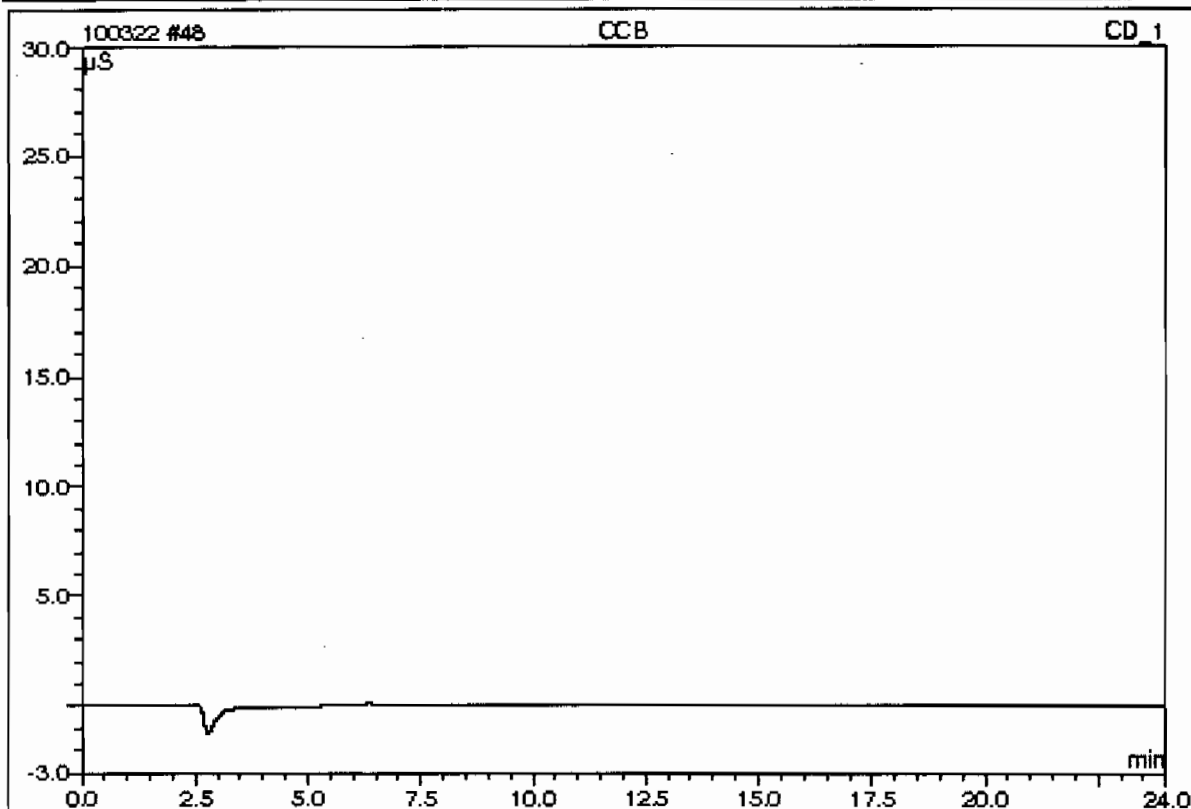
Sample Name:	WIC100322-02CVH	Injection Volume:	1.0
Vial Number:	32	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/23/2010 5:15	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area μS*min	Rel.Area %
1	4.25	Fluoride	n.a.	7.3626		4.69390	11.98
2	7.12	Chloride	n.a.	14.5420		7.02848	17.94
3	9.08	Nitrite-N	n.a.	7.3781		6.89517	17.60
4	10.45	Chlorate	n.a.	3.8385		0.60214	1.54
5	11.35	Bromide	n.a.	3.8162		0.64223	1.64
6	13.24	Nitrate-N	n.a.	7.2916		8.34061	21.29
7	18.31	O-Phosphate-P	n.a.	3.5772		1.15610	2.95
8	20.59	Sulfate	n.a.	29.2042		9.82550	25.08
Total:				77.0103	0.000	39.184	100.00

48 CCB

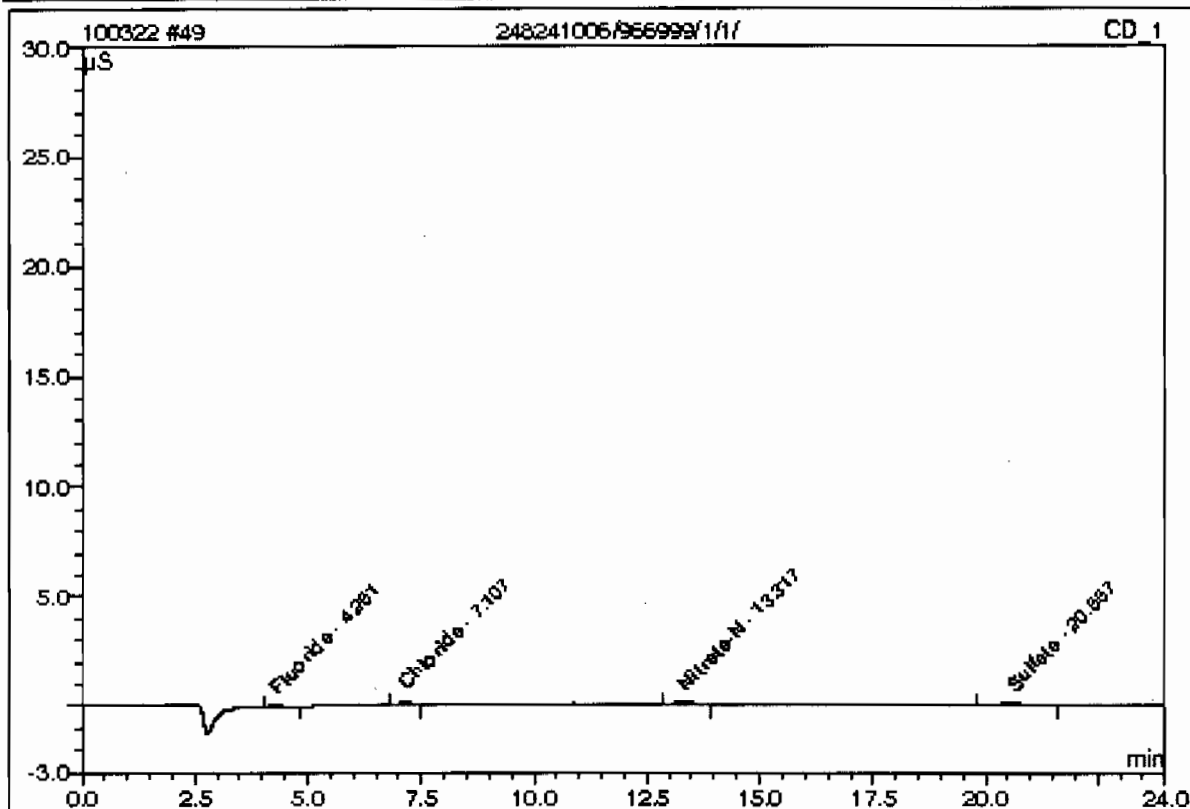
Sample Name:	CCB	Injection Volume:	1.0
Vial Number:	33	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/23/2010 5:42	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCED86;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

49 248241006/966999/1/1/

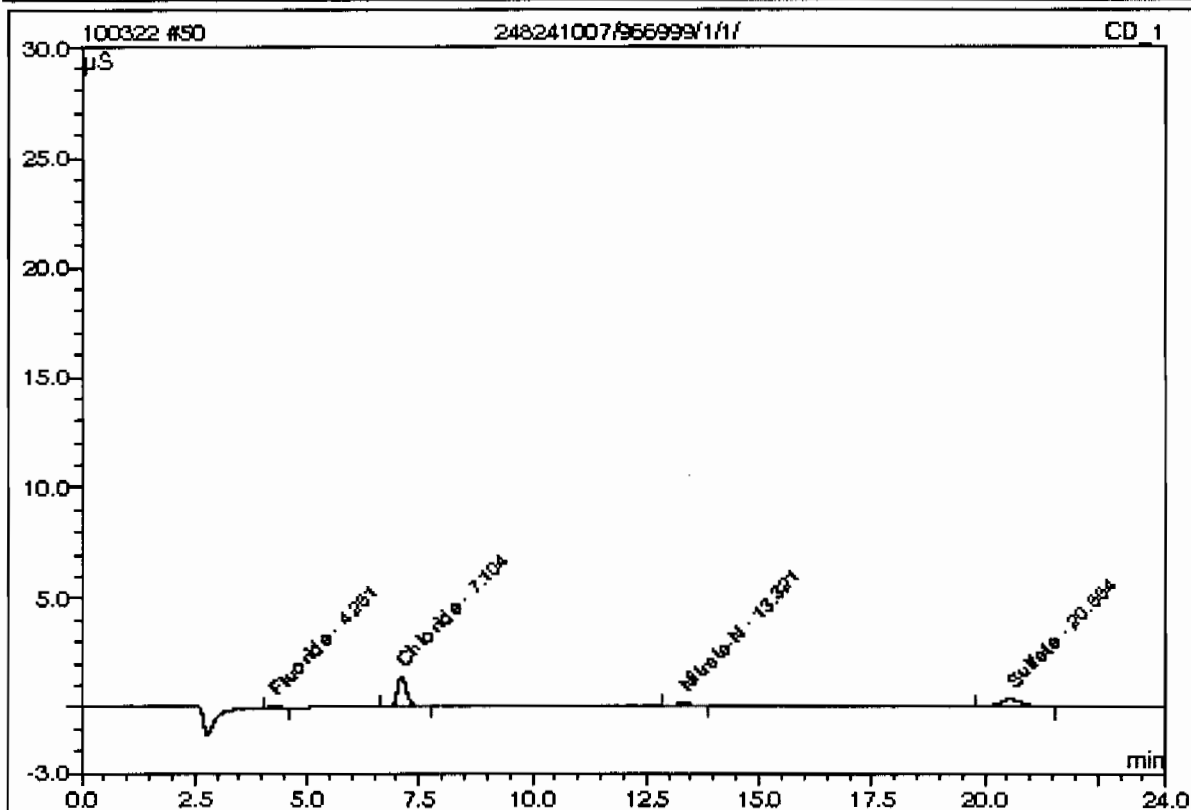
Sample Name:	248241006/966999/1/1/	Injection Volume:	1.0
Vial Number:	34	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/23/2010 6:00	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC E086;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.26	Fluoride	n.a.	0.0877		0.01839	8.51
2	7.11	Chloride	n.a.	0.2567		0.04714	21.82
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.32	Nitrate-N	n.a.	0.1808		0.06815	31.55
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	20.57	Sulfate	n.a.	0.5740		0.08231	38.11
Total:				1.0991	0.000	0.216	100.00

50 248241007/966999/1/1/

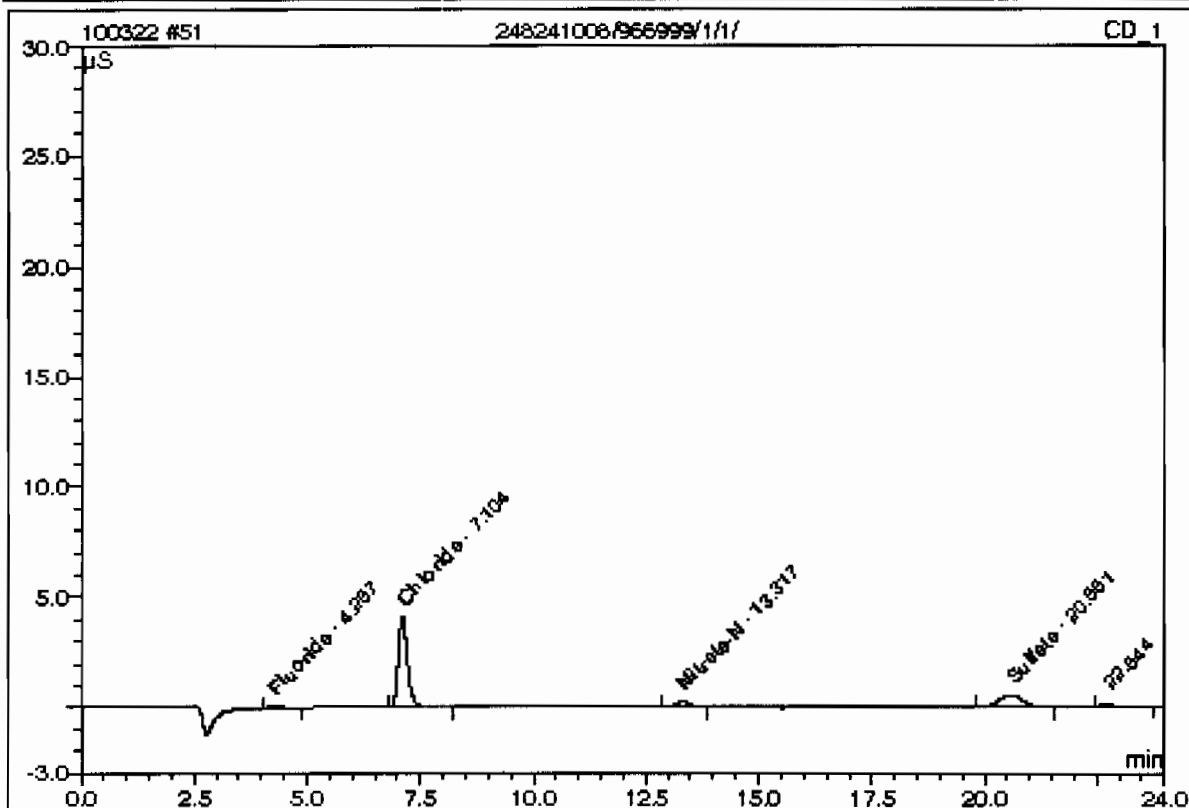
Sample Name:	248241007/966999/1/1/	Injection Volume:	1.0
Vial Number:	35	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/23/2010 6:36	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCE086;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.0838		0.01593	2.68
2	7.10	Chloride	n.a.	0.8241		0.32447	54.61
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.32	Nitrate-N	n.a.	0.1617		0.04588	7.72
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	20.56	Sulfate	n.a.	0.9430		0.20789	34.99
Total:				2.0126	0.000	0.594	100.00

51 248241008/966999/1/1/

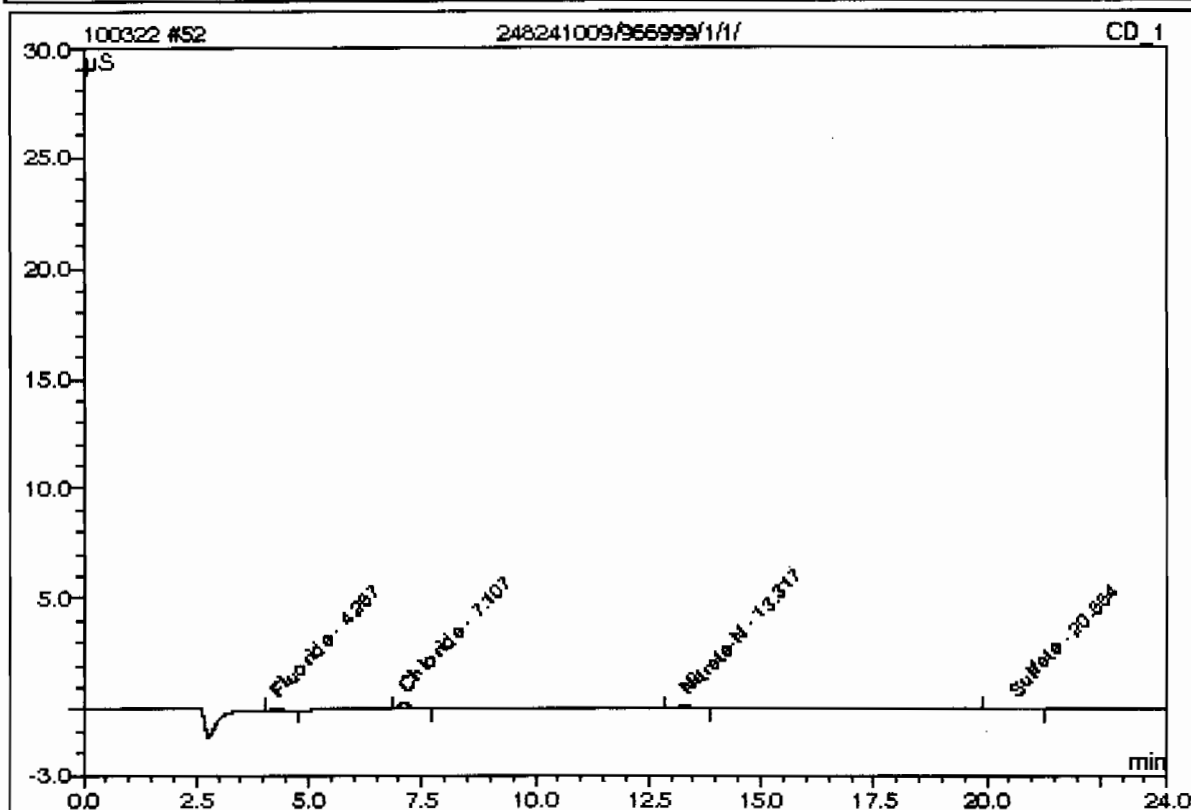
Sample Name:	248241008/966999/1/1/	Injection Volume:	1.0
Vial Number:	36	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/23/2010 7:03	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GC ED86;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.28	Fluoride	n.a.	0.1006		0.02674	1.80
2	7.10	Chloride	n.a.	2.1294		0.96235	64.76
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.32	Nitrate-N	n.a.	0.2044		0.09559	6.43
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	20.56	Sulfate	n.a.	1.3256		0.33807	22.75
Total:				3.7600	0.000	1.423	95.75

52 248241009/966999/1/1/

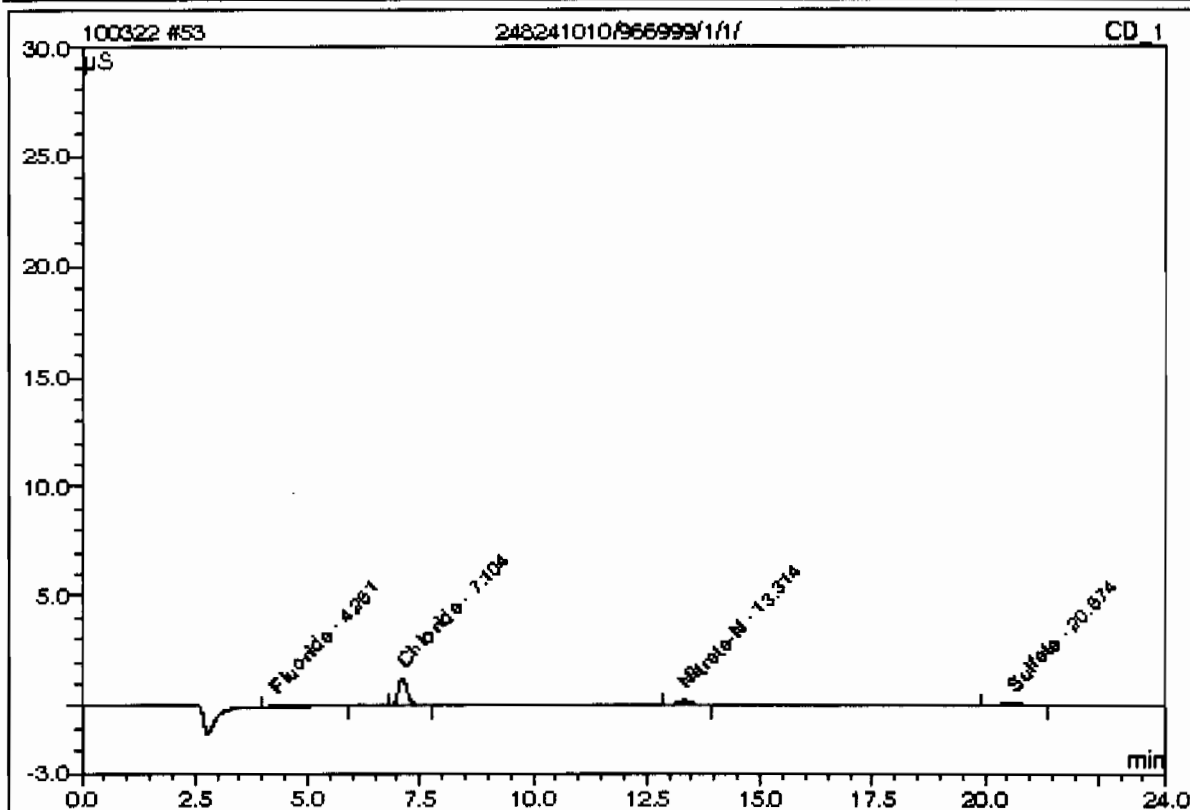
Sample Name:	248241009/966999/1/1/	Injection Volume:	1.0
Vial Number:	37	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/23/2010 7:30	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCED86;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.0863		0.01751	11.26
2	7.11	Chloride	n.a.	0.3062		0.07137	45.92
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.32	Nitrate-N	n.a.	0.1619		0.04619	29.72
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	20.58	Sulfate	n.a.	0.3919		0.02034	13.09
Total:				0.9464	0.000	0.155	100.00

53 248241010/966999/1/1/

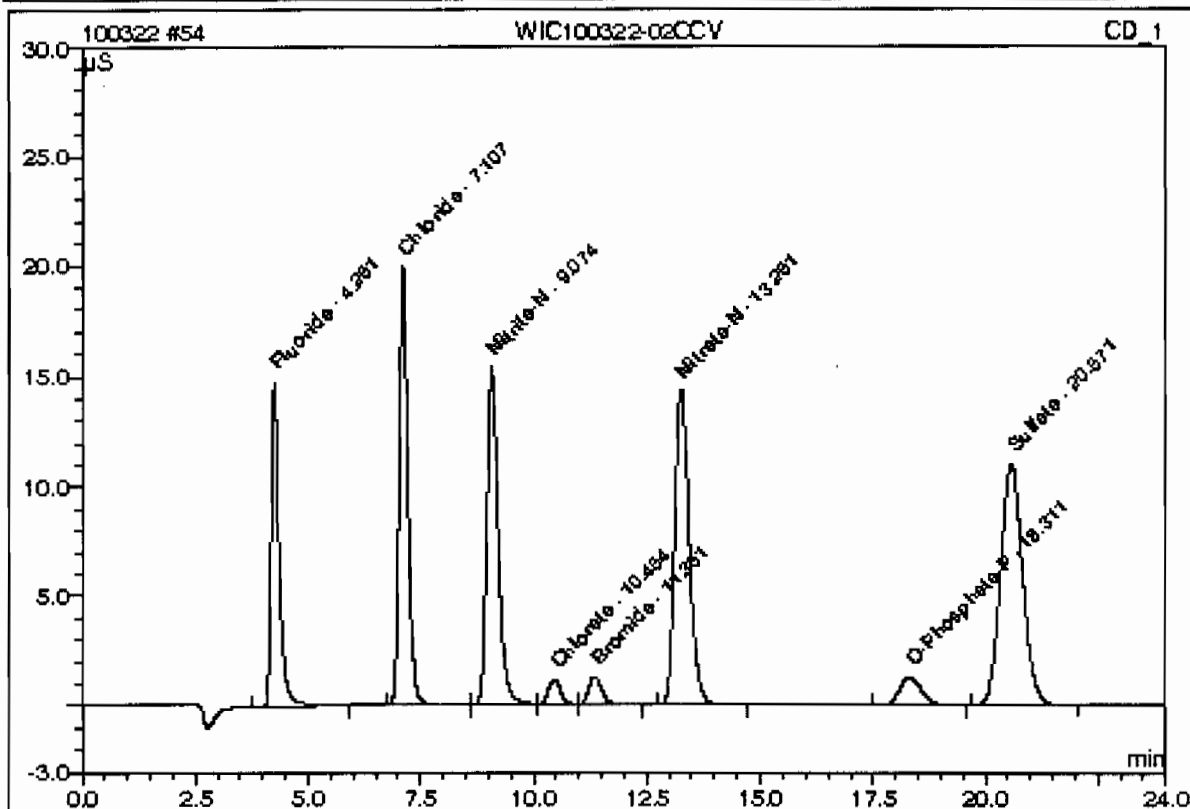
Sample Name:	248241010/966999/1/1/	Injection Volume:	1.0
Vial Number:	38	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/23/2010 7:57	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
1	4.26	Fluoride	n.a.	0.1310		0.04624	9.10
2	7.10	Chloride	n.a.	0.7665		0.29632	58.32
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.31	Nitrate-N	n.a.	0.1930		0.08230	16.20
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	20.57	Sulfate	n.a.	0.5767		0.08322	16.38
Total:				1.6672	0.000	0.508	100.00

54 WIC100322-02CCV

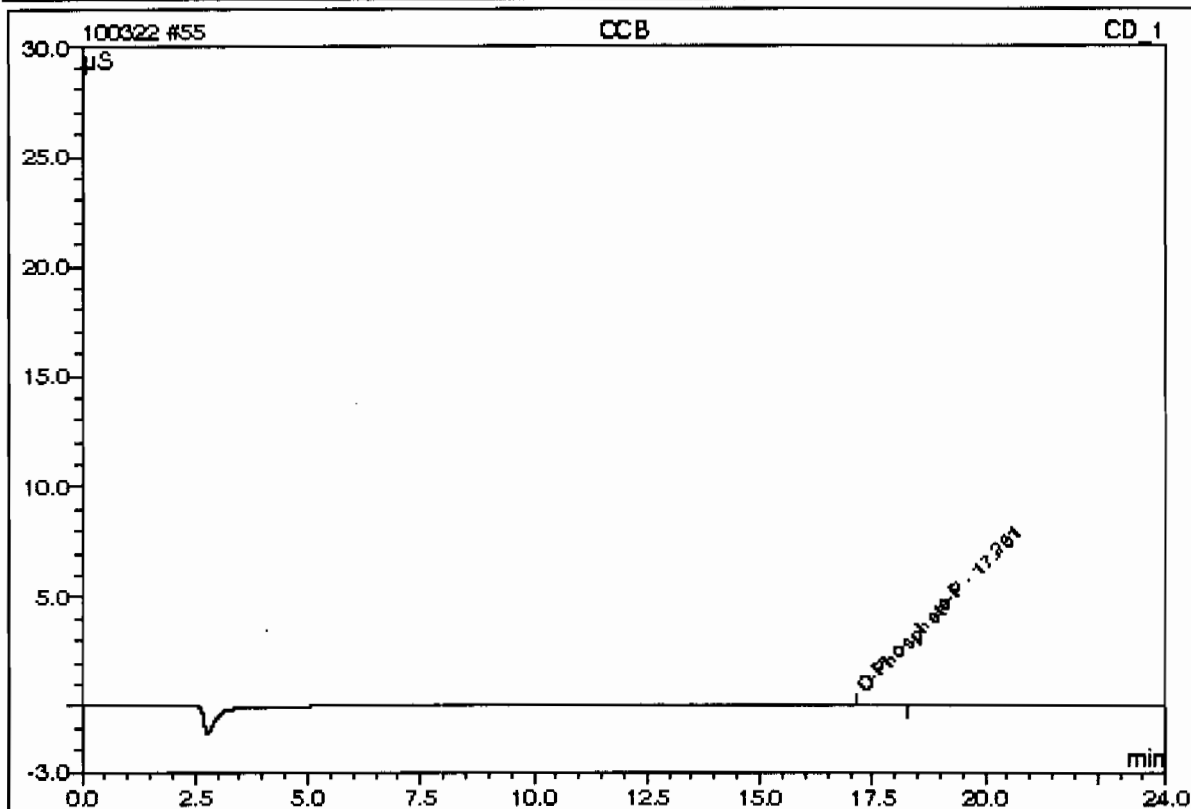
Sample Name:	WIC100322-02CCV	Injection Volume:	1.0
Vial Number:	39	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/23/2010 8:24	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCED86;300;9056



No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	4.7966		3.04474	12.12
2	7.11	Chloride	n.a.	9.2842		4.45897	17.75
3	9.07	Nitrite-N	n.a.	4.8194		4.47740	17.82
4	10.45	Chlorate	n.a.	2.4662		0.36525	1.53
5	11.35	Bromide	n.a.	2.5759		0.43240	1.72
6	13.26	Nitrate-N	n.a.	4.6800		5.30238	21.11
7	18.31	O-Phosphate-P	n.a.	2.2867		0.73106	2.91
8	20.57	Sulfate	n.a.	18.8118		6.28884	25.03
Total:				49.7208	0.000	25.121	100.00

55 CCB

Sample Name:	CCB	Injection Volume:	1.0
Vial Number:	40	Channel:	CD_1
Sample Type:	unknown	Dilution Factor:	1.0000
Control Program:	AS23	Sample Weight:	1.0000
Quantif. Method:	100311an	Sample Amount:	1.0000
Recording Time:	3/23/2010 8:51	Analyst:	MAR1
Run Time (min):	24.00	Column:	AS23-001528; GL GCED86;300;9056



No.	Ret. Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel. Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
1	17.26	O-Phosphate-P	n.a.	0.1321		0.02141	100.00
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.1321	0.000	0.021	100.00

pH

pH / Corrosivity LogBook

Analyst: TXTI
 Batch: 960262
 Lab SOP: GL-GC-E-008 REV# 17
 Description: pH
 Method: SW846 9045C/9045D

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parname	Initial Wt(g)	Final Vol(mL)	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
1202059709 LCS		Soil	10:30	10:35	03-MAR-10 13:24	pH	20	20	6.98	20.8°C	7	99.714	
1202059709 LCS		Soil	10:30	10:35	03-MAR-10 13:24	pH 2	20	20	6.98	20.9°C	7	99.714	
248202001		Soil	10:30	10:35	03-MAR-10 13:28	pH	20	20	6.74	21.1°C			
248202001		Soil	10:30	10:35	03-MAR-10 13:28	pH 2	20	20	6.74	21.1°C			
1202059707 DUP	248202001	Soil	10:30	10:35	03-MAR-10 13:30	pH	20	20	6.73	21.0°C			.148
1202059707 DUP	248202001	Soil	10:30	10:35	03-MAR-10 13:30	pH 2	20	20	6.73	21.0°C			.148
248202002		Soil	10:30	10:35	03-MAR-10 13:32	pH	20	20	7.41	21.0°C			
248202002		Soil	10:30	10:35	03-MAR-10 13:32	pH 2	20	20	7.41	21.0°C			
248241001		Soil	10:30	10:35	03-MAR-10 13:34	pH	20	20	5.24	21.0°C			
248241001		Soil	10:30	10:35	03-MAR-10 13:34	pH 2	20	20	5.24	21.0°C			
CCV			10:30	10:35	03-MAR-10 13:36	pH	20	20	7.02	20.0°C	7	100.286	
CCV			10:30	10:35	03-MAR-10 13:36	pH 2	20	20	7.02	20.0°C	7	100.286	
1202059708 DUP	248241001	Soil	10:30	10:35	03-MAR-10 13:37	pH	20	20	5.21	20.8°C			.574
1202059708 DUP	248241001	Soil	10:30	10:35	03-MAR-10 13:37	pH 2	20	20	5.21	20.9°C			.574
248241002		Soil	10:30	10:35	03-MAR-10 13:39	pH	20	20	6.73	20.8°C			
248241002		Soil	10:30	10:35	03-MAR-10 13:39	pH 2	20	20	6.74	20.8°C			
248241003		Soil	10:30	10:35	03-MAR-10 13:42	pH	20	20	7.77	20.8°C			
248241003		Soil	10:30	10:35	03-MAR-10 13:42	pH 2	20	20	7.76	20.8°C			
248241004		Soil	10:30	10:35	03-MAR-10 13:43	pH	20	20	6.55	20.7°C			
248241004		Soil	10:30	10:35	03-MAR-10 13:43	pH 2	20	20	6.59	20.7°C			
248241005		Soil	10:30	10:35	03-MAR-10 13:46	pH	20	20	6.16	20.3°C			
248241005		Soil	10:30	10:35	03-MAR-10 13:46	pH 2	20	20	6.16	20.4°C			
CCV			10:30	10:35	03-MAR-10 13:47	pH	20	20	7.02	19.2°C	7	100.286	
CCV			10:30	10:35	03-MAR-10 13:47	pH 2	20	20	7.02	19.2°C	7	100.286	
248241006		Soil	10:30	10:35	03-MAR-10 13:49	pH	20	20	6.39	20.3°C			
248241006		Soil	10:30	10:35	03-MAR-10 13:49	pH 2	20	20	6.4	20.3°C			
248241007		Soil	10:30	10:35	03-MAR-10 13:57	pH	20	20	6.87	20.0°C			
248241007		Soil	10:30	10:35	03-MAR-10 13:57	pH 2	20	20	6.86	20.0°C			

pH / Corrosivity LogBook

Analyst: TXT1
 Batch: 960262
 Lab SOP: GL-GC-E-008 REV# 17
 Description: pH
 Method: SW846 9045C/9045D

Type: CCV
 Sample Id: 240
 Serial Number: IMM091029-PH
 Description: PH 7 BUFFER FOR PH
 LCS
 1202059709
 IMM100209-01
 LCS BUFFER SOLUTION

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parname	Initial Wt(g)	Final Vol(mL)	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
248241008		Soil	10:30	10:35	03-MAR-10 13:57	pH	20	20	5.63	19.9°C			
248241008		Soil	10:30	10:35	03-MAR-10 13:57	pH 2	20	20	5.63	19.8°C			
248241009		Soil	10:30	10:35	03-MAR-10 13:59	pH	20	20	6.9	20.0°C			
248241009		Soil	10:30	10:35	03-MAR-10 13:59	pH 2	20	20	6.91	20.0°C			
248241010		Soil	10:30	10:35	03-MAR-10 14:00	pH	20	20	6.91	19.8°C			
248241010		Soil	10:30	10:35	03-MAR-10 14:00	pH 2	20	20	6.91	19.8°C			
CCV			10:30	10:35	03-MAR-10 14:02	pH	20	20	7.03	18.4°C	7	100.429	
CCV			10:30	10:35	03-MAR-10 14:02	pH 2	20	20	7.02	18.4°C	7	100.286	
248250001		Soil	10:30	10:35	03-MAR-10 14:04	pH	20	20	6.4	19.7°C			
248250001		Soil	10:30	10:35	03-MAR-10 14:04	pH 2	20	20	6.4	19.7°C			
248250002		Soil	10:30	10:35	03-MAR-10 14:06	pH	20	20	5.93	19.7°C			
248250002		Soil	10:30	10:35	03-MAR-10 14:06	pH 2	20	20	5.93	19.7°C			
248250003		Soil	10:30	10:35	03-MAR-10 14:08	pH	20	20	6.23	19.6°C			
248250003		Soil	10:30	10:35	03-MAR-10 14:08	pH 2	20	20	6.24	19.6°C			
248250004		Soil	10:30	10:35	03-MAR-10 14:10	pH	20	20	5.98	19.5°C			
248250004		Soil	10:30	10:35	03-MAR-10 14:10	pH 2	20	20	5.99	19.5°C			
CCV			10:30	10:35	03-MAR-10 14:11	pH	20	20	7.02	18.3°C	7	100.286	
CCV			10:30	10:35	03-MAR-10 14:11	pH 2	20	20	7.02	18.3°C	7	100.286	

Calibration Information:

Run Date: 03-MAR-10 12:16

Instrument: PHX370

Analyst: TXT1

Comments:

Standard	Observed	Theoretical	C	%Recovery
12:16 IMM100303-PH1	4.02	4	19	100.5
12:16 IMM100303-PH2	7.02	7	19	100.29
12:16 UPH100303-PH3	10.01	10	19	100.1
12:16 UPH100303-PH4	2.08	2	19	104
12:16 UPH100303-PH5	11.99	12	19	99.917
12:16 IMM100303-PH6	7	7	19	100

General Chemistry Analysis

Case Narrative

**General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2135-1**

Method/Analysis Information

Product: Cyanide, Total

Analytical Batch: 959217 **Method:** SW9012A Cyanide and Total

Prep Batch : 959216 **Method:** SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
248242001	RE36-10-7530
1202057161	Method Blank (MB)
1202057162	248188001(RE11-10-1654) Sample Duplicate (DUP)
1202057163	248044005(CAPA-10-13085) Sample Duplicate (DUP)
1202057164	248188001(RE11-10-1654) Matrix Spike (MS)
1202057165	248044005(CAPA-10-13085) Matrix Spike (MS)
1202057166	248188001(RE11-10-1654) Matrix Spike Duplicate (MSD)
1202057167	248044005(CAPA-10-13085) Matrix Spike Duplicate (MSD)
1202057168	Laboratory Control Sample (LCS)

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

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

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

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 248044005 (CAPA-10-13085) and 248188001 (RE11-10-1654).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement

The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement

The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement

The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202057163 (CAPA-10-13085).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times

All samples in this SDG met the specified holding time.

Sample Preservation/Integrity

All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions

The samples in this SDG did not require dilutions.

Sample Re-analysis

The following sample was re-analyzed due to instrument failure: 1202057164 (RE11-10-1654).

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: Nick-Cole A. Elmore Date: 3.24.10

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: 10-2135-1 GEL Work Order: 248242

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

Y. Cole A. Elmore 3.24.10

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 17, 2010

Client SDG: 10-2135-1

Client Sample ID: RE36-10-7530
Sample ID: 248242001
Matrix: W
Collect Date: 24-FEB-10 12:00
Receive Date: 27-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	03/08/10	1534	959217	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	03/08/10	1241	959216

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 17, 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: 248242

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Flow Injection Analysis											
Batch	959217										
QC1202057162	248188001	DUP									
Cyanide, Total		U	ND	U	ND	ug/L	N/A		AXC2	03/08/10	15:24
QC1202057163	248044005	DUP									
Cyanide, Total		U	ND	U	ND	ug/L	N/A			03/08/10	15:07
QC1202057168	LCS										
Cyanide, Total	50.0				49.3	ug/L	98.6	(90%-110%)		03/08/10	15:05
QC1202057161	MB										
Cyanide, Total			U		5.00	ug/L				03/08/10	15:05
QC1202057164	248188001	MS									
Cyanide, Total	100	U	ND		106	ug/L	106	(60%-144%)		03/08/10	15:37
QC1202057165	248044005	MS									
Cyanide, Total	100	U	ND		101	ug/L	101	(60%-144%)		03/08/10	15:08
QC1202057166	248188001	MSD									
Cyanide, Total	100	U	ND		110	ug/L	3.70	110	(0%-20%)	03/08/10	15:30
QC1202057167	248044005	MSD									
Cyanide, Total	100	U	ND		105	ug/L	3.88	105	(0%-20%)	03/08/10	15:09

Notes:

RER is calculated at the 95% confidence level (2-sigma).

The Qualifiers in this report are defined as follows:

** Analyte is a surrogate compound

< Result is less than value reported

> Result is greater than value reported

A The TIC is a suspected aldol-condensation product

B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.

C Analyte has been confirmed by GC/MS analysis

D Results are reported from a diluted aliquot of the sample

E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range

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

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

F Estimated Value

H Analytical holding time was exceeded

J Value is estimated

M Matrix Related Failure

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

N/A RPD or %Recovery limits do not apply.

GEL LABORATORIES LLC

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QC Summary

Workorder: 248242

Page 2 of 2

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
ND	Analyte concentration is not detected above the detection limit										
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%										
R	Sample results are rejected										
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.										
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
Y	QC Samples were not spiked with this compound										
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.										
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.										
d	5-day BOD--The 2:1 depletion requirement was not met for this sample										
h	Preparation or preservation holding time was exceeded										

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 17-MAR-2010 15:57

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-2135-1

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	08-MAR-2010 10:32:54	OM_3-8-2010_10-24-48	147	150	98	(90%-110%)	Yes
CCV	08-MAR-2010 15:01:26	OM_3-8-2010_14-58-05	103	100	103	(90%-110%)	Yes
CCV	08-MAR-2010 15:13:54	OM_3-8-2010_14-58-05	106	100	106	(90%-110%)	Yes
CCV	08-MAR-2010 15:26:19	OM_3-8-2010_14-58-05	109	100	109	(90%-110%)	Yes
CCV	08-MAR-2010 15:38:47	OM_3-8-2010_14-58-05	104	100	104	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	08-MAR-2010 10:34:44	OM_3-8-2010_10-24-48	-1.65	10	Yes
CCB	08-MAR-2010 15:03:15	OM_3-8-2010_14-58-05	-1.49	10	Yes
CCB	08-MAR-2010 15:15:44	OM_3-8-2010_14-58-05	-1.84	10	Yes
CCB	08-MAR-2010 15:28:11	OM_3-8-2010_14-58-05	-1.78	10	Yes
CCB	08-MAR-2010 15:40:39	OM_3-8-2010_14-58-05	-0.768	10	Yes

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: 959216.0
 Analyst: Alan Stanley
 Method: SW846 9010B Prep EPA 335.4
 Lab SOP: GL-GC-E-067 REV# 13
 Instrument: Sartorius Balance B-001

Verified by: _____

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202057168	Secondary source standard for CN and phenol. Used to spike LCS.	URF1269274-02	.0125	mL
MS	1202057164	Secondary source standard for CN and phenol. Used to spike LCS.	URF1269274-02	.025	mL
MS	1202057165	Secondary source standard for CN and phenol. Used to spike LCS.	URF1269274-02	.025	mL
MSD	1202057166	Secondary source standard for CN and phenol. Used to spike LCS.	URF1269274-02	.025	mL
MSD	1202057167	Secondary source standard for CN and phenol. Used to spike LCS.	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202057161 MB	08-MAR-2010 12:41:00	Water	25	25	1	>12
1202057168 LCS	08-MAR-2010 12:41:00	Water	25	25	1	>12
248044005	08-MAR-2010 12:41:00	Ground Water	25	25	1	>12
1202057163 DUP (248044005)	08-MAR-2010 12:41:00	Ground Water	25	25	1	>12
1202057165 MS (248044005)	08-MAR-2010 12:41:00	Ground Water	25	25	1	>12
1202057167 MSD (248044005)	08-MAR-2010 12:41:00	Ground Water	25	25	1	>12
248044006	08-MAR-2010 12:41:00	Ground Water	25	25	1	>12
248108001	08-MAR-2010 12:41:00	Water	25	25	1	>12
248117001	08-MAR-2010 12:41:00	Water	25	25	1	>12
248127002	08-MAR-2010 12:41:00	Water	25	25	1	>12
248162001	08-MAR-2010 12:41:00	Water	25	25	1	>12
248162002	08-MAR-2010 12:41:00	Water	25	25	1	>12
248162003	08-MAR-2010 12:41:00	Water	25	25	1	>12
248162004	08-MAR-2010 12:41:00	Water	25	25	1	>12
248164002	08-MAR-2010 12:41:00	Water	25	25	1	>12
248168006	08-MAR-2010 12:41:00	Ground Water	25	25	1	>12
248169004	08-MAR-2010 12:41:00	Water	25	25	1	>12
248188001	08-MAR-2010 12:41:00	Water	25	25	1	>12
1202057162 DUP (248188001)	08-MAR-2010 12:41:00	Water	25	25	1	>12
1202057164 MS (248188001)	08-MAR-2010 12:41:00	Water	25	25	1	>12

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC

Prep Logbook

Batch ID: 959216.0
Analyst: Alan Stanley
Method: SW846 9010B Prep EPA 335.4
Lab SOP: GL-GC-E-067 REV# 13
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202057168	Secondary source standard for CN and phenol. Used to spike LCS.	URF1269274-02	.0125	mL
MS	1202057164	MS, ICV Secondary source standard for CN and phenol. Used to spike LCS.	URF1269274-02	.025	mL
MS	1202057165	MS, ICV Secondary source standard for CN and phenol. Used to spike LCS.	URF1269274-02	.025	mL
MSD	1202057166	MS, ICV Secondary source standard for CN and phenol. Used to spike LCS.	URF1269274-02	.025	mL
MSD	1202057167	MS, ICV Secondary source standard for CN and phenol. Used to spike LCS.	URF1269274-02	.025	mL

pH Check

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH
1202057166 MSD (248188001)	08-MAR-2010 12:41:00	Water	25	25	1	>12
248199001	08-MAR-2010 12:41:00	Water	25	25	1	>12
248238001	08-MAR-2010 12:41:00	Water	25	25	1	>12
248238002	08-MAR-2010 12:41:00	Water	25	25	1	>12
248242001	08-MAR-2010 12:41:00	Water	25	25	1	>12
248245001	08-MAR-2010 12:41:00	Water	25	25	1	>12
248257001	08-MAR-2010 12:41:00	Water	25	25	1	>12
248257002	08-MAR-2010 12:41:00	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
WCNT00308-07	150 ppb CN Distilled ICV Standard	.0375 mL

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/8/2010 10:25:45	OM_3-8-2010_10-24-48
150 ppb		1	axc2	3/8/2010 10:26:37	OM_3-8-2010_10-24-48
100 ppb		1	axc2	3/8/2010 10:27:29	OM_3-8-2010_10-24-48
50 ppb		1	axc2	3/8/2010 10:28:22	OM_3-8-2010_10-24-48
10 ppb		1	axc2	3/8/2010 10:29:15	OM_3-8-2010_10-24-48
CRDL 5.0 ppb		1	axc2	3/8/2010 10:30:09	OM_3-8-2010_10-24-48
ICAL-00		1	axc2	3/8/2010 10:31:03	OM_3-8-2010_10-24-48
ICV		1	axc2	3/8/2010 10:32:54	OM_3-8-2010_10-24-48
ICB		1	axc2	3/8/2010 10:34:44	OM_3-8-2010_10-24-48
CRDL		1	axc2	3/8/2010 10:36:34	OM_3-8-2010_10-24-48
1202054789	958168	1	axc2	3/8/2010 10:38:23	OM_3-8-2010_10-24-48
1202054796	958168	1	axc2	3/8/2010 10:39:17	OM_3-8-2010_10-24-48
248010001	958168	1	axc2	3/8/2010 10:40:10	OM_3-8-2010_10-24-48
1202054790	958168	1	axc2	3/8/2010 10:41:03	OM_3-8-2010_10-24-48
1202054792	958168	1	axc2	3/8/2010 10:41:56	OM_3-8-2010_10-24-48
1202054794	958168	1	axc2	3/8/2010 10:42:48	OM_3-8-2010_10-24-48
248010002	958168	1	axc2	3/8/2010 10:43:42	OM_3-8-2010_10-24-48
248019001	958168	1	axc2	3/8/2010 10:44:34	OM_3-8-2010_10-24-48
248019002	958168	1	axc2	3/8/2010 10:45:26	OM_3-8-2010_10-24-48
248023002	958168	1	axc2	3/8/2010 10:46:19	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010 10:47:11	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010 10:49:01	OM_3-8-2010_10-24-48
248024001	958168	1	axc2	3/8/2010 10:50:50	OM_3-8-2010_10-24-48
248024003	958168	1	axc2	3/8/2010 10:51:41	OM_3-8-2010_10-24-48
248044002	958168	1	axc2	3/8/2010 10:52:34	OM_3-8-2010_10-24-48
1202054791	958168	1	axc2	3/8/2010 10:53:25	OM_3-8-2010_10-24-48
1202054793	958168	1	axc2	3/8/2010 10:54:17	OM_3-8-2010_10-24-48
1202054795	958168	1	axc2	3/8/2010 10:55:10	OM_3-8-2010_10-24-48
248401005	958168	1	axc2	3/8/2010 10:56:04	OM_3-8-2010_10-24-48
248516001	958168	1	axc2	3/8/2010 10:56:58	OM_3-8-2010_10-24-48
248516002	958168	1	axc2	3/8/2010 10:57:51	OM_3-8-2010_10-24-48
248518001	958168	1	axc2	3/8/2010 10:58:44	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010 10:59:36	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010 11:01:27	OM_3-8-2010_10-24-48
248533001	958168	1	axc2	3/8/2010 11:03:16	OM_3-8-2010_10-24-48
248548001	958168	1	axc2	3/8/2010 11:04:09	OM_3-8-2010_10-24-48
248548003	958168	1	axc2	3/8/2010 11:05:01	OM_3-8-2010_10-24-48
248551001	958168	1	axc2	3/8/2010 11:05:54	OM_3-8-2010_10-24-48
248551002	958168	1	axc2	3/8/2010 11:06:46	OM_3-8-2010_10-24-48
248555002	958168	1	axc2	3/8/2010 11:07:39	OM_3-8-2010_10-24-48
1202059721	960271	1	axc2	3/8/2010 11:08:31	OM_3-8-2010_10-24-48
1202059731	960271	1	axc2	3/8/2010 11:09:23	OM_3-8-2010_10-24-48
248072001	960271	1	axc2	3/8/2010 11:10:15	OM_3-8-2010_10-24-48
1202059722	960271	1	axc2	3/8/2010 11:11:06	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010 11:11:59	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010 11:13:49	OM_3-8-2010_10-24-48
1202059725	960271	1	axc2	3/8/2010 11:15:40	OM_3-8-2010_10-24-48
1202059728	960271	1	axc2	3/8/2010 11:16:33	OM_3-8-2010_10-24-48
248072002	960271	1	axc2	3/8/2010 11:17:27	OM_3-8-2010_10-24-48
248072003	960271	1	axc2	3/8/2010 11:18:21	OM_3-8-2010_10-24-48
248097001	960271	1	axc2	3/8/2010 11:19:14	OM_3-8-2010_10-24-48
1202059724	960271	1	axc2	3/8/2010 11:20:07	OM_3-8-2010_10-24-48
1202059727	960271	1	axc2	3/8/2010 11:21:00	OM_3-8-2010_10-24-48
1202059730	960271	1	axc2	3/8/2010 11:21:53	OM_3-8-2010_10-24-48
248097002	960271	1	axc2	3/8/2010 11:22:47	OM_3-8-2010_10-24-48
248097003	960271	1	axc2	3/8/2010 11:23:38	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010 11:24:31	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010 11:26:21	OM_3-8-2010_10-24-48

248097004	960271	1	axc2	3/8/2010	11:28:09	OM_3-8-2010_10-24-48
248298001	960271	1	axc2	3/8/2010	11:29:02	OM_3-8-2010_10-24-48
248298002	960271	1	axc2	3/8/2010	11:29:53	OM_3-8-2010_10-24-48
248298003	960271	1	axc2	3/8/2010	11:30:46	OM_3-8-2010_10-24-48
248303001	960271	1	axc2	3/8/2010	11:31:38	OM_3-8-2010_10-24-48
248337001	960271	1	axc2	3/8/2010	11:32:32	OM_3-8-2010_10-24-48
248375001	960271	1	axc2	3/8/2010	11:33:26	OM_3-8-2010_10-24-48
248375002	960271	1	axc2	3/8/2010	11:34:19	OM_3-8-2010_10-24-48
248397001	960271	1	axc2	3/8/2010	11:35:14	OM_3-8-2010_10-24-48
248397002	960271	1	axc2	3/8/2010	11:36:06	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010	11:37:00	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010	11:38:51	OM_3-8-2010_10-24-48
248407001	960271	1	axc2	3/8/2010	11:40:39	OM_3-8-2010_10-24-48
1202059723	960271	1	axc2	3/8/2010	11:41:33	OM_3-8-2010_10-24-48
1202059726	960271	1	axc2	3/8/2010	11:42:26	OM_3-8-2010_10-24-48
1202059729	960271	1	axc2	3/8/2010	11:43:19	OM_3-8-2010_10-24-48
248419001	960271	1	axc2	3/8/2010	11:44:11	OM_3-8-2010_10-24-48
248419002	960271	1	axc2	3/8/2010	11:45:04	OM_3-8-2010_10-24-48
1202053300	957584	1	axc2	3/8/2010	11:45:57	OM_3-8-2010_10-24-48
1202053310	957584	1	axc2	3/8/2010	11:46:49	OM_3-8-2010_10-24-48
247829002	957584	1	axc2	3/8/2010	11:47:41	OM_3-8-2010_10-24-48
1202053302	957584	1	axc2	3/8/2010	11:48:33	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010	11:49:26	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010	11:51:15	OM_3-8-2010_10-24-48
1202053305	957584	1	axc2	3/8/2010	11:53:05	OM_3-8-2010_10-24-48
1202053308	957584	1	axc2	3/8/2010	11:54:00	OM_3-8-2010_10-24-48
247865010	957584	1	axc2	3/8/2010	11:54:55	OM_3-8-2010_10-24-48
247865012	957584	1	axc2	3/8/2010	11:55:48	OM_3-8-2010_10-24-48
1202053303	957584	1	axc2	3/8/2010	11:56:41	OM_3-8-2010_10-24-48
1202053306	957584	1	axc2	3/8/2010	11:57:35	OM_3-8-2010_10-24-48
1202053309	957584	1	axc2	3/8/2010	11:58:28	OM_3-8-2010_10-24-48
247865013	957584	1	axc2	3/8/2010	11:59:21	OM_3-8-2010_10-24-48
247865014	957584	1	axc2	3/8/2010	12:00:15	OM_3-8-2010_10-24-48
247865015	957584	1	axc2	3/8/2010	12:01:07	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010	12:02:00	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010	12:03:51	OM_3-8-2010_10-24-48
247865016	957584	1	axc2	3/8/2010	12:05:41	OM_3-8-2010_10-24-48
247865017	957584	1	axc2	3/8/2010	12:06:33	OM_3-8-2010_10-24-48
247865018	957584	1	axc2	3/8/2010	12:07:25	OM_3-8-2010_10-24-48
247865019	957584	1	axc2	3/8/2010	12:08:18	OM_3-8-2010_10-24-48
247865020	957584	1	axc2	3/8/2010	12:09:10	OM_3-8-2010_10-24-48
247866001	957584	1	axc2	3/8/2010	12:10:05	OM_3-8-2010_10-24-48
247919001	957584	1	axc2	3/8/2010	12:10:59	OM_3-8-2010_10-24-48
247919002	957584	1	axc2	3/8/2010	12:11:53	OM_3-8-2010_10-24-48
247922004	957584	1	axc2	3/8/2010	12:12:48	OM_3-8-2010_10-24-48
1202053301	957584	1	axc2	3/8/2010	12:13:41	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010	12:14:34	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010	12:16:24	OM_3-8-2010_10-24-48
1202053304	957584	1	axc2	3/8/2010	12:18:14	OM_3-8-2010_10-24-48
1202053307	957584	1	axc2	3/8/2010	12:19:07	OM_3-8-2010_10-24-48
248164004	957584	1	axc2	3/8/2010	12:20:01	OM_3-8-2010_10-24-48
248382002	957584	1	axc2	3/8/2010	12:20:54	OM_3-8-2010_10-24-48
248382003	957584	1	axc2	3/8/2010	12:21:47	OM_3-8-2010_10-24-48
248401002	957584	1	axc2	3/8/2010	12:22:40	OM_3-8-2010_10-24-48
248401004	957584	1	axc2	3/8/2010	12:23:33	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010	12:24:25	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010	12:26:15	OM_3-8-2010_10-24-48

Original Run Filename: OM_3-8-2010_10-24-48.OMN created 3/8/2010 10:24:48
 Original Run Author's Signature: [axc2]
 Current Run Filename: OM_3-8-2010_10-24-48.OMN last modified 3/8/2010 12:27:20
 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)				
WCN100308-01	1	S1	200	10.4	3/8/2010@10:25:45			200 ppb
WCN100308-02	1	S2	150	7.82	3/8/2010@10:26:37			150 ppb
WCN100308-03	1	S3	100	5.36	3/8/2010@10:27:29			100 ppb
WCN100308-04	1	S4	50.0	2.85	3/8/2010@10:28:22			50 ppb
WCN100308-05	1	S5	10.0	0.644	3/8/2010@10:29:15			10 ppb
WCN100308-06	1	S6	5.00	0.400	3/8/2010@10:30:09			CRDL 5.0 ppb
WCN100308-08	1	S7	0.00	-0.0189	3/8/2010@10:31:03			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
Result:			0.99976 > 0.99500					
Message			Pass					
Action			Continue					
WCN100308-07	1	S8	147	7.72	3/8/2010@10:32:54			ICV
Known Conc:			150					
DQM Test: > + Percent Relative Difference								
Result:			-2.1 < 10.0					
Message			ICV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-2.1 < 10.0					
Message			ICV Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
WCN100308-08	1	S7	-1.65	0.0363	3/8/2010@10:34:44			ICB/CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.65 < 5.01					
Message			ICB/CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.65 > -5.01					
Message			ICB/CCB Passed					
Action			Continue					
WCN100308-06	1	S6	5.25	0.393	3/8/2010@10:36:34			CRDL
Known Conc:			5.00					
DQM Test: > + Concentration Limit								
Result:			5.25 < 7.50					
Message			CRDL Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			5.25 > 2.50					
Message			Pass					
Action			None					
1202054789|958168|MB	1	1	-1.83	0.0269	3/8/2010@10:38:23			
1202054796|LCS	1	2	50.4	2.73	3/8/2010@10:39:17			
248010001	1	3	-1.53	0.0427	3/8/2010@10:40:10			
1202054790|DUP	1	4	-1.69	0.0344	3/8/2010@10:41:03			
1202054792|MS	1	5	114	6.01	3/8/2010@10:41:56			
1202054794|MSD	1	6	111	5.86	3/8/2010@10:42:48			
248010002	1	7	-1.44	0.0471	3/8/2010@10:43:42			
248019001	1	8	-1.39	0.0498	3/8/2010@10:44:34			
248019002	1	9	-1.40	0.0491	3/8/2010@10:45:26			
248023002	1	10	-1.75	0.0312	3/8/2010@10:46:19			
WCN100308-03	1	S3	105	5.54	3/8/2010@10:47:11			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			4.8 < 10.0					

			Message	CCV Passed				
			Action	Continue				
DQM Test: < - Percent Relative Difference								
			Result:	4.8 < 10.0				
			Message	CCV Passed				
			Action	Continue				
WCN100308-08	1	S7		-1.67	0.0352	3/8/2010@10:49:01		CCB
			Known Conc:	0.00				
DQM Test: > + Concentration Limit								
			Result:	-1.67 < 5.00				
			Message	CCB Passed				
			Action	Continue				
DQM Test: < - Concentration Limit								
			Result:	-1.67 > -5.00				
			Message	CCB Passed				
			Action	Continue				
248024001	1	11		-2.29	0.00319	3/8/2010@10:50:50		
248024003	1	12		-0.940	0.0730	3/8/2010@10:51:41		
248044002	1	13		-1.78	0.0297	3/8/2010@10:52:34		
1202054791||DUP	1	14		-1.89	0.0237	3/8/2010@10:53:25		
1202054793||MS	1	15		113	5.97	3/8/2010@10:54:17		
1202054795||MSD	1	16		94.5	5.01	3/8/2010@10:55:10		
248401005	1	17		-2.36	-4.50e-4	3/8/2010@10:56:04		
248516001	1	18		-1.70	0.0336	3/8/2010@10:56:58		
248516002	1	19		-2.03	0.0168	3/8/2010@10:57:51		
248518001	1	20		-2.35	3.13e-4	3/8/2010@10:58:44		
WCN100308-03	1	S3		107	5.64	3/8/2010@10:59:36		CCV
			Known Conc:	100				
DQM Test: > + Percent Relative Difference								
			Result:	6.6 < 10.0				
			Message	CCV Passed				
			Action	Continue				
DQM Test: < - Percent Relative Difference								
			Result:	6.6 < 10.0				
			Message	CCV Passed				
			Action	Continue				
WCN100308-08	1	S7		-1.82	0.0275	3/8/2010@11:01:27		CCB
			Known Conc:	0.00				
DQM Test: > + Concentration Limit								
			Result:	-1.82 < 5.00				
			Message	CCB Passed				
			Action	Continue				
DQM Test: < - Concentration Limit								
			Result:	-1.82 > -5.00				
			Message	CCB Passed				
			Action	Continue				
248533001	1	21		-1.85	0.0260	3/8/2010@11:03:16		
248548001	1	22		-2.24	0.00579	3/8/2010@11:04:09		
248548003	1	23		-1.45	0.0465	3/8/2010@11:05:01		
248551001	1	24		-0.552	0.0931	3/8/2010@11:05:54		
248551002	1	25		-1.81	0.0281	3/8/2010@11:06:46		
248555002	1	26		-1.99	0.0185	3/8/2010@11:07:39		
1202059721|960271|MB	1	27		-1.70	0.0339	3/8/2010@11:08:31		
1202059731|LCS	1	28		49.0	2.66	3/8/2010@11:09:23		
248072001	1	29		-2.36	-5.25e-4	3/8/2010@11:10:15		
1202059722||DUP	1	30		-1.95	0.0206	3/8/2010@11:11:06		
WCN100308-03	1	S3		105	5.54	3/8/2010@11:11:59		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				
WCN100308-08	1	S7		-1.72	0.0325	3/8/2010@11:13:49		CCB
			Known Conc:	0.00				

DQM Test: > + Concentration Limit						
Result:		-1.72 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-1.72 > -5.00				
Message		CCB Passed				
Action		Continue				
1202059725	MS	1	31	102	5.41	3/8/2010@11:15:40
1202059728	MSD	1	32	101	5.33	3/8/2010@11:16:33
248072002		1	33	-1.30	0.0543	3/8/2010@11:17:27
248072003		1	34	-2.90	-0.0286	3/8/2010@11:18:21
248097001		1	35	-1.88	0.0245	3/8/2010@11:19:14
1202059724	DUP	1	36	-1.58	0.0398	3/8/2010@11:20:07
1202059727	MS	1	37	100	5.32	3/8/2010@11:21:00
1202059730	MSD	1	38	102	5.39	3/8/2010@11:21:53
248097002		1	39	12.3	0.757	3/8/2010@11:22:47
248097003		1	40	-1.04	0.0680	3/8/2010@11:23:38
WCN100308-03		1	S3	106	5.63	3/8/2010@11:24:31
Known Conc:		100				
DQM Test: > + Percent Relative Difference						
Result:		6.4 < 10.0				
Message		CCV Passed				
Action		Continue				
DQM Test: < - Percent Relative Difference						
Result:		6.4 < 10.0				
Message		CCV Passed				
Action		Continue				
WCN100308-08		1	S7	-1.68	0.0346	3/8/2010@11:26:21
Known Conc:		0.00				
DQM Test: > + Concentration Limit						
Result:		-1.68 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-1.68 > -5.00				
Message		CCB Passed				
Action		Continue				
248097004		1	41	-0.871	0.0766	3/8/2010@11:28:09
248298001		1	42	-1.67	0.0350	3/8/2010@11:29:02
248298002		1	43	-1.93	0.0216	3/8/2010@11:29:53
248298003		1	44	-0.109	0.116	3/8/2010@11:30:46
248303001		1	45	2.92	0.273	3/8/2010@11:31:38
248337001		1	46	-2.49	-0.00692	3/8/2010@11:32:32
248375001		1	47	-2.35	1.70e-4	3/8/2010@11:33:26
248375002		1	48	-2.05	0.0157	3/8/2010@11:34:19
248397001		1	49	-1.87	0.0247	3/8/2010@11:35:14
248397002		1	50	-2.17	0.00925	3/8/2010@11:36:06
WCN100308-03		1	S3	106	5.62	3/8/2010@11:37:00
Known Conc:		100				
DQM Test: > + Percent Relative Difference						
Result:		6.2 < 10.0				
Message		CCV Passed				
Action		Continue				
DQM Test: < - Percent Relative Difference						
Result:		6.2 < 10.0				
Message		CCV Passed				
Action		Continue				
WCN100308-08		1	S7	-2.34	8.36e-4	3/8/2010@11:38:51
Known Conc:		0.00				
DQM Test: > + Concentration Limit						
Result:		-2.34 < 5.00				
Message		CCB Passed				
Action		Continue				
DQM Test: < - Concentration Limit						
Result:		-2.34 > -5.00				
Message		CCB Passed				
Action		Continue				

248407001	1	51	-1.69	0.0345	3/8/2010@11:40:39		
1202059723||DUP	1	52	-2.37	-0.00102	3/8/2010@11:41:33		
1202059726||MS	1	53	104	5.51	3/8/2010@11:42:26		
1202059729||MSD	1	54	82.4	4.39	3/8/2010@11:43:19		
248419001	1	55	-1.45	0.0465	3/8/2010@11:44:11		
248419002	1	56	-1.82	0.0276	3/8/2010@11:45:04		
1202053300|957584|MB	1	57	-1.77	0.0301	3/8/2010@11:45:57		
1202053310||LCS	1	58	52.0	2.81	3/8/2010@11:46:49		
247829002	1	59	-1.36	0.0515	3/8/2010@11:47:41		
1202053302||DUP	1	60	-1.35	0.0518	3/8/2010@11:48:33		
WCN100308-03	1	S3	107	5.65	3/8/2010@11:49:26		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			6.9 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			6.9 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100308-08	1	S7	-1.71	0.0332	3/8/2010@11:51:15		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-1.71 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-1.71 > -5.00				
Message			CCB Passed				
Action			Continue				
1202053305||MS	1	61	108	5.71	3/8/2010@11:53:05		
1202053308||MSD	1	62	108	5.72	3/8/2010@11:54:00		
247865010	1	63	-1.12	0.0636	3/8/2010@11:54:55		
247865012	1	64	-1.20	0.0593	3/8/2010@11:55:48		
1202053303||DUP	1	65	-1.53	0.0427	3/8/2010@11:56:41		
1202053306||MS	1	66	86.3	4.59	3/8/2010@11:57:35		
1202053309||MSD	1	67	102	5.39	3/8/2010@11:58:28		
247865013	1	68	-1.42	0.0483	3/8/2010@11:59:21		
247865014	1	69	-1.44	0.0472	3/8/2010@12:00:15		
247865015	1	70	-1.50	0.0439	3/8/2010@12:01:07		
WCN100308-03	1	S3	106	5.63	3/8/2010@12:02:00		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			6.4 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			6.4 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100308-08	1	S7	-1.63	0.0372	3/8/2010@12:03:51		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-1.63 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-1.63 > -5.00				
Message			CCB Passed				
Action			Continue				
247865016	1	71	-1.63	0.0374	3/8/2010@12:05:41		
247865017	1	72	-1.38	0.0501	3/8/2010@12:06:33		
247865018	1	73	-2.31	0.00203	3/8/2010@12:07:25		
247865019	1	74	-1.70	0.0337	3/8/2010@12:08:18		
247865020	1	75	-1.21	0.0589	3/8/2010@12:09:10		
247866001	1	76	-1.82	0.0273	3/8/2010@12:10:05		
247919001	1	77	-1.59	0.0392	3/8/2010@12:10:59		
247919002	1	78	-1.41	0.0486	3/8/2010@12:11:53		

247922004	1	79	0.739	0.160	3/8/2010@12:12:48		
1202053301||DUP	1	80	0.641	0.155	3/8/2010@12:13:41		
WCN100308-03	1	S3	107	5.65	3/8/2010@12:14:34		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			6.8 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			6.8 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100308-08	1	S7	-1.86	0.0256	3/8/2010@12:16:24		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-1.86 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-1.86 > -5.00				
Message			CCB Passed				
Action			Continue				
1202053304||MS	1	81	98.2	5.21	3/8/2010@12:18:14		
1202053307||MSD	1	82	98.4	5.21	3/8/2010@12:19:07		
248164004	1	83	-1.49	0.0445	3/8/2010@12:20:01		
248382002	1	84	-1.58	0.0400	3/8/2010@12:20:54		
248382003	1	85	-1.82	0.0273	3/8/2010@12:21:47		
248401002	1	86	-1.52	0.0428	3/8/2010@12:22:40		
248401004	1	87	-1.38	0.0501	3/8/2010@12:23:33		
WCN100308-03	1	S3	106	5.59	3/8/2010@12:24:25		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			5.8 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			5.8 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100308-08	1	S7	-1.71	0.0334	3/8/2010@12:26:15		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-1.71 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-1.71 > -5.00				
Message			CCB Passed				
Action			Continue				

Analyte Properties Table for OM_3-8-2010_10-24-48.OMN

Property	Channel 1
Concentration Units	TCYANIDE
Calibration Fit Type	ug/L
Clear Calibration	First Order
Force Through Zero	True
Calibration Weighting	False
Auto Dilution Trigger	None
% of High Standard	True
Quik Chem Method	100
Chemistry	10-204-00-1-A
Calibration by Height	Direct/Bipolar
Inject to Peak Start	False
Peak Base Width	22
	39

Channel 1: Current View

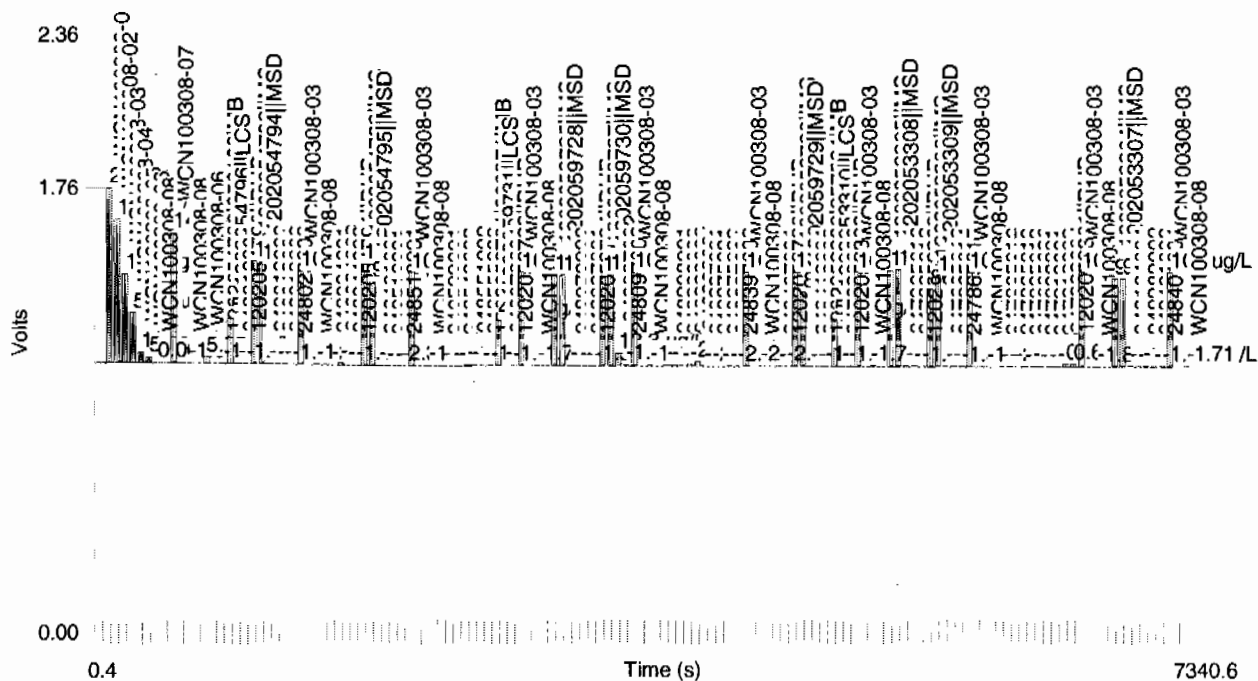
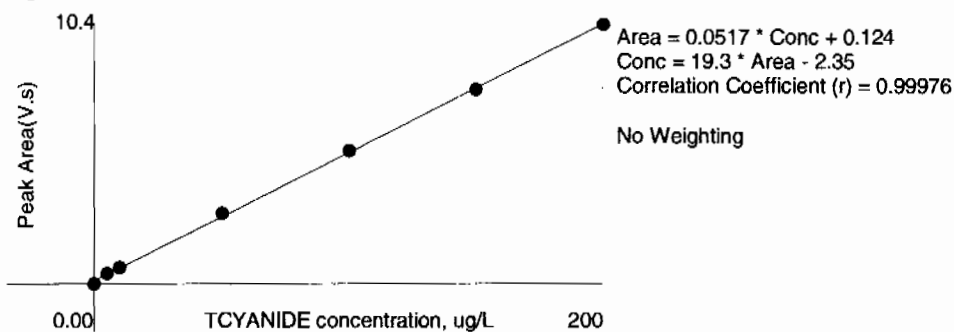


Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.4	0.692	0.2	3/8/2010	10:26:48
2	150	1	7.82	0.567	0.7	3/8/2010	10:27:40
3	100	1	5.36	0.353	-1.3	3/8/2010	10:28:32
4	50.0	1	2.85	0.199	-5.1	3/8/2010	10:29:25
5	10.0	1	0.644	0.0420	-0.6	3/8/2010	10:30:18
6	5.00	1	0.400	0.0240	-4.6	3/8/2010	10:31:12
7	0.00	1	-0.0189	-0.00306		3/8/2010	10:32:06

Figure 1: TCYANIDE



This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	3/8/2010 15:01:26	OM_3-8-2010_14-58-05
CCB		1	axc2	3/8/2010 15:03:15	OM_3-8-2010_14-58-05
1202057161	959217	1	axc2	3/8/2010 15:05:05	OM_3-8-2010_14-58-05
1202057168	959217	1	axc2	3/8/2010 15:05:58	OM_3-8-2010_14-58-05
248044005	959217	1	axc2	3/8/2010 15:06:52	OM_3-8-2010_14-58-05
1202057163	959217	1	axc2	3/8/2010 15:07:45	OM_3-8-2010_14-58-05
1202057165	959217	1	axc2	3/8/2010 15:08:38	OM_3-8-2010_14-58-05
1202057167	959217	1	axc2	3/8/2010 15:09:31	OM_3-8-2010_14-58-05
248044006	959217	1	axc2	3/8/2010 15:10:24	OM_3-8-2010_14-58-05
248108001	959217	1	axc2	3/8/2010 15:11:16	OM_3-8-2010_14-58-05
248117001	959217	1	axc2	3/8/2010 15:12:08	OM_3-8-2010_14-58-05
248127002	959217	1	axc2	3/8/2010 15:13:02	OM_3-8-2010_14-58-05
CCV		1	axc2	3/8/2010 15:13:54	OM_3-8-2010_14-58-05
CCB		1	axc2	3/8/2010 15:15:44	OM_3-8-2010_14-58-05
248162001	959217	1	axc2	3/8/2010 15:17:33	OM_3-8-2010_14-58-05
248162002	959217	1	axc2	3/8/2010 15:18:25	OM_3-8-2010_14-58-05
248162003	959217	1	axc2	3/8/2010 15:19:17	OM_3-8-2010_14-58-05
248162004	959217	1	axc2	3/8/2010 15:20:09	OM_3-8-2010_14-58-05
248164002	959217	1	axc2	3/8/2010 15:21:00	OM_3-8-2010_14-58-05
248168006	959217	1	axc2	3/8/2010 15:21:55	OM_3-8-2010_14-58-05
248169004	959217	1	axc2	3/8/2010 15:22:48	OM_3-8-2010_14-58-05
248188001	959217	1	axc2	3/8/2010 15:23:41	OM_3-8-2010_14-58-05
1202057162	959217	1	axc2	3/8/2010 15:24:34	OM_3-8-2010_14-58-05
1202057164*	959217	1	axc2	3/8/2010 15:25:27	OM_3-8-2010_14-58-05
CCV		1	axc2	3/8/2010 15:26:19	OM_3-8-2010_14-58-05
CCB		1	axc2	3/8/2010 15:28:11	OM_3-8-2010_14-58-05
1202057166	959217	1	axc2	3/8/2010 15:30:01	OM_3-8-2010_14-58-05
248199001	959217	1	axc2	3/8/2010 15:30:54	OM_3-8-2010_14-58-05
248238001	959217	1	axc2	3/8/2010 15:31:46	OM_3-8-2010_14-58-05
248238002	959217	1	axc2	3/8/2010 15:32:39	OM_3-8-2010_14-58-05
1202057164*	959217	1	axc2	3/8/2010 15:33:32	OM_3-8-2010_14-58-05
248242001	959217	1	axc2	3/8/2010 15:34:25	OM_3-8-2010_14-58-05
248245001	959217	1	axc2	3/8/2010 15:35:17	OM_3-8-2010_14-58-05
248257001	959217	1	axc2	3/8/2010 15:36:09	OM_3-8-2010_14-58-05
248257002	959217	1	axc2	3/8/2010 15:37:01	OM_3-8-2010_14-58-05
1202057164	959217	1	axc2	3/8/2010 15:37:54	OM_3-8-2010_14-58-05
CCV		1	axc2	3/8/2010 15:38:47	OM_3-8-2010_14-58-05
CCB		1	axc2	3/8/2010 15:40:39	OM_3-8-2010_14-58-05
1202057112	959204	1	axc2	3/8/2010 15:42:28	OM_3-8-2010_14-58-05
1202057119	959204	25	axc2	3/8/2010 15:43:18	OM_3-8-2010_14-58-05
248110001	959204	1	axc2	3/8/2010 15:44:13	OM_3-8-2010_14-58-05
248110002	959204	1	axc2	3/8/2010 15:45:07	OM_3-8-2010_14-58-05
248110003	959204	1	axc2	3/8/2010 15:46:00	OM_3-8-2010_14-58-05
248110004	959204	1	axc2	3/8/2010 15:46:54	OM_3-8-2010_14-58-05
248110005	959204	1	axc2	3/8/2010 15:47:47	OM_3-8-2010_14-58-05
248110006	959204	1	axc2	3/8/2010 15:48:41	OM_3-8-2010_14-58-05
248110007	959204	1	axc2	3/8/2010 15:49:33	OM_3-8-2010_14-58-05
248110008	959204	1	axc2	3/8/2010 15:50:26	OM_3-8-2010_14-58-05
CCV		1	axc2	3/8/2010 15:51:19	OM_3-8-2010_14-58-05
CCB		1	axc2	3/8/2010 15:53:09	OM_3-8-2010_14-58-05
248118001	959204	1	axc2	3/8/2010 15:54:59	OM_3-8-2010_14-58-05
248118002	959204	1	axc2	3/8/2010 15:55:52	OM_3-8-2010_14-58-05
248118003	959204	1	axc2	3/8/2010 15:56:45	OM_3-8-2010_14-58-05
248118004	959204	1	axc2	3/8/2010 15:57:37	OM_3-8-2010_14-58-05
248118005	959204	1	axc2	3/8/2010 15:58:28	OM_3-8-2010_14-58-05
248118006	959204	1	axc2	3/8/2010 15:59:22	OM_3-8-2010_14-58-05
248118007	959204	1	axc2	3/8/2010 16:00:13	OM_3-8-2010_14-58-05
248189001	959204	1	axc2	3/8/2010 16:01:07	OM_3-8-2010_14-58-05

1202057113	959204	1	axc2	3/8/2010	16:02:01	OM_3-8-2010_14-58-05
1202057115	959204	1	axc2	3/8/2010	16:02:55	OM_3-8-2010_14-58-05
CCV		1	axc2	3/8/2010	16:03:48	OM_3-8-2010_14-58-05
CCB		1	axc2	3/8/2010	16:05:39	OM_3-8-2010_14-58-05
1202057117	959204	1	axc2	3/8/2010	16:07:29	OM_3-8-2010_14-58-05
248189002	959204	1	axc2	3/8/2010	16:08:23	OM_3-8-2010_14-58-05
1202057114	959204	1	axc2	3/8/2010	16:09:16	OM_3-8-2010_14-58-05
1202057116	959204	1	axc2	3/8/2010	16:10:09	OM_3-8-2010_14-58-05
1202057118	959204	1	axc2	3/8/2010	16:11:02	OM_3-8-2010_14-58-05
1202054781	958165	1	axc2	3/8/2010	16:11:55	OM_3-8-2010_14-58-05
1202054788	958165	25	axc2	3/8/2010	16:12:47	OM_3-8-2010_14-58-05
247918001	958165	1	axc2	3/8/2010	16:13:39	OM_3-8-2010_14-58-05
247918002	958165	1	axc2	3/8/2010	16:14:33	OM_3-8-2010_14-58-05
247918003	958165	1	axc2	3/8/2010	16:15:25	OM_3-8-2010_14-58-05
CCV		1	axc2	3/8/2010	16:16:17	OM_3-8-2010_14-58-05
CCB		1	axc2	3/8/2010	16:18:09	OM_3-8-2010_14-58-05
247918004	958165	1	axc2	3/8/2010	16:19:58	OM_3-8-2010_14-58-05
1202054782	958165	1	axc2	3/8/2010	16:20:49	OM_3-8-2010_14-58-05
1202054784	958165	1	axc2	3/8/2010	16:21:44	OM_3-8-2010_14-58-05
1202054786	958165	1	axc2	3/8/2010	16:22:39	OM_3-8-2010_14-58-05
247918005	958165	1	axc2	3/8/2010	16:23:32	OM_3-8-2010_14-58-05
1202054783	958165	1	axc2	3/8/2010	16:24:26	OM_3-8-2010_14-58-05
1202054785	958165	1	axc2	3/8/2010	16:25:20	OM_3-8-2010_14-58-05
1202054787	958165	1	axc2	3/8/2010	16:26:12	OM_3-8-2010_14-58-05
247918006	958165	1	axc2	3/8/2010	16:27:06	OM_3-8-2010_14-58-05
247918007	958165	1	axc2	3/8/2010	16:28:00	OM_3-8-2010_14-58-05
CCV		1	axc2	3/8/2010	16:28:51	OM_3-8-2010_14-58-05
CCB		1	axc2	3/8/2010	16:30:42	OM_3-8-2010_14-58-05
248009001	958165	1	axc2	3/8/2010	16:32:32	OM_3-8-2010_14-58-05
248009002	958165	1	axc2	3/8/2010	16:33:25	OM_3-8-2010_14-58-05
248009003	958165	1	axc2	3/8/2010	16:34:17	OM_3-8-2010_14-58-05
248009004	958165	1	axc2	3/8/2010	16:35:10	OM_3-8-2010_14-58-05
248009005	958165	1	axc2	3/8/2010	16:36:03	OM_3-8-2010_14-58-05
248025001	958165	1	axc2	3/8/2010	16:36:55	OM_3-8-2010_14-58-05
248025002	958165	1	axc2	3/8/2010	16:37:48	OM_3-8-2010_14-58-05
248025004	958165	1	axc2	3/8/2010	16:38:42	OM_3-8-2010_14-58-05
248025006	958165	1	axc2	3/8/2010	16:39:36	OM_3-8-2010_14-58-05
248422001	958165	1	axc2	3/8/2010	16:40:31	OM_3-8-2010_14-58-05
CCV		1	axc2	3/8/2010	16:41:23	OM_3-8-2010_14-58-05
CCB		1	axc2	3/8/2010	16:43:15	OM_3-8-2010_14-58-05
248422002	958165	1	axc2	3/8/2010	16:45:06	OM_3-8-2010_14-58-05
1202061930	961278	1	axc2	3/8/2010	16:46:01	OM_3-8-2010_14-58-05
1202061932	961278	1	axc2	3/8/2010	16:46:53	OM_3-8-2010_14-58-05
247819001	961278	1	axc2	3/8/2010	16:47:47	OM_3-8-2010_14-58-05
1202061931	961278	1	axc2	3/8/2010	16:48:41	OM_3-8-2010_14-58-05
CCV		1	axc2	3/8/2010	16:49:33	OM_3-8-2010_14-58-05
CCB		1	axc2	3/8/2010	16:51:24	OM_3-8-2010_14-58-05

Original Run Filename: OM_3-8-2010_14-58-05.OMN created 3/8/2010 14:58:05
 Original Run Author's Signature: [axc2]
 Current Run Filename: OM_3-8-2010_14-58-05.OMN last modified 3/8/2010 16:52:28
 Current Run Author's Signature: [axc2]
 Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
 Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE		Detection Time	ADF	MDF	Description
			Conc. (ug/L)	Area (Vs)				
WCN100308-03	1	S3	103	5.47	3/8/2010@15:01:26			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			3.3 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			3.3 < 10.0					
Message			CCV Passed					
Action			Continue					
Calibration:			Table/Fig. 1					
WCN100308-08	1	S7	-1.49	0.0446	3/8/2010@15:03:15			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.49 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.49 > -5.00					
Message			CCB Passed					
Action			Continue					
1202057161|959217|MB	1	1	-2.52	-0.00888	3/8/2010@15:05:05			
1202057168|LCS	1	2	49.3	2.67	3/8/2010@15:05:58			
248044005	1	3	-2.52	-0.00856	3/8/2010@15:06:52			
1202057163|DUP	1	4	-2.04	0.0161	3/8/2010@15:07:45			
1202057165|MS	1	5	101	5.35	3/8/2010@15:08:38			
1202057167|MSD	1	6	105	5.56	3/8/2010@15:09:31			
248044006	1	7	-1.95	0.0206	3/8/2010@15:10:24			
248108001	1	8	-2.52	-0.00848	3/8/2010@15:11:16			
248117001	1	9	-2.48	-0.00645	3/8/2010@15:12:08			
248127002	1	10	-0.731	0.0839	3/8/2010@15:13:02			
WCN100308-03	1	S3	106	5.63	3/8/2010@15:13:54			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			6.4 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			6.4 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100308-08	1	S7	-1.84	0.0265	3/8/2010@15:15:44			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.84 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.84 > -5.00					
Message			CCB Passed					
Action			Continue					
248162001	1	11	-2.35	1.80e-4	3/8/2010@15:17:33			
248162002	1	12	-2.05	0.0154	3/8/2010@15:18:25			
248162003	1	13	-2.14	0.0108	3/8/2010@15:19:17			
248162004	1	14	-2.03	0.0167	3/8/2010@15:20:09			
248164002	1	15	-1.57	0.0404	3/8/2010@15:21:00			

248168006	1	16	-1.99	0.0187	3/8/2010@15:21:55		
248169004	1	17	-1.56	0.0412	3/8/2010@15:22:48		
248188001	1	18	-2.03	0.0168	3/8/2010@15:23:41		
1202057162||DUP	1	19	-2.31	0.00215	3/8/2010@15:24:34		
1202057164||MS	1	20	70.7	3.78	3/8/2010@15:25:27		
WCN100308-03	1	S3	109	5.76	3/8/2010@15:26:19		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			9.0 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			9.0 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100308-08	1	S7	-1.78	0.0295	3/8/2010@15:28:11		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-1.78 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-1.78 > -5.00				
Message			CCB Passed				
Action			Continue				
1202057166||MSD	1	21	110	5.81	3/8/2010@15:30:01		
248199001	1	22	-1.68	0.0348	3/8/2010@15:30:54		
248238001	1	23	-1.98	0.0191	3/8/2010@15:31:46		
248238002	1	24	-1.94	0.0214	3/8/2010@15:32:39		
1202057164||MS	1	20	71.8	3.84	3/8/2010@15:33:32		
248242001	1	25	-1.93	0.0217	3/8/2010@15:34:25		
248245001	1	26	-2.35	1.99e-4	3/8/2010@15:35:17		
248257001	1	27	-2.49	-0.00739	3/8/2010@15:36:09		
248257002	1	28	-1.86	0.0256	3/8/2010@15:37:01		
1202057164||MS	1	20	106	5.61	3/8/2010@15:37:54		
WCN100308-03	1	S3	104	5.52	3/8/2010@15:38:47		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				
WCN100308-08	1	S7	-0.768	0.0819	3/8/2010@15:40:39		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-0.768 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-0.768 > -5.00				
Message			CCB Passed				
Action			Continue				
1202057112|959204|MB	1	29	-2.19	0.00819	3/8/2010@15:42:28		
1202057119||LCS	1	30	31.1	1.73	3/8/2010@15:43:18	25.00	
248110001	1	31	-0.304	0.106	3/8/2010@15:44:13		
248110002	1	32	-1.46	0.0463	3/8/2010@15:45:07		
248110003	1	33	-2.31	0.00237	3/8/2010@15:46:00		
248110004	1	34	-2.16	0.00990	3/8/2010@15:46:54		
248110005	1	35	-0.698	0.0856	3/8/2010@15:47:47		
248110006	1	36	-1.47	0.0458	3/8/2010@15:48:41		
248110007	1	37	-1.24	0.0576	3/8/2010@15:49:33		
248110008	1	38	-0.761	0.0823	3/8/2010@15:50:26		
WCN100308-03	1	S3	106	5.60	3/8/2010@15:51:19		CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							

Result: 5.9 < 10.0						
Message CCV Passed						
Action Continue						
DQM Test: < - Percent Relative Difference						
Result: 5.9 < 10.0						
Message CCV Passed						
Action Continue						
WCN100308-08	1	S7	-1.95	0.0205	3/8/2010@15:53:09	CCB
Known Conc: 0.00						
DQM Test: > + Concentration Limit						
Result: -1.95 < 5.00						
Message CCB Passed						
Action Continue						
DQM Test: < - Concentration Limit						
Result: -1.95 > -5.00						
Message CCB Passed						
Action Continue						
248118001	1	39	0.0365	0.124	3/8/2010@15:54:59	
248118002	1	40	-2.19	0.00813	3/8/2010@15:55:52	
248118003	1	41	-0.754	0.0827	3/8/2010@15:56:45	
248118004	1	42	-1.55	0.0414	3/8/2010@15:57:37	
248118005	1	43	-1.86	0.0257	3/8/2010@15:58:28	
248118006	1	44	-0.195	0.112	3/8/2010@15:59:22	
248118007	1	45	-2.48	-0.00657	3/8/2010@16:00:13	
248189001	1	46	1.50	0.200	3/8/2010@16:01:07	
1202057113|DUP	1	47	1.10	0.179	3/8/2010@16:02:01	
1202057115|MS	1	48	98.4	5.21	3/8/2010@16:02:55	
WCN100308-03	1	S3	106	5.63	3/8/2010@16:03:48	CCV
Known Conc: 100						
DQM Test: > + Percent Relative Difference						
Result: 6.5 < 10.0						
Message CCV Passed						
Action Continue						
DQM Test: < - Percent Relative Difference						
Result: 6.5 < 10.0						
Message CCV Passed						
Action Continue						
WCN100308-08	1	S7	-2.33	0.00121	3/8/2010@16:05:39	CCB
Known Conc: 0.00						
DQM Test: > + Concentration Limit						
Result: -2.33 < 5.00						
Message CCB Passed						
Action Continue						
DQM Test: < - Concentration Limit						
Result: -2.33 > -5.00						
Message CCB Passed						
Action Continue						
1202057117|MSD	1	49	97.7	5.18	3/8/2010@16:07:29	
248189002	1	50	0.509	0.148	3/8/2010@16:08:23	
1202057114|DUP	1	51	0.322	0.138	3/8/2010@16:09:16	
1202057116|MS	1	52	93.9	4.98	3/8/2010@16:10:09	
1202057118|MSD	1	53	93.9	4.98	3/8/2010@16:11:02	
1202054781|958165|MB	1	54	-2.89	-0.0281	3/8/2010@16:11:55	
1202054788|LCS	1	55	20.3	1.17	3/8/2010@16:12:47	25.00
247918001	1	56	-1.17	0.0613	3/8/2010@16:13:39	
247918002	1	57	-1.63	0.0371	3/8/2010@16:14:33	
247918003	1	58	-2.35	2.32e-4	3/8/2010@16:15:25	
WCN100308-03	1	S3	106	5.59	3/8/2010@16:16:17	CCV
Known Conc: 100						
DQM Test: > + Percent Relative Difference						
Result: 5.7 < 10.0						
Message CCV Passed						
Action Continue						
DQM Test: < - Percent Relative Difference						
Result: 5.7 < 10.0						
Message CCV Passed						
Action Continue						
WCN100308-08	1	S7	-2.61	-0.0134	3/8/2010@16:18:09	CCB

Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-2.61 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-2.61 > -5.00				
Message			CCB Passed				
Action			Continue				
247918004	1	59	-1.83	0.0268	3/8/2010@16:19:58		
1202054782	DUP	1	60	-1.86	0.0252	3/8/2010@16:20:49	
1202054784	MS	1	61	88.6	4.71	3/8/2010@16:21:44	
1202054786	MSD	1	62	102	5.39	3/8/2010@16:22:39	
247918005		1	63	-1.63	0.0372	3/8/2010@16:23:32	
1202054783	DUP	1	64	-2.35	2.22e-4	3/8/2010@16:24:26	
1202054785	MS	1	65	103	5.44	3/8/2010@16:25:20	
1202054787	MSD	1	66	99.0	5.24	3/8/2010@16:26:12	
247918006		1	67	-0.953	0.0724	3/8/2010@16:27:06	
247918007		1	68	0.145	0.129	3/8/2010@16:28:00	
WCN100308-03		1	S3	105	5.54	3/8/2010@16:28:51	CCV
Known Conc:			100				
DQM Test: > + Percent Relative Difference							
Result:			4.6 < 10.0				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Percent Relative Difference							
Result:			4.6 < 10.0				
Message			CCV Passed				
Action			Continue				
WCN100308-08	1	S7	-2.34	4.90e-4	3/8/2010@16:30:42		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-2.34 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-2.34 > -5.00				
Message			CCB Passed				
Action			Continue				
248009001	1	69	-2.44	-0.00446	3/8/2010@16:32:32		
248009002	1	70	-1.42	0.0484	3/8/2010@16:33:25		
248009003	1	71	2.15	0.233	3/8/2010@16:34:17		
248009004	1	72	-1.18	0.0606	3/8/2010@16:35:10		
248009005	1	73	-2.05	0.0157	3/8/2010@16:36:03		
248025001	1	74	-2.44	-0.00448	3/8/2010@16:36:55		
248025002	1	75	-1.60	0.0388	3/8/2010@16:37:48		
248025004	1	76	-0.787	0.0809	3/8/2010@16:38:42		
248025006	1	77	-0.371	0.102	3/8/2010@16:39:36		
248422001	1	78	-2.28	0.00369	3/8/2010@16:40:31		
WCN100308-03	1	S3	102	5.40	3/8/2010@16:41:23		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				
WCN100308-08	1	S7	-2.30	0.00277	3/8/2010@16:43:15		CCB
Known Conc:			0.00				
DQM Test: > + Concentration Limit							
Result:			-2.30 < 5.00				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-2.30 > -5.00				
Message			CCB Passed				

		Action	Continue					
248422002	1	79	-1.20	0.0595	3/8/2010@16:45:06			
1202061930|961278|MB	1	80	-1.83	0.0272	3/8/2010@16:46:01			
1202061932|LCS	1	81	-1.96	0.0203	3/8/2010@16:46:53			
247819001	1	82	110	5.83	3/8/2010@16:47:47			
1202061931|DUP	1	83	184	9.64	3/8/2010@16:48:41			
WCN100308-03	1	S3	106	5.59	3/8/2010@16:49:33			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			5.7 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			5.7 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100308-08	1	S7	-2.34	3.67e-4	3/8/2010@16:51:24			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-2.34 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-2.34 > -5.00					
Message			CCB Passed					
Action			Continue					

Analyte Properties Table for OM_3-8-2010_14-58-05.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

[illegible]

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.4	0.692	0.2	3/8/2010	10:26:48
2	150	1	7.82	0.567	0.7	3/8/2010	10:27:40
3	100	1	5.36	0.353	-1.3	3/8/2010	10:28:32
4	50.0	1	2.85	0.199	-5.1	3/8/2010	10:29:25
5	10.0	1	0.644	0.0420	-0.6	3/8/2010	10:30:18
6	5.00	1	0.400	0.0240	-4.6	3/8/2010	10:31:12
7	0.00	1	-0.0189	-0.00306		3/8/2010	10:32:06

Area = 0.0517 * Conc + 0.124
 Conc = 19.3 * Area - 2.35
 Correlation Coefficient (r) = 0.99976
 No Weighting